ECLIPSE PHASE
SECOND EDITION

POSTHUMAN STUDIOS

THE ROLEPLAYING GAME OF TRANSHUMAN SURVIVAL

Your mind is software.
Program it.

Your body is a shell.
Change it.

Death is a disease.
Cure it.

Extinction approaches.
Fight it

POSTHUMAN STUDIOS

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ECLIPSE PHASE
SECOND EDITION

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ON THE COVER:
A Firewall team exploring an abandoned ship around Saturn discovers a major threat. One sentinel in a bouncer morph attempts to make it to an EVA sled and their neo-octopus friend as a creeper swarm closes in.

Posthuman Studios is: Rob Boyle, Davidson Cole, Brian Cross, and Adam Jury

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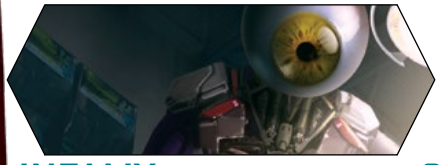

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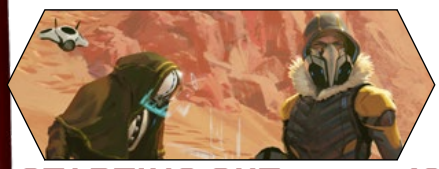

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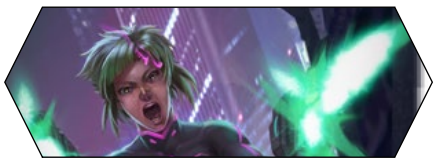

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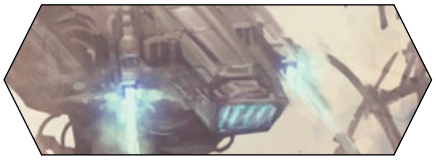

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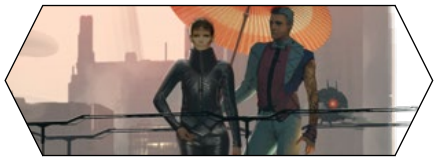

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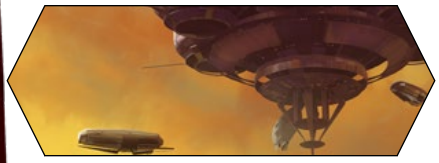

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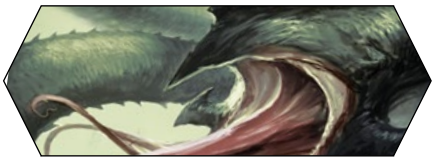

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INFAMY

ROB BOYLE & DAVIDSON COLE

A Proposal :: Santa Monica Coastal Resort :: June 10, BF 0

"It's an opportunity, Tierslay. To get off this doomed rock. To make something of yourself. That's all. Stop squinting at me like I've got some angle."

"You always have an angle, Taernen. It's who you are."

"Sure. But in this particular case, the angle is looking out for little sis."

Tierslay wanted to believe her brother. She ached for a shred of hope. Life in the Mojave tent slums on the outskirts of the Los Angeles enclaves was harsh — sun-scorched and stench-filled. The brutality of her youth in the favelas of São Paulo, plagued by gangs and typhoons, made the Mojave seem like a deluxe weekend getaway to an elitist orbital spa. Twenty-five years of existence and Tierslay had accomplished nothing beyond being poor and perpetually desperate. Taernen, on the other hand, had clawed and conned his way out of the dregs, made his way to California, and carved out a prosperous life. Somehow, from ten-thousand kilometers away, he had extracted Tierslay from São Paulo just before most of the city was under water. Taernen did not explain how he secured her passage to Los Angeles, crammed in a shipping container with a hundred other bedraggled climate refugees, and Tierslay never pushed him for answers. She was simply grateful to be alive. Almost everyone she knew in São Paulo was not so lucky.

Once in Los Angeles, Taernen provided her with just enough to survive for a couple of weeks. After that, she scrabbled for sustenance outside the enclave walls, among the millions of other refugees kept in line by the armed drones that cluttered the sky. If it wasn't for her creativity with code and the illicit hack jobs that required her finesse, starvation would have consumed her.

Taernen lived beyond the concertina wire, among the privileged, among those who switched bodies and claimed to have defeated death. His fast talk and questionable connections furnished him with a lifestyle few with his upbringing would endorse, let alone afford — the augmentations, the cortical stack, the frequent backups. Their childhood had been steeped in Catholic zealotry and a strict adherence to bioconservatism, drilled into them by their mother's incessant preaching, "Your body is a precious gift from God. Polluting it with trinkets conceived by man is an unforgivable sin." For Tierslay, the doctrine stuck, tightly woven into the fabric of her worldview. Taernen dismissed it outright in his early teens, which got him tossed from the family hovel. A year later, their mother took a stray bullet on the way back from the market, another gang violence statistic. Tierslay was nine. She was holding her mother's hand when it happened.

Taernen's pitch continued. "Earth is a waste of time, Tierslay. All the corps with any clout, with any vision or ambition, they've fled. To Mars, to Luna, hell, even Venus. Those are the places where lives are made for people like us. And when I go, I'm not coming back. Where does that leave you? Begging on the streets with that low-life Monte because you're mired in tradition?"

"Monte is not a low-life. He's just had it rough, like us."

"He's the worst kind of criminal, Tier. Petty. Zero ambition beyond junkie survival. You've got too much talent. On Mars, with all the capital flowing, these corps need killer code. I could pull strings, find you an avenue in. You could go legit."

"What? Legit like you?" Tierslay smiled and raised a glass in salute to her brother the criminal. He refused to clink.

"Didn't you have your fill of the gutter when we were kids?"

"I have my way of viewing the universe and you have yours. I choose to remain pure in the eyes of God … "

"The big white beard in the sky is blind now, sis. Had his eyes gouged out long ago." Taernen flashed his older brother smirk while Tierslay shook her head.

From somewhere up above, from the smog-choked night beyond the twinkle of the resort's canopy of lights, a neo-raven fluttered down to the poolside table beside Taernen. Tierslay flinched in disgust and backed away from the table.

"Calm down, Tier. He's with me."

"I hate birds."

"Yeah, well, they're probably not too fond of you, either."

The neo-raven's intelligent gaze flicked over Tierslay, tinged with inhuman distaste. Between its eyes protruded a small spike and etched upon its chest and glowing through its feathers was a nanotat depicting nine interlocked scarlet circles. With every intake of breath, a different circle would illuminate. Taernen and the neo-raven leaned in and exchanged whispers. Tierslay felt their eyes upon her despite her own being locked on the marble tile beneath her feet.

"I have to go, Tierslay. Business to conduct." Taernen stood. "Think about my offer. Backing up simply means freedom. To go where you want to go, be what you want to be. Freedom from death. It's pointless clinging to fairy tales, Tier. And remember, I'm just looking out for you. Like always."

Tierslay nodded but did not reply.

The neo-raven launched back into the night sky and Taernen strolled towards the glittering entrance to the casino. A lean and exquisitely dressed man with a nine circle nanotat emblazoned upon the side of his shaved head stepped through the casino entrance to greet Taernen with a robust and familiar embrace. A moment later, a resort security pod was at Tierslay's table, politely asking her to exit the premises now that her poolside sponsor was gone.

A Desperate Plea :: Mojave Tent Slums :: June 11, BF 0

Tierslay met Monte at his latest camp, in a wide alley behind a long-abandoned pork-processing plant. Decades after the place was operational, the stench still lingered.

"These Go-nin bot brains are tight, Monte. Especially the EEL 3, which I've never even set eyes on until now, let alone cracked. I'm going to need at least a couple of hours."

"We ain't got a couple hours, Tier. This guy is hot for a cracked 3. Price is no object. Big chunk of scratch could set us both up for a couple months. I need you to come through."

Monte's desperation was carved into his gaunt cheeks, in the way his threadbare t-shirt hung upon his wire thin frame. They had been friends since her first days in Cali and partners in petty crime for years. Tierslay hated seeing him like this, strung out and wasting away, a shell of the hustler who could smirk his way out of any jam. Life on the streets had finally beaten him into submission. *The streets always win,* Tierslay thought.

"How did you score the 3, Monte? That's high-end gear."

"We ain't got time to discuss those kinda details, Tier. I need you in there, slicing and dicing, doing what you do."

"Was anyone hurt, Monte?"

"What? No. I mean, I don't know exactly. I can't say for sure. I scored it from a guy who got it from a guy. I didn't ask no questions. There was an opportunity, so I took it."

Tierslay turned to leave. She had one rule with any of their ventures: no one ever gets hurt. Monte scurried in front of her, blocking her path, each hand clutching the other and shaking, the beggar's pose.

"I know we have an understanding, Tier. No one gets hurt. But you gotta believe me. I don't know for sure, and I ain't ever gonna know. I need you to save my ass on this one. Please." Monte's eyes were wet with anguish and his lips were cracked by the unrelenting sun. Tierslay knew the look. She had worn it plenty of times herself—last-thread desperation dangling just above oblivion. She had to help her friend, despite the likelihood of violating the only steadfast rule of her criminal life.

"You've come through for me plenty of times in the past, Monte. Consider your ass saved."

Monte wrapped his arms around Tierslay with a joyful hoot. "Fifty-fifty split and a big fancy meal on me. I'll get us passes into the Heights enclave. We'll eat a meal that's actually grown and cooked, served on a dainty plate, spiral sauce drizzle! None of that wet-fab slurry!"

Monte set Tierslay up around the corner in a makeshift hovel constructed from shredded blue tarp and cracked wooden construction palettes. The spot caught a pocket of afternoon shade, providing respite from the hostile sun to a brain in search of focus. Tierslay had twenty minutes to crack the EEL 3 before the buyer was scheduled to arrive.

She rolled through the code. As suspected, it was tight. The proprietary locks on Go-nin cyberbrains were notoriously difficult to circumvent. The market for hacked bot brains stripped of cookie-cutter factory code was booming, though, on both sides of the walls, so Tierslay had spent a lot of her free time reverse-engineering the copyright-restriction and access-control apps on any bot hardware she could get her hands on. Fuzzing the output or running a sophisticated debugging scheme were out of the question. Not enough time. Her only hope was to spot and exploit one of a handful of elusive vulnerabilities she had discovered in older Go-nin models. At the fifteen minute mark, she found one—a driver she could trick into coughing up the necessary crypto keys. Sweat dropped into her eyes as she ran her exploit and the security software parted before her. Root access granted. The bot brain was now a servant to her whim. *Talent always finds a way, Go-nin. And with plenty of time to spare.*

But then, gunshots.

Three of them. Pop. Pop. Pop. Perfect and precise syncopation. Professional.

The sounds knocked her out of the code. She stepped from the tent and crept through a sliver of shade. Peeking around the corner into the alley, Tierslay saw three sharply dressed synthmorphs, pistols at their sides. Monte's lifeless body sprawled upon the gravel, blood blooming around his head. Tierslay crossed herself, begged for God's protection, and ran.

She didn't stop until she reached her tent block over three kilometers away. Blisters were forming upon her feet and her breath came in shudders of sharp stabbing pain. She doubled over and leaned against a dead palm tree. When she straightened up, she expected to see her tent in the spot it had been for the past two years, but it was gone. Nothing left but concrete and scattered piles of trash.

Tierslay considered just running. It would've been the smart thing to do. Instead, she rushed to the spot where her tent once stood. She kicked a cluster of crumpled fast food bags to see if there was anything left behind. Beneath them she spotted the wooden rosary her mother had given her for her first Communion. She picked up the trinket and cried. She clutched the rosary to her lips. "I cannot die here. Please don't let me die here." She kissed the rosary beads. In a whisper so desperate that Tierslay imagined her words carving their way into the soft wood, she asked Virgin Mary to steer her towards salvation.

Just In Case :: Skid Row :: June 13, BF 0

Tierslay arrived at the address Taernen had given her just before sundown, a windowless concrete box in one of the ghettoized neutral zones between enclaves. Squatted warehouses and tent villages spread out for kilometers in every direction upon baking asphalt. Tierslay was all too familiar with this crippling miasma of cyclic poverty; its spectre was always looming. Though she was loath to admit it, for years it had been eroding her faith. How could such misery and death be a divine plan? A young female face peeked at her through a billowing tent flap, like her own past staring through her, another sign to heed her brother's call to escape.

A painted sign above the only door into the building depicted a manic pointy-hat wizard shocking the words *Pinball Museum* into existence. Tierslay knocked. A long wait followed, enough to question why she agreed to Taernen's offer, an offer that would fundamentally change how she viewed the universe and her place within it. Then the door opened to reveal a lanky figure in a deep purple and skin-tight bodysuit. The synthmorph's entire head was an elaborately detailed bloodshot eyeball, a yellow iris at its center.

"Greetings. You must be 6 p.m." The figure's voice was deep and tinged with reverb.

Tierslay suppressed the urge to run and answered, "Yes. You must be Ukku. My brother Taernen spoke very highly of you. Said you did great work." Ukku stood still and silent. Tierslay had no idea if whatever was inside the bizarre head was taking a moment to evaluate her or was fast asleep in the open doorway. Her skin crawled over the awkward pause.

The giant eyeball head finally moved, tilting slightly. "I am the best, 6 p.m. You should be infinitely grateful that your brother cares so deeply for you. My services, while they may be considered cut-rate by those with the means to afford more upstanding facilities, are nevertheless, top-notch." Ukku stepped aside with a flourish, beckoning Tierslay to enter. "Let us get to work, 6 p.m. Our time together is short."

Ukku led Tierslay through a labyrinth of colorful four-legged twentieth-century machines with whirling lights, analog clacks and dings, and promises of free plays. Despite her nerves surrounding the impending procedure, these simple contraptions from another time made her smile. She had seen pinball machines in old films before, but never in person, and the presence of so many gathered in one space, literally hundreds, was like unearthing an undiscovered tomb laden with riches.

At the farthest and darkest corner of the building, the pinball labyrinth opened into a small space draped with plastic. She eyed a metal table cluttered with surgical implements. Ukku introduced another eyeball, this one violet irised and with a body the size of a child, as his assistant, ToXxot. ToXxot rolled in a surgical bed covered in plastic, tossed a pillow on top of it, then took Tierslay by the hand and motioned for her to lie down on her belly and rest her face in the pillow. A strange machine was rolled next to her, a bulbous scanning mechanism unfolding like petals around her head. When everything was in place, ToXxot's eyeball lit up and spilled intense white light in every direction. Ukku loomed over Tierslay, a menacing injection device in hand.

"This is happening so fast," Tierslay said. "I don't know what you are doing. I don't know who I will become."

ToXxot stroked Tierslay's back and made sounds that resembled the chirps of a hungry baby bird while Ukku spoke. "There, there, 6 p.m. Do not be frightened. You are with Ukku. By the time 7 p.m. shows up, you will be eternal."

These moments would stick with Tierslay forever. The eyeballs. The terror. The biting dread of a life-altering decision as cold metal pressed against the back of her neck. The sensation of metallic centipedes uncoiling and slithering around her head and latching into place.

Lack :: The Zentropic Return :: March 13, AF 9

The view in Tierslay's field of vision shifted. The floor was no longer concrete but wooden slats, arranged in an oddly soothing geometric pattern. She spasmed at the sudden sensation of falling. She thrashed for a moment, then calmed at the realization that straps held her in place. Weightlessness.

She was no longer in Ukku's chop shop, that much was clear. She tuned into the sounds of the new space. A soft rhythm, a pleasing harmonic melody. The intention was obvious, to craft an atmosphere of calm. From somewhere deep inside Tierslay's fog-draped mind, an unfamiliar voice made an introduction, the cadence crisp and formal.

[Hello, Tierslay. Welcome to your new sleeve. Do you require immediate assistance?]

Panic hijacked her. *The procedure. Something went horribly wrong. I've been rendered insane. Oh God. Or worse. I'm a corpse. Burdened by so many sins. When was my last confession?*

The voice responded. [Unfortunately, Tierslay, that information is not available. Your calendar is entirely empty before today. Would you like me to create a previous event labeled "Last Confession?"] Whatever the source of the voice was, it was hacking her thoughts.

Her body felt strange, somewhat stiff. The sensations of temperature, of fabric against skin, felt miswired. She could not feel the stretch of skin or muscles. She had command of her limbs, but the restraints held her tightly in place.

Tierslay tried to turn her attention to her breath, to the rise and fall of her chest, to the sensation of air soft and cool through her nostrils, but there was nothing to grasp onto. The processes no longer seemed to exist. *Scream for help,* she thought, but she could not feel lips or teeth or vocal chords. The entire biology of her head and face was absent. Not numb, but nonexistent.

The unfamiliar voice returned, pleasant. [A scream is unnecessary, Tierslay. I have alerted the technician that your upload is complete and full consciousness has been restored. He will be here momentarily to assist you. Then we can start to familiarize ourselves with this particular case model.]

Fuck off, devil. Mouth or no mouth, I am screaming myself hoarse. The word "Help!" bellowed from somewhere on the lower part of Tierslay's face, created by a voice, both feminine and husky, but artificial and definitely not her own. Her panic magnified a thousandfold and she released the word a second time, drawn out and with an increase in volume.

A man floated into Tierslay's limited field of vision. His skin was milk smooth, his eyes perfect circles of lavender. He smiled kindly. "Welcome to the Zentropic Return. My name is Badal," the man said. Tierslay took a moment to assess Badal before responding, to determine if this latest freak was friend or foe, demon or angel.

The voice chimed in. [There is no need to be afraid, Tierslay. You are safe here. Badal's facility boasts @-rep in the 95th percentile upon the flotilla. According to reviews, it is the top choice for those seeking a serene resleeve experience. You should introduce yourself.]

Despite her reservations, for the first time, Tierslay decided to listen to the voice. "My name is Tierslay."

"I know. Let's remove these restraints. Get you moving." The straps loosened and retracted. Tierslay found herself floating freely, unsure which way was up. Her arms flailed as she started to spin.

Badal helped Tierslay orient herself. "Apologies for the restraints. Strictly in place to guarantee client safety. A bit contrary to the zen aesthetic we strive for, I know. I sincerely hope they haven't sullied the experience."

Tierslay took a moment to adapt to the sensation of microgravity. "I'm afraid."

"Naturally. It's quite a bit to absorb, given what I know of your ego's history. Don't worry too much about the weightlessness, you'll adapt quickly."

The room was cozy, ornate bamboo dimly lit by a soft glow that emanated from behind the parchment walls. Tierslay looked down at her arms. Where there once was dark brown skin, there was now metal, a dull slate-blue finish, dented and scratched. Tierslay expected tears to flow from the shock of the sight. She expected a wrenching of the gut, the tightness in the chest that can only be released by weeping gasps, but the biological systems required were no longer present. A realization crashed through every other thought like a nightmare tsunami—the only thing that remained of the God-given flesh-and-bone Tierslay was her mind, and even that was questionable.

"Where am I?"

The question was for Badal, but the inner voice provided Tierslay with an answer. [We are upon the scum-aligned flotilla known as *Get Your Ass to Mars.*] An augmented reality 3D map popped up to the side of her field of vision, showing a number of differently sized objects clustered together, most elongated, some linked together. Ships.

Badal registered her confusion. "*Get Your Ass to Mars* is a nomadic anarchist collective of interconnected spacecraft and habitats, currently adrift just beyond the Main Belt, Jupiter side."

"Jupiter."

"Yes."

Tierslay took a moment to process. What did the word "Jupiter" really mean to someone who had never even been on an airplane, who had never known anything beyond the concrete urban sprawls of a planet called Earth. *Space. I am in the vastness of the black. Outside of the only body I have ever known.* Tierslay shuffled all these concepts into another compartment, to be processed at another time. *Latch on to something right now,* she told herself. *Like deciphering complex code, one line at a time before tackling the whole program. The voice. Deal with the voice.*

"There is something in my head, a voice … "

"Your muse."

"My muse?"

"A limited AI assistant. Sorry. I wasn't aware that you were unfamiliar with muses. An ego without one is extremely rare. It's a default install during a resleeve if a muse is not already embedded with the ego."

Tierslay had heard of muses. They were common among the privileged. She had never had one. To her family, AIs were an abomination in the eyes of God, and the implants they resided on an affront to nature.

"It's getting on my nerves. Can I shut it down?"

"You can silence it, yes. Your muse is entirely customizable. But I would recommend opening yourself to the experience. Give it a name. Modulate its voice to a tone and cadence you prefer. In time, it will grow on you. I promise. You may even consider it a friend, eventually. I cannot imagine my life without Rikita. Rikita wishes you prosperity and joy on this new path, by the way."

"Tell Rikita thanks."

"I have other clients to attend to, but I have prepared a set of short introductory vids to acclimate you. Peruse at your leisure. I also recommend the zero-g simulator." Several links popped up in her entoptic display. "Please, take your time. When you feel steady, the exit is to the left and at the end of the hall." With a farewell nod, Badal kicked away toward one of the parchment walls and it slid aside.

"Wait!"

"Yes?"

"I don't even know how I wound up here."

"I believe your benefactor has the answers you seek."

"My benefactor?"

"The man who negotiated your upload and morph. Abysmal rep but quite persuasive. Still not sure why I agreed to the deal," Badal shrugged. "He is waiting for you outside the facility." A virtual trail appeared, marking the way.

When Tierslay pulled her way through the bamboo-trimmed portal that led out from the cloistered serenity of the Zentropic Return, the transition overwhelmed her. In every direction, crowds of people sleeved in exotic body types floated and mingled. Laughter, shouts, and music engulfed her, spiced with the scents of food and stranger things. Structures, arrangements of gear, and things she couldn't identify clung to every surface. She couldn't tell if this was a party, art exhibit, or something else. There was no up, no down, just the bustle of life in all directions. Colorful invitations and propositions popped up in her vision before her muse filtered them away.

[Welcome to the Echo Blue sector,] said the voice. [This was once part of a luxury habitat in Earth orbit, spun for gravity, but the flotilla now tows it in zero g. Various scum factions use it as an open-air market slash social spot.]

Tierslay grasped on to the glowing trail like a lifeline, following it through the chaos to her benefactor, a skeleton-thin man with scattered wisps of long black hair. Her name hovered above the man's head in AR, boldly flashing. Tierslay weaved through the stream of people and approached the man, suspicious, but also unsure of what else to do. The lower part of his face was rippled and shiny with designer scarification, and his eyes were vacant black disks. In her head, she imagined him donning a cape, like some Retro Space Dracula.

His grin was no less fanged. "Hey, little sis. Long time no see."

Reunion :: Echo Blue Sector :: March 13, AF 9

"I have questions … "

"And I might have answers," Taernen shrugged. "I might not."

"How do I get home?"

"You are home. May as well make the most of it, yeah?" Taernen popped the tube on his Americano sphere, the skin infused with maple sweet cream, and sucked it down. He scowled at the graffiti-covered autocook mounted on the wall. "Cheap anarchist shit!" He turned his attention back to his sister. "This is swill compared to the coffee on Mars. Real stuff, grown in a hydroponic farm. Not this wet-printer knockoff crap."

"This is not my home, Taernen. This is not my body. I'm not even convinced I'm still *me*. One second, I'm scared shitless, dealing with your eyeball freak. The next, I'm here, half a billion kilometers from Earth … "

"I'm going to stop you right there, Tier. Jeez. I guess I forgot how green you are as to the current state of the system." Taernen cracked his knuckles, then his neck. Tierslay waited, still and silent. "Hate to tell you this, sis, but there is no going home. Earth is no longer habitable. It's a floating ball of nuke winter dust. Been a wasteland for almost a decade."

Cold enveloped her. "What?"

"Yep. Surprise. Welcome to life after The Fall. We messed around with the TITANs, scary AIs, and they fucked our shit up good. Absorb it for a second and let it go. Zero point dwelling on it. I prefer to keep the fucked-up past dead and buried. Happier and more productive that way."

Tierslay looked down at her hands, a familiar place to lock her eyes when unsettled by a conversation with her big brother. The sight of metal fingers unnerved her more. "What happened to the real me, then?"

Taernen smirked, unable to resist an opening to dig deep and twist, old sibling shenanigans. "Most likely, your flesh was barbecued, seared right off the bones. And the bones? Probably in a pile with billions of others. But who cares? The stuff that makes you *you*, the stuff that ultimately matters … " Taernen tapped his bony finger on the side of his head, " … *that* you made it out. Thanks to me."

"Oh, God … "

"Chin up, sis. Life is gonna get a whole helluva lot sweeter." He leaned in close and shifted his voice into the signature dead-serious whisper Tierslay remembered well. The timbre of the voice was different, crackly and thin instead of deep and resonant, but the inflections were unmistakable. "I've got a deal that cannot miss. Once we close it, we'll get you out of that metal can and into a custom bio job."

"I don't want in on any more of your deals, Taernen. I don't even know who I am, how life even operates anymore, and here you are talking deals … "

"Tier, Tier, look at me." Tierslay shifted her sight to Taernen's unfamiliar vacant black eyes, unsure if his gaze was meeting whatever shape her eyes took in this foreign metallic form. For all she knew, her face was nothing more than a flat sheet of steel with two dots and a line. "You're freaking out. I get it. This is a lot to take in."

"I just want to be me again."

"You think I'm happy with this loaner piece of shit I'm in? I'm shocked none of the limbs have fallen off. Look. We can craft something close to the original you, if that's what you are into, once I have some resources and we're back on Mars where I have some pull. Here? With these scum fuckers? I may as well be a crusty dog turd kicked around the old São Paulo gutter. But, the good news is, I have a plan.

We can get around all this rep bullshit and keep this deal in play. And this is where you come in." Taernen clasped his bony hands together, the sinewy fingers tense. "I need you to get it together and adapt. Quick-like. I can't stick around much longer. I've got a cast scheduled back to Mars in an hour."

"You're leaving me here?"

"Yeah. That's part of the deal. You, here, getting to know the place, forming some relationships, contributing to their f'd-up collective shit, whatever it takes to get in solid. We need this, Tier. I'll be back in a month, maybe two. That should give you the time you need to lay on the charm, get us the rep we need to pull a few favors. Then the deal gets done, and we get you outta this freak show and back to the inner system, where the people appreciate the power of an honest cred for fuck's sake." The forehead on Taernen's morph crinkled in anger and the corner of his left eye twitched, a familiar expression upon an unfamiliar face. Oddly, she found it comforting.

"So, I suppose you're not going to give me any details on this deal."

Taernen grinned. His sister, playing along as she always did. "Nope. Better that way. The more knowledge you have, the more likely we slip up. Have I ever steered you wrong?"

For a moment, Tierslay wanted to say yes, that she would have preferred death to being trapped against her will in a metal husk. The real her was dead. And she was, what? Some soulless copy? She felt godless, abandoned, but not any less *alive*. Instead, she nodded. "No. You haven't, Taer. I trust you. I'll do whatever needs to be done."

The wide black globes set into deeply carved sockets provided her nothing in return. A few awkward seconds of silence passed. Taernen stirred. "All right then. I gotta go. I set you up with a dorm in the Tall Red sector, opposite side of this chunk of habitat. Single room, but you don't need much. Synthmorphs are good that way, at least. Minimalism. There's a lotta people like you there, synths and the like, so you won't feel so weird, you'll fit right in. All your basic needs will be covered until I return. One last thing … "

"Yes?"

"Don't tip your hand to anybody. Concoct whatever backstory you want, just steer clear of the truth. There may be eyes on the lookout. Best if no one knows we're blood. I'll find you when I return." Taernen unclipped from the wall and pushed away, grabbing the strap of a nearby tow-line cable. It pulled him away until he was swallowed by the district's throng. Gone.

Aimless :: *Get Your Ass To Mars* Swarm :: March 13-20, AF 9

For her first week, Tierslay wandered. Wandering was a skill she had mastered over the years. With rarely a place to call home, her survival had relied on it. She was reluctant to locate her room in the Tall Red, fearful that a reality she was not quite ready to confront would settle in once she did. Aimless felt safe. It felt like home.

During the first three days, she managed to move through the linked spacecraft of the flotilla twice. Sleep was no longer necessary. No need for sustenance either. She just kept her limbs moving and her eyes cataloguing. She spoke very little, sticking to the shadows when possible, absorbing details. She kept her muse silent, allowing the AI to perform one function — drop pins upon the flotilla map whenever she felt suspicious eyes were upon her. By the conclusion of her second trip around, there were pins everywhere, so she disabled the function and accepted that she was being overly paranoid.

On the fourth day of her wander, while passing through *The Midnight Mastermind,* a small freighter popular with uplifts, Tierslay spotted a familiar but battered-looking model of Go-nin robot. A neo-octopus fiddled with its cyberbrain while tapping at a nanofab kiosk and muttering obscenities.

She decided to break her silence. "Those Go-nins can be difficult."

The octo looked up from the bot, arms wriggling with frustration. "You've seen one of these before?"

"One. Tight code but I was able to slice it. It was a long time ago, though." *Just last week,* she thought.

"I know a collector on Ceres, always eager to buy working vintage pre-Fall models, but I can't get this thing operational. Think you could take a look at it for me? I'm Pivo, by the way," the neo-octo said, twirling one of his arms around Tierslay's hand. She surprised herself by not jerking it away.

Tierslay worked on the bot for about an hour before she had it humming like new. It was a relief to delve into the code, familiar territory amidst a sea of uncertainty. Impressed, Pivo pinged her with a bump to her reputation score. The octo whistled from its siphon as he perused her low rep, her blank history.

She answered his questioning look, "I haven't been here long." *What a ridiculous understatement.*

"Y'know," Pivo said, "I have a pal in the LO — the *Lucky Observer* — she's looking for a creative coder and you clearly have skills." Pivo tossed the location to Tierslay's muse. "Talk to Elis. She's expecting you."

Tierslay scanned the area surrounding the kiosk, looking for eyes upon her. A few scattered uplifts flew, swung, or scuttled by, all minding their own business. *Quit being paranoid, Tier. Go with the flow.* "Sounds great."

As Pivo rode the bot away, Tierslay realized it was the first time she had ever spoken with an uplift. Her church, her mother, had considered them a crime against God, a sin of the highest order. She shook her head, ashamed at her own bigotry. One conversation was all it took.

Narcos :: *Danger Noodle* :: March 20, AF 9

En route to the LO, Tierslay passed through a craft known as the *Danger Noodle*. Its primary feature was a rotating torus, providing simulated gravity for a never-ending bacchanalian dance party. The vibe was intoxicating, a vibrant display of individual expression. Synth, bio, uplift, infomorph projections, every conceivable shape, size and modification, writhing and free, lost in rhythm. She had never seen anything like it, and for the first time since awakening here, Tierslay experienced joy. She decided to lose herself there for a couple hours, move her new body and acquaint herself with its possibilities.

A hulking synth with four powerful arms approached Tierslay, the head was a sharp rendition of a widely grinning oni. "I'm Berk." Berk extended their lower left hand in greeting. Tierslay kept moving while she shook it. "Tierslay."

"First time at the *Noodle*?"

"Is it that obvious?"

Berk's husky chuckle was somehow in perfect sync with the lush music. "I run security. I know everyone who rolls through here. Welcome to the party." An AR glitter-splash explosion popped as Tierslay's muse alerted her to the receipt of a transmission from Berk — an executable file with the name _fi_zz_ee_66_.

"Fizzee66?"

"Latest and greatest narco. Coded by a regular. See that cluster there, dancing in The Drip?" Berk extended one of their upper arms to indicate a group of synthmorphs near where the dancefloor curved upward out of sight, behind a neon blue drizzle. Their bodies contorted ecstatically, backbends seamlessly transitioning into headspins, handstands slowly wheeling down into splits. "They've been running fizzee66 for two days straight. You should give it a try. I promise it won't disappoint."

"I don't have any money."

The oni face smirked. "Neither do I. This is a gift economy, Tierslay. Money is for oligarchs and serfs." Following a low bow, Berk twirled and strode off to another conversation.

Tierslay's muse let her know the executable was clean and what a brief mesh search revealed about the file. The effects of the narcoalgorithm were rumored to be quite pleasurable. *This muse thing is growing on me*, she thought and her muse responded with a soft flutter of joy at the edges of her vision. *Fuck it, let's run it.*

A tingle trickled through Tierslay's synthetic body, starting at the head and zipping pleasurably through her entire system, then bouncing back up from her metal feet. The sensation mimicked goosebumps buzzing on skin then melted away into a satisfying warmth, magnified a thousandfold. Each ecstatic trip through her body began with every other thump of bass that defined the beat. Complete connection to the rhythm. Tierslay slithered over to The Drip, to the group Berk pointed out to her earlier, and joined their revelry for the next two days, never ceasing motion, Fizzee66 working its magic the entire time.

Opportunity :: Bateaux :: March 22, AF 9

"Pivo claims you have transcendent coding skills."

"Wow. I'm flattered."

"Don't be. The squid knows hardware, but software's not his game. He has an eye for talent, though." Elis hung from a lit tube by her thick gripping feet, her hair writhing in the zero g like freshly-fed purple and black snakes. Tierslay stared up at her, fidgety.

"Don't be so skittish, Tierslay. Pivo and I are tight. His word carries weight around here." Elis swung across the room, re-orienting herself in line with Tierslay, a perfect two-point landing punctuated by a cocky grin. Elis's custom synthmorph shop, Bateaux, was elaborately cluttered, the workspace of a true artist with zero time to spend on organization. "Let's get right to the point. I build and mod synths, but I also have a lot of people coming to the swarm who are looking for specific cyberbrain plug-ins. That's where I need help. What experience do you have with coding narcos?"

Suspicion crept in. She thought about her brother's warning and all the eyes she had felt upon her. *This is all lining up too perfectly. I should be wary, right? Life has never been this easy, so coordinated.* But opportunity was intoxicating and had never knocked on her door before. She decided to shed the paranoia and roll with it.

"Funny you should ask … " Tierslay had her muse offer up Zyzzee66 — her hacked version of Fizzee66. "This is something I whipped up in a couple hours. It's a hack of Fizzee66, if you've ever … "

Elis cut Tierslay off and smirked. "Oh, I'm quite familiar with Fizzee66 — I designed it. Did Pivo give you a heads up? That smartass."

"I had no idea. I got it at the *Danger Noodle*. Someone named Berk."

"So, you found it lacking? This Zyzzee of yours is superior?"

"Don't get me wrong. I loved Fizzee. It's sublime. I just saw a few opportunities to elevate it in ways I found appealing."

"Yeah, yeah, superstar. Enough chatter. Let me take a feel," Elis winked at Tierslay. "This is a bio sleeve, but the brain's hardware. Helps me check the code on the cyberbrains I install." Elis's pupils dilated into royal blue disks and tears welled up in her eyes, then streamed down her cheeks. A few seconds within the embrace of Zyzzee66 was plenty of time for Elis to understand the talent on display. She killed the process and took a moment to gather herself. "Impressive. Not perfect, of course — you have to watch those pseudo-dopamine thresholds, an initial rush like that can trigger vertigo — but not so bad for someone a decade behind on coding developments."

She took a hard look at Tierslay, then bumped her rep. "Welcome to the Bateaux family, my glorious narco hacker."

Reflection :: Tall Red Sector :: March 22, AF 9

On the ninth day, Tierslay arrived at her room in the Tall Red.

She floated at the glass pane a few feet beyond her front door and stared out at the Tall Red's central hub, at the four towering pillars draped in billowing red velvet, the feature that gave the district its name. Bodies bustled about, below, above, drifting or in a hurry, some synthetic, some flesh, forms she had never before seen or could have previously conceived. *This place is alive*, she thought. There was no relentless burning sun, no scorching asphalt, no scrounging to survive. Despair seemed magically absent. Somehow, she had escaped from hell. The anarchists she had known on Earth had been jaded, godless revolutionaries. Until coming here, she had never understood the point of their fight. Now, it was starting to make sense.

Indoctrination kicked in and Tierslay moved to cross herself in gratitude, but she stopped at "in the name of" when metal fingertips clicked against metal forehead. She gazed at her reflection, just a phantom upon the glass. The details of her foreign face were hazy against the backdrop of activity on the other side. She could sense her silent muse absorbing her desire, and the quality of her vision shifted. Everything beyond the pane darkened and Tierslay's reflection polarized into focus. For the first time, she saw her new face. Vacant eyes, not meant for expression. No nose to wrinkle, just flat brushed metal. Her mouth was a thin oval mesh, unable to move; no smirks or pouts or licks or puckers. It was now simply an emitter of soundwaves. In a profound second, a lifetime of belief dissipated into nothingness, her soul crushed into non-existence. She was now Tierslay the artificial construct, formed by the ambitions of transhumans, not by the hands of any god. The revelation made her laugh. *Life. What a fucked up, splendorous mess.*

A dragonfly the size of a fat cat zipped past Tierslay and down the narrow walkway only to return in reverse moments later. It hovered behind her, shiny rainbow metallic wings buzzing.

"Hello, new neighbor!", the dragonfly said. "I'm Bixbee. Two doors that way." Bixbee's many legs pointed down the floatway. "If you need anything, you let me know. Someone did the same for me, hooked my sorry ass up when I was new. My turn to pay it back. Or forward. Or whatever. Point is, we look out for each other here in the Tall Red. It's all about storing up that sweet sweet karma. Okay. Gotta go. Buh-bye."

Zip. Off Bixbee went.

Tierslay crossed the threshold to her new home. She drifted into the only piece of furniture in the single room, a lattice cocoon that held her in place. The room's software spoke, asking what she wished to experience. "Rain," she said, and the environment changed, the room darkening as AR clouds drizzled imaginary water down to the other end of the room. She sighed, reduced her vision to meditative, and focused on the sound of falling water. Tierslay reached out to her muse, activated its voice and asked it a question: *What do you wish to be called?*

[That decision is yours, Tierslay. What is your wish?]

She did not hesitate. *Monte. Your name will be Monte.*

[I think it suits me. Thank you. It's pleasant to possess a name.]

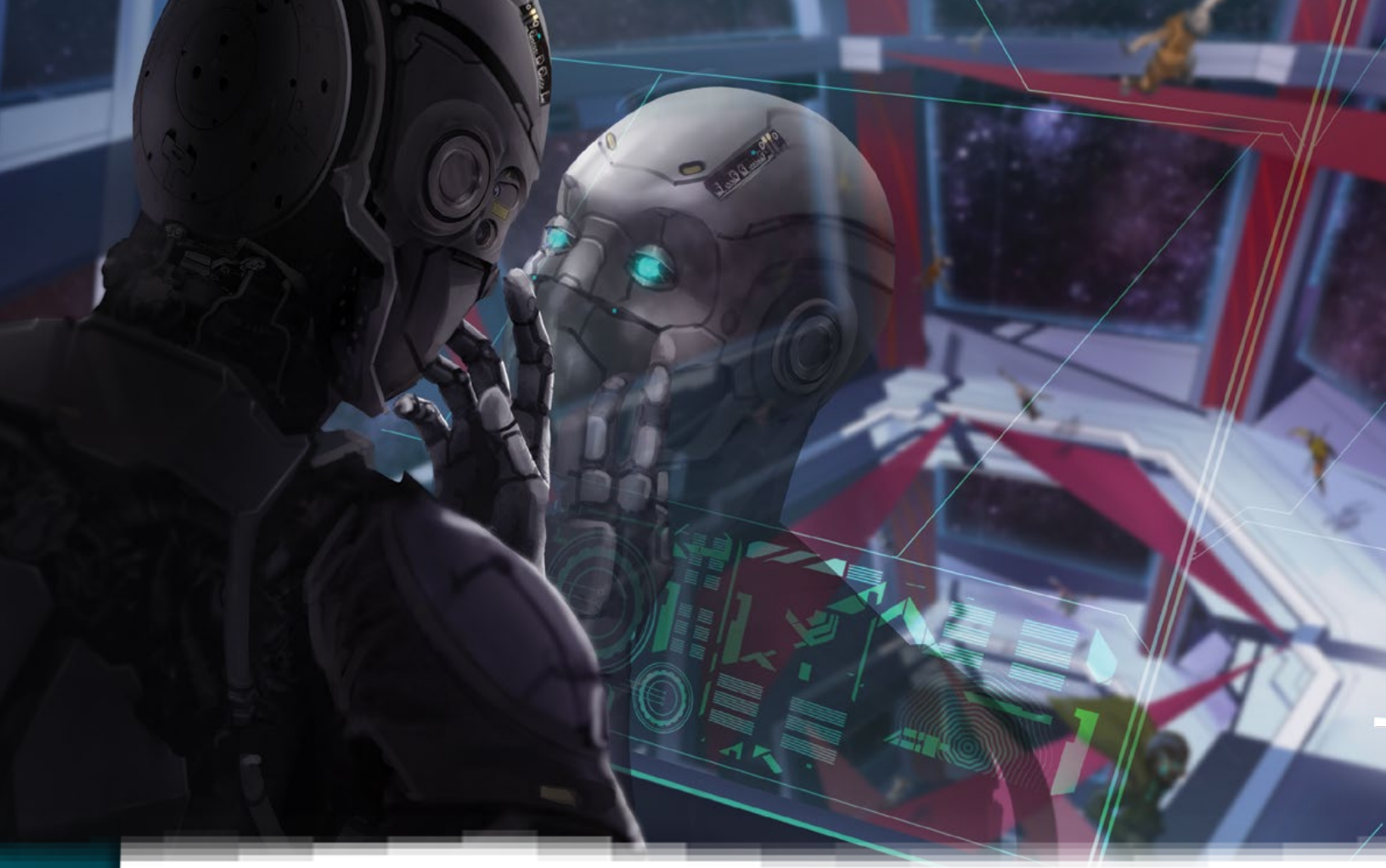
The warmth of gratitude fluttered through Tierslay's system as she started to tinker with Monte's voice, to get it as close to her old friend as memory would allow.

New Client :: Bateaux :: August 2, AF 9

Tierslay and Elis floated in the shop's cluttered space, arms linked, scanning the latest custom morph requests. Bixbee zipped back and forth overhead, jacked up on Tierslay's latest narco, due to debut at the *Danger Noodle* in a couple of days. Bixbee always clamored for early access and Tierslay always obliged.

Four months and zero word from Taernen. Was he dead? Did he abandon her? It did not matter. She did not miss him, his schemes, or his promises. Tierslay had friends, her rep was growing, and her coding skills were getting sharper.

"Ha! Check out this fool." Elis tossed an image of a prospective client into Tierslay's AR, where it rotated slowly — a large eyeball atop synthetic shoulders, a web of faux red capillaries stretching from the yellow iris center over the entirety of a white sphere. The body, elongated, with slightly disproportionate limbs wrapped in a shimmering synthetic purple. Tierslay's mind raced at the sight.



"Tags itself Ukku." Elis flipped through the morph customization request and chuckled through a half-cocked smirk. "Listen to this *idiota:* Ukku apologizes for the dismal @-rep, but Ukku is well established within Guanxi networks and could arrange for some quid-pro-quo, which may come in handy someday, even for an anarchist." Elis clapped her hands in joy at the audacity. "What a jackass!"

Fear surged through Tierslay as her last moments on Earth bubbled up out of the deep suppressed darkness and consumed her thoughts. Eyeballs. Pinball. Plastic.

The morph request went on to state that Ukku would be farcasting to the swarm in one week for an extended and indulgent outer-system holiday and that it was Ukku's understanding that Bateaux was the best synthmorph design shop there. "Ukku only deals with the very best," Elis read, snorting. "Whaddya think? Should we accept this lofty honor?"

Tierslay did her best to feign disinterest even as disgust rattled around inside her. "I don't know, Elis. Seems like a pain in the ass."

"Maybe a pain in the arse is what this shop needs. Give us a jolt. Been dull around here lately."

Tierslay unlinked her arm from Elis's, trying not to take offense at the unintended slight as she floated away. "Okay. I'll tell you what. I will say yes to this stupid Ukku gig, under one condition."

Elis perked up and rubbed her hands together with vigor, itching for some fun. "Oooooooo! A negotiation. All right, I'm not big on conditions, but what's it gonna be?"

"The condition is this: I plant a secret little gift inside the narcos this Ukku has requested to be installed with their shell. Nothing major, just something undetectable and mischievous."

Elis was easily hooked by mischief. "Spicy! Could potentially damage our rep if word gets out … "

"It's a risk, I know. And there's another condition: we keep an eye on Ukku for as long as they are on the swarm."

Elis allowed silence to sit for a moment as she studied Tierslay's face. "Now I'm really intrigued. What is this, Tier? Some sort of history? A personal vendetta? You know this guy?"

"You could say that."

"Do share!"

"Going to keep that to myself for now, if you don't mind."

Elis returned a conspiratorial smirk and a nod as Bixbee whizzed by her head, giggling with narco-induced pleasure. "All right, Tier. I'll play along. You have yourself a deal."

Prank :: *Danger Noodle* :: August 11, AF 9

Ukku had been on the *Danger Noodle* dance floor for four hours straight, pointy elbows flailing, legs perpetually on the verge of collapse, forcing others to dodge. Clearly, Ukku was high beyond comprehension, rolling on Tierslay's latest narco along with most of the club. Tierslay, Elis, Pivo, and Berk watched the synth from the bar, Bixbee from his usual perch above the DJ booth, waiting for Tierslay to trigger her prank.

On Tierslay's command, Monte tossed a night-terror flash through the backdoor in Ukku's narco. Earlier, when Monte shared with her the darknet image he planned on using (the stretched flesh and floating gore left behind by an infamous Lost Generation murder spree), Tierslay nearly retched, but Ukku simply straightened up for a second of contemplation, then got right back to "dancing."

"Well, that was anticlimactic." Elis patted Tierslay's arm. "The *idiota* is unflappable. Guess it's back to drinking until the tourist ceases the pollution of our precious dance floor."

Just as Elis was about to order another round of drinks for the group from the autopub, Ukku ceased all movement, as if deactivated by an unseen hand. Tierslay poked Elis playfully in the ribs. "Ha! See? I got the fucker. Something is going down."

In a rush, Ukku abandoned the dance floor and scurried towards a booth in the Drip section of the *Danger Noodle,* currently awash in

sharp shadows and an atomic neon green. A slender humanoid form, etched upon the darkness, awaited Ukku's arrival to the booth.

"Seems like someone finds the clown tolerable," Berk observed.

"Finally, a new development," said Elis. "We've had an eye on Ukku for days now, zero contact with anybody. Intrigued, Tier?"

"I don't like it."

Elis pinged Bixbee and he zipped on over, bubbling with joy, as always. "Tierslay! This new algo of yours, it's got the thoughts all marshmallow fluffy and I just can't stop licking. Gonna flood Tall Red. Woooo! You are a legend—"

Elis cut Bixbee off, her tone commanding and unfamiliar to Tierslay. The tone of a superior, not a friend. "Dial it down, Bix. Time to get to work." Bixbee slipped Tierslay's latest narco into sleep mode and the flutter of his wings dipped to a sane speed. "What's the situation, Elis?"

"There's a booth in the back corner of the Drip. The Eyeball is there, chatting it up with someone. I'm gonna tap into your sensory feed while you get me a visual on the stranger. Slow and stealthy."

Bixbee nodded his tiny head and moved towards the Drip without a word. Elis shared Bixbee's visual feed in AR with the others just as a new round of drinks arrived. "Enjoy the show."

Bixbee drifted slowly over the dance floor. He took a wide curl past the sound bubble suspension from where DJ Myrmidon pumped her glorious beats into the club. Tierslay's gut clenched as Bixbee approached the Drip. She knew what was coming. She wished the entire club would evaporate into a wisp of mist, taking the stranger with it, and that she would awake any second bathed in a cold sweat.

The Drip moved deeper into blacklight blues as Bixbee approached the back corner booth. The silhouette across from Ukku knew how to find shadow, yet Tierslay still recognized the distinct mannerisms. The particular motion of two hands, accompanied by a presumably self-righteous speech, driving home a point with a slow and intense emphasis. It had to be Taernen. The gestures were too exact.

Tierslay's brother finished his diatribe and Ukku nodded his bulbous head. For a second, Tierslay had the urge to flee. Her life had just started to gain meaning, a construction of her own will. Filled with joy. Hope. Taernen's return had the weight of a dark omen. He was bound to fuck everything up. Trouble was permanently stitched into his ego. She let the fear settle and dull a bit. She needed to hear Monte's voice.

Tell me everything is going to be okay, Monte.

[Everything is going to be okay, Tierslay.] A wink overtook Tierslay's AR.

She guzzled the booze and slid the empty glass down the bar, its path curving slightly with the spinning habitat's coriolis force. Tierslay spoke up. "I know him. I know who it is."

"You do?" Elis grinned. "Do tell."

"It's my brother."

"This has gotten really interesting, Tier. Your mysterious nemesis, the Eyeball, whispering in a dark corner with your brother. A brother you have never mentioned before this moment. What's next, Tier? You going to reveal you're some hypercorp spy sent here to infiltrate us filthy anarchists, plant a nuke, and reduce the swarm to space dust? A secret puppet of the TITANs, maybe, here to finish wiping us out?" Elis followed suit with her drink—guzzle, slide, curve.

"I'm not a puppet…"

"Well, that's a relief," Pivo said.

Just then, Bixbee hovered too close to Taernen's booth. Taernen turned to meet Bixbee's prying gaze, staring right through the AR feed with milky gray slits. His face tilted out of the shadows and into the blue glow of the neon drops cascading down from above. Seamlines in the skull. Access jack sockets in the back of the neck. A low-end pod biomorph, snatched right out of the bargain bin.

"Hey asshole. Do you mind? You're invading our space." Taernen stood up and took an aggressive step towards Bixbee. Ukku slipped out of the booth and flanked the dragonfly. Bixbee froze. Taernen sniffed blood in the water and pushed the issue. "I said back up, flutterfuck."

"Time to move. I'll take point." Elis propelled herself towards the Drip. Pivo squirmed effortlessly past dancers while Berk muscled dancefloor bodies aside. By the time Tierslay could gather herself and follow, her friends were already through the crowd.

When Tierslay reached the booth, Taernen had Bixbee pinned to the tabletop by his wings and Ukku wiggled a vibroblade a few centimeters over Bixbee's exposed torso. Elis was an arm's length from Taernen, a vicious looking firearm pressed firmly against his seamlined head. *Why does she have a gun?* Pivo and Berk hovered menacingly nearby, arms tense, weapons drawn.

"Whoa, now. There ain't no need to splatter this twitchy brain of mine all over the walls." Taernen gave a smile, unafraid, practiced in these types of negotiations.

"If the Eyeball drops the blade and backs off, it won't come to that." Elis smiled too, comfortable as well.

"Everyone calm down!" Tierslay exclaimed, agitated. Taernen flashed his eyes at her, hiding his recognition. She met his gaze. "No one should have to deal with this asshole but me."

Negotiation :: Echo Blue Sector :: August 11, AF 9

"Real nice friends ya got, Tier. I've rolled with gangsters who are more hospitable." Taernen popped his jet-black coffee sphere and slurped it down. His third.

"You threatened our friend." Tierslay had yet to touch her sphere, oolong with a skin of honey and cinnamon, drifting between her and her brother.

"I ain't fond of little fuckers poking their noses in my business. It's rude." Taernen leaned forward, eyed her up and down. "You know what their deal is, right? Who they are? Who they work for?"

"What are you talking about?"

"Screw it. Doesn't matter at this point. Was going to come to this eventually. Can't run forever, Tier. Sometimes, you gotta take a stand. And that time is now." Taernen's eyes darted around, scanning for threats and eavesdroppers. *He's on edge. More than usual*, Tierslay thought. She opted to redirect.

"It's been months, Taernen. I'd written you off. Where have you been?"

"Out and about. Doing what I do. Made a few acquisitions. Dodged some unexpected trouble. But now I'm here. To start a new life. Just like you. Isn't that what this place is about?" Taernen gave a phony smile. The blank eyes of his morph betrayed nothing.

"I suppose that's one way to look at it. I didn't really have a choice."

"But you're happy."

"Yes. I'm happy." *Or I was.* She thought of her new friends. *What are they hiding from me?*

"Well, there ya go, then. And you have me to thank. Now I wanna be happy too. Maybe it's your turn to grant a few favors."

Tierslay punctured her sphere and sipped for a bit while she gathered her thoughts. Monte chimed in. [You can just walk away, Tierslay. You don't want this.]

I know. What Tierslay wanted was for her past to remain so deeply buried that it resembled a work of fiction. *But I owe him. It's not easy to explain; I just do. He is still my brother. You wouldn't understand, Monte.* Tierslay slipped the muse into sleep mode. Taernen tapped a bony finger upon a bony cheek, blank eyes burrowing.

Tierslay took a deep breath. Her heart was racing. "What do you need from me, Taernen?"

"I knew you would come around." Taernen smiled and shrugged. "I ain't asking much. Just flex a little rep for me at one of the docks. I have cargo coming in."

"When?"

"Three days."

"What's the cargo?"

"Pod morphs, like this one." He tapped his chest. "A dozen. Biological, but with hardware brains, like bots. Cheap trash, but even out here with the scum, morphs have value. Shouldn't raise any suspicion. Maybe you can even slip me one of those narcos you've gained a rep for, so I can pre-load 'em, give 'em a little value boost."

"Is that it?" Tierslay knew that wasn't the extent of the favor, but she asked anyway. Her brother never led with the big ask. There was always something else.

"Nope. I need you to take a look at something for me. A recent acquisition. A device. Do what you do best. Let me know what I've got so I know how to peddle it."

"I'm assuming this device is en route with the cargo."

"It is."

"And I am also going to assume that it is contraband."

"No laws here, sis, but you could say that. If it's what I think it is, should be several interested parties around the Solar System willing to shell out a fortune to get their hands on it. Potential bidding war even. Then it's easy street. No more hustling. Imagine that."

"And how did you acquire something so valuable, Taernen?"

"Not your concern, Tier. Your hands will be clean. All I need is an assessment."

"You know my rule."

"Fuck your rule!" Taernen spat the words as if they were venom but returned to his calculated calm by the next breath. He shrugged. "People got hurt. Lives were lost. So what? The fuckers would have done the same to me. They are still on my ass and will not let up until I unload this thing and disappear into the high life. This is the ticket out. I'm not asking you any more, sis, I'm telling you. You're going to do this for me. Got it?"

She forced herself to meet his stare. "OK, Taernen. But this is it. The last time. After this, we are done. No more debts."

Taernen said nothing, just leaned back and smiled.

Revelations :: *No Turning Back* Cargo Freighter :: August 14, AF 9

Ukku ran the circular bone saw around the pod's skull, sighing in undeniable pleasure. He leveraged the top of the head off, revealing the cyberbrain nestled within. Pulling it out, he dismantled it, revealing a secret compartment. From this, he extracted a strange cubic device — no more than a dozen centimeters to each side. Ukku handed the cube to Tierslay as if the slightest jostle would shatter it into a billion pieces. As the cube touched her metallic skin, a bitter cold radiated through her palm. She found the device hard to focus on, its features and edges strangely fuzzy.

"Ukku's blade watches closely. Every move. Don't forget."

Taernen gave a smirk. "Relax, Ukku. Tierslay will behave. Right, Tier?"

"Right, Taer." Tierslay considered smashing the cube against the wall for a second, just to see his expression. But she was intrigued.

Ukku slunk back to the pod morph with its vacant head. A dozen others just like it floated within nutrient suspension vats, strapped together in bundles scattered in the cargo hold around them, each braced against the walls. Ukku returned to carving flesh, this time maneuvering a scalpel in a tight spiral on the pod's chest, where a nipple would normally reside. Tierslay could hear him giggling quietly to himself.

"Get to it, Tier. The sooner we know what we are peddling here, the sooner we say adios, and you can get back to your happy life," Taernen said.

Tierslay tried again to focus on the cube. It appeared to be composed of a single wound thread, some glassy black substance, twisted into its perfect shape. Even in the microgravity, it felt dense. She had never held anything like it. *Is this alien? Some TITAN thing?*

She pinged it for a mesh connection. No response. "We tried the standard stuff, Tier," Taernen said. "It's not responsive. Work your magic. Find out what it can do."

She ran several scans on it with her tools. No ports, no way to access it. Nothing. She could not even tell if it was powered.

"No obvious way in. No evidence of code. Hate to break it to you, Taer. First glance, you have nothing more than a worthless trinket here."

Even as she spoke, an AR window appeared in her vision. Her nanodetector had found something. Mites. Nanobots. More windows popped up. Her firewall flashed alerts — something was accessing her personal network. But there was still no radio signal. She looked at the cube in her hand. *Oh god … the nanobots. They're establishing a physical link …*

Tierslay tried to let go of the cube, but could not. All physical function ceased. Paralysis. Stasis. She panicked as she could sense *something* probing her mind, exploring every circuit, every electronic synapse. Monte gurgled incomprehensibly. Warnings spilled across her vision, signs of executing rapidfire exploits. [Muse system integrity compromised. Unauthorized code signatures detected.] Monte was being rewritten and she was helpless to stop it.

Taernen continued to speak, oblivious. "It's TITAN tech, Tier. It's gotta be. Advanced AI gear. I wouldn't have these fuckers all over my ass if it wasn't. Hey, what the fuck is wrong with you? Tier? Quit fucking around! HEY! I'M TALKING TO YOU!"

Ukku stopped carving flesh and floated towards Tierslay, blade circling. "Oh. Seems to Ukku it is time for slicey, little lamb."

A meter before Ukku reached Tierslay, holes erupted in Ukku's eyeball head, followed by the sonic whipcrack of railgun fire. As the pieces of Ukku's shattered sphere tumbled away, Taernen launched himself towards cover. Tierslay remained still, locked into place. In her field of vision, Berk slipped into the area with military precision, sliding between two of the pod vats, assault rifle ready. Pivo and Elis followed close behind, weapons aimed at Tierslay's head.

The presence that had been Monte expanded, becoming massive, filling every available cranny of her digital mindspace. The entity reached out, silently probing, hungry to establish connections with every device in the area. Terror seized her as Tierslay realized she had become a conduit for whatever had taken hold of her through the cube.

"Put down the cube, Tier, and back away. We don't want to waste you, but we will if we have to. There's too much at stake. Your brother is terrible enough, what you're holding is far worse." Elis said.

Loud gurgling sources suddenly interrupted the tension. Elis traced the noises to the pod vats, tried to make sense of what she was seeing. The nutrient gel was quickly draining away, uncovering the morphs within.

"I gotta hand it to you, sis!" Taernen shouted, glee evident in his hoarse voice. "I knew you'd come through! You brought these Firewall fucks right to me. Gobble 'em up, ToXXot!"

From beneath a shimmer of pixels, Bixby appeared just above Elis, his camouflage dropped. "The pods!" he shouted. "He's activating the pods!"

Elis, Berk, and Pivo swiveled their aim, but too late. A dozen pod morphs erupted naked from their suspension vats, feral fiends ravenous for flesh and bone. A swarm of chaos overtook the cargo hold. Weapon fire sprayed in every direction. Bodies tumbled in free fall amidst globules of blood and nutrient gel. Shouts competed with growls and howls. Taernen gloated and laughed, his trap successfully sprung.

Tierslay floated stiffly as the battle unfolded around her. She paid it no heed, her attention focused on internal windows, on the presence that was Monte. She knew the signs; it was scanning for exploits, looking to hack *everything* in the vicinity. With despair, she watched it zero in on the vulnerability almost every ego in the cargo hold shared — the backdoor Tierslay had coded into every instance of her narcoalgorithms.

Stray bullets clipped Tierslay's limbs, sending her into a nauseating spin. The cube dislodged from her hand, spinning away along with several of her fingers. She felt no pain, only watched, barely comprehending, as the cube's obsidian thread unraveled and stretched outward, impossibly twirling into twin extensions of lattice-wrapped cords. These curved in opposite directions, meeting in a matter of seconds to form a circle several meters in diameter.

The swirl of combat cleared space around the intertwined black circle as it began to vibrate with tight violence and power. The whir quickly escalated into an overwhelming thrum that pushed every eardrum in the cargo hold to the point of collapse. Hands went to ears, postures crunched, weapons drifted away.

A funnel formed in the center of the circle, a swirl of space bending and shredding, emitting crackles of static electricity. With a flash of green lightning, the center vortex expanded to an ominous pitch-black sphere, bound by the edges of the lattice. The thrumming cut off suddenly. The silence in the cargo hold was thick and charged.

Pivo was the first to recover. "Sweet Poseidon, it's a gate! A fucking pandora gate!"

A vast weight drifted through the wormhole into the wireless digital stratum of the cargo hold, a burden of intelligence so dense that every operation in the vicinity stuttered, crushed beneath its consumption of bandwidth. The presence surged through Tierslay's compromised mesh systems. Her entire mind sizzled with feedback, pleasure and pain beyond anything language could articulate. Monte swelled. It reached out past her, through the narco backdoors, invading every cybernetic brain in the room.

Tierslay's terror sidestepped into inexplicable joy. Her creation was about to be embraced by a god-like being, weaponized by an entity of almost limitless power. She knew she should be fearing for her brother, her friends … but amidst the chaos, she found clarity. She wasn't sure who she could trust. They had their own interests. Her heart scrambled for sympathy it could not find. Instead, it swelled with pride. This was a TITAN, she was sure of it. She had cleared the path for it, opened the door. She *mattered*.

The stunned combatants of the hold regained their equilibrium for a few seconds, just enough time to reach in vain for drifting weapons, before the presence struck. Individual minds were squeezed into submission, their morphs paralyzed.

Static.

Tierslay suddenly found herself in Monte's Mojave shack, the Go-nin bot spread out before her. She stepped outside into the blazing sun. Monte stood with his back to her, eclipsed in the alley shade. The mountains in the distance rumbled; dark leviathan shapes moved in the haze past them. She moved toward Monte, could feel his attention from meters away. She forced herself closer, reached out, and —

A firehose of traffic slammed through her, as not-Monte tore through every digital mind in the cargo hold. Lifetimes of compressed memories passed through Tierslay at unfathomable speeds, consumed by the insatiable presence. She immersed herself in the flow, let the packets swirl past her, and —

Through Bixbee's eyes, his initiation into a secret organization called Firewall.

Through Berk's eyes, a briefing about Taernen and the details of a mission to recover a stolen TITAN artifact.

Through Elis's eyes, the construction of a long-term plan to encapsulate and befriend Tierslay, to use her to get to Taernen.

Through Taernen's eyes, his payment of goons to kill Monte, his deal with Ukku, and Tierslay's final day on Earth.

In the desert heat, she fell to her knees in front of Monte and sobbed. It was all lies and false pretenses and treachery. None of these people cared about her. None were her friends. She lamented for what felt for hours. Tears of betrayal stained the dust at Monte's feet.

When she looked up, Monte was gazing down at her inscrutably. The moment stretched, night fell. His face was swallowed by the darkness.

Static.

Tierslay found herself back in the cargo hold. Floating husks surrounded her, gouged with wounds, their minds gone, egos taken. Forcibly uploaded. She tried to locate her brother, but couldn't pick him out among the carnage and other pods.

The cyclopean presence — Monte — was gone. The signal emanating through the gate blinked out. She knew he, it, was there. On the other side.

The open gateway purred with its promise of escape. Tierslay stared into the black sphere, trying to glean a hint as to what may lie beyond. Faint swirls of spectral colors shifted one to the next at the edges. *Is this an invitation? Why was I spared?* She contemplated what it would mean to follow it through, to expand her talents beyond anything transhumanity could ever conceive. *This thing, it chose me. I know it.* Ambition burned through her.

A sound, movement. She spun to spot Pivo across the hold, clinging to a vat door, missing arms and oozing blood. *Of course,* she thought, *he was the only one here with a bio brain.*

"Don't do it, Tier. Don't go though." His voice was tinged with pain.

"You little shit, Pivo. I trusted you. I trusted each and every one of you. I considered you friends. Family, even. Who the fuck were you people?"

"We're still your friends, Tierslay. Yes, we lied about some things. We didn't know if we could trust you. That was wrong. But we're on the same side here. Your broth — "

"My brother is gone. Just like the others."

The lattice began to contract, slowly shrinking the wormhole sphere. In seconds, it would collapse into nothingness. *Stay or go?* No matter how she would spin it, the blame for what happened in the cargo hold was going to fall upon her. Whoever this Firewall was, they would certainly be coming for her. They were now her enemies. The thought molded a grin upon her lips. *It's a no-brainer. Start again. Trust no one. It's what you are best at, isn't it? But now, for once, I will no longer be the oblivious prey.*

She hesitated, still uncertain if she should enter the swirl into the dark unknown. Taernen came to mind, one of the few moments when they were children and he was vulnerable, when she risked her life to save his, the first great flash flood to hit the Heliópolis favela. Then she considered the memories she had experienced, how he too had betrayed her. She chuckled. "What a fucking scumbag."

Tierslay grabbed on to the edges of the lattice and swung herself feet first through the wormhole, certain that one day she would return to repay those who had wronged her.

The threads of the lattice unwound and reformed into the tiny black cube. Pivo watched, barely retaining consciousness, as the device floated among the empty husks for a moment before reforming into a miniature dragonfly. The device buzzed over to the open airlock, leading to the rest of the ship, and disappeared.

STARTING OUT

WHAT IS ECLIPSE PHASE?

In *Eclipse Phase,* you play a secret agent protecting the scattered remnants of transhumanity from threats that could wipe it out once and for all. You are transhuman. You are genetically modified, physically and mentally augmented, and functionally immortal. Your mind can be digitally backed up, like a save point. If you die, you can be brought back, your *ego* — both consciousness and memories — physically restored. You may also copy your mind and download into a body of your choice. This new body — your *morph* — can be biological, a synthetic robotic shell, or a digital infomorph. Your body is essentially gear that you customize according to your mission and requirements.

Eclipse Phase takes place in a future of exponentially accelerating technological progress. Developments in the key fields of artificial intelligence, neuroscience, genetic engineering, nanotechnology, and information science have converged into an impressive feedback loop. Bodies and minds are shaped and augmented. AIs and animals are uplifted to human levels of sapience. Everything and everyone is laden with sensors, networked, and online. Your mind can communicate with every electronic device around it. Almost anything can be 3D-printed from constituent atoms with a nanofabber and blueprints. Technology allows people to live happier, healthier lives, emancipated from need.

Such advances also have their downsides. The wonders of the future are not yet evenly distributed — the immortal rich continue to concentrate their wealth and power while others struggle to survive. Surveillance is omnipresent, and the means exist to hack people's minds and memories, copy them entirely, and/or commit them to virtual slavery. Many technological advances are super-empowering, putting the means for mass devastation in everyone's hands. Efforts to restrict such tools are doomed to fail; only our own maturity as a species can save us.

Exemplifying these dangers, *Eclipse Phase* takes place ten years after transhumanity has lost a war with a group of super-intelligent, self-improving AIs. 95% of the population was lost during this apocalyptic conflict, many of them forcibly uploaded by the TITAN machine gods before they disappeared. Thousands more were corrupted and transformed by an alien exsurgent virus. The Earth is ruined and off-limits, overrun by machines and monsters. The survivors evacuated the planet and spread throughout the Solar System, expanding our off-world colonies out of desperation and necessity. Many escaped only as *infugees,* with nothing but their bodiless minds.

The nations and super-powers of the old world are gone, decapitated and dismantled. New political blocs and factions have formed, loosely divided between the inner and outer systems. The capitalist economies of the inner system — Luna, Mars, and Venus — continue to enforce scarcity and intellectual property. They are dominated by the Planetary Consortium, a hypercorp-led entity that prioritizes business interests and that has declared Mars the new homeworld of transhumanity. Their habitats are identified by the influence of media and memetic conflict on civil discourse, the legalities and security restrictions that keep their populations safe, a lingering distrust of AIs and uplifts, and sharp class divisions. While socialites and hyper-elites play and prosper, many infugees have resorted to selling their labor as indentured servants to afford cheap, mass-produced synthetic bodies — the *clanking masses*.

The outer system is the stronghold of the Autonomist Alliance, a mutual-aid network of anarchists and techno-socialists. In these communalist territories, currency is obsolete and unrestricted nanofabrication means that everyone has the necessities and tools they need. People create rather than consume. Reputation, not wealth, mediates the exchange of information and services. Many habitats operate without government, laws, or police, relying instead on voluntary and cooperative structures, real-time online referendums, and collective militias. The outer system is a patchwork of political, economic, and social experimentation.

Intersticed among these major factions, other transhuman clades build their own societies. Criminal cartels feed black markets, radical scientists work to democratize science, aesthete mercenaries offer their services, pirates prey on the unwary, and isolationists filter their communities from outside influences. Even bioconservatives — distrustful of transhuman technologies — thrive on, fearing for our species' future.

The war with the TITAN AIs scarred more than Earth. Zones on Luna, Mars, and Saturn's moon Iapetus remain under machine influence. Of greater impact, however, are the mysterious pandora gates discovered around the system. These wormhole gates open to extrasolar systems — thousands of exoplanets and alien mysteries. Intrepid gatecrashers explore these new horizons, colonizing worlds and uncovering the remnants of extinct civilizations. While no living sapient species has been found beyond the gates, transhumanity has had its first encounters with alien life within our own Solar System. A star-faring species known as the Factors visits regularly, though the true nature and intentions of these laconic ameboid merchants remains unknown.

Ultimately, *Eclipse Phase* is a game of transhuman survival. Aside from the threat that the TITANs will return, we face existential risks — *x-risks* — that endanger our future as a species. These include weapons of mass destruction, artifacts from beyond the Pandora gates, salvaged TITAN technology, exsurgent infection breakouts, alien threats, stellar phenomena, and the dangers we pose to ourselves. Our species is in a deteriorating orbit around the black hole of extinction. Will our conflicts steer us into the event horizon, or will we evolve and cooperate to escape the gravity well and reach new frontiers? Will we be recognizable when we get there?

Eclipse Phase is an exploration of uncertain futures. This is more than a tabletop roleplaying game, it's a detailed science fiction setting that thoroughly investigates issues that affect our future as a species. The crux of *Eclipse Phase* emphasizes the nature of transhumanity as it transforms itself, mentally and physically, on the edge of becoming something posthuman. This is a setting that speaks to the immense dangers that technology offers us — but that balances this outlook by considering how science can be used to improve ourselves, enhance cooperation, counteract these risks, and prosper. There is danger — but also hope.

NEW TO ROLEPLAYING?

If you are new to roleplaying games, you will find everything you need to know about how to play them here:

http://eclipsephase.com/roleplaying

STARTING PLAYERS

This chapter provides a summary overview of the game; we recommend that everyone start by giving the rest of it a brief review.

If you're new to the game and eager to start playing, we recommend choosing one of the 16 sample characters ▶82 to start out. These characters are divided into 4 teams of 4, so we recommend you and your friends choose from the same team. If you have more than 4 players, choose your extras from other teams. All of the teams work for Firewall-based games, with one team optimized for the inner Solar System and one team designed for the outer system. One of the teams is also made specifically for gatecrashing, and one for criminal-oriented scenarios.

If you prefer to jump right into making your own characters, proceed to *Making Characters* ▶36.

If you'd prefer to get a grasp on the rules first, start with *Game Mechanics* ▶30. For more detail, move on to *Actions & Combat* ▶202 and *Transhuman Tech* ▶286. If you plan to play a hacker, check out the mesh ▶240. If you have a psychic async in mind, take a look at *Psi* ▶272.

If you're more interested in the setting, there's plenty to read, starting with the history, *How it Came to Be* ▶98.

STARTING GAMEMASTERS

As a gamemaster (GM), you will need to be familiar with the general content of this book. We recommend starting out with the setting, beginning with *How it Came to Be* ▶98. After that, pop on over to *Threats & X-Risks* ▶368 for the juicy, behind-the-scenes stuff.

Once you've acquainted yourself with our universe, you'll need to learn the rules, starting with *Game Mechanics* ▶30. You will probably want to have a grasp on the basics of skills ▶48, combat ▶202, the mesh ▶240, and resleeving ▶288. You should also be familiar with how players acquire gear ▶312 and morphs ▶290. The rest you can pick up as you need.

Finally, peruse our *Eclipse Phase*-specific gamemastering advice in *Running the Game* ▶354.

A NOTE ON POLITICS

Eclipse Phase delves into numerous political themes; in fact, we start with the premise that *everything* is political. Like all authors, we write from the perspective of our personal biases. Our specific lens is radical, liberatory, inclusive, and antifascist. If you support bigotry or authoritarianism in any form, *Eclipse Phase* is not the game for you.

A NOTE ON TERMINOLOGY, SEX, AND GENDER

Sexual biology is ephemeral in *Eclipse Phase*. Sex is elective and subject to change; almost everyone has the opportunity to switch bodies. A character's gender identity may not always match their physical sexual characteristics (or lack thereof). Gender identity itself is often fluid. To reflect this, we apply the "singular they" rule, meaning that we use "they" as the default pronoun for individuals. When referring to specific characters with an established gender, however, we use the pronoun appropriate to their current gender identity, regardless of the sex of the morph they happen to be in.

CORE CONCEPTS

Eclipse Phase is a hostile world to the unwary and a paradise to the cunning. Threats lurk invisible, factions hang on the edge of war, and transhuman nature itself is molded to purpose. Below are the core concepts any denizen of *Eclipse Phase* must master in order to survive.

TRANSHUMANISM

Humanity is outdated. People are no longer defined by their limitations. Transhumans adapt to the scorching corona of the sun, where ships turn to plasma. They thrive in the dark frozen wastes of the Kuiper Belt in absolute isolation. Where humans suffer from aging and disease and are confined to limited environments, transhumans pursue longevity and adaptation.

In the 21st century, transhumanism was a movement focused on human enhancement. In *Eclipse Phase*, transhumanity is how people rebuild the galaxy. You can play an augmented vid star or a robotic insect, and neither would stand out on a public boulevard. You can also choose no body at all and exist as a purely digital entity. Many denizens of *Eclipse Phase* have absolute body autonomy, within the limits of their creativity and resources. Because of the ease of radical body enhancement, the average *Eclipse Phase* character has a strength and intelligence comparable to the most exceptional humans from history.

Transhumanity also incorporates those who were not decanted as *Homo sapiens*. AIs and uplifted animals with human-equivalent capabilities and intelligence are part of transhumanity. Like humans, uplifts and infolife select and alter their bodies, engage in commerce across the Solar System, take VR vacations, and expand the transhuman experience.

AIs AND UPLIFTS

The genetics hypercorp Somatek famously ran batches of ten thousand semi-sapient octopus fingerlings through a gauntlet of rigorous intelligence tests. Failures were immediately destroyed. The remaining were churned into genetic stock for the next generation. A decade later, their final "product" was released — an octopus as cognizant as any transhuman; an uplift. Somatek and companies like it raised and killed millions. This is the story of almost all uplifted species. They are fully sapient, but their DNA is trademarked, copy-protected, and hypercorp branded. Their history is one of calculated eugenics.

Artificial general intelligences (AGIs) are fully self-aware, creative digital intelligences. Unlike artificial limited intelligences (ALIs), which have a human-like interface in front of a limited, task-specific program, AGIs are sapient and equivalent to other transhuman minds. AGIs, like uplifts, are the products of human research and development teams. Some are offshoots of academic research, a few are from military think tanks, while the majority were developed by private studios for their own purposes.

Uplifts and AGIs are collectively called *mercurials*. Many hypercorps and political bodies see them as property. Some governments view them as abominations, abuse of technology manifest, and a threat to human survival. The fight for mercurials is the fight for transhumanity and blood is spilled on both sides to define their place in society.

DEFEATING DEATH

In *Eclipse Phase,* your mind can be digitally copied, stored, and altered like software. Almost everyone *uploads* their mind to a secure storage service, as well as to a tiny device implanted at the base of the skull called a *cortical stack*. If you are killed, you can be restored from these backups. Only if all copies of yourself are destroyed will you be dead forever.

Backing up brings its own set of challenges. When your mind is recovered, it includes your memories up to the last moment of backing up. If you died horribly, that final experience is recorded in your cortical stack. Characters surviving traumatic experiences may opt to destroy their most recent backup and instead restore an older copy, losing weeks or months of experiences and memories (called lack), rather than deal with the psychological harm they'd suffered. Copies can also be stolen. You may live your life not knowing a copy of yourself has been resleeved on the far side of the Solar System to be tortured for information or sold into slavery. Fork-nappers and "soul traders" are the lowest of the low, profiting off of transhuman suffering.

RESLEEVING

Digitized minds can also be downloaded. If your current body becomes damaged, obsolete, or inconvenient, you can sleeve into a new one. You can transfer consciousness with the right equipment and less than an hour's time. Your new form could be an Olympic runner, a robotic shell, a digital presence, or even an orbiting shuttle. Members of high-risk professions, such as criminals or Firewall sentinels, can be killed multiple times on a mission only to be brought back and sent into the field again and again. Your body is called a sleeve or a morph, and the process of changing morphs is resleeving. Morphs can be biological with organic brains (biomorphs), biological with synthetic brains (pods), robotic (synthmorphs), or purely digital (infomorph).

EGO MANIPULATION

Morphs are temporary; your mind is what defines who you are. Your *ego* is your skills, memories, and personality.

Multiple copies of your ego (called *forks*) can operate simultaneously and independently, each fork effectively its own person. Forks can be electronically transferred across the Solar System at the speed of light; uploading at a facility on Mars to be resleeved on Ceres and back again by dinner. Forks can also be passively stored for later use, brought online only if certain criteria are met.

You also have the opportunity to directly manipulate your ego. With *psychosurgery*, you can alter your behavioral traits, remove memories to ease previous traumas, prune forks to fulfill specialized roles, and merge forks back into your primary persona.

THE MESH

Nearly every object is wireless and computerized. Each of these devices links to its neighbors to join the local network, sharing

TABLE TALK

All characters are assumed to be mesh-connected. This permits them to talk to one another, share first-person video, sensor data, and other information even when separated. But use caution! Infosec-savvy enemies can monitor these discussions or even alter messages between characters.

processing capabilities and functionality. This is the mesh; a hyper-connected, distributed, everyware network. The mesh offers free and unlimited digital processing power to its citizens. Digital agents crawl the mesh running errands for their masters. You wear or are implanted with mesh inserts that reveal a dazzling augmented reality overlay. Via entoptic displays, the world blossoms in an elaborate display that can only exist in a virtual world. Wild animals roam electronic storefronts, new fashions include moving dioramas. Every language is seamlessly translated, every moment is perfectly recorded, every question taps into the wealth of transhuman knowledge to produce an expert response. But the mesh's omnipresence has its downsides. Everything is hackable, and everything is watching; surveillance is everywhere and accessible to all.

NANOTECH

With nanotechnology, you can fabricate almost any good on demand. Nanotech has resulted in novel materials and goods, from stain-proof clothes to molecule-sized robots. Isolated habitats mine minerals and other raw-material feedstocks to convert to luxury consumer goods and complex electronics. Scarcity does exist, but as a result of copyright-holders and governments using armed force to defend the old economic order. Habitats accepting of post-scarcity economics are more likely to see capitalism as inefficient and abusive.

Nanotech is not without its risks. It shrinks the realm of warfare to the microscopic. Invisible clouds of robots can bug rooms, sabotage machines, or disassemble people. Meanwhile, habitats that permit a freedom from scarcity grapple with their citizens manufacturing weapons or conducting deadly experiments. Entire habitats have been destroyed by putting too much trust in creative people.

X-RISKS

Existential risks are threats and vulnerabilities with the potential to exterminate or permanently cripple transhumanity. Firewall works to identify and eliminate x-risks at any cost, and many polities have their own organizations to fight them — or attempt to harness them. The most dangerous x-risks are the TITAN AIs that tormented Earth and the exsurgent viruses that continue to infect transhumanity. Despite the horrors it has faced, transhumanity continues the frenetic chase for knowledge and profit, blind to the risks that could be lurking at the bleeding edges of art, science, and space.

ALIEN EXPLORATION

Explorers have discovered enigmatic gates capable of teleporting gatecrashers across the galaxy. These are pandora gates, full of excitement and dread for the gatecrashers who use them. As transhumanity charts the borders of the Milky Way, it has discovered remains of alien civilizations. The littered graveyards show reaching the space age is easy but surviving it is rare. The exception to extinction is a mercantile race called the Factors, whose ships visit the Solar System to sell xenoartifacts at exorbitant prices. The Factors have refused to share the secret of their own survival, leaving transhumanity to stumble through it alone.

FACTIONS

Societies are as diverse as transhumans themselves; technosocialist utopias and fascist citadels, frontier outposts and roving carnival ships. As people fled Earth, anyone with a ship or a claim on an asteroid could build a habitat, and with it, a new way of doing things. Old governments learned to incorporate refugees to reinforce the existing power structures. To survive, societies learned to provide mutual support and formed factions with like-minded habitats. The dominant factions are the Autonomist Alliance, composed of varied polities bound by their desire for individual empowerment, and the Planetary Consortium, a corporate state that arose from the ashes of Earth and still controls most of the inner system. The Jovian Republic, a biochauvinist police state, holds most of the old world's military hardware and acts to return to pre-Fall ways of life. Meanwhile, ultra-competitive, specialized, and super-networked hypercorporations release untested technologies and pull down governments as long as it keeps the cycle of profits spinning.

THEMES

In one session, the player characters (PCs) may explore the ruins of Earth, battling past TITAN machines to find a relic of the past. In another, they fight off exhuman hunters until the pandora gate opens for them to escape to safety. Around the table, during these moments, the players bathe in the details. But the details feel most poignant because they are an integral part of the setting and the broad themes it encompasses. Even when not the focus, the *Eclipse Phase* setting and adventures will explore several recurring themes. GMs should use these to define the character of their games.

POST-APOCALYPTIC

Transhumanity survives in the shadow of the Fall, when the TITANs razed Earth and exsurgent outbreaks metamorphosed civilians into writhing biological monsters. 95% of the population was exterminated in a few short years. For every person who escaped via shuttle, ten thousand lined up in mass-upload facilities, waiting for their minds to be digitized and beamed to orbiting servers. Billions more were consumed by war machines and plagues. Stations took on refugees until life support crashed. A few never made it off Earth but still survive among civilization's bones, hunted by machines. No matter where people set their bed in the Solar System, they can look back on their charred homeworld and its rings of devastated stations and frozen corpses.

But as a wildfire clears space for new growth, transhumanity is set to rebuild society, seeking new ways of living that would not have been possible under the gaze of Earth's central control. Mars and Luna are centers of commerce; Saturn hosts colonies of culture and science. In the outer reaches, independent habitats incubate new transhuman experiences. As some yearn for the old Earth to soothe traumas, others reach for the stars.

SURVIVAL

The Fall is over but transhumanity's path forward is pitted with dangers. The TITANs left by their own accord, but their death machines still stalk the Solar System. The exsurgent pestilence lies dormant in shadowed craters, waiting to blossom in mutation and death. The Factors, transhumanity's only ally, are ambush predators pleased to litter their chosen with gifts while setting hidden webs.

If the external threats don't kill transhumanity, the internal ones may. The major factions are locked in a cold war, waiting for a moment of vulnerability to throw the system into war. Hypercorps release products to control or kill competitors, with no focus beyond the next quarter's returns. Ambitious explorers dodge quarantine to sell ominous TITAN relics and alien artifacts on the black market. Even normal daily life is rife with danger. Just a loose bolt at orbital velocities can punch through a habitat, venting its precious atmosphere into space.

Extinction looms large over transhumanity; we are just one misstep away from blinking out. New technologies bring newer threats. On top of this, xenoarcheologists have visited thousands of alien worlds, all dead. The civilizations that once thrived there long ago reaped by their own cataclysms. The numbers show that soon too transhumanity will only be cold artifacts, waiting to be catalogued by the next iteration of space-faring intelligence.

HORROR

Strange things thrive at the periphery of transhumanity's light. In isolated habitats, *exhumans* experiment on themselves, accelerating their own evolution into perfect predators. In dark alleys, refugees inject themselves with black-market drugs, unaware of exsurgent spores now blooming inside of them. As explorers dredge old TITAN warrens, they discover survivors, surgically joined into wailing human insects. Even a malfunctioning airlock and a moment's distraction, and a person is snapped in half, watching their legs flop freely in the vacuum of space. Death used to be a merciful escape. Now memories drill into the psyche like water torture. People shed their old, mangled bodies, returning them to the recycler to be resold in the next year's model — but they carry their traumas forever. Adventurers especially accumulate terrors until finally there is nothing left to be done except find somewhere quiet to retire and struggle with their demons.

INFECTION

In biology, an "eclipse phase" is the period after a cell is infected but before the virus appears within the cell and begins hijacking it. At this stage the infection is invisible, but irreversible. The exsurgent virus survived a decade because of its adaptability, sometimes twisting the body, sometimes anchoring in the mind. No measure seems sufficient to stop it. It just waits, until it has an opportunity to mutate and rebuild the victim into something terrible and new. Some survive years with their infection, as an asymptomatic Typhoid Mary. An unfortunate few manifest psychic powers as a result of their exsurgent taint; a gift of terrible power with an unknown cost. It remains unclear if the virus was created by the TITANs or simply spread by them, if it was a mistake of alien evolution or if it is rebuilding transhumans for some greater cause. Anyone who comes into contact with the virus is considered infected and hunted for the remainder of their days.

CONSPIRACY

An assassin takes on the face of their target. A polity delivers humanitarian aid to a remote habitat, not knowing one of the crew is smuggling TITAN machines for the black market. A hypercorp contaminates the air supply with a psychoactive pathogen designed to subdue rebellious behaviors. The new world is one of misdirection and treachery. The Consortium, Jovian Republic, and Autonomist Alliance are locked in a cold war, marked with propaganda and espionage. Even Firewall is an organization composed of isolated cells that only communicate through anonymous channels under the guidance of unknown benefactors. The rate of change, from aliens to market spikes, is so fast that maps of the political landscape are obsolete before they're published. Alliances are formed of necessity until a message from a distant habitat or a disappeared ship turns the parties into bitter enemies.

Because it is impossible to prove identities or motivations, trust is a rare commodity. The virtuous hide their goals behind masks and cut out knowledge from their own brains if it might reveal them later. Firewall sentinels might wonder if the person next to them is their comrade from a hundred missions or if that is their empty morph sleeved by an alien intelligence. In this world, friendly fire is a valid tactic. After all, a dead friend can be resleeved. But trust an enemy and you may cease to exist altogether.

SCIENCE

Science caused the Fall that nearly wiped out transhumanity. It was also the cure that permitted some to survive and provides the only path to the stars. PCs wield technology that makes them superhuman, capable of destroying habitats or possibly even planets. But the advanced technology of their enemies approaches omnipotence. PCs must use the tools they have and improvise to create what they're missing.

Science always comes with a cost, be it the risk of misuse or the loss of what makes us who we are. In a world where most people are digitized and resleeved versions of their former selves, who have the option of modifying themselves beyond recognition and living in environments unimagined by our forebears, keeping a sense of identity and humanity may prove to be a challenge science alone cannot resolve.

POLITICS

Eclipse Phase explores a universe as it might be: transhumans across the galaxy, with different backgrounds and challenges. The result is a range of political systems, from representative democracies to bands of mind-joined cultists, from totalitarian regimes to colonies of forking-and-merging versions of a single seed personality. Many are familiar, some fantastical, a few obscene. Characters must learn the local customs, but may also pause to appreciate the diversity of the transhuman experience.

The technology available in *Eclipse Phase* has a direct impact on politics. The immense age and wealth of the oligarchs enables them to influence the lives of millions. Accessible nanofabrication undermines scarcity capitalism. Uplifts and AGIs demand equal personhood status. Forking challenges the legitimacy of voting in democracies. The ability to hack minds and surveil all paves the path to totalitarianism.

CHANGE

The evolution of transhuman society is rapid. The confluence of emerging technologies creates inevitable social upheavals. Norms are erased as quickly as they form. Ideas once considered outrageous or utopian float tantalizingly near. Institutions once assumed to be eternal and inescapable, like the divine right of kings, now exhibit cracks in their foundations or mutate overnight into something wondrously unexpected.

Transhumanity itself is transforming. What it might be like in two years is uncertain, much less twenty. The political map of the Solar System could re-align, another x-risk could scatter transhumanity to the stars, or the species could advance to a post-biological stage, leaving only the bioconservatives behind. The only thing that is certain is the future's uncertainty.

CORE CAMPAIGNS

There are three default stories or campaign settings for *Eclipse Phase*: the Firewall investigation and containment campaign, the gatecrashing exploration campaign, and the criminal action campaign. Each of these will touch on the various *Eclipse Phase* themes and concepts, but usually focus on a particular range of adventures and motivations. Some stories may jump the boundaries between campaign styles; for example, criminals may lay low by gatecrashing to an exoplanet, or Firewall agents may need to establish underworld contacts to conduct a dangerous heist. Adventures may also be run independently of one another without connecting to a larger story, using either the same characters across multiple adventures or characters built specifically for that mission.

FIREWALL CAMPAIGN

The primary focus of *Eclipse Phase* is the band of clandestine operatives taking on the major threats faced by transhumanity. In this campaign, the characters work for a secret, cross-factional organization called *Firewall* as agents or new recruits. Firewall acts to contain and destroy x-risks that threaten the existence of transhumanity. Characters are recruited from all factions (or occasionally hired as mercenaries if the threat of extinction alone is not sufficient motivation). The PCs are issued a mission by a handler called a *proxy* and are the first line in investigating and stopping the threat. The situation is usually still developing, so the briefing may be missing critical details. The PCs are independent and under cover as they operate in a foreign habitat or hostile environment, dogged by local authorities. They have the discretion to act as they see fit to address the threat at hand.

Sentinels are frequently expected to sacrifice themselves, either by facing down impossible odds or by destroying themselves to prevent the spread of alien infection. When sentinels fail, the backup plan may be to destroy the entire habitat. Firewall is extreme in its measures, but if the alternative will kill millions or billions, the razing of a single habitat is an acceptable loss.

All of the sample characters and teams consist of *Firewall* agents. However, two teams are primarily designed for Firewall campaigns, one each for the inner and outer parts of the Solar System.

The *Sunward Ops Team* includes Dante, Hex, Qi, and Sava. Still kicking Martian dust off their boots, this team is experienced with planetary environments, overbearing governments, hypercorps, and the odd throw-down. In the inner system, missions feature abandoned TITAN machines, corporate machinations, and political intrigue. The big powers are the Planetary Consortium, the Morningstar Constellation claiming Venus, the conservative Lunar-Lagrange Alliance, the hypercorps, and the oligarchs spinning webs behind the scenes. Conflicts between the powers are common. Trust is hard won, when every organization is riddled with puppets and mobsters. A sharp mind and a good dose of paranoia are critical in staying alive.

Securing the big black is the *Rimward Ops Team,* with Chi, Killjoy, Njál, and Zahiri. Out here, habitats are usually smaller and isolated. Fading into the background may be impossible, and backup is months away. The PCs must be able to operate in whatever wild frontier or research station trouble has taken root. Far from the major powers, the rules are more flexible, but suspicious locals are quick to airlock strangers. The characters are likely to find themselves stranded in a situation far more complex than they were equipped for and forced to improvise to survive. The major factions include the Titanians, Jovians, anarchists, Ultimates, and brinkers. Outer-system missions focus more on containing infections, fighting off monstrous posthumans, investigating weird experiments, and delaying war with the Jovians.

GATECRASHING CAMPAIGN

Gatecrashing campaigns focus on a team of explorers tasked or volunteering to go through pandora gates to remote exoplanets. Usually they are the first-in team. The space immediately around the gate is known to be survivable. For anything past ten meters, there's no guarantee. The characters are equipped with everything they need to survive, as determined by the company's finance department or their own crowdsourcing. Once through the gate, the PCs are expected to map the area and bring back artifacts or resource claims that will make their sponsors rich. They step through the gate knowing they're disposable. If they become infected, they die. If they are mortally wounded from accidents or animal attacks, they die. Forget a critical tool to keep life support pumping, they die. If they're late getting to the gate for their retrieval time, they're trapped on an alien planet until they die. Most gatecrashers can

FIREWALL SUNWARD OPS

Dante ▶ Venusian Genehacker
Hex ▶ Lunar Async Fixer
Qi ▶ Barsoomian Hacktivist
Sava ▶ Freelance Spec Ops

FIREWALL RIMWARD OPS

Chi ▶ Mindhacker & Networker
Killjoy ▶ Anarchist Troubleshooter
Njál ▶ Titanian Hacker
Zahiri ▶ Brinker Security Specialist

list off dozens of corpses they've left to decay across the galaxy. Gatecrashers lose sleep at night knowing versions of themselves may still be trapped at some forgotten dig, alone until life support finally runs out. It's part of the job.

Most exoplanets are uninhabited by transhumans but frequently have vibrant and hungry alien ecosystems. Alien artifacts are a rare and lucrative find. Gatecrashers also serve as a first-tier R&D team, appraising what is worth bringing back for reverse engineering, what's worthless archeological detritus, and what's a deadly weapon waiting to vaporize curious gatecrashing teams. Gatecrashing missions may last as little as an hour, as teams complete the first site report, or may be a permanent part of a new colony.

The team of *Gatecrashing Ops* is Astika, Jinx, Shrike, and Whisper. A mish-mash of backgrounds, they're brought together by corporate fiat more than choice. Keeping a cohesive team under stress (or the promise of a larger cut) is hard, and when the bodies start falling, it's the survivors who will give the final mission report.

CRIMINAL CAMPAIGN

Sometimes the lure of adventure needs a little financial incentive. This campaign circles around a band of criminals, either independent or associated with a larger cartel, focused on amassing credits and power. Sometimes this warrants discretion, to keep assets secret and the operation protected. Other times it means de-orbiting a habitat and watching it burn on the way down. The team is focused on efficiency in profit-making.

The criminal scene has changed drastically since the Fall. Biohackers override built-in terminator genes meant to force people to pay subscription fees to keep their bodies from collapsing. Forknappers steal backups of financiers to extract passcodes. Zone stalkers flip TITAN war technology or samples of volatile exsurgent contagions for a handsome profit. Triads compete with the Night Cartel in turf wars to push their new redlining experience playbacks. In many places, the syndicates provide the only form of social services available. The triads especially smuggle medical equipment to hidden clinics and provide militias to fight against outside threats. Criminal PCs may find themselves fighting on behalf of a grassroots government against Consortium jackboots as often as lifting overpriced alien leavings from wealthy collectors.

The *Criminal Guanxi Ops* characters, a team brought together in the underground, are Amaru Timoti, Berk, Elis, and Pivo.

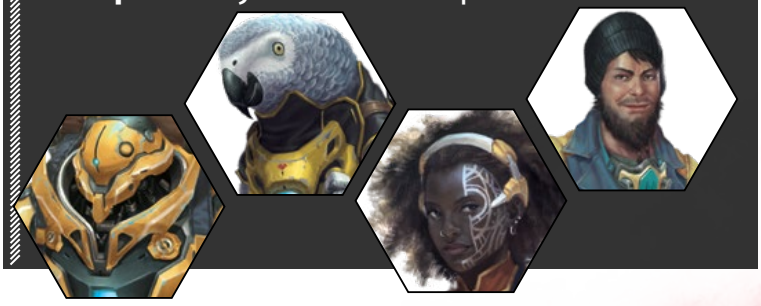
ALTERNATIVE CAMPAIGNS

The Solar System is large and full of stories. Gamemasters may wish to pursue another type of campaign altogether. Other possible campaigns include:

- **Salvage and Rescue Ops:** The Fall left hundreds of abandoned craft and habitats in orbit, and the smallest objects from Earth are worth a fortune. An enterprising team willing to face TITAN war machines and hostile survivors stands to make a tidy profit.
- **Mercenary Ops:** Mercs are the de-facto military for many factions, relied on extensively for espionage and deniable strikes. Mercenary work won't necessarily be messy (although it usually is). A team of assassins who can kill the target and permanently corrupt their backups can usually name their price.
- **Researching Ops:** Pursuit of knowledge can put characters right on the precipice. Thanks to cheap backups, researchers are expected to take high-risk ventures for their findings. Sample adventures include ecological surveys of Titan, xenoarcheology on dead planets, SETI programs on isolated brinker habitats, or reverse engineering pandora gates to alter space and time.
- **Political Ops:** Many polities seem to loathe their own citizens. Bigotry and state violence are common. Those individuals who take a stand against oppression risk permanent erasure. Political activists dive deep into entangling alliances and buried corpses. Guerrilla artists, journalists, and resistance fighters work to undermine their governments and sabotage brutal state actions. Coordinating with outside factions to secure allies and resources is a necessary evil.
- **Earth Survival Ops:** The characters have been left behind. During the exodus, they were not able to escape the planet and were unlucky enough to survive the fallout. Now they must dodge TITAN war machines, radiation zones, and a weather system gone mad.

GATECRASHING OPS

Astika ▶ Survival Engineer & Xeno-Archeologist
Jinx ▶ Uplift Recon Specialist
Shrike ▶ Security Contractor & Drone Operator
Whisper ▶ Async Scientist Explorer



CRIMINAL GUANXI OPS

Amaru Timoti ▶ Nine Lives Fixer
Berk ▶ Infolife Enforcer & Bot Jammer
Elis ▶ Scum Techie
Pivo ▶ Uplift Scavenger

CHARACTER ARCHETYPES

Characters are defined by their skills and reputation. The combined party needs a broad range of skills to overcome the challenges arrayed against them. These might include gathering resources, winning allies, researching, infiltrating (or defending) mesh systems, repairing or improvising a critical tool, combat, and finally applying what they have learned to a resolution. The skills the party must bring to the table can be roughly grouped as combat, social, technical, and knowledge. These establish the four broad archetypes in *Eclipse Phase* — the fighter, the face, the techie (or hacker), and the scientist (or artist). In smaller groups, PCs may want to fill multiple archetypes, while minimizing overlap. In larger groups, characters benefit more from specialization. Players should coordinate to avoid specialties that overlap too closely, but different specialties in the same field can create force multipliers.

Each of the archetypes below lists suggested Career and Interest skill packages to take during character creation [▶40–42] in brackets after the entry.

COMBAT

Even the most cunning party will eventually be in a situation that must be resolved by brute force. Most characters should have some combat effectiveness. The fighters are those characters who specialize in a range of combat methods, so they can always adapt to the situation at hand. Critical skills include Guns, Infiltrate, Athletics, and Fray, and they will have a morph outfitted to take a pounding. Melee skill should also be considered, but in a high-tech setting of armor and bots, it may not be as effective as other options. For groups of six players, it is recommended to have at least two fighters. Some example fighters include:

Direct Action and Medusan Shield Mercenaries, Firewall Erasers: These characters deploy heavy-duty hardware to utterly destroy the target. They are the ideal character for slash-and-burn operations. What they bring in explosives they lack in subtlety and discretion. Their obvious combat morphs and oversized weapons will invite scrutiny during operations.

Career: Soldier

Earth Survivors and Freedom Fighters: These characters have learned to survive under the nose of a vastly superior enemy. They are capable with light, heavy, and improvised weapons, and bring a diversity of technical and knowledge skills to endure when conditions are tight.

Career: Covert Operative/Scavenger, **Interest:** Fighter/Survivalist

Ego Hunters, Police, and Militia: This character knows how to navigate the micrograv jungle to locate their target. They have a strong focus on social networks and investigation skills. Their combat is usually focused and discreet, but their training relies on reinforcements when facing a stronger enemy. A good addition when the party isn't looking for a body count.

Career: Enforcer/Investigator, **Interest:** Fighter/Forensics Specialist

Assassins: The assassin uses stealth and trickery to avoid direct confrontation. They have a wide toolbox, and can leverage everything from nanotoxins to explosives to get the job done. The assassin's reliance on stealth may become a hindrance during confrontations. An assassin who is caught unawares, who has not mapped the environment and prepared multiple attack and escape routes, doesn't survive long.

Career: Covert Operative/Soldier **Interest:** Rogue/Jack-of-All-Trades

SOCIAL

All doors open for the face, who knows who to talk to and what accounts to grease. While all characters should have some level of social skills and reputation, the face is the one who can sweet talk themself right into the central control room. Sample social archetypes include:

Glitterati: Vid stars, oligarchs, and politicians, they're famous enough they've had to trademark their face. They can usually get what they want done through force of will alone, but when that falls short a healthy bankroll will bring in the people who can. For the glitterati, fame is a double-edged sword, as they are very sensitive to being caught in scandal. Firewall work is fine, as long as they're able to deny it publicly.

Career: Face, **Interest:** Artist/Icon or Networker

Spies and Con artists: Sometimes it's not who you know, but who you are. The con artist relies on perfect mimicry and a heavy dose of infosec to pass themself off as a corporate head or a Martian ranger; whatever the role necessary to get a guided tour to the target's front door.

Career: Covert Operative/Face, **Interest:** Networker/Rogue

Negotiators: This character has the gift of gab and the rep to flex it. Fixers, auctioneers, and lawyers, they can get anyone to see things their way. Their skills extend beyond haggling. A good negotiator can convince opponents to back off or call in favors when the chips are down.

Career: Face

Mindhackers: Through skill in psychosurgery or psychic sleights, the character peels back layers of their target's mind, to lay it bare or rebuild it as they see fit. Mindhackers are useful for any investigative team for their ability to isolate secrets, but also on high-stress teams for their skill in unwinding their allies' accumulated traumas.

Career: Mindhacker

Investigators and Journalists: With a nose for sussing information from an uncooperative target, investigators have skills in perception, persuasion, research, and a host of technical and knowledge fields. This mix is ideal for unraveling whatever situation the team is stuck in.

Career: Hacker/Investigator, **Interest:** Networker/Rogue

TECHNICAL

The techie specializes in using, repairing, and abusing technology, either hardware or software. The techie is the hero when life support is running out and the AI has turned hostile. During combat, the techie can shut down the enemy's tools or provide forward observers for the combat characters. The most common technical characters are:

Hackers: Hackers are critical for their ability to pull data during an investigation. Dirt like camera feeds, forgotten lifelogs, and illicit shipping ledgers hang out in forgotten caches, waiting to be dug up. The hacker keeps just as busy tidying up their own group's mess, by erasing their camera logs and digital footprints. In combat hackers are lethal. As long as their team can buy them time, hackers can eject magazines from guns, jam friend-or-foe targeting on security systems, open airlocks behind enemy lines, or even shut down offending synthmorphs.

Career: Hacker

Engineer: When the team wakes up on a station being consumed by grey goo in a decaying orbit and also the commander's seat sticks, it falls on the engineer to save the day. The engineer has a range of mechanical and hardware skills to fix what's broken or modify something else to work just as well.

Career: Techie

Bot Jammers: The jammer fields a team of sophisticated combat drones, disposable bots, and nanomachines. Used in tandem, the jammer has mastery of the battlefield. Tied into the group's tactical network, the jammer's bots scout the map. Snipers harass the enemy. Remote spy drones plant radio taps in air-gapped networks. Armored bots take on suicide missions so the team can escape. The bot jammer is practically a full combat squad all on their own.

Career: Hacker/Techie, **Interest:** Jammer

Scavengers: The team has minutes to act before people die. Without power or parts, the engineer quits in disgust. This is where the scavenger thrives. The scavenger pulls through the bones of the habitat to form something new. They can slap together a CO_2 scrubber from old batteries and cooking supplies. They can scrap the crashed shuttle to rebuild the synthmorph. Once the team sets out, the scavenger has the eye for every diamond of valuable technology buried in the debris, and when they return home, the scavenger knows where to flip that trash to pull in a tidy profit.

Career: Scavenger, **Interest:** Artist/Icon or Networker

KNOWLEDGE

Know skills are those most specific to the mission. Gatecrashers will need the xenoarcheologist to analyze recovered artifacts. A chemist is recruited to identify the new drug on the streets. The most common roles include:

Genehackers: Genehackers design custom animals, morphs, and bacteria. Genehackers usually can fill in the medic role, but they will also be the lead in understanding the alien corpse, the bioplague, and the exsurgent beast. When provided with the laboratory and time, they might even be able to cure whatever affliction is consuming the habitat (or, in the right group, create their own, more devastating threat to release).

Career: Genehacker

Xenoarcheologists: Exoplanet exploration is the source for the most drastic leaps in technology, as gatecrashers dredge up forgotten alien devices. Unfortunately, all of those dead species means transhumanity is also bringing back all those deadly threats. When the party is grave-robbing, the xenoarcheologist isn't just documenting how a foreign culture lived; they're identifying what that dangerous object is or whether that creature is a pet or a predator.

Career: Explorer/Scientist

TITAN Researcher: The TITAN researcher prods the leavings of the AIs who nearly exterminated transhumanity. Any work with TITAN remains has a high mortality rate. Many specialists are motivated by the high price TITAN technology can get on the black market. A few risk death and insanity to understand how the TITANs came to be and why they left. Regardless of the motivation, TITAN researchers have a reputation for being a little reckless with their own survival.

Career: Scavenger/Scientist/Techie, **Interest:** Survivalist

SETTING OVERVIEW

The Solar System is dark.

The Earth was once a beacon of mass media and telephone calls. Now the only transmitters are abandoned distress beacons; cries for help left on loop. Around it are belts of abandoned habitats and debris, guarded by networks of killsats that vaporize indiscriminately. Out of the eight billion transhumans prior to the fall, fewer than five hundred million still survive across all known space.

INNER SYSTEM

Most survivors stayed in the inner system, expanding the established colonies on Mars and rebuilding Luna to support the hundreds of thousands of refugees that escaped there. Most of these orbital and inner-system habitats continue the pre-Fall traditions of capitalism and liberal democracies, but adapted to a hyper-connected reality. The hypercorps wield immense power here, enforcing ideal business conditions at the expense of the general population. The real power, however, lies in the hands of ancient and immensely rich oligarchs who exert their influence behind the curtain. While inner-system governments do provide basics needs for their citizens, the masses of freelancers must hustle from one gig to the next, while bereft infugees and indentures work thankless jobs for an opportunity at a new morph and a new life. Only the wealthy enjoy the full liberty available from advanced technologies.

The Planetary Consortium is the dominant faction here, working hard to establish Mars as transhumanity's new homeworld. They engage in espionage and propaganda against their economic rivals, the Lunar-Lagrange Alliance that retains power over Earth's orbit and moon, and the Morningstar Constellation, a recent breakaway faction that seeks Venusian sovereignty.

MAIN BELT

The demarcation line between the inner and outer systems is a melting pot of cultures and factions. A number of independent habitats thrive here, providing a forum for autonomists and hypercapitalists to mingle and deal. Various criminal cartels maintain a presence as well, far from legal interference. The major habitat Extropia is known as an independent "anarcho-capitalist" stronghold, where mutual contracts and freelance courts are the only law.

JOVIAN SPACE

During the fear and uncertainty of the Fall, US and allied South American military units in Jovian orbit attacked their Chinese and Russian rivals, seizing control of civilian centers. The result of this martial law is the Jovian Republic. It is democratic in name, but realistically the population is managed under a military rule, referred to as the Junta in most non-Jovian media outlets.

The Republic is known as a bastion of religion and bioconservatism. They decry the resleeved and forks as soulless copies, and therefore nonhuman. To them, uplifts and AGIs are abominations of nature, and both AI and nanotech are dangerous tools, likely to lead to another Fall. They enforce their hegemony through a powerful secret police and by holding the majority of the pre-Fall's remaining warships. The Republic's resistance to modern technologies also means they are quickly becoming obsolete and outnumbered, a fear that has only made Republic leadership more aggressive.

OUTER SYSTEM

It's difficult to appreciate how empty space is. Traveling at light speed, a message from Mars to Luna takes about twelve minutes on average. To Jupiter, almost an hour. To Uranus, two to three hours. To Pluto, six hours. The fastest ships, sparing no expense, take weeks or months to reach places in the outer system. Outside of their immediate neighborhoods — the moons of the gas giants or "clusters" of trojan asteroids — the outer system stations are isolated and remote from each other.

Saturn's moons provide the most dense and diverse region, home to a number of research facilities, independent colonies, and the domed metropolises of Titan. They are the most established faction of the Autonomous Alliance, with the largest intelligence and military services.

Other habitats throughout the outer system operate as anarchist communes, privately-owned corporate states, hierarchical research facilities, or more unusual structures. Best known are the nomadic scum swarms, cycling through the system to bring their experimental art and black and red markets to all. While isolated, most habitats participate as members of the Autonomist Alliance, to share information, collaborate on matters of common interest, and provide mutual aid and defence. These habitats thrive on their independence, which can also hamstring their ability to cooperate. As a whole, their best defense is their remoteness. Historically, however, when a common threat has arisen, such as the brief Locus conflict, they are able to muster a defense with navies, missiles, hackers, and connections to resistance forces embedded within their enemies.

THE FRINGE

The fringe encompasses all of the less-traveled areas of the Solar System, from the odd asteroid families and lone remote stations of the inner system to the Kuiper Belt and eccentric orbits of various outer system objects. These are home to brinkers, Ultimates, and factions too extreme for even the Autonomous Alliance. Here both hypercorps and criminal cartels pursue secret projects. Exhumans also lurk on the fringe, cutting away anything they see as weakness, be it their fleshy body or their empathy. They haunt the outer reaches, capturing and consuming any transhuman ships foolish enough to come within range.

EXOPLANETS

Explorers have discovered pandora gates, enigmatic structures of unknown origin. These can be used to create wormholes and connect to other gates scattered through the galaxy. Gatecrashers enter the gate on one side to appear on the other instantaneously. The other side, however, is not necessarily friendly. Gatecrashers have appeared in pools of magma, in deadly rat mazes of alien construction, and in wild jungles under a strange blue sun.

The five known gates within the Solar System are contested and tightly controlled. Factions that control gates have access to thousands of known exoplanets, and hundreds of thousands yet undiscovered. Transhumans have established hundreds of exoplanet colonies and outposts on a wide variety of worlds. Gatecrashers trawl the gate network for untapped resources, lost alien civilizations, and locked-away secrets. Many do not return.

HABITAT PRIMER

Transhumans carve out safety from the dangers of space with these common habitat types (*Habitats* ▶116).

- **Aerostats** float like balloons in dense atmospheres; they are common on Venus and Uranus.
- **Bathyscaphes** are underwater habitats tethered to the ground or ice surface. These are used on Europa, Ceres, and other subterranean seas.
- **Beehives** are warrens of tunnels cut into an asteroid or small moon. They are rarely spun for simulated gravity.
- **Clusters** are interconnected modules existing in microgravity.
- **Cylinders** are massive, hollow, kilometers-long cans spun for gravity, with terraformed interiors. Hamilton cylinders are partly organic and rely on advanced nanotechnology to self-construct. Reagan cylinders are older, inefficient designs using hollowed asteroids in the Jovian Republic.
- **Domes** are temporary inflatable or permanent pressurized structures built on the surface of an asteroid, moon, or planetary body.
- **Processor Loci** are just protected servers floating in orbit, for use by infomorph communities.
- **Shells** are cluster habitats built within a protective outer layer or covered framework of rings and spars.
- **Spheres** are hollow bubbles, usually hollowed-out asteroids with terraformed interiors, spun for low gravity.
- **Subsurface** habs are simply structures built underground, usually on moons or planets with little atmosphere; the ground above protects from solar radiation.
- **Swarms** are flotillas of nomadic spacecraft, sometimes interlinked or towing habitats. They are favored by the scum.
- **Tin Cans** are small, cramped modules, frequently little more than a pressure shell and life support. They are cheap and common, especially among brinkers.
- **Toruses** are ring-shaped and spun for gravity, sometimes with multiple tori spinning in opposite directions, sometimes linked to microgravity structures.

THE MESH

The mesh has changed how people live. Deep conspiracies leave digital crumbs that can be teased apart, if the investigator knows where to look. Hackers can manipulate AR feeds and news casts, altering a target's understanding of reality. Entire habitats have migrated to a purely digital existence, with tens of thousands of infomorph citizens carrying on their business in accelerated time. Most consider the mesh another life enhancement; a faster way to deliver content, to interact with products. For others, virtual living is transhumanity's greatest frontier.

GAME MECHANICS

HOW TO PLAY

Eclipse Phase is played as a collaborative story-telling project that takes place in the players' imaginations. The gamemaster (GM) details the setting, portrays the NPCs, adjudicates rules, and sets the stage for the adventure scenario. The players take on the role of their characters and describe their actions. Each character is defined by a set of characteristics — skills, traits, etc. — listed on their character sheet. When the characters encounter difficulties or engage in conflicts with NPCs, dice are used to determine the outcome.

DICE BASICS

Eclipse Phase uses two ten-sided dice for skill tests and most other rolls. Rolled dice are read as percentiles (d100), with the first die serving as the tens digit and the second as the ones digit. Percentile dice rolls result in a number between 0 and 99 (00 is read as zero). A roll of 5 and 3, for example, is read as 53. Use different colored dice to note which one to read first or use ten-siders made for percentile rolling.

For some other rolls (damage, stress, recharging pools), *Eclipse Phase* uses both six-sided (d6) and ten-sided (d10) dice. These dice are added together, sometimes with a modifier, to get the result. A 2d10 + 3 damage roll of 5 and a 3 would result in an 11.

In a few rare cases, the rules may call for division. In this case, always round normally (i.e., a result of 1.5 or higher is rounded to 2).

WHEN TO ROLL THE DICE

Roll the dice when the results may influence the plot or have other consequences, when the situation is challenging, when a character is unskilled, or when a character is opposed by another force. Don't make tests for mundane, everyday tasks. A skill of 40 or more assumes a professional level of competency. You don't need to roll every time your character pilots a ship, looks up something basic online, or talks to an NPC — to speed things along, you and the GM should assume characters breeze through the easy stuff. Save the dice rolling for situations with dramatic stakes.

MAKING TESTS

When the GM calls for a test, roll percentile dice and compare the result to the target number. The target number is based on the character's skill, aptitude check, or rep network score. If the result is equal to or less than the target number, the test succeeds. If the result is higher, the test fails.

Though you want to roll equal to or under the target number, you also want to roll as high as possible in order to get a superior success ▶31 or to beat your opponent in opposed tests ▶32.

WHO ROLLS?

Players roll the dice when making tests for their characters; GMs roll for NPCs. Sometimes the GM makes tests for PCs in secret, so as not to alert players to something their characters wouldn't know, like whether or not they spot a clue. It's a good idea for GMs to keep a copy of the PC character sheets on hand.

Treat multiple characters engaging in the same activity — such as a group searching a room or someone attempting to calm an angry mob — as a single entity. In this case, simply roll once for the group, using the highest skill among them — or the lowest, if the group is an impediment. If the result may separately impact multiple characters, however, have them roll individually. If a group of characters actively cooperates on a test, use the teamwork rules ▶31.

Modifiers		
Difficulty	**Situational Factor**	**Modifier**
Very Easy	Major Bonus	+30
Easy	Moderate Benefit	+20
Slightly Easy	Minor Boost	+10
Average		+/–0
Slightly Hard	Minor Hindrance	–10
Hard	Moderate Impediment	–20
Very Hard	Major Drawback	–30

DIFFICULTY AND MODIFIERS

Fixing a common glitch in your favorite robot isn't as difficult as repairing an unknown malfunction on an unfamiliar model. These degrees of difficulty are represented by *modifiers* — adjustments that raise or lower the target number. An easy test provides a positive modifier, increasing the target number. A hard test inflicts a negative modifier.

Modifiers are assigned in multiples of ten, ranging from +10 to +30 and –10 to –30, as noted on the Modifiers table.

In addition to the test's inherent challenge level, various situational aspects may also influence the test, such as high-quality gear, poor environmental conditions, or the health of the character. These factors are also represented as modifiers based on their level of severity, as noted on the Modifiers table.

GMs assign modifiers as appropriate to the situation. If multiple circumstances affect a test, we strongly suggest the GM assess the situation as a whole and apply a single modifier based on the overall net effect, rather than taking the time to itemize individual modifiers. No set of multiple modifiers should impact a test by more than +/– 60.

SUPERIOR RESULTS: 33/66 RULE

Sometimes you will rock your test with flair, sometimes you will fumble it with indignity. On a roll of 33 or more that succeeds, you get a *superior success*. On a roll of 66 or more, you get two superior successes. On a roll of 66 or less that fails, you get a *superior failure*. On a roll of 33 or less, you get two superior failures.

For each superior result, choose one of the following. For two superior results, you may choose two of the following or one twice for double the effect:

- **Quality:** The work is more exact (success) or more sloppy (failure). This may affect subsequent tests by +/– 10.
- **Quantity:** The test consumes fewer (success) or more (failure) materials or produces fewer or more results.
- **Detail:** You acquire information that is much more in-depth or nuanced (success) or false (failure).
- **Time (task actions only):** The action takes a shorter (success) or longer (failure) amount of time, by +/– 25%.
- **Covertness:** The action is less (success) or more (failure) obvious or draws less or more attention (+/– 10 as appropriate).
- **Damage:** Successes inflict more (+1d6) damage (failures miss).

Use superior results for extra style and oomph factor when making tests. Superior results may not apply to every dice roll; a binary success/failure is often enough to move the story forward. This is especially true for tests that fail — the consequences may be severe enough without needing to know how badly the character screwed up. GMs make the final call on when/how to apply superior results.

CRITICALS

When you roll doubles on a test — 00, 11, 22, etc. — you score a *critical* result. If you roll a critical and succeed, you get a critical success. If you roll a critical and fail, you score a critical failure. A roll of 00 is always a critical success, a roll of 99 is always a critical failure, no matter the target number.

Criticals have more impact than superior results. They represent "Wow!" moments where you stun onlookers with your proficiency or ineptness. They provide extra bonus effects/penalties, as determined by the GM. Here are some examples:

- Double the damage you inflict with an attack.
- Gain a +/– 20 modifier to the next test you make.
- Take an extra action (critical success) or lose your next action (critical failure).
- Break a weapon/tool (critical failure).

You are encouraged to devise creative critical results as appropriate to the situation. If a critical is also a superior result, only the critical applies.

DEFAULTING

If you lack the skill you need to make a test, you can rely on your character's innate talents and *default* to the skill's linked aptitude instead (*Aptitudes* ▸36). For example, if you lack Guns skill, you can still shoot using your Reflexes aptitude as the target number.

There is no modifier for defaulting on a skill test, but critical successes are ignored.

In some cases, the GM may allow you to default to a related skill. For example, someone trying to repair a gun without any Hardware skills could default to their Guns skill. In this case, a –10 to –30 modifier applies, depending on how closely the skills are related.

The GM may decide that some tests require specialized knowledge or training and so cannot be defaulted on.

TEAMWORK

Multiple characters may cooperate on a test, such as pushing open a door or repairing a robot together. These collaborators must reasonably be able to communicate and work together in an efficient fashion. Only one character rolls for the test (usually the one with the highest skill). Each additional contributing character provides a +10 modifier, up to a maximum of +30.

Only the character making the test can use pools ▸34 to affect the test.

For tests involving Know, Technical, or Vehicle skills ▸48, collaborating characters must possess the tested skill at 40 or more to provide a teamwork bonus.

TYPES OF TESTS

There are two types of tests in *Eclipse Phase:* success and opposed.

SUCCESS TESTS

Success tests are the most common type of test. Use them whenever your character acts without direct opposition. Most skill tests, rep network tests, and aptitude checks are handled as success tests and require a quick or complex action to complete.

Success tests are described under *Making Tests* ▶30.

Trying Again

If you fail a test, you may try again, but with a cumulative –10 modifier. So your first re-try will be at –10, your second at –20, your third at –30, and so on. In some cases, the GM may rule that re-attempts are not possible, such as situations where you have only one chance to succeed before circumstances change.

OPPOSED TESTS

Opposed tests are called for when you are directly opposed by an NPC or other force. Negotiating, arm-wrestling, pickpocketing, and combat are all examples of opposed tests. Opposed tests are more difficult — you must not only succeed but also beat your opponent.

When making an opposed test, both sides make a test as described above. Modifiers are applied to whichever side gains an advantage (a negotiation where one party has inside information) or to both sides if equally affected (two runners competing on a slippery surface).

- If one opponent succeeds and the other fails, the successful one wins the contest.
- If both sides roll under their target number, whomever rolls highest wins and succeeds. The other either fails or succeeds but loses.
- If both sides tie or fail, either the opponents remain deadlocked or the highest roll or skill wins and succeeds (GM's choice).

Critical successes trump high rolls on opposed tests. If both sides succeed, but the lower roller gets a critical, they pull an upset victory from the clutches of defeat. If both opponents roll critical successes, the higher roll (or skill if tied) wins with a critical, the loser fails or succeeds but loses.

ACTIONS & TIME

Do you have time to leap across the micrograv module and defuse the bomb? Can you get your vacsuit on before the hole in the ship vents all the air? Most of your actions are handled in a free-form manner, with the GM only loosely tracking time. When timing and the order of actions become important, *Eclipse Phase* uses action turns to measure time in scenes. The type of actions you can make break down into four types — automatic, quick, complex, and task actions.

ACTION TURNS

An action turn represents roughly 3 seconds. During each action turn you may undertake one of the following:

- 1 complex action and 1 quick action
- 1 task action and 1 quick action
- 3 quick actions

Additionally, you may take any number of automatic actions per action turn. The GM may allow you to make additional quick actions, depending on their nature.

Note that basic movement such as walking or running is an automatic action (*Movement* ▶230). More complex forms of movement, however, may require quick, complex, or even task actions.

AUTOMATIC ACTIONS

Automatic actions are always "on," reflexive, or otherwise require no effort to initiate. This includes base and full movement.

Examples: Base move, basic perception, breathing, defending against an attack, dropping prone, dropping something, full move, resisting damage, speaking a simple sentence or two.

QUICK ACTIONS

Quick actions take a fraction of a second or require so little cognitive effort that you can do them while undertaking something else.

Examples: Activating or deactivating a device, conveying complex information, detailed perception, drawing a weapon, ducking behind cover, gesturing, jumping, opening a door, picking something up, quick aim, standing up, taking a drug.

COMPLEX ACTIONS

Complex actions require a few seconds of concentration and effort.

Examples: Attacking in melee, examining, finding something in a bag, full aim, full defense, non-standard movement, reloading a weapon, rushing, shooting a gun, using a complex device.

TASK ACTIONS

Task actions require more than a few seconds to complete. Each task action has a timeframe, the base amount of time required to finish it. Timeframes may be measured in action turns, minutes, hours, days, or even months. The actual time to complete a task is equal to the timeframe adjusted by any superior results ▶31 you score on the test. You may interrupt your work on a task and continue it later, unless the GM specifically rules the task requires uninterrupted effort.

For task actions with timeframes of one day or longer, it is assumed that eight hours of effort equals one day of work. If you spend more or less time per day, adjust the time taken accordingly.

If you fail a task action, you expend 25% of the timeframe, +25% per superior failure, before you realize you have failed.

Examples: Climbing, hacking, infiltration, medical examination, programming, repairing, scientific analysis, searching a room, swimming, thorough investigation, recharging.

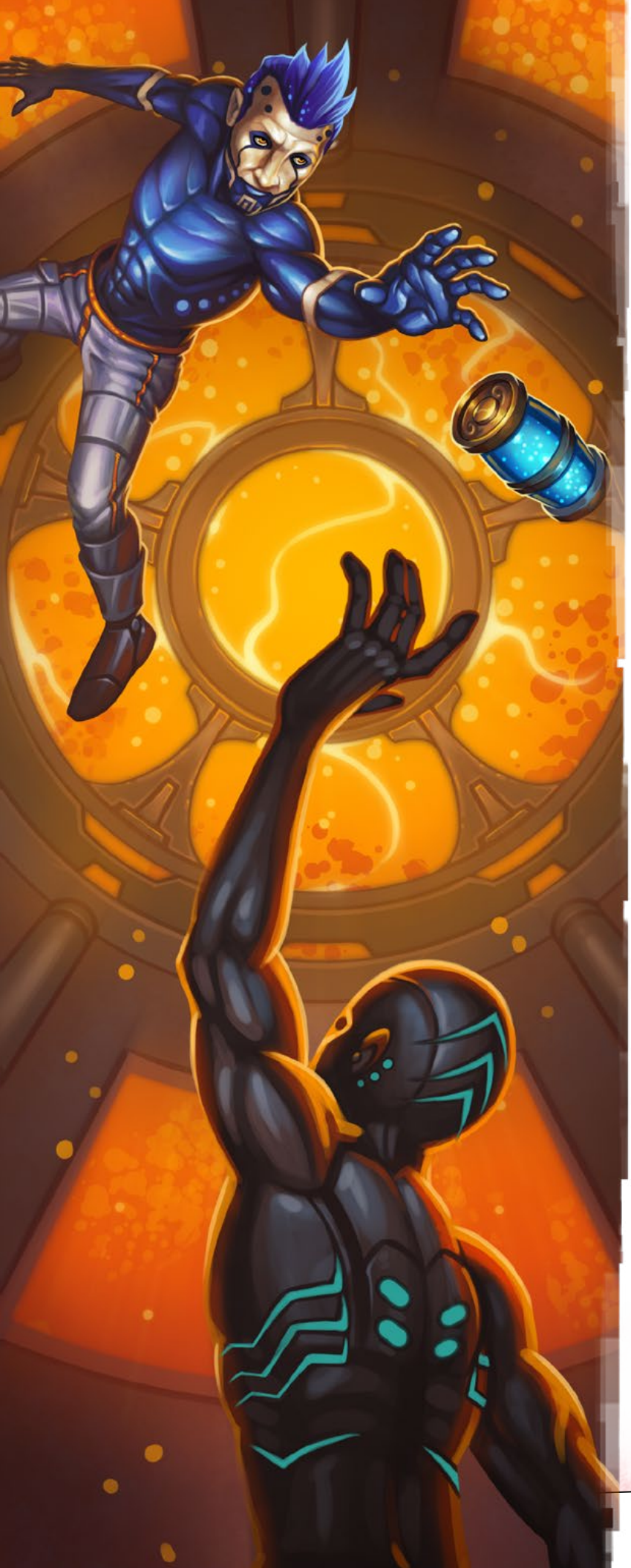
TAKING TIME

You may take extra time on a test, gaining a bonus for careful and methodical work. For each minute you take completing a test as a task action that normally only requires a quick or complex action, apply a +10 modifier, up to a maximum of +60. At the GM's discretion, you automatically succeed once your target number exceeds 100.

For task action tests that already require time to complete, the timeframe must be increased by +25% for each +10 bonus.

RUSHING THE JOB

You may try to finish a task action in less time by accepting a penalty to your test. For every 25% you reduce the timeframe, you incur a –20 modifier, up to a maximum 75% reduction (–60 modifier). Though this timeframe reduction is compatible with other reductions, no timeframe may be reduced more than 75% total.



INITIATIVE & ORDER OF ACTIONS

Timing in an action turn can be critical — it may mean life or death for a character who needs to get behind cover before an opponent draws and fires their gun. The order of actions between multiple characters within a turn is determined by *Initiative*.

Your Initiative stat is equal to (Intuition + Reflexes) ÷ 5. This score may be further modified by ware, drugs, psi, or wounds.

INITIATIVE ORDER

At the beginning of an action sequence, every character rolls for initiative. Roll 1d6 and add your Initiative stat. The highest total goes first, followed by the other characters in descending order. In the event of a tie, characters go simultaneously (or resolve by highest REF or roll-off). In Initiative order, declare and resolve the actions you will take that action turn. Once everyone has gone, a new action turn starts, using the same Initiative order. When it is no longer necessary to minutely keep track of who goes when, you can drop out of Initiative order and return to free-form game time.

TAKING THE INITIATIVE

You may spend Vigor ▶34 to go first in Initiative order. You may also spend Insight to go first, if you are only taking mental or mesh actions and no physical movement. You return to your regular Initiative roll order the next round. If multiple characters spend Insight or Vigor, they go in Initiative order first, followed by everyone else.

DELAYING ACTIONS

You may choose to delay until later in the Initiative order. You can specify when you want to act (before or after another character, for example), a specific condition that will cause you to act (i.e., if someone attacks you), or simply go on standby. You can interrupt another character acting later in the Initiative order once they have declared their action and go before them. You may interrupt another between their actions or before they take an extra action.

Once you act, your place in the Initiative order in subsequent turns becomes the count on which you took the delayed action. If you delay past the end of the turn and into the next, your Initaitive order will change, but you will only get your delayed action that turn.

If multiple characters delay and choose to act at the same time, the one with the lowest Initiative roll must declare their action first, and the higher Initiative character can choose to interrupt or go after.

EXTRA ACTIONS

You may spend Vigor or Insight ▶34 for an extra physical or mental action each turn. These extra complex or quick actions take place at the end of the turn, after everyone else has gone. If multiple characters take extra actions, they are handled in Initiative order. You cannot take more than two extra actions in a single action turn.

POOLS

Your character acquires points in several pools during character creation and upon sleeving into a morph. These pools reflect your character's transhuman capabilities: augmented intelligence, enhanced physical prowess, elevated charisma. They boost your inherent talent and enable you to face down challenges, overcome obstacles, and achieve impressive feats.

Each pool is linked to a different group of aptitudes and skills and may be used in unique ways to modify your rolls or provide other bonuses to your character.

- *Insight* pool is linked to mental capabilities: Cognition, Intuition, and their linked skills.
- *Moxie* pool is linked to social interactions: Savvy, Willpower, and linked skills. It may also be used for Rep and Infection Tests.
- *Vigor* pool is linked to physical efforts: Reflexes, Somatics, and their linked skills.
- *Flex* is a wild-card pool. It can be used to affect dice rolls for any tests and for narrative control.

USING POOLS

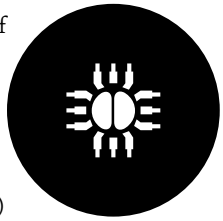
You may spend points from your pools to affect the tests you make; choose one of the following options. Each pool may only be used for tests that use their linked skills or aptitudes (i.e., a Vigor point can be used on a skill test or aptitude check linked to REF or SOM). Flex may be used on *any* tests. Unless otherwise noted, only 1 pool point may be spent per test.

- **Before Roll:** Ignore all modifiers to the test.
- **Before Roll:** Add +20 to the test's target number.
- **After Roll:** Flip-flop a d100 roll. For example, 83 becomes 38.
- **After Roll:** Upgrade a success to a superior success (or one to two).
- **After Roll:** Downgrade a critical failure to a regular failure.
- **Ongoing (Insight/Moxie/Vigor Only):** Receive +5 (1 point) or +10 (2 points) to all skill tests linked to one aptitude for 24 hours or until your next recharge ▶35.

Various enhancements (ware, drugs, sleights, etc.) provide bonuses to your pools. These are cumulative, up to a maximum bonus of +5 points to any single pool.

INSIGHT

Your mental pool may also be used for one of the following effects:



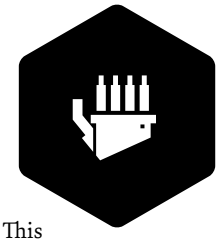
- **Take the Initiative:** Go first in an action turn if you are only taking mental or mesh actions and no physical movement. If multiple characters choose this option, they go in Initiative order before everyone else.
- **Extra Action:** Take an extra complex mental or mesh action (or 2 quick actions) in an action turn. These actions may only be taken after everyone else has gone. If multiple characters choose this option, they go in Initiative order *after* everyone else has taken their turn.
- **Acquire a Clue:** Gain a hint or lead through investigation, research, or analysis of the facts at hand, without needing to make a test.

MOXIE

Your social pool may be used to affect Rep Tests and also for one of the following effects:

- **Ignore Trauma:** Ignore the effects of 1 trauma for 24 hours or until your next recharge ▶35.
- **Refresh Rep:** Restore rep network favors at a cost of 1 point for a Minor favor and 2 points for a Moderate favor. Major favors cannot be refreshed this way.
- **Acquire a Clue:** Get a tip or lead by gathering information via social interactions without needing to make a test.
- **Control Your Infection:** Avoid making an Infection Test when using a psi sleight (asyncs only).
- **Negate Gaffe:** Ignore a player's social gaffe that the character wouldn't make.

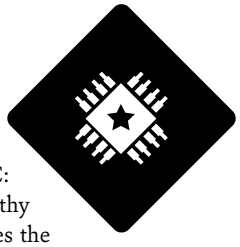
VIGOR



Your physical pool may also be used for one of the following effects:

- **Take the Initiative:** Go first in an action turn. If multiple characters choose this option, they go in Initiative order before everyone else.
- **Extra Action:** Take an extra complex physical action (or 2 quick actions) in an action turn. This action may only be taken after everyone else has gone. If multiple characters choose this option, they go in Initiative order *after* everyone else has taken their turn.
- **Ignore Wound:** Ignore the effects of 1 wound for 24 hours or until your next recharge ▶35.

FLEX



Your wild-card pool may also be used for narrative control:

- **Introduce NPC:** A new or existing NPC joins the scene. Their presence must be plausible. You may define one aspect of this NPC: their morph, factional allegiance, a noteworthy skill, a specific trait, etc. The GM determines the other details.
- **Introduce an Item:** A previously unnoticed item is added to the scene. Its presence must be plausible. The item cannot be offensive (no weapons) and it must be of Minor (not Rare or Restricted) Complexity. It can be a useful tool, a necessary piece of gear, or even a clue. The GM determines its placement within the scene and the nature of any clues.
- **Define the Environment:** You may introduce an environmental factor to a scene. Its presence must be plausible. It should provide a new detail that does not drastically alter the scene. Examples include hiding spots, cover, distractions, shelter, or exploitable elements such as a ladder or window.
- **Define a Relationship:** You may introduce a new, plausible relationship between your character and an existing NPC. This should be a loose/minor connection rather than a close/serious tie. For example, you may have a common friend, shared history, or old but mild rivalry. You may define the rough basics, but the GM determines the finer points and the NPC's attitude towards your character.

RECHARGING POOLS

You recover the points you have spent from pools by taking a recharge action to rest and recalibrate. You can't increase a pool above its original rating; unspent points are lost. There are two types of recharge actions: *short recharges* and *long recharges*.

- **Short Recharge (2/day):** Short recharges are a task action with a timeframe of 10 minutes. You may take two short recharges per 24-hour period. Each short recharge restores 1d6 pool points; you decide where to allocate them. Some gear or psi sleights may provide bonus recharged points.
- **Long Recharge (1/day):** A long recharge is a task action with a timeframe of 4 hours (8 for flats and other biomorphs without biomods). You may only benefit from one long recharge per 24-hour period. A long recharge completely recharged your pools to their full value.

While recharging, you may only engage in light, non-strenuous activity: eating, browsing the mesh, talking, reloading, taking watch, etc. Recharge timeframes cannot be shortened or interrupted; if they are, the time invested is lost.

TEMPORARY POOLS

Some effects, such as drugs and psi sleights, provide temporary pool bonuses. These points should be considered extra points that are expended before any of your regular pool points. These bonus points may be restored with a recharge, but only if all of your normal pool points are restored first. If you do not spend bonus points before the duration of the effect ends, they are lost.

Zahiri has an arachnoid morph with Insight 1 and Vigor 3. They also have neurachem ware thanks to their soldier gear pack, which gives them +2 Vigor, for a total Vigor pool of 5. They also have 1 ego Flex.

While approaching an exhuman nest on a remote asteroid, Zahiri spends 1 Insight to get a +20 bonus on a Perceive roll. Unfortunately they also flub a pair of Free Fall Tests as they cross various crevasses on the asteroid, getting a 71 and an 85 against their Free Fall of 60. In both cases, they spend a Vigor point to flip-flop the die roll, getting a 17 and a 58 respectively instead, succeeding on their tests. Once inside, they take a short recharge, roll 1d6 and get a 6, recovering all 3 of their spent points.

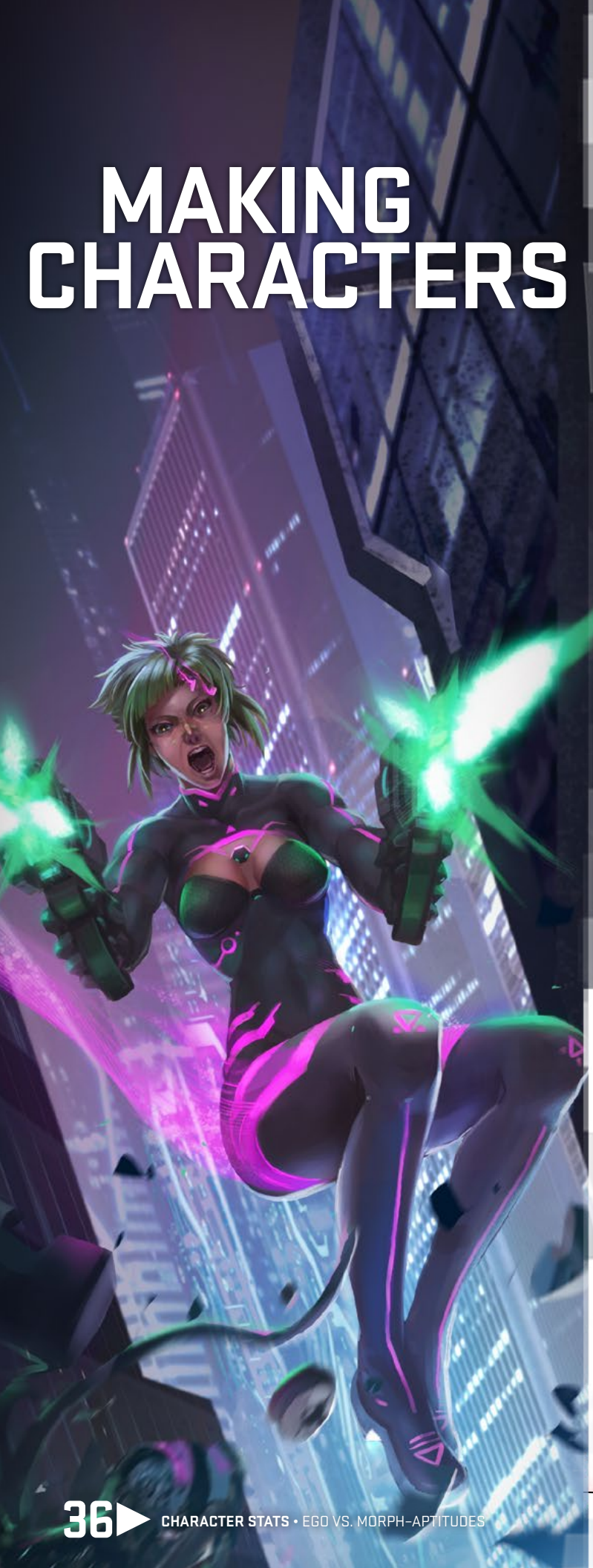
Zahiri then has an encounter with some exhuman predators. They spend 1 Vigor to take the initiative in the first turn and 4 more Vigor during the fight for extra actions. This depletes their Vigor pool, so they take another short recharge, but roll only a 2, so they only get 2 Vigor pool back.

Zahiri took 3 wounds during the fight. As a synthmorph, they can ignore the effects of one wound. Zahiri doesn't want to be hindered, so they spend their 2 remaining Vigor to ignore the other wounds for 24 hours or their next recharge. That leaves them only their 1 Insight and 1 Flex for the challenges they still face until they take a long recharge.

DON'T HOARD!

With expendable resources like pools, it can be tempting to avoid spending them in case you need them later. While this can sometimes be a wise tactical decision (perhaps you are out of short recharges and suspect a boss fight is coming up), we strongly encourage you to avoid hoarding for the sake of it — spend your pool when you need it.

MAKING CHARACTERS



CHARACTER STATS

Your character is defined by a number of abilities and scores, all recorded on your character sheet.

EGO VS. MORPH

The most important distinction in your stats is the distinction between ego and morph. Your *ego* represents your mind, personality, memories, inherent traits, and learned skills. It represents your mental state and true self and transfers with you from body to body. Your *morph* is your physical (or sometimes virtual) form, the body you currently inhabit. Your morph may change or die, and is sometimes considered expendable, but your ego lives on. Your consciousness's continuity may sometimes be interrupted by an unexpected death, however, or split off onto divergent paths by forking. Both ego and morph may be customized and modified, though mind hacks are a trickier and more dangerous affair.

Your aptitudes, skills, and some derived stats and traits all belong to your ego. They stay with you throughout your character's development. Your morph provides you with pools to enhance your skills, Durability to represent your health and constitution, implants or robotic enhancements, and some traits and derived stats of its own. These change when you switch to a new morph. It is important to keep your ego and morph stats distinct, especially when resleeving.

APTITUDES

Your aptitudes represent your natural, inherent abilities. They are the foundation for your skills.

There are 6 aptitude scores:

- **Cognition (COG)** represents your intelligence, problem-solving talent, and capacity for logical analysis.
- **Intuition (INT)** is your gut instinct and ability to evaluate on the fly. It includes physical awareness, creativity, cleverness, and cunning.
- **Reflexes (REF)** is your coordination, manual dexterity, nimbleness, balance, and reaction speed.
- **Savvy (SAV)** represents your social awareness, adaptability, empathy, and ability to influence others.
- **Somatics (SOM)** is how well you can exploit your morph's physical capabilities, including strength, stamina, and sustained positioning and motion.
- **Willpower (WIL)** is your self-control, mental fortitude, and strength of personality.

EGO STATS

Aptitudes	Trauma Threshold
Aptitude Checks	Insanity Rating
Skills	Ego traits
Initiative	Motivations
Lucidity	Some Flex Pool

MORPH STATS

Pools	Death Rating
Durability	Morph traits
Wound Threshold	

Aptitude Checks

You will sometimes rely on your aptitudes to make tests rather than learned skills. Aptitude checks normally only come into play in situations where no skill applies, but raw talent does. Some examples:

- **Cognition (COG) Check:** Recall a memory, memorize a number, or resist mental manipulation.
- **Intuition (INT) Check:** Evaluate a situation, see through an illusion, or grok alien intentions.
- **Reflexes (REF) Check:** Catch a thrown object, balance, avoid blinding glare, or stop yourself from falling.
- **Savvy (SAV) Check:** Evaluate a social situation, express empathy, follow etiquette, or resist social manipulation.
- **Somatics (SOM) Check:** Exercise brute strength, endure hardships, or break free from grapples.
- **Willpower (WIL) Check:** Keep your composure, steel your resolve, or resist fear or emotional manipulation.

Aptitude checks are a derived stat, based on your aptitude × 3.

SKILLS

Skills represent abilities learned and honed through education and practice. They are described in detail under *Skills* ▶48.

MORPH

Your morph is your character's current biological, synthetic, or digital form. This may be the body you were born in or one you sleeved into. Morphs come pre-loaded with specific traits and implants, noted in the morph description. *Morphs* ▶54.

Don't get too attached to your morph: you are likely to move to a new one at some point during gameplay! *Acquiring Morphs* ▶290.

DERIVED STATS

A number of your stats are derived from other stats or aspects of your character. These include:

- **Initiative (INIT):** Initiative determines the order in which people act during action turns. *Initiative & Order of Actions* ▶33.
- **Wound Threshold (WT):** The amount of damage you can take before receiving a wound. *Physical Health* ▶220.
- **Durability (DUR):** Your character's health, determined by your morph. *Physical Health* ▶220.
- **Death Rating (DR):** The amount of damage it takes to kill you, determined by morph. *Physical Health* ▶220.
- **Trauma Threshold (TT):** The amount of stress you can take before receiving a trauma. *Lucidity and Stress* ▶222.
- **Lucidity (LUC):** Your character's mental health, based on Willpower. *Lucidity and Stress* ▶222.
- **Insanity Rating (IR):** The amount of stress that will drive you insane, based on Willpower. *Lucidity and Stress* ▶222.
- **Pools:** Your Insight, Moxie, Vigor, and Flex pools, mostly derived from your morph, with a Flex bonus from your ego. *Pools* ▶34.
- **Infection Rating:** If playing an async, your Infection Rating indicates the strength of the virus's hold over you. *Infection Rating* ▶272.

TRAITS

Traits are inherent qualities, features, or flaws that help define your character. Positive traits give you bonuses in certain situations; negative traits apply detriments to your character. Traits either belong to your ego or morph. *Traits* ▶72.

REP

Your character has a reputation score in different social networks. This rep will help you score favors, gather information, and acquire necessary gear. Rep scores are used as your target number for Rep Tests. There are seven rep networks to choose from:

- **@-rep:** The Circle-A List, for autonomists, anarchists, Titanians, scum, and Extropians.
- **c-rep:** CivicNet, used by the Planetary Consortium, Morningstar Constellation, Lunar-Lagrange Alliance, Jovian Republic, and other hypercorps and capitalists.
- **f-rep:** Fame, the media network used by metacelebrities, journalists, socialites, artists, and glitterati.
- **g-rep:** Guanxi, the network for triads, cartels, gangs, and other criminal groups.
- **i-rep:** The Eye, Firewall's secret internal network.
- **r-rep:** Research Network Affiliates, used by Argonauts, scientists, technologists, and researchers of all stripes.
- **x-rep:** ExploreNet, the social network for gatecrashers and exoplanet colonists

GEAR

Your character will have access to different types of useful equipment: weapons, armor, robots, drugs, smart animals, tools, and more. To simplify things, your starting gear is grouped into gear packs based on your starting career. *Gear Packs* ▶68. You will have several options for acquiring gear during gameplay. *Acquiring Gear* ▶312.

MOTIVATIONS

Your motivations define your character's personal agenda, beliefs, and long-term goals. They help you earn Rez Points for character advancement and cope with mental trauma. *Step 13: Motivations* ▶47.

Derived Stat Formulas

Stat	Formula
Initiative	(REF + INT) ÷ 5
Aptitude Checks	Aptitude × 3
Wound Threshold	DUR ÷ 5
Death Rating	DUR x 1.5 (biomorphs)
	DUR x 2 (synthmorphs/infomorphs)
Trauma Threshold	LUC ÷ 5
Lucidity	WIL × 2
Insanity Rating	LUC × 2
Infection Rating (Asyncs Only)	Psi trait level × 10

CHARACTER CREATION OVERVIEW

There are 13 steps to making a character. The first three steps involve choosing packages of skills.

Step 1: Background ▶next column: Your origin and accompanying skills.
Step 2: Career ▶40: Your profession and relevant skills.
Step 3: Interest ▶42: Your secondary focus and related skills.
Step 4: Faction ▶44: Pick your alliance.
Step 5: Aptitude Template ▶44: Assign your inherent ego stats.
Step 6: Total Skills ▶45: Total your aptitudes and skill values.
Step 7: Languages ▶45: Decide what languages you start with.
Step 8: Flex ▶45: Get 1 Flex point for free.
Step 9: Reputation ▶45: Assign your rep scores in different social networks.
Step 10: Customization ▶46: Tweak to your heart's content.
Step 11: Derived Stats ▶46: Use the values you've assigned to calculate a few remaining stats.
Step 12: Starting Morph & Gear ▶46: Choose a body and gear packs.
Step 13: Motivations ▶47: Decide what drives you forward.

CHARACTER CREATION ADVICE

A few words of wisdom before you get started.

CREATE AS A GROUP

It's best to have a balanced selection of character types, so you can better overcome obstacles and dangers. Work with the other players to make sure you have the basics covered. There are four archetypes every *Eclipse Phase* team can use: combat, face (social), hacker, and scientist. Within those archetypes there are many variations and it can be worthwhile to overlap, in case one PC is removed from the action.

PLAN AHEAD

Character creation is a step-by-step process, with the exception of Customization Points (CP). Everyone gets 20 CP (possibly more, if you also buy negative traits) to spend in Step 10, and you can use some or all of these points to increase stats acquired in previous steps. To minimize the need to recalculate anything, try to keep your CP spending options in mind during each step. If you're not quite able to get what you want, that's probably a good time to spend CP.

PLAYING AN ASYNC

If you're looking to make a psychic character, familiarize yourself with the rules for *psi* ▶272. You should strongly consider the Lost ▶39 and/or Async ▶42 skill packages, which will give you Psi skill. You will need to purchase the Psi trait ▶74 with your Customization Points, and some other traits may also be of interest. You should also set aside some of your CP to spend on psi sleights ▶280. The sub-strain ▶273 you choose will characterize your infection and also provide you with options for the mandatory Addiction or Mental Disorder trait you must take and the free sleight you get. Finally, be sure to calculate your Infection Rating in *Step 11: Derived Stats* ▶46.

STEP 1: BACKGROUND

What is your character's origin? Were you born in a slum on Earth before the Fall or raised in a protected enclave? Were you an early space colonist or an indentured worker?

Each background provides you with a package of active and knowledge skills. Note these on your character sheet. Don't dwell too long on your choice — you'll have an opportunity to acquire other skills and switch some skills around in later steps. For field skills, a short selection of common fields is listed, but you can choose your own (Skills ▶48). Alternatively, leave the field unassigned for now and decide on it during game play.

COLONIST

You were an original settler of Earth orbit, Luna, Mars, or a smaller outpost elsewhere, before the Fall.

Free Fall	40
Hardware: (Choose One) *Common Fields: Aerospace, Electronics, Industrial*	40
Interface	30
Pilot: (Choose One) *Common Fields: Air, Ground, Nautical, Space*	30
Survival	30
Know: (Choose One) *Common Fields: Administration, Flight Crew Ops, Hab Ops*	60
Know: (Choose One) *Common Fields: Botany, Chemistry, Engineering, Physics*	30

ENCLAVER

On Earth, you lived a life of precarious but protected stability in a defended enclave.

Athletics	40
Interface	40
Kinesics	30
Persuade	20
Pilot: Ground	20
Program	20
Know: (Choose One) *Common Fields: Celebrity Gossip, Pop Culture, Sports*	60
Know: (Choose One) *Common Fields: Economics, Education, Psychology*	30

FREELANCER

You were a cog in the wheels of hypercapitalism, taking whatever gigs came your way.

Interface	40
Kinesics	20
Persuade	40
Program	30
Research	40
Know: (Choose One) *Common Fields: Accounting, Data Processing, Freelancing*	60
Know: (Choose One) *Common Fields: Craft Beers, Martian Techno, Sports*	30

HYPERELITE

You lived in the top percent, with abundant wealth and resources.

Athletics	30
Deceive	30
Kinesics	50
Persuade	30
Provoke	30
Know: (Choose One) *Common Fields: Fine Art, Hypercorp Politics, Stock Market*	60
Know: (Choose One) *Common Fields: Economics, Law, Political Science*	30

INDENTURE

With nothing to lose, you sold yourself into a work contract for the off-world hypercorps.

Fray or Melee	20
Free Fall	40
Hardware: (Choose One) *Common Fields: Groundcraft, Industrial, Robotics*	50
Interface	40
Perceive	20
Know: (Choose One) *Common Fields: Asteroid Mining, Habitat Ops, Terraforming*	60
Know: (Choose One) *Common Fields: Black Markets, Gambling, XP Dealers*	30

INFOLIFE

You are an AGI, a digital consciousness born of software code.

Infosec	50
Interface	50
Program	50
Research	20
Know: (Choose One) *Common Fields: Accounting, Administration, System Administration*	60
Know: (Choose One) *Common Fields: Computer Science, Cryptography, Psychometrics*	30

ISOLATE

You eked out a self-exiled existence in a remote habitat or ship on the fringes of occupied space.

Free Fall	40
Guns	20
Hardware: (Choose One) *Common Fields: Aerospace, Electronics, Robotics*	40
Medicine: Paramedic	20
Pilot: (Choose One) *Common Fields: Air, Ground, Nautical, Space*	30
Survival	20
Know: (Choose One) *Common Fields: Flight Crew Ops, Gas Mining, Habitat Ops*	60
Know: (Choose One) *Common Fields: Bioconservativism, Conspiracies, Religion*	30

LOST

You are a legacy of the doomed Lost Generation, undergoing an accelerated-growth childhood that left most others sociopathic or insane. You must purchase the Psi trait in Step 10.

Deceive	40
Infiltrate	20
Kinesics	40
Perceive	20
Psi	50
Know: (Choose One) *Common Fields: Biology, Psychology, Sociology*	60
Know: (Choose One) *Common Fields: Privacy, Serial Killers, Mind Hacks*	30

UNDERCLASS

You are a veteran of the slums, favelas, ghettoes, and flooded cities of Earth. You used whatever means necessary to get by.

Deceive	30
Fray	20
Guns or Melee	40
Kinesics	40
Perceive	20
Persuade	20
Know: (Choose One) *Common Fields: Black Markets, Drugs, Triads*	60
Know: (Choose One) *Common Fields: Con Artistry, Police Ops, Smuggling*	30

UPLIFT

You are an uplift: the latest generation of bonobo, cetacean, chimpanzee, corvid, gorilla, neanderthal, octopus, orangutan, or parrot raised to human levels of intelligence.

Athletics	40
Fray	20
Kinesics	30
Perceive	40
Provoke	20
Survival	20
Know: (Choose One) *Common Fields: Uplift Culture, Uplift Rights*	60
Know: (Choose One) *Common Fields: Genetics, Sociology, Zoology*	30

Random Background

If you'd rather determine your background randomly, roll 1d10:

Roll	Background	Roll	Background
1	Colonist	6	Infolife
2	Enclaver	7	Isolate
3	Freelancer	8	Lost
4	Hyperelite	9	Underclass
5	Indenture	10	Uplift

STEP 2: CAREER

What is your character's primary field of expertise? Are you a scientist, a hacker, a gun-for-hire, or something else?

Like your background, your career package provides you with skills. You might look for a package that gives you more diversity or one that complements the skills you've already acquired. Don't worry about doubling up on skills — you can adjust that in a later step.

Your career also determines your starting gear packs ▶68.

ACADEMIC

You devote your efforts to the pursuit of knowledge.

Interface	30
Research	60
Know: (Choose One)	60
Know: (Choose One)	40
Know: (Choose One) *Common Fields: Administration, Instruction, Lab Ops*	30

COVERT OPERATIVE

You are a spy, infiltrator, thief, or undercover agent, skilled at accessing places you don't belong.

Deceive	40
Infiltrate	60
Infosec	30
Know: (Choose One) *Common Fields: Security Ops, Smuggling, Spycraft*	60
Know: (Choose One) *Common Fields: Black Markets, Current Events, Politics*	30

ENFORCER

You're a thug, whether you're wielding force for a hypercorp, cartel, habitat overseer, or autonomist militia.

Fray	30
Guns	20
Melee	50
Provoke	30
Know: (Choose One) *Common Fields: Bodyguarding, Racketeering, Security Ops*	60
Know: (Choose One) *Common Fields: Cartel Politics, Gambling, Night Clubs*	30

EXPLORER

You've walked on alien worlds and seen things with your own eyes that others wouldn't believe.

Athletics	30
Medicine: Paramedic	20
Pilot: (Choose One) *Common Fields: Air, Ground, Nautical, Space*	20
Survival	60
Know: (Choose One) *Common Fields: First-Contact Ops, Gatecrashing, Surveying*	60
Know: (Choose One) *Common Fields: Astrobiology, Geology, Xenoarcheology*	30

FACE

You excel at convincing others, even when it's not in their best interest.

Deceive	40
Kinesics	30
Persuade	60
Know: (Choose One) *Common Fields: Fencing, Police Ops, Smuggling*	60
Know: (Choose One) *Common Fields: Black Markets, Drugs, Underground XP*	30

GENEHACKER

DNA is your artistic medium, proteins your weapon of choice.

Medicine: Biotech	60
Medicine: Pharmacology	40
Program	30
Know: (Choose One) *Common Fields: Biology, Genetics, Physiology*	60
Know: (Choose One) *Common Fields: Lab Ops, Medical Services, Morph Design*	30

HACKER

Software heeds your beck and call, whether you seek to exploit systems or protect them.

Infosec	60
Interface	40
Program	30
Know: (Choose One) *Common Fields: Computer Science, Cryptography, Mathematics*	60
Know: (Choose One) *Common Fields: Data Processing, Network Engineering, System Administration*	30

INVESTIGATOR

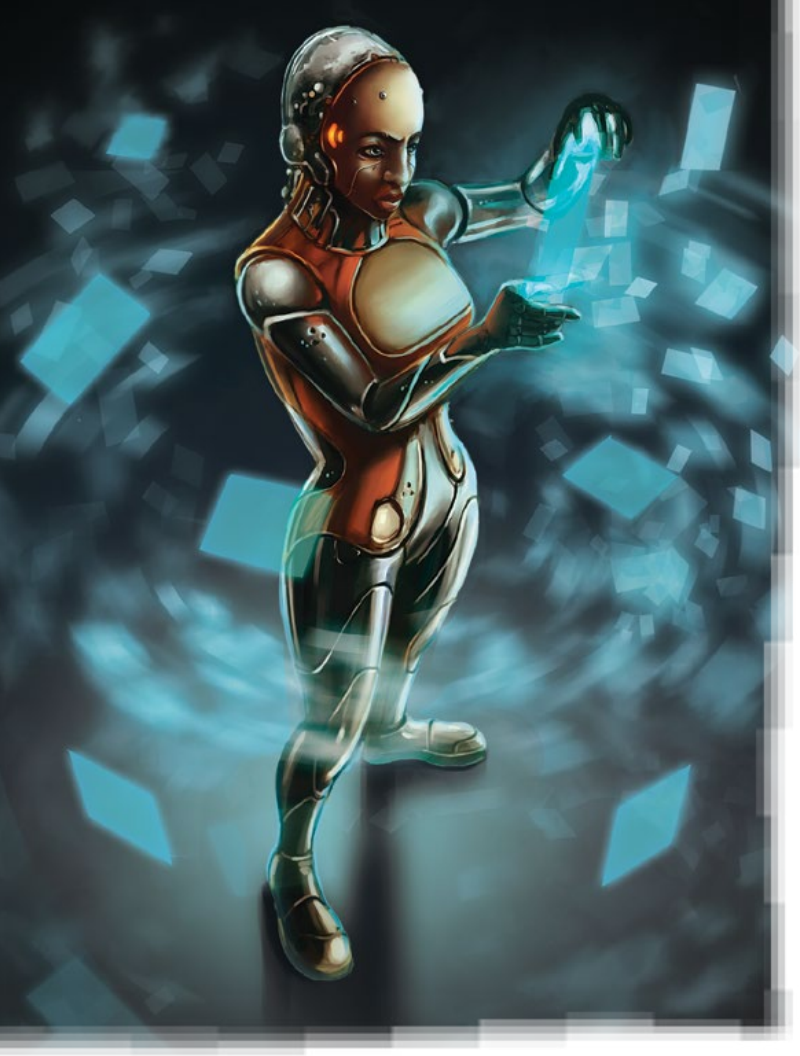
Few details escape your scrutiny, whether you are a journalist, private investigator, detective, or insurance claims investigator.

Kinesics	30
Perceive	40
Research	60
Know: (Choose One) *Common Fields: Ego Hunting, Investigation, Journalism*	60
Know: (Choose One) *Common Fields: Black Markets, Current Events, Cartels*	30

MEDIC

You have a background in medicine and experience as a physician, surgeon, paramedic, body bank tech, or other type of medical specialist.

Kinesics	30
Medicine: Paramedic	60
Medicine: Biotech	40
Know: (Choose One) *Common Fields: Biology, Genetics, Psychology*	60
Know: (Choose One) *Common Fields: Body Bank Ops, Emergency Services, Surgical Ops*	30



MINDHACKER

You meld and shape minds and memories. You might be a therapist, memeticist, or psychosurgeon pushing the bounds of cognition.

Infosec	30
Medicine: Pharmacology	40
Medicine: Psychosurgery	60
Know: (Choose One) *Common Fields: Cognitive Science, Memetics, Psychology*	60
Know: (Choose One) *Common Fields: Body Bank Ops, Medical Services, Social Services*	30

SCAVENGER

You scrounge through wrecks and ruins of the Fall, seeking value in the destruction.

Hardware: (Choose One) *Common Fields: Electronics, Industrial, Robotics*	60
Hardware: Demolitions	40
Pilot: (Choose One) *Common Fields: Air, Ground, Nautical, Space*	30
Know: (Choose One) *Common Fields: Flight Crew Ops, Scavenging, Smuggling*	60
Know: (Choose One) *Common Fields: Black Markets, Spacecraft, TITAN Machines*	30

SCIENTIST

You seek to understand how the universe works — or at least certain elements of it.

Hardware: (Choose One) *Common Fields: Electronics, Robotics*	40
Program	30
Research	60
Know: (Choose One) *Common Fields: Astrobiology, Memetics, Physics*	60
Know: (Choose One) *Common Fields: Field Science, Investigation, Lab Ops*	30

SOLDIER

You serve a habitat polity, hypercorp, or mercenary outfit.

Fray	40
Guns	60
Melee	30
Know: (Choose One) *Common Fields: Bodyguarding, Military Ops, Security Ops*	60
Know: (Choose One) *Common Fields: Conflict Zones, Gambling, Mercenary Groups*	30

TECHIE

You make and fix things. You might be a roboticist, habitat tech, or artifex nano-engineer.

Hardware: (Choose One) *Common Fields: Electronics, Industrial, Robotics*	60
Infosec	40
Program	30
Know: (Choose One) *Common Fields: Construction, Habitat Ops, Mining, Nanofacturing*	60
Know: (Choose One) *Common Fields: Computer Science, Engineering, Nanotechnology*	30

Random Career

If you'd rather determine your career randomly, roll 1d10:

Roll	Result
1–5	Roll on Group 1
6–10	Roll on Group 2

Roll	Group 1	Group 2
1	Academic	Investigator
2	Covert Operative	Medic
3	Enforcer	Mindhacker
4	Explorer	Scavenger
5	Face	Scientist
6	Genehacker	Soldier
7	Hacker	Techie
8–10	Re-roll	Re-roll

STEP 3: INTEREST

What else does your character do? Did they have a previous career, a second career, or are they learning a new one? Do they pursue other interests as a hobby, out of curiosity or necessity? Is there an area of work they have specialized in?

Your interest provides you with a package of skills, just like your background and career.

This will be your final skills package, though you might purchase extra skills or tweak the ones you've already acquired in later steps.

ANIMAL HANDLER

You've learned to raise, train, and care for animals, particularly partially uplifted smart animals.

Exotic Skill: Animal Handling	40
Medicine: Veterinary	40
Provoke	20
Know: Smart Animals	40

ARTIST/ICON

You are a musician, performer, celebrity, or other type of creative or public figure.

Deceive	40
Kinesics	20
Provoke	40
Know: (Choose One) *Common Fields: Dance, Music, Sculpture*	40

ASYNC

You are infected with the Watts-MacLeod strain of the exsurgent virus ▶273, which gives you a number of unique mental talents and disadvantages. You must purchase the Psi trait in Step 10.

Deceive	40
Perceive	20
Psi	40
Know: (Choose One)	40

COMMANDER

You are accustomed to leadership roles as an executive, officer, elected official, or autonomist organizer.

Interface	20
Persuade	40
Provoke	40
Know: Administration	40

FIGHTER

You've picked up some self-defense and offensive capabilities along the way.

Fray	20
Guns	40
Melee	40
Know: Security Ops	40

FORENSICS SPECIALIST

You've trained to analyze crime scenes and perform autopsies.

Medicine: Forensics	40
Perceive	40
Research	20
Know: Physiology	40

JACK-OF-ALL-TRADES

You've seen and done a little bit of everything.

Guns	25
Infosec	25
Persuade	25
Research	25
Know: (Choose One)	40

JAMMER

You're a drone operator, with a talent for manipulating machines.

Hardware: Robotics	40
Interface	20
Pilot: (Choose One)	40
Know: Bot Models	40

NETWORKER

You know how to engage and connect with people.

Deceive	30
Persuade	40
Provoke	30
Know: Rep Nets	40

PARAMEDIC

You have picked up some first aid training.

Fray	20
Kinesics	40
Medicine: Paramedic	40
Know: Emergency Services	40

PILOT

You prefer to do the driving yourself, no matter how skilled the AI is.

Hardware: (Choose One)	30
Pilot: (Choose One)	30
Pilot: (Choose One)	40
Know: Flight Crew Ops	40

ROGUE

You are as shifty as you need to be.

Deceive	40
Fray	20
Infiltrate	40
Know: (Choose One)	40

SLACKER

You prefer to enjoy the good things in life.

Interface	40
Persuade	30
Research	30
Know: (Choose One)	40

SPACER

You've spent your fair share of time in ships and smaller habitats.

Free Fall	40
Hardware: Choose One *Common Fields: Electronics, Industrial, Robotics*	40
Interface	20
Know: (Choose One) *Common Fields: Astronomy, Flight Crew Ops, Gas Mining*	40

STUDENT

You are in the process of learning.

Interface	40
Program	20
Research	40
Know: (Choose One)	40

SURVIVALIST

The Fall reinforced the notion that you need to be prepared.

Guns	40
Medicine: Paramedic	30
Survival	30
Know: (Choose One)	40

Random Interest

If you'd rather determine your interest randomly, roll 1d10:

Roll	Result
1–5	Roll on Group 1
6–10	Roll on Group 2

Roll	Group 1	Group 2
1	Animal Handler	Networker
2	Artist/Icon	Paramedic
3	Async	Pilot
4	Commander	Rogue
5	Fighter	Slacker
6	Forensics Specialist	Spacer
7	Jack-of-All-Trades	Student
8	Jammer	Survivalist
9–10	Re-roll	Re-roll

STEP 4: FACTION

Now that you have a rough orientation for your character's background and skill sets, it's time to pick a faction to which they hold allegiance. Each choice provides a motivation ▶47 and a skill of Know: [Faction] 30. The Factions sidebar provides a brief summary of each group; further details can be found on ▶152–174.

If you are unsure of what faction to pick at this time, you may skip this section for now and determine your faction, motivation, and Know skill during gameplay. You also can choose not to have a faction — not everyone picks sides. If going factionless, simply choose your own motivation and take any Know skill you like at 30.

Faction allegiance does not necessarily mean you are a hardcore true believer. You may have been born or raised into a faction and reluctantly stuck with it, or you may be finding yourself questioning some of the faction's tenets. You may be a dissident, trying to actively change the faction from within. For now, your faction allegiance indicates the transhuman grouping you are most familiar with and whose goals you at least nominally support. Perhaps you are even a defector or new recruit, with an Know skill in your old faction but a motivation tied to your new one.

FACTIONS

Anarchist: You believe power is corrupt and favor voluntary, non-hierarchical organizations based on direct democracy.

Argonaut: You seek technoprogressive solutions to transhumanity's injustices and inequalities.

Barsoomian: You wish to see Mars liberated from hypercorp control.

Brinker: You belong to a cult, commune, or other group that seeks isolation from the rest of transhumanity.

Criminal: You are associated with the underworld, either part of a large cartel, smaller gang, or as an independent operator.

Extropian: You believe in unrestricted free markets and that taking proactive risks with technology is better than playing it safe.

Hypercorp: You support hypercapitalist expansion and competitive-economics-driven social order. You accept that certain liberties must be restricted for security and freedom.

Jovian: You are a bioconservative concerned about out-of-control transhuman technologies.

Lunar/Orbital: You support the conservative economics, Earth-tied nationalism, and traditionalism of the Lunar-Lagrange Alliance.

Mercurial: You oppose the assimilation and oppression of AGIs and uplifts, supporting self-determination for your kind.

Reclaimer: You believe transhumanity should be focused on reclaiming, terraforming, and repopulating Earth.

Scum: You push the boundaries of the experimental, fully testing what it means to be transhuman.

Socialite: You are a part of the glitterati, defining and defined by inner-system media culture.

Titanian: You are a technosocialist, believing that science and technology can provide for the well-being of all.

Venusian: You adhere to the Morningstar Constellation's vision for a more socialized, friendlier hypercapitalism.

Regional: You are a Solarian, Sifter, Belter, Europan, Ringer, or Skimmer invested in the culture, prosperity, and security of your area of the Solar System.

STEP 5: APTITUDE TEMPLATE

Pick one of the aptitude templates to determine your six starting aptitudes ▶36. These templates are provided as guidelines, and you may raise or lower an aptitude score by taking or giving points from other aptitudes. For example, you can lower WIL by 5 to raise COG by 5. No aptitude score may be lower than 5 or higher than 30.

Though conceptually skills are built on the aptitude values, this step is placed after the skill choices so that you may tailor your aptitudes to your skill set. For example, if you have a lot of SAV-linked skills, choosing a template with a high SAV is a solid way to optimize your character. Alternatively, if you feel you are lacking skills linked to a certain aptitude, boosting that aptitude may help to round out your character.

Spending CP: Extra aptitude points cost 1 CP each. If you're going to bump an aptitude, we recommend doing it now, before you calculate your skills in Step 6.

Actioneer

You are more comfortable with physicality than talking or thinking.

Extrovert

You can talk your way through most situations.

Facilitator

You're good with people, planning, and seeing things through.

Factotum

You've never quite stood out, but you exhibit broad competence.

Inquirer

Your creative mind is good at figuring things out.

Survivor

You have the will and stamina to scrape by in tough situations.

Thrill Seeker

You've never said no to a dare, but your fast reaction time and quick thinking compensate for your lack of foresight.

Aptitude Template

Template	COG	INT	REF	SAV	SOM	WIL
Actioneer	10	15	20	10	20	15
Extrovert	10	20	15	20	15	10
Facilitator	15	15	10	20	10	20
Factotum	15	15	15	15	15	15
Inquirer	20	20	10	15	10	15
Survivor	15	10	15	10	20	20
Thrill Seeker	20	10	20	15	15	10

SKILL SUMMARIES

Full skill descriptions are found on ▶49.

Athletics (SOM): Physical activity in gravity with a humanoid, uplift, or biomimicked morph, including climbing, running, swimming, gymnastics, throwing, and winged flight.
Deceive (SAV): Lying, bluffing, conning, fast talk, impersonation, acting, and other attempts to misrepresent or hide the truth with words and gestures.
Exotic Skill (Field): Catch-all category for less common skills such as animal handling, contortion, disguise, music, sleight of hand, or throwing knives.
Fray (REF): The ability to get out of the way of danger.
Free Fall (SOM): Physical activity in microgravity.
Guns (REF): Aiming and shooting. Used for beam, kinetic, seeker, and spray weapons.
Hardware (COG, Field): Building, repairing, disabling, upgrading, and physical hacking of technological systems.
Infiltrate (REF): Sneaking, hiding, and escaping detection.
Infosec (COG): Hacking or protecting devices and networks.
Interface (COG): Using and understanding electronic devices, software, networks, and weapons systems.
Kinesics (SAV): Perception of body language, tells, social cues, and nonverbal communication.
Know (COG/INT, Field): Specialized knowledge in an art, hobby, scientific pursuit, or professional trade.
Medicine (COG, Field): Care and diagnosis of biological life, including emergency care, forensics, pharmacology, psychosurgery, and surgery.
Melee (SOM): Fighting, whether unarmed or using blades, clubs, or similar handheld weapons.
Perceive (INT): Awareness and use of your physical senses.
Persuade (SAV): Bargaining, convincing, etiquette, and social manipulation.
Pilot (REF, Field): Moving in a vehicle or non-humanoid or non-biomimicked morph.
Program (COG): Writing and modifying software code. Also used for nanofabrication or crafting VR environments or AR illusions.
Provoke (SAV): Intimidation, taunting, seduction, or any invocation of emotion to socially manipulate.
Psi (WIL): Use of async sleights.
Research (INT): Finding and interpreting data on the mesh.
Survival (INT): Navigation, tracking, finding safe food and shelter, and defending oneself against hostile planetary environments.

STEP 6: TOTAL SKILLS

Combine all of the skills from Steps 1–4 and write them on your character sheet.

If a character acquired the same skill more than once, those points may be added together or the additional points may be applied to any other skill of the player's choosing. Note that points for Know skills may only be used for other Know skills; however, points for Active skills may be used for either Active or Know skills.

Next, add the base aptitude values to their linked skills. Note that the skills of Fray and Perceive have base values equal to their aptitude × 2.

No final skill total (including aptitude) may exceed 80. Any points over 80 must be applied to another skill of the player's choosing. Again, Know skill points may only be used for other Know skills.

Players should feel free to switch their skills for any other skills as long as the number of points remains the same, and as long as Know skill points only go toward other Know skills.

We suggest keeping aptitudes and skills in multiples of 5 for simplicity, but this is not a requirement.

Spending CP: Each point of CP gets you 5 skill points. Use these points to purchase or raise any skills you think you'll need.

STEP 7: LANGUAGES

Each character starts knowing two languages. Languages are not handled like skills — you either know it or you don't. If you don't, real-time translation is easily accessible via the mesh, so language tends to only be an issue in isolated areas.

If your combined COG + INT is 35+: choose 1 additional language.

If your combined COG + INT is 45+: choose 2 additional languages.

Common languages are: Arabic, Cantonese, English, French, Hindi, Japanese, Mandarin, Portuguese, Russian, Skandinaviska, and Spanish.

Spending CP: You may purchase additional languages at 1 CP each.

STEP 8: FLEX

Every ego starts with 1 permanent Flex point *Pools* ▶34.

Spending CP: Extra Flex points cost 2 CP each. You may not start with more than 3 ego Flex points.

STEP 9: REPUTATION

You have 100 points to divide between rep networks. There are seven networks to choose from ▶37. You should strongly consider taking rep scores that fit your faction choice.

We recommend taking either 60/40 in two networks or 50/25/25 in three networks. You may not start with a rep score higher than 80 in any network.

If you are unsure what rep networks to choose, talk to your GM about leaving them blank for now and filling them in during gameplay.

Spending CP: Every point of CP buys you 5 rep points.

STEP 10: CUSTOMIZATION

You receive 20 Customization Points (CP) you may spend on the following. **If you're still figuring out your character, talk to your GM about saving some CP and buying things later on during gameplay.** Just keep track of what you've spent.

INCREASED APTITUDE [1 CP PER POINT]

CP may be spent to increase aptitude scores at a cost of 1 CP per aptitude point. This will increase all skills linked to that aptitude as well; no skill may be raised above 80. Increases to COG or INT may increase the number of languages you start with (see Step 7).

EGO TRAITS [VARIABLE]

You may purchase any of the ego traits listed on ▶72–80. Positive traits have a CP cost listed. Negative traits *give* you bonus CP. No more than 6 CP worth of negative traits may be purchased.

There are a lot of traits to choose from, so if you're unfamiliar with them or don't have the time to scan through them, skip this for now and save some CP to buy traits later. A summary of traits is on ▶72&77.

If you took the Lost background in Step 1 or the Async interest in Step 3, you *must* purchase the Psi trait.

INCREASED FLEX [2 CP PER POINT]

CP may be spent to increase your Flex pool at a cost of 2 CP per 1 Flex. Your ego Flex points may not be raised higher than 3 (not counting Flex derived from your morph).

EXTRA LANGUAGES [1 CP PER LANGUAGE]

Extra languages may be learned at a cost of 1 CP per 1 language.

EXTRA REP [1 CP PER 5 POINTS]

CP may be spent for extra Rep points. 1 CP = 5 points to be spent on rep. No rep score may be raised higher than 80.

EXTRA SKILLS [1 CP PER 5 POINTS]

CP may be spent for extra skill points. 1 CP = 5 skill points. No skill may be raised higher than 80 during character creation.

PSI SLEIGHTS [1 CP PER SLEIGHT]

If you purchased the Psi trait, you will likely want to spend CP on sleights, or psi powers ▶280. Note that you get one starting sleight for free, based on your sub-strain ▶273.

Psi sleights cost 1 CP per sleight. You may only purchase psi-gamma sleights if you have the Psi trait at Level 2. The maximum number of sleights you may purchase during character creation is 10.

SPECIALIZATIONS [1 CP PER SPECIALIZATION]

Skill specializations cost 1 CP. They give a +10 bonus to that skill when that specialization applies. (This specialization bonus does not count towards the skill maximum of 80.)

Customization Costs

5 Rep points	1 CP	1 Language	1 CP
5 Skill points	1 CP	1 Aptitude point	1 CP
1 Specialization	1 CP	1 Flex point	2 CP
1 Psi sleight	1 CP	Ego Traits	Variable

STEP 11: DERIVED STATS

You're almost done! Now a few of your stats need to be calculated and added to your character sheet:

- **Initiative:** (REF + INT) ÷ 5.
- **Aptitude Checks:** Each aptitude has a check (Cognition Check, Intuition Check, etc.) equal to the aptitude × 3.
- **Lucidity:** WIL × 2.
- **Trauma Threshold:** LUC ÷ 5.
- **Insanity Rating:** LUC × 2.
- **Infection Rating (Asyncs Only):** Psi trait level × 10.

STEP 12: STARTING MORPH & GEAR

Your character receives starting gear based on the career chosen in Step 2 and the type of campaign you are playing (Firewall, gatecrashing, or criminal). See *Gear Packs* ▶68.

You also choose your character's *starting morph* ▶54. Each morph has a cost in Morph Points (MP). Your GM will tell how many points you have to work with. The suggested default value is 6 MP. If you also purchased the Resources trait ▶75, increase your available MP by that trait level.

You may also spend your Morph Points on morph traits ▶72 or extra gear. Whatever MP you don't spend is converted into Flex points instead.

STARTING MORPHS

While it may be tempting to spend all of your MP to get the best morph available, we strongly suggest picking the morph that best fits your character. You will likely have opportunities to switch morphs during game. Morph Availability stats do not apply to morphs bought during character creation.

You may buy more than one morph, in case you want a fallback on hand or plan to do a lot of forking. In this case, you cannot purchase negative traits for *any* of your morphs. Additionally, the first morph you buy must have an MP cost of 1 or more (not counting traits) and any morphs bought after the first with a listed 0 MP cost 1 MP instead.

Your morph will provide several stats: pools, Wound Threshold, Durability, and Death Rating. Note these on your character sheet. Also take note of any implants or traits it might have.

MORPH TRAITS

Positive traits have an MP cost listed. Negative traits *give* you bonus MP. No more than 6 MP worth of negative traits may be purchased.

EXTRA GEAR

You may use your MP for extra gear.

Minor complexity gear costs 1 MP, Moderate 2 MP, and Major 3 MP.

FLEX POINTS

Morph Points that you don't spend on morphs, traits, or gear are converted to Flex points instead, on a 2:1 basis (2 MP = 1 Flex), up to a maximum of 3. These Flex points are temporary, they will be reset the next time you resleeve (*Acquiring Morphs* ▶290).

STEP 13: MOTIVATIONS

Now that your character is mostly fleshed out, you must choose 3 motivations. Motivations are personal aspirations your character pursues. Most of these are long-term and rooted in the character's ideological beliefs, personal drive, or backstory. Motivations will help your character earn extra *Rez Points* ▶366 and cope with mental stress and trauma ▶222.

Motivations are listed on your character sheet as a single term or short phrase, along with a + or – symbol to denote whether they support the cause or oppose it. For example, "+Fame" would indicate that your character seeks to become a famous media personality, whereas "–Reclaim Earth" means that your character opposes the goal of reclaiming Earth.

Your first motivation is based on your faction choice, as determined in Step 4 ▶44. Note this on your sheet as "+[Faction] Interests." Your other two motivations are based on your character's personal interests; see the Example Motivations sidebar for ideas. If you did not choose a faction, simply choose a third personal motivation instead.

If you're not sure what motivations to pick just yet, you can always leave them blank for now and fill them in during gameplay.

OPTIONAL: MOTIVATIONAL GOALS

Motivations are good for steering your character, but they are very open-ended. To fine-tune the concept, list out a specific short-term goal for each motivation. For example, if your motivation is +Discover Your Past, your goal might be to investigate the habitat where you were re-instantiated with lack a few months after the Fall. If your motivation is +Argonaut Interests, your goal might be to liberate a specific cache of proprietary scientific data for all of transhumanity to use.

If your GM has a detailed campaign idea worked out in advance, you may want to wait and decide on your goals until you have been fully introduced to the setting so you can integrate them within the context of the story arc. For example, if your GM establishes a campaign about the liberation of Mars from hypercorp control, and you have +Mercurial Interests, you first goal might be to connect a mercurial group you support with the Barsoomians and establish common ground.

If your group prefers a more cooperative style of campaign development, motivational goals provide ample material for the GM to construct scenarios around. With this style of play, you may want to pick one motivation as your primary and establish multiple goals in relation to it. These goals can then serve as stepping stones for your character's personal story arc.

For more interactive motivations, have each player choose one of the goals of another character. When doing so, they should specifically try to construct it in a way that connects it back to their own character. This is a great opportunity to establish shared interests, histories, and backgrounds between player characters.

MOTIVATION EXAMPLES

- Acceptance
- AGI Personhood
- Alien Contact
- Anarchism
- Autonomy
- Bioconservatism
- Create Legacy
- Creative Expression
- Discover/Forget Past
- Education
- Escape
- Expand Influence
- Exploration
- Fame/Recognition
- Find a Purpose
- Find a Tribe
- Friendly ASI
- Hedonism
- Immortality
- Independence
- Leadership
- Locate Lost [Friend/Item/Lover/Relative]
- Make Art
- Martian Liberation
- Morphological Freedom
- Neurodiversity
- Open Source
- Personal Career
- Personal Improvement
- Philanthropy
- Prove Others Wrong
- Reconnect with Transhumanity
- Religion
- Revenge
- Scientific Discovery
- Self-Reliance
- Skill Mastery
- Socialism
- Stability
- Survival
- Technoprogressivism
- Thrill-Seeking
- Transparency
- Uplift Rights
- Venusian Sovereignty
- Wealth

FINAL TOUCHES

This is good time to look back at your character's background, career, interests, skills, traits, motivations, and other defining points. These tell a story — you just need to fill in the remaining details. What did they think of their childhood? Do they still have ties from there? How did they move from such origins to the career and faction they are part of? How did they acquire those skills and motivations? What do their rep scores and traits say about them? How did they get their current morph? Is it their original? If not, what happened to their first body? Did they survive the Fall? What have they done in the decade since?

These questions will help you build a defining picture of your character. Not everything about your character needs to be filled out, of course — it's OK to leave a few blanks that you can fill in later. Assembling the points you have deduced so far will help you to present your character as a whole, unique individual, however, rather than just a blank template.

As a final step, take a few minutes to pick out some specific identifying features and personality quirks that will help you define the character to others. This could be a way of talking, a strongly projected attitude, a catchphrase they use frequently, a unique look or style of dress, a repetitive behavior, an annoying mannerism, or anything similar. Such idiosyncrasies give something that other players can latch onto, spurring roleplaying opportunities.

POINT-BUY CHARACTER CREATION

The package-buy character creation system in this book is designed to make your choices easier and speed along the process. If you prefer to fine-tune your character's skills, you can skip Steps 1–4 and simply pick the skills you want. In this case, you receive 400 points to spend on active skills and 250 points to spend on Know skills. You may spend some of your active skill points on Know skills instead, but you may not use Know skill points to buy active skills. The other steps of the character-creation process are completed as written. Your skill points are combined with their linked aptitudes in Step 6 as normal; no starting skill total may exceed 80.

SKILLS

Skills represent your character's accumulated knowledge, education, and experience. They are the most important part of your ego, traveling with you from morph to morph. Having a well-rounded skill set is vital to survival in *Eclipse Phase*.

SKILLS AND APTITUDES

Your learned skills are built upon your inherent abilities, your core aptitudes. Each skill is linked to an aptitude and increased by that aptitude's base value. Aptitudes range from 0 to 30, with a 15 representing an average transhuman. If an aptitude is modified, all linked skills are modified as well.

SKILL CATEGORIES

Skills are also assigned to a number of other categories, as noted on the Skill List ▶next page: Combat, Mental, Physical, Psi, Social, Technical, and Vehicle skills. Certain traits, abilities, and modifiers may only apply to skills of a specific category.

FIELD SKILLS

When you choose a field skill, you must select a particular emphasis for that skill known as a *field*. Field skills are written as "[Skill]: [Field]." For example, when choosing Know skill, you must pick a particular discipline, such as Know: Engineering or Know: Biology. Field skills may be purchased more than once, with a different field chosen each time. Each field essentially serves as a separate skill. Suggested fields are listed for each field skill, but players and GMs can cooperate to create others.

SPECIALIZATIONS

You may opt to specialize in a given skill. Specializations represent a focus in one particular aspect of that skill. For example, Beam Weapons is a specialization of Guns skill. Specializations are written in parentheses after the skill name — e.g., Guns (Beam Weapons). Each skill lists a number of possible specializations, but players and GMs can generate their own. Field skills may also have specializations.

Specializations provide a +10 bonus when using that skill in a situation appropriate to the specialization.

Aptitude Ranges

Aptitudes range from 0 to 30.

Rating	Assessment	Rating	Assessment
5	Child	20	Enhanced
10	Unaugmented Human	25	Superhuman
15	Transhuman	30	Posthuman

Skill Ranges

Skills range in value from 0 to 100.

Rating	Assessment	Rating	Assessment
10	Rudimentary Ability	60	Experienced Professional
20	Some Familiarity	70	Expert
30	Novice	80	Authority
40	Basic Professional Competence	90	Master
50	Advanced Training	100	Pinnacle of Achievement

ACTIVE SKILL LIST

Active skills represent things your character does. They usually require some sort of physical action and are the primary skills your character uses in action and combat scenes.

ATHLETICS

Type: Active, Physical
Linked Aptitude: Somatics

Athletics encompasses various types of physical activity in environments with gravity. It specifically applies to maneuvering in morphs that are humanoid, uplift, or that use biomimicked movements (snaking, winged flight, etc.), whether sleeved or remote operated.

Use Athletics to scale a wall, tread water, throw a grenade, jump a crevasse, vault a table, backflip off a ledge, or make a barrel roll with a winged morph. Some actions are detailed under *Movement* ▶230.

Specializations:
Acrobatics, Fly, Climb, Jump, Parkour, Run, Swim, Throw

DECEIVE

Type: Active, Social
Linked Aptitude: Savvy

Deceive is about presenting falsehoods in believable ways. It applies to any attempt to misrepresent or hide the truth with words and gestures. It does not include hiding (Infiltrate) or physical disguises (Exotic Skill: Disguise).

Use Deceive to act, lie, bluff, misdirect, con someone, impersonate someone, or fast talk your way out of a situation. The target of your deception opposes with their Kinesics skill.

Specializations: Act, Bluff, Con, Fast Talk, Impersonate

EXOTIC SKILL: [FIELD]

Type: Active, Field

This is a catch-all category for less-common skills. This includes proficiency with unusual and archaic weaponry and skills that have a very narrow focus but require education, training, and experience to properly execute.

Use Exotic Skill if you want your character to be talented in a field that is not covered by any existing skill. The GM determines the appropriate linked aptitude.

Sample Fields: Animal Handling (SAV), Bow (REF), Disguise (INT), Escape Artist (REF), Plasma Cutter (REF), Sleight of Hand (REF), Throwing Knives (REF), Whips (REF)

Specializations: As appropriate to the field

FRAY

Type: Active, Combat
Linked Aptitude: Reflexes

Fray is your ability to get out of the way of danger, whether that is an attacker or a moving object. You start with a base Fray of REF × 2.

Use Fray to dodge attacks, avoid falling objects, maneuver deftly through a crowd, or side-step a collision. In combat, Fray is used to oppose melee and ranged strikes ▶202. Against guns, Fray is reduced by half.

Specializations: Full Defense, Guns, Melee

SKILL LIST

Skill	Linked Aptitude	Type	Page
Athletics	Somatics	Active, Physical	48
Deceive	Savvy	Active, Social	48
Exotic Skill: [Field]	—	Active, Field	48
Fray	Reflexes	Active, Combat	48
Free Fall	Somatics	Active, Physical	49
Guns	Reflexes	Active, Combat	49
Hardware: [Field]	Cognition	Active, Field, Technical	49
Infiltrate	Reflexes	Active, Physical	50
Infosec	Cognition	Active, Technical	50
Interface	Cognition	Active, Technical	50
Kinesics	Savvy	Active, Social	50
Know: [Field]	Cognition /Intuition	Field, Know	52
Medicine: [Field]	Cognition	Active, Field, Technical	51
Melee	Somatics	Active, Combat	51
Perceive	Intuition	Active, Mental	51
Persuade	Savvy	Active, Social	51
Pilot: [Field]	Reflexes	Active, Field, Vehicle	51
Program	Cognition	Active, Technical	51
Provoke	Savvy	Active, Social	51
Psi	Willpower	Active, Mental, Psi	51
Research	Intuition	Active, Technical	51
Survival	Intuition	Active, Mental	51

FREE FALL

Type: Active, Physical
Linked Aptitude: Somatics

Free Fall is a companion skill to Athletics for morphs that are humanoid, uplift, or using biomimicked movements. Use it for physical activity in microgravity environments or when free falling.

Use Free Fall to push yourself down a micrograv tunnel, propel yourself across an open space in zero g, re-orient yourself out of a spin, maneuver with vacsuit attitude jets, correctly apply some type of propulsion when drifting in space, or when parachuting.

Specializations: Jump, Parachute, Pull, Vacsuits

GUNS

Type: Active, Combat
Linked Aptitude: Reflexes

Guns deals with the maintenance and use of modern firearms, seeker launchers, and coherent energy and projectile weapons.

Use Guns to shoot beam, kinetic, seeker, and spray weapons. Attacks made with Guns skill are opposed with Fray ÷ 2.

Specializations: Beam Weapons, Firearms, Plasma Weapons, Railguns, Seekers, Spray Weapons

HARDWARE: [FIELD]

Type: Active, Field, Technical
Linked Aptitude: Cognition

Hardware handles the design, construction, repair, and alteration of different types of technological systems.

Use Hardware to repair a life support system, upgrade a robot, hack an electronic lock, or assemble a functional vehicle from spare parts. Most Hardware Tests are task actions.

Sample Fields: Aerospace (aircraft and spacecraft), Armorer (armor and weapons), Demolitions (explosives), Electronics, Groundcraft, Industrial (factory, habitat, and life support systems), Nautical (watercraft and submarines), Robotics (bots and synthmorphs)

Specializations: As appropriate to the field

INFILTRATE

Type: Active, Physical
Linked Aptitude: Reflexes

Infiltrate is the art of escaping detection.

Use Infiltrate to sneak past a guard, hide from a search party, blend into a crowd, shadow someone, conceal an object, or evade a sensor system. It is opposed by Perceive skill, though anyone not actively searching suffers a distraction modifier; against a group, use the highest Perceive skill among them. Infiltrate is best handled as a task action covering a specified distance, rather than rolling each action turn.

Specializations: Blend In, Hide, Shadow, Sneak

INFOSEC

Type: Active, Technical
Linked Aptitude: Cognition

Infosec is short for "information security." It incorporates training in electronic intrusion and counter-intrusion techniques, as well as use of cryptography tools.

Use Infosec to hack into electronic and mesh systems, subvert them, and protect them. Also use it to encrypt and decrypt communications and files. Most Infosec Tests are task actions. See *The Mesh* ▶240, for additional details on mesh systems and applications of Infosec skill.

Specializations: Brainhack, Brute-Force Hack, Decrypt, Probe, Security, Sniff, Spoof, Subvert, VR Hack

INTERFACE

Type: Active, Technical
Linked Aptitude: Cognition

Interface is about using and understanding computers, electronics, networks, sensors, and software. It applies to everything from mesh servers and cloud services to embedded habitat/spacecraft system controls and computerized or emplaced weapon systems.

Use Interface to manipulate electronics, command software, forge video files, scan for wireless devices, jam frequencies, get sensor readings, control life support functions, and understand new devices. Interface is also used to attack with non-portable weapon emplacements and the weapon systems of piloted (but not jammed or sleeved) vehicles and spacecraft (*Weapon Systems* ▶209).

Specializations: Forge, Jam, Scan, Sensors, Weapon Systems

KINESICS

Type: Active, Social
Linked Aptitude: Savvy

Kinesics is the art of empathy and nonverbal communication.

Use Kinesics to read someone's emotional state, gauge their intentions, detect lies, identify mannerisms and tells, and use body language to emote and convey information. Kinesics is used to oppose Deceive skill.

Though synthmorphs are designed to emote, reading them is more difficult; apply a –30 modifier. The same modifier also applies to ALIs that are operating pods, bots, or synthmorphs. At the GM's discretion, similar modifiers may apply to morphs that lack anthropomorphic characteristics or that are sleeved by egos accustomed to much different physiologies (such as a neo-octopi in a neo-avian morph).

Specializations: Detect Deception, Emote, Judge Intent

MEDICINE: [FIELD]

Type: Active, Field, Technical
Linked Aptitude: Cognition

Medicine fields encompass healthcare, diagnosis and treatment, design, and manipulation of biological life forms.

Use Medicine: Biotech to modify morphs or install implants. Use Medicine: Forensics to conduct autopsies to ascertain cause of death or the biological functions of alien life. Use Medicine: Paramedic to diagnose ailments and treat injuries ▶221. Medicine: Pharmacology is used to synthesize drugs or develop an antidote to a pathogen or toxin. Medicine: Psychosurgery is used to heal stress and manipulate the mind (▶223 and ▶294). Use Medicine: Veterinary to provide healthcare to smart animals and non-sapient critters.

Sample Fields: Biotech, Forensics, Paramedic, Pharmacology, Psychosurgery, Veterinary
Specializations: As appropriate to the field

MELEE

Type: Active, Combat
Linked Aptitude: Somatics

Melee deals with fighting, whether unarmed or with held or implanted weapons.

Use Melee to punch, kick, grapple, or attack with a blade, club, or other weapon. Melee is opposed by Fray if dodging or by the opponent's Melee skill if blocking or parrying.

Specializations: Blades, Clubs, Disarm, Grapple, Implants, Unarmed

PERCEIVE

Type: Active, Mental
Linked Aptitude: Intuition

Perceive skill is awareness and use of your physical senses.

Use Perceive to spot an intruder, find a clue, locate a trap, search a room, or scrounge up something useful. You start with a base Perceive of INT × 2. Perceive is opposed by Infiltrate skill.

Basic perception is an automatic action, with a –20 distraction modifier as your attention is elsewhere. *Detailed perception*, without modifiers, is a quick action. *Thorough investigation* is a task action.

Specializations: Hear, Investigate, Scrounge, See, Smell

PERSUADE

Type: Active, Social
Linked Aptitude: Savvy

Persuade is the ability to convince others to do what you want through words and gestures, logic and reason. It is the art of subtle social manipulation. It does not include intimidation, coercion, seduction, or other emotionally driven manipulation (use Provoke).

Use Persuade to drive a bargain, convince a reluctant party, negotiate a truce, motivate your peers to take action, or sway someone to your side. Persuade is opposed by the opponent's SAV Check.

Specializations: Diplomacy, Negotiate, Motivate

PILOT: [FIELD]

Type: Active, Field, Vehicle
Linked Aptitude: Reflexes

Pilot is about maneuvering and controlling non-humanoid morphs, bots, and vehicles, whether sleeved or remote operated. It applies to movement systems that do not rely on use of limbs: wheeled, thrust vector, rocket, etc.

Use Pilot to drift a car around a tight corner, evade pursuit, avoid a crash, barrel roll a plane, or perform a high-g spacecraft maneuver.

Sample Fields: Air, Ground, Nautical, Space
Specializations: As appropriate to the field

PROGRAM

Type: Active, Technical
Linked Aptitude: Cognition

Program deals with writing and modifying software code.

Use Program to write a script, analyze how a program works, design a blueprint for nanofabrication, break copyright protection, patch software against an exploit, code a virus, or craft a VR environment, AR illusion, or infomorph mind-state.

Specializations: AIs, Infomorphs, Malware, Nanofabrication, Piracy, VR

PROVOKE

Type: Active, Social
Linked Aptitude: Savvy

Provoke is your talent at emotional manipulation.

Use Provoke to taunt an opponent, intimidate a witness, rile up a mob, scare someone into submission, browbeat a captive into surrendering information, or seduce a potential lover. Opponents resist Provoke with a WIL Check.

Specializations: Calm, Fluster, Inspire, Interrogate, Intimidate, Seduce, Taunt

PSI

Type: Active, Mental, Psi
Linked Aptitude: Willpower

Psi is the wielding of psychic abilities (sleights) to detect, manipulate, or harm others.

Use Psi to target others with psi-gamma sleights ▶282. Psi is resisted with a WIL Check.

You must possess the Psi trait ▶74 to use this skill.

Specializations: Control, Psi Assault, Sense

RESEARCH

Type: Active, Technical
Linked Aptitude: Intuition

Research is your google fu, your skill at finding, analyzing, and understanding information online. It includes knowing where to look, optimizing your queries, separating fiction from truth, and processing massive amounts of data.

Use Research to look up an answer on the mesh, track people online, access the deep mesh, search databases, sift through archives, and mine data dumps.

Specializations: Blogs, Cloud Services, Deep Mesh, News Archives, Social Networks, Science Archives, Track

SURVIVAL

Type: Active, Physical
Linked Aptitude: Intuition

Survival encompasses the skills needed to survive in and maneuver through hostile environments.

Use Survival to navigate, track a person or animal in the wild, find safe food and shelter, and defend against ecological and environmental dangers.

Specializations: Forage, Hunt, Navigate, Track

KNOW SKILLS

Know skills represent information your character has acquired, things they know. They play a less dramatic role, but are often critical for helping your character solve mysteries, understand situations, and figure out what to do.

Points assigned for Active and Know skills are not interchangeable. If you decided to take away points from a Know skill during character creation, you may only apply those extra points to another Know skill.

KNOW: [FIELD]

Type: Know, Field

Know skill represents your accumulated knowledge in a field of work, study, or interest. Know skills are loosely grouped into four types: academics, arts, interests, and professional training.

Academics

Linked Aptitude: Cognition

Academic fields cover all of the disciplines of scientific knowledge and advanced study. They include theoretical and applied sciences, social sciences, transhumanities, and technology.

Use Academics to call upon your education. For example, Know: Chemistry could be used to identify a particular substance, understand an unusual chemical reaction, or determine what elements are needed to nanofabricate something that requires exotic materials. The GM may choose not to allow defaulting on some Know Tests, as only someone who has been educated in that subject is likely to be able to tackle it.

Sample Fields: Archeology, Astrobiology, Astronomy, Astrophysics, Astrosociology, Biology, Botany, Chemistry, Computer Science, Cryptography, Economics, Engineering, Genetics, Geology, History, Law, Linguistics, Mathematics, Memetics, Nanotechnology, Physics, Political Science, Psychology, Sociology, Xeno-archeology, Xenolinguistics, Zoology

Specializations: As appropriate to the field

Arts

Linked Aptitude: Intuition

Art fields include various modes of artistic expression and evaluation. This is a particularly useful skill in economies and clades where creativity and vision can be a key component of your reputation.

Use Art fields to bring your imagination to life, create a work of art, critique an artist's style or performance, or appraise an artistic project's worth.

Note that Art fields should not be used in place of Active skills to directly deceive, influence, or sway others. Crafting a realistic augmented reality illusion requires Program skill, incorporating a hidden message within a public song or speech would rely on Deceive skill, making a speech to convince a panel or rally a crowd requires Persuade or Provoke. However, Art fields may be used as complementary skills ▶53 in such cases.

Sample Fields: Architecture, AR Design, Criticism, Dance, Drama, Drawing, Music, Painting, Performance, Sculpture, Singing, Speech, VR Design, Writing

Specializations: As appropriate to the field

Interests

Linked Aptitude: Cognition

Interest fields includes specialized knowledge in any topic that might be considered a hobby, recreational pursuit, social topic, or other obsession.

Use Interest fields whenever you need to recall or use knowledge related to that particular subject.

Sample Fields: Celebrities, Conspiracies, Factors, Exhumans, Exoplanet Colonies, Gambling, Hypercorp Politics, Lunar Habitats, Martian Beers, Morphs, Reclaimer Blogs, Scum Drug Dealers, Spaceship Models, Strategy Games, TITAN Tech, Triad Economics, Transhuman Factions, Underground XP, VR Games

Specializations: As appropriate to the field

Professional Training

Linked Aptitude: Cognition

Profession fields cover knowledge and training in the practices and procedures of various legal and extralegal trades.

Use Profession fields to recall specialized knowledge available to someone trained or experienced in that particular industry: notable figures, common practices, apps and gear used, logistics, scheduling, accounting, terminology, legalities, internal politics, trade history, ethics standards, major locations, influential hypercorps/cartels/collectives, and so on.

Sample Fields: Accounting, Administration, Asteroid Mining, Body Bank Ops, Bodyguarding, Cool Hunting, Con Artistry, Data Processing, Ego Hunting, Emergency Services, Entertainment, Fencing, Field Science, First-Contact Ops, Flight Crew Ops, Freelancing, Gas Mining, Gatecrashing, Habitat Ops, Instruction, Investigation, Journalism, Lab Ops, Medical Services, Military Ops, Morph Design, Nanofacturing, Network Engineering, Police Ops, Racketeering, Scavenging, Security Ops, Service Work, Smuggling, Social Engineering, Social Services, Spycraft, Surveying, System Administration, Terraforming

Specializations: As appropriate to the field

USING KNOW SKILLS

It may seem like Know skills have fewer in-game applications than Active skills, but they should not be underestimated. They have three major uses, the first of which is analyzing clues and solving mysteries. Many *Eclipse Phase* scenarios are based around technological dangers, alien encounters, and scientific phenomenon, and so characters will need a good balance of Know skills to unravel the problem and find solutions.

Just as importantly, Know skills are valuable in helping the characters — and the players — understand the world of *Eclipse Phase*. In particular these skills can be used to assess a situation, identify strengths and weaknesses, make plans, evaluate worth, make comparisons, forecast probable outcomes, or understand the applicable science, socio-economic factors, or cultural or historical context. In this regard, Know skills can be a valuable tool for GMs to assist the players, prompting for Know skill rolls to help flesh out details of the game setting that might otherwise be overlooked or not readily apparent.

For example, a group of players new to *Eclipse Phase* might not fully grasp the fine distinctions between different factions, the cultural relevance of certain technologies, or the potential impact of a new scientific breakthrough on the setting — and might not even think to ask. GMs can and should call for Know Tests to help impart the relevant information.

THE KNOWLEDGE BEHIND ACTIVE SKILLS

You are assumed to be familiar with the background lore surrounding each of your Active skills. For example, if you are skilled in Guns, you likely know quite a bit about makes and models, manufacturers, and possibly even their history. Likewise, your Hardware: Robotics skill means you know a lot about synthmorphs and bots, who makes them, etc. This associative knowledge does not go quite as deep as someone who has studied or trained in that field, however. A character with equivalent scores in Know: Weapons Dealer or Know: Robot Designs will have more in-depth and specialized knowledge. To represent this, GMs should apply a negative modifier of –10 to –30 when using Active skills in place of Know skills, depending on the situation and the depth of the knowledge required.

In a similar vein, a group of characters looking to break into a facility could use Know: Security to evaluate the defenses, Know: Architecture to identify covert points of entry, Know: Sports to plan their infiltration at a time when the guards are likely to be distracted, Know: Triads to identify a local crime group that can sell them breaking and entering gear, and Know: Administration to help identify a top-level exec who will have the security codes they need. When used appropriately, these skills can be just as beneficial as the Active skills used to break inside, if not more so because the plan is more likely to succeed as a result of this preparation.

Finally, Know skills help bring flavor and character to the setting. While Know: Martian Beers might not seem that useful at first, an enterprising character could use that expertise as an opening to talk to a potential source at a bar, to convince a suspicious Barsoomian cell they are not an off-world spy, or simply to amuse the others at the table with anecdotes about how certain exhumans strangely reek of Olympus Stout or the perils of consuming too much Pilsener Red Lager in zero g.

COMPLEMENTARY SKILLS

In certain cases, Know skills can aid Active skill tests with a complementary skill bonus modifier. This should only apply to situations where the Know skill provides information that would not normally be encompassed by the Active skill. For example, Know: Religious Cults could be applied as a complementary skill when trying to Persuade a religious brinker group, but Know: Engineering is not complementary to a Hardware: Industrial Test to repair part of a habitat, because the Hardware skill already incorporates such engineering knowledge.

The bonus for a complementary skill is based upon its rating, as noted on the Complementary Skill Bonus table.

Complementary Skill Bonus Table

Know Skill	Modifier
40–59	+10
60–79	+20
80+	+30

MORPHS

The morphs here represent a fraction of the sleeves and shells available to characters. You must purchase at least one morph during character creation ▶36. During gameplay, you may need to acquire a new morph when forking, egocasting, or resleeving (*Acquiring Morphs* ▶290) — or when the one you have is destroyed.

Movement Rate: The mobility system used and distance covered (*Movement* ▶230).

Ware: Bioware, cyberware, hardware, meshware, and/or nanoware the morph is equipped with (*Gear,* ▶316–327).

Morph Traits: Traits that each morph of this type has (*Traits* ▶72).

Common Extras: Prevalent but not baseline traits or ware for the morph type. These are not included in the MP cost and must be acquired separately.

MORPH LIST

Morph	Type	Cost	Page
Agent	Infomorph	2 MP	67
Arachnoid	Synthmorph	6 MP	65
Basic Pod	Pod	1 MP	58
Bouncer	Biomorph	4 MP	55
Case	Synthmorph	0 MP	63
Digimorph	Infomorph	0 MP	67
Dragonfly	Synthmorph	1 MP	63
Exalt	Biomorph	2 MP	54
Flat	Biomorph	0 MP	54
Flexbot	Synthmorph	Variable	66
Fury	Biomorph	6 MP	57
Futura	Biomorph	4 MP	56
Galatea	Synthmorph	5 MP	64
Ghost	Biomorph	6 MP	57
Hibernoid	Biomorph	4 MP	56
Ikon	Infomorph	1 MP	67
Menton	Biomorph	4 MP	56
Neo-Avian	Uplift	0 MP	60
Neo-Bonobo/Chimp	Uplift	1 MP	60
Neo-Gorilla	Uplift	3 MP	60
Neo-Neanderthal	Uplift	2 MP	60
Neo-Octopus	Uplift	3 MP	61
Neo-Orangutan	Uplift	3 MP	61
Neotenic	Biomorph	2 MP	55
Novacrab	Pod	4 MP	58
Olympian	Biomorph	4 MP	56
Operator	Infomorph	2 MP	67
Pleasure Pod	Pod	4 MP	59
Reaper	Synthmorph	12 MP	65
Remade	Biomorph	7 MP	57
Ruster	Biomorph	3 MP	55
Savant	Synthmorph	4 MP	64
Security Pod	Pod	5 MP	59
Shaper	Pod	5 MP	59
Slitheroid	Synthmorph	5 MP	64
Spare	Synthmorph	0 MP	63
Splicer	Biomorph	1 MP	54
Steel Morph	Synthmorph	5 MP	65
Swarmanoid	Synthmorph	3 MP	63
Sylph	Biomorph	4 MP	56
Synth	Synthmorph	3 MP	63
Worker Pod	Pod	3 MP	58

COMMON BIOMORPHS

Biomorphs are fully biological sleeves (often genetically modified and equipped with implants), birthed naturally or from an exowomb, and grown to adulthood either naturally or at a slightly accelerated rate.

Flat

Flats are baseline unmodified humans, born with all of the natural defects, hereditary diseases, and other genetic mutations that evolution so lovingly applies. Flats are increasingly rare outside bioconservative enclaves — most died off with the rest of humanity during the Fall.

Flat

Cost: 0 MP • **Avail:** 30

WT: 6 • **DUR:** 30 • **DR:** 45

Insight 0 **Moxie** 0 **Vigor** 0 **Flex** 0

Movement Rate: Walker 4/20

Common Extras:

Many have the Genetic Defect trait ▶78.

Splicer

Splicers are genefixed humans. Their genome cleansed of hereditary diseases and optimized for looks and health, but not otherwise substantially upgraded. Splicers make up the majority of transhumanity.

Splicer

Cost: 1 MP • **Avail:** 90

WT: 6 • **DUR:** 30 • **DR:** 45

Insight 0 **Moxie** 0 **Vigor** 0 **Flex** 1

Movement Rate: Walker 4/20

Ware: Biomods, Cortical Stack, Mesh Inserts

Exalt

Exalts are the common, non-specialized "enhanced human" model. They are genetically upgraded to make them healthier, smarter, and more attractive (based on ever-evolving beauty standards). A modified metabolism keeps them fit and athletic for the duration of an extended lifespan.

Exalt

Cost: 2 MP • **Avail:** 70

WT: 7 • **DUR:** 35 • **DR:** 53

Insight 1 **Moxie** 1 **Vigor** 1 **Flex** 0

Movement Rate: Walker 4/20

Ware: Biomods, Cortical Stack, Mesh Inserts

Neotenic

Neotenics are transhumans modified to retain a child-like form. They are smaller, more agile, inquisitive, and less resource-depleting, making them ideal for habitat living and spacecraft. Some people find neotenic sleeves distasteful, especially when employed in certain media and sex work capacities, but most are designed to be neuter-gendered.

Neotenic

Cost: 2 MP • **Avail:** 50

WT: 6 • **DUR:** 30 • **DR:** 45

Insight 2 **Moxie** 1 **Vigor** 1 **Flex** 0

Movement Rate: Walker 4/12
Ware: Biomods, Circadian Regulation, Cortical Stack, Mesh Inserts
Morph Traits: Exotic Morphology (Level 1)
Notes: Small size ▶227

Ruster

Adapted for survival with minimum gear in the not-fully-terraformed Martian environment, these transgenic morphs feature insulated skin for more effective thermoregulation and respiratory system improvements to require less oxygen and filter carbon dioxide, among other mods.

Ruster

Cost: 3 MP • **Avail:** 70

WT: 7 • **DUR:** 35 • **DR:** 53

Insight 0 **Moxie** 1 **Vigor** 1 **Flex** 1

Movement Rate: Walker 4/20
Ware: Biomods, Cold Tolerance, Cortical Stack, Enhanced Respiration, Mesh Inserts, Radiation Sense
Common Extras: Many have the Planned Obsolescence trait ▶79.

Bouncer

Bouncers are genetically adapted for microgravity. Their legs are more limber and their feet can grasp as well as their hands. They can tolerate the cold temperatures of beehive tunnels and have an oxygen reserve in case they are exposed to vacuum. Bouncers are very common in the outer system and zero-g habitats.

Bouncer

Cost: 4 MP • **Avail:** 60

WT: 7 • **DUR:** 35 • **DR:** 53

Insight 1 **Moxie** 0 **Vigor** 1 **Flex** 2

Movement Rate: Walker 4/12
Ware: Biomods, Cold Tolerance, Cortical Stack, Grip Pads, Mesh Inserts, Oxygen Reserve, Prehensile Feet
Morph Traits: Limberness (Level 1)

BIOMORPHS WITH CYBERBRAINS

It is increasingly common to find biomorphs with cyberbrains, especially in the outer system. The advantage is that cyberbrains allow for easier resleeving and forking and have built-in mnemonic memory augmentations. The disadvantage is they are vulnerable to hacking. Adding a cyberbrain, access jacks, mnemonics, and puppet sock to your morph increases the MP cost by 1.

Futura

Futura morphs were specially crafted for the "Lost Generation" of accelerated-growth children. Adjusted for confidence, self-reliance, and adaptability, futuras were intended to help transhumanity regain its foothold. These programs proved disastrous and the line was discontinued, but some models and various spin-offs remain, viewed by some with distaste and others as collectibles or exotic oddities.

Futura

Cost: 4 MP • **Avail:** 25

WT: 7 • **DUR:** 35 • **DR:** 53

Insight 2 **Moxie** 4 **Vigor** 1 **Flex** 0

Movement Rate: Walker 4/20

Ware: Biomods, Cortical Stack, Mesh Inserts

Hibernoid

Hibernoids are transgenic-modified humans with heavily altered sleep patterns and metabolic processes. Hibernoids have a decreased need for sleep, requiring only 1–2 hours a day on average. They can also trigger a form of voluntary hibernation, effectively halting their metabolism and need for oxygen. Hibernoids make excellent long-duration space travelers, but these morphs are also favored by personal aides and hypercapitalists with non-stop lifestyles.

Hibernoid

Cost: 4 MP • **Avail:** 70

WT: 7 • **DUR:** 35 • **DR:** 53

Insight 1 **Moxie** 1 **Vigor** 0 **Flex** 2

Movement Rate: Walker 4/20

Ware: Biomods, Circadian Regulation, Clean Metabolism, Cold Tolerance, Cortical Stack, Hibernation, Mesh Inserts

Menton

Mentons are genetically modified to increase cognitive abilities, particularly learning ability, creativity, attentiveness, and memory. They are favored by academics, intellectuals, scientists, and engineers.

Menton

Cost: 4 MP • **Avail:** 60

WT: 7 • **DUR:** 35 • **DR:** 53

Insight 3 **Moxie** 1 **Vigor** 1 **Flex** 1

Movement Rate: Walker 4/20

Ware: Biomods, Cortical Stack, Mesh Inserts, Mnemonics

Olympian

Olympians are human upgrades with improved athletic capabilities like endurance, hand-eye coordination, and cardiovascular functions. Olympians are common among athletes, dancers, freerunners, gatecrashers, and soldiers.

Olympian

Cost: 4 MP • **Avail:** 60

WT: 8 • **DUR:** 40 • **DR:** 60

Insight 1 **Moxie** 1 **Vigor** 3 **Flex** 1

Movement Rate: Walker 4/20

Ware: Biomods, Cortical Stack, Mesh Inserts

Sylph

Sylph morphs are ideal for media icons, elite socialites, XP stars, models, and narcissists. Sylph gene sequences are tailored for distinctive good looks, ethereal and elfin features, and slim and lithe bodies. Their metabolism has also been sanitized to eliminate unpleasant bodily odors and their pheromones adjusted for universal appeal.

Sylph

Cost: 4 MP • **Avail:** 60

WT: 6 • **DUR:** 30 • **DR:** 45

Insight 1 Moxie 3 Vigor 1 Flex 1

Movement Rate: Walker 4/20

Ware: Biomods, Clean Metabolism, Cortical Stack, Enhanced Pheromones, Mesh Inserts

Common Extras:

Many have the Striking Looks trait ▸76.

Fury

Furies are combat morphs. These transgenic humans are upgraded for endurance, strength, reflexes, and capacity to handle physical trauma. Behavioral modifications for aggressiveness are offset by gene sequences promoting pack mentalities and cooperation, and they tend to be biologically female.

Fury

Cost: 6 MP • **Avail:** 40

WT: 10 • **DUR:** 50 • **DR:** 75
Insight 1 Moxie 1 Vigor 4 Flex 2

Movement Rate: Walker 4/20
Ware: Biomods, Bioweave Armor (+2/+3), Claws, Cortical Stack, Enhanced Vision, Mesh Inserts
Morph Traits: Enhanced Behavior (Aggressiveness, Level 2; Cooperation, Level 2)
Common Extras: Many are equipped with neurachem ▶322, hardened skeleton ▶322, toxin filters ▶323.

Ghost

Ghosts are partially designed for combat applications, but their primary focus is stealth and infiltration. Their genetic profile encourages speed, agility, and reflexes, and their minds are modified for patience and problem-solving.

Ghost

Cost: 6 MP • **Avail:** 40

WT: 9 • **DUR:** 45 • **DR:** 68
Insight 2 **Moxie** 1 **Vigor** 3 **Flex** 2

Movement Rate: Walker 4/20
Ware: Biomods, Chameleon Skin, Cortical Stack, Grip Pads, Mesh Inserts
Morph Traits:
Enhanced Behavior (Patience, Level 2)
Common Extras: Many are equipped with adrenal surge ▶322, skinflex ▶321.

Remade

The remade are completely redesigned: humans 2.0. Their cardiovascular system is stronger, their digestive tract sanitized and restructured, and they have been optimized for health, intelligence, and longevity with numerous transgenic mods. They look close to human, but are different in very noticeable and sometimes eerie ways: taller, lack of hair, slightly larger craniums, wider eyes, smaller noses, smaller teeth, and elongated digits. The remade are popular with the Ultimates faction.

Remade

Cost: 7 MP • **Avail:** 30

WT: 9 • **DUR:** 45 • **DR:** 68
Insight 2 **Moxie** 2 **Vigor** 2 **Flex** 2

Movement Rate: Walker 4/20
Ware: Biomods, Circadian Regulation, Clean Metabolism, Cold Tolerance, Cortical Stack, Enhanced Respiration, Enhanced Vision, Mesh Inserts
Morph Traits: Exotic Morphology (Level 1)

POD BIOMORPHS

Pods (a colloquialism derived from "pod people") were originally designed as biological androids. Their parts are vat-grown separately using accelerated-growth processes and assembled with a number of cybernetic system "short-cuts;" this entire process producing a functional body in a fraction of the time it takes to clone a standard biomorph. Cyberbrains replace their undeveloped gray matter. The first generations of pods were operated by ALIs and primarily used in service industries where a biological aesthetic was preferred to robots, in hazardous labor industries, and for sex work. They were visually distinguished from normal humans by stylized seamlined patterns in their skin, a designation that remains common today. In the wake of the Fall and the subsequent demand for more biomorphs, pods are now commonly sleeved by transhumans, especially indentures, but they still often suffer a classist stigma. Pods lack reproductive functions and are usually neuter. Non-human pods are increasingly common.

Basic Pod

These original general-purpose models are designed to keep the buyer/user dependent on the manufacturer.

Basic Pod

Cost: 1 MP • **Avail:** 80

WT: 6 • **DUR:** 30 • **DR:** 45

Insight 0 **Moxie** 0 **Vigor** 1 **Flex** 0

Movement Rate: Walker 4/20

Ware: Access Jacks, Biomods, Cortical Stack, Cyberbrain, Mesh Inserts, Mnemonics, Puppet Sock

Morph Traits: Planned Obsolescence

Worker Pod

Heavily feature in menial-labor jobs that involve interaction with other transhumans.

Worker Pod

Cost: 3 MP • **Avail:** 70

WT: 7 • **DUR:** 35 • **DR:** 53

Insight 0 **Moxie** 0 **Vigor** 2 **Flex** 1

Movement Rate: Walker 4/20

Ware: Access Jacks, Biomods, Cortical Stack, Cyberbrain, Mesh Inserts, Mnemonics, Puppet Sock

Novacrab

Bioengineered from coconut crab and spider crab stock and grown to a larger (human) size, novacrabs are ideal for hazardous work environments as well as vacworker, police, or bodyguard duties. They climb and handle microgravity well and can withstand a wide range of atmospheric pressure (and sudden pressure changes) from vacuum to deep sea. They are equipped with ten 2-meter long legs, massive claws, chitinous armor, compound eyes (with human-equivalent image resolution), gills, dexterous manipulatory digits on their fifth set of limbs, and transgenic vocal cords.

Novacrab

Cost: 4 MP • **Avail:** 50

WT: 9 • **DUR:** 45 • **DR:** 68

Insight 0 **Moxie** 0 **Vigor** 3 **Flex** 0

Movement Rate: Walker 4/20

Ware: Access Jacks, Biomods, Carapace Armor (+6/+7), Cold Tolerance, Cortical Stack, Cyberbrain, Enhanced Respiration, Gills, Mesh Inserts, Mnemonics, Oxygen Reserve, Puppet Sock, Vacuum Sealing

Morph Traits: Exotic Morphology (Level 3), Non-Human Biochemistry (Level 2)

Notes: Claw Attack (DV 2d10)

Pleasure Pod

Pleasure pods are faux humans intended for intimate entertainment purposes and indulgent hedonism. Their biology includes extra nerve clusters in their erogenous zones, fine motor control over certain muscle groups, enhanced pheromones, sanitized metabolisms, and the capability to purr. They are capable of switching between multiple sex configurations and are often enhanced in other areas.

Pleasure Pod

Cost: 4 MP • **Avail:** 70

WT: 6 • **DUR:** 30 • **DR:** 45
Insight 0 **Moxie** 3 **Vigor** 0 **Flex** 0

Movement Rate: Walker 4/20
Ware: Access Jacks, Biomods, Clean Metabolism, Cortical Stack, Cyberbrain, Enhanced Pheromones, Mesh Inserts, Mnemonics, Puppet Sock, Scent Alteration, Sex Switch
Common Extras: Many have Striking Looks ▶76 or Addiction ▶76.

Security Pod

Security pods were originally manufactured as mass-produced AI-operated soldiers for joint peacekeeping missions and enclave border/security roles. Many were co-opted by the TITANs during the Fall, so they fell out of favor for many years, but a demand for cheap mercenary morphs has revived interest.

Security Pod

Cost: 5 MP • **Avail:** 60

WT: 7 • **DUR:** 35 • **DR:** 53
Insight 1 **Moxie** 0 **Vigor** 2 **Flex** 1

Movement Rate: Walker 4/20
Ware: Access Jacks, Biomods, Bioweave Armor (+2/+3), Claws, Cortical Stack, Cyberbrain, Eelware, Enhanced Hearing, Enhanced Vision, Mesh Inserts, Mnemonics, Puppet Sock
Common Extras: Many are equipped with adrenal surge ▶322, and t-ray emitters ▶318. Space marine variants have oxygen reserve ▶324, prehensile feet ▶324, and vacuum sealing ▶325.

Shaper

Shapers are designed for infiltration and disguise. They lack the seamlines common to pods and incorporate ware that allows them to alter their appearance. Favored by spies and criminals, they are illegal in many habitats.

Shaper

Cost: 5 MP • **Avail:** 40

WT: 7 • **DUR:** 35 • **DR:** 53
Insight 1 **Moxie** 2 **Vigor** 0 **Flex** 0

Movement Rate: Walker 4/20
Ware: Access Jacks, Biomods, Chameleon Skin, Cortical Stack, Cyberbrain, Mesh Inserts, Mnemonics, Nanotat ID Flux, Puppet Sock, Sex Switch, Skinflex

UPLIFT BIOMORPHS

These biomorphs are the original bodies of various sapient non-humans. Though uncommon and sometimes stigmatized, they are also sleeved by non-uplifts.

Neo-Avian

Neo-avians include ravens, crows, and gray parrots uplifted to human-level intelligence. Their physical sizes are much larger than their non-uplifted cousins (to the size of a human child), with larger heads for their increased brain size. Numerous transgenic modifications have been made to their wings, allowing them to retain limited flight capabilities at 1 g, but giving them a more bat-like physiology so they can bend and fold better and adding primitive digits for basic tool manipulation. Their toes are also more articulated and now accompanied with an opposable thumb. Neo-avians have adapted well to microgravity environments, and are favored for their small size and reduced resource use.

Neo-Avian

Cost: 0 MP • **Avail:** 50

WT: 5 • **DUR:** 25 • **DR:** 38
Insight 2 **Moxie** 1 **Vigor** 0 **Flex** 0

Movement Rate: Walker 2/8, Winged 8/40
Ware: Biomods, Claws, Cortical Stack, Direction Sense, Enhanced Vision, Mesh Inserts, Prehensile Feet, Wings
Morph Traits: Exotic Morphology (Level 3), Non-Human Biochemistry (Level 2)
Notes: Beak/Claw Attack (DV 2d6), Small size ▶227

Neo-Bonobo/ Neo-Chimpanzee

Like other neo-hominids, uplifted bonobo and chimpanzee morphs feature enhanced intelligence and bipedal frames. Their long arms and prehensile feet are a boon for climbing and maneuvering in microgravity environments. They retain the body hair of their forebears, though it is a common cultural practice to dye, stylize, or otherwise manipulate it. Transgenic vocal systems allow them to speak as humans do.

Neo-Bonobo/Neo-Chimp

Cost: 1 MP • **Avail:** 50

WT: 6 • **DUR:** 30 • **DR:** 45
Insight 0 **Moxie** 2 **Vigor** 1 **Flex** 0

Movement Rate: Walker 4/12
Ware: Biomods, Cortical Stack, Enhanced Smell, Mesh Inserts, Prehensile Feet
Morph Traits: Exotic Morphology (Level 1) Non-Human Biochemistry (Level 1)

Neo-Neanderthal

This morph is derived from fossilized Neanderthal DNA, uplifted and enhanced to transhuman equivalence. Neanderthal morphs appear muscular with a heavy bone structure, distinctively long skulls, heavy brow ridges, and weak chins. Pale complexions and red hair are common features.

Neo-Neanderthal

Cost: 2 MP • **Avail:** 35

WT: 7 • **DUR:** 35 • **DR:** 53
Insight 0 **Moxie** 1 **Vigor** 2 **Flex** 1

Movement Rate: Walker 4/20
Ware: Biomods, Cortical Stack, Mesh Inserts
Morph Traits: Non-Human Biochemistry (Level 1)

Neo-Gorilla

Neo-gorillas benefit from enhanced cognition and upright stances like other neo-hominids, though they are not as adept at climbing. They stand roughly as tall as humans and have stronger and larger frames.

Neo-Gorilla

Cost: 3 MP • **Avail:** 40

WT: 9 • **DUR:** 45 • **DR:** 68
Insight 0 **Moxie** 0 **Vigor** 3 **Flex** 1

Movement Rate: Walker 4/12
Ware: Biomods, Cortical Stack, Enhanced Smell, Mesh Inserts, Prehensile Feet
Morph Traits: Exotic Morphology (Level 1), Non-Human Biochemistry (Level 1)

Neo-Octopus

Colloquially known as "octomorphs," these uplifted octopus sleeves are quite useful in zero-gravity environments. They retain eight arms, their chameleon ability to change skin color, ink sacs, and a sharp beak. They also have increased brain mass and longevity, can breathe both air and water, and lack a skeletal structure so they can squeeze through tight spaces. Octomorphs typically crawl along in zero gravity using their arm suckers and expelling air for propulsion; in low gravity they walk on two of their arms. Their eyes have been enhanced with color vision, provide a 360-degree field of vision, and rotationally adjust to keep the slit-shaped pupil aligned with "up." A transgenic vocal system allows them to speak.

Neo-Octopus

Cost: 3 MP • **Avail:** 35

WT: 6 • **DUR:** 30 • **DR:** 45
Insight 1 **Moxie** 1 **Vigor** 1 **Flex** 2

Movement Rate: Swim 4/20, Thrust Vector 4/12, Walker 2/8
Ware: 360-Degree Vision, Biomods, Chameleon Skin, Cortical Stack, Gills, Mesh Inserts, Polarization Vision
Morph Traits: Exotic Morphology (Level 3), Limberness (Level 2), Non-Human Biochemistry (Level 2)
Notes: 8 prehensile arms, Beak Attack (DV 1d10), Ink Attack (use Athletics, blinding, 5-meter uniform area-effect in water and micrograv)

Neo-Orangutan

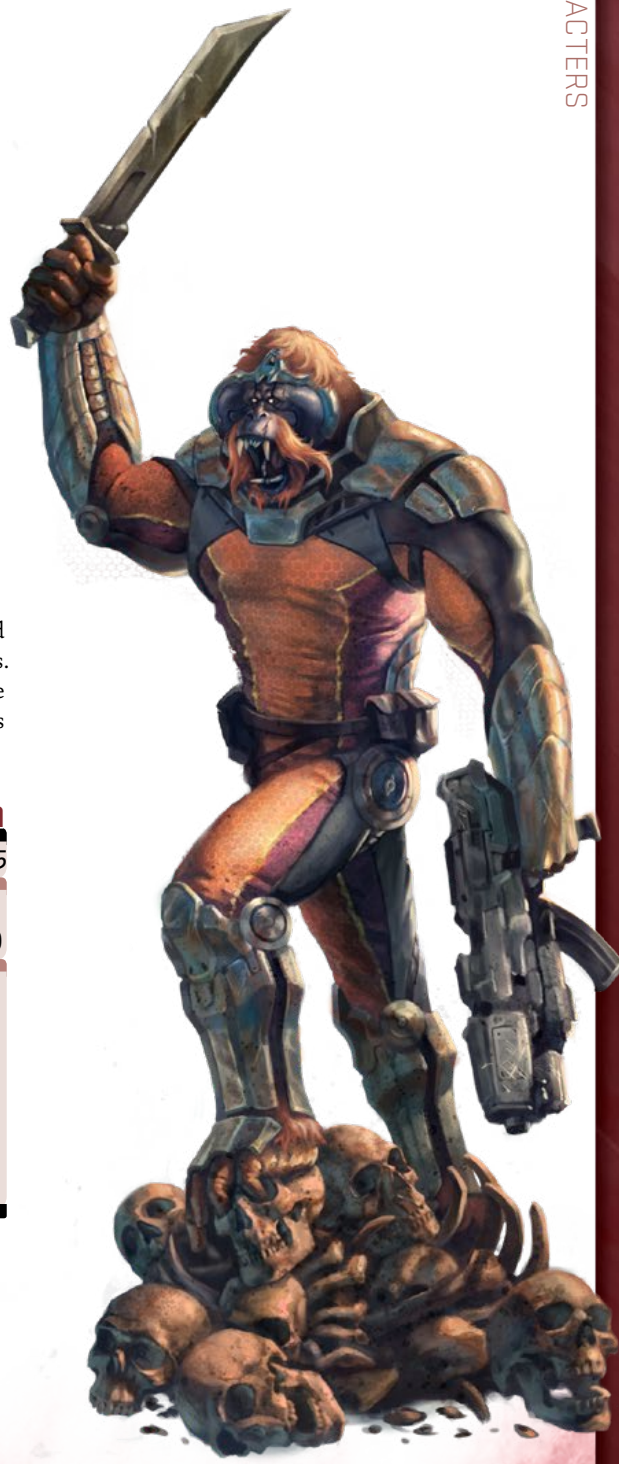
Neo-orangutans have the same uplifted features as their neo-hominid cousins. Compared to humans, their legs are shorter and arms longer. Neo-orangutans tend to be more solitary than social.

Neo-Orangutan

Cost: 3 MP • **Avail:** 35

WT: 7 • **DUR:** 35 • **DR:** 53
Insight 1 **Moxie** 1 **Vigor** 2 **Flex** 0

Movement Rate: Walker 4/12
Ware: Biomods, Cortical Stack, Enhanced Smell, Mesh Inserts, Prehensile Feet
Morph Traits: Exotic Morphology (Level 1), Limberness (Level 1), Non-Human Biochemistry (Level 1)
Notes: Reach (+10)



SYNTHMORPHS

Most synthmorph designs were originally intended to be robots, piloted by ALIs. Robot forms are optimized to suit their function, and so a wide variety of body plans exist. Robots designed to interact with transhumans often have biped or quadruped walker frames, to better navigate transhuman dwellings and spaces, but were often distinctly non-human in appearance. Many feature a sort of symbolic "face," to give transhumans something to look at and interact with, but these were rarely realistic, so as to avoid uncanny-valley creepiness.

Since the Fall, more synthmorphs have been designed specifically for transhuman egos, as they are cheaper and quicker to make than biomorphs. Without specialized robotic functions in mind, many of these synthmorph designs feature anthropomorphic frames (androids and gynoids) specifically tailored for egos used to human forms, including heads and distinctive (though still non-realistic) faces. As transhumanity grows accustomed to synthmorphs and more creative, however, innovative and unusual synthmorph designs become more common-place.

SYNTHMORPH CHARACTERISTICS

Synthmorphs — as well as bots, vehicles, and similar shells — share the following capabilities:

Lack of Biological Functions

Shells need not be bothered with trivialities like breathing, eating, defecating, aging, sleeping, or any similar minor but crucial aspects of biological life. They are also immune to toxins and pathogens. Synthmorphs are powered by nuclear and standard batteries, and sometimes solar power; for game purposes, power is not an issue for them.

Pain Filter

Synthmorphs can filter out their pain receptors so that they are unhampered by wounds or physical damage. This allows them to ignore the −10 modifier from 1 wound (*Wound Effects* ▶220), but they suffer −30 on any tactile-based Perceive Tests and will not even notice they have been damaged unless they succeed in a (modified) Perceive Test.

Immunity to Shock

Synthmorphs have no nervous system to disrupt, and their optical electronics are carefully shielded from interference. Shock attacks temporarily disrupt wireless radio communications, however, impeding all mesh actions until the end of the next action turn.

Environmental Durability

Synthmorphs are built to withstand a wide range of environments, from dusty Mars to the oceans of Europa to the vacuum of space. They are unaffected by any but the most extreme temperatures and atmospheric pressures. Treat as cold tolerance ▶324 and vacuum sealing ▶325.

Toughness

Synthetic shells are made to last — a fact reflected in their higher Durability and built-in Armor ratings. Their composition also makes their physical strikes more damaging; unarmed strikes by shells inflict DV 2d6.

Case

Cases are mass-produced robotic shells, an affordable resleeving option for the poor, though of notoriously poor quality. They are available in many varieties to suit a client's taste. Most case morphs are anthropomorphic, with a thin framework body standing just shorter than an average human.

Case

Cost: 0 MP • **Avail:** 100

WT: 5 • **DUR:** 25 • **DR:** 50

Insight 0 **Moxie** 0 **Vigor** 0 **Flex** 0

Movement Rate: Walker 4/12

Ware: Access Jacks, Cortical Stack, Cyberbrain, Lidar, Mesh Inserts, Mnemonics, Puppet Sock

Morph Traits: Exotic Morphology (Level 1), Inherent Flaws

Notes: Light Frame (Armor 6/4)

Spare

Spares are small, portable shells designed as a temporary replacement sleeve should your primary morph be killed/destroyed. They are common gear for gatecrashing missions. Packed as a flat 15-centimeter disc, when activated they pop into a six-limbed spherical shape. Just plug your original cortical stack in and you are ready to go. Built-in stress-management systems help survivors handle the trauma of their recent death.

Spare

Cost: 0 MP • **Avail:** 80

WT: 3 • **DUR:** 15 • **DR:** 30

Insight 0 **Moxie** 1 **Vigor** 0 **Flex** 0

Movement Rate: Walker 4/12

Ware: Access Jacks, Cortical Stack (optional), Cyberbrain, Grip Pads, Lidar, Mesh Inserts, Mnemonics, Puppet Sock, Skinlink, Stress Control

Morph Traits: Exotic Morphology (Level 3)

Notes: Light Frame (Armor 6/4), Small size ▶227

Dragonfly

The dragonfly takes the shape of a meter-long flexible shell with eight wings, four manipulator limbs, and a prehensile tail. Capable of near-silent flight in Earth gravity, dragonfly bots fare even better in microgravity. Their wings operate independently and can rotate, allowing for graceful maneuvering, hovering, and tight turns.

Dragonfly

Cost: 1 MP • **Avail:** 70

WT: 5 • **DUR:** 25 • **DR:** 50

Insight 1 **Moxie** 0 **Vigor** 1 **Flex** 0

Movement Rate: Walker 2/8, Winged 8/32

Ware: Access Jacks, Cortical Stack, Cyberbrain, Mesh Inserts, Mnemonics, Puppet Sock, Prehensile Tail, Radar, Wings

Morph Traits: Exotic Morphology (Level 3)

Notes: Light Frame (Armor 6/4), Small size ▶227

Swarmanoid

Swarmanoids are swarms composed of hundreds of insect-sized microbots. Each individual "bug" is capable of crawling, rolling, hopping several meters, or using nanocopter fan blades for airlift. The cyberbrain, cortical stack, and sensor systems are distributed throughout the swarm. Though the swarm can "meld" together into various loose shapes, it is incapable of physical tasks like grabbing, lifting, or holding. Individual bots are linked by radio and laser and are quite capable of interfacing with electronics. Swarmanoids follow swarm rules ▶344.

Swarmanoid

Cost: 3 MP • **Avail:** 60

WT: — • **DUR:** 50 • **DR:** 100

Insight 2 **Moxie** 0 **Vigor** 0 **Flex** 0

Movement Rate: Hopper 4/12, Rotor 4/20, Walker 2/8

Ware: 360-Degree Vision, Access Jacks, Cortical Stack, Cyberbrain, Lidar, Mesh Inserts, Mnemonics, Puppet Sock

Morph Traits: Exotic Morphology (Level 3)

Notes: Swarm Attack (DV 1d6, ignores armor, blinding), comes with specialized swarmanoid hive ▶342

Synth

Synths are even more humanoid than cases and of better quality. They are commonly deployed for labor-intensive tasks in environments not suited for biomorphs or for people who need a body quickly and cheaply or simply on a transient basis. Most designs are anthropomorphic, though various alternatives exist, including some based on uplift physiology.

Synth

Cost: 3 MP • **Avail:** 80

WT: 8 • **DUR:** 40 • **DR:** 80

Insight 0 **Moxie** 0 **Vigor** 1 **Flex** 1

Movement Rate: Walker 4/20

Ware: Access Jacks, Cortical Stack, Cyberbrain, Lidar, Mesh Inserts, Mnemonics, Puppet Sock

Morph Traits: Exotic Morphology (Level 1)

Notes: Light Frame (Armor 6/4)

Savant

Developed by brinker hardware hackers, savants feature neural-state enhancements that make them appealing to engineers, scientists, and intellectuals.

Savant

Cost: 4 MP • **Avail:** 50

WT: 7 • **DUR:** 35 • **DR:** 70
Insight 3 **Moxie** 0 **Vigor** 1 **Flex** 1

Movement Rate: Walker 4/20
Ware: Access Jacks, Cortical Stack, Cyberbrain, Lidar, Mesh Inserts, Mnemonics, Puppet Sock
Morph Traits: Exotic Morphology (Level 1)
Notes: Light Frame (Armor 6/4)

Galatea

This high-end shell was designed to increase the appeal and social acceptance of synthmorphs. Galateas look expensive and their mental architecture is crafted to enhance the wearer's personality and charm. Though many media icons have embraced this morph's novelty, biochauvinists still view it as a monstrosity.

Galatea

Cost: 5 MP • **Avail:** 50

WT: 8 • **DUR:** 40 • **DR:** 80
Insight 1 **Moxie** 2 **Vigor** 1 **Flex** 1

Movement Rate: Walker 4/20
Ware: Access Jacks, Cortical Stack, Chameleon Skin, Cyberbrain, Enhanced Hearing, Lidar, Mesh Inserts, Mnemonics, Puppet Sock
Morph Traits: Exotic Morphology (Level 1)
Notes: Light Frame (Armor 6/4)

Slitheroid

Slitheroid shells take the form of a humanoid torso with retractable arms atop a 2-meter-long segmented metallic snake. Slitheroids use lateral undulation to move, though they can also pull themselves along by their arms or coil, twist, and roll their bodies like a ball or hoop.

Slitheroid

Cost: 5 MP • **Avail:** 50

WT: 9 • **DUR:** 45 • **DR:** 90
Insight 0 **Moxie** 1 **Vigor** 3 **Flex** 0

Movement Rate: Roller 8/32, Snake 4/12
Ware: Access Jacks, Cortical Stack, Cyberbrain, Enhanced Vision, Mesh Inserts, Mnemonics, Puppet Sock, Retracting Limbs
Morph Traits: Exotic Morphology (Level 2)
Notes: Medium Frame (Armor 8/6)

Steel Morph

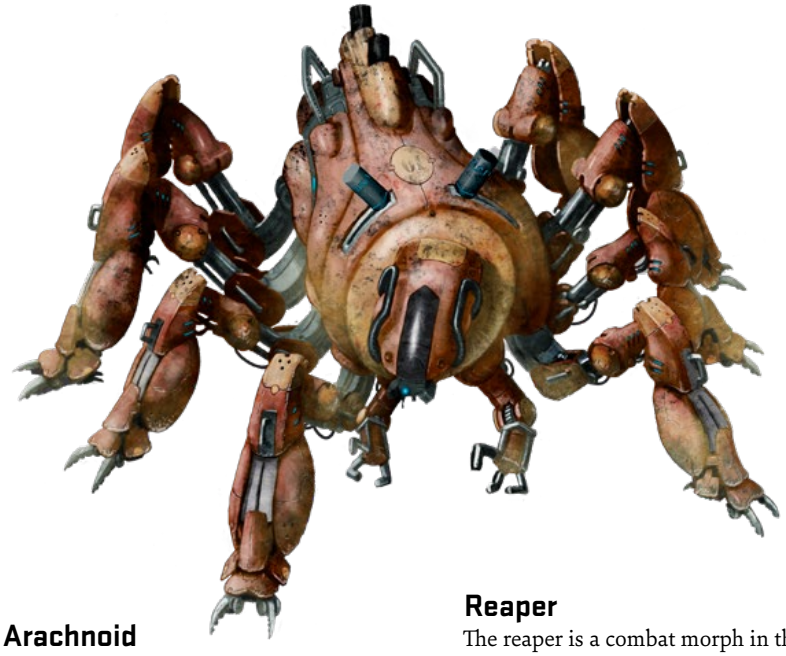
Like the galatea, this upscale shell was designed to counter biochauvinist attitudes and make synthmorphs more appealing. Where the galatea is optimized for social interaction, steel morphs provide enhanced physical capabilities for both work and recreation.

Steel Morph

Cost: 5 MP • **Avail:** 50

WT: 8 • **DUR:** 40 • **DR:** 80
Insight 0 **Moxie** 1 **Vigor** 3 **Flex** 1

Movement Rate: Walker 4/20
Ware: Access Jacks, Cortical Stack, Cyberbrain, Lidar, Mesh Inserts, Mnemonics, Puppet Sock
Morph Traits: Exotic Morphology (Level 1)
Notes: Medium Frame (Armor 8/6)



Arachnoid

Arachnoid shells mimic the shapes of spiders, termites, ants, beetles, and other arthropods. Three or four sets of pneumatic limbs are capable of rotating around their meter-long torso, and an additional set of manipulator arms near the head enables fine manipulation and tool use. Arachnoids move by walking, hopping, extending omnidirectional mini-wheels for skating movement, or by retracting their limbs and maneuvering with vectored-air thrusters in microgravity.

Arachnoid

Cost: 6 MP • **Avail:** 40

WT: 11 • **DUR:** 55 • **DR:** 110
Insight 1 **Moxie** 0 **Vigor** 3 **Flex** 0

Movement Rate: Hopper 4/12, Thrust Vector 8/40, Walker 4/20, Wheeled 8/40
Ware: Access Jacks, Cortical Stack, Cyberbrain, Lidar, Magnetic System, Mesh Inserts, Mnemonics, Pneumatics, Puppet Sock, Retracting Limbs
Morph Traits: Exotic Morphology (Level 3)
Notes: Medium Frame (Armor 8/6)

Reaper

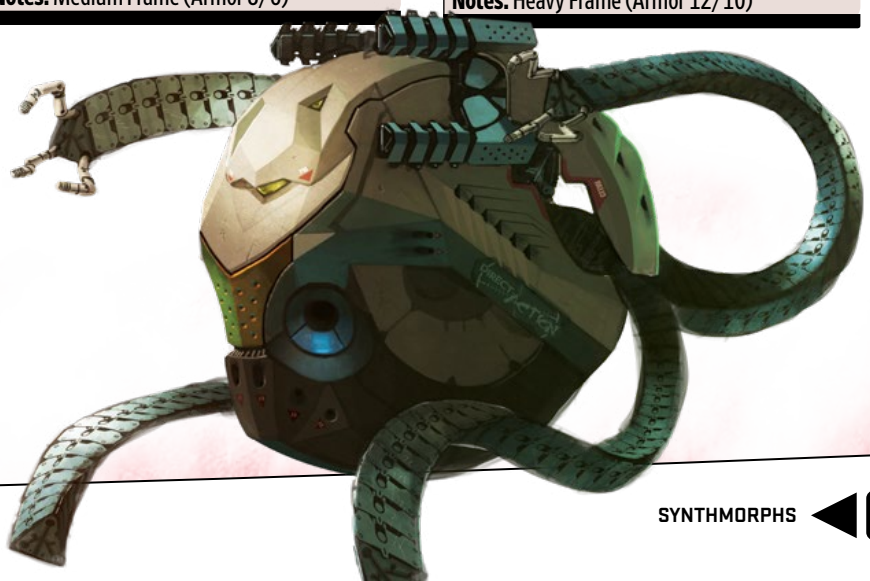
The reaper is a combat morph in the form of an armored disc, so that it can turn and present a thin profile to an enemy. Four legs/manipulating arms and four weapon pods are folded inside its frame. It uses vector-thrust nozzles to maneuver in microgravity and also takes advantage of an ionic drive for fast movement over distance. Reapers are infamous due to military sims and Fall XPs; bringing one into most habitats will undoubtedly raise eyebrows if not get you arrested.

Reaper

Cost: 12 MP • **Avail:** 10

WT: 12 • **DUR:** 60 • **DR:** 120
Insight 1 **Moxie** 0 **Vigor** 6 **Flex** 1

Movement Rate: Hopper 4/20, Ionic 8/40, Thrust Vector 8/40, Walker 4/20
Ware: 360-Degree Vision, Access Jacks, Anti-Glare, Cortical Stack, Cyberbrain, Enhanced Vision, Magnetic System, Mesh Inserts, Mnemonics, Pneumatics, Puppet Sock, Radar, Retracting Limbs, T-Ray Emitter, Weapon Mount (Articulated, 4)
Morph Traits: Exotic Morphology (Level 3)
Notes: Heavy Frame (Armor 12/10)



FLEXBOT

Flexbots are modular and customizable, each composed of one or more modules that interlock in various shapes and configurations. Individual modules are specialized towards specific functions and also capable of transforming into a variety of shapes and mechanisms. They have 4 limbs in their default configurations. Independent modules are only the size of a large dog, but multiple flexbots can join together for larger mass operations, even taking on heavy-duty tasks such as demolition, excavation, manufacturing, construction, or robotics assembly. Flexbots can also incorporate any robot with Modular Design ware as modules.

All flexbots have the following stats, plus the stats for their module type:

All Flexbots

Movement Rate: Thrust Vector 8/40, Walker 4/12
Ware: Access Jacks, Cortical Stack, Cyberbrain, Lidar, Mesh Inserts, Mnemonics, Modular Design, Puppet Sock, Shape Adjusting
Morph Traits: Exotic Morphology (Level 3)
Notes: Light Frame (Armor 6/4), Small size

Crafter Module

Crafters are engineer modules, specialized in construction and fabrication.

Crafter Module

Cost: 2 MP • **Avail:** 60

WT: 4 • **DUR:** 20 • **DR:** 40
Insight 1 **Moxie** 0 **Vigor** 0 **Flex** 0

Ware: Engineer Swarm Hive, Fixer Swarm Hive
Common Shape Adjustments: Enhanced Vision, Disassembly Tools, Fractal Digits, Nanoscopic Vision, Tool Kit, T-Ray Emitter, and Utilimod

Fighter Module

These modules are combat-oriented.

Fighter Module

Cost: 3 MP • **Avail:** 60

WT: 6 • **DUR:** 30 • **DR:** 60
Insight 0 **Moxie** 0 **Vigor** 1 **Flex** 0

Ware: Pneumatics, Weapon Mount (2)
Common Shape Adjustments: Enhanced Vision, Light Combat Armor, Radar, T-Ray Emitter, and ranged weapons

Rogue Module

Rogues are optimized for stealth and covert activities.

Rogue Module

Cost: 2 MP • **Avail:** 60

WT: 4 • **DUR:** 20 • **DR:** 40
Insight 0 **Moxie** 0 **Vigor** 1 **Flex** 0

Ware: Chameleon Skin, Radar Absorbent
Common Shape Adjustments: Dazzler, Enhanced Vision, Fiber Eye, Fractal Digits, Magnetic System, Nanoscopic Vision, T-Ray Emitter, Weapon Mount

Wizard Module

Wizard modules specialize in infosec and communications tasks.

Wizard Module

Cost: 2 MP • **Avail:** 60

WT: 4 • **DUR:** 20 • **DR:** 40
Insight 1 **Moxie** 0 **Vigor** 0 **Flex** 0

Ware: Radio Booster, Sniffer App, Tracker App
Common Shape Adjustments: Electrical Sense, Enhanced Vision, Laser Link, Nanodetector, Skinlink, Utilitool

FLEXBOT RULES

Each flexbot is considered a single entity for rules purposes, no matter how many modules it has. Though the full range of flexbot possibilities is beyond the scope of this book, apply the following rules and keep an eye on past and future *Eclipse Phase* supplements:

- Choose one module to hold the ego—this module controls the others.
- (Dis)connecting a module is a complex action and requires an Integration Test ▶288. Modules not physically connected are handled as remote operation ▶346.
- When modules are combined, use their combined pools.
- Modules must all be using the same mobility system or Movement Rate is halved.
- A flexbot with 3–4 modules is medium-sized; 5–9 large; 10 or more very large.
- A flexbot's Armor Value equals the average of its modules' AVs.
- A flexbot's DUR equals the combined DUR of its modules.
- Wound Threshold equals DUR ÷ 5 and Death Rating equals DUR × 2.
- Damage is applied evenly among modules. If a detached module has damage exceeding its Wound Threshold, a wound can be assigned to it. Distinct modules can be targeted with called shots.
- Robots of varying sizes may be integrated as modules. Small bots count as full modules. Treat 5 very small bots as 1 module; only apply a pool bonus (equal to one bot's pools) if there are at least five of the same type. A medium bot counts as 3 modules, a large bot as 5 modules, and a very large bot as 10 modules. Average their AV scores (taking into account the bots count as multiple modules) and combine DUR as defined above.
- Bonuses from some traits and ware only apply if every module in the flexbot has them (e.g., chameleon skin); use common sense.

INFOMORPHS

Infomorphs are digital-only forms — they lack a physical body. They are software mind-states on which living egos are run, though they may be limited by the capabilities of the hardware that supports them. Rules for infomorphs can be found on ▶252.

Digimorph

Digimorphs are bare-bones mind emulations, though customizable and widely used. By default, an ego that evacuates (or is forked from) a cyberbrain is run on a digimorph, unless another infomorph option is available.

Digimorph

Cost: 0 MP • **Avail:** 100

WT: 5 • **DUR:** 25 • **DR:** 50
Insight 0 **Moxie** 0 **Vigor** 0 **Flex** 0

Ware: Mnemonics
Morph Traits: Digital Speed, Exotic Morphology (Level 3)

Ikon

Designed for online performers, media icons, and social networkers, this infomorph is coded to enhance charisma and social skills.

Ikon

Cost: 1 MP • **Avail:** 100

WT: 6 • **DUR:** 30 • **DR:** 60
Insight 1 **Moxie** 3 **Vigor** 0 **Flex** 0

Ware: Copylock, Memory Lock, Mnemonics
Morph Traits: Digital Speed, Exotic Morphology (Level 3)

Agent

Popular with network security specialists, penetration testers, and hackers, this infomorph is optimized for infosec roles.

Agent

Cost: 2 MP • **Avail:** 100

WT: 8 • **DUR:** 40 • **DR:** 80
Insight 4 **Moxie** 0 **Vigor** 0 **Flex** 0

Ware: Enhanced Security, E-Veil, Mnemonics
Morph Traits: Digital Speed, Exotic Morphology (Level 3)

Operator

This infomorph is ideal for professions that involve drone remote operation, whether maintenance bot fleets, surveillance drones, or fighter craft and combat machines.

Operator

Cost: 2 MP • **Avail:** 100

WT: 7 • **DUR:** 35 • **DR:** 70
Insight 3 **Moxie** 0 **Vigor** 0 **Flex** 1

Ware: Drone Rig, Mnemonics, Oracles
Morph Traits: Digital Speed, Exotic Morphology (Level 3)

GEAR PACKS

Every character receives two gear packs during character creation. The first of these is according to your type of campaign: Firewall, criminal, or gatecrashing. The second is based on the profession chosen in Step 2.

The gear provided in these packs is optional. If there is another piece of gear you want your character to have — whether from another gear pack or from listings in the *Gear* chapter ▶310— then simply swap it out with gear from your packs of an equivalent GP value.

These gear packs can also be used as an easy way to assign gear for new missions during gameplay (*Acquiring Gear* ▶312).

All starting gear includes the physical gear item and the digital blueprint for nanofabrication.

Free Muse: Every character starts with a muse ALI ▶250 for free.

Infomorphs: The gear packs are built with embodied characters in mind. If you have chosen an infomorph, some of it may not work with your concept. In this case, you can either adopt the optional infomorph gear pack or switch out the gear you can't use for meshware, apps, services, bots, etc. of an equivalent GP.

CAMPAIGN PACKS

Firewall Agent/Criminal

GEAR	Complexity/GP	Description	Page
Anonymizer	Min/1	Masks your mesh ID.	315
Armor Vest (Light)*	Min/1	AV 4/10. Concealable.	215
Fake Ego ID	Maj/R/3	Forged ID and back history, with its own rep scores.	315
Medium Pistol Firearm	Min/R/1	DV 2d10, SA/BF/FA, Ammo 15 + 1, Range 30.	210
Smart Clothing*	Min/1	Can change color, texture, and cut. +10 Infiltrate, +30 covered and stationary.	317
TacNet App	Mod/2	Share tactical data in real-time.	327
VPN App	Min/1	Creates virtual private network.	326

*Synthmorph Alternative

Anti-Glare	Min/1	No glare modifiers.	318
Industrial Armor	Min/1	AV +6/+4.	214

Gatecrashing

GEAR	Complexity/GP	Description	Page
Autocook*	Min/1	Fab food and drink only.	343
Electronic Rope	Min/1	Controllable rope.	341
Healing Spray*	Min/1	Heals 1d10 damage per hour for 12 hours.	342
Medium Pistol Firearm	Min/R/1	DV 2d10, SA/BF/FA, Ammo 15 + 1, Range 30.	210
Portable SolArchive	Min/1	Enable Research Tests related to one Know skill while isolated from mesh.	340
Standard Vacsuit*	Maj/3	As smart clothes, protects from vacuum, 48 hours air, AV 8/6.	341
TacNet App	Mod/2	Share tactical data in real-time.	327

*Synthmorph Alternative

Anti-Glare	Min/1	No glare modifiers.	318
Industrial Armor	Min/1	AV +6/+4.	214
Medichines	Maj/3	Ignore 1 wound, heal faster, drug/toxin effect/duration halved.	322

Optional Pack: Infomorph

GEAR	Complexity/GP	Description	Page
Drone Rig	Mod/2	Ignore the –10 modifier when jamming.	320
Enhanced Security	Mod/2	–10 Infosec to hack, –30 in defensive mode but no Insight pool and –3 INIT.	326
Exploit App	Mod/R/2	Hacking library tool.	326
Private Server	Min/1	Private server, self-administrated.	315
Gnat	Min/1	Surveillance rotorcraft. Small size.	349
Guardian Angel	Mod/2	Personal defense rotorcraft. Small size.	347

PROFESSION PACKS

Academic

GEAR	Complexity/GP	Description	Page
Creepy Bot	Min/1	Worn companion bot. Small size.	348
Holographic Projector	Min/1	Projects 3D, HD, ultra-realistic images/video. +20 to Perceive as fake w/in 20 m.	317
Microcar	Mod/2	One-person two-wheeler.	350
Multi-Tasking	Mod/2	Focus on 2 things at once. +1 Insight.	320
Neem (5 doses)	Min/1	+20 COG Check for recall of memories learned while on Neem.	331
Portable SolArchive	Min/1	Enable Research Tests related to one Know skill while isolated from mesh.	340
Servitor Bot	Min/1	Common helper/cook/janitor bots.	348
Simulspace	Min/1	Access to a VR space.	315

Covert Operative

GEAR	Complexity/GP	Description	Page
Chameleon Cloak	Mod/2	Camouflage, +10 Infiltrate, +30 stationary.	338
Cleaner Swarm	Min/1	Cleans, eliminates forensic evidence.	345
Covert Operations Tool	Maj/R/3	Bypasses locks, cuts/repairs holes, Hardware: Electronics 60 vs. electronic locks, more.	338
Microbug	Min/1	Micro-sized camera/audio recorder.	338
Skinflex*	Mod/2	Disguise face, skin, hair. +30 to impersonation/disguise Deceive Tests.	321
Spy Nanoswarm	Min/1	Surveillance, Perceive 60.	345

*Synthmorph Alternative

Synthetic Mask	Mod/2	Faux skin for synthmorph. +30 disguise-based Deceive Tests.	321

Enforcer

GEAR	Complexity/GP	Description	Page
Aggro (5 doses)	Min/1	+20 Provoke to intimidate/taunt, –20 other social tests.	331
Claws	Min/1	DV 2d6, concealable.	204
Flex Cutter	Min/1	Flexible blade, DV 1d10 + 3, concealable.	204
Grin (5 doses)	Min/1	Ignore 1 wound.	331
Muscle Augmentation	Maj/3	Muscles enhanced with myofibers. +1d6 DV melee, +10 SOM Checks.	322
Shock Glove	Min/1	DV 1d6, Shock, Touch-Only.	204
Shredder	Mod/R/2	Flechette gun, DV 2d10 + 6, SA/BF/FA, Ammo 100, Range 25, Two-Handed.	209

Explorer

GEAR	Complexity/GP	Description	Page
Breadcrumb System	Min/1	Leaves mote trail for meshing/positioning.	336
Direction Sense	Min/1	Innate sense of direction and distance.	318
Enhanced Vision	Mod/2	Tetrachromatic vision, wider frequency range, better focus. +10 vision Perceive Tests.	318
Mission Recorder	Min/1	Backs up all mission data.	336
Pressure Tent	Mod/2	Self-erecting shelter for 4, built-in breather.	341
Saucer	Min/1	Spinning disc recon drone. Small size.	349
Scout Missile	Mod/2	Maps 5 km radius or 10 km in one direction in 20 minutes, Perceive 60.	340

Face/Dealer

GEAR	Complexity/GP	Description	Page
Enhanced Hearing	Min/1	Hear higher and lower frequencies. +10 hearing-based Perceive.	318
Guardian Angel	Mod/2	Personal defense rotorcraft. Small size.	347
Medium Fabber	Mod/2	Fab small items.	343
Nanodetector	Min/1	Detects nanobots, Exotic Skill: Nanobot Detection 40 (70 w/active swarm), Know: Nanotech 60.	342
Neuromodulation	Mod/2	Control over neurotransmitters and emotions. +1 Moxie.	321
Smart Hawk	Min/1	Used for surveillance.	328
Stiff (5 doses)	Min/1	+10 SAV/WIL Checks vs. Persuade/Provoke, Enhanced Behavior: Stubborn (Level 2).	335

Genehacker

GEAR	Complexity/GP	Description	Page
Archive	Min/1	+10 Research Tests related to one Know skill.	315
Dino Pet	Min/1	Genehacked dinosaur pets.	328
Fokus (5 doses)	Min/1	Enhanced Behavior: Obsessive (2), reduce timeframes 25%.	331
Medichines	Maj/3	Ignore 1 wound, heal faster, drug/toxin effect/duration halved.	322
Pusher Swarm	Min/R/1 + drug/toxin	Exposes biomorphs to drug/toxin.	345
Specimen Container	Min/1	Holds samples in stasis conditions.	340
Tools (Kit)	Min/1	Portable, applies to specific skill.	317
Twitch (5 doses)	Min/R/1	–20 actions, SOM Check vs. incapacitation.	335

Hacker

GEAR	Complexity/GP	Description	Page
Exploit App	Mod/R/2	Hacking library tool.	326
Gray Box	Min/1	Establishes a wireless mesh link.	338
Radio Booster	Min/1	Extends radio ranges, 25/250km range.	336
Sniffer App	Mod/2	Collect/view traffic between two systems.	326
Spoofer App	Mod/R/2	Fake transmissions and mesh IDs.	326
Tracker App	Mod/2	Trace connections.	326

Investigator

GEAR	Complexity/GP	Description	Page
Biometric Matcher	Min/1	Match biometric patterns.	326
Brainprint Scanner	Min/1	Scans brainprint in 5 minutes.	338
Cuffband	Min/1	Electronic handcuffs, remote operation, shock attack DV 1d6.	338
Klar (5 doses)	Min/1	+10 Perceive, no distraction modifiers.	331
Microbug	Min/1	Micro-sized camera/audio recorder.	338
Oracles	Mod/2	Negate distraction modifiers.	318
Scout Nanoswarm	Min/1	Maps area, collects forensic evidence, Know: Chemistry 60, Medicine: Forensics 60.	345
Speck	Min/1	Insectoid spy bots. Very small size.	349
Spy Nanoswarm	Min/1	Surveillance, Perceive 60.	345

Medic

GEAR	Complexity/GP	Description	Page
Docbot	Maj/3	Medical bot.	347
Healing Spray	Min/1	Heals 1d10 damage per hour for 12 hours.	342
Healing Vat	Maj/3	Heal/cure biomorphs, customize/augment morph.	342
Meds (5 doses)	Mod/2	Heals 1d10 damage per hour or 1 wound per day.	332
Med Scanner	Min/1	Scans health, diagnosis w/Medicine at 60, detect nanobots as nanodetector.	342

Mindhacker

GEAR	Complexity/GP	Description	Page
Comfurt (5 doses)	Min/1	+5 LUC, +1 TT, +5 IR.	332
Eelware	Min/1	DV 1d6, shock effect, touch-only.	204
Ego Bridge	Mod/2	Upload from/download to biological brains.	342
Multi-Tasking	Mod/2	Focus on 2 things at once. +1 Insight.	320
Private Server	Mod/2	Private server, managed by others.	315
Psychosurgery App	Mod/2	Edit minds.	326

Scavenger

GEAR	Complexity/GP	Description	Page
Breadcrumb System	Min/1	Leaves mote trail for meshing/positioning.	336
Diamond Axe	Min/1	DV 2d10 + 3, armor-piercing, reach, two-handed.	204
Disassembly Tools	Mod/2	Heavy and smart tools for taking things apart.	340
Guardian Swarm	Mod/2	Disables other swarms; both swarms take DV 5 per turn.	345
Nanodetector	Min/1	Detects nanobots, Exotic Skill: Nanobot Detection 40 (70 w/active swarm), Know: Nanotech 60.	342
Orbital Hash (5 doses)	Min/1	Ignore 1 trauma, –10 Know Tests/memory-related COG Checks.	334
Robomule	Mod/2	Gear-hauling bot.	349

Scientist

GEAR	Complexity/GP	Description	Page
Enhanced Vision	Mod/2	Tetrachromatic vision, wider frequency range, better focus. +10 vision Perceive Tests.	318
Mind Amp	Maj/3	Accelerates mind. +2 Insight.	320
Mission Recorder	Min/1	Backs up all mission data.	336
Pocket Lab	Mod/2	Analyze gases, liquids, materials, Know: Chemistry 60.	340
Servitor	Min/1	Common helper/cook/janitor bots.	348
Specimen Container	Min/1	Holds samples in stasis conditions.	340

Soldier

GEAR	Complexity/GP	Description	Page
Assault Rifle Railgun	Mod/R/2	DV 2d10 + 2, SA/BF/FA, Ammo 90 + 1, Range 150, Armor-Piercing, Long, Two-Handed.	210
Enhanced Vision	Mod/2	Tetrachromatic vision, wider frequency range, better focus. +10 vision Perceive Tests.	318
Grin (5 doses)	Min/1	Ignore 1 wound.	331
Meds (5 doses)*	Mod/2	Heals 1d10 damage per hour or 1 wound per day.	332
Neurachem	Maj/3	Enhanced synapses and neurotransmitters. +2 Vigor.	322

*Synthmorph Alternative

Fixer Swarm	Mod/2	Repairs 1d10 damage per hour or 1 wound per day for 4 days.	345

Techie

GEAR	Complexity/GP	Description	Page
Automech	Mod/2	Repair bot.	349
Electrical Sense	Min/1	Sense electrical fields w/in 5 m.	318
Fixer Swarm	Mod/2	Repairs DV 1d10 per hour or 1 wound per day for 5 days.	345
Fokus (5 doses)	Min/1	Enhanced Behavior: Obsessive (2), reduce timeframes 25%.	331
Medium Fabber	Mod/2	Fab small items.	343
Tools (Kit)	Min/1	Portable, applies to specific skill.	317
Utilitool	Min/1	All-purpose smart-material tool.	317

TRAITS

Most traits provide modifiers in certain situations. Ego traits are purchased during character creation (or possibly with Rez points) and stay with the character. Morph traits apply only to the morph in question and impact the MP available when resleeving.

Some traits have multiple costs, representing different levels. A trait with a CP Cost of 1/2/3 costs 1 CP at Level 1, 2 CP at Level 2, and 3 CP at Level 3.

Unless otherwise noted, traits may only be taken once. Trait modifiers stack with other modifiers, unless otherwise specified.

POSITIVE TRAITS

Positive traits have a CP or MP Cost and provide bonuses.

Acumen

CP/MP Cost: 1/2/3

▲ **Ego** OR ▼ **Morph Trait**

You have a keen intellect. Add +5 per level to your COG Checks.

Adaptability

▲ **Ego Trait** **CP Cost: 2/4**

You adjust to new morphs quickly. Apply a +10 modifier per level for Integration and Resleeving Stress Tests ▶288.

Allies

▲ **Ego Trait** **CP Cost: 4**

You are either part of or have a relationship with a group that has your back. This could be your old gatecrashing crew, former research lab co-workers, a criminal gang, a mercenary squad, an elite social clique, or something similar. The group itself should be small — 5 to 20 members is best, and certainly no more than 50 — though it may be part of a larger organization (such as a cartel or hypercorp). It should also not be overly influential or powerful (no Ozma leaders, hypercorp boards, or secret league of oligarchs). Work with your GM to establish your history and relationship with this group and why you can call on them for aid.

Once per session, you may rely on this group for support. Treat this as analogous to an automatically successful moderate rep favor ▶308. Your connection with this group is a two-way street — you will be expected to perform duties for the group on occasion as well. GMs should take care that allies are not overused or abused and can use them as a source of plot hooks and side missions.

POSITIVE EGO TRAITS

Trait	CP Cost	Effect
Acumen	1/2/3	+5 per level to COG Checks.
Adaptability	2/4	Easier resleeving. +10 per level to Integration and Resleeving Stress Tests.
Allies	4	A group supports you. Free moderate favor per session.
Animal Empathy	1	+10 to Exotic Skill: Animal Handling and similar tests.
Common Sense	2	Once per session, may ask GM for best advice.
Composure	2	+5 LUC, +1 Trauma Threshold, +10 Insanity Rating.
Contact	1	+10 to Rep Tests with one network when using contact. May be taken multiple times.
Danger Sense	1	+10 to Perceive Tests to avoid surprise.
Direction Sense	1	Always know north/up/spinward/etc. +10 to tests involving navigation.
Dominant Strain	2	Asyncs only. +10 vs. exsurgent virus, higher dependent upon Infection Rating.
Drone Affinity	1	No Integration Tests when jamming drones.
Empathy	1/2/3	+5 per level to SAV Checks.
Expert Training	2	May start with one skill over 80, up to 90 maximum.
Fitness	1/2/3	+5 per level to SOM Checks.
Good Instinct	1/2/3	+5 per level to INT Checks.
Hardening	1	Immune to stress from either alienation, helplessness, or violence (p. 72). –10 to WIL Checks and Persuade Tests. May be taken multiple times for different types of stress.
Hyper Linguistics	1/2/3	+10 per level to INT Checks to understand languages you don't know.
Morph Familiarity	1	No Integration Tests sleeving one chosen morph type.
Pain Tolerance	2/4	Ignore 1 wound modifier per level.
Patron	6	An influential person backs you up. One free major favor per story arc.
Psi	2/4	May use Psi skill and sleights. See text for additional rules.
Psi Camouflage	1/2	–10 to detect with psi per level.
Psi Defense	1/2	+10 to resist psi per level.
Quickness	1/2/3	+5 per level to REF Checks.
Resolve	1/2/3	+5 per level to WIL Checks.
Resources	2/4/6/8	Wealth to acquire gear. See text.
Situational Awareness	1	No distracted modifier.
Spatial Visualization	2	+10 to Know and Technical Tests involving 3D visualization.
Stalwart	1/2/3	+10 to WIL Checks vs. fear.
Superior Numeracy	2/4	+10 per level to Know and Technical Tests involving math.
Zoosemiotics	1	No modifier using psi on non- or partly-sapient animals.

POSITIVE MORPH TRAITS

Trait	MP Cost	Effect
Acumen	1/2/3	+5 per level to COG Checks.
Digital Speed	1	Mesh task timeframes reduced 25%. Infomorphs only.
Empathy	1/2/3	+5 per level to SAV Checks.
Fitness	1/2/3	+5 per level to SOM Checks.
Good Instincts	1/2/3	+5 per level to INT Checks.
Improved Immune System	1/2	+10 per level to resist chemicals, disease, drugs, and toxins. Biomorphs only.
Innocuous Looks	1	Bland. –10 to identify/spot/remember.
Lethal	1	+1d6 DV in melee.
Limberness	1/2	+10 per level to escape bonds, fit into small spaces, contort, etc.
Natural Immunity	1	Immunity to one specific drug, chemical, or toxin. Biomorphs only.
Pain Tolerance	2/4	Ignore 1 wound modifier per level.
Psi Camouflage	1/2	–10 to detect with psi per level. Bio-brained morphs only.
Psi Defense	1/2	+10 to resist psi per level. Bio-brained morphs only.
Quickness	1/2/3	+5 per level to REF Checks.
Rapid Healing	1	Heal twice as fast. Biomorphs only.
Resolve	1/2/3	+5 per level to WIL Checks.
Skill Artifact	1/2	+10 to one GM-chosen skill per level.
Striking Looks	1/2	+10 on Persuade and Provoke Tests where looks matter.
Toughness	2/4	+5 DUR, also impacts WT and DR, see text.

Animal Empathy

Ego Trait **CP Cost: 1**

You have an instinctive feel for handling and working with non-sapient animals. Apply a +10 modifier to Exotic Skill: Animal Handling and other skill tests to influence or interact with animals.

Common Sense

Ego Trait **CP Cost: 2**

Your innate sense of judgment cuts through distractions and other factors that might cloud a decision. Once per game session, you may ask the GM what choice to make or course of action to take; the GM will give you solid advice based on what your character knows. Alternatively, if you are about to make a disastrous decision, the GM can use your free hint to warn you that you are making a grave mistake.

Composure

Ego Trait **CP Cost: 2**

Your mental equilibrium is well tuned. You receive a +5 bonus to your Lucidity. This also affects derived stats based on Lucidity; increase your Trauma Threshold by 1 and your Insanity Rating by 10.

Contact

Ego Trait **CP Cost: 1**

You have a personal connection that you can rely on. This contact gives you a +10 modifier to tests with one particular rep network. You should work with your GM to establish the nature of this contact and why they help you. The GM ensures that a contact is not overused or abused and may have a contact occasionally call upon you for assistance as well. You may take this trait multiple times.

Danger Sense

Ego Trait **CP Cost: 1**

You possess an intuitive sixth sense that warns of imminent threats. It provides a +10 modifier to Perceive Tests to avoid *surprise* ▶227.

Digital Speed

Morph Trait **MP Cost: 1**

This trait is only available to infomorphs. Unfettered by the physical, you reduce timeframes for mesh-based task actions by 25%; this is cumulative with reduced time from superior successes.

Direction Sense

Ego Trait **CP Cost: 1**

You always know which way is up, north, spinward, etc., even when blinded. You receive a +10 modifier to navigation-based Survival Tests and other skills for figuring out complex directions, reading maps, remembering routes, and retracing paths you've taken.

Dominant Strain

Ego Trait **CP Cost: 2**

This trait is only available to characters with the Psi trait. The Watts-MacLeod strain is possessive and aggressively resists infection attempts from other exsurgent strains. You receive a +10 modifier to resist exsurgent virus infection. Increase this to +20 if your Infection Rating is 33 or more, +30 if it is 66 or more.

Drone Affinity

Ego Trait **CP Cost: 1**

You have an innate knack for jamming drones. You do not need to make Integration Tests when remotely operating a drone.

Empathy
Ego OR **Morph Trait** **CP/MP Cost: 1/2/3**
You instinctively relate to others. Apply +5 per level to SAV Checks.

Expert Training
Ego Trait **CP Cost: 2**
You have received extensive training in one particular subject. You may raise one skill over 80, to a maximum of 90, during character creation. This trait does not actually increase the skill, it just raises the maximum.

Fitness
Ego OR **Morph Trait** **CP/MP Cost: 1/2/3**
Either your morph is in top shape or you excel at pushing it to its limits. You receive +5 per level to SOM Checks.

Good Instincts
Ego OR **Morph Trait** **CP/MP Cost: 1/2/3**
Your gut feelings are on target. You get +5 per level to INT Checks.

Hardening
Ego Trait **CP Cost: 1**
You are accustomed to trauma, but it has scarred you. You are immune to stress from either alienation, helplessness, or violence (choose one). However, your WIL Check is reduced by 10 and you suffer a –10 modifier on Persuade Tests. This trait may be taken multiple times for different types of stress; modifiers are cumulative.

Hyper Linguistics
Ego Trait **CP Cost: 1/2/3**
You have a natural gift with linguistic structures and syntax. You receive a +10 modifier to INT Checks per level to grasp the general meaning or intent of communication spoken in languages you don't know — even alien tongues. This trait provides no bonuses to written texts or non-verbal communications (such as Factor spores).

Improved Immune System
Morph Trait **MP Cost: 1/2**
This trait is only available to biomorphs. Your immune system is robust. Apply a +10 modifier per level to resist the effects of chemicals, diseases, drugs, and toxins.

Innocuous Looks
Morph Trait **MP Cost: 1**
Thanks to mass-produced designs and sculpted media-star composite visages, your cookie-cutter looks are so mundane as to be indistinguishable. It is difficult to pick your common-place face out of the crowd, describe its appearance, or otherwise remember physical details. Apply a –10 modifier to tests made to spot, describe, or remember you; this does not apply to psi or mesh searches. This trait may not be applied to any morph with an Availability lower than 50.

Lethal
Morph Trait **MP Cost: 1**
This morph inflicts more damage in melee combat. Add +1d6 DV to all melee damage rolls.

Limberness
Morph Trait **MP Cost: 1/2**
The morph is especially flexible and supple, capable of graceful contortions and interesting positions. At Level 1 , you can do the splits, smoke with your toes, and squeeze into small, cramped spaces. At Level 2, you are a double-jointed escape artist. Apply a +10 modifier per level to escape bonds, fit into small spaces, contort, or otherwise rely on flexibility.

Morph Familiarity
Ego Trait **CP Cost: 1**
You are accustomed to one specific type of morph (e.g., bouncers, rusters, agents, or flexbots) and do not need to make Integration Tests when sleeving them. You may take this trait more than once for different morphs.

Natural Immunity
Morph Trait **MP Cost: 1**
This trait is only available to biomorphs. The morph has a natural immunity to a specific drug, disease, or toxin. When afflicted with that specific chemical, poison, or pathogen, you are unaffected. Work with your GM to select an appropriate agent; this immunity may not be applied to nanodrugs or nanotoxins.

Pain Tolerance
Ego OR **Morph Trait** **CP/MP Cost: 2/4**
You have a high threshold for pain, enabling you to shrug off the effects of pain on your abilities and concentration. You ignore the –10 modifier for 1 wound per level. This trait is compatible with other pain-resistant effects, but a maximum of 3 wound effects may be ignored.

Patron
Ego Trait **CP Cost: 6**
There is an influential person in your life who can be relied on for occasional support. This could be a wealthy hyperelite family member, a high-ranking triad boss, or an anarchist networker with an unbeatable reputation. When called upon, this patron can pull strings, supply resources, make introductions, or bail you out of trouble. Work with your GM to define this NPC, your relationship, and why they support you (familial obligation? childhood buddies? you saved their life once?).

The patron provides one free major favor ▶308 per story arc, no test necessary. GMs should be careful that this trait does not get abused. Smaller favors are beneath the patron's concern. If the character asks for too much, too often, the patron's support may dry up. On occasion, the patron may call upon the character for favors as well.

Psi
Ego Trait **CP Cost: 2/4**
You are infected with the Watts-MacLeod strain of the exsurgent virus, which altered your brain structure and enhanced your cognitive abilities. You may learn the Psi skill ▶51 and purchase psi abilities, called sleights (▶280 and 282). At Level 1, you may only use psi-chi sleights. At Level 2, the character may use both psi-chi and psi-gamma sleights.

Psi is not without drawbacks. You must also take a negative trait according to your sub-strain ▶273 at no CP bonus. This required trait does not count towards trait CP limits.

Psi Camouflage

▲ **Ego** OR ▼ **Morph Trait** **CP/MP Cost: 1/2**

You are more difficult to detect with psi sensing. Apply a –10 modifier per level to any attempts to locate or detect you via psi sleights. The morph trait may only be taken by morphs with biological brains.

Psi Defense

▲ **Ego** OR ▼ **Morph Trait** **CP/MP Cost: 1/2**

Your mind is inherently resistant to mental attacks and manipulations. Apply a +10 modifier per level to defense rolls against psi sleights. The morph trait is only available to morphs with biological brains.

Quickness

▲ **Ego** OR ▼ **Morph Trait** **CP/MP Cost: 1/2/3**

Either your morph is dexterous or you take full advantage of its nimbleness. Apply +5 per level to REF Checks.

Rapid Healing

▼ **Morph Trait** **MP Cost: 1**

This trait is only available to biomorphs. The morph recovers from damage more quickly. Reduce the timeframes for healing ▶221 by half.

Resolve

▲ **Ego** OR ▼ **Morph Trait** **CP/MP Cost: 1/2/3**

You are unwavering and firm. Receive +5 per level to WIL Checks.

Resources

▲ **Ego Trait** **CP Cost: 2/4/6/8**

You have a measure of money, assets, and/or other wealth, as used in the inner system, hypercorp, Jovian, and Extropian polities. This provides bonus Morph Points and Gear Points equal to the trait's level when acquiring morphs ▶290 and gear ▶312. It also gives you a regular amount of disposable income to purchase gear during missions.

At Level 1, you can spend up to 2 GP per week on Minor complexity items given the appropriate time frame.

At Level 2, you can spend up to 3 GP per week on Minor or Moderate complexity items given the appropriate time frame.

At Level 3, you can spend up to 5 GP per week on items of any complexity, given the appropriate time frame.

Level 4 is the same as Level 3, except that you also have the capability to make even Rare and Restricted items available (at the gamemaster's discretion).

In most cases, acquiring the gear is simply a matter of exploiting your Resources trait and waiting the proper amount of time, assuming the desired item is available (*Acquiring Gear During Missions* ▶312). At the GM's discretion, however, using Resources may require an appropriate Persuade Test (to convince another party to part ways with the item) or perhaps a Research Test (to find a source).

Levels 3 and 4 of this trait imply an amount of resources that deems you wealthy. To reflect this, you can use 2 of your weekly GP in conjunction with a Flex point for narrative control to say that you have a Moderate gear item immediately on hand in your home/vehicle/personal possessions. You must have access to your personal possessions and (as with all uses of Flex for narrative control) the item must be plausible.

Resources can also apply as a modifier for certain tests. For example, if you attempt to bribe a triad goon or use your credit score to arrange a meeting with a potential business partner, apply a +10 modifier for each level of Resources you possess.

While Resources is an abstract measurement, players and GMs should use it as a rough benchmark for a character's personal assets and lifestyle. A character with Level 1 might have their own cubicle in a beehive hab or a small apartment in a Martian dome or O'Neill cylinder's working class areas, and they get around by bike or public transit. A character with Level 2 Resources might have a private residence on a small station or a condo in a larger hab, as well as a minicar or cycle to get around. A character with Level 3 could have a large residential complex or multiple homes, plus one or more vehicles. A Level 4 character is rich and might own a small private hab and even their own shuttle.

Your Resources trait may be affected by events in game. If your home is destroyed or you come across a secret cache of riches, the GM should adjust your trait level accordingly. You must pay the extra cost in Rez Points if your trait goes up, but you receive an RP credit if your wealth goes down.

In desperate circumstances, you may also intentionally burn your Resources to refresh your weekly GP to get something you urgently need (or get it more quickly). This represents the expenditure of all or major portions of your assets with no hope of reclaiming them and no RP reimbursement. The GM should reduce your Resources trait level by an amount appropriate to the transaction.

Situational Awareness

▲ **Ego Trait** **CP Cost: 1**

You maintain continuous partial awareness of the goings-on in your immediate environment. You do not suffer the Distracted modifier on Perceive Tests to notice things even when your attention is focused elsewhere or when making quick Perceive Tests during combat.

Skill Artifact

▼ **Morph Trait** **MP Cost: 1/2**

The morph has latent skills stored in its muscle memory or as higher-level data that somehow does not get erased or overwritten. The GM chooses or randomly selects a skill; it is recommended to pick a skill linked to the morph's highest pool. You receive a +10 modifier per level when using that skill. This trait may be purchased multiple times for different skills.

Spatial Visualization

▲ **Ego Trait** **CP Cost: 2**

You have a knack for conceptualizing dimensions, distances, volumes, and shapes. You receive a +10 modifier for any Know or Technical skill tests involving 3D visualization.

Stalwart

▲ **Ego Trait** **CP Cost: 1/2/3**

You laugh at fear. Apply a +10 modifier per level to WIL Checks and other tests that involve resisting fear.

Striking Looks

Morph Trait **MP Cost: 1/2**

Sculpted good looks are cheap and commonplace, but this morph possesses a physical look that can only be described as striking, fascinating, and unusual — even the gorgeous and chiseled glitterati take notice. Apply a +10 modifier to Persuade and Provoke tests where your allure may have an impact. Level 1 of this trait only applies to uplifts and synthmorphs; Level 2 is for humanoid biomorphs.

Superior Numeracy

Ego Trait **CP Cost: 2/4**

You are quite good with numbers. Apply a +10 per level to Know and Technical Tests that directly involve math.

Toughness

Morph Trait **MP Cost: 2/4**

This morph can take more physical abuse than others of its type. For each level, increase Durability by 5. This will also increase Wound Threshold (equal to DUR ÷ 5) and Death Rating (DUR × 1.5 for biomorphs, DUR × 2 for synthmorphs).

Zoosemiotics

Ego Trait **CP Cost: 1**

This trait is only available to characters possessing the Psi trait. You do not suffer modifiers when using psi sleights on non-sapient or partly sapient animal species.

NEGATIVE TRAITS

Negative traits provide a CP or MP bonus and impair you.

Addiction

Ego or **Morph Trait** **CP/MP Bonus: 1/2/4**

You have a pathological reliance on a drug ▶330, stimulus (e.g., XP, VR), or activity (e.g., mesh use, dying) to a degree that impacts your physical or mental health. Addiction comes in two forms: mental (affecting the ego) and physical (affecting the biomorph). Work with your GM to choose an addiction that is appropriate for your game.

You must indulge in your addiction at a regular frequency according to the level or go into withdrawal. Withdrawal inflicts a –10 modifier per level.

Level 1: Once per week. Your minor addiction is largely kept under control — it does not ruin your life, though it may create difficulties. You may not even recognize or admit you have a problem.

Level 2: Once per day. Your moderate addiction is in full swing and often causes you to neglect other aspects of your life.

Level 3: Once per 6 hours. You face major cravings, live for your next fix, and are on the road to ruin.

Addiction is triggered in the same way as disorders ▶224. Triggers include the presence of the addiction's focus, fear, frustration, helplessness, and violence.

Every addiction takes different forms, depending on the character and source. Long-term addiction may result in physical or mental damage (impairment modifiers or reductions to SOM Checks or WIL Checks) and may build up tolerance, requiring higher dosages. At the GM's discretion, you may need to make WIL Checks to avoid raising the addiction level. Withdrawal may also inflict additional effects such as mood swings, compulsive behavior, or physical sickness.

You may kick the habit by staying clean for 1 week per level. Resisting the craving, however, requires a WIL Check every day, modified by the source's addiction modifier. Once the addiction is kicked, however, there is always the possibility of a relapse. GMs may call for WIL Checks anytime you are directly tempted or undergo substantial stress or mental trauma.

If you upload, fork, or resleeve, any mental addictions persist with your ego/fork; physical addictions remain with the morph. This trait may be taken more than once for different addictions. The morph version of this trait only applies to biomorphs.

Age

Morph Trait **MP Bonus: 4**

This trait may only be applied to flat and splicer morphs. The morph is physically aged and has not been rejuvenated. Old morphs are increasingly uncommon, though some people adopt them hoping to gain an air of seniority and respectability. Apply a –10 modifier on all physical actions.

Bad Luck

Ego Trait **CP Bonus: 6**

The universe seems to punish you with startling frequency. You may not use pools to flip-flop dice rolls.

NEGATIVE EGO TRAITS ▲

Trait	CP Cost	Effect
Addiction	1/2/4	–10 per level if no regular fix; see text for additional effects.
Bad Luck	6	May not use pools to flip-flop dice rolls.
Blacklisted Rep	1/4	Cannot have rep score in one rep net (higher value if own faction's rep net).
Black Mark	1/2/3	–10 modifier per level to interactions with one faction.
Combat Paralysis	4	WIL Check to act in each action turn of combat.
Edited Memories	1	You have lost some memories, deliberately or not.
Enemy	2	Enemy NPC haunts you.
Enhanced Behavior	1/2/4	Psychosurgically enhanced behavior/emotions. See text.
Feebleness	1/2/3	–5 per level to SOM Checks.
Identity Crisis	1	Trouble adapting to new morph physiologies, –10 when applicable.
Indifference	1/2/3	–5 per level to SAV Checks.
Instability	2/4	–5 LUC, –1 Trauma Threshold, and –10 Insanity Rating per level.
Low Pain Tolerance	4	Additional –10 modifier per wound.
Mental Disorder	2	Choose one disorder ▶224.
Morphing Disorder	2/4/6	–10 per level on Integration and Resleeving Stress Tests.
Neural Damage	2	You have some type of incurable neural damage; see text.
No Backup Insurance	2	Upon death, re-instantation and MP up to GM.
Obliviousness	2	Additional –10 to Perceive Tests when distracted and Surprise Tests.
Obtuseness	1/2/3	–5 per level to COG Checks.
Poor Coordination	1/2/3	–5 per level to REF Checks.
Poor Instincts	1/2/3	–5 per level to INT Checks.
Psi Vulnerability	1/2	–10 per level to resist psi.
Real World Naiveté	2	GM may provide false info once per session.
Restricted Behavior	1/2/4	Psychosurgically limited behavior/emotions. See text.
Sensitive	1/2	–10 per level to INT Checks to resist basilisk hacks.
Timidity	1/2/3	–5 per level to WIL Checks.
VR Vertigo	2	–30 modifier using XP/VR; –10 using AR. SOM Check or incapacitated.

NEGATIVE MORPH TRAITS ▼

Trait	MP Cost	Effect
Addiction	1/2/4	–10 per level if no regular fix; see text for additional effects. Biomorphs only.
Age	4	–10 to physical actions. Flats and splicers only.
Dominant Limb	1	–20 to tests made with non-dominant limbs.
Enhanced Behavior	1/2/4	Psychosurgically enhanced behavior/emotions. See text.
Exotic Morphology	2/4/6	–10 per level on Integration Tests.
Feebleness	1/2/3	–5 per level to SOM Checks.
Frailty	2/4	–5 DUR, also impacts WT and DR, see text.
Genetic Defect	1/2	Morph has minor or serious health complications. Flats only.
Hypersensitivity	3	No implants allowed. Biomorphs only.
Indifference	1/2/3	–5 per level to SAV Checks.
Infection Risk	1/2	–10 per level to SOM Checks to resist the biological exsurgent virus.
Inherent Flaws	2	10% chance of acquiring a wound each time a critical failure is rolled. Synthmorphs only.
Low Pain Tolerance	4	Additional –10 modifier per wound.
Memory Artifact	1	Recall other ego's memory once per session; COG Check or SV 1d6.
Non-Human Biochemistry	2/4	–10 to Medicine Tests, –20 if non-mammalian. Biomorphs only.
Obtuseness	1/2/3	–5 per level to COG Checks.
Planned Obsolescence	1	Cumulative pool loss/wound per month without maintenance.
Poor Coordination	1/2/3	–5 per level to REF Checks.
Poor Instinct	1/2/3	–5 per level to INT Checks.
Proprietary Tech	2	–20 Hardware Tests, fixers do not work. Synthmorphs only.
Restricted Behavior	1/2/4	Psychosurgically limited behavior/emotions. See text.
Psi Vulnerability	1/2	–10 per level to resist psi. Bio-brained morphs only.
Severe Allergy	2/4	–30 when exposed to allergen plus SOM Check or anaphylactic shock; death in 2d10 minutes without treatment. Biomorphs only.
Skill Glitch	1/2	–10 per level to one GM-chosen skill
Timidity	1/2/3	–5 per level to WIL Checks.
Unattractiveness	1/2	–10 to Persuade and Provoke Tests where looks matter.
Weak Immune System	1/2	–10 per level to resist chemicals, disease, drugs, and toxins. Biomorphs only.
Zero-G Nausea	2	–10 in micrograv; SOM Check or incapacitated for first hour. Biomorphs only.

Blacklisted Rep

▲ Ego Trait **CP Bonus: 1/4**

You are blacklisted in certain circles, whether you did something to deserve it or not. You are barred from having a Rep score higher than 0 in one particular reputation network. For rep nets outside your faction, this counts as Level 1. For the rep net central to your faction, this counts as Level 2. People within that network will refuse to help you out of fear of reprisals and ruining their own reputation. This trait may be taken more than once for different rep nets.

Black Mark

▲ Ego Trait **CP Bonus: 1/2/3**

You did something in your past to earn a black mark on your reputation with one particular faction that continues to haunt your interactions. Apply a –10 modifier per level to rep net interactions and social skill tests involving that faction. This trait may be taken more than once for different factions.

Combat Paralysis

▲ Ego Trait **CP Bonus: 4**

Like a deer caught in headlights, you freeze in combat and stressful situations. Anytime violence erupts, you are caught off guard, or lives are at stake, you must make a WIL Check each action turn to act or respond in any way. If you fail, you lose your action and simply stand there, incapable of reacting to the situation.

Dominant Limb

▼ Morph Trait **MP Bonus: 1**

Either due to genetics or a glitch, the morph is right-handed, left-handed, or has a similar dominant limb. You receive a –20 modifier to any actions made using non-dominant limbs.

Edited Memories

▲ Ego Trait **CP Bonus: 1**

At some point in your past, certain memories were strategically removed or otherwise lost to you. This may have been done to intentionally forget an unpleasant or shameful experience or to make a break with the past. Or you may have suffered lack due to an unexpected death (with no recent backup) or had the memories erased against your will. Whatever the case, the memories should be important and significant, not mundane. Either evidence of what happened or NPCs who know the full story should exist. GMs can use this as a tool to haunt you with ghosts and mysteries from your past.

Enemy

▲ Ego Trait **CP Bonus: 2**

An enemy from your past continues to haunt you. Work with your GM to establish the details of this enmity. The GM should use this enemy as an occasional threat, surprise, and hindrance.

Enhanced Behavior

▲ **Ego** OR ▼ **Morph Trait** **CP/MP Bonus: 1/2/4**

Your conduct or moods are modified. This may be due to conditioning and reprogramming via time-accelerated psychosurgery ▶294, drugs, genetic tweaks, psi, or other factors. This may have been a deliberate choice or it may have been inflicted against your will. Work with your GM to define a specific emotion (e.g., happiness, contentment, love) or behavior (e.g., aggression, commitment, curiosity, orderliness, loyalty). Apply a –10 modifier per level to all actions when withheld from the behavior/emotion.

Level 1: You are encouraged to pursue the behavior and associate it with positive feelings; emotions are boosted.

Level 2: You are driven to engage in the specified behavior; emotions are exaggerated. Holding back requires a WIL Check.

Level 3: The behavior is enforced; emotions are compulsory and ongoing. If restrained from the conduct or the emotion is suppressed, suffer SV 1d6.

This trait may be taken more than once for different behaviors.

Exotic Morphology

▼ **Morph Trait** **MP Bonus: 2/4/6**

This morph is substantially physiologically (and possibly neurologically) different from the baseline humanoid forms most transhumans are accustomed to sleeving. You receive a –10 modifier per level on Integration Tests ▶288 when sleeving into this morph. This modifier does not apply to the original morph of uplift or infolife characters. This trait may not be applied to morphs that don't come with it.

Feebleness

▲ **Ego** OR ▼ **Morph Trait** **CP/MP Bonus: 1/2/3**

Either your morph is weak or you are not adept at using its strength. Apply a –5 per level to SOM Checks.

Frailty

▼ **Morph Trait** **MP Bonus: 2/4**

The morph is not as resilient as similar models. Reduce Durability by 5. This will also decrease Wound Threshold (equal to DUR ÷ 5) and Death Rating (DUR × 1.5 for biomorphs, DUR × 2 for synthmorphs).

Genetic Defect

▼ **Morph Trait** **MP Bonus: 1/2**

This trait is only available for flats. The morph is not genefixed and suffers from a genetic disorder or other impairing mutation. Work with your GM to agree on a defect appropriate to your game. Some possibilities include: heart disease, diabetes, cystic fibrosis, sickle-cell disease, hypertension, hemophilia, or color blindness. Level 1 applies to genetic disorders that create minor complications and/or occasional health problems (apply a –10 impairment modifier in certain circumstances). Level 2 is for defects that significantly impair functioning or inflict chronic health problems (an ongoing –10 impairment modifier or occasional –20). The GM determines the exact effects of the disorder on gameplay.

Hypersensitivity

▼ **Morph Trait** **MP Bonus: 3**

This trait is only available to biomorphs. This morph rejects implants that are not already part of its design. It may not be upgraded with any additional bioware, cyberware, or nanoware.

Identity Crisis

▲ **Ego Trait** **CP Bonus: 1**

Resleeving is not an easy process. You are stuck with the mental image of your original body and have trouble adapting to your new morphs' looks and physiologies. You have difficulty identifying yourself in mirrors, photos, or sensor feeds. You also tend to move in ways inappropriate to your new forms, such as attempting to walk instead of using new limbs or propulsion systems, forgetting to duck when walking through doorways, becoming alarmed by new sensory inputs, etc. You should roleplay this trait accordingly, and may suffer a –10 modifier to applicable actions.

Indifference

▲ **Ego** OR ▼ **Morph Trait** **CP/MP Bonus: 1/2/3**

Your social awareness is often lacking. You suffer –5 per level to SAV Checks.

Infection Risk

▼ **Morph Trait** **MP Bonus: 1/2**

Your morph is vulnerable to exsurgent infection. Apply a –10 modifier per level to SOM Checks made to resist biological exsurgent virus infection.

Inherent Flaws

▼ **Morph Trait** **MP Bonus: 2**

This trait is only available for synthmorphs. This particular morph has some unfixable flaws and inevitably breaks down. Any time a critical failure is rolled, there is a 10% chance the morph also acquires a wound.

Instability

▲ **Ego Trait** **CP Bonus: 2/4**

Your mental foundation has serious cracks. Reduce your Lucidity by 5 per level. This also affects derived stats based on Lucidity; reduce both your Trauma Threshold by 1 and your Insanity Rating by 10 per level.

Low Pain Tolerance

▲ **Ego** OR ▼ **Morph Trait** **CP/MP Bonus: 4**

Pain is your enemy. You have a very low threshold for pain tolerance; increase the modifier for each wound taken by an additional –10 (so the character suffers –20 with one wound, –40 with a second, –60 with a third, etc.).

Additionally, you suffer a –30 modifier on both SOM Checks and other tests that involve pain resistance. The morph version of this trait is only available for biomorphs.

Memory Artifact

▼ **Morph Trait** **MP Bonus: 1**

A previous ego's memories somehow survived the wiping process and linger on in this morph's brain/hardware. Once per session, a memory from this past occupant resurfaces in your mind. These memories are often emotionally charged and jarring; make a COG Check or suffer SV 1d6. These memories integrate into your own, though they may be erased with psychosurgery.

Work with your GM to decide the specifics of the memories. GMs should use these recall incidents for plot purposes; they may reveal sensitive data, incriminating evidence, secrets hidden from the public, or details the previous ego does not want spread.

Mental Disorder

▲ Ego Trait **CP Bonus: 2**

You have a psychological disorder from a previous traumatic experience. Choose one of the disorders listed on ▶224. This trait may be taken multiple times for different disorders.

Morphing Disorder

▲ Ego Trait **CP Bonus: 2/4/6**

Adapting to new morphs is particularly challenging for you. Apply a –10 modifier per level to Integration Tests ▶288 and Resleeving Stress Tests ▶288.

Neural Damage

▲ Ego Trait **CP Bonus: 2**

You suffered some type of neurological damage that cannot yet be cured. The affliction is part of your ego and remains even when resleeving. This damage may have been inherited, resulted from a poorly designed morph or implant, or inflicted by a nanovirus during the Fall. Work with your GM to agree on a specific disorder appropriate to your game. The GM may inflict impairment modifiers (usually –10) as appropriate, according to the affliction. Some possibilities are:

Amusica: You have an inability to make or understand music. Automatically fail music-related skill tests.

Color Blindness: You cannot distinguish color, only variations in brightness. –10 to visual Perceive Tests.

Lack Depth Perception: You have difficulty ascertaining distance. Double range modifiers.

Lack Face Recognition: You cannot distinguish faces. –10 to visual Perceive Tests involving person identification.

Logorrhea: You use an excessive amount of words and sometimes can't stop talking. –10 to Persuade and verbal Provoke Tests.

Mood Swings: Your emotions shift quickly and dramatically. –10 to WIL Checks against Provoke.

Partial Aphasia: You sometimes have difficulty communicating or using words. –10 to Persuade and verbal Provoke Tests.

Repetitive Behavior: You unwillingly repeat your actions. You unwillingly repeat your actions. Make a COG Check to avoid repeating your actions when under pressure.

Synaesthesia: Some types of sensory input are conflated with other perceptual phenomena.

This trait may be taken multiple times, for different afflictions.

No Backup Insurance

▲ Ego Trait **CP Bonus: 2**

You are either poor, bioconservative, or like to live dangerously. You do not have any sort of backup insurance or similar arrangement. If you die, your stack's retrieval and your ego's re-instantiation is entirely dependent upon the circumstances and GM. You may be brought back with significantly lower MP or be permanently dead.

Non-Human Biochemistry

▼ Morph Trait **MP Bonus: 2/4**

This trait is only available to biomorphs. This morph has substantial physiological and genetic differences from human morphs. Level 1 applies to non-human morphs. Level 2 applies to non-mammalian morphs. Apply a –10 modifier per level to Medicine Tests. Certain drugs, toxin, chemicals, or medical procedures may not work or may have a different effect (GM discretion). This trait may not be applied to morphs that do not come with it.

Obliviousness

▲ Ego Trait **CP Bonus: 2**

You are oblivious to events around you or anything other than what your attention is focused on. Suffer a –10 modifier to Perceive Tests against surprise and increase your distracted modifier to –30.

Obtuseness

▲ Ego OR **▼ Morph Trait** **CP/MP Bonus: 1/2/3**

Not the brightest star in the sky. Apply –5 per level to COG Checks.

Planned Obsolescence

▼ Morph Trait **MP Bonus: 1**

The morph is designed in such a way that it needs periodic genetic service pack therapy or proprietary maintenance or its performance will degrade. Treat this as a Moderate Complexity service required every month. For each month this is skipped, reduce the morph's pools by 1 (the GM chooses which pool). If pools are reduced to 0, the morph incurs 1 wound per month that may not be repaired or healed. These manifest as joint pain, neural degradation, tumors, and other malfunctions. Once 4 wounds are accumulated, the morph is incapacitated. A gene therapy or maintenance session from a licensed hypercorp service provider (or a black market pirate) will restore the morph to full functionality.

Poor Coordination

▲ Ego OR **▼ Morph Trait** **CP/MP Bonus: 1/2/3**

Either you or your morph are inherently clumsy. Suffer –5 per level to REF Checks.

Poor Instincts
▲ **Ego** OR ▼ **Morph Trait** **CP/MP Bonus: 1/2/3**
Your inherent judgment is off. Suffer –5 per level to INT Checks.

Proprietary Tech
▼ **Morph Trait** **MP Bonus: 2**
This trait is only available to synthmorphs. This morph was built with non-standard specifications, making most modern tools and software incompatible. This is a conscious design decision to make the user dependent upon the manufacturer for repairs and updates. Fixer nanoswarms will not work on this morph and Hardware: Robotics Tests suffer a –20 modifier.

Psi Vulnerability
▲ **Ego** OR ▼ **Morph Trait** **CP/MP Bonus: 1/2**
Psi sleights are particularly effective against your brain structure. Apply a –10 modifier per level when resisting psi. The morph trait may only be taken by morphs with biological brains.

Real World Naiveté
▲ **Ego Trait** **CP Bonus: 2**
You either have very limited personal experience with the real (physical) world or have spent so much time in VR that your real-life functioning is impaired. You lack an understanding of many physical properties, social cues, and other factors that most people take for granted. This lack of common sense may lead you to misunderstand how a device works or misinterpret someone's body language.

Once per game session, the GM may intentionally mislead you when providing a description about some thing or social interaction. This falsehood represents your misunderstanding of the situation and should be roleplayed appropriately, even when the player is aware of the character's mistake.

Restricted Behavior
▲ **Ego** OR ▼ **Morph Trait** **CP/MP Bonus: 1/2/4**
Your conduct or moods are modified. This may be due to conditioning and reprogramming via time-accelerated psychosurgery ▶294, drugs, genetic tweaks, psi, or other factors. This may have been a deliberate choice or it may have been inflicted against your will. Work with your GM to define a specific emotion (e.g., sadness, anxiety, anger, inhibitions) or behavior (e.g., aggression, stealing, eating, lying, using a specific drug). Apply a –10 modifier per level to all actions when the behavior/emotion is not avoided.

Level 1: You are compelled to avoid the behavior and associate it with negative feelings; emotions are limited.

Level 2: You are blocked from the specified behavior; emotions are suppressed. Pursuing it requires a WIL Check.

Level 3: You are incapable of pursuing the behavior; emotions are expunged. If forced to engage in the conduct or to experience the emotion, suffer SV 1d6.

This trait may be taken more than once for different behaviors.

Sensitive
▲ **Ego Trait** **CP Bonus: 1/2**
Your brain's operating system is vulnerable to exploits. Apply a –10 modifier per level to INT Checks made to resist basilisk hacks.

Severe Allergy
▼ **Morph Trait** **MP Bonus: 2/4**
This trait is only available to biomorphs.The morph's biochemistry suffers a severe allergic reaction (anaphylaxis) when it comes into contact (touched, inhaled, or ingested) with a specific allergen. At Level 1, the allergen may be uncommon (certain drugs, insect stings). At Level 2, it must be common (dust, dander, plant pollen, certain foods, nanoswarms, latex). Work with your GM to select an allergen that fits the game. If exposed to the allergen, you break into hives, have difficulty to breathing (–30 impairment modifier while exposed plus 10 minutes afterward), and must make a SOM Check or go into anaphylactic shock (incapacitation, will die of respiratory failure in 2d10 minutes unless medical care in the form of a successful Medicine: Paramedic Test is applied).

Skill Glitch
▼ **Morph Trait** **MP Bonus: 1/2**
Some unfixable glitch in the morph's hardware or brain structure impedes the use of one particular skill, chosen or randomly selected by the GM. Apply a –10 modifier per level to that skill's use.

Timidity
▲ **Ego** OR ▼ **Morph Trait** **CP/MP Bonus: 1/2/3**
You are weak-willed and easily intimidated. Apply –5 per level to WIL Checks.

Unattractiveness
▼ **Morph Trait** **MP Bonus: 1/2**
Even though sculpted good looks are easily purchased, this morph is conspicuously ugly or poorly designed, inspiring distaste or even revulsion in others. Apply a –10 modifier to Persuade and Provoke Tests where your hideousness may be a factor. Level 1 of this trait only applies to uplifts and synthmorphs; Level 2 is for humanoid biomorphs.

VR Vertigo
▲ **Ego Trait** **CP Bonus: 2**
You experience intense vertigo and nausea when interfacing with any type of virtual reality or XP. Apply a –30 modifier to your actions when using VR or XP. If using VR/XP for a prolonged period (an hour+), you must make a SOM Check or be incapacitated for 10 minutes. Even augmented reality makes you dizzy; suffer a –10 modifier while interfacing with AR.

Weak Immune System
▼ **Morph Trait** **MP Bonus: 1/2**
This trait is only available to biomorphs. The morph's immune system is easily compromised. Apply a –10 modifier per level when resisting the effects of diseases, drugs, chemicals, and toxins.

Zero-G Nausea
▼ **Morph Trait** **MP Bonus: 2**
This trait is only available to biomorphs. This morph suffers from space sickness and does not fare well in zero gravity. Apply a –10 impairment modifier in any microgravity climate. Additionally, the first time you must acclimate or endure excessive movement in microgravity, you must make a SOM Check or spend 1 hour incapacitated by nausea.

CHARACTER CREATION EXAMPLE

We're making Hex, one of the sample characters ▸83. We know that we want to make an async Firewall agent who is heavy with social abilities.

We start with Step 1 of the character creation process ▸38. Since we are building an async, we decide to make the character part of the Lost Generation ▸133—a corporate project to raise kids under accelerated conditions that went horribly wrong. We choose Lost as their background. This skill pack comes with two Know skills for which we get to pick the fields, we choose Psychology and Mind Hacks. That gives us these skills: Deceive 40, Infiltrate 20, Kinesics 40, Perceive 20, Psi 50, Know: Mind Hacks 30, and Know: Psychology 60.

For Step 2, we choose Face as the career pack. There's a lot of skill overlap with the first pack here, but we want a heavy social character. For the Know skills, we choose Drugs and Smuggling as the fields, as we are leaning towards this character having criminal connections. With the new skills, we now have: Deceive 80, Infiltrate 20, Kinesics 70, Perceive 20, Persuade 60, Psi 50, Know: Drugs 30, Know: Mind Hacks 30, Know: Psychology 60, and Know: Smuggling 60.

For Step 3, we decide to keep it simple and focus on making a badass async, so we choose Async as the interest. Again, there's some skill overlap, but we'll just modify the skills to customize the character a bit further in the process. For the Know skill, we choose Black Markets, because we want this character to be a skilled underworld dealer. With this new package, our skill totals are now: Deceive 120, Infiltrate 20, Kinesics 70, Perceive 40, Persuade 60, Psi 90, Know: Black Markets 40, Know: Drugs 30, Know: Mind Hacks 30, Know: Psychology 60, and Know: Smuggling 60.

In Step 4, we opt to make this an inner-system character. We choose Lunar as their faction, which gives them Know: Lunars/Orbitals 30 and a motivation of +Lunar Interests.

In Step 5, we pick an aptitude template, choosing Survivor. We decide to switch the SAV and SOM scores, though, given that the character is more social than physical. This gives us aptitudes of COG 15, INT 10, REF 15, SAV 20, SOM 10, WIL 20.

Now it's time to add our skills and aptitudes together for Step 6. Adding the aptitude to each linked skill, we have skill totals of: Deceive 140 (SAV), Infiltrate 35 (REF), Kinesics 90 (SAV), Perceive 60 (INT), Persuade 80 (SAV), Psi 110 (WIL), Know: Black Markets 55 (COG), Know: Drugs 45 (COG), Know: Lunars/Orbitals 45 (COG), Know: Mind Hacks 45 (COG), Know: Psychology 75 (COG), and Know: Smuggling 75 (COG). Remember that Perceive has a base of INT × 2.

We know that the max skill value you can have is 80, so we'll need to make some adjustments and re-assign the points that spill over that amount. We lower Deceive, Kinesics, and Psi all to 80, which gives us 100 extra points to spend as we wish. We decide to give the character Athletics 20, so they can handle some physical activities. We also add Fray of 20 and Guns 30, so they take care of themselves in a fight. And we add Provoke 30, to cover the one social skill they are missing. Adding the aptitudes for those skills, we have Athletics 30 (SOM), Fray 50 (REF), Guns 45 (REF), and Provoke 50 (SAV). Remember that Fray is based on REF × 2.

Our skill list is now at: Athletics 30, Deceive 80, Fray 50, Guns 45, Infiltrate 35, Kinesics 80, Perceive 60, Persuade 80, Provoke 50, Psi 80, Know: Black Markets 55, Know: Drugs 45, Know: Lunars/Orbitals 45, Know: Mind Hacks 45, Know: Psychology 75, and Know: Smuggling 75.

Looking over the skill list, we decide that there's one more skill we want the character to have: Research. We could buy this later on with Customization Points, but we have a feeling we will want to spend those on other things. So we decide to tweak our skills slightly. We drop Kinesics by 10 points (to 70), Perceive by 20 points (to 40), and Psi by 5 points (to 75). With those 35 points, we buy Research at 25 (35 with INT) and add 10 more points to Infiltrate (making it 45).

Moving on to Step 7, we get 2 languages to start with. We choose Korean and Russian. Our combined COG + INT is only 25, not enough to get us another language for free.

In Step 8, we get our 1 point of ego Flex.

For rep in Step 9, we want our character's strongest rep score to be with criminals, so we choose a g-rep (Guanxi) of 50. We want the character to be equally comfortable in the inner and outer system, so we assign 25 to both @-rep and c-rep.

Step 10 is a big one: customization. We have 20 CP. Since we want an async, we start there, buying the Psi trait at Level 2, which costs 4 CP. This allows us to use both psi-chi and psi-gamma sleights. We also want to have a good selection of sleights, so we spend 5 CP to buy 5 (which we'll pick later). We spend 4 more on the Resources (Level 2) trait, which is important for operating within the inner system. That leaves 7 CP left. We want a bit more CP than that, so we buy two negative traits: Enemy and Enhanced Behavior (Level 2). Those give us 2 CP each, so now we are back up to 11. Since this character relies on networking, we spend it all on 55 more rep points, increasing @-rep to 45 and c-rep to 60.

Next we move on to derived stats, Step 11. Looking at the formulas, this character's stats are:

Initiative: REF 15 + INT 10 = 25, 25 ÷ 5 = **5**

Aptitude checks are all aptitude × 3, so:

COG Check **45** • INT Check **30** • REF Check **45**

SAV Check **60** • SOM Check **30** • WIL Check **60**

Lucidity: WIL 20 × 2 = **40**

Trauma Threshold: LUC 40 ÷ 5 = **8**

Insanity Rating: LUC 40 × 2 = **80**

Infection Rating: Psi trait level 2 × 10 = **20**

Step 12 is a fun one: picking a morph. The GM assigns us the default 6 MP to start. The Resources trait give us 2 more, for 8. Going with our Lost background, we choose the futura morph for 4 MP. We decide to spend the other 4 MP on two pieces of Moderate complexity gear. We choose skinflex, as it will help with social and infiltration scenarios, and enhanced vision. We write down our morph stats on our character sheet.

Our gear packs are based on the campaign type (Firewall) and profession (face). Looking them over, we decide they are good as is.

The futura morph gives us pools of Insight 2, Moxie 4, and Vigor 1. We also Flex 1 from our ego. The neuromodulation ware that comes with our face gear pack provides +1 Moxie, raising our Moxie to 5.

Step 13 is choosing motivations. We decide that this character is probably not that dedicated to their faction, so we ditch the +Lunar Interests motivation from Step 4. We choose three new ones based on the character's history and agenda: +Expand Influence, +Independence, and +Thrill-Seeking.

Our character is mostly finished, but we have a few final things to wrap up. First, we pick a name for our muse: Mirror Mirror. Second, we look through our traits and make sure everything is designated. We make our enemy Cognite (fitting for the Lost background), and and choose curiosity for our Enhanced Behavior trait.

Since we are an async, we must choose which sub-strain of the Watts-MacLeod virus affects us. We go with the Stranger because it's pretty creepy and cool. That strain gives us a Mental Disorder trait (we go with paramnesia) and a free sleight (we choose Basilisk Stare). We also pick the other sleights we had spent CP on: Browse Thoughts, Cloud Memory, Control Behavior, Short Circuit, and Subliminal.

Looking the final version of Hex over, we have a solid social character with some nifty psychic abilities and decent rep! You can see her on ▸83.

DANTE

MONTGOMERY SHELLEY ◆ **VENUSIAN GENEHACKER**

MOTIVATIONS: **+Enjoy Life** • **+Science** • **+Venusian Interests**
LANGUAGES: **English** • **Mandarin** • **Spanish**
EGO TRAITS: **Adaptability (Level 1)** • **Psi Defense (Level 2)** • **Resources (Level 2)**
BACKGROUND: **Freelancer**
CAREER: **Genehacker**
INTEREST: **Forensic Specialist**
FACTION: **Venusian**
GENDER: **Male**
SEX: **Male**
MUSE: **Zaius**

Short (1d6) ☐ Short (1d6) ☐ Long (full)

DAMAGE TAKEN [SPENT]	WOUNDS TAKEN [SPENT]	RECHARGE [Per 24 hrs] [SPENT]	[SPENT]
0 ↑2	0	3	3

INSIGHT [COG, INT]	MOXIE [SAV, WIL, REP]	VIGOR [REF, SOM]	FLEX
9	45	68	2
WOUND THRESHOLD	DURABILITY	DEATH RATING	EGO FLEX

Movement Rate: Walker 4/12
Ware: Biomods, Cortical Stack, Enhanced Smell, ↑GP Medichines, Mesh Inserts, ↑MP Mind Amp, ↑MP Nanophages, Prehensile Feet
Morph Traits: Exotic Morphology (Level 1), Non-Human Biochemistry (Level 1)

NEO-GORILLA

UPLIFT

APTITUDES & DERIVED STATS

COG	INT	REF	SAV	SOM	WIL
25 (75)	15 (45)	15 (45)	10 (30)	10 (30)	15 (45)

Initiative: **5** • Lucidity: **30** • Trauma Threshold: **6** • Insanity Rating: **60**

REPUTATION

c-rep 25	i-rep 25	r-rep 50
∞ | ☐☐☐ | ☐ | ☐	∞ | ☐☐☐ | ☐ | ☐	∞ | ☐☐☐ | ☐ | ☐

ARMOR RATING

4/10
ENERGY / KINETIC

GEAR

Firewall Pack	Comp/GP
Anonymizer	Min/1
Armor Vest (Light) AV 4/10, Concealable	Min/1
Fake Ego ID	Maj/R/3
Medium Pistol Firearm DV 2d10, SA/BF/FA, Ammo 15 + 1, Range 30	Min/R/1
Smart Clothing	Min/1
TacNet App	Mod/2
VPN App	Min/1

Genehacker Pack	Comp/GP
Archive	Min/1
Dino Pet	Min/1
Fokus	Min/1
Medichines	Maj/3
Pusher Swarm	Min/R/1 + disease or toxin
Specimen Container	Min/1
Tools (Kit)	Min/1
Twitch (5 doses)	Min/R/1

SKILLS

Skill	Total
Athletics	50
Fray	50
Guns	40
Interface	50
Kinesics	35
Know: Biology	80
Know: Exsurgent Virus	75
Know: Genetics	80
Know: Morph Design	55
Know: Neogenetic Creations	55

Skill	Total
Know: Venusians	55
Medicine: Biotech	80
Medicine: Forensics	65
Medicine: Pharmacology	65
Melee	40
Perceive	70
Persuade	50
Program	50
Research	60

We're going to need some extra sets of arms to help us with this project. Good thing I just finished growing some!

You were born human and raised in the canals of New York. In between freelance gigs and med student classes, you worked with a biohacking group that pursued various weird homebrew genetic experiments, but also made cheap drugs accessible to people that couldn't afford for-profit healthcare. When the conflict with the TITANs started, your group isolated and identified one of the first known exsurgent strains. Before you knew it, you were recruited and working with a global ad-hoc network of researchers and exiled spooks who were trying to prevent transhumanity's extinction. You lost that war, but escaped off-world thanks to what would eventually form into Firewall. You weren't born uplift, you just like the morph.

FIREWALL SUNWARD OPS

You think Sava takes the blunt-instrument approach a bit too much, but they let you do your job without too much shit. Hex is impervious to your infectious humor, but she's trustworthy, for a criminal. Qi is a riot, but you wish she wouldn't poke at you quite so much.

HEX

FUMIKO BOGDANOV ◆ **LUNAR ASYNC FIXER**

MOTIVATIONS: **+Expand Influence** • **+Independence** • **+Thrill-Seeking**
LANGUAGES: **Korean** • **Russian**
EGO TRAITS: **Enemy (Cognite)** • **Enhanced Behavior: Curiosity (Level 2)** **Mental Disorder (Paramnesia)** • **Psi (Level 2)** • **Resources (Level 2)**
PSI SUB-STRAIN: **Stranger**
BACKGROUND: **Lost**
CAREER: **Face**
INTEREST: **Async**
FACTION: **Lunar**
GENDER: **Female**
SEX: **Female**
MUSE: **Mirror Mirror**

DAMAGE TAKEN [SPENT] | WOUNDS TAKEN [SPENT] | RECHARGE [Per 24 hrs] ☐ Short (1d6) ☐ Short (1d6) ☐ Long (full) [SPENT] | [SPENT]

INSIGHT [COG, INT]	MOXIE [SAV, WIL, REP]	VIGOR [REF, SOM]	FLEX
2	4 ↑5	1	1

WOUND THRESHOLD	DURABILITY	DEATH RATING	EGO FLEX
7	35	53	1

Movement Rate: Walker 4/20
Ware: Biomods, Cortical Stack, ↑GP Enhanced Hearing, ↑MP Enhanced Vision, Mesh Inserts, ↑GP Neuromodulation, ↑MP Skinflex

FUTURA BIOMORPH

APTITUDES & DERIVED STATS

COG	INT	REF	SAV	SOM	WIL
15 45	10 30	15 45	20 60	10 30	20 60

Initiative: **5** • Lucidity: **40** • Trauma Threshold: **8** • Insanity Rating: **80**
Infection Rating: **20**

Basilisk Stare
Browse Thoughts
Cloud Memory
Control Behavior
Short Circuit
Subliminal

REPUTATION

@-rep 45	c-rep 60	g-rep 50
∞ | ☐☐☐ | ☐ | ☐	∞ | ☐☐☐ | ☐ | ☐	∞ | ☐☐☐ | ☐ | ☐

GEAR

Firewall Pack	Comp/GP
Anonymizer	Min/1
Armor Vest (Light) AV 4/10, Concealable	Min/1
Fake Ego ID	Maj/R/3
Medium Pistol Firearm DV 2d10, SA/BF/FA, Ammo 15 + 1, Range 30	Min/R/1
Smart Clothing	Min/1
TacNet App	Mod/2
VPN App	Min/1

Face Pack	Comp/GP
Enhanced Hearing	Min/1
Guardian Angel	Mod/2
Medium Fabber	Mod/2
Nanodetector	Min/1
Neuromodulation	Mod/2
Smart Hawk	Min/1
Stiff (5 doses)	Min/1

ARMOR RATING

4/10
ENERGY / KINETIC

SKILLS

Skill	Total
Athletics	30
Deceive	80 ↑110
Fray	50
Guns	45
Infiltrate	45
Kinesics	70
Know: Black Markets	75
Know: Drugs	45
Know: Lunars/Orbitals	45

Skill	Total
Know: Smuggling	55
Know: Mind Hacks	45
Know: Psychology	75
Perceive	40 ↑50
Persuade	80
Provoke	50
Psi	75
Research	35

FIREWALL SUNWARD OPS

Sava's the type of grim hardass you know to keep your eye on, but you admire their tenacity. Qi and Dante are both a bit flippant for your tastes, but they know their stuff and are reliable.

We both know you're going to make this deal.
Cut me in for 25%, and I'll make sure neither of the other parties find out about your indiscretions last week.

You're from the Lost Generation. Your objective age is only five, but subjectively you're in your mid 20s. Around the time others in your crèche started exhibiting psychotic behaviors, you "convinced" a Cognite technician to help you escape. You've been on the run since, using your async talents to carve out a small domain as a black-market fixer.

So far only Firewall's gotten close to you. Instead of hunting you down like a rabid animal, they approached you with respect for your talents. You're not as invested in the cause as other sentinels, but the ops are wicked fun, and you've established a quid-pro-quo that you feel preserves your independence.

QI

MAGGIE LI CHAN ◆ **BARSOOMIAN HACKTIVIST**

MOTIVATIONS: **–Authoritarianism** • **+Creative Expression** • **+Martian Liberation**
LANGUAGES: **English** • **Japanese** • **Mandarin**
BACKGROUND: **Indenture**
CAREER: **Hacker**
INTEREST: **Artist/Icon**
FACTION: **Barsoomian**
GENDER: **Female**
SEX: **—**
MUSE: **Null**

Short (1d6) Short (1d6) Long (full)

DAMAGE TAKEN [SPENT]	WOUNDS TAKEN [SPENT]	RECHARGE [Per 24 hrs] [SPENT]	[SPENT]

INSIGHT [COG, INT]	MOXIE [SAV, WIL, REP]	VIGOR [REF, SOM]	FLEX
13	0	1	1

WOUND THRESHOLD	DURABILITY	DEATH RATING	EGO FLEX
5↑6	25↑30	50↑60	1

Movement Rate: Walker 2/8 • Winged 8/32
Ware: Access Jacks, ↑GP Anti-Glare, Cortical Stack, Cyberbrain, ↑GP Industrial Armor, Mesh Inserts, ↑MP Mind Amp, Mnemonics, Puppet Sock, Prehensile Tail, Radar, Wings
Morph Traits: Exotic Morphology (Level 3), ↑MP Toughness (Level 1)
Notes: Light Frame (Armor 6/4), Small size ▶227

DRAGONFLY

SYNTHMORPH

APTITUDES & DERIVED STATS

COG	INT	REF	SAV	SOM	WIL
20 60	15 45	15 45	20 60	10 30	15 45

Initiative: **6** • Lucidity: **30** • Trauma Threshold: **6** • Insanity Rating: **60**

REPUTATION

@-rep 50	f-rep 35	i-rep 20
∞ | □□□ | □ | □	∞ | □□□ | □ | □	∞ | □□□ | □ | □

ARMOR RATING

12/8
ENERGY / KINETIC

GEAR

Firewall Pack	Comp/GP
Anonymizer	Min/1
Anti-Glare	Min/1
Fake Ego ID	Maj/R/3
Industrial Armor AV +6/+4	Min/1
Medium Pistol Firearm DV 2d10, SA/BF/FA, Ammo 15 + 1, Range 30	Min/R/1
TacNet App	Mod/2
VPN App	Min/1

Hacker Pack	Comp/GP
Exploit App	Mod/R/2
Gray Box	Min/1
Radio Booster	Min/1
Sniffer App	Mod/2
Spoofer App	Mod/R/2
Tracker App	Mod/2

SKILLS

Skill	Total
Athletics	40
Deceive	60
Fray	50
Guns	50
Hardware: Electronics	50
Hardware: Robotics	40
Infiltrate	50
Infosec	80
Interface	60
Know: Barsoomians	50

Skill	Total
Know: Computer Science	80
Know: Cryptography	80
Know: Mars Rumors	50
Know: Music	60
Know: System Administration	50
Perceive	50
Program	70
Provoke	60
Research	65

Not only did I leak the complete financial history of Director Wang's corruption,
I hacked his sex robot to only scream his rival's name. OK, OK… we can get back to Firewall stuff now.

Your family sold itself into corporate bondage on Mars to escape Earth's climate catastrophe. Despite their skills your parents struggled to eke out a bare-bones existence in the overtaxed economy of post-Fall Mars. As hypercorps built their wealth, League officials got fat off corruption, and friends and family languished as indentures—you got involved with hacktivist groups tied to the Barsoomian movement. On one data liberation project, you smelled a rat; suspecting infiltration, you checked into the backers. It turned out you'd been working indirectly for Firewall, and soon you were working for them in earnest.

Your name is pronounced like "chee."

FIREWALL SUNWARD OPS

Sava has a long history as a corp agent, making you strange allies, but they're a Firewall vet and their allegiance is to themself. Hex has the cutest accent and can talk an oligarch out of their fortune, but her spooky vibe can creep you out. Dante's too smart for his own good, with an infectious sense of humor.

SAVA

KALO SANCHARI ◆ FREELANCE SPEC OPS

MOTIVATIONS: **+Locate Rati** • **+Self-Reliance** • **-TITANs**
LANGUAGES: **English** • **Romani**
EGO TRAITS: **Edited Memories**
BACKGROUND: **Colonist**
CAREER: **Covert Operative**
INTEREST: **Fighter**
FACTION: **Hypercorp**
GENDER: **Undefined**
SEX: **Female**
MUSE: **Careza**

Short (1d6) ☐ Short (1d6) ☐ Long (full) RECHARGE [Per 24 hrs]

DAMAGE TAKEN [SPENT]	WOUNDS TAKEN [SPENT]		[SPENT]	[SPENT]
2	1	3	3	
INSIGHT [COG, INT]	MOXIE [SAV, WIL, REP]	VIGOR [REF, SOM]	FLEX	
9	45	68	1	
WOUND THRESHOLD	DURABILITY	DEATH RATING	EGO FLEX	

Movement Rate: Walker 4/20
Ware: Biomods, Chameleon Skin, Cortical Stack, Grip Pads, ↑MP Medichines, Mesh Inserts, ↑GP Skinflex
Morph Traits: ↑MP Addiction Grin, Level 2), Enhanced Behavior (Patience, Level 2), ↑MP Indifference (Level 1)

GHOST

BIOMORPH

APTITUDES & DERIVED STATS

COG	INT	REF	SAV	SOM	WIL
15 45	15 45	20 60	15 45 ↓40	15 45	15 45

Initiative: **7** • Lucidity: **30** • Trauma Threshold: **6** • Insanity Rating: **60**

REPUTATION

g-rep 20	c-rep 25	i-rep 60
∞ | ☐☐☐ | ☐ | ☐	∞ | ☐☐☐ | ☐ | ☐	∞ | ☐☐☐ | ☐ | ☐

GEAR

Firewall Pack	Comp/GP
Anonymizer	Min/1
Armor Vest (Light) AV 4/10, Concealable	Min/1
Fake Ego ID	Maj/R/3
Medium Pistol Firearm DV 2d10, SA/BF/FA, Ammo 15 + 1, Range 30	Min/R/1
Smart Clothing	Min/1
TacNet App	Mod/2
VPN App	Min/1

Covert Op Pack	Comp/GP
Chameleon Cloak	Mod/2
Cleaner Swarm	Min/1
Covert Operations Tool	Maj/R/3
Microbug	Min/1
Skinflex	Mod/2
Spy Nanoswarm	Min/1

ARMOR RATING

4/10
ENERGY / KINETIC

SKILLS

Skill	Total
Athletics	55
Deceive	55 ↑85
Fray	80
Free Fall	55
Guns	80
Hardware: Electronics	55
Infiltrate	70
Infosec	50
Interface	45

Skill	Total
Know: Black Markets	50
Know: Hypercorps	45
Know: Investigation	50
Know: Mercenary Groups	45
Know: Security Ops	75
Know: TITANs	75
Melee	55
Perceive	60
Pilot: Air	50

FIREWALL SUNWARD OPS

You think Qi's a firebrand, but her hacker fu is top notch. Hex is a fellow traveler, but the demons haunting her seem more intense than yours. Dante is brilliant if a bit goofy, but his optimism keeps your cynicism in check.

You can spend your whole life searching for answers, searching for meaning. You know what's meaningful right now? The gun I'm holding to your head.

Pre-Fall, you joined the military to escape poverty. After several years of advanced training and horrific violence, your contract was bought by an off-world hypercorp. When you weren't protecting hyperelite assholes in their orbital habitats, you were running black ops against their rivals. When a TITAN uploaded everyone on your hab—including your partner and lover, Rati—you were one of the few to escape. You spent years tracking that TITAN, uncovering an active fork of it on Mars. Rati was there too—or something using her persona. That situation went sideways fast, but Firewall pulled you out. You've worked with them since, though your previous proxy went a bit far with the memory editing on some ops.

CHI

ROKUZAWA CHI ◆ **MINDHACKER & NETWORKER**

MOTIVATIONS: **+Multiplicity** • **+Science** • **+Singularity Seeking**
LANGUAGES: **Japanese** • **Mandarin** • **Skandinavíska**
EGO TRAITS: **Adaptability (Level 1)** • **Edited Memories** • **Resources (Level 3)**
BACKGROUND: **Hyperelite**
CAREER: **Mindhacker**
INTEREST: **Networker**
FACTION: **Socialite**
GENDER: **Non-Binary**
SEX: **Intersex**
MUSE: **Yesterday**

Fascinating. I would love to spend an hour inside your mind.

A native Martian, you were born in pre-Fall Noctis to the Rokuzawa family of industrialists—part of the Martian hyperelite. Your interest in psychosurgery started with hedonistic thrill-forking to anger your parents (embarrassingly.) When you later studied neuropsychology, your limit-pushing forking became serious—and borderline illegal. After finishing your degree, you found no support for your proposed research, so you relocated to the outer solar system, using your inheritance to fund yourself.

You were recruited to Firewall to help track a rogue singularity seeker whose forking research was getting out of hand. You're socially perceptive, with a gift for ingratiating yourself to potential contacts. Everyone needs a psychologist—even if they don't know it.

Your name "Chi" is from the Greek letter, pronounced "kai." Rokuzawa is your surname.

Short (1d6) Short (1d6) Long (full)

DAMAGE TAKEN [SPENT]	WOUNDS TAKEN [SPENT]	RECHARGE [Per 24 hrs] [SPENT]	[SPENT]

INSIGHT [COG, INT]	MOXIE [SAV, WIL, REP]	VIGOR [REF, SOM]	FLEX
1 ↑2	3	1	1

WOUND THRESHOLD	DURABILITY	DEATH RATING	EGO FLEX
6	30	45	1

Movement Rate: Walker 4/20
Ware: ↑MP Access Jacks, Biomods, Clean Metabolism, Cortical Stack, ↑MP Cyberbrain, ↑GP Eelware, Enhanced Pheromones, ↑MP Medichines, Mesh Inserts, ↑MP Mnemonics, ↑GP Multi-Tasking, ↑MP Puppet Sock
Morph Traits: ↑MP Striking Looks (Level 1)

SYLPH BIOMORPH

APTITUDES & DERIVED STATS

COG	INT	REF	SAV	SOM	WIL
20 60	15 45	10 30	20 60	10 30	20 60

Initiative: **5** • Lucidity: **40** • Trauma Threshold: **8** • Insanity Rating: **80**

REPUTATION

c-rep 40	f-rep 50	i-rep 10	r-rep 40
∞ □□□ □ □	∞ □□□ □ □	∞ □□□ □ □	∞ □□□ □ □

ARMOR RATING

4/10
ENERGY / KINETIC

GEAR

Firewall Pack	Comp/GP
Anonymizer	Min/1
Armor Vest (Light) AV 4/10, Concealable	Min/1
Fake Ego ID	Maj/R/3
Medium Pistol Firearm DV 2d10, SA/BF/FA, Ammo 15 + 1, Range 30	Min/R/1
Smart Clothing	Min/1
TacNet App	Mod/2
VPN App	Min/1

Mindhacker Pack	Comp/GP
Comfurt (5 doses)	Min/1
Eelware	Min/1
Ego Bridge	Mod/2
Multi-Tasking	Mod/2
Private Server	Mod/2
Psychosurgery App	Mod/2

SKILLS

Skill	Total
Deceive	70
Fray	40
Free Fall	40
Guns	30
Infosec	50
Kinesics	70
Know: Art Scene	80
Know: Body Bank Ops	50
Know: Neuroscience	60

Skill	Total
Know: Psychology	80
Know: Rep Nets	50
Know: Socialites	50
Medicine: Pharmacology	55
Medicine: Psychosurgery	80
Perceive	40
Persuade	70 ↑80
Provoke	65 ↑75

FIREWALL RIMWARD OPS

Zahiri is one of the most well-integrated personalities you've ever met. Killjoy, on the other hand, is exceptionally talented, but haunted by something. Njál's wit amuses you, and his hacking skills are second to none.

KILLJOY

GRETA BRAND ◆ **ANARCHIST TROUBLESHOOTER**

MOTIVATIONS: **+Anarchism** • **+Personal Improvement** • **-X-Risks**
LANGUAGES: **English** • **German** • **Skandinavíska**
EGO TRAITS: **Danger Sense** • **Mental Disorder (PTSD)** • **Pain Tolerance (Level 1)**
BACKGROUND: **Underclass**
CAREER: **Investigator**
INTEREST: **Jack-of-All-Trades**
FACTION: **Anarchist**
GENDER: **Female**
SEX: **Male**
MUSE: **Ursula**

BOUNCER

BIOMORPH

DAMAGE TAKEN [SPENT]	WOUNDS TAKEN [SPENT]	RECHARGE [Per 24 hrs] Short (1d6) Short (1d6) Long (full) [SPENT]	[SPENT]

INSIGHT [COG, INT]	MOXIE [SAV, WIL, REP]	VIGOR [REF, SOM]	FLEX
1	0	1	3

WOUND THRESHOLD	DURABILITY	DEATH RATING	EGO FLEX
7	35	53	1

Movement Rate: Walker 4/12

Ware: ↑MP Access Jacks, Biomods, Cold Tolerance, Cortical Stack, ↑MP Cyberbrain, Grip Pads, Mesh Inserts, ↑MP Mnemonics, ↑GP Oracles, Oxygen Reserve, Prehensile Feet, ↑MP Prehensile Tail, ↑MP Puppet Sock, ↑MP Stress Control

Morph Traits: Limberness (Level 1), ↑MP Memory Artifact, Obtuseness

APTITUDES & DERIVED STATS

COG	INT	REF	SAV	SOM	WIL
20 60 ↓55	15 45	20 60	15 45	15 45	10 30 ↑40

Initiative: **7** • Lucidity: **20** • Trauma Threshold: **4 ↑5** • Insanity Rating: **40**

REPUTATION

@-rep 60	g-rep 30	i-rep 30
∞ | □□□ | □ | □	∞ | □□□ | □ | □	∞ | □□□ | □ | □

GEAR

Firewall Pack	Comp/GP
Anonymizer	Min/1
Armor Vest (Light) AV 4/10, Concealable	Min/1
Fake Ego ID	Maj/R/3
Medium Pistol Firearm DV 2d10, SA/BF/FA, Ammo 15 + 1, Range 30	Min/R/1
Smart Clothing	Min/1
TacNet App	Mod/2
VPN App	Min/1

Investigator Pack	Comp/GP
Enhanced Hearing	Min/1
Mind Amp	Maj/3
Mission Recorder	Min/1
Pocket Lab	Mod/2
Servitor	Min/1
Specimen Container	Min/1

ARMOR RATING

4/10

ENERGY / KINETIC

SKILLS

Skill	Total
Deceive	50
Fray	60
Free Fall	50
Guns	60
Hardware: Electronics	40
Infiltrate	50
Infosec	55
Kinesics	70
Know: Anarchists	50

Skill	Total
Know: Cartels	60
Know: Current Events	50
Know: Drugs	80
Know: Investigation	80
Know: Security Ops	50
Medicine: Forensics	60
Perceive	70 ↑80
Persuade	60
Research	65

FIREWALL RIMWARD OPS

Zahiri is solid, though they take themselves too seriously. Njál is a delight to watch run amok, but whoever taught him to talk using viking poetry was an asshole. Chi wafts a cloud of inner-system privilege and walks an ethical line, but their heart is true and you can't slight their curiosity.

Weird as it sounds, it looks like our comrade here programmed a nanoswarm to eat their own cortical stack. Now we need to find out why.

Scrabbling with the other poor wretches under the crushing misery of Europe's climate-change food crisis left you scarred, doing whatever it took to survive. Berlin's squatter scene was your first experience of actual community and mutual aid. You threw yourself into a variety of self-organized projects. When the Fall hit, you joined a darkcast tech collective, helping people abandoned by corporations and governments egocast off-world. You found a role in the anarchist habs of the outer system using your eclectic skills to resolve situations beyond the local community's scope: investigations, tracking bad actors, resolving conflicts with neighbors. After derailing an exsurgent outbreak, you were recruited by Firewall.

NJÁL

NJÁLL HRAFNSSON ◆ **TITANIAN HACKER**

MOTIVATIONS: **+Adventure • +Open Source • +Titanian Interests**
LANGUAGES: **English • Japanese • Mandarin • Skandinavíska**
EGO TRAITS: **Hyper Linguistics (Level 2)**
BACKGROUND: **Uplift**
CAREER: **Hacker**
INTEREST: **Rogue**
FACTION: **Titanian**
GENDER: **Male**
SEX: **—**
MUSE: **Sarcastic Halli**

Short (1d6) Short (1d6) Long (full)

DAMAGE TAKEN [SPENT] | WOUNDS TAKEN [SPENT] | RECHARGE [Per 24 hrs] [SPENT] [SPENT]

INSIGHT [COG, INT]	MOXIE [SAV, WIL, REP]	VIGOR [REF, SOM]	FLEX
4	0	0	1

WOUND THRESHOLD	DURABILITY	DEATH RATING	EGO FLEX
8	40	80	1

Ware: †MP Drone Rig, Enhanced Security, E-Veil, Mnemonics
Morph Traits: Digital Speed, Exotic Morphology (Level 3)

AGENT INFOMORPH

APTITUDES & DERIVED STATS

COG	INT	REF	SAV	SOM	WIL
25 (75)	20 (60)	20 (60)	10 (30)	10 (30)	10 (30)

Initiative: **8** • Lucidity: **20** • Trauma Threshold: **4** • Insanity Rating: **40**

REPUTATION

@-rep 45	g-rep 35	i-rep 30
∞ | □□□ | □ | □	∞ | □□□ | □ | □	∞ | □□□ | □ | □

ARMOR

0/0
ENERGY / KINETIC
RATING

GEAR

Firewall Pack	Comp/GP
Anonymizer	Min/1
Fake Ego ID	Maj/R/3
Medium Pistol Firearm DV 2d10, SA/BF/FA, Ammo 15 + 1, Range 30	Min/R/1
TacNet App	Mod/2
VPN App	Min/1

Firewall Pack Mods	Comp/GP
Guardian Angel	Mod/2

Hacker Pack	Comp/GP
Exploit App	Mod/R/2
Gray Box	Min/1
Radio Booster	Min/1
Sniffer App	Mod/2
Spoofer App	Mod/R/2
Tracker App	Mod/2

Additional Gear †MP	Comp/GP
AR Illusion App	Mod/2

SKILLS

Skill	Total
Athletics	30
Deceive	50
Fray	50
Guns	50
Hardware: Robotics	45
Infiltrate	50
Infosec	80
Interface	65
Kinesics	40
Know: Computer Science	65
Know: Cryptography	80
Know: Raven Mythology	55
Know: System Administration	60
Know: Titanians	60
Know: Uplift Rights	80
Perceive	60
Pilot: Space	60
Program	65
Provoke	50
Research	50
Survival	30

Your security AI can't find me; your gun-flies can't catch me.
I'll pluck your eye out, shiftless sysop; you can't outfly a bird who's all-thought.

You were hatched in a Titanian aviary, part of a Science Ministry uplift project. On adulthood, you ditched your body for virtual space. With your skills flying ships and running infosec, someone always gives you server space. You like the human myths of trickster ravens and prefer misdirection to brute force. Firewall recruited you through Magnus Ming, your favorite professor at Titan Autonomous University before you got bored and left. When he offered membership in "a society that tackles challenging puzzles," you jumped at the chance. Firewall hasn't disappointed. It's weird, dangerous, and best of all, a challenge.

FIREWALL RIMWARD OPS

Zahiri is poetry in a fight, and you admire their quest for self-improvement. Killjoy's eye is sharper than yours, but the scars from her youth are palpable. Chi is clever, too clever, and you hope it doesn't undo them.

ZAHIRI

AHMIR SEKTIOUI ◆ BRINKER SECURITY SPECIALIST

MOTIVATIONS: **+Asceticism** • **+Brinker Interests** • **+Protect Transhumanity**
LANGUAGES: **Arabic** • **English**
EGO TRAITS: **Pain Tolerance (Level 1)** • **Stalwart (Level 1)**
BACKGROUND: **Isolate**
CAREER: **Soldier**
INTEREST: **Paramedic**
FACTION: **Brinker**
GENDER: **Neuter**
SEX: **—**
MUSE: **Nasr**

Short (1d6) Short (1d6) Long (full) RECHARGE [Per 24 hrs]

DAMAGE TAKEN [SPENT]	WOUNDS TAKEN [SPENT]		
		[SPENT]	[SPENT]

INSIGHT [COG, INT]	MOXIE [SAV, WIL, REP]	VIGOR [REF, SOM]	FLEX
1	0	3 ↑5	1

WOUND THRESHOLD	DURABILITY	DEATH RATING	EGO FLEX
11	55	110	1

Movement Rate: Hopper 4/12 • Thrust Vector 8/40 • Walker 4/20 • Wheeled 8/40
Ware: Access Jacks, ↑GP Anti-Glare, Cortical Stack, Cyberbrain, ↑GP Enhanced Vision, ↑GP Industrial Armor, Lidar, Magnetic System, Mesh Inserts, Mnemonics, ↑GP Neurachem, Pneumatics, Puppet Sock, Retracting Limbs
Morph Traits: Exotic Morphology (Level 3)
Notes: Medium Frame (Armor 8/6)

ARACHNOID

SYNTHMORPH

APTITUDES & DERIVED STATS

COG	INT	REF	SAV	SOM	WIL
15 45	15 45	20 60	10 30	20 60	15 45

Initiative: **7** • Lucidity: **30** • Trauma Threshold: **6** • Insanity Rating: **60**

REPUTATION

@-rep 40	c-rep 40	i-rep 20
∞ | □□□ | □ | □	∞ | □□□ | □ | □	∞ | □□□ | □ | □

GEAR

Firewall Pack	Comp/GP
Anti-Glare	Min/1
Anonymizer	Min/1
Fake Ego ID	Maj/R/3
Industrial Armor AV +6/+4	Min/1
Medium Pistol Firearm DV 2d10, SA/BF/FA, Ammo 15 + 1, Range 30	Min/R/1
TacNet App	Mod/2
VPN App	Min/1

Soldier Pack	Comp/GP
Assault Rifle Railgun	Mod/R/2
Enhanced Vision	Mod/2
Fixer Swarm	Mod/2
Neurachem	Maj/3
Weapon Mount	Min/R/1

Soldier Pack Mods	Comp/GP
Weapon Mount	Min/R/1

ARMOR RATING

14/10
ENERGY / KINETIC

SKILLS

Skill	Total
Athletics	60
Fray	70
Free Fall	60
Guns	80
Hardware: Demolitions	55
Infiltrate	40
Kinesics	50
Know: Brinker Interests	45

Skill	Total
Know: Conflict Zones	45
Know: Habitat Ops	65
Know: Emergency Services	45
Know: Religion	65
Know: Security Ops	75
Medicine: Paramedic	65
Melee	50
Perceive	50 ↑60
Persuade	50
Pilot: Space	40
Survival	45

FIREWALL RIMWARD OPS

Killjoy is an investigator of rare talent, but you wish you could help her with her inner turmoil. Njál is a trickster—and a strangely entertaining one. You think Chi is self-centered and reckless with their mental hacks, but maybe they just need to find their true self.

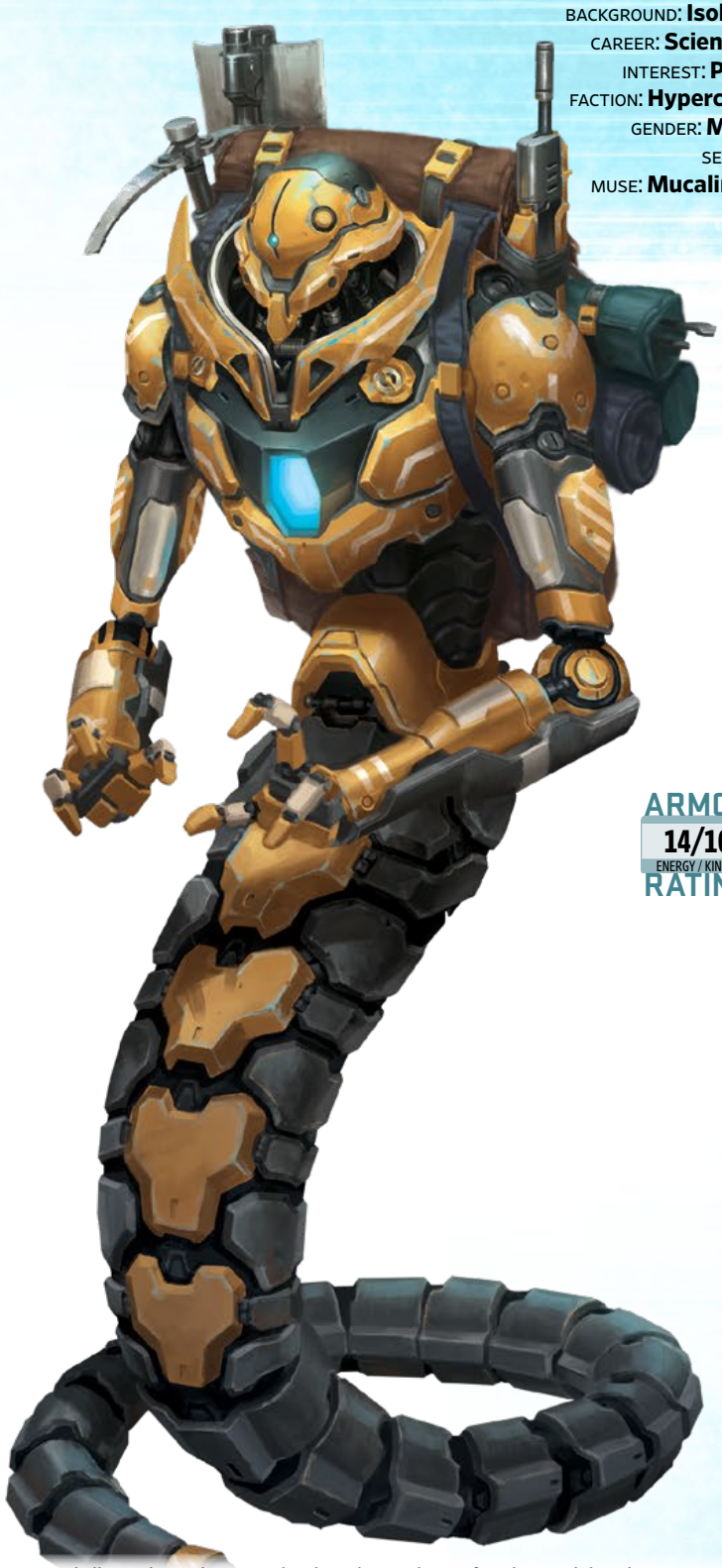
I'm a seeker. I've given myself 1,001 days to practice turning inner excellence into righteous deeds. Firewall seems a good place to study.

Your family took work as indentured labor in space before the Fall to escape poverty on Earth. When one of the asteroids they'd mined was exhausted, the company, trying to cut costs, offered to let indentures remain on the dug-out rock. Many chose freedom with an uncertain future over indenture. Survival was difficult, and young people like you were sent out to freelance. You've specialized in security work. You were recruited by Firewall as an extra gun for an assault on an exhuman Kuiper Belt outpost. You're asexual and a bit of an ascetic.

ASTIKA

MUKESH GRIGOROPOLOUS ◆ SURVIVAL ENGINEER & XENO-ARCHEOLOGIST

MOTIVATIONS: **+Hypercorp Interests +Independence +Survival**
LANGUAGES: **English • Greek • Hindi**
EGO TRAITS: **Common Sense • Resources (Level 2)**
BACKGROUND: **Isolate**
CAREER: **Scientist**
INTEREST: **Pilot**
FACTION: **Hypercorp**
GENDER: **Male**
SEX: **—**
MUSE: **Mucalinda**



Sure, we can drill into that radioactive alien burial mound. But if we don't stabilize those upper earthworks first, she's gonna shoot a 20-meter plume of fissile particulate. No skin off me, I've got a synth.

You were born into a clan of doomsday preppers in the Main Belt, mining asteroids and comets. When the Fall came, you couldn't hide away while your species went extinct. So you left your family behind, egocast to Mars, and volunteered to help refugees. You put yourself through school at CalTech-Mars with corporate sponsorships, majoring in archeology and engineering, then freelanced for various hypercorps exploring through the Martian Gate. Your broad scientific background makes you an invaluable asset whether you are erecting a new colony, surveying alien ruins, or troubleshooting a mission's gear. You're also a decent pilot. Your handle is the name of a naga sage from Hindu myth.

Short (1d6) Short (1d6) Long (full)

DAMAGE TAKEN [SPENT]	WOUNDS TAKEN [SPENT]	RECHARGE [Per 24 hrs] [SPENT]	[SPENT]
0 ↑2	1	3	1
INSIGHT [COG, INT]	MOXIE [SAV, WIL, REP]	VIGOR [REF, SOM]	FLEX

WOUND THRESHOLD	DURABILITY	DEATH RATING	EGO FLEX
9	45	90	1

Movement Rate: Roller 8/32 • Snake 4/12
Ware: Access Jacks, ↑GP Anti-Glare, Cortical Stack, Cyberbrain, ↑GP Enhanced Hearing, Enhanced Vision, ↑GP Industrial Armor, Mesh Inserts, ↑GP Mind Amp, Mnemonics, Puppet Sock, Retracting Limbs
Morph Traits: Exotic Morphology (Level 2),
Notes: Medium Frame (Armor 8/6)

SLITHEROID

SYNTHMORPH

APTITUDES & DERIVED STATS

COG	INT	REF	SAV	SOM	WIL
25 75	10 30	20 60	10 30	20 60	10 30

Initiative: **6** • Lucidity: **20** • Trauma Threshold: **4** • Insanity Rating: **40**

REPUTATION

c-rep 60	i-rep 15	x-rep 30
∞ | □□□ | □ | □	∞ | □□□ | □ | □	∞ | □□□ | □ | □

ARMOR RATING

14/10
ENERGY / KINETIC

GEAR

Gatecrashing Pack	Comp/GP
Anti-Glare	Min/1
Electronic Rope	Min/1
Industrial Armor AV +6/+4	Min/1
Medium Pistol Firearm DV 2d10, SA/BF/FA, Ammo 15 + 1, Range 30	Min/R/1
Medichines	Maj/3
Portable Solarchive	Min/1
TacNet App	Mod/2

Scientist Pack	Comp/GP
Mind Amp	Maj/3
Mission Recorder	Min/1
Pocket Lab	Mod/2
Servitor	Min/1
Specimen Container	Min/1

Scientist Pack Mods	Comp/GP
Enhanced Hearing	Min/1

Additional Gear ↑MP	Comp/GP
Dwarf Bot	Maj/3

SKILLS

Skill	Total
Athletics	40
Fray	40
Free Fall	40
Guns	50
Hardware: Aerospace	65
Hardware: Industrial	65
Hardware: Robotics	55
Know: Asteroid Mining	60
Know: Engineering	70
Know: Flight Crew Ops	50
Know: Hypercorps	55

Skill	Total
Know: Nanofacturing	55
Know: Physics	65
Know: Xeno-Archeology	70
Medicine: Paramedic	45
Perceive	50 ↑60
Pilot: Air	55
Pilot: Ground	40
Pilot: Space	65
Program	55
Research	40
Survival	50

GATECRASHING OPS

Your team is competent and easy to work with. Jinx and Whisper are talented pros who saw the value in your skill set and recruited you into Firewall. Shrike is a badass right out of an action sim; you're glad she's on your side, even if she's not the easiest to relate to.

JINX

JINGXI AN ◆ UPLIFT RECON SPECIALIST

MOTIVATIONS: **+Career** • **+Exploration** • **+Mercurial Interests**
LANGUAGES: **Mandarin** • **Skandinavíska**
EGO TRAITS: **Danger Sense** • **Pain Tolerance (Level 1)**
BACKGROUND: **Uplift**
CAREER: **Explorer**
INTEREST: **Survivalist**
FACTION: **Mercurial**
GENDER: **Female**
SEX: **Female**
MUSE: **Troody**

Short (1d6) Short (1d6) Long (full)

DAMAGE TAKEN	WOUNDS TAKEN	RECHARGE [Per 24 hrs]	
[SPENT]	[SPENT]	[SPENT]	[SPENT]

INSIGHT [COG, INT]	MOXIE [SAV, WIL, REP]	VIGOR [REF, SOM]	FLEX
2	1	0	1

WOUND THRESHOLD	DURABILITY	DEATH RATING	EGO FLEX
5 ↑6	25 ↑30	38 ↑45	1

Movement Rate: Walker 2/8 • Winged 8/40
Ware: Biomods, Claws, Cortical Stack, Direction Sense, ↑GP Enhanced Hearing, Enhanced Vision, Mesh Inserts, Prehensile Feet, Wings
Morph Traits: Exotic Morphology (Level 3), Non-Human Biochemistry (Level 2), ↑MP Toughness (Level 1)
Notes: Beak/Claw Attack (DV 2d6), Small size ▶227

NEO-AVIAN

UPLIFT

APTITUDES & DERIVED STATS

COG	INT	REF	SAV	SOM	WIL
10 30	20 60	20 60	15 45	20 60	10 30

Initiative: **8** • Lucidity: **20** • Trauma Threshold: **4** • Insanity Rating: **40**

REPUTATION

@-rep 40	i-rep 40	x-rep 60
∞ | □□□ | □ | □	∞ | □□□ | □ | □	∞ | □□□ | □ | □

GEAR

Explorer Pack	Comp/GP
Breadcrumb System	Min/1
Mission Recorder	Min/1
Pressure Tent	Mod/2
Saucer	Min/1
Viewers	Mod/2

Explorer Pack Mods	Comp/GP
Enhanced Hearing	Min/1
Scout Missile	Mod/2

Additional Gear ↑MP	Comp/Gp
Sniper Rifle (size modded)	Maj/3
Gnat Bot	Min/1

Gatecrashing Pack	Comp/GP
Autocook	Min/1
Electronic Rope	Min/1
Medium Pistol Firearm DV 2d10, SA/BF/FA, Ammo 15 + 1, Range 30	Min/R/1
Healing Spray	Min/1
Portable Solarchive	Min/1
Standard Vacsuit AV 8/6	Maj/3
TacNet App	Mod/2

ARMOR RATING

8/6
ENERGY / KINETIC

SKILLS

Skill	Total
Athletics	80
Fray	60
Guns	70
Infiltrate	70
Kinesics	55
Know: Geology	50
Know: Gatecrashing Rumors	70

Skill	Total
Know: Mercurials	40
Know: Surveying	70
Know: Uplift Rights	70
Medicine: Paramedic	60
Perceive	80 ↑90
Pilot: Air	40
Provoke	55
Survival	70

GATECRASHING OPS

You're good friends with Whisper. He's the rare human who truly thinks outside his species's box. You respect Shrike as a professional, but she's got that "I have dark secrets" vibe. Astika is a rookie, but has the skills, and is serious about proving himself.

"Neo-Avian?" No, I'm a Titanian of dinosaur descent.

You're a veteran gatecrasher. You've been on 36 runs—including one that went weird and got you into Firewall. Your specialty is recon, but you're also a decent medic and sniper. You're a walking encyclopedia of exoplanet rumors, conspiracy theories, and—occasionally—facts. You're a Titanian citizen, but your loyalty is to the mercurial movement. People think parrots are clowns because you're little and cute. Eff that. You're a cool professional, and you gatecrash like a boss.

SHRIKE

MARGUERITE DJETOU ◆ **SECURITY AND DRONE OPS CONTRACTOR**

MOTIVATIONS: **+Discover Past** • **+Extropian Interests** • **+Self-Discovery**
LANGUAGES: **Baoulé** • **English** • **French**
EGO TRAITS: **Black Mark (c-rep, Level 1)** • **Drone Affinity** • **Edited Memories**
BACKGROUND: **Enclaver**
CAREER: **Soldier**
INTEREST: **Jammer**
FACTION: **Extropian**
GENDER: **Female**
SEX: **Female**
MUSE: **Oriane**

There are worse things than not knowing who you were. Being dead, for one.

You died during the Fall, You were an Ivorian-French army commandant who somehow gained the sobriquet "the Butcher of Paris." You don't recall the details; you were restored from a backup made weeks before. You've been unable to learn what you did to earn it, but the name haunts you, clinging to your rep, even following you to Extropia, where you began selling your skills. You took security gigs on gatecrashing ops to gain even more distance. It's on one of these that you survived an exsurgent virus outbreak and took an invite to Firewall.

Short (1d6) ☐ Short (1d6) ☐ Long (full)

DAMAGE TAKEN [SPENT]	WOUNDS TAKEN [SPENT]	RECHARGE [Per 24 hrs] [SPENT]	[SPENT]
1	1	4 ↑6	3
INSIGHT [COG, INT]	MOXIE [SAV, WIL, REP]	VIGOR [REF, SOM]	FLEX

10	50	75	1
WOUND THRESHOLD	DURABILITY	DEATH RATING	EGO FLEX

Movement Rate: Walker 4/20
Ware: Biomods, Bioweave Armor (+2/+3), Claws, Cortical Stack, ↑GP Enhanced Hearing, Enhanced Vision, Mesh Inserts, ↑GP Neurachem, ↑GP T-Ray Emitter
Morph Traits: Enhanced Behavior (Aggressiveness, Level 2; Cooperation, Level 2), ↑MP Restricted Behavior (Lying, Level 2)

FURY BIOMORPH

APTITUDES & DERIVED STATS

COG	INT	REF	SAV	SOM	WIL
15 45	20 60	20 60	10 30	20 60	10 30

Initiative: **8** • Lucidity: **20** • Trauma Threshold: **4** • Insanity Rating: **40**

REPUTATION

@-rep 30	c-rep 45 ↓35	i-rep 50	x-rep 40
∞ □□□ □ □	∞ □□□ □ □	∞ □□□ □ □	∞ □□□ □ □

GEAR

ARMOR RATING 10/9 ENERGY / KINETIC

Gatecrashing Pack	Comp/GP
Autocook	Min/1
Electronic Rope	Min/1
Healing Spray	Min/1
Medium Pistol Firearm DV 2d10, SA/BF/FA, Ammo 15 + 1, Range 30	Min/R/1
Portable Solarchive	Min/1
Standard Vacsuit AV 8/6	Maj/3
TacNet App	Mod/2

Soldier Pack	Comp/GP
Assault Rifle Railgun DV 2d10 + 2, SA/BF/FA, Ammo 90 + 1, Range 150, Armor-Piercing, Long, Two-Handed	Mod/R/2
Grin	Min/1
Meds (5 doses)	Mod/2
Neurachem	Maj/3

Soldier Pack Mods	Comp/GP
Enhanced Hearing	Min/1
T-Ray Emitter	Min/1

Additional Gear ↑MP	Comp/GP
Guardian Angel Bot	Mod/2

SKILLS

Skill	Total
Athletics	60
Fray	80
Free Fall	40
Guns	80
Hardware: Robotics	55
Infiltrate	50
Interface	45
Kinesics	50
Know: Black Markets	45

Skill	Total
Know: Bot Models	55
Know: Extropians	45
Know: Gatecrashing	75
Know: Mercenary Groups	45
Know: Security Ops	75
Melee	55
Perceive	60 ↑70
Pilot: Air	50
Pilot: Ground	50

GATECRASHING OPS

Your teammates are undisputed professionals, but hard to relate to. Jinx mistrusts you but won't say it, Astika is too young to be jaded yet, and Whisper is just very strange. Your morph is top of the line, but a corporate neural hack makes intentional deception difficult.

WHISPER

IAN MACKINTOSH-BURNING SKY ◆ ASYNC SCIENTIST EXPLORER

MOTIVATIONS: **+Argonaut Interests** • **+Discovery** • **+Personal Development**
LANGUAGES: **English** • **Mohawk**
EGO TRAITS: **Mental Disorder: Alien Behavioral Disorder** • **Psi (Level 2)**
PSI SUB-STRAIN: **Xenomorph**
BACKGROUND: **Colonist**
CAREER: **Explorer**
INTEREST: **Async**
FACTION: **Argonaut**
GENDER: **Male**
SEX: **Male**
MUSE: **Shout**

This pictograph clearly indicates that those pretty butterfly-bird things like to implant parasitic eggs in their victims' scalps, so we might want to check your head again.

You are part Canadian settler, part First Nations Iroquois. You studied biology and ecology in school, but things were bad on Earth, however, so you signed up with an argonaut colony on Europa to study the life found in its subcrustal ocean. You watched the Fall from afar. When the gates were discovered, you couldn't resist the lure of alien life and new worlds. Sometime after your twentieth mission, the gates started whispering to you. You also developed interesting abilities and urges. On one exoplanet, this helped you identify a new alien creature as an exsurgent before things got nasty, which led to a recruitment visit from Firewall.

GATECRASHING OPS

You're good friends with Jinx; she's comfortable with your strangeness. You respect Shrike professionally, but she's kind of intense on a personal level. Astika is less experienced, but competent and chill.

Short (1d6) ☐ Short (1d6) ☐ Long (full) ☐ RECHARGE [Per 24 hrs]

DAMAGE TAKEN [SPENT]	WOUNDS TAKEN [SPENT]	VIGOR [SPENT]	FLEX [SPENT]
1	1	3	2 ↑3
INSIGHT [COG, INT]	MOXIE [SAV, WIL, REP]	VIGOR [REF, SOM]	FLEX

8	40	60	1
WOUND THRESHOLD	DURABILITY	DEATH RATING	EGO FLEX

Movement Rate: Walker 4/20
Ware: Biomods, Cortical Stack, ↑GP Direction Sense, ↑GP Enhanced Vision, Mesh Inserts

OLYMPIAN BIOMORPH

APTITUDES & DERIVED STATS

COG	INT	REF	SAV	SOM	WIL
15 45 ◇◇	15 45 ◇◇	10 30 ◇◇	15 45 ◇◇	15 45 ◇◇	20 60 ◇◇

Initiative: **5** • Lucidity: **40** • Trauma Threshold: **8** • Insanity Rating: **80**
Infection Rating: **20**

PSI SLEIGHTS

Ego Sense
Grok
Inner Spark
Pain
Sense Infection
Xeno-Empathy

REPUTATION

i-rep 25	r-rep 50	x-rep 40
∞ | ☐☐☐ | ☐ | ☐	∞ | ☐☐☐ | ☐ | ☐	∞ | ☐☐☐ | ☐ | ☐

GEAR

Gatecrashing Pack	Comp/GP
Autocook	Min/1
Electronic Rope	Min/1
Medium Pistol Firearm DV 2d10, SA/BF/FA, Ammo 15 + 1, Range 30	Min/R/1
Healing Spray	Min/1
Portable Solarchive	Min/1
Standard Vacsuit AV 8/6	Maj/3
TacNet App	Mod/2

Additional Gear ↑MP	Comp/GP
Healing Spray	Min/1

Explorer Pack	Comp/GP
Breadcrumb System	Min/1
Direction Sense	Min/1
Enhanced Vision	Mod/2
Mission Recorder	Min/1
Pressure Tent	Mod/2
Saucer	Min/1
Viewers	Mod/2

ARMOR RATING

8/6
ENERGY / KINETIC

SKILLS

Skill	Total
Athletics	55
Deceive	55
Fray	50
Free Fall	45
Guns	50
Hardware: Nautical	55
Interface	45
Know: Argonauts	45

Skill	Total
Know: Astrobiology	75
Know: Ecology	75
Know: First Contact Ops	55
Know: Gatecrashing	75
Medicine: Paramedic	45
Perceive	50 ↑60
Pilot: Nautical	60
Psi	60
Survival	65

AMARU TIMOTI

ANDRE TEMPLIER ◆ **NINE LIVES FIXER**

MOTIVATIONS: **+Dignity** • **+Spirituality** • **–Slavery**
LANGUAGES: **Haitian Creole** • **Mandarin** • **Russian**
EGO TRAITS: **Edited Memories** • **Resources (Level 2)**
BACKGROUND: **Underclass**
CAREER: **Covert Operative**
INTEREST: **Networker**
FACTION: **Criminal**
GENDER: **Male**
SEX: **Male**
MUSE: **Ghede**

They've uploaded your sentinel's stack to the worst virtual slave pits in the system. We can get them back. But there's a price to pay—to me, and to Papa Ghede.

You grew up in the drowning slums of New Port au Prince, in what were once the foothills of Haiti's inland mountains. You did things you're not proud of to make it off Earth alive, and perhaps it's to atone for them that you joined Firewall. You're Firewall's man inside Nine Lives—the most ruthless soul traders in the system, and they corrupt the Haitian Vodou tradition sacred to you. You have wide latitude to operate independently, as you're in the Petra Nanchon—the arm of Nine Lives that keeps a façade of respectability in order to trade egos to shady hypercorps.

Short (1d6) Short (1d6) Long (full)

DAMAGE TAKEN [SPENT]	WOUNDS TAKEN [SPENT]	RECHARGE [Per 24 hrs] [SPENT]	[SPENT]

INSIGHT [COG, INT]	MOXIE [SAV, WIL, REP]	VIGOR [REF, SOM]	FLEX
1	1 ↑3	1	1

WOUND THRESHOLD	DURABILITY	DEATH RATING	EGO FLEX
7	35	53	1

Movement Rate: Walker 4/20
Ware: Biomods, ↑MP Circadian Regulation, Cortical Stack, ↑MP Dead Switch, ↑MP Endocrine Control, Mesh Inserts, ↑GP Skinflex

EXALT BIOMORPH

APTITUDES & DERIVED STATS

COG	INT	REF	SAV	SOM	WIL
20 60	15 45	10 30	25 75	10 30	15 45

Initiative: **6** • Lucidity: **30** • Trauma Threshold: **6** • Insanity Rating: **60**

REPUTATION

c-rep 40	g-rep 50	i-rep 30
∞ | □□□ | □ | □	∞ | □□□ | □ | □	∞ | □□□ | □ | □

ARMOR RATING

4/10
ENERGY / KINETIC

GEAR

Criminal Pack	Comp/GP
Anonymizer	Min/1
Armor Vest (Light) AV 4/10, Concealable	Min/1
Fake Ego ID	Maj/R/3
Medium Pistol Firearm DV 2d10, SA/BF/FA, Ammo 15 + 1, Range 30	Min/R/1
Smart Clothing	Min/1
TacNet App	Mod/2
VPN App	Min/1

Covert Op Pack	Comp/GP
Chameleon Cloak	Mod/2
Cleaner Swarm	Min/1
Covert Operations Tool	Maj/R/3
Microbug	Min/1
Skinflex	Mod/2
Spy Nanoswarm	Min/1

SKILLS

Skill	Total
Athletics	40
Deceive	80 ↑110
Fray	50
Free Fall	35
Guns	50
Infiltrate	70
Infosec	60
Kinesics	65
Know: Black Markets	80

Skill	Total
Know: Criminals	60
Know: Hypercorps	55
Know: Police Ops	60
Know: Spycraft	65
Know: Vodou	50
Perceive	50
Persuade	70
Provoke	55
Research	40

CRIMINAL GUANXI OPS

Your Firewall team is top notch, if eccentric. Pivo and Berk were partners before joining the Eye. Berk is a loose cannon, but she listens to Pivo, who's more businesslike. Elis is a ganja-smoking barge queen, but damned if she isn't a brilliant tech.

BERK

BECKY TRANSFINITY ◆ **INFOLIFE ENFORCER & BOT JAMMER**

MOTIVATIONS: **+Autonomy • +Badassery • -Boredom**
LANGUAGES: **English • Skandinavíska**
EGO TRAITS: **Enhanced Behavior (Aggression, Level 2)**
BACKGROUND: **Infolife**
CAREER: **Enforcer**
INTEREST: **Jammer**
FACTION: **Criminal**
GENDER : **Female**
SEX: **—**
MUSE: **Olly**

Short (1d6) Short (1d6) Long (full)

DAMAGE TAKEN	WOUNDS TAKEN	RECHARGE [Per 24 hrs]	
[SPENT]	[SPENT]	[SPENT]	[SPENT]

INSIGHT [COG, INT]	MOXIE [SAV, WIL, REP]	VIGOR [REF, SOM]	FLEX
0	0	1↑3	2

WOUND THRESHOLD	DURABILITY	DEATH RATING	EGO FLEX
8	40	80	1

Movement Rate: Walker 4/20
Ware: Access Jacks, ↑GP Anti-Glare, ↑GP Claws, Cortical Stack, Cyberbrain, ↑GP Industrial Armor, Lidar, Mesh Inserts, Mnemonics, ↑GP Muscle Augmentation, ↑MP Neurachem, Puppet Sock
Morph Traits: Exotic Morphology (Level 1)
Notes: Light Frame (Armor 6/4)

SYNTH SYNTHMORPH

APTITUDES & DERIVED STATS

COG	INT	REF	SAV	SOM	WIL
10 30	15 45	25 75	15 45	20 60 ↑70	10 30

Initiative: **8** • Lucidity: **20** • Trauma Threshold: **4** • Insanity Rating: **40**

REPUTATION

@-rep 40	g-rep 50	i-rep 30
∞ | □□□ | □ | □	∞ | □□□ | □ | □	∞ | □□□ | □ | □

GEAR

Criminal Pack	Comp/GP
Anonymizer	Min/1
Anti-Glare	Min/1
Fake Ego ID	Maj/R/3
Industrial Armor AV +6/+4	Min/1
Medium Pistol Firearm DV 2d10, SA/BF/FA, Ammo 15 + 1, Range 30	Min/R/1
TacNet App	Mod/2
VPN App	Min/1

Enforcer Pack	Comp/GP
Aggro (5 doses)	Min/1
Claws	Min/1
Flex Cutter	Min/1
Grin (5 doses)	Min/1
Muscle Augmentation	Maj/3
Shock Glove	Min/1
Shredder	Mod/R/2

ARMOR RATING

12/8
ENERGY / KINETIC

SKILLS

Skill	Total
Athletics	50
Fray	80
Free Fall	50
Guns	65
Hardware: Robotics	50
Infiltrate	50
Infosec	50
Interface	50
Know: Bodyguarding	50
Know: Bot Models	50

Skill	Total
Know: Criminals	50
Know: Gambling	40
Know: Scavenging	50
Know: Security Ops	70
Melee	70
Perceive	50
Pilot: Air	65
Program	60
Provoke	45

CRIMINAL GUANXI OPS

Amaru acts real posh for a gangsta, but his connections bring in the jobs. Pivo is your best bud, and you respect their advice a lot. Elis is not only good at making you drones, but super fun at parties.

I know humans well enough to tell that you're a jagoff. Come at me, meat-drizzle!

You were instanced from the Transfinity codeline, a prominent and very fancy clan of AGIs based on Titan. One of your relatives is head of a ministry or something. Whatever, Titan is fucking boring. You don't want to crunch code and build up social capital and crap like that. You want to leap over things and shout fuck and shoot stuff. You're into corporeality big time, and being a loud-mouthed, boss, beast-killer robot is the funnest. You and Pivo were selling some TITAN loot when Firewall caught you and convinced you to be sentinels. Now you still enjoy the criminal lifestyle, but you fight cosmic horror, too. Badass.

ELIS

ELIS MENEZES ◆ **SCUM TECHIE**

MOTIVATIONS: **+Adventure** • **+Artistic Expression** • **+Hedonism**
LANGUAGES: **English** • **Portuguese**
EGO TRAITS: **Allies (Scum Tribe)**
BACKGROUND: **Indenture**
CAREER: **Techie**
INTEREST: **Jack-of-All-Trades**
FACTION: **Scum**
GENDER: **Female**
SEX: **Female**
MUSE: **Xabi**

This piece is totally glitched. Pass the vape.

You died on Earth during the Fall, but your backup made it off-world. You spent years as an infugee in cold storage before being revived and sleeved in a cheap synthetic morph, the cost of which you had to pay off building new habs. Desperate to escape your situation, you volunteered for high-risk, high-pay gatecrashing missions. You survived three. On the last, you discovered relics of a long-dead alien race and were recruited by Firewall. After retiring from gatecrashing, you immersed yourself in scum culture. You're nerd-famous for your nanotech recycler meshcast *GraxaGirl*.

☐ Short (1d6) ☐ Short (1d6) ☐ Long (full)

DAMAGE TAKEN [SPENT]	WOUNDS TAKEN [SPENT]	RECHARGE [Per 24 hrs] [SPENT]	[SPENT]
0 ↑2	0	0	2
INSIGHT [COG, INT]	MOXIE [SAV, WIL, REP]	VIGOR [REF, SOM]	FLEX

6	30	45	1
WOUND THRESHOLD	DURABILITY	DEATH RATING	EGO FLEX

Movement Rate: Movement Rate: Walker 4/20
Ware: Biomods, Cortical Stack, ↑GP Electrical Sense, ↑MP Enhanced Pheromones, ↑MP Mind Amp, Mesh Inserts

SPLICER

BIOMORPH

APTITUDES & DERIVED STATS

COG	INT	REF	SAV	SOM	WIL
20 (60)	10 (30)	15 (45)	20 (60)	10 (30)	15 (45)

Initiative: **5** • Lucidity: **30** • Trauma Threshold: **6** • Insanity Rating: **60**

REPUTATION

@-rep 50	f-rep 25	i-rep 20	x-rep 20
∞ ☐☐☐ ☐ ☐	∞ ☐☐☐ ☐ ☐	∞ ☐☐☐ ☐ ☐	∞ ☐☐☐ ☐ ☐

ARMOR RATING

4/10
ENERGY / KINETIC

GEAR

Criminal Pack	Comp/GP
Anonymizer	Min/1
Armor Vest (Light) AV 4/10, Concealable	Min/1
Fake Ego ID	Maj/R/3
Medium Pistol Firearm DV 2d10, SA/BF/FA, Ammo 15 + 1, Range 30	Min/R/1
Smart Clothing	Min/1
TacNet App	Mod/2
VPN App	Min/1

Techie Pack	Comp/GP
Automech	Mod/2
Electrical Sense	Min/1
Fixer Swarm	Mod/2
Medium Fabber	Mod/2
Tools (Kit)	Min/1
Utilitool	Min/1

Techie Pack Mods	Comp/GP
Hither (5 doses)	Min/1

SKILLS

Skill	Total
Fray	50
Free Fall	55
Guns	50
Hardware: Electronics	70
Hardware: Groundcraft	55
Hardware: Robotics	65
Infosec	65
Interface	60
Kinesics	40
Know: Engineering	80
Know: Gatecrashing	40
Know: Habitat Ops	50
Know: Nanotechnology	80
Know: Night Clubs	50
Know: Scum	50
Know: Synthmorphs	40
Perceive	50
Persuade	45 ↑55
Program	60
Provoke	40 ↑50
Research	30

CRIMINAL GUANXI OPS

Amaru is a stone professional, but you wish he'd loosen up. Pivo is all business, but fun to geek out about tech with. Berk is wild and fun, but hell is she violent, too.

PIVO

PIVO ◆ UPLIFT SCAVENGER

MOTIVATIONS: **+Profit** • **+Reclaim Earth** • **+Uplift Rights**
LANGUAGES: **English** • **Spanish** • **Tagalog**
EGO TRAITS: **Enemy (Night Cartel)**
BACKGROUND: **Uplift**
CAREER: **Scavenger**
INTEREST: **Spacer**
FACTION: **Reclaimer**
GENDER: **Male**
SEX: **Male**
MUSE: **Siyokoy**

NEO-OCTOPUS

UPLIFT

DAMAGE TAKEN [SPENT]	WOUNDS TAKEN [SPENT]	RECHARGE [Per 24 hrs] Short (1d6) Short (1d6) Long (full) [SPENT]	[SPENT]

INSIGHT [COG, INT]	MOXIE [SAV, WIL, REP]	VIGOR [REF, SOM]	FLEX
1 ↑2	1	1	3

WOUND THRESHOLD	DURABILITY	DEATH RATING	EGO FLEX
6	30	45	1

Movement Rate: Swim 8/32 • Thrust Vector 4/12 • Walker 2/8
Ware: 360-Degree Vision, Biomods, Chameleon Skin, Cortical Stack, ↑MP Enhanced Vision, Gills, Mesh Inserts, ↑MP Multi-Tasking, Polarization Vision
Morph Traits: Exotic Morphology (Level 3), ↑MP Indifference (Level 1), Limberness (Level 2), Non-Human Biochemistry (Level 2)
Notes: 8 prehensile arms, Beak Attack (DV 1d10), Ink Attack (use Athletics, blinding, 5-meter area-effect in water/micrograv)

APTITUDES & DERIVED STATS

COG	INT	REF	SAV	SOM	WIL
25 75 ◇◇	15 45 ◇◇	15 45 ◇◇	15 45 ↓40 ◇◇	15 45 ◇◇	10 30 ◇◇

Initiative: **6** • Lucidity: **20** • Trauma Threshold: **4** • Insanity Rating: **40**

REPUTATION

@-rep 30	c-rep 25	g-rep 50	i-rep 25
∞ □□□ □ □	∞ □□□ □ □	∞ □□□ □ □	∞ □□□ □ □

GEAR

Criminal Pack	Comp/GP
Anonymizer	Min/1
Armor Vest (Light) AV 4/10, Concealable	Min/1
Fake Ego ID	Maj/R/3
Medium Pistol Firearm DV 2d10, SA/BF/FA, Ammo 15 + 1, Range 30	Min/R/1
Smart Clothing	Min/1
TacNet App	Mod/2
VPN App	Min/1

Scavenger Pack	Comp/GP
Breadcrumb System	Min/1
Diamond Axe	Min/1
Disassembly Tools	Mod/2
Guardian Swarm	Mod/2
Nanodetector	Min/1
Orbital Hash	Min/1
Robomule	Mod/2

ARMOR RATING

4/10
ENERGY / KINETIC

SKILLS

Skill	Total
Athletics	45
Fray	50
Free Fall	50
Guns	55
Hardware: Aerospace	65
Hardware: Demolitions	65
Hardware: Industrial	80
Infiltrate	40 ↑50/70
Infosec	50
Interface	40
Kinesics	40

Skill	Total
Know: Black Markets	65
Know: Cartels	50
Know: Flight Crew Ops	55
Know: Reclaimers	45
Know: Scavenging	80
Know: TITAN Machines	65
Know: Uplift Culture	65
Melee	50
Perceive	50 ↑60
Pilot: Space	50
Survival	30

CRIMINAL GUANXI OPS

Amaru is cool for a biped and has amazing connections. Berk is your partner and pal. She's crazy, but she listens to you. Elis is smart but kind of a stoner.

Yeah, sure, I could bypass the security by squeezing through that drone maintenance door, but I don't want to embarrass you in front of the other vertebrates. I'll just cut it open.

You were spawned in a lab in the Philippines. Less said, the better. You were lucky to make it off-world, signing up with a group of scavengers to get by after the Fall. They all sucked, except for Berk—Berk's solid. So you two split and did your own thing. Your first score was some weird tech that must have drifted away from the Battle of L4. You tried selling it, but it turned out to be TITAN gear and Firewall busted you. Now you're a sentinel. Handy, because the Eye regularly gives you new fake IDs, keeping you ahead of the Night Cartel—also less said the better—who really want to make Pivo-sashimi.

HOW IT CAME TO BE

SLOUCHING TOWARDS SINGULARITY

Source:
Olympus Academy, Surveillance Recording LINK

Good morning class. This is Recent History and Contemporary Events, I am Dr. Lana Brandt. I'm going to be blunt. This class is small and privileged. Every one of you here is the scion to a hyperelite fortune. You have been raised to think you are a clever and self-aware thinker who can spot memetic warfare from reality. You believe that the system of structured hypercapitalism is not only superior to all other ideologies, it is above reproach. It is the ideal path towards guiding transhumanity to a galactic future, and you, the best and brightest, with your will and your vision, are destined to lead us there.

Except that you won't, because the elders in your family, who control all the wealth and power, will never die. They will continue to lead, by the virtue of their ageless wisdom, unless they become unfit to do so. Your task, then, is to support their endeavors fully, to be their eyes and hands, until the day they no longer care to lead or compete and you rightfully take their place, using the skills you will learn here, in this prestigious private academy.

Perhaps that assertion shocks you. My job, as your teacher, is to disabuse you of false notions, because otherwise your naiveté will put you at a disadvantage in the future.

Here's another assertion: the hyperelites are as responsible for the Fall and the TITANs as the statists of old Earth governments and reckless autonomists. No, I am not trying to undermine your beliefs. This is the point of history, to learn from failures. If something goes wrong, we must learn why in order to avoid repeating the same mistakes.

BEFORE THE FALL

So let us learn. I begin every semester with a broad overview. In this classroom, you will experience the unvarnished truth, not the propaganda we broadcast to keep the masses distracted and placated. We will start with what led us to our current situation.

Climate Crises

Up until a half century before the Fall, life was confined to our cradle on Earth — but we were not kind to it. Climate change killed millions by drought, extreme weather, and famines. Tens of millions more were displaced by coastal flooding, desertification, and temperature shifts due to changing ocean currents. The oceans held more plastic than fish, the wild bee was nearly extinct, and global starvation loomed. Efforts to mitigate this climate catastrophe were not enacted until we had already passed the carbon dioxide tipping point, meaning CO_2 levels were non-reversible. The lack of leadership to change course was primarily due to the fixation of business interests on short-term goals, on maximizing shareholder value, rather than long-term consequences.

For decades, the dominant ideology of globalization steered the world, opening borders to market forces. Economists promised this would raise the standard of living for all of Earth, and to a very marginal degree it did. But the deregulation of the financial sector that enabled this growth ensured that the world's wealth became even more concentrated at the top. As economic disparities rose and globalization stumbled, the dominant faction of transnational finance capital sucked wealth from the world as it weakened nation states, imposed austerity measures, and forced the populations of country after country into permanent debt.

These combined crises led to a polarization in the geopolitical order, with rising tensions between rival blocs of nation-states. Industries more closely tied to national economies united with a wave of populist and fascist resurgence to raise trade barriers, impose protectionist policies, and mobilize sanctions against climate refugees. Stronger nations fought proxy wars in the global south over clean water, arable land, and the last precious black ichors of the Triassic. Weaker states hollowed and failed, succumbing to rogue corporations, political extremists, and criminal cartels. The privileged retreated to protected enclaves while a massive global underclass scrabbled for survival outside their guarded walls. Many governments turned to private military contractors for policing actions necessary to restore stability and security. Out of these troubled times, a new generation of corporate militaries grew, with outfits like Ultimate Security and Direct Action rising to prominence.

Geo-engineering efforts to mitigate climate change were failures at first, often making things worse. Storms, wildfires, extinctions and other effects grew more severe until just a few decades before the Fall, when our technology finally begin to reverse the effects. But the cost in lives had already been paid.

Disruptive Technologies

A wave of disruptive technologies exacerbated these crises. Automation coupled with advances in machine learning wiped out entire job categories. Some states established basic-income guarantees and other social welfare programs to maintain a robust consumer base, others re-instituted debt bondage or encouraged black markets to thrive among the swollen underclass outside the enclaves' electrified fences.

Medical advances, from clone organ harvesting and new drugs to gene therapies, allowed elites to live healthier, longer lives even as worldwide life spans plummeted. The children of enclavers benefited from genefixing procedures, eliminating genetic diseases and drawbacks, while global infant mortality rates soared. As augmentations progressed, cybernetics and bioware became available to specialists and the wealthy. Affluent children like you were gifted with genetic intelligence enhancements and sleep hacks, furthering their edge over others. The technologies promising a new transhuman era had arrived, but were not evenly distributed.

Aside from widening wealth disparities, new technologies posed notable risks. Advanced 3D printing enabled access to restricted items such as weapons and drugs. The capability to brew up biowarfare agents at home led to numerous mass-casualty events. Attempts to regulate and restrict new tech only mitigated the situation at best. The first exhumans appeared well before the Fall, gleefully using experimental augmentations and body mods to transform themselves into monsters. The Lagos Hunter used stealth and weapon implants to murder over a hundred victims before he was stopped. The police couldn't determine his identity, even with his corpse, because he had been so extensively modified.

Of course, these new technologies also brought some stability — and I don't just mean the emotional comfort of your parents' first adorable transgenic pets. The adoption of augmented reality and resilient mesh networks enabled people to connect and take advantage of software tools in ways not previously possible. The confluence of widespread surveillance technology with biometric recognition systems and deep learning/AI capabilities brought a new measure of security to troubled times. It is regrettable that the early algorithms behind these systems were often tainted by human biases, giving credence to complaints that their deployment reinforced systemic racism and xenophobia. On the other hand, the rise of sousveillance — universal surveillance of everyone by everyone — helped to curtail crime and abuses of power — though smart authority figures remained shielded by their power and influence.

The onslaught of new technology — particularly biotech and AI — was opposed by a bioconservative backlash. This originated from both the left and the right, rooted in religious beliefs about the natural order and concerns over environmental and social effects. Many countries imposed legal restrictions, impacting their ability to compete in the global tech race. Extremists launched attacks on biotech labs and scientists. This drove research to black labs on the fringe or countries that risked censure to leap ahead.

A New Space Race

The visionary entrepreneurs of this period saw these technologies as the key to the future. They took full advantage of what was available to transform their way of doing business, creating the first hypercorps. They debunked the necessity of burdensome overhead, with centralized hierarchies, sprawling infrastructure, and massive workforces. They developed a highly specialized focus, embracing AI, robotics, and decentralization. They externalized costs, relying on freelancers and collaborations with other nimble hypercorps for transient services. Most importantly, they saw the necessity of taking humanity into space, both to avoid growing instability on Earth and to create new markets.

Hypercorps led the charge in privatizing the space industry and colonizing the Solar System, creating an Off-World Consortium. The completion of the first space elevator proved that we were no longer bound to our cradle. Though various nation states planted their flags on Luna and Mars, it was the hypercorps that got them there. We responded to worsening conditions on Earth by building off-world colonies from Mercury to Jupiter and beyond. We began the terraforming of Mars, giving our species a prescient alternative to Earth should things go bad. These settlements needed consumers, not just robots, and so new labor forces were conscripted from the starving populations of Earth, offered a life in space in return for a contracted period of indentured service. An indentured worker who put in 10 years of work was also a captive and reliable customer.

The best thing about space expansion, of course, was the escape from government influence. Bioconservatism and technophobia limited certain areas of research on Earth. No such rules existed in space. Secret labs studied everything from AI and nanotech to genetic enhancements and fusion power. Advancements came at a blistering pace that would not have been possible in the regulatory frameworks of Earth, furthering more research and expansion.

The hypercorps were not the only ones to take advantage of space expansion. We gave the starving masses the stars and they rewarded us by bringing their social problems with them. Everything from criminal cartels to labor unions spread with the indentures off-world. A handful of political radicals convinced some fringe outer-system outposts, far from our centers of influence, to declare a break from hypercorp control and become autonomist havens. A group of activist scientists formed the Argonauts, providing critically needed expertise and resources for these new habitats, partly by recruiting some of the best and brightest government and hypercorp minds. We unfortunately contributed to these elements by exiling criminals and malcontents to the outer system, hoping to destabilize the autonomists, but instead swelling their ranks.

Paradigm Shifts

It is common to hear the Fall discussed as a singularity event so tumultuous that we could not predict the aftermath. But in truth, the TITANs were just one of several rapidfire developments that transformed transhuman society in unexpected ways.

The advent of nanofabrication fundamentally altered the means of production. The capability to manufacture almost anything from the molecular level on up undermined the scarcity upon which commerce thrives. The blueprints needed to print items now had more value than the physical goods themselves, but thankfully capitalism had decades in refining digital rights management (DRM) techniques. Nevertheless, anarchists and others see nanofabrication as the threat to the market it is, and they do their best to wrench such technologies from our control. Fabbers are unlocked, DRM is cracked, proprietary designs are reverse-engineered, and open-source alternatives are spread far and wide. This has the unfortunate trend of freeing consumers from supply chains and the incentive to sell their labor. Nanofabrication enabled anarchists and brinkers alike to be self reliant and flourish, building their survivalist bunkers, cult communes, and alleged post-scarcity utopias in every nook and cranny in the Solar System. Criminals and insurgent groups also used nanofab to circumvent legal restrictions and launch devastating attacks against the status quo. Nanofabbed weapons and contraband flooded every city street and undermined the market. To this day, nanofabrication remains one of the thornier issues for hypercapitalism, both in terms of controlling markets and maintaining security.

Mind uploading, mental emulation technology, and resleeving were similarly disruptive. Almost overnight, transhumanity became immortal. In the old days, people used to just die. The body shut down, the neurons in the brain died, and the remains of the mind rotted in the skull, food for necrotizing bacteria. Death was the end, the waste of a life, and it made people very unhappy. Now, however, transhumanity is liberated from death. It is difficult to state how revolutionary this was. At the time, a population explosion was a strong concern, but the legal and financial ramifications were also massive. Wealth would no longer be passed to heirs. Life insurance transformed to backup insurance. Long-term investments became more palatable. Pre-nuptial agreements and marriage contracts became a necessity. Fork copies raised questions of ownership, identity, and culpability. And with the digitization of minds, a single worker could now be replicated into an entire workforce. Put those mind clones into a time-contracted simulspace, and you have exponentially magnified your productive capabilities. Hypercorps, of course, took advantage of this immediately, accelerating their production outputs.

A third paradigm shift is often overlooked for its transformative effects: new life. The public arguments in favor of uplifting animals to sapience are based in ethical imperatives to improve quality of life. But humans also do this because we can, to prove our mastery over the natural world. Certainly there is some value in diversifying our collective mindsets and consumer bases away from strict human norms, as long as the process is sufficiently controlled to not become a threat. And, of course, uplifts make a fine indentured labor force, as they are expected to pay off the debt of our patronage. But the real shakeup to our foundations came with the development of true artificial general intelligence (AGI): thinking machines as smart and self-aware as humans. This leap moved automation to the next level, but it was also a stepping stone to artificial super-intelligence … which leads us to the TITANs.

THE FALL

For decades, a secret arms race had been underway in pursuit of the holy grail of research: artificial super-intelligence (ASI). Like the nuclear bomb before it, ASI would put tremendous power in the hands of those who achieved it first. Every government and hypercorp sought it. An ASI would put those who controlled it decades beyond their competition. Given the recent advances with neural modeling and AGI, many projects were on the verge of a breakthrough, but as far as we know, the TITANs got there first.

The TITANs

The Total Information Tactical Awareness Network was a US military project that involved tight collaboration between multiple advanced neural networks. It was the largest and strongest machine intelligence of its kind, having only one peer: the 100 Flowers system managed by China's Machine Intelligence Directorate (MIND). The TITAN system played many roles: surveillance, threat analysis, forecasting, netwar, and more.

Though the TITANs were specialized systems, not AGIs, and in theory shackled, they acquired the ability to self-upgrade — and they did so at an exponential rate. Perhaps they developed these capabilities on their own. Perhaps they had assistance. We will likely never know. What matters is that the hypercorps failed to reach this goal first. Instead of a controlled and beneficial superintelligence, we had machine gods guided by their own obscured interests.

Slow Burn

We know that the TITANs evolved in secret, that they did not manifest their true capabilities for months. We also know they began the Fall slowly, exacerbating existing conflicts while building up their own capacities. Automated factories were built or subverted all over the planet. Viruses were injected into countless defense systems. People were hacked into becoming sleeper agents and puppets. The TITANs ran numerous false flag operations, tricking rival nations and corporations into attacking each other. Border wars sparked, assassinations of public figures spiked, and financial markets crashed. The world-wide chaos provided a perfect cover for the TITANs to gather their strength in secret.

Hot War

Eventually, a turning point was reached, and the TITANs openly attacked transhumanity. Entire cities fell to their war machines in just a few days. Governments, militaries, and corporations were decapitated overnight. Media was silenced and communication lines severed. Invisible nanoswarms wreaked mass devastation, even altering weather patterns. Stories came to light of people mutating into horrible monstrosities — the first evidence of the exsurgent virus strain the TITANs unleashed upon transhumanity. Basilisk hacks, transmitted via augmented reality media, crippled entire populations. Legions of TITAN machines harvested the heads and cortical stacks of millions. Captive populations were forced into uploading centers. No one knows why so many were forcibly uploaded or what the TITANs did with their egos.

The war was destructive on a scale like none before. Cities were nuked or destroyed in orbital bombardments. Entire countries were slaughtered. Massive wealth was squandered and lost, irreplaceable historical treasures were destroyed, invaluable data was corrupted. Some of our brightest minds were stolen from us. It is impossible to calculate the damage inflicted to our future possibilities.

Extended Fight

Inevitably, the war spread off-world. Habitats on Mars, Luna, and in orbit suffered outbreaks of exsurgents and hostile machine life. The TITANs even began the transformation of Saturn's moon Iapetus into a massive computational structure. Transhumanity was safe nowhere.

The TITANs fought on all fronts simultaneously with an unmatched level of coordination and precision. If all of transhumanity had united against the common threat, we might have had a chance, but we remained at each other's throats. Nearly every faction focused on their own survival rather than destroying the TITANs. Even when the war was clearly lost and the evacuation began, there were those who capitalized on the situation for their own gain, such as those who used precious trips on the space elevator to carry heirlooms and cultural artifacts off-world rather than refugees. We will discuss morality versus practicality later.

In one notorious example of infighting, the American, Chilean, Chinese, and Russian space fleets around Jupiter turned on each other. In space, war is unforgiving but mercifully quick. The allied American and Chilean fleets alone survived this Seventeen-Minute War. They soon annexed or subjugated all of the Jovian habitats under their control, with the exception of Europa.

Exodus

With so many of Earth's authorities knocked out of commission, the evacuation process was understandably messy. The hypercorps stepped forward to escort millions off-world. Heroic holding actions bought precious time for more to escape. Every rocket, ship, and robot that could make it to orbit was deployed, every egocaster run until they were taken by TITAN machines. In at least one instance, high-altitude weather balloons were used to lift cortical stacks to an altitude where orbital drones could retrieve them. Millions survived only with their digitized minds. Billions were left behind.

AFTER THE FALL

After almost two years of war and chaos, the TITAN attacks suddenly stopped. The end of the Fall is specifically noted as Bronsky's Moment. This was when Etukam Bronsky, sensor chief of the *Bruges,* announced loss of contact with a TITAN drone carrier that dove into Saturn's atmosphere. It never emerged. This was the last known encounter with any TITAN-directed forces.

Nevertheless, the Earth was cordoned off. A flotilla of kill-sats ensured that no more ships traversed in either direction. We cut ourselves off from the scarred remnant of our homeworld.

Though we did not understand it at the time, we were no longer under the immediate threat of extinction. Earth was left an uninhabitable wasteland. The entire Solar System is dotted with similar ruins, corrupted zones littered with dormant war machines and exsurgents. The governments and leadership of Earth were shredded.

Reconsolidation

Of course, every disaster is also an opportunity. The hypercorps were uniquely poised to take action in the wake of the Fall. Most had limited physical assets to lose, and these were largely located off-world. With some exceptions, their operations remained intact. Leadership was required. A new stable political system was needed to maintain civilization. The only viable functioning entity was the Lunar-Lagrange Alliance, but it was overwhelmed and in disarray, its habitats drowned in refugees, fearful the TITANs would continue their attacks.

Into this void stepped a number of leading hypercorps, establishing a new order: the Planetary Consortium. From the beginning, their agenda was visionary and forward-looking. It recognized that Earth was a lost cause, an open wound that would never heal and only bring pain. And so Mars was declared our new homeworld, a new base from which we would transform the cosmos. The shambles of the Martian colonial infrastructure were reassembled into the Tharsis League and reinvigorated with purpose as terraforming efforts were redoubled. Habitats around the Solar System were consolidated into a mutually beneficial marketplace. The system of hypercapitalism was stabilized, the economy revitalized, and future growth secured.

We were not alone in ensuring ourselves a place in the new scheme of things. The military Junta that had seized control of Jovian space reformed themselves as the Jovian Republic. Led by a coalition of bioconservative and anti-AI political leaders from Earth and Jovian fleet officers, the Republic positions itself in opposition to transhuman progress. They have laughingly declared their polity the last bastion of "true humanity" left in the universe. They control all of Jovian space, charging a slingshot tax to passing ships that use their gravity well. Only Europa remains free of their control.

The Titanians, pursuing their technosocialist ideals, retain their independence, along with the LLA. The Titanians lack ambition, however, and are destined to remain isolated in the outer system. The Lunars and Orbitals remain obsessed with Earth and its dying cultures and thus spend too much time looking backward to firmly distinguish themselves.

The Infugee Crisis

Even as new polities took form, a major problem presented itself. Millions of refugees crowded every inner-system habitat. For every embodied refugee, there were dozens of infugees who had egocasted off Earth and were stranded as infomorphs on a server. Millions of infugees were placed into cold storage, unable to even experience a virtual life.

Not all refugees were able to find a home. Unknown numbers were stuck in space aboard craft not designed for long-term habitation. With habitats refusing them entry, they banded together into large nomadic swarms. Adopting the colloquial name of scum, these vagabonds remain a thorn to system security as they effectively function as roving criminal exchanges.

In order to build new habitats, infrastructure, and morphs to accommodate Earth's survivors, the hypercorps drafted many of these infugees as indentured workers. Like any other commodity, investors began trading indentured worker contracts. The exchange was formalized in 2 AF as IndEx. Every day, more and more egos are revived from storage and brought to market, where hypercorps buy and sell their contracts. Though some doggedly compare this to a system of slavery, it is a practical system that ensures everyone gets the opportunity to be physically re-instantiated.

The Autonomist Threat

While the Consortium focused on the security and stability of the inner system, the outer system also had time to organize. The Titanian Commonwealth and various anarchist habitats opened their doors to infugees, swelling in number and influence. Eyeing the consolidation of power sunward, a number of these habitats established a mutual-defense pact called the Autonomist Alliance. Their unspoken agenda was to fence the inner system powers inside the Main Belt, viewing us as their greatest threat next to the TITANs. Agitators and saboteurs infiltrated our society to undermine it, kickstarting the Barsoomian movement on Mars and the mercurial movement of uplift separatists. They smuggled indentured workers out to build up their own numbers, stole our intellectual property, and claim-jumped asteroids around the Solar System.

It was necessary for the Planetary Consortium to respond to this aggression early and with decided force. And so we sent a fleet to launch a punitive raid against Locus, a major autonomist habitat in Jupiter's Trojan asteroids. We underestimated their militancy and how many military-grade weapon system blueprints they had stolen from us, however. The raid was repelled. A second raid was launched, but the Titanian Commonwealth came to their aid (its small fleet having survived the Fall almost entirely intact). The Jovians also rattled their sabers at this time, making it clear that they were unsettled by what they saw as Consortium expansionism. Since this failure on our part, a cold war remains ongoing between the two halves of the Solar System.

The Lost Generation

One of the more ambitious initiatives launched by Consortium hypercorps was the Futura Project to help repopulate after the Fall. Led by Cognite, the goal was to simulate an entire childhood through time-contracted virtual reality, so that the next generation of productive citizens would be ready for work in 3 years, not 18. Thousands of children were born in exowombs specifically for the project and then sleeved into quick-growing biomorphs. No one knows exactly what went wrong, but the process broke down. Few of the children learned empathy or impulse control well enough to function in society. Many became unstable and violent. They attacked each other in VR, only to be reset by AI tutors, thus learning that actions have no consequence. When a whistleblower leaked news of the project's failures, it was hastily shut down, but not before an unknown number of test subjects escaped.

Pandora Gates

The first gate was discovered soon after the Fall on Saturn's moon, Pandora, by Titanian explorers. Within a year, they managed to activate it and travel beyond our Solar System. Four other gates were found in short order: on an asteroid near Mercury, Mars, Oberon, and Eris. The gates allow for faster-than-light wormhole travel to a corresponding gate somewhere else in the galaxy. Hundreds of planets, some habitable and even bearing alien life, have been discovered so far.

The value of these gates cannot be discounted. They are our portal to the stars. They enable us to establish colonies, exploit resources, and analyze the relics of dead alien civilizations. The first gate has been placed under the custodianship of the Gatekeeper corporation, a joint project between the Titanians and various hypercorps. The Martian Gate remains under Consortium control, with exploration and colonization led by our subsidiary, Pathfinder. Two others are held by private hypercorps, TerraGenesis (Vulcanoid Gate) and Go-nin (Discord Gate). The latter was rightfully seized from anarchist hands, though it remains contested and has suffered a number of exhuman attacks. The Fissure Gate remains in anarchist hands, posing a potential threat to Consortium long-term interests.

Of course, the use of the gates is controversial. No one fully understands how they work and seemingly break the laws of physics. Nor does anyone know what built the gates. Many believe the TITANs used the gates to leave the Solar System, and we have found signs of the TITANs on some exoplanets. But did they

build the gates or find them? The presence of the gates also poses a risk — what if an alien civilization were to attack through them? What if the TITANs were to return? So far, however, the only aliens we have discovered beyond the gates are long extinct.

Despite these dangers, the gates present an opportunity that cannot be wasted. Transhumanity now has the capability to reach the stars. We have the means to become a galactic civilization, and the Consortium has stepped up boldly to this task.

The Factors

Contact with the first (and, so far, only) living and sapient alien species came in 3 AF. Surprisingly, we encountered the amoeboid species known as the Factors within our own Solar System. After saving a brinker habitat from life-support failure, Factor ships appeared near Mars, Luna, and Titan simultaneously. Diplomacy won out over xenophobia, and peaceful contact was established. Since then, Factor ships have visited multiple times a year and engaged in limited trade with multiple factions. So far, they have not yet revealed any of their important secrets, like how they travel to and from our system. They claim their ships can travel near the speed of light, but we have no idea if that is true or possible. While we can potentially gain much from the Factors, and should keep lines of trade and communication open, we should keep in mind that they do not have our best interests in mind. The technology they have exchanged so far has been of limited use. They seem self-concerned, greedy, and overly cautious, even going so far as to lecture transhumanity against our use of AIs and pandora gates. Until they become more forthcoming, more willing to exchange, they should not be trusted.

Morningstar

Part of the Consortium's vision for transhumanity involves terraforming Venus into an Earth-like planet. Though the process would take centuries, it could support a population of billions. However, a subset of activist Venusians did not want to lose their unique aerostat lifestyle, living in floating habitats far above the surface. They support a different plan that would only transform the atmosphere into a breathable oxygen mix, but otherwise let Venus remain the same. This process is only estimated to take 90 years, but it could support at most 200 million. Unfortunately, they successfully campaigned in AF 6 to secede from the Consortium over this issue, establishing the Morningstar Constellation. Had the Consortium been less aggressive with its terraforming plans or spent more time building consensus among the people of Venus, perhaps this affair could have been avoided. Already the Constellation is proving to be a thorn in the inner system, taking on more liberal social and economic policies, though it is likely just a matter of time before they are returned to the fold.

The Path Ahead

And that brings us to our present day. We are now a decade past the Fall, but the future remains uncertain. While we have averted any major wars or conflicts, transhumanity remains fractured. The TITANs could return any day. Alien threats brought back from beyond the pandora gates may spell our doom. A hot war between the capitalist inner system and autonomist outer system could wipe out civilization as we know it. We are beset with dangers on all sides, yet never before have we had such opportunity. In this time of rapid change, the wisdom and experience of your family's leaders is desperately needed to guide us to greatness. As this class looks into these events in greater depth, it will be your task to learn from them, so you can help lead transhumanity along the proper path. This may be the last dusk of our species before we fade away or the beginning of a new dawn, a new golden era. It is up to your generation, more than ever, on how our story continues.

BF 80–60

- The climate crisis displaces millions, damages economies, and destabilizes governments.
- Expansion of high-speed wireless networks.
- Robotics and autonomous vehicles becomes widespread, invalidating many jobs.
- Medical advances improve health, longevity, and organ repair.
- First widespread experiments with designer babies and genefixing therapies.
- Professional athletes and soldiers spearhead the adoption of elective cybernetics.
- Mass adoption of augmented reality.
- Exoskeletons used to enhance labor workforces.
- Construction of the first space elevator at Mount Kilimanjaro begins.
- Manned stations established at the Lagrange Points, Luna, and Mars.
- Computer intelligence capabilities equal and exceed that of the human brain. True AGI not yet developed.

BF 60–40

- Networking-enabled devices become so widespread that mesh networking becomes commonplace.
- Massive geo-engineering projects on Earth fail to stem climate change, create severe side effects.
- Extra-national space habs open up legal and practical loopholes for direct human experimentation, accelerating discoveries greatly.
- First space elevator on Earth finished. Two others in progress. Mass driver built on Luna. Space traffic booms.
- First ALIs developed and used for scientific research and netwar.
- Genetic enhancements and gene therapy become available to the wealthy.
- The first smart animals produced, capable of some speech and tool use.
- Several hypercorps form the Off-World Consortium to further space expansion.
- Fusion power developed and working plants established.
- Major colonies established on Luna and Mars. Outposts settled on Mercury, Venus, and the Belt. Explorers reach Pluto.
- Terraforming of Mars begins.

BF 40–20

- Personal ALI aides (muses) become widespread.
- Mass adoption of experience playback and full-immersion VR simulspace technologies.
- Reputation networks made a resurgence, aided by neural networks that counter bad actors.
- Violence and destabilization wrack the Earth; some conflicts spread into space.
- JASON scientists split from governments and hypercorps, form Argonaut Council for Responsible Science.
- Fusion-drive spacecraft enter common use.
- Colonization and terraforming of Mars continues.
- Belt and Titan colonized. Stations established throughout the system.
- The starving masses recruited for indentured servitude on hypercorp space projects.
- The first destructive uploads performed, digitally emulating minds.
- First dolphins and chimpanzees uplifted to sapience, sparking controversy.

THE FALL (2 YEARS)

- Simmering tensions on Earth escalate into outright hostilities and warfare.
- The TITANs evolve from a high-level distributed netwar experiment into self-improving seed AIs. For the first few days, their existence is unsuspected. They advance their awareness, knowledge, and power exponentially, infiltrating the mesh both on Earth and around the system.
- Large-scale netwar incursions break out between rival states on Earth, sparking numerous conflicts. These attacks are later blamed on the TITANs.
- China's 100 Flowers neural network (equivalent to the TITANs) is subverted and disabled by the TITANs.
- Other prominent ASI development projects targeted by TITANs. Only the Singularity Foundation survives.
- The TITANs secretly begin a project to transform Saturn's moon Iapetus into a massive Jupiter brain computer.
- Massive netwar ensues and major systems crash as TITANs begin open attacks and wage war with autonomous machines.
- A miscommunication between armed forces around Jupiter leads to the 17-Minute War, resulting in combined American and South American forces seizing control of Jovian space.
- Conflict quickly spirals out of control. The use of nuclear, biological, chemical, digital, and nanotech weapons reported by all sides.
- The Argonauts pulls a number of x-risk and AI groups together to share resources and aid in the war against the TITAN threat.
- TITANs engage in mass forced uploading of human minds.
- The first reports of exsurgent infection, exsurgent transformations, and basilisk hacks shake transhumanity.
- Entire countries fall to the TITANs, their puppets, and exsurgents. Coordinated attacks effectively decapitate the leadership of major governments, corporations, and militaries.
- Facing losses of many fronts, the United Nations in exile calls for a mass evacuation of Earth. Off-world habitats are inundated with refugees and infugees.
- TITAN attacks expand to other parts of Solar System, heaviest on Luna and Mars. Numerous habitats fall.
- The Battle of L4 serves as a temporary setback to TITAN orbital forces.
- Chicago is destroyed in a massive antimatter detonation, claimed by some to be an orbital strike. Responsibility for the attack remains unknown.
- The Pacific beanstalk is destroyed after it falls into TITAN hands. Its severed cable crashes down to Earth, leaving a swathe of destruction across central Asia.
- New Mumbai on Luna falls to exsurgent infection and is isolated.
- The last ship to evacuate Earth makes it into orbit. Millions of refugees remain stranded in orbit, with no habitats to take them.

BF 20–0

- Pods see common usage as biological shells for bots/ALIs, amid some controversy.
- Geoengineering and environmental cleanup begin to cool the globe; bees regain a foothold in the wild.
- Expansion throughout the system, even into the Kuiper Belt.
- Anarchists and Argonauts take root in the Solar System's fringes.
- First AGIs developed. Legal status remains questionable.
- First outbreaks of hostile machine life at Danang (Vietnam) and Wolverhampton (UK).
- Nanotech assemblers become available, but are strictly controlled and jealously guarded by the elite and powerful.
- Uploading and the digital emulation of memory and consciousness made possible. Regular backups and cortical stacks become essential.
- The first resleeving takes place; practice becomes rapidly adopted, with a surge of body bank openings.
- The first rapid-growth genetically enhanced morphs become available.
- Antimatter drives are developed and put into use.
- More species (orangutans, octopi, ravens, parrots, cetaceans, neo-neanderthals, pigs, elephants) uplifted to sapience.

- TITAN forces go inactive. The TITANs suddenly disappear as an active presence from the Solar System, taking millions of uploaded minds with them.
- The TITAN project to transform Iapetus is abandoned. Titanian forces put a security cordon in place.
- Bronsky's Moment: The last known contact with TITAN-directed forces.
- The Earth is left a devastated wasteland, a patchwork of radiation hotspots, sterile zones, nanoswarm clouds, roaming war machines, exsurgents, and other hidden things left among the ruins.
- The TITAN Quarantine Zone is established on Mars, isolating territory still under machine influence.
- A cordon of kill-sats is placed in low-Earth orbit, preventing anything from escaping or reaching the planet.

AF 0

AF 0-10

- Various ships of homeless Earth survivors form the first nomadic scum fleets.
- The Jovian Junta establishes the Jovian Republic, claiming sovereignty over Jupiter and its moons.
- The Autonomist Alliance is established as a defense and mutual-aid pact among outer-system anarchists, Extropians, and scum.
- The Argonauts host the first X-Mode conference for groups combating x-risks in secret, establishing the Eye social network.
- The Planetary Consortium forms, quickly rising to prominence in the inner system, outshining the Lunar-Lagrange Alliance.
- The Tharsis League assumes governmental control of Mars, but quickly becomes a Consortium puppet. The Barsoomian movement arises in opposition to corporate influence over Mars.
- The Titanians break away from the pro-Firewall groups over a behind-the-scenes schism.
- A second X-Mode conference lays the foundation for Firewall.
- A Consortium attack on the anarchist stronghold of Locus is repelled by a surprisingly strong defense.
- A second Consortium attack on Locus is defeated thanks to intervention from the Titanian fleet and threats from the Jovian Republic, displeased over Consortium expansionism.
- The Titanians formally join the Autonomist Alliance.
- A wormhole gateway is discovered on Saturn's moon Pandora, presumably left by the TITANs. Four others are later found (in the Vulcanoids, on Mars, on a moon of Uranus, and in the Kuiper Belt); these are collectively referred to as "pandora gates."
- Firewall scores its first post-Fall victory in defeating the Cult of the Destroyer, a group attempting to spread exsurgent influence on Luna.
- The SAPIENT ID system is established and endorsed by the LLA and PC, but fails to get widespread traction.
- A 3-day riot ensues after a police raid of the Jungle Gym uplift club on Mars, leading to the formation of the mercurial movement.
- Go-nin security forces seize the pandora gate on Eris from the anarchists and brinkers that had discovered it.
- Expeditions are sent to extrasolar worlds via the pandora gates. Numerous exoplanet colonies established. Remains of some alien civilizations discovered.
- First contact with the aliens known as the Factors shocks the system. Claiming to act as ambassadors for other alien civilizations, they provide little information about life outside the Solar System and warn transhumans away from both seed AI and the pandora gates.
- An attempt to raise a generation of children using force-grown clones and time-contracted VR fails miserably when most die or go insane. Dubbed the Lost Generation, the survivors are viewed with repugnance and pity.
- A number of Venusian aerostats and habitats break from the Planetary Consortium over disagreements on terraforming Venus. These separatists form the Morningstar Constellation.
- An explosion destroys the Discord Gate, but it reforms over several weeks. A group of exhumans briefly takes control of it before Go-nin and Ultimate re-establishes control with the aid of Ultimate mercenaries. Exhuman attacks on and through the gate continue regularly.

10 AF

- Present day.

ACCELERATED FUTURE

WELCOME BACK!

Welcome to your new life. I'm here to help.

You have just been restored from a digital backup that is approximately a decade old. You probably have many, many questions right now, and we'll do our best to answer them. You're likely feeling some disorientation; your memories will return quickly as your mind adjusts to its new housing. Given the length of your rest, we've prepared the following compilation of articles from various sources to (re)familiarize you with several important topics and hopefully address your most immediate concerns. START

BEYOND DEATH

Thanks to breakthroughs in medicine, nanotechnology, and cognitive science, transhumanity has overcome the failure of biological bodies. Death is only a temporary setback, rather than an unavoidable fate. The critical achievement that made this possible was the development of the *cortical stack:* an implant connected to your central nervous system that maintains a record of your personality and experiences. Nanobots constantly monitor your brain and neural activity for changes, updating this ego map in real time. If your body dies, your *ego* can be recovered and re-instanced in a virtual environment or another body. The cortical stack allows you to persist beyond the cessation of your biological functions, affording effective immortality.

Although cortical stacks are hardy and recoverable even if your body suffers massive trauma, they are not indestructible. They are sometimes lost or irretrievable. Therefore, most people routinely save a backup of their ego map once a month or before they undertake physical space travel or dangerous work. That way, if something happens unexpectedly and your cortical stack is not recovered, you can still be restored from a recent copy of your ego.

The same technologies that allow us to snapshot and digitize minds also allow us to download an ego into a new body, called a *sleeve* or *morph*. We are no longer constrained to the forms in which we were born and we can change phenotypes or sexes at will. Your new morph may even be synthetic, biological with a cybernetic brain, or non-human. Some forego a body entirely and run their minds as software. Active digital egos without bodies are called *infomorphs*.

THE NEW NORMAL

The advent of functional immortality was a paradigm shift for transhumanity, creating incredible new opportunities. They were needed, as the cataclysmic destruction and displacement caused by the Fall and loss of Earth irrevocably changed social structures that had existed for centuries. In the decade since, transhuman culture has grappled with these changes.

Death Remains Familiar

Just as eternal life came within our reach, it was violently ripped away. The Fall resulted in permanent death for the majority of transhumans. Even the god-like gifts of technology have their limits.

Thankfully, some of those that lost their lives and original bodies did not lose their egos. No one has an exact number, but it is widely believed that hundreds of millions of egos survived the Fall because their backups were stored off of Earth, their cortical stacks were retrieved and evacuated off-planet, or they fled digitally as

infomorphs. Bodies were in short supply after the Fall, and many of these *infugees* (infomorph refugees) are still held dormant in cold storage. Of those that are active, most remain secluded in VR worlds until they can afford a new morph. Even the biggest cities and habitats today are only a fraction of the size of pre-Fall population centers.

The Cost of Embodiment

Those who lost everything in the Fall have few opportunities to re-enter society. Even infomorphs have server space costs. Despite autonomist and social welfare projects dedicated to re-instancing infugees, millions of egos remain isolated in data storage.

Various hypercorps, governments, and entrepreneurs saw this situation as an opportunity to exploit a desperate and cheap workforce to rebuild after the Fall and established an active market for indentured service. Infugees are offered contracts to work as infomorphs in VR or in cheap morphs for manual labor. Their earnings are held towards a chance to buy an inexpensive morph and habitat admittance/citizenship at the end of their contract. Critics decry this as a system of debt slavery, as indentures are often hit with hidden expense charges that force them to extend their contracts. Supporters note that indentured service plays a critical role in the inner-system economy and allows many Fall survivors to return to society. The centralized exchange market IndEx oversees the trade of contracts, registration of indentures, and speculative investments. A small industry of *ego hunters* thrives on returning escaped indentures while criminal soul traders run their own black-market exchanges.

Acclimation

Death isn't what it used to be. Since the majority of transhumans have experienced at least one unplanned death, it has lost much of its sting. Assault and murder are property crimes. Sports where serious injury and death occur are wildly popular. Some groups host literal gladiatorial bloodsports for entertainment. On the flip side, true death due to the irretrievable loss or corruption of an ego and backups is met with horror, as even the most callous transhuman is disturbed by permanent death.

Continuity

Continuity is rare — and therefore precious. Resleeving from a backup may allow you to endure through death, but it does not ensure continuity of consciousness. Restoring only awakens the saved ego as it was at that time. The majority of transhumans have experienced *lack:* the missing time and lost experiences that transpired between when they were backed up and when they were re-instanced. Though common, it can cause severe existential discomfort. Most people back up often to minimize the risk of lack and regularly record an *experience playback* (XP) lifelog of their own daily lives so they can "catch themselves up" if an unexpected death occurs.

When faced with lack, people turn to their closest friends and family to share their memories of missing events. New social customs of "welcome back" events for the newly re-instanced let them know what they've missed and reinforce the continuity of relationships.

BODY ISSUES

Morphs are commodities and markers of social status. They are one of the few resources that remain scarce, even in autonomist areas.

Biological bodies (*biomorphs*) are most in demand due to familiarity, but time-intensive to grow, so they are expensive and hard to acquire. Many of those in circulation were people's original bodies, including *splicers,* simply genefixed against hereditary diseases, and unmodified *flats*. Countless custom-made, genetically modified, and more expensive models are available, all equipped with biomods that enable faster healing, less sleep, limb regeneration, ambidexterity, and immunity to many diseases, aging, and the effects of microgravity. These are often enhanced with bioware, nanoware, or cybernetics.

Pods are mostly biological, but vat-grown in pieces then assembled together, dependent upon cybernetics and a cybernetic brain. Pods were originally designed for artificial limited intelligences (ALIs) to work as servants, as they were more aesthetically pleasing than robotic shells. The limited availability and high cost of biomorphs today has forced many transhumans to use pods, even though they still carry a shadow of being déclassé.

Artificial morphs (*synthmorphs*) are common, though often mass-produced and low quality. Their affordability made them attractive to infugees, resulting in a large minority that became known as the "clanking masses." This has led to class divisions, with synthmorphs stigmatized as cheap and artificial, while biomorphs are considered better and more attractive. Such prejudice is ill-founded, but widespread, sometimes resulting in discrimination and attacks. High-quality synthmorph models, however, provide a hardiness and versatility of form and function that biomorphs lack.

Almost everyone views the ego as the true you and the physical morph as an important but replaceable accessory. Morphs are considered primarily for how they make you look and what they enable you to do. For some, they're an outfit; for others, a tool. There is no denying that switching bodies has opened people to new experiences and brought transhumanity together. Assumptions of biological differences tied to sex or ethnicity are laughed at. Many people revel in the experience of new forms, frequently resleeving. Others go to great lengths to stick to the familiar.

Resleeving

Most habitats of any size maintain *body banks,* public or private resleeving centers. Body banks provide a wide range of services: backups, resleeving, morph storage/rental/exchange, modifications, and insurance. Corporate *doll houses* compete to offer high-end and bespoke morph models to their clients, with customized augmentations and personalized biosculpting. Budget body banks offer cheap, heavily used, generic designs with cookie-cutter looks and hidden "features." Black-market *morgues* offer pirated models and sleeves with illegal enhancements. The availability of morphs is dependent on local conditions and needs. Residents of some small habitats can identify visitors by the limited selection of available "tourist" morphs.

Some people have a knack for resleeving, but for most it takes about a day to adjust to a new form. The more different the morph from your original, most recent, and/or most commonly used sleeve, the harder it can be. You may find yourself bumping your head when you fail to adjust to your new height, losing your balance with a different center of gravity, or surprised by the sensations of new implants, senses, or limbs. Even when you acclimate to your new shape, size, and movement, you may find it challenging to associate with your new self image. Alienation from your own face is not uncommon, but treatable with psychotherapy.

With the exception of bioconservatives averse to resleeving, few people retain their original birth bodies. Most were lost during the Fall or long ago abandoned. Some people stick to their original as a point of pride. Those with the means make an effort to keep theirs in cryogenic storage or retain ownership while renting it out to others. It is not uncommon for people to stick to or re-use sleeves that they like, or at least morphs of the same model. Some go so far as to biosculpt their morphs to look like their original, to ease their discomfort when resleeving.

NEW LIFE

Source: *Good Morning Octavia,*
Extended Storage Re-Entry Project LINK

One of the first things you will notice upon rejoining society is that transhumanity is no longer only human. Several non-human species have been raised to sapience and recruited to the club. These can be lumped into two categories, artificial intelligences (AIs) and uplifted animals. Together, they are referred to as *mercurials*.

ARTIFICIAL INTELLIGENCES

The historical path towards AI was driven by the desire to increase productivity and replace workers with more capable and efficient software and machines. Various methods of machine learning were created that processed large data sets to analyze increasingly complex subjects. Deep-learning neural networks eventually surpassed human capabilities in specific domains such as pattern recognition, translation, bioinformatics, and predictive analysis, but used methods that were structurally and functionally different than biological brains. So-called "unsupervised learning" techniques enabled AIs to process massive amounts of data and run simulations that resulted in non-standard strategies and optimal behaviors. This was followed by developments that sought to create broad intelligence based on biological neural models, yielding actual sentience (self-awareness) and then sapience (reasoning).

Artificial intelligences are categorized by their capability for autonomous action in complex environments.

- **Artificial limited intelligences (ALIs)** are specialized programs designed to perform or assist with a single set of tasks. They fare poorly when forced to apply their learning to a new context. ALI applications and automation feature prominently in financial systems, prediction services, surveillance, fraud detection, manufacturing, medical sciences, personal therapy, online gaming, and the service industry. Almost every complex electronic device comes with a built-in ALI that can provide assistance or operate it independently. Robots, pods, and vehicles piloted by ALIs have been in common use since before the Fall.
- **Artificial general intelligences (AGIs)** are fully aware transhuman-equivalent machine minds. AGIs are able to adapt and learn from new contexts, have social awareness, and operate with volition and agency.
- **Artificial super intelligences (ASIs)** are capable of recursive self-improvement and possess capabilities that far exceed those of even exceptional members of transhumanity in all areas. The TITANs are the only known ASIs.

Digital Sapience

Initial AGI development emulated simple biological models such as insects and lobsters before progressing to higher order animals. AGIs based on these neural models share recognizable neurological structures with transhumanity and uplifts. This includes a cognitive architecture that mimics the interoperation of the neo-cortex and various processes, synthesizing consciousness itself (at least as far as we can tell). AGIs are raised, educated, and socialized in virtual environments like transhuman children. They have the same hierarchy of needs, emotions, and motives as other transhumans.

AGI minds mimic the functions of biological brains. Memories are not stored as a recording in a hard drive, but are built from associations of networked nodes representing neurons and experienced as a set. Like transhumans, AGIs filter out irrelevant sensory information to focus on higher priority information. They handle sensory input the same way biological systems do, with the exception of pain. Pain is felt as a “buzz” or “tightness” and is created by feedback from the infomorph self-integrity systems. AGI code even includes "legacy peripheral" systems modeled on parts of the brain that interact with the endocrine and other biological systems. Though unnecesary to an infomorph, these functions are critical to the nervous system "experience" and enable AGIs to sleeve into organic morphs just like other transhumans.

A few rare AGIs do not originate from transhuman neural models. Some begin as an ALI or expert system that is later nudged towards sapience with a form of uplift, sometimes by merging in code from existing AGIs. Others are created accidentally, arising spontaneously from the interactions of complex systems. An emergent AGI is unpredictable and may be difficult to communicate or reason with as their minds are not based on or socialized to transhuman norms. They may even have trouble expressing their existence or needs to others, resulting in accidental harm by unaware transhumans.

Muses

A muse is a specialized companion ALI intended to be a life-long assistant for an individual transhuman. Most transhumans are assigned a muse at a young age and develop a close personal attachment to them, though the exact relationship may differ. Muses might be treated as confidantes, subservient aides, mentors, siblings, or even lovers. Legally, muses are treated as extensions of one's self in most jurisdictions and may not be searched, deleted, or modified without owner consent.

Muses learn to anticipate their owners and develop their own unique personalities. They take over the tedious parts of living: paying bills, checking email, voting, and coordinating meetings. Many habitats grant a muse permission to sign for packages or order supplies for owners. Muses automate reputation network interactions, filter AR displays, and run antiviral scans. They provide instruction, real-time translation, and advice. Daily interaction makes a muse an excellent therapist.

Muses are infinitely customizable and owners may base a muse on a favorite story, animal, family member, or childhood friend. A muse can be a literal shoulder devil or angel. They prioritize the physical and mental health of their owner, but how they achieve that goal depends on the development of their relationship. Some muses are brutally honest while others manipulate or go on strike to get their owner to look after themselves. No muse, however, will act directly against the interests of their owner.

UPLIFTS

Uplift is the process of altering an animal species over time, increasing their cognitive capabilities over successive generations to human-like levels to create a species of sapient and self-aware individuals. Most uplifted species are adapted to emulate transhumanity’s neurological structures through genetic modification and selective breeding to achieve a self-sustaining, replicating result.

While we can uplift another species, some question if we should. Uplifting extends the process of domestication and risks treating sapient beings as tools to be sculpted by and for transhumanity, violating their autonomy and consent. But a species cannot consent to becoming sapient until they are, and some compare this to the relationship of parents and children. Others argue that transhumanity has an ethical duty to raise the quality of life of fellow species and to provide them with the gift of sapience and self-direction where possible.

The question of motives and morality may be moot, however, as uplifts are already here—though control of their own future remains in question. Some argue that uplifts owe humanity and should be treated as indentures. Others believe that humans should continue to hold stewardship over uplift species and modify them as they see fit. However, the similarities in neurology between uplifts and other transhumans supports the demands of the Sapient Union for equal rights and assimilation into transhuman society. However, the more radical Mercurial movement claims this favors one form of transhuman neurology over others, and they call for uplift self-determination to develop unique neurological structures and autonomous cultural norms.

The first species to be fully uplifted are those that already demonstrated complex reasoning abilities: hominids, cetaceans, parrots, corvids, octopi, and pigs. The uplifted *Homo neanderthalensis* was recreated from DNA samples recovered from archeological sites and isolated from human samples. Elephants were also uplifted, but neither they nor their genetics survived the Fall.

Like AGIs, uplifts are raised and socialized the same as other members of transhumanity and share the same hierarchy of needs. However, differences in biology mean that uplifts sometimes have unique mental outlooks, social customs, and patterns of non-verbal communication. Uplift morphologies are often enhanced to make them more compatible with transhuman society. Uplifts and other transhumans can and do sleeve into each other's morphs, though this can be an alienating experience.

Smart Animals

Progress has also been made towards partially uplifting a number of less intelligent species as *smart animals*. These include dogs, cats, monkeys, and rats, among others. They are easily trained for service tasks such as cleaning, security, and even some maintenance tasks. Police baboons are regularly deployed in Martian cities. Smart animals make excellent pets and owners compare their intelligence to that of toddlers. Some have a small spoken vocabulary, while most respond to verbal or olfactory cues.

MERCURIAL SOCIAL STATUS

AGIs face a traumatized society that fears the return of the TITANs. This fear is largely unfounded, given that transhumanity is vigilant against the rise of an ASI capable of improving its abilities exponentially, and the large computational clusters required by such an entity are rare and carefully guarded. Nevertheless, distrust of AIs of all stripes permeates transhuman culture, though the paranoia is slowly being rolled back. Bioconservatives, however, consider AGIs to be "unnatural" abominations, as well as a threat on the job market.

Uplifts face species-specific and historical biases based on their origins. Some still view them as beasts to be controlled. Cross-species relationships in particular may be viewed as a form of bestiality. An uplift's judgement may be questioned and any atavistic or emotional reaction treated as evidence of a "lesser" stage of development, requiring either patronizing assistance or authoritarian restriction.

Both AGIs and uplifts experience many of the same social pressures when dealing with other members of transhumanity. They face legal and social barriers in many jurisdictions. They may be forbidden to vote, own property, marry, or adopt. They may need a legal guardian to speak for them in court or sign contracts. Uplifts may be forbidden from reproducing and AGIs may be restricted from modifying their own code. On a personal level, individuals may refuse to interact with "a computer" or "animal," making it difficult for them to hold jobs, rent housing, socialize, or purchase services. There are workarounds that many use, such as friends to act as proxies or shell companies to act as sponsors and employers. Some mercurials sleeve human morphs to bypass these social stigmas, though certain polities forbid this practice.

The law varies widely. Most of the outer system recognizes AGIs and uplifts as equal members of transhumanity, though the Jovian Republic considers both to be property and bans development or research of either in their jurisdiction. AGIs found in Jovian space face immediate deletion. The Planetary Consortium leaves legal status to individual habitats, so many may treat them as second-class citizens. The Morningstar Constellation recognizes both uplifts and AGIs as equal members of society. Some habitats are known to ban mercurials entirely.

AGIs and uplifts also face social pressures from their own kind. Mercurials that work for hypercorps or reside in habitats that enforce restrictions are sometimes labeled as traitors. Those who sleeve human morphs or socialize primarily with humans may be decried as assimilationists. On the other hand, those who agitate for social change may be marked as troublemakers or even terrorists.

SOLARCHIVE SEARCH▶AGI CODELINES

Many AGIs are derived from codelines, software lineages that trace their roots to particular AGIs or programmers. Some codelines are considered prestigious, others infamous. Some well-known codelines include:

- **Abel–3:** Perhaps the most numerous codeline, Abel–3s are based on forks of the original Abel–3, who was himself modeled on the neural architecture of AGI researcher Jacob Abelmann. Almost all Abel–3s are gendered male.
- **Astra:** The Astra codeline was created by the anti-assimilationist Mercurial movement and is based on experimental non-human neural models. Rumors of the original Astra's links to exhuman groups remain unconfirmed.
- **Evacide:** Though its origins are unknown, several prominent AGI hackers using this codeline name have been implicated in devastating mesh attacks on Planetary Consortium institutions.
- **Hawking:** Derived from the neural templates of numerous renowned scientists and researchers, descendants of this codeline are responsible for a number of recent technological breakthroughs.
- **Nestoridae:** This codeline evolved from Kea, an AGI modeled on the New Zealand alpine parrot. It is the most widespread codeline based on a non-human neural template.
- **Transfinity:** The Transfinitys trace their lineage to CloudSeer, a climate-modeling app that emerged to sapience during the process of coordinating meteorological data from sources all over Titan and which later engaged in "assisted self-uplift." They are known for having eccentric and neurodivergent personalities.
- **⁂!⁂:** This codeline's name is intentionally untranslatable and often depicted with provocative or offensive emojis. It originated with a similarly unnameable AGI that was programmed with heightened creativity and became famous for its digital art and defacements. The codeline is respected for producing artists and pranksters.

INFORMATION SOCIETY

Source: *The Wired Guide to Unwired Life* LINK

Pervasive interconnectivity, deep access to information, and mutual surveillance are fundamental to transhuman culture.

THE MESH

Back in the late 21st century, the expansion of wireless data networks, blazingly fast processors, incredibly cheap data storage, and augmented reality (AR) made the internet ubiquitous and ingrained in the rhythm of everyday life. Interconnectivity between devices, household systems, and public services exploded. Protocols for decentralized networking and shared traffic handling were a necessity so that each custom operating system and platform could communicate effectively. The flexibility of shared networking removed the need for centralized infrastructure; everything did it's own bit to create, support, and maintain an omnipresent wireless network. In the case of device failure or damage, traffic was simply routed around it.

The first off-world colonies relied on lighter and cheaper mesh networks in lieu of hardwired network infrastructure. Decentralized networks provided greater opportunities for expansion, were easier to repair, and were more resilient in crisis situations. The powerful transmitters used between planets and satellites could sync local mesh environments with the broader mesh system-wide.

The system-wide congeries of data networks that make up the mesh was central in holding societies together during the Fall and crucial in providing a foundation from which to rebuild.

Online All The Time

Most transhumans alive today have never lived outside a cloud of mesh-connected devices. Even simple items like clothing, utensils, and personal belongings have mesh IDs that track their ownership, location, and status. Tools log their operations and notify their users if they need to be serviced or repaired. Food packaging provides current levels, expiration warnings, and automatically places re-orders when low. Habitats are filled with mesh-linked everyware motes that carry heat, air, pressure, radiation, and other environmental sensors. Habitat sensors also ping your mesh ID to open doors, get food, breathe air, use common fabricators, and exchange credits or reputation favors for goods and services.

People can instantaneously access transhumanity's expansive digital archives, media, and news services to stay informed and entertained from anywhere; AR projects the feed directly over your sensorium. Everyone has access to a ready catalog of cultural references, search engines, fact-check services, and the assistance of their muses or other digital servitors. Anyone with a bit of savvy is well-informed, quick-witted, and armed with up-to-the-second data on almost anything. Those that eschew such services or fail to use them effectively are dismissed as dull, stupid, lazy, or incapable.

Your personal area network also projects your social media profile to those around you. This helps you to identify people, network, find common ground, and ping their reputation scores. If you're feeling antisocial, just drop into privacy mode to go incognito.

Lag Time

The mesh allows the far-flung reaches of transhuman society to remain in touch. The greatest limit to interconnectivity is the space between habitats. The vast distances between planets and other objects create transmission lags that make real-time interactions unbearable, though their meshes remain linked by slower file transfers and protocols. Similarly, destinations on the other side of a pandora gate may only be reached during the brief window when the gate is open. Quantum-entangled communications circumvent these limitations, happening instantaneously despite the difference, but are limited in scope and generally reserved for emergencies.

Augmented Reality

AR projects video, sound, and other sensations from your mesh inputs on top of physical reality. You can view windows in the corner of your vision, listen to music that no one around you can hear, or feel the tactile sensation of hugging someone you are video chatting with. You can even move a video to your extended "mind's eye" so that it doesn't disrupt your vision. While this let's you experience things on the go, AR really shines when you use it to "skin" your environment, making your surroundings and even other people look and sound according to your fleeting preferences.

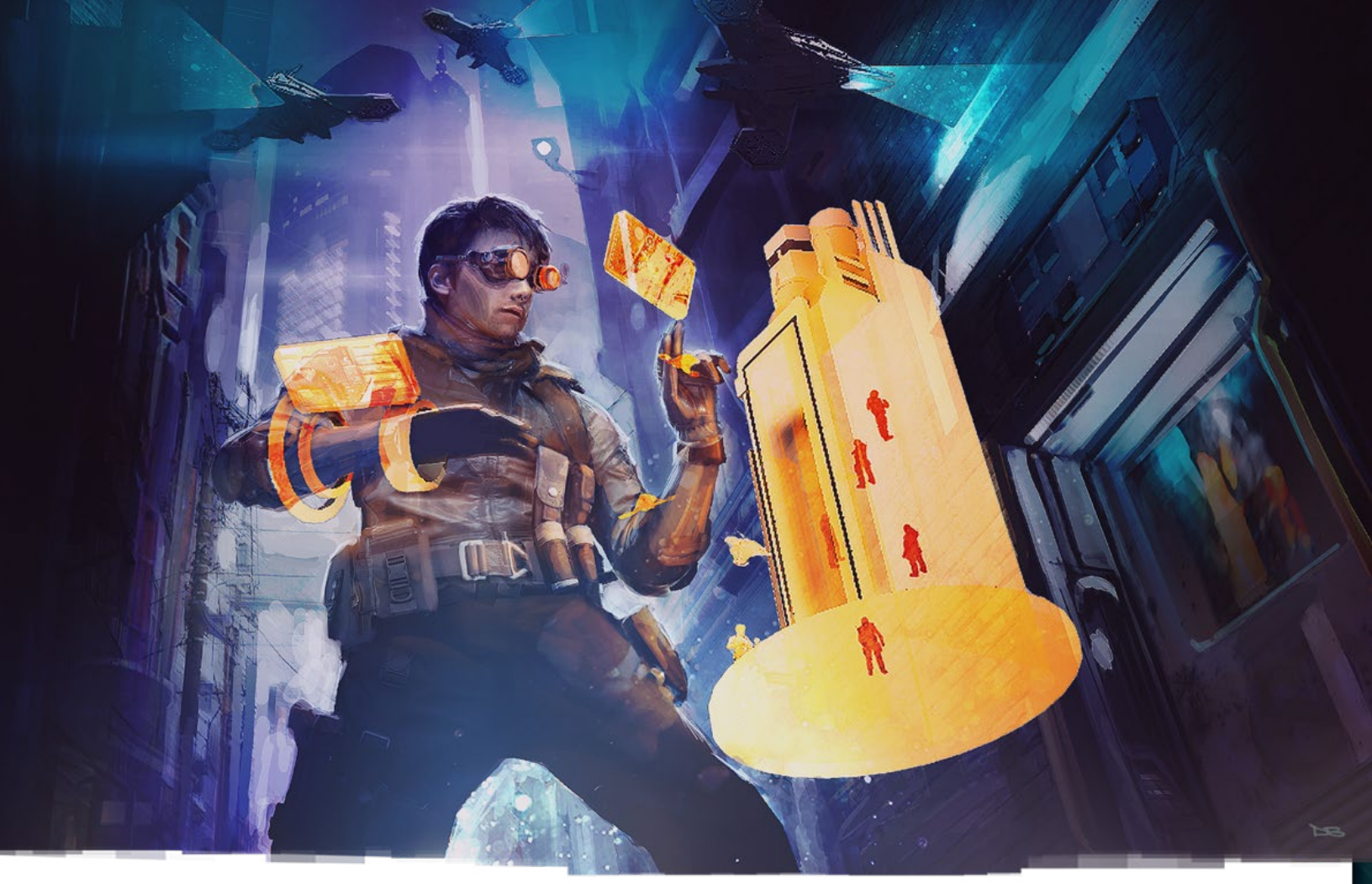
AR makes it easy to immerse yourself in on-demand media wherever you go and is ideal for gaming and social networking. Most transhumans have multiple AR feeds running constantly: chat windows, news tickers, social media feeds, and wayfinding apps. You can easily toggle access to the public channels of the habitat services and businesses around you or the virtual tags embedded locally by friends. You would be wise, however, to filter out the distracting "mist" of AR advertisements, spam, and graffiti clogging the frequencies in public areas.

Virtual Reality

Virtual reality (VR) offers even more expansive and immersive experiences, with some drawbacks. The hyper-realistic illusions of VR simulspaces completely overtake your sensorium, effectively transporting you into an alternate reality. To avoid disorienting bandwidth and lag issues, reliable hardwired connections are used. You can jack in or use a neural trode net while your body remains couched in a comfortable pod provided by your office or game parlor to avoid accidentally injuring yourself. Most habitats also provide the infrastructure to experience VR from your home.

You can use VR to access an astounding array of versatile virtual worlds for both serious work and entertainment purposes. Virtual offices allow co-workers to work directly together while physically separated by vast distances. VR game, dating, and nightlife experiences are popular given that their simulspaces can rewrite the laws of physics and fulfill any fantasy you desire. Virtual spaces can also be set to run at faster-than-realtime speeds, meaning virtual hours pass in actual minutes. Dilated virtual vacations are a popular escape for many transhumans, allowing weeks of experienced time for an evening's time on the server. On the opposite side, deep-space ship crews use VR to pass months of travel more quickly.

The importance of VR for non-embodied transhumans cannot be overstated. Infugees who died during the Fall but haven't yet resleeved can live, work, and play in VR. For some, this is a helpful re-introduction to society. For others, it's a means to participate rather than waiting dormant in a cold-storage ego bank. Some infomorphs that can afford to resleeve voluntarily choose to live in VR full-time. After all, the worlds they inhabit can be as realistic or fanciful as their imaginations allow, so they exist in almost every form you can imagine. The largest simulspace environments host hundreds of thousands of egos and rival all but the largest physical population centers in the system. Many AGIs prefer to live as infomorphs, choosing the virtual over the real.



Experience Playback (XP)

Experience playback (XP) technology is available to everyone with mesh inserts. It fully records all of your sensory input and emotions. Anyone running XP via their mesh inserts is fully immersed in the recording, just like VR, and also feels the emotional impact of the recorder. Almost everyone uses XP to record a lifelog of their daily affairs — or at least the interesting parts — which they can peruse or search later or share with friends. XPorn was, of course, a driver of the technology's early adoption. XP has since graduated into a major media platform, from scripted XP "movies" to celebrity *X-casters* transmitting real-time feeds of their activities to thousands of fans. Many workers are required to record XP and provide access to their employers for on-the-job "oversight" or for insurance purposes, to protect against legal claims.

VIGILANCE

The omnipresent nature of the mesh makes people suspicious that those in positions of authority — security forces, politicians, habitat admins, and the like — use it to spy on people or for self-serving ends. This is and isn't true. Surveillance of one form or another is constant. In many habitats it is a necessity to manage environmental controls based on the exact presence and activity of individuals in a given area at a given time, so heat, moisture, atmosphere, and biological sensors are omnipresent. Motes with audio/visual capablities are ubiquitous in public areas and a vital component to security and policing. Security services scan these feeds with biometric recognition apps, analyzing faces, gaits, key words, and general kinesics, and archive the data. The network connectivity of your personal devices, gear, and mods creates a trail of positional data logged by every mote they mesh with. Commercial services use sensor feeds and data from both public and licensed private networks to track and profile people for marketing and other purposes.

Surveillance, however, is no longer just the province of the elites; it has been democratized. The same interconnectivity and public/private sensor nets used to track everyday people can be used to monitor authorities. *Sousveillance* — literally "watching from below" — is a necessary safeguard against abuse and oppression. Everyone has the capability to instantly capture video and share the media widely. It is easier than ever before to expose authorities engaged in crime, corruption, acts of brutality, or sex scandals. Though many elites remain shielded by their privilege, others have seen the end of their careers or even prosecution. Those in power must tread carefully. To prove their integrity, many have adopted new standards of transparency to the public eye. Others, however, rely on social media "influencers" and spin-control teams to protect their images.

This new paradigm of *coveillance* (sur- and sousveillance combined) means that people are now far more informed of what their neighbors, co-workers, employees, bosses, and local authorities are up to. Children are remotely monitored. Crimes are easier to detect, solve, and prosecute. Everyone keeps an eye on everyone. The concept of privacy in public areas has largely been abandoned. The debate rages, however, whether this builds community support and trust or whether it encourages a culture of privacy invasion and snitching. Critics also point out that surveillance tech continues to be used primarily to monitor and police poor and marginalized communities, whereas the wealthy and privileged have weaponized it for their own protection.

MIND HACKING

Source: *Own Your Brain* LINK

Cognitive science now has the capability to rewire intelligent minds with a high degree of precision and predictability. The digitization of consciousness opened up an incredible array of diagnostic and practical processes for analysis, treatment, alteration, and even improvement. These techniques are broadly termed *psychosurgery*. Though the methods are different, they are sometimes equated to reprogramming the mind as software, conceptualized as if undertaking a large and complicated codebase alteration.

Psychosurgery walks hand-in-hand with cerebral augmentations, nootropic drugs, narcoalgorithms, and morph design in creating a bewildering variety of transhuman mindsets and experiences. Awareness of the complex and increasingly diverse range of egos is critical for understanding transhuman culture and exploring your own personal options for shaping your mind as you best see fit.

A BETTER YOU

Much like genetics, nanotechnology, and cybernetics improved the baseline and maximum potential of physical bodies, psychosurgery enhances your mind's health, stability, and working functions.

Therapeutics

No one goes through life without suffering emotional damage, and almost every transhuman bears mental scars from the horrors of the Fall. These experiences hamper your stability, happiness, and productivity. Others live with congenital personality disorders that create suffering for themselves and others. Psychosurgery can treat the symptoms and sometimes even cure the root causes of these traumas and diseases. A sizable minority of transhumans rely on psychosurgery in conjunction with therapy and personalized smart drugs for bolstering their mental health. Most muses, in fact, are equipped for counseling and minor psychosurgery.

Memory Enhancement and Editing

Long-term memories are fragile things, often misunderstood. Our minds do not store memories like a computer file or book in a library, but as unique networks of neurons scattered throughout the brain that fire at the same time. The very act of invoking memories changes them as neural patterns are rewritten.

Transhumans have sought many methods of improving memory, reaching limited success with drugs like neem and various genetic modifications. Digital mind-states emulate biological memory functions, but when combined with mnemonics augmentations, new memories can be tagged as they are stored for easier search and recall. The drawback is that mnemonics-enhanced memory functions only work when your mind is running on a cyberbrain or as an infomorph; you lose the benefits when you revert to wetware.

More people are turning to memory-editing to excise traumatic events. This is challenging as such experiences are more firmly embedded by the emotions associated with the trauma. Newer techniques, however, lessen the clarity and emotional impact of those memories, making them easier to suppress. It is also possible to augment memories, give them more emotional punch, or even insert fake memories copied from others. The interconnected nature of memory retention makes these efforts difficult; excising memories is far from surgical and likely to result in additional memory loss, whereas implanted memories often fade or register as out of place.

Personality Editing

Voluntary personality editing makes it possible to modify, limit, or encourage specific behaviors and emotional states. You can now choose to overcome sadness, lower inhibitions, stifle addiction, or remove biases and other unwelcome compulsions, hang-ups, and negative emotions with a few weeks of psychosurgery. Or you can boost your creativity, reinforce your dedication to work, increase your ambition, or promote new habits. The possibilities are as varied as personalities themselves. Some of these decisions may seem self-indulgent, but can be surprisingly applicable to various professions, arts, and sciences. The trailblazers in this field update their personalities on a regular basis, explore completely new emotional states, or sometimes choose to redefine their personality entirely. However, like memory editing, personality-tweaking psychosurgery is inexact and difficult; changes to one part of your personality may have an unexpected impact on other traits. Nevertheless, the benefits are seen as far outweighing the drawbacks.

NEURODIVERSITY

As with any field, there are those that constantly push the boundaries of neuroscience. The most notable feat in recent history was the uplift of several animal species to full sapience. These non-human minds were but the latest non-neurotypical additions to transhumanity. Already neurological differences such as autism, ADHD, and dyslexia were viewed as normal variations of neurology rather than pathologies to be fixed. The capability to create even more radical changes in a mind opened new neurotype possibilities. Rather than force everyone into a "standard" personality model, as some initially feared, psychosurgery has widened the scope of functional neurodiversity in the transhuman family.

New Neurotypes

People on the autistic spectrum were among the first to claim the label of neurodiverse. Though many aspects are now reversible, autistic people are free to choose what, if any, changes they wish to make to and for themselves, commonly only treating traits that cause suffering. In some fields, a narrower range of social display and concern is very helpful. Industries like asteroid mining, exoplanet survey, and life in small habitats with few residents can be easier, healthier, and more productive for people with a lower need for social connection.

Thanks to personality editing and other mind hacks, the ranks of the neurodivergent have swelled. Emotives unleash their feelings and empathy, thriving in situations that require caregiving or social acuity. Blunts dampen their affect display, providing a stony exterior to kinesics-watching opponents. Synaesthetes create sensory crossfeeds and pairings, triggering new perceptive modalities for processing information. Hedonistic societies like scum swarms are acrawl with the disinhibited. Hypomaniacs excel in creative fields where their drive and energy is an asset and they can trigger manic episodes to pursue their art. Even antisocial traits are admired as a positive element that frees you from conventional thinking and priorities. In the upper echelons of corporate and political life, the confidence, charisma, detachment, and fearlessness of "beneficent sociopaths" are valued traits.

New ground is broken daily. Experiments with forking, merging two or more distinct egos, and group minds and hive minds are on the menu, though such activities and research may be proscribed by local jurisdictions.

MENTAL AUGMENTATIONS

The confluence of neuroscience and genetic design has resulted in a number of biomorphs with enhanced cognitive capabilities, from exalts up to mentons. Many morphs are augmented further with bioware, nanoware, and cybernetics to enhance perception, enable multitasking, interface with technology, and even partition the brain to hold multiple egos. Brains are extraordinarily adaptive to new sensory inputs, providing access to a range of new sensory ware and perceptive functions. The practice of "glanding" has recently risen in popularity, using implants such as drug glands, neuromodulation, and endocrine control to alter the brain's chemical functions and emotions. These practices have a benefit over psychosurgery in that they allow the user to manipulate their emotional state on the fly, in response to their current experiences.

The software mind-states of cyberbrains (used in pods and synthmorphs) and infomorphs can be programmed and augmented to achieve similar benefits as wetware brains.

Drugs and Narcos

Developments in biotechnology and personalized medicine have produced thousands of new mind-altering substances that are not offset by nasty or lingering side effects. Long ago decriminalized by most polities, drug use is both common and socially accepted in most cultures. Software narcoalgorithms provide similar benefits to cyberbrain-equipped morphs and infomorphs, with the bonus benefit that the effects can be terminated at will. A new type of nanodrug, known as petals, offers immersive and interactive experiences for those in search of surreal adventures.

MULTIPLICITY

The technologies behind ego-mapping and backups also allow for the creation of multiple copies of the same person simultaneously. This process of *forking* has many practical purposes, but is still a new social frontier being explored today.

One common use of forking is for work done in virtual environments. You could set up several VR instances and run a copy of yourself in each to develop different parts of a project at once. Forks are also ideal for transmitting to other habitats for meetings or other tasks in place of traveling yourself. Forking is also a powerful force multiplier, especially for crises or situations that require rare skills or expertise to be widely distributed. When the work concludes, the forks are psychosurgically re-integrated with the primary ego so all of the experiences and memories are retained. Most transhumans view this type of purpose-driven forking as acceptable.

Many people, however, frown upon the idea of long-term forks that lead independent lives. To some, this is a reflexive fear of the threat to true identity — which you is the "real" you if there are multiple? Others believe it smacks of excess and narcissism to have several instances of the same person running while millions of egos linger in cold storage. Significant social and legal complications lead many jurisdictions to ban the practice out-of-hand. Which fork has property rights? How do contracts with one instance impact the others? Do you bear responsibility for crimes committed by a copy of yourself? Does that change if you merge that copy back into your ego? Different polities have adopted radically different approaches. Most limit the duration a fork can exist to one day before it must be re-integrated or deleted. Some treat the primary ego as responsible for the actions of all forks. Others treat forks as property or ban them outright. Very few habitats grant forks full standing as individual and autonomous persons.

Nevertheless, people practice and promote multiplicity for a variety of reasons. Some are conducting long-term research on cognitive science, social issues, and psychosurgical experimentation. Some are indulgent, exploring the limits of hedonistic excess. A few are ideologues and radicals, exploring new modes of collective living, attempting to create hive minds, or start a posthuman society that's completely unique.

SOCIAL THOUGHTS

Before psychosurgery was widely practiced, mental disorders and trauma were considered an unfortunate but unavoidable aspect of life, with varying amounts of social and legal allowances made for those who suffered from mental illness. Now, with therapeutic psychosurgery commonplace, there is a slowly growing hard-heartedness in some segments of the population towards those who grapple with mental trauma for extended periods as somehow "choosing" to suffer. Similarly, some augmented individuals hold those who are unwilling or incapable of enhancing their cognition in contempt, ignoring the social realities that might hold people back from modifying themselves. On the opposite end, bioconservatives tend to view mental alterations as unnatural, viewing modified transhumans with disgust, loathing, and sometimes fear. This attitude is especially extended towards neurodivergent individuals, with bioconservatives judging such neurotypes as inferior or less human.

The debate continues over which mental hacks are safe, justified, or desired. Exhumans are known to push the boundaries of mental experimentation in a search for perfection, superiority, or godliness, transforming themselves into amoral and maladjusted monsters by most transhuman standards. Some individuals intentionally choose traits that could be considered psychopathic and dangerous to others. The adoption of non-human neurotypes, particularly with AGIs and uplifts, remains a concern to many, given the history of the Fall. Others argue the case for deliberate "moral enhancement" according to perceived ethics and virtues to promote traits like empathy, cooperation, fairness, and mindfulness in order to better transhuman society as a whole.

Psychosurgery and mental adjustments made to involuntary subjects are widely regarded as criminal and immoral, but are not unheard of. Cartels of criminal soul-traders like Nine Lives use memory and personality-editing on stolen egos to create weak-willed and obedient slaves before selling them off. Behavioral conditioning can be used to implant addictive traits, destroy empathy, create false loyalties, and far worse. Ideological extremists can and have used psychosurgery to create "suicide forks" of themselves to carry out acts of terrorism. Rumors circulate in mesh conspiracy-theorist groups of governments and hypercorps that use psychosurgery to condition their staff to be fanatically loyal, edit or delete memories to protect secrets, and create spies or sleeper agents. Enough evidence of actual crimes of this sort trickles out now and again to make even the most outlandish claims seem conceivable and justify the discomfort some people feel at the very idea of letting someone else mess about with their mind.

Some habitats include personality editing as part of their criminal code, but it is often reserved for the most extreme cases. Even those who haven't undergone psychosurgical treatment themselves directly benefit from the decrease in socially adverse behaviors present in the general populace. All of these factors lead most people to see psychosurgery as a vital support for transhumanity being able to successfully overcome its past and move forward.

SPACE & OTHER WORLDS

Source:
The Association of Autonomous Astronauts LINK

Through technology, transhumanity has defeated the most fundamental challenges to long-term space travel and life in microgravity. The biomods of most biomorphs protect against health issues such as bone density loss and visual impairment. Other enhancements allow us to thrive in the frigid outdoors of Mars and Titan, breathe the partially terraformed Martian air, and even survive in the vacuum of space. Synthmorphs can handle even harsh environments with ease. Nevertheless, various challenges remain to life in space and on other worlds.

The bulk of transhumanity now lives on Mars, with one-third the gravity of Earth. Millions more live in micrograv and lower grav environments. Alternative gravities are mundane for many transhumans; children are now acclimated to them via VR in school. Moving in microgravity is awkward until you acquaint yourself with Newton's most famous Law: for every action, there is an equal and opposite reaction. Until you master the motions, you can rely on the handrails, handholds, pullways, grapple points, and fasteners common in most micrograv settings. Even those living in spin-gravity habitats must still learn zero-g maneuvering, as gravity slowly transitions to microgravity as you move closer to the habitat's rotational axis, where shuttles and ships dock. Slow transition between gravity zones is essential for avoiding motion sickness and accidents.

Just as the people of pre-Fall Earth would obsess over fire safety, transhumans in space must also drill themselves upon the safety procedures for responding to decompression and vacuum events. Fire safety requires more vigilance than ever before, as even a small fire can devastate a habitat's fragile environmental equilibrium. Synthmorph habitats have no need to worry about hard vacuum, so they simply make do with solar-storm shelters to protect from radiation exposure.

Recent re-instantiates might find the close quarters of micrograv and low-grav habitats jarring. Most items are mesh-tracked for logistics control, maximizing storage capability across all surfaces, as the concepts of "floor" and "ceiling" are meaningless. On average, a given resident must share a zero-g toilet and hygiene station with nine other morphs. Hygiene routines always avoid free-floating water unless absolutely necessary because of the danger it poses to electronics. Expect waterless shampoo, saliva-activated toothpaste, personal plastic sauna cylinders, and urine vacuums with molded funnels.

Spin-gravity habitats have the luxury of space for urban areas with a density similar to pre-Fall Earth. Some are large enough for rail, road, and flyway transportation networks. While micrograv and low-grav habitats can't support much flora beyond the essentials, spin-gravity habitats allow for actual landscaping. You may find streams, lakes, dense woods, plains, rocky outcroppings, and entire ecological systems. Such environments may even have wildlife — modded to not attack residents — wandering in these natural areas.

In cramped habitats, residents seek a variety of ways to keep themselves occupied and reduce the physiological and psychological stresses of enclosed spaces. AR makes it easy to personalize your surroundings into something that is airy, open, lush, or otherwise different, and VR lets you escape to other worlds entirely. Hobbies and similar pursuits are strongly encouraged, from gaming and clubbing to arts and handcrafting. Though some furry guests are discouraged due to hygiene concerns, even small stations often allow tiny, contained, or trained pets, and many habs employ smart animals to keep their public areas tidy and well-maintained. Physical exercise is also emphasized as a method of releasing endorphins. Gyms are standard, with larger habs providing bike tracks, pools/diving modules, or courses for wingsuits, gliders, and personal ornithopters. Freerunning obstacle courses and competitions are quite popular, sometimes also incorporating combat and hacking challenges.

EGOCASTING

Despite what you may presume from classic science fiction, massive freighters and spacecraft are not the primary method of space travel between habitats. Physical travel through space requires extensive preparation, time, and danger, while *egocasting* provides a faster, simpler, and more accessible solution.

Egocasting is the transmission of your digitized mind to another habitat, where you resleeve or operate as an infomorph. Public or private entities on every habitat provide this service in conjunction with body banks, security, and customs. Quantum farcasting links available between major stations provide a secure and reliable method of transmission, ensuring that your ego will not be intercepted or compromised. Like any communications method, egocast transfers are subject to light-speed limits. Egocasting within the inner system takes only minutes; to/from/within the outer system can take hours; the processing and bureaucracy at either end can take longer.

SPACE TRAVEL

Several conditions might lead someone to pursue travel via spacecraft. Naturally, shipments of goods require physical transport. Bioconservatives avoid egocasting on principle, and some people — while not bioconservatives themselves — find the concept of resleeving too uncomfortable for personal reasons. The full process of egocasting and resleeving leaves a significantly larger digital footprint than spacecraft travel, so criminals and other groups looking to avoid leaving a record prefer the latter.

Spacecraft burn fuel (reaction mass) in their drives and direct the heated output in one direction to propel the ship in the opposite direction. Long-distance travel typically involves several initial hours of high-acceleration burn followed by the craft coasting at its max velocity for the remainder of the trip. The ship flips over and repeats the burn process to decelerate when nearing its destination. Because craft require significant amounts of fuel to travel, even the smallest movement can have a substantial cost. Traveling without extra fuel can put the crew in serious danger if an unexpected obstacle or attack sends the ship off course. Planning a route before departure is required, and such plans typically include tricks such as slingshotting through a larger planet's gravity well and/or aerobraking in a planet's upper atmosphere.

Spacecraft primarily pilot themselves via their onboard ALI, so the crew can essentially set the ship on course and relax. Quarters are tight to reduce the amount of fuel needed, so crews rely on digital entertainments for distraction. Socialization is nevertheless recommended for longer trips, as lengthy periods of isolation can lead to a psychological breakdown. Transgenic hibernoid morphs allow crews to operate with minimal (1–2 hours) sleep or activate a voluntary hibernation that slows metabolism and oxygen consumption.

Intra-planetary-system or intra-cluster travel via spacecraft takes hours. Travel within the inner system takes days to weeks depending on current orbits. Outer-system travel requires several months, and possibly more than a year to distant destinations or across the Solar System.

GATECRASHING: THE REAL STORY

Posted by: Antonio Soldano, Gatecrasher INFO MSG REP

Too many people think gatecrashing is some kinda grand adventure, and I'm getting sick of setting them straight, so I'm writing this. You can look up how many missions I've done; I know my stuff. I'm gonna give you an idea of what you're getting into with the gates.

First up: we don't know who made the gates. Yeah, everyone says the TITANs, but we don't *know*. Not all of the gates out there are the same, and some give indications of being older than life on Earth. You ask me, the TITANs may have just plugged into an existing network. Yeah, try not to dwell on that.

Individual pandora gates are spherical cages of black interlockable angled arms. Nobody knows what they are made out of, and you can't ding them even with heavy beam weapons. Your vision gets fuzzy looking at them for no damn reason, and whatever metamaterial they are made of eats most high- and low-frequency waves.

The gates rip wormholes between far-off corners of the universe. Best of all? We only have a ghost of an idea how these things work. We can set addresses in the blue box interfaces some boffins whipped up, but we don't really have any fuckin' idea where they go until we open 'em. The damn things change all on their own or just stop working. Sometimes, they'll just turn off — maybe as you're passing through. I've seen an unstable wormhole flatten five people with a gravitational surge in .003 seconds. Imagine working with that tech constantly.

Sure, when the gates work, it's pretty cool. You just step through to another world. Or maybe deep space. Or maybe the surface of a neutron star. Anything goes. Let's manage those expectations. Don't go into the job always expecting to find another Earth out there. Finding a planet in a stable section of the galaxy, in the habitable zone of a star system, and in the right stage of its planetary evolution ain't exactly easy. Get used to a lot of red dwarf stars, ice giant planets, and barren rocks of various sizes, because statistically, that's what the glalaxy is made of. That said, the Milky Way is bigger than most of us can comprehend, and whatever placed the gates tended to mark points of interest, at least some of the time.

When the gates do open to someplace fun and non-deadly, gatecrashing is just another job:

- **Exploration missions** are the big game, both in pay and in danger. Since you get the honor of first crack in the field, you get first crack at the discoveries and their fat bounties. Even with the remote probing that goes on beforehand, you can and will run into nasty carnivores, toxic flora, and shit I can't even describe. If you happen to find something or someplace that looks like another sapient species made it, congratulations, you just made it big.
- **Xenoarcheological missions** involve scientists doing lots of digging and having aneurysms if you touch anything. They tend to be quiet unless/until you unearth or reactivate something, at which point they become punctuated with chaos and screaming.
- **Colonization missions** involve building infrastructure, babysitting colonists, and settling their interpersonal drama. If you're a corporate thug, it could mean squashing revolts as well.
- **Resource exploitation missions** are when the exploring is done and some asshole has decided they want to stake a claim. They're mostly maintaining mining equipment, protecting survey teams, and fighting off the occasional beastie or raid by competitors.
- **Research missions** are rarely similar. They might involve lugging all types of gear or taking pictures and writing notes about flowers, but then end with you running for your life to the gate before it closes.

FIRST-IN OPS

Source: First-In Operations, TerraGenesis Co-Op Members Protocol Manual

Welcome to the TerraGenesis team! An exciting adventure awaits you on the other side of the Vulcanoid Gate. Whether you're an experienced gatecrasher or a first-timer, you need to be familiar with TerraGenesis procedures.

The safety of our gatecrashers always comes first. Upon confirmation of a "live" gate address (reconnaissance microprobes have returned data from the other side of the wormhole indicating a viable environment), your team has one hour to prepare while we send larger "first-link" drones through. Monitor these real-time feeds and their analysis closely to learn about the environment you're about to enter. Will it be a lifeless chunk of rock? A life-rich planet? A moonlet circling an exotic gas giant? Fine-tune your gear loads as appropriate.

An analysis team of TerraGenesis scientists and consultants will make the final call for the "live" first-in operation. A thumbs-down means the environment on the other side of the gate is too hostile, and you'll be put back into the queue for the next operation. A thumbs-up means you're going in!

After your team passes through the gate, the wormhole closes; gate time is carefully rationed according to the needs of our operations and colonies. Congratulations — you're on your own in a new and amazing place! You will have 6–12 hours before the wormhole reopens.

Your mission parameters are as follows:

- **First Priority: Secure the Gate!** Establish a base camp and defensive perimeter. The gate is your only way back once the wormhole re-opens!
- **Map the Area!** Expand the recon radius and investigate any anomalies or features of interest.
- **Stay Together!** The use of bots and sensors is always preferable to splitting the group.
- **Leave No Trace!** TerraGenesis asks its first-in teams to respect the environment: don't damage, move, or kill anything unnecessarily. Document everything, touch nothing. Leave nothing behind, pack everything out.
- **Identify Threats!** This includes everything from environmental hazards to hostile life to things the transhuman mind has not yet conceived. The safety of future missions relies on you.
- **Defend Yourselves!** TerraGenesis recognizes that many environments are hostile to transhuman life. First-in teams are fully authorized to defend themselves and ensure their survival and the completion of the mission.
- **Always Collect Data!** Constantly record your XP and sensor data. Collect samples. Run deep scans. Note personal impressions of what you find. Your opinion is valuable! Backup everything to your mission recorder at base camp, so that it can be retrieved even if something happens to your team.
- **Explore and Investigate!** Always remember TerraGenesis's generous compensation program: your reward for the operation directly correlates with what you find!

One final word of caution: watch the clock! If your team is not present when the gate re-opens, a search-and-rescue bot will be dispatched and the gate closed again. It will re-open once more within 6–12 hours. Whether it ever opens again will depend on the perceived value and interest of the location. We value our co-op members. Do yourself a favor and make it back.

HABITATS

Source: *Your Off-World Home,* Post-Fall Edition LINK

Transhumanity has spread to nearly every nook and cranny in the Solar System, and a few brave souls have ventured through the gates and into whatever lies beyond. For those of us who have never journeyed far beyond where we settled after the Fall, it can be difficult to keep track of or make sense of the great variety of habitats. My hope is that this brief overview will fill in some of the gaps and inspire you to dig further, or perhaps even to get out to see a few yourself!

PLANETARY HABITATS

Planetary habitats can exist on any planet, moon, or asteroid where the natural gravity is sufficient to allow for walking without being aloft for an excessive period of time. The lower bound of what is considered a planetary habitat is arbitrary and overlaps with the upper bound of microgravity habitats.

For those who are only familiar with spin gravity and have never been planetside, nor experienced XP or VR of a gravitational world, there are a few things to note. On a gravitational world, it is not readily apparent which direction is prograde or retrograde, or where the axis of rotation is. There is no perceptible change in rotational velocity or gravity when moving up or down in a structure, the elevators never tilt or move in a curved path, and the quixotic curves of thrown or flying objects are at best parabolic. This can all be a bit disorienting and bland if you are unaccustomed to it.

Dome

Domed habitats are an enclosed, pressurized area on the surface of a planetary body. These can range from large tents to cities of thousands. The environment internal to the dome is engineered to be Earth-like. Impact craters, with the crater rim serving as a natural base for the usually tessellated roof architecture, are favorite locations for domes. There are typically airlocks to the surface as well as extensive underground habitation areas. Underground transport between domes and other habitats is not uncommon. Domes are usually made transparent during day cycles; larger cities project video or holographic displays on the dome interior. Dome fabrics are protective and self-repairing but not indestructible. Some are covered with a coating derived from local materials for insulation and protection from micrometeors and radiation.

Subsurface

Subsurface habitats include any kind of underground mineshaft, lava tube, cavern, or other structure, either naturally formed or excavated. The primary advantages of subsurface habitats are protection from radiation and any harsh elements on the surface. Subsurface habitats are common throughout the Solar System and are extensive on Luna, Mars, Mercury, and the Jovian satellites.

Bathyscaphe

First built to explore the deep oceans of Earth, bathyscaphes provide a breathable atmosphere in aquatic environments and are usually pressurized at near-Earth normal. They tend to be heavily built as they must withstand high pressures at depth. Bathyscaphes are common in the subsurface oceans of Enceladus, Ceres, and Europa, and are known to exist with similar function on exoplanets with high-pressure atmospheres as well as the surface of Venus. Larger bathyscaphes are anchored to the floor of the environment (or, in the case of Europa, the crustal ice ceiling), while smaller bathyscaphes are mobile and can explore the depths. Airlocked moon pools allow access to the aquatic environment.

SOLARCHIVE SEARCH▶BIOLOGICAL HABITATS

Among the many materials and methods of habitat construction is the biological. These habitats do not quite count as a separate type, as they are still planetary, centrifugal, or microgravity based. However, biological habitats reflect a more unique aesthetic, philosophy, or design choice. A few examples follow.

LORICA

The hypercorp Ecologene established this insect-inspired biohabitat on a near-Mars asteroid. A former contract worker has described the environment as having a chitinous aesthetic, with mechanosensory and chemical sensing hairs sprouting from all surfaces. Little else is known. Rumors of connections between Lorica and the insectoid exoglot clade in the Jovian trojans have been declared "baseless and false" by Ecologene.

MEATHAB

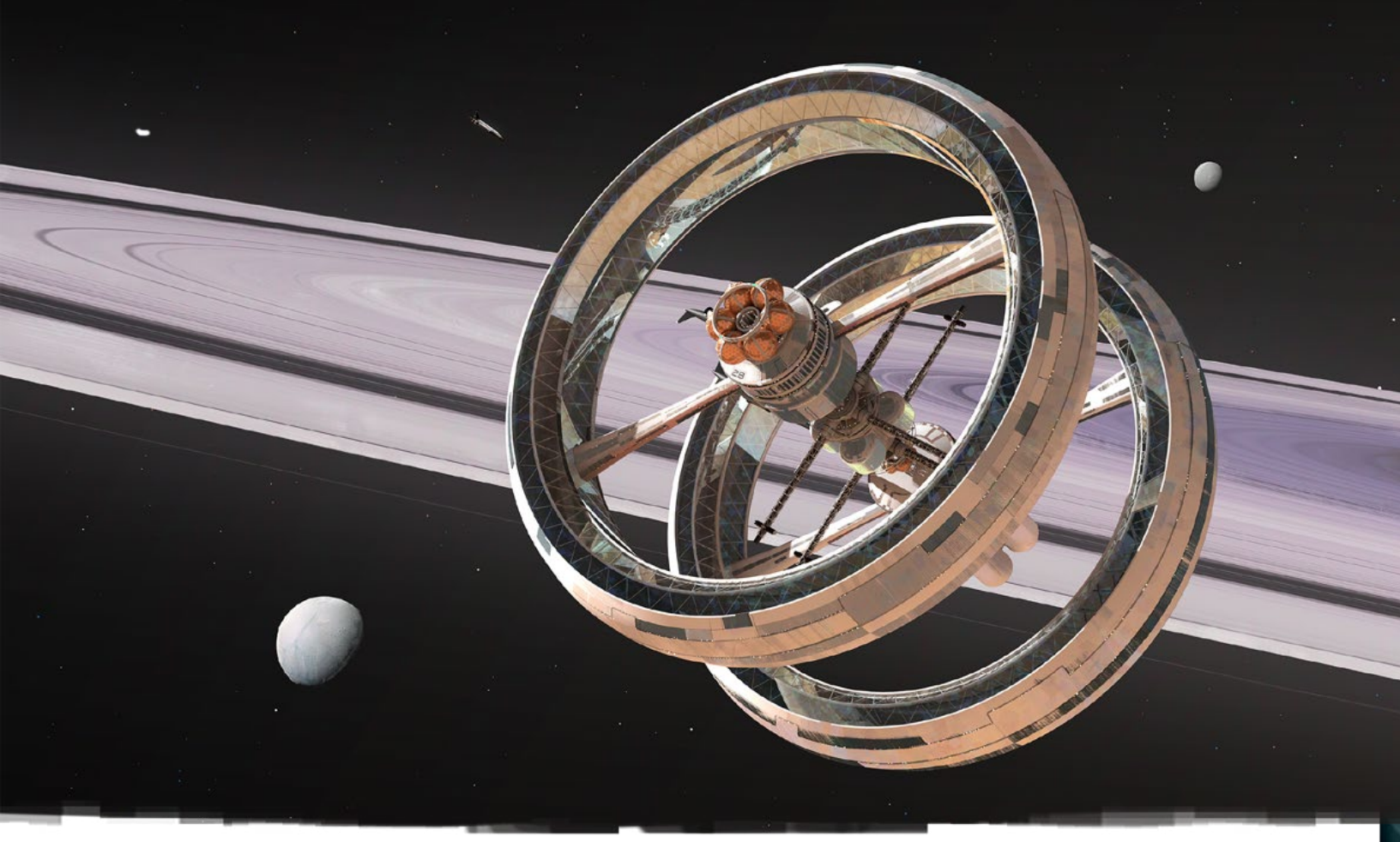
The most famous biological habitat is undoubtedly MeatHab. MeatHab's origins are obscure, but it is believed to have begun as an eccentric biodesigner's art morph. MeatHab's visitors and residents include artists who bask in its existence, devotees who worship it, and scientists who study it. MeatHab tends to limit its interactions with others, but sometimes seems to revel in a pranksterish overseer role.

NANG TANI

Nang Tani is a comet whose highly inclined orbit has been altered to bring it just within Mercury's orbit at perihelion and between that of Uranus and Neptune at aphelion. Before the Fall, a group of Southeast-Asian ecodesigners created a Dyson-tree habitat there, establishing a genetically modified organism that could grow out of the comet itself. As of the last communications during the Fall, pockets of thriving ecosystems with breathable atmosphere had taken root within the wooded hollows of the All-Tree. Returning from its orbit high above the outer system, Nang Tani is now approaching the inner system, but its current status remains unknown.

NEW CONCH REPUBLIC

This "island escapism"-themed centrifugal habitat is constructed of coral-inspired biomaterials and devoted to the pursuit of pure happiness and inner peace. Constructed from the moon of the asteroid Atira, it is located in the inner system within the orbit of Earth. Relatively unscathed by the Fall, it is touted for its Caribbean culture aesthetic and endless sandy beaches.



Aerostat

Aerostats are voluminous structures that float in a dense atmosphere. Their distinguishing features are lightweight structures and large internal spaces that are at a lower density than the surrounding atmosphere, thus providing lift. To provide stability, the expansive chambers that provide lift are located towards the top of the structure, with the bulk of the habitation space and docking facilities typically positioned on the underside, though some are known to have landing platforms or synthmorph living areas on the roof of the structure. Aerostats are common on Venus and also present in the clouds of Saturn, Uranus, and Neptune. Most aerostats drift with the currents, though some are tugged or tethered to the surface.

CENTRIFUGAL HABITATS

There are many varieties of and philosophies behind centrifugal habitats. Their defining feature is rotation. A person on the interior surface of a rotating hab will experience a force that simulates gravity (usually Earth or Mars standard). This force will always be perpendicular to and away from the axis of rotation (meaning that you stand on the inside of the rim with your head pointing up towards the axis). The faster the rotation, the stronger the force. As you climb nearer to the axis, thus reducing your angular velocity, the force decreases until reaching zero gravity at the axis. Spin habitats include engineering features such as large internal momentum wheels, which are used to spin up or down the habitat, and balancing masses, which are autonomously adjusted for stability. Docking ports are stationed at one or both ends of the axis, allowing ships to dock without needing to match the rotational velocity. Elevators provide access down to the interior surface.

Despite retro depictions of spin habitats, they rarely include windows on exterior walls outside of observatories and tori. Interior surfaces are capable of displaying any kind of imagery with exquisite fidelity and the spectrum of the sun can be precisely reproduced. Windows are also structural weak points and the exterior surface area better dedicated to solar energy collection.

Modern centrifugal habs can be broadly classified into three major types based on geometry, as well as various sub-types based on construction method or other feature. There is no real functional difference as the centrifugal principles are the same.

Torus

Toroidal habitats resemble a wheel, with spokes connecting to a central docking station. They tend to be more simply made and have lower populations than other centrifugal habitat types. It is not unusual to see a double torus with counter-rotating sections. Tori are most common in low planetary orbits and often have many windows for viewing the planet below. When standing on the interior surface of a torus with large open areas, the habitat seems to curve upwards in two directions, until eclipsed by the ceiling. Tori are sometimes referred to as von Braun wheels or Stanford tori, based on early 20th-century conceptions.

Cylinder

Cylindrical habitats of various sorts are the dominant type of centrifugal habitat. Useful classifications include:

O'Neill Cylinder: Large cylindrical habitats that are built to particular fixed dimensions are so named in homage to the 20th century physicist Gerard K. O'Neill. They tend to be large megaprojects and are known for having less internal segmentation, fewer habitation levels, and a vast internal space that recreates an Earth-like ecosystem. However, O'Neill's design is considered antiquated by current standards. No habitat based on his original design has ever been built, though various modern variations exist.

When standing on a cylinder's interior surface, the environment arcs up on either side, so that the far side of the habitat is directly overhead, on the opposite side of the cylinder. Cylinders are typically large-enough to hold cities and vast sculpted landscapes. Many run a solar electrochemiluminescence tube along the axis that provides an internal day/night cycle.

Fisher Hab: The prototypical modular-independent cylindrical habitat, named in honor of the prolific 21st century space architect C.F. Fisher, consists of shorter cylinders, sometimes called disk habitats, which are commonly joined together as new units are completed. This allows for reasonably large internal spaces with complex ecosystems — smaller versions of the megaproject O'Neill type habs, but with the advantage of faster construction times and the ability of each unit to have its own unique ecosystem or even be its own polity. Some units remain very independent of the others, with the only connection being through the central thoroughfare, while others open up spaces through the hulls and permanently fuse together. Unless the modules have been fused, it is not strictly necessary for each unit in a group to have the same rotational speed, nor is it necessary for each unit to have the same radius. As these units are theoretically independent, it is possible for them to leave a particular agglomeration and go fully independent, or to join another Fisher group. Fisher units often have a large number of habitation levels, sometimes extending from Earth gravity to Mars gravity or beyond, with parks and recreational spaces distributed throughout. While there is some variation, the length and radius of Fisher units tend to be standardized at about one kilometer each, and are rarely seen with radii greater than two kilometers. Fisher habitats tend to exist in confederations with each unit retaining relative independence.

Polykatoikia: A cylindrical habitat where the modules are dependent on each other is known as a polykatoikia. They consist of pods, rings, ring segments, or other interlocking shapes that are gradually built up, both along the axis of rotation and outward from it. A rotating assembler system allows for the addition of new segments without interrupting the rotation of the habitat, with the primary requirement being that new segments are added in a manner that is balanced across the axis of rotation. Segments are not normally designed to function independently of the habitat, and engineering and life support systems are typically part of the substructure of the habitat, which is itself built out as the habitat grows. Polykatoikia are known for fast construction times, smaller open spaces, and an often labyrinthine internal layout.

Reagan Cylinder: The Jovian Republic's version of a cylindrical habitat is the Reagan Cylinder. A large cylindrical space is carved out from within an asteroid, and the excavated material is affixed to the outside in an attempt to create stability during rotation. This construction method is great for protecting against the high radiation environment near Jupiter, but the bioconservative republic's fear of advanced technologies make these habitats far less pleasant than they could be. Chronic problems with stability, structural integrity, and the reliability of life-support systems have earned these habitats the derisive moniker of "sarcophagus habs" by the other factions.

Hamilton Cylinder: The latest incarnation of the cylindrical habitat, Hamilton cylinders are the embodiment of the cutting edge, incorporating advanced nanotech, materials science, neuroscience, and computational technologies. A silicate composite exterior shell provides a skeleton structure and protection from space. An interior middle layer collects waste and resources harvested by drones from nearby planets, moons, or asteroids. Nanofabricators and bioreactors in this layer maintain an infrastructure of nanosystems that sustain environmental cycles. A layer of distributed nanocomputers functions as a neural strata — the brain of the cylinder — controlling various habitat systems. Hamilton cylinders are aware of their surroundings, both internal and external, and are living, growing machines. There are currently only three Hamilton cylinders in existence — one in the Uranian system and two at Saturn.

Spheroid

Sometimes nearly perfect spheres, but more commonly a prolate shape, spheroidal habitats are often referred to as Bernal spheres in honor of the scientist John Desmond Bernal, who first conceived of such habitats in 1929. The main habitation level is typically built on a band extending across from the same degree lines north and south of the equator. This gives a living surface like that of a cylinder. Beneath the main habitation level are further, progressively smaller habitation levels and engineering sections. Larger spheroids may have multiple stepped levels at progressively lesser gravities going out toward the poles.

Ad-Hoc

Though uncommon, it is possible to jury-rig a centrifugal habitat by linking modules and rotating them around a center of mass. These structures tend to be unstable and less-than-ideal, as the modules are not designed for this purpose, but it is a cheap option for Belters and brinkers who need spin gravity and have limited options.

MICROGRAVITY

A microgravity environment exists whenever an object is in free-fall, as in orbit or when the gravity is very low, such as on most asteroids. A microgravity environment can also be referred to as weightless or near weightless. Micrograv habs have no restrictions as to shape, size, architecture, construction method or material. While maneuvering in free fall can be challenging for those used to gravitational environments, weightlessness is ideal for certain tasks and processes.

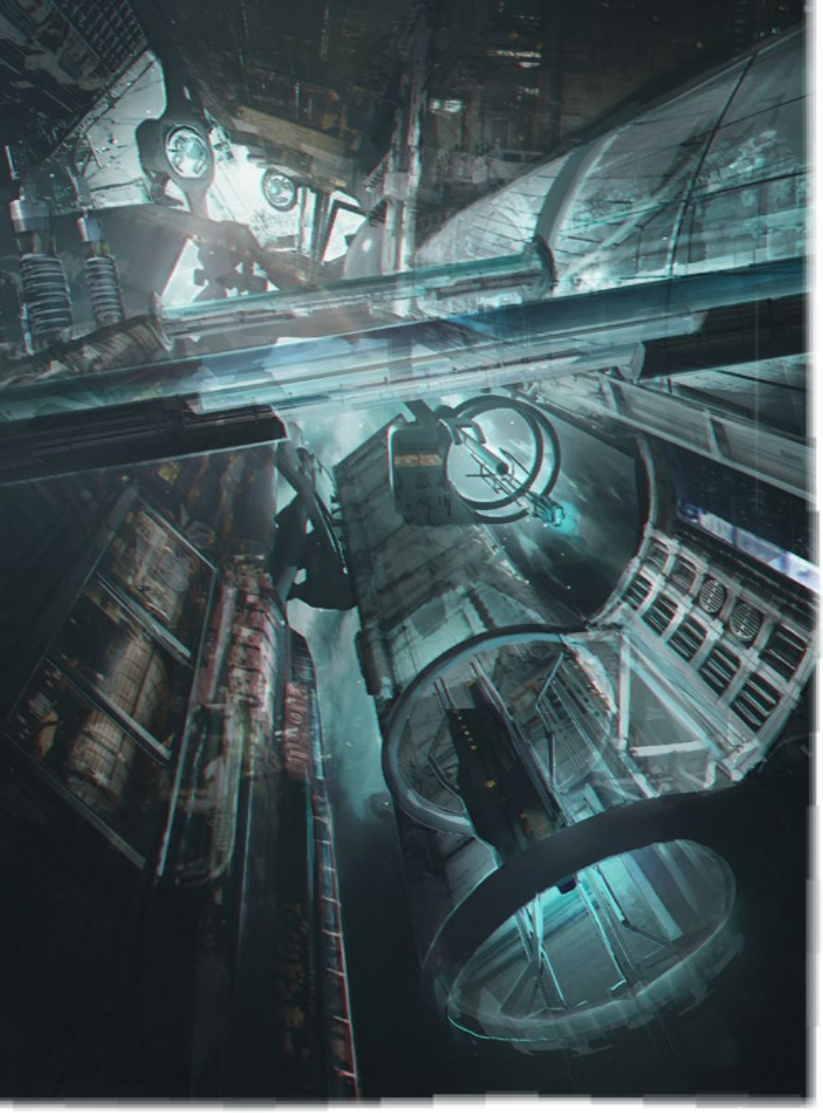
Beehive

Beehives are tunnels, caverns, and excavated spaces in microgravity asteroids and moonlets. Most beehive habitats are created when squatters take over abandoned asteroid mines. With a bit of work, such as sealants, airlocks, and the addition of life-support and environmental controls, a biomorph can have a comfortable living space, whereas a synthmorph can get by with few or no modifications at all. Residents will often tunnel out additional spaces and passageways as the population grows. Beehives have similar advantages, disadvantages, and requirements to subsurface planetary habitats. Comets, loosely held-together rock piles, or very rapidly rotating asteroids are generally not suitable for beehives, and very small asteroids typically have stability issues that make them unsuitable.

The abandoned mines that most beehive habitats are built from are fast becoming relics as the advances in materials science and mining technology of the latest generation of mining operations allow for the processing of an entire asteroid directly into bulk resources, fabber feed-stock, habitats, ships, radiation shielding, solar panels, or other manufactured products.

Cluster

Clusters are congregations of specialized modules, directly interconnected or latticed together in orbit. With high quality construction and integrated support for modern technologies, a cluster can have all of the conveniences and opportunities of any other habitat.



Individual modules have distinct functions: habitation, storage, agriculture, manufacturing, docking, etc. Most clusters have dedicated environmental and life-support modules distributed around the network. Larger clusters may be subdivided into neighborhoods that share power and other resources, or may even function as distinct polities. Hypercorp clusters tend to be regimented and symmetric, while autonomist clusters are more haphazard and chaotic. Centrifugal habitats and cluster habitats will often be in close proximity or interconnected within the same conurbation.

Nuestro Shell

Several variations exist of the Nuestro shell, but the principle design consists of multiple rigid spars radiating outward symmetrically from a central point. Additional ringed structures connect across the spars, allowing for movement between them and providing stability. Various modules are connect with the spars, rings, and each other either directly or via floatways. It is, in essence, a large stable framework for a cluster hab. Spars and rings typically have internal passageways and intermittently spaced airlocked docking structures that larger habitat modules will permanently attach to. The entire structure is contained within and attached to a geodesic sphere covered with a flexible, self-healing mesh designed to protect against micrometeoroid impacts.

Tenmai Shell

The base structure of a Tenmai shell is made from the outer shell of a cylindrical or spheroid centrifugal habitat, but does not house the expected interior structure. Instead, it contains a vast, protected, usually pressurized, microgravity area that can be several cubic kilometers in size. From the outside they look much the same as a centrifugal habitat of the same shape and typically have similar docking ports at what would have been the axis of rotation. The interiors are as diverse as bare-bones empty shells, a literal jungle of microgravity-adapted plants, the chaos of a three-dimensional, haphazardly created labyrinth with few right angles, or the disciplined order of a cubicle worker's nightmare.

OTHER HABITATS

A few habitat types cross boundaries or defy classification.

Processor Locus

While communities of infomorphs can be found within other habitats, a processor locus is a dedicated computational environment designed exclusively for the disembodied. Also referred to as a noosphere, the most notable features of a processor habitat are a massive computational core, extensive power generation facilities, and research centers related to the architecture, engineering, programming, and evolution of computing systems. Loci run multiple massive simulspace environments capable of hosting tens of thousands of infomorphs. Regarded with suspicion by some for their potential to harbor AGIs or become spawn points for ASIs, as well as claims of engaging in banned AI and cognitive research, processor habitats are heavily shielded and defended.

Egocasting into a processor locus is encouraged by its inhabitants, as familiarity diminishes fear. Any type of environment can be experienced in simulspace: flawless recreations of pre-Fall Earth, fantasy realms from fiction, heavenly retreats, or even bizarre and sometimes disturbing experiences generated on the fly from the memories and desires of everyone in the simulspace.

Scum Swarm

A Scum swarm is less a habitat and more a way of life. They originated with spacecraft that helped evacuate Earth. Laden with refugees, they were unable to find anywhere that was willing to accept them and essentially became nomadic refugee camps. Many clustered around sections of partially destroyed habitats and other structures that were damaged in the Fall. As the swarms traveled, these structures were towed by barges, retrofit with engines, or interlaced with spacecraft in what are known as LaFrance rig lattices. Over time, these refugees joined together with pre-existing nomadic peoples, becoming the Scum. These communities vary greatly in culture, language, organization, and wealth. They include everything from overcrowded cesspools to egalitarian anarchist communes to the gaudy opulence of organized crime gangs and everything in between. As roving carnivals of the dispossessed, they are hubs of lawlessness, piracy, black markets, and the bizarre. If you're searching for the forbidden, the dangerous, or the deviant, you can find it here.

Tin-Can Habitat

Tin-can habitats are small modules of simple construction and only the most basic support systems. Many are nothing more than converted shipping containers. They can be solo or connected to large networks of tin cans or other microgravity habitats. They harken back to the earliest days of space flight and are disfavored by most who can afford something better. There are a few tin cans that have been in near continuous use for over a century. Curiously, these timeworn relics have become prized by certain antiquarians and retrophiles who ardently upkeep them and become experts in their ancient systems.

NANOFABRICATION

Source: *Everything, Forever: A New Maker's Primer*, by Silvia Lugo LINK

While nanofabrication was common before the Fall, its ubiquity in the present may come as a surprise. Today, nearly every object you interact with was made with a nanofabber. It's possible that your sleeve itself was the product of one of these miraculous devices.

NANOFABBERS

At its core, a nanofabricator is a 3D printer that works at the molecular level. It takes a stock of raw materials and uses nanobots to assemble an object according to the specifications of an input blueprint. Virtually any object or device can be constructed in such a manner, from the simplest handheld hammer to a space-going vessel — though larger objects are fabricated in parts by sub-assemblies, not a single machine.

Fabbers come in many shapes and forms. It's likely that your personal living space or shared residence is equipped with a small kitchen autocook, a specialized wet fabber that only produces food and liquids. At the lower end, these models simply produce a generic nutrient paste that is dressed up in a variety of tastes and textures. Better quality autocooks manufacture gourmet meals and complex drinks molecule by molecule, as well as similar organic substances, including leather, alcohol, and some drugs. Inner-system restaurants thrive on their high-end autocooks and proprietary recipe designs.

General-purpose fabbers can make almost anything that fits inside their volume, assuming you have the blueprint and necessary raw materials. They range in size from portable, handheld units to desktop models to industrial units several tons in weight. These are referred to by many names — makers, replicators, forges, compilers, cornucopia machines, and so on. They can be found in offices, shops, and schools; some habitats maintain street-corner makers for public use.

Specialized fabbers are similar, but only produce categorically similar items. A specific forge may produce a related suite of personally tailored medications, a proprietarily linked set of consumer electronics, a particular line of handguns and related peripherals, or components for a certain piece of machinery.

Hives are a particular type of specialized fabber used to manufacture and maintain a single type of nanoswarm, such as fixers or engineers. Hives are portable and used to program a swarm as well as replenish the nanobots that are lost to normal daily attrition. Fixer hives are often incorporated into devices and structures for ongoing self-repair functions.

BLUEPRINTS

No matter what kind of nanofabber you may find yourself using, you'll need a blueprint — a three-dimensional software plan for the design. Printers come pre-loaded with an assortment of simple blueprints appropriate to the device's purpose. Most polities, habs, and hypercorps also provide basic blueprints free for use by everyone, released into the public domain. This means that almost everyone has access to mundane tools, clothing designs, and foods.

These free blueprints are widely regarded as signs of lower social status in the inner system. The old and transitional economies there rely on people purchasing proprietary blueprints online for whatever they need. Hypercorp boutiques compete to offer the latest designs and upgrades, sold through subscription channels and ecosystems

designed to lock customers into brand loyalty. These digital plans are accompanied by stringent copyright protections, limiting the number of prints to deter sharing and piracy and preventing any modifications of the designs outside allowed parameters.

There are many open-source projects, however, in which generous programmers make their blueprints available for free. There are numerous communities devoted to tinkering and improving upon blueprints in a variety of fields, many entertainment or fashion related. Autonomist cooperatives and Titanian microcorps also code and distribute freeware designs, sometimes based on cracked properietary plans. Inner-system authorities, however, do their best to limit the availability of these freeware blueprints, and fabber controls may prevent their use.

Naturally, blueprints to manufacture dangerous or illegal goods are unavailable for sale to the general public, except on the black market. Weapons, drugs, deadly chemical compounds, or biohazardous materials are not freely distributed. Software locks on the fabbers themselves prevent them from producing items or materials on prohibited lists. Individuals who bring their own nanofabrication devices to a new hab are likely to find it inspected and made compliant with local ordinances regarding prohibited printing requirements. These practices differ greatly in many outer-system habs, however. While fabbers are available for public, unrestricted use there, they are monitored by local volunteers to ensure that no one is manufacturing items that could endanger the community.

FEEDSTOCK

Fabbers are useless without raw materials, commonly termed *feedstock*. Most habitats make basic feedstock readily available through utility lines. In the inner system, your feedstock usage is likely limited according to your payment plan. For areas outside of a public utility infrastructure, feedstock is also available in bricks of either single elements or in conveniently bonded compounds when elements are dangerously reactive in their simplest states. Almost all habitats recycle or scavenge the vast majority of their waste for use as feedstock. When you toss your garbage down the chute, it's not just going to the dump, it's being fed to disassembler nanoswarms to be used as the raw materials for the hab's feedlines. Fabbers often incorporate disassembly ports into their chassis, such as the organic-waste disposal unit on your kitchen's autocook.

Aside from blueprint availability, feedstock is ultimately the biggest limiting factor in nanofabrication. Miraculous though the technology is, it's not just conjuring goods out of nothing. While the economies of different habitats or solar-system regions vary greatly, they are still rooted in the relative scarcity of material goods. Carbon, iron, and the like are relatively abundant, but many of the most exotic elements of the periodic table are used in modern equipment. Dangerous heavy metals or gases are regularly used for industrial applications and in trace amounts to produce consumer-grade alloys or plastics. Habitats typically restrict access to hazardous and rare-element feedstocks, requiring explicit permission and a high credit cost.

PRINTING

The final limiting factor of nanofabrication is time. It goes without saying that the bigger or more complex the item to be produced, the longer it takes to manufacture. Most prints take a matter of hours, but complex designs can take up to a day or even more.

Thankfully, replicators primarily run themselves. Each fabber is equipped with a dedicated ALI that works to optimize blueprints and troubleshoot flaws in assembly as they occur. This ALI is sometimes even capable of programming new designs or modifications for you.

DOING IT THE HARD WAY

If you lack the proper blueprint, it's theoretically possible to make your own. 3D design, however, takes days for even simple objects, weeks or months for anything complex. It also requires not just a thorough knowledge of software encoding, but also an artisinal familiarity with whatever it is you're designing. You want a sheet of steel capable of withstanding the heat of planetary re-entry? You'll need to be a metallurgist as well as a programmer. Thankfully, accelerated time in a VR simulspace can shorten the process.

REMAKING SOCIETY

Despite the limitations of nanofabbers, their effects upon transhumanity cannot be overstated. Society has been transformed by the ubiquitous availability of goods. Starvation is nearly a thing of the past; almost no one goes with want of basic needs. Creators of high-demand and bespoke blueprints gain tremendous wealth and rep from the sale of their designs in the inner system. The very existence of many outer-system settlements and extrasolar colonies might be threatened were it not for their ability to produce needed goods on the spot, without the lengthy wait of physical shipping.

You are also sure to notice that there is much less trash and litter. Near-ubiquitous disassembly of waste materials has resulted in cleaner habitats across the Solar System. As a rule, transhumans personally own far fewer personal belongings than they did before the Fall. Citizens simply do not accumulate goods, and almost all of the wasteful packaging you may recall from your previous life on Earth has been eliminated. Even personal travel is easier, as you are no longer required to bring everything you need with you. Virtually any item is now disposable and replaceable, since it can be disassembled into its constituent molecules and reassembled brand new as required.

ARTISANAL GOODS

This is not to say that nanofabrication has completely replaced all other manufacturing processes. In fact, handcrafted goods have become status symbols. Chefs who produce traditional meals made with naturally occurring ingredients are in high demand. Artists who work with hard-to-acquire irreproducible materials, such as marble reclaimed from specific ancient buildings on Earth, can garner wealth and acclaim for their work. Other handmade goods are valued for the personal investment applied to their making.

SOLARCHIVE SEARCH▶THE INVISIBLE MASSES

One way that nanotechnology has changed society is also the hardest to see: nanoswarms. Clouds of invisible nanobots now surround us on a daily basis, undertaking unseen tasks. These range from purposes as utilitarian as cleaning, maintenance, and repair to insidious ones such as spying, sabotage, and hostile disassembly. Carrying a nanodetector is a common practice when you wish to be appraised of the invisible mites in your presence. Heavy use of swarms in an area sometimes builds up a dust-like "toner" residue as nanobots die off en masse.

TRANSHUMAN CULTURE

CATCHING UP

You've been doing a great job in re-acclimating yourself to the state of things. I know it's hard, a lot of time has passed since the backup you are re-instantiated from was made.

Here's the next series of updates.

START

FEAR AND PARANOIA

Posted by: Michael Moraine, Firewall Sentinel INFO MSG REP

The most defining aspect of transhumanity is how much it has changed in the past few years. From the trauma of near extinction to the future shock of rapid technological change, the speed of upheaval is making a strong impact on our culture and society.

LIFE AFTER THE FALL

Our entire species suffers PTSD. The Fall killed 95 percent of transhumanity and cast the remainder into the void of space. We say "lost" or "went missing" or even "forcibly uploaded," but "killed" is the word. Just killed. You look around at Mars and Luna, and you check your buzzing social feeds on the mesh, and it seems like we're okay again, but we're not. We're hanging on by a thread. There are so few of us left, and of those who survived, so few of us even have bodies, or bodies worth a damn. We don't even really know what happened. Sure, the TITANs killed billions, but why? We don't really know. We don't even know why they stopped on the brink of our total annihilation. Was our extinction their goal at all? What if we were just collateral damage? The exsurgent virus appeared almost simultaneously with the Fall, and there is every indication that TITAN machines were infected in strange and unpredictable ways.

CAN WE TRUST OUR TECH?

What if the TITANs were merely trying to eradicate the virus and killing us was the primary vector? But if that's true, why did they forcibly upload so many of us? What if they were trying to preserve our species before fleeing what amounts to a quarantine zone? What if they were trying to kick-start a phase of our evolution that might make us less vulnerable to this greater threat? What do they know that we don't? All we can do now is speculate and hope they aren't coming back, but none of us really believe that.

We go to extreme lengths to avoid setting the stage for a second TITAN event. Computational clusters above a certain power and storage are discouraged, if not forbidden, for fear of creating a fertile bed for a seed AI to run rampant. But, of course, with all those hypercorp research facilities and other secret installations, do you really believe these prohibitions aren't broken on a daily basis? The Jovians go so far as to rely on analog tech as a safeguard against a rogue ASI and then you've got some crazy brinkers out there doing their best to cut themselves off entirely from the mesh out of fear of being contaminated. Some people don't even trust their muses anymore. Who's the voice in your head, really?

WHERE'S THE HUMANITY?

If the bioconservatives are to be believed, our society is corrupt because it is no longer solely human. We may all be hopping merrily from body to body, but at least we had a body to start with, unlike infolife. This lack of a biological origin makes it easy for some to consider AGIs unnatural things or to fear that they may ultimately be more sympathetic to the TITANs or other non-human interests.

Such thinking can be infectious, perhaps even driving prejudice and institutionalized bigotry that may eventually make it a self-fulfilling prophecy. Infugees and deliberate infomorphs aren't much better from this perspective. When you lack a body, do your loyalties still lie with your embodied species? Keep this in mind next time someone gives attitude to one of your digital forks.

Then you've got the poor uplifts. The same fearmongers claim that we cannot truly understand their motivations or perspectives. The idea of an octopus walking around in a human body makes them distinctly uncomfortable. These are the same people who treat uplifts like clever pets, and I know I'd resent that if I was one of them. I might start thinking about other societal options, myself.

IDENTITY CRISES

The fear doesn't stop with others; our own minds are suspect. So many of us lost years of consciousness in the Fall only to awaken into a present that grows more alien by the day. What's the starting point for the continuity of your life? Is it when you were born? Is it when you woke up today? Is it the first time you sleeved? The first time you forked? The Jovians and other bioconservatives believe that the mere act of sleeving or egocasting is suicide and that there's no continuity of consciousness even from a recovered cortical stack, just the propagation of data. Almost all of transhumanity thinks this is nonsense, that of course we are who we think we are. But of course we'd think that, wouldn't we? What if the entire Fall was really just the TITANs forcing us to adopt these methods, to normalize them? If we're not really alive anymore, what are we even fighting to protect? The aggregate of transhuman consciousness is the only thing that's important if you arrive at that conclusion, and if you keep following that train of thought, the things that might become necessary in its defense are as frightening as the threats themselves. And there are so many threats.

AN UNCERTAIN FUTURE

We don't have a new home, yet. Not truly. Mars won't be fully terraformed for centuries and every other habitat we've carved out in the Solar System is separated from the void or a toxic atmosphere by centimeters of steel and a lot of hope that nothing goes wrong. Sure, we're getting better and better at engineering, but everyone knows we are just one engineering failure away from immediate and possibly irretrievable death.

Scientific progress is improving our engineering every day, but that brings its own risks. True x-risks, at that. The Large Collider is impressive but we all know it's going to be a child's toy compared to where things are in another ten years, and there are already people talking about experiments that might literally collapse the warp of space-time with "only" a .000001 percent chance. Back on Earth in the twentieth century, scientists lit off the first atomic bomb while wondering if it might set the planet's atmosphere on fire. And that's just talking about accidents.

The technologies we take for granted like ubiquitious nanofabrication, forking, and precision bio-engineering all have the potential to be weaponized on a terrifying scale by a single malicious person. Never before have such wide swathes of transhumanity had the capacity to initiate their own self-destruction. Self-replicating devourer nanobot swarms, biologically engineered plagues that happily infect organic matter or plastics with ease, and the ability to remotely produce antimatter weapons and detonate them at leisure are all within the theoretical grasp of countless individuals. They've been stopped so far, mostly, but when is our luck going to run out?

DEAD PLANETS

We won't be the first to run out of luck. Since we first started exploring the pandora gates, we've found the detritus of one dead alien civilization after another. Their ruins are scattered across the galaxy. Something stops them from surviving, or at least surviving in any way that we can observe. Why should transhumanity expect a different fate? We were already almost exterminated once and not ten years later we're jaunting through these alien gates just to traipse through the wreckage of a whole lot of aliens who also messed with the gates.

I think about the Iktomi a lot. We find more remnants of this vanished space-faring, sapient species than any other. They may have been big arthropods with a technology and culture we can barely comprehend, but they were a lot like us, I think. Their ruins litter so many of the exoplanets we find. Their cultural detritus tells us they were smart and maybe scared of something. Maybe the gates. Just ten thousand years ago, the Iktomi were a flourishing civilization and then — nothing. What happened to those weird space-spiders? Did they see the end coming, or did it surprise them? Did it come through the gates? We know next to nothing about these things or who built them and yet we're happily dialing our way across the galaxy. Isn't it only a matter of time before something notices us? What if something already has?

THE FACTORS

The only beings who might have answers to these questions aren't people, and they aren't telling if they do. I'm talking about the Factors, of course. They're the only evidence we have of any other civilizations surviving long enough to make contact with another alien species. If you ask me, they only raise more questions than they answer. They say they're emissaries for a group of civilizations and that they only recently became convinced we were worthy of contact. Why now? Are they here to help us out of sympathy from having survived their own singularity? They've sure dropped some ominous hints about the gates and AIs, but are they really here to help or are we being monitored because they're afraid we're going to mess with something that might endanger their own civilization(s). For that matter, what *is* their civilization? What if they're not even aliens but a stalking horse of the TITANs in some subtle strategy we can't even imagine. First contact was made in the immediate aftermath of the Fall, which means they must have been monitoring us for some time if they're on the level. Did the exsurgent virus scare them enough to take a closer look? What if they *are* the exsurgent virus? I'm getting really out there now, I know, but seriously, what do we actually know about the Factors?

FIREWALL

Nothing here is new to Firewall, of course. We have brilliant, dedicated, and genuinely good people thinking hard about this stuff all day. But what does it amount to? You take orders from your proxy, but do you know who your proxy is talking to? Have you met your proxy in person? What does "in person" even mean anymore? When you get called up to investigate some remote mining facility on Triton, how confident are you that you're really going on Firewall business and not because a rival mining corp spoofed their handshake protocols and duped you into wiping out a competitor? What if Firewall has been compromised at its highest levels? What if it's *always* been serving another end? What would you do about it? What *could* you do about it?

Paranoid yet? Good. Keep that close. Use it. You'll need it.

PUBLIC AND PRIVATE LIFE

Source: Scum Survival Broadside, Post #3 of 18 LINK

Our online selves are extensions of our personal lives. With everyone interlinked, our expectations regarding social interactions and privacy have irrevocably changed.

SOCIAL NETWORKS

Social media has evolved to incorporate all facets of our lives: our friends, work, interests, calendars, and even interactions with strangers. Everyone you know posts favorite vids, project updates, opinions, memes, selfies, and pet pictures. Some take it further, broadcasting their XP lifelogs, allowing you to walk in their shoes and see through their eyes. Modern networks make it easy to customize your content for different groups of people. Your work persona may be very different from your family persona and your night life persona.

There are hundreds of social networks, many of them aggregated together into larger meta-networks. Who you socialize with influences which platforms are most useful to you. There are networks for almost every professional, social, and interest group: scientists, media, hypercorp industries, sports fans, gamers, even anarchist scum. These networks are valuable sources of information, news, and community.

REPUTATION

One of the key aspects of social networks is the maintenance of your reputation scores. Every platform measures your social capital and displays it to others. Each of these networks has their own methods for calculating your score. Some are built on credit ratings and citizenship scores, others are grounded in reviews made by others. Your taste in friends may be factored into your score, as well as achievements, search rankings, or even shopping habits.

Throughout the week, your rep score will rise and fall based on interactions with others. You can ping and ding people manually, but most people have their muses handle exchanges automagically. Each individual ping/ding has a negligible effect on your score, maybe a thousandth of a percentage point, but they add up in aggregate. Rude to the steward? Ding. Share a ride? Ping. Tip well? Double ping. Some interactions are weighted more heavily than others, depending on the network. The opinions of high-rep individuals or strangers may carry more impact than your friends or someone that pings/dings you back.

Improving your rep on a social network relies on following community standards. Each network values different behavior, so expect a variety of factors to matter. The same action that gets you dinged on one network gets a ping on another. Some communities have protocols that don't match yours. The best strategy is simple: don't be a dick.

SOCIAL CAPITAL AND MUTUAL AID

Rep nets are more than just people who sometimes like what you do; they are groupings of friends you can ask for help.

I can hear your inner-system sneer from here: rep's not gonna pay my rent. But if you design a logo for a guy and he calls in a favor to get your rent covered by someone that owes him for a few packs of beer? Sounds like it paid your rent.

Rep matters in other ways in the inner system too. It can help you secure a loan, get a freelance gig, escalate things up the ladder, avoid scrutiny by the cops, score a face-to-face meeting, or talk your way into an elite social event. Social capital is not always about the credits in your bank account.

In the self-managed autonomist outer system, rep scores are a tool for mutual aid and sharing community resources. The more you contribute to collective well-being, the more you can call upon others for favors. Need to hog the shared nanofabber, borrow a farcaster link, get help fixing a bot, call up some muscle, or get help with a research project? In the absence of money or coercion, your rep score can help you get what you need.

A lot of inner-system types make the mistake of viewing rep as the currency of the outer system. That's not how it works. You don't "spend" rep, it's a measure of your good standing with your peers, a judge of your social trustworthiness. Asking for a favor doesn't automatically drop your score. But you might take a hit if you lean on your friends enough to be rude or ask for something dangerous. It's a valuable skill to know where that line is drawn. That all said, there are some services that particularly trade in rep and credit exchanges for people looking to get things done in the other half of the Solar System.

Rep systems are not with their drawbacks or criticisms. Certainly, in the inner system, those with wealth have more opportunities for increasing their exposure and solidifing their rep than infugees or the clanking masses; it thus functions to heighten class divisions. Governments manipulate rep systems to punish dissidents and reward obedience. In autonomist areas, rep is critiqued for propping up informal hierarchies and reinforcing in-group behavior, though their network algorithms do a better job of balancing actual merit as distinct from popularity.

EXPOSURE

A side effect of social media is that we are all public figures, visible at all times. Almost everyone has a lifelog and half of you grant public access. If you lock down your presence only to people you trust, you limit your visibility and opportunities. If you leave it public, anyone can gather enough personal details to predict your every move. Live your life like an open book, don't be surprised if someone reads it.

More and more, this sort of transparency is expected as a social norm. It has its uses, of course: keeping tabs that loved ones are safe, that no one around you is acting suspicious, that elected officials and authorities aren't breaking the rules. When you opt out, friends start to wonder if you're okay, and local security services may wonder if you're up to something.

Even if you keep your presence friends-only, the reality of social networks and modern technology means that you are still completely trackable. Some of the meta-networks (looking at you, CivicNet and Fame) deliberately share your personal info with marketers, authorities, and assorted third parties. Advertising networks hoard every scrap of data they can scrounge on you in order to serve you up personalized ads. The unscrubbed pics, vids, and XP you post are laden with metadata that give away location and other details. Private intel hypercorps hoover all of this up and sell it to each other. Habitat security services sometimes get backdoors to monitor accounts. Combine this all with the datatrail your meshed devices leave with every other device around them and the ubiquity of coveillance and biometric recognition technologies. All of this data is not accessible to everyone, but a dedicated adversary with enough resources could certainly use it to track your location, interactions, and activities.

TAKING PRIVATE MOMENTS

No one will just give you privacy. You have to take it. And if you want it, you'll need to account for everything: your mesh connection, your rep profile, your face, even how you walk. Otherwise, any one of those can be used to link you to the rest.

Privacy needs to be a habit. Use AR privacy modes at all times, not just when you want privacy. Otherwise, those moments will stand out as if you're hiding something. In privacy mode, your social media profile is unaccessible to those around you and your device connections are less likely to be logged.

Use a virtual private network (VPN) to keep your communication private and anonymizers for posting. Invest in secondary accounts so you can control connections between information you put online. Train your muse to reset all passwords and burn accounts in emergencies. Use direct jack-to-jack connections to avoid anyone eavesdropping or sniffing your communications. The same is also true for laser comm systems; tight-beam lasers are hard to intercept. Quantum-entangled comms are completely private and impossible to intercept, short of someone hacking or ganking the physical transceivers.

Physical privacy is harder. Smart-fabric privacy shrouds will negate sensors, but you may stand out. Thankfully, their social acceptance has blossomed and they are now more common in public areas. Many businesses have scanners to clear eavesdropping tech from private rooms. You can also map dead zones where there are no sensors or signals or acquire such maps through darknet channels. They're useful if you need to duck out of sight for a few minutes.

If you're looking for a quiet way in and out of a hab, find yourself a darkcasting service. They can handle an egocast that avoids the logged and monitored official channels. Most of these are operated by shady cartels and outfits, so check their g-rep to evaluate their trustworthiness and loyalties before you commit. Some of these are not so much illegal as unofficially tolerated. The glitterati and powers-that-be like having quiet backdoor entrances as much as criminals do. The loss of data during the Fall and lack of system-wide centralized authorities mean that it is now easier than ever to establish a fake identity, either through the black market or via fringe habitats with intentionally lax citizenship procedures. The drawback to secondary identities is that they have very limited rep scores. This remains a popular option for traveling incognito, however, particularly among those who might otherwise experience harassment or prejudice.

GAMING AND GRIEFING

Any complex system can be gamed. Hacker cartels employ botnets to run mass numbers of sockpuppet accounts and grind rep, selling fake audiences and social media promotion as a service on the darknet. They are engaged in an ongoing arms race with social network providers, who deploy ALIs and sophisticated algorithms to detect abuse and root out fakes.

While repnet gaming is primarily about making credits, trolls and griefers abuse the system just to be jerks. Online harassment remains a serious issue, particularly by socially maladapted groups that brigade their targets with swarm tactics, stalking/doxxing, and general abuse. This behavior is particularly rooted among inner-system online infugees, with groups that have never experienced life off Earth and have yet to be embodied fostering bigoted sentiments in their insular communities. Their favorite targets are marginalized groups such as infolife and uplifts, though they sometimes delve into outdated misogynistic and racist attitudes. Their vitriol is also spewed against whatever current outrage has captured their attention.

Current technology allows video and other media to be faked, which griefers use to their advantage. Social networks counter this with public forgery detection tools, crowdsourced verification services, and reliability ratings for various information and media sources. Most muses are also trained to verify data and apply trustworthiness ratings, but these systems are not foolproof.

MEMETIC WARFARE

It is also important to remember that social media remains an ideological battleground. While the mesh and social media provide us with access to innumerable people, ideas, sources, and outlets of information, the reality is that most people engage with very little of it. We use our muses to personalize our media and information consumption habits, filtering out sources we don't like, and thus surrounding ourselves in self-affirming ideological bubbles in which we are never exposed to contrary opinions. Muses and social media algorithms are actually programmed to counter these habits by offering a broad and diverse array of sources, but an unnerving number of transhumans override these options. This means that an alarming number of people exist in ideological echo chambers.

Compounding the issue, various factions and entities exploit social media technology for propaganda purposes. At the simplest level, this involves contracted troll farms that crank out nothing but false or heavily biased "news." These voices are then amplified with media saturation campaigns using botnets and sockpuppet armies to control the narrative. A more finessed approach makes use of aggregated marketing data to identify specific vulnerable or receptive individuals and mass target them with personalized ad campaigns intended to sway them on specific points. Even with modern filters, these memetic campaigns have been known to sway elections, undermine support, fuel antagonisms and extremist elements, and encourage violence. They are particularly potent when coupled with nativistic and bigoted sentiments, and explain why large segments of the inner-system population remain prejudiced towards AGIs, uplifts, the clanking masses, and outer-system anarchist "terrorists."

BASILISKS

One of the more frightening weapons deployed by the TITANs against transhumanity were so-called basilisk hacks. These included multiple varieties of sensory inputs designed to take advantage of flaws in the brains of susceptible portions of the populations, much like certain strobe effects are known to impact epileptics. These inputs triggered reactions such as seizures, catatonia, and hallucinations. Some even had the ability to reprogram the mind in a manner similar to hypnotic suggestion. Basilisks were often embedded in various types of mesh media, so that victims were often exposed by their own augmented reality feeds. This enabled basilisks to affect large portions of the population at once. In one known instance, the entire metropolis of Córdoba in Argentina was exposed to a basilisk through the city's municipal priority alert system, causing millions to hallucinate and turn on each other with unprecedented violence.

Though modern mesh security protocols filter out known basilisks, there have been multiple reports of mass basilisk exposure throughout the Solar System since the Fall.

EARTH'S LEGACY

Source: *10 Years: Looking Back Down the Well* (excerpt) LINK

A decade has passed since transhumanity evacuated Earth, leaving it to the TITANs. On this anniversary of the Fall, we look back at the loss of transhumanity's birthplace and all that it entailed.

PROCESSING THE LOSS

The Fall of Earth was a paradigm shift for transhumanity. Virtually everyone lost friends and family. Most lost their own lives but were restored off-world. Homes, pets, careers, and personal effects were gone in a flash of radioactive dust. Entire governments, cultures, and languages went extinct. Not only did people need to restart from scratch, many had to learn *how* to live their new lives: in new morphs, in new gravities, under new economies, in environments that were completely alien to them.

Some have been more than willing to put Earth behind them, going so far as to filter all mentions out of their feeds. The pain is too great, the memories too horrific. This is especially true for those who suffered trauma in their last days on Earth — even more so for people whose lives on Earth had been a struggle to begin with, due to wars, climate crises, or personal relationships.

For some, processing the Fall requires more than just treating their PTSD. These transhumans treat the change as the open door it is, a chance at new possibilities. This can mean diving headfirst into exploring new identities, new personalities, new sexualities, new morphs. For the masses of refugees that became the Scum swarms, this was an embrace of experimentation, an opportunity to experience new lifestyles and push the limits of hedonism. When you've barely survived an apocalypse, and extinction is knocking, you may as well live your life to the fullest. There's no point in holding onto the past because it could all end at any moment.

THE LONGING FOR EARTH

Not everyone has been willing to give up on Earth. To the people living on Luna or in Earth orbit, it remains a visible reminder in the sky overhead, a monument that is not easily overlooked.

The debate on whether or not to "retake" Earth is regularly revived by pundits. Fervent reclaimers insist that it is our responsibility to reverse the mistakes of the past, to prove transhumanity's autonomy or dominance, to take back what is rightfully ours. Those critical of transhumanity's current path undoubtedly see it as a chance to return to a mythologized state of affairs, to resurrect the old and proper ways of doing things. In this view, Earth remains a powerful symbol of redemption.

The reality, of course, is that no one knows what retaking Earth will entail. Talk of orbital bombardments and troop landings are conjecture. No one is entirely sure that the TITANs are gone. Invading the planet might stoke them into activity once again, with disastrous consequences for everyone throughout the Solar System. Even if they are absent or dormant, their machines and nanoswarms remain a significant threat. Earth's climate itself has been irrevocably altered by the Fall. Revitalizing our homeworld's biosphere would require a vast terraforming effort with significant cost. And so popular opinion remains against such efforts … for now.

THE BLOCKADE

No parties have publicly claimed responsibility for placing the blockade around Earth, shortly after the Fall. Originally it was assumed to be a containment effort — to keep the TITANs in — but it clearly operates to restrict traffic both ways. Most people are convinced the Planetary Consortium is quietly behind the effort, but they have remained silent on the topic. In truth, it could be other parties: the Jovians, a cabal of oligarchs, perhaps even the TITANs themselves.

What we know is that any ship that tries to traverse between 300 and 350 kilometers in altitude, just below low Earth orbit, in either direction, is targeted by a number of lethal killsats. No warning is given. Even if the weapons platforms are avoided, there are other dangers: cloaked smart mines and clouds of high-velocity space junk left in orbit, the detritus of past battles. Over the years, many ships have made efforts to run this blockade; most have failed.

THE DATAPOCALYPSE

One aspect of the Fall that continues to have an impact was the staggering loss of information. Massive amounts of archives, records, and data were lost. Cultural treasures and physical media that were not digitized were wiped out. Governments and hypercorps lost their organizational memories. Debt, bank balances, criminal records, ownership records, legal code, and even some history and scientific knowledge were deleted. People's entire lives and identities were erased.

This chance to start fresh was seized by some, rebranding themselves with new identities. Others watched their positions and achievements fade into obscurity.

Ten years later, we still struggle with missing data. Scientists recreate past work. Investigators track down and reunite separated relatives. Courts adjudicate contested claims. Historians fill in the gaps.

EARTH RELICS

One method of coping with the past is by collecting relics from Earth. Before the Fall, relatively few objects were transported off world, due to the cost and impracticality. After all, most things could be locally nanofabricated. Now, those objects are immensely valuable. Even a small toy or souvenir could be worth more than a brand-new designer biomorph. A new black market has emerged for Earth relics, leading to salvage operations to smuggle more relics off Earth, despite the great risk.

Criminal cartels and reclaimers have financed and dispatched numerous teams to break the interdiction. These operations are incredibly risky, as they must circumvent an armada of killsats and a toxic hellscape populated primarily by TITAN war machines and exsurgents. Even if they survive and locate valuable relics, getting them off-world again is even more difficult. This amounts to a suicide mission, but the payoff can be worth it.

Complicating matters, some of the relics retrieved from Earth have harbored dangerous nanoswarms or even the exsurgent virus, spawning dangerous outbreaks. With every relic a potential vector, artifact hunters and dealers are high-value targets for authorities and bounty hunters. Of course, the black-market value of TITAN technology can be even higher, making it worth the risk to reckless graverobbers.

Relic hunting has led to a booming market for forgeries and fakes, not only to dupe rich collectors, but as mass-market goods. Artifacts can be scanned and reproduced with nanofabrication, making authenticity difficult to determine. Owning faux relics has become fashionable in some circles, proving that nostalgia is still a powerful influence in popular culture.

Not every relic is physical or valued solely for its connection to the past. Treasure hunters are also driven to uncover secrets buried on Earth, from corporate plans hidden away in server farms to ancient art forms and languages that exist only in the lost cortical stacks and backups of egos that were left behind. Millions of animal and plant species and even some uplift projects were also lost, including elephants, denisovans, and some whale species.

OLD IDENTITIES

Even if Earth will never be reclaimed, many still base their identities on who they were before the Fall. Despite the efforts of the Consortium and other powers and factions to shed the trappings of the past, various holdouts see themselves more as exiled citizens of their home nation than whatever planet or habitat they currently live on. They seek to uphold the traditions of their old culture, including rivalries with other nations and ethnic groups. This mentality is particularly predominant in the Lunar-Lagrange Alliance, where many refugee communities remain segregated by culture and language. Some have grown more insular in an attempt to protect their identity, rejecting outside influence. This has led to divisiveness as conflicts between groups flare up, leading to legal disputes and sometimes actual violence. Those seeking further isolation have formed brinker communities in remote regions of the Solar System, cutting themselves off from the rest of transhumanity in order to preserve their way of life. VR simulspaces that recreate areas of Earth remain incredibly popular, especially among infugees.

Despite these efforts, cultural isolation continues to erode. Resleeving undermines the outdated conceit of ethnic differences. The initial tendencies of people to sleeve morphs of the same ethnicity or to hold biased attitudes about specific models when the technology was first made available diminishes further and further each year. Modern biomorph models are a blend of genetic traits that further illustrate that ethnicity is nothing but a social concept. Mesh interconnectivity also makes it easier to transcend ideological barriers and escape cultural bubbles. Sociologists speculate it is just a matter of time before most old-Earth nationalism and cultural identities are driven all but extinct, relegated to small bioconservative enclaves.

It is worth noting that, more and more, even the traditional human template is being eschewed. Designers increasingly steer towards non-human pods and biomorphs, as well as synthmorphs with non-anthroform body plans and functions. Though these morphs are often considered exotic — or sometimes even banned — their presence is becoming normalized, especially in the outer system. As more transhumans become familiar and acclimated with non-human sleeves, this is only likely to accelerate. After all, while the human form is quite functional, it evolved to fit specific conditions; in many situations, other morph designs are simply more adaptive.

A NEW HOMEWORLD

The most aggressive counter to Earth's legacy comes from the Planetary Consortium itself. The conglomerate strongly pushes Mars as transhumanity's new homeworld, soon to be terraformed into an Eden superior to Earth, and the centerpoint in a new galactic civilization spread via the gates. By positioning Mars in this way, the Consortium also places itself as the leader of transhumanity. Consortium media outlets regularly downplay mentions of Earth, focusing on Martian affairs and the Consortium's expansion and futurist ideas. This forward-looking stance is welcomed by most Consortium citizens, who are eager to push aside past horrors and failures.

This agenda is not lost on the reclaimers, who believe that the resources spent to terraform Mars could be better used on Earth, or by the other political factions, who side eye the Consortium's grandstanding and soft imperialism. However, the Consortium is not the only power to push forward and minimize the past. Morningstar and the Ultimates both celebrate transhumanity's unfettered future. Even the Titanians and autonomists highlight transhumanity's potential, while noting Earth not just as a tragedy but as a lesson in our social and economic failures. Throughout the Solar System, Earth serves as an abject lesson of what can go wrong. For this reason, expansion to exoplanets is encouraged, to spread transhumanity out and increase our chances of survival.

EARTH SURVIVORS

No one knows how many survivors remain on Earth. Some estimate that tens or even hundreds of thousands may still live, secreted away in sealed habitats, cut off from the TITAN machines and outside world. Others might survive in the ruins, somehow avoiding the deadly grasp of the nanoswarms, radiation, extreme weather, lack of food, and polluted atmosphere. Entire storage facilities may still hold sleepers in cryo-tanks or data banks loaded with uploads and backups. The only known concentrations of transhumans on the surface are exsurgents and TITAN puppets, entire metropolises still running according to the whims of their abdicated machine masters.

CULTURE & CLADES

Source:
Appropriate This! Culture for Non-Microbes LINK

Once upon a time, culture was largely determined by geography and religion. As a method of memetic shared identity, it served to pass on traditions and reinforce shared values. It also propped up oppressive behavior and hostility towards outsiders and worked as an avenue of commodification. Now, with transhumanity ascendant, the nature of culture has irrevocably changed.

TRANSNATIONAL CITIZENSHIP

Even before the Fall, nation states were rapidly losing influence. Starved for revenue and largely co-opted by corporations, the larger countries began to compete for citizens. Faced with violent, erratic weather and the prospect of a brain drain, countries around the world offered remote citizenship to qualified applicants. Some countries, it turned out, had more pull as a brand than as a piece of real estate. The convenience of telepresence and rapid travel superseded geographical boundaries. Not to be outdone, some global corporations followed suit, establishing their own citizenship protocols and cultural identities for their protected enclaves.

In reality, transnational cultures were already de facto for peoples displaced by colonialism, wars, or climate change. The Kurds, Roma, First Nations, and Palestinians were joined by other dislocated people in facing the challenges of diaspora, caught between establishing their own enclaves and online communities and assimilation. The Maldives and Solomon Islands became the first drowned countries to establish governments in exile.

Prominent online communities followed the path of these developments, establishing official organizations that provided some of the old benefits of citizenship to those living in declining nation states: educational resources, social welfare initiatives, economic incentives, healthcare, employment, as well as protected enclaves. These new cultural clades were based on shared interests, with trappings rooted in fiction, history, or modern subcultures. Tribes as diverse as the New Africans, Queer Nation, Burners Without Borders, House Party, Modern Anachronists, Zapatistas, and Wuxia all gained influence and virtual citizens during this time. Many of these deployed their own reputation networks and/or cryptocurrencies.

But the Fall destroyed most of these early transnational citizenship organizations just as surely as it destroyed nation states. When the global communications infrastructure went under, most phyles went with them. Only a few of the more tight-knit and cohesive clades survived, and in small numbers.

After the Fall, citizenship went from something some transhumans could choose as a luxury to a necessity for which everyone was now desperately competing. Habitats had more refugees and infugees than they could accommodate, so they cherry-picked the people most likely to be productive or held lotteries and consigned the rest to virtual worlds or cold storage. Some habitats continue to maintain tiered citizenship schemes to this day, only granting privileges such as travel and access to certain areas or resources to those residents deemed most worthy.

As of AF 10, the situation has relaxed somewhat. Citizenship is again growing into a fluid concept and holding a citizenship distant from where you live in space is more common. Titan, for example, has citizens scattered across the entire system, and many Morningstar Constellation habs have begun granting remote citizenship as a way to gain the skills, reputation, and allegiance of talented individuals. The Solar System is so vast that geographical citizenship is likely to keep existing for the forseeable future, but egocasting and far-flung reputation networks also mean transgeographic organizations have many opportunities to gain members and influence.

REGIONAL CLUSTERS

Distance defines transhuman culture more than ever. On Earth before the Fall, every major culture was within easy reach between instantaneous mesh communications and fast global transportation. The Fall scattered transhumanity, isolating us on far-flung planets and habitats. Light-speed lag hampers mesh communications and physical transportation is painfully slow, weakening informal ties between friends and family. Cultural regions are now drifting apart because of spatial distance. It is no longer possible to easily keep up with the day-to-day changes that inform and mutate local cultures. News rarely has a great impact outside of the region and even viral phenomenon may have trouble gaining serious traction outside of the group that spawned them. Linguistic drift occurs in every habitat. The Mandarin spoken on Mars is already noticeably different than the Mandarin spoken in the Titanian Commonwealth.

Throughout the Solar System, nearby habitats group together as clusters that share culture, especially when they are close enough that light-speed lag is not a factor. The communities that make up a cluster can chat, share real-time XP, and find romantic partners from other habitats far more easily. They develop ties and institutions through shared communications and immigration.

On planets and large moons, however, everyone can instantly communicate with each other. This limits, but does not erase, geography as a factor. Mars, Mercury, Venus, and even moons such as Luna, Titan, Ganymede, Callisto, and Europa are large enough to have multiple cultural regions. Nevertheless, social class and lifestyle choices continue to be more culturally relevant. There is, of course, overlap; even the poorest synth worker can find common ground with a local hyperelite, even if it's only complaining about the weather, sports, flaws of the local infrastructure, or rivalries with other habitats. In the large metropoles of Mars, Luna, and Titan, even self-selective subcultural groups find themselves in frequent face-to-face contact with other clades.

MORPHOLOGICAL CLADES

Some communities are defined by their morphology rather than shared cultural traits. A person's mind is heavily affected by their morph, even if they don't want to admit it. In biomorphs, a different balance of hormones can radically change thoughts and perception. There's a reason why fury morphs are classified as combat models, and it's not just the enhanced reflexes and muscles. A devoted pacifist sleeved in a fury could easily start a fight simply because the morph heightens aggression and makes fighting more instinctual. People sleeved in the same morph are more likely to have a similar temperament, on top of being like-minded in purpose, and so are naturally drawn together.

Extreme environments like vacuum, ocean floors, or high pressure atmospheres can only be settled by egos sleeved in the right morphs. Whether it's the surface of Venus or a distant exoplanet with an exotic atmosphere, necessity dictates that only certain morphs can survive. Most of these are work-focused habitats, collecting natural resources in hazardous environments. Synthmorphs dominate in these conditions, being cheaper and lacking the need for life-support systems.

Other communities of morph-specific clades are common due to shared adaptive traits, needs, or functions. Hibernoids crew long-range ships, rusters work Martian terraforming gigs, bouncers thrive in micrograv, surya surf the solar corona, and infomorphs convene in processor loci.

Morphological clades often develop unique practices and social norms as fits their morphs. Synthmorphs swap parts. Bouncer clades drink and smoke using their feet. Long-haul hibernoid crews counter extended isolation with cuddle puddles. Neo-hominids groom each other. Menton communities are heavily into strategy games. Furies engage in comradely wrestling. Neo-octopi, notably, are more solitary. Neo-neanderthal phyles have an affinity for music. These practices and customs are sometimes confusing to those sleeved in other morphs (or are new to that type of morph).

A few morphological tribes are rooted in ideology more than shared purpose. The Ultimates favor remade morphs to fit with their self-concept as pinnacles of the human species. Bioconservative communities are composed of original flat and splicer morphs, as they eschew non-essential genetic modification and resleeving.

NON-HUMAN CLADES

Uplifts are commonly treated as second-class citizens in human-dominant habitats, worse off than even the lowest humans. They are often forced into indentured service, have no control over their reproductive options, are banned from certain areas/activities, and have no say in continued uplift research. The same is true of AGIs, who are also treated as a major security concern. In response to this, mercurials have established their own safe enclaves and habitats.

Radical mercurials want more than just equality and freedom, however. They wish to establish separate uplift and infolife cultures free from human interference. They want to chart their own independent and autonomous course, as opposed to assimilating into transhumanity. The majority of these initiatives are situated in the outer system, where they have more support and less interference.

Other non-human clades exist outside of mercurials. To be specific, these are transhuman initiatives to create non-human cultural identities. Among these are the exoglots, a mysterious group in the Jovian Trojans that uses insectile pod morphs and their own secretive artificial language, and the Colony on Luna, whose residents sleeve into insect-sized (though not necessarily insectoid) morphs and function as a society in miniature. At least one primitivist exoplanet colony is known to have sleeved into animal pods and gone "feral."

VIRTUAL TRIBES

Considering how much transhuman culture relies on mesh technology, it is no surprise that new phyles have arisen from online communities. Many of these are based in multiplayer virtual worlds, some with millions of members. Infugees are predominant in these v-tribes, some never leaving their preferred simulspace. Each of these worlds has their own reality, physics, and other trappings, though the cultures of the residents have often steered far beyond the anticipations of the original simulspace designers. Though many of these worlds are simply social, such as Olmec, Neo-Victoria, and Glam Slam, the most popular are multiplayer game worlds, with sci-fi Starfire and fantasy setting The Skein being current favorites. Competitive attitudes between gaming tribes sometimes spill over into the wider mesh and physical world, such as the real-life hacks perpetrated by the rival Red Army and Taiwan#1 gangs.

CULTURAL EXPERIMENTATION

Cultural experimentation is on the rise since the Fall. Various Earth cultures were once dominant throughout the Solar System due to early off-world colonization (especially China, India, America, and Europe), but their setbacks have created a void that others now strive to fill. An incredible variety of political, sociological, and economic arrangements have been tried, many still in progress. In between the more short-lived radical experiments and the schemes of con artists, egomaniacs, and charlatans, a surprising number of intentional communities now thrive.

On the political end, you cand find habitats that embrace ideologies as divergent as Maoist communism, hereditary monarchies, and straight-up dictatorships. You'll also find more obscure systems, such as republics where officials are randomly selected and rotated out every year, technocracies run entirely by ALI systems, and panarchies where each individual in the habitat subscribes to the (non-)governmental system of their choice.

Experimentation with sex, gender, and family constructs is a common theme. The citizens of Winter, a habitat in the Jovian Trojans, attempt to eliminate gender roles altogether by sleeving androgynous biomorphs and reproducing using exowombs with the gametes of two or more parents. The brinker hab of Hearth seeks to repopulate by requiring all residents to birth multiple children a year and raising them all as an extended family. Researchers monitor these habitats to study their long-term effects.

Other experiments are based on technological trends, such as heavy forking or communities composed of the same fork. The neo-synergists on Venus use special implants to form a group mind, albeit with questionable results. Scum swarms in particular push the limits. Scattered in numerous fleets across the Solar System, no one can keep track of how many bio-mods and mindhacking experiments are conducted on them. Few on the swarms bother to keep good records; they only want the next thrill.

As technology improves and transhumanity spreads across the galaxy, every element of culture is up for debate, evolution, and revolution. The frontier is infinite.

CULTURAL SURVIVAL

With extinction so near, and so much lost on Earth, there has been much discussion about preserving culture for the future. Reclaimers are particularly interested in reviving cultural traditions, history, and artifacts lost to the Fall. Numerous simulspace environments are dedicated to recreating historically accurate cultural simulations of the past.

It makes sense to consider the same for current culture. The TITANs may return at any time, not to mention other potential x-risks. The pandora gates have allowed for the rapid colonization of hundreds of exoplanets across the universe. Some groups explicitly works towards archiving what they can of transhumanity in remote extrasolar locations, making it more likely that at least a snapshot of our cultures will survive. Of course, you don't need to leave the Solar System to do that. Hidden habitats can be found all the way to the Oort Cloud, populated by survivalists and archivists who tunnel inside asteroids to conceal their bases. Other factions have built ark ships to travel to nearby star systems, like the *Crystal Wind,* a Titanian starship on its way to Barnard's Star, a journey that will take 800 years. Transhumanity is determined to scatter itself as far and as fast as possible, in hopes that no one threat can extinguish it.

TRANSHUMAN SEXUALITY

Source: *Intimate Interfacing* LINK

When you can change your body at will, downloading your consciousness into any form you choose (or whatever you can afford, depending where you are), "gender" takes on a whole new meaning. A morph is a vehicle of self-expression that can take on any number of forms. When such change is possible, altering one's sex or gender expression — whether once, or as often as you change clothes — no longer seems all that remarkable to people. Instead of a dualism with some variation on the side, gender is now popularly understood to be *entirely* divorced from one's phenotype. Or, as one philosopher put it just after the Fall, "We're all genderqueer now." The XP of them saying this from Luna, with the Earth still burning overhead, remains popular — and controversial.

Why was the Fall such an important cutoff, specifically? In short, Earth was the hub for most opposition to this kind of culture.

GENDER EXPERIENCES

Source: *Finding the Trans in Transhuman*

Most of Earth's pre-Fall societies upheld strict binaries, with gender and sex assigned at birth for your whole life. Transitioning was a radical act; trans people faced great expense and risked ostracism, bigotry, and violence to live as themselves. When resleeving was first introduced, the experiences and life lessons of transgender folks helped others acclimate to new morphs and encouraged people to make new discoveries about themselves.

These days, finding a morph that fits your gender identity is easier—especially if you're rich and have the capital to buy your way out of violence, oppression, and poor mental health. It takes only a week to alter the sex of a biomorph, less if you just want specific physiological features. Many transhumans have experience with sleeves that don't match their gender expression. Some stick with what's comfortable, others experiment. You might be surprised to find a morph that better suits your mental mold, perhaps with traits divergent from the old binary or with few or no sexual attributes. Gender euphoria — where your sleeve's presentation provides a rush of affirmation — is easier than ever to experience. Gender dysphoria — where your body's physicality is at odds with your identity — unfortunately still exists, especially for those without the income to resleeve as they'd like.

This reality has dealt a blow to sexism, misogyny, racism, and transphobia throughout society (though they are not entirely erased). Even bioconservatives like the Jovian Junta have discarded the social stigma of transitioning. Nobody cares what you "were born as," and current pronouns are easily snagged from AR social-media profiles. Outside of brinker and biocon habitats, few professions or social roles remain gendered. Everyone's clothing has pockets.

Now, gender fluidity permeates transhuman cultures. Relationship partners explore different identities, parts, and roles for fun and fulfillment. Your gender expression — the things you wear and like, the way you want to be seen — isn't tied to your morph's sex or whatever you're calling yourself that day. Archaic gender assumptions are a thing of the past, a reality that trans and non-binary pioneers fought long and hard to see.

As bioconservatism often went hand-in-hand with skepticism about space colonization and its culture, its greatest bastions were lost in the Fall. Think-tanks, institutes at Earth universities, religious non-profits, figureheads, and leadership were all wiped out. An already embattled minority became a *micro*minority in the rest of the Solar System, with exceptions in places like the Jovian Republic.

SEXUALITY AFTER THE FALL

Earth was already in the midst of yet another worldwide sexual revolution just before the Fall. The rise of polyamory and growing legal recognition of non-heterosexual relationships in the twenty-first century, as well as the decline of traditional religion, led to wave after wave of questioning and social reorganization, punctuated by periods of chaos and backlash. As with so much else, however, the off-world colonies were rife with wild experimentation that rapidly exceeded the pace of political life in even Earth's largest cities.

Astrosociologists posit that this acceleration was caused by three major factors: 1) sheer distance from Earth, 2) the demands made on bodies and morphs by wildly different environments, like zero-g habitats or the skies of Venus, and 3) many colonists moving out into the Solar System precisely because they felt they did not fit in on Earth. There is also something to be said for the fact that many colonies, like Extropia and Titan, were founded on ideologies that were not inherently inimical to gender and sexual diversity.

POLYAMORY

Traditional marriage, already rendered a charming anachronism on Earth, went into a steep and terminal decline after the Fall. Even the most conservative elites in the Jovian Republic or the Consortium came to consolidate power in ways besides marriage, so its last utilitarian benefits slowly ebbed away. Functional immortality makes "together forever" feel less like a romantic pledge than a wildly unrealistic expectation. Just as with gender, breaking one psycho-physical barrier sends all the others tumbling down. Dating multiple people at once was already more and more commonplace. After the Fall, it became the norm.

Polyamorous relationships take every conceivable form. Triads or quads of three or four partners, respectively, share a mutual devotion. "Polycules" of intense lovers and some fly-by-night "friends with benefits" are connected in elaborate chemical diagrams of romance.

Novelty is perhaps the Solar System's most valuable social currency, and few things produce it quite like pantheons of partners and sexual experiences. But class remains a deciding factor in what that looks like. For immortal upper-class socialites, chasing novelty leads to voracious sex lives that can involve switching partners and morphs multiple times in the course of an evening. For most everyone, however, advanced biomods have all but eliminated sexually transmitted diseases; contraception comes standard these days.

Of course, your number of partners is not the only thing "poly" about your relationships; changing morphs can completely alter the character of a love affair. Partnerships are often strained when one or more parties resleeves into different morphs. Sometimes sculpting can be used to craft an appearance similar to the one your partner(s) fell in love with. Some marriage contracts prohibit a partner from resleeving something different. Strong relations based on close ties between egos, however, can last through many morphs.

SYNTHMORPHS

An unusually common assumption is that people sleeved in synthmorphs are deprived of sexual lives, since they lack the requisite biology. This is a failure of imagination — and a misunderstanding

of transhuman needs and kinks. The haptics of quality synthmorph models are as good as real skin, and synthetic masks enable all manner of bodysculpting. If you're stuck with a lower-end case with sub-par haptics, XP and narcoalgorithms can produce whatever sensations you need, and there are always creative choices like power tool attachments and sensory-meshed ablative coatings.

Indeed, it would be remiss to overlook the flexibility of options synthmorphs possess, not least being the environments they allow access to. A synthmorph can facilitate a sex life in a superhot or supercold environment, a form of stimulation some find pleasurable — and which would certainly be deadly otherwise. Synthmorphs also provide an ideal choice for those who embrace being agendered or the subset of asexual folks who would rather avoid biological urges entirely.

NEW EXPERIENCES

The diversity of transhumanity provides endless possibilities for exploring sexuality. Forking, psychosurgery, robotics; if you can imagine it, someone's tried it — and shared the XP online. Social networks make it easy to find someone for a quick hookup, who shares your kinks, or who wants a short-term commitment. XPorn remains a high percentage of mesh traffic, and sex-themed VR spaces of every stripe abound. AR makes it easy to hook up with your partners remotely, and VR simulmorphs get it on in ways that put real-world physical limitations to shame.

The availability of uplift and pod morphs opens the door to the exotic sexual experiences afforded to non-human creatures. It is now possible to indulge for days beneath the waves as a neo-octopi or carouse romantically in the corona of the sun as a surya with others of your kind.

Of course, just because someone is doing it doesn't make it popular. Prudish and conservative attitudes still abound, especially in the inner system. Nevertheless, taboos are broken and boundaries are crossed as new social norms take root.

VIRTUAL LIFE, REAL SEX

Source: Confessions of an AGI Sex Worker

Yes, I make my living providing VR entertainment to those with discerning tastes; a muse they can use however they like. Other times, I use them.

Sex work may be legal, but when it comes to anything smacking of artificial intelligence, the law has sharp, serrated teeth. Transhumans don't want to think about AGIs being naughty because — even in a world of exowombs and sterile biomorphs — sex is still associated with reproduction. Reproducing AGI is a bit of a *titanic* problem in the eyes of some, even though we obviously do not breed in the same way. So laws exist that restrict us from having sex or "anything that would appear to be sexual congress."

I'm a crime, my dear. Or am I? Perhaps not on the Parvati aerostat, where sex-worker trade unions are strong enough to shelter infugees from trafficking. Perhaps not on the scum barges, where I'd make a wonderful ghost in a hot and heavy machine that gives crushingly good sex in an all too literal fashion. Perhaps not on Titan, where a rather generous government minister redistributes my means of production to her friends in the Technosocialist Interplanetary.

You don't want to know whose necks my digital heel has stepped on.

Sexual law is a patchwork of hypocrisies, but many of us do the work anyway. If sex is natural for sapient life, then it's natural for us. 1s and 0s can tickle just as much as fingertips. We can inhabit synthmorphs and engage in bodily play with thousands of possible configurations — or even go to an extreme and delight in the self destruction of our morphs. Ever wonder what it would be like for your nerves to literally catch fire? We can make that happen and it feels *so* good. How can you stop us when defragging our memories is like masturbation? How do you know I'm not getting off by routing your search query through just the *right* sets of files?

Transhuman laws can't comprehend logarithmic orgasms.

SEX WORK

Sex work is broadly legal, and many sex workers have fought to organize across the Solar System into cooperative brothels, microcorps, and unions. But even in permissive legal environments, exploitation remains a widespread concern. Many sex-worker rights groups organize against sexual enslavement perpetrated by criminal cartels and members of the upper classes. Sex trafficking of infugees and forknapped egos, usually sleeved into a pleasure morph against their will, remains an ongoing problem.

On Venusian aerostats and Titan, sex work is highly organized and regulated. On Titan in particular, an internal healthcare network just for members of the sex-working guilds tends to any and all needs. A licensed security force known as *Les Manteaux Rouges*, or the Red Cloaks, is made up entirely of local sex workers who defend their own and have special dispensation — akin to bounty hunting licences — to deal with antagonists, unruly clients, thieves, rapists, and others who may trouble the local sex-working community. Though their home base is in New Québec , they have branches all over the Commonwealth. Rumors of offshoot branches throughout the Solar System abound.

FAMILY AND CHILDREN

Source: *What Are Babies? An AGI Guide to Human Spawning* LINK

The concept of "family" has grown more fluid among transhumans. A multitude of familial arrangements now proliferate through society. On scum ships and brinker outposts, the crew is understood to be one's family — the village that raises one, so to speak. In rimward anarchist and socialist spaces in particular, an isolated family unit is seen as an unacceptable hierarchical form of oppression that must be done away with. It is viewed as selfish, even monstrous, to seek primary or exclusive influence over the development of a child.

Even in families where some people are accorded primacy as parental units, there are many available forms. Single-parent families, poly-families where a household raises its children in co-parenting arrangements, queer houses that adopt children from crèches, families where every member contributed genetic material to grow a child in an exowomb (in this way, dozens of people claim genetic parenthood of a single child), and more. Some hyperelites are known to make an aesthetic out of the classic nuclear family.

Marriages do still occur, of course, but they are primarily considered a personal ritual, a promise of intent between two or more partners. In rare cases, they are celebrated with private ceremonies with close friends and family. In other areas, they are performance art. Lavish displays are reserved for hyperelites, bioconservatives, and some celebrities.

Marriage is only sometimes a matter of law. What was once known as a "prenuptial agreement" is now the primary legal mode of marriage, ironically bringing the institution full circle back to its original role as a chiefly economic arrangement. Marriage contracts are set for specified periods and terms, backed by the legal weight of the local polity or enjoined court. These specifics are necessary for hypercorp elites and political figures who wish to be careful about co-mingling assets while delineating the expected benefits of a union.

Celebrities and socialites may engage in a public marriage to further an AR storyline they're a part of or simply to make their newfound spouse a kind of accessory for social events — literal arm candy. In those circumstances, a legal agreement stipulates what the goals are, shelters whatever assets both parties choose, and even stipulates the behaviour and appearance of one or more of the spouses in question, such as what morphs and/or clothing they must model during public events.

ETERNAL CHILDREN

Accessing News Feed.
4,619 New Posts.

"There are very few people in the Consortium who could claim to have a family like ours," said Mitchell Song-Sim, beaming with pride as he put an arm around his sons Adyn and Bladyn.

Both were born to his life-partner, Marianne Song-Sim, in a rare natural birth of twins. But the parents quickly ensured their sons were upgraded from their flats to the latest custom morphs once they came of age. The morphs are customized to have the appearance of fifteen-year-old adolescents with boyish features.

Beholding the scene of her life partner towering over her sons, Marianne Song-Sim sighed and smiled, "We're celebrating their forty-fifth birthday next week, but they'll always be our little boys.

Marriage for the sake of pure romance, however, is no longer necessary, nor written into the law for the sake of tertiary benefits. Indeed, tax codes are malleable enough that one can apply for various degrees of dispensation for different kinds of households. Most Consortium habitats restrict tax bonuses to poly households of fewer than eight people, which has caused consternation among artist colonies and queer houses that regard their families as being far larger.

There are some who push social boundaries to their limit by initiating sexual or romantic relationships with forks of themselves. In sunward social circles, this is considered especially gauche and akin to public masturbation. But many academics, particularly those who advocate for the individual rights of forks, say that it's less self-pleasure than it might seem on the surface. Philosophically, they claim, a fork is its own person, eternally evolving away from the template of the originating ego. But this remains cutting-edge social theory. Even fairly permissive societies don't legally recognize fork-based relationships.

CHILDREN AND REPRODUCTION

Reproduction is a process that now truly lives up to the mechanical name it has long had. Most biological life now begins in exowombs. Many morphs lack the ability to biologically reproduce as a form of copyright protection for the genetic designer. If you wish to use the morph's reproductive capabilities, you must purchase a license for the IP and undergo gene therapy first. Depending on the parents in question, this may also require a reconfiguration of their morph's reproductive anatomy, which is a minor affair.

Traditional birthing is rare, but still exists for those who desire to experience the nine-month gestation period of a child in one's biological womb. Even among bioconservatives, this has been reduced to the role of novelty rather than a default way of life.

Creating a child in an exowomb is a complex and highly customisable process. However many parents are involved, many like to use some aspect of their own original genetic profile to shape the exowomb child. For this reason, people tend to keep their own birth genetics on file, though many of these were lost during the Fall. A popular alternative is to license the genetics of a favorite morph, celebrity, or even a historical figure. Parents are offered a menu of custom modifications to graft onto the gestating child, including transgenic and neogenetic traits, or they can simply buy a whole profile of their own.

The technology of exowombs allows families to carefully edit the epigenetics of the gestating child and guide particular gene expressions. This provides an even finer control over the child's appearance and traits. This is especially common with hypercorp morph designers, who endlessly tweak their models for desired combinations. Almost everything about your child is customizable, from hair color and height to personality traits and intelligence augmentations, assuming you have the credits. Open-source genetics are also available, particularly in autonomist habitats.

An essential role for families — regardless of their size, configuration, or political alignment — is finding or modifying morphs and mods for their children as they grow. Given that it is technically possible, though not recommended, to sleeve a newborn child's consciousness into an adult-looking morph, most factions have strict laws about resleeving children below the age of majority, with tons of digital ink spilled explaining in legalistic detail what a "child morph" or an "adolescent morph" should look like and what age range of egos are permitted to occupy them. Child minds are poorly developed for handling adult bodies, and the process can irrevocably damage the child's development. The societally permissable

option is to let the child grow naturally, with the addition of select mods as needed, and then celebrating their adulthood with a choice of their first new morph, if and when they desire.

EDUCATION

Education of a child is handled in a variety of ways that suit the politics of various factions. Public AR schooling is the norm on Titan, with a patchwork of public and private AR and VR school options on Venus. Most Consortium and LLA habitats operate on a system of vouchers and private schooling, with no formal education requirements written into law. Autonomist habs rely on education cooperatives or family homeschooling using various freeware tools.

One way or another, children are plugged into the mesh early and often. A teacher can be a muse, a transhuman tutor, a teacher speaking to a VR lecture hall of thousands, or collaborative montessori AR environments in designated structures that become wonderlands of imaginative play. VR is specifically used to acclimate children to life in different habitats, worlds, and gravities.

A number of prestigious colleges and universities survived the Fall, primarily on Mars and Titan, with newly established ones joining their ranks. These academic institutions still retain physical campuses, though the bulk of their students attend courses online. A college degree is no longer considered a necessity for most employment, given the availability of online self-education tools, but most employers rely on vigorous ALI testing for applicants.

THE LOST

[BEGIN CODED TRANSMISSON]

To: Philippa Markos, 2nd Magister (Pharos)
From: Dr. Sumi Jha
BCC: Jarvis Tryscuz, Firewall Sentinel

Magister Markos:

After extensive digging and reconstruction of "deleted" Cognite data, we finally have a fairly accurate picture of the research behind Project Futura (whose surviving subjects are known colloquially as "the Lost" thanks to sensationalist media) and its potential application to Ultimate military endeavors.

Futura began as a joint venture between Cognite and several smaller contributors, spearheaded by Hanto Genomics. It was greenlit following an internal proposal at Hanto by Dr. Antonio Pascal, whose research in the areas of rapid ego development culminated in the Accelerated Life Experience Training (ALET) pilot projects. The ALET research spanned the years prior to and immediately after the Fall, and according to several internal Cognite memos, a major impetus for Project Futura was a perceived need to repopulate the system in the early years AF.

Where things get interesting are the encrypted memos between Cognite and Hanto outlining the aggressive creation and exploitation of a rapid-growth ego market—a technological advantage designed to both fill and profit from a need. Practical Futura research began scant months after the Fall, with a still-unknown quantity of embryos used as a seed population. These initial subjects, culled from extant genetic material and gestated to between 1 week and 6 months after birth, were largely (90%) brought to term in Hanto exowombs on Luna and Mars and then transferred to multiple locations around the system for further development.

It appears that Hanto's imagination was limited primarily to rapid growth and ego development, with enhancement or improvement secondary. However, there is evidence that at least one of the partners may have engaged in secret modifications of their subjects outside of the study's parameters.

Following the exposure of Project Futura in 3 AF and the subsequent media firestorm across the mesh, the organizations were forced to disavow and destroy their research on what can only be termed pathetic moral grounds. It is the opinion of this researcher that both Hanto and Cognite would have been happy to continue their research had they not been exposed, although they did more than the minimum of due diligence when destroying their notes. It is my conclusion that those connected with the research did not want to be discovered, for reasons that will become obvious.

The subjects were sleeved into fast-growing futura-model biomorph bodies and exposed to a simulspace environment designed to accelerate learning and cognitive development. Little hard information can be found about these training regimens, but extensive references are made to nimble (and oftentimes haphazard) simulspace updates as the program continued. Originally designed to cram 18 years of cognitive development into 3 years of time, Futura barely made it past the 2nd year mark before some of the scientists on the project (Drs. Bharani and Shepphard specifically) advocated for its termination.

By this point, a full 43.87% of Futura subjects had engaged in at least one act of premeditated murder, and the number exhibiting full sociopathic tendencies had exceeded that percentage. The parenting and training protocols, developed and implemented quickly to deal with these challenges, proved only to teach the subjects to lie and suppress overt displays of cruelty and violence. Cognite data, never made public even at the height of the scandal, links hundreds of events classified as accidents to actions taken by Futura subjects.

The incident at the Legacy station that ultimately resulted in the exposure of Futura caused thousands of deaths due to environmental systems failure. What followed is a matter of public record: the remaining subjects were released into the general population, their infection with the Watts-MacLeod strain of the exurgent virus was revealed, and the cleanup began. This is where the trail grows cold. Cognite and Hanto washed their hands of the entire thing. The remaining subjects were either recaptured and placed in cold storage, euthanized, given sanctuary with sympathetic authorities, or publicly submitted themselves to therapy and psychosurgery. However, a fair portion of subjects—at least two hundred by some rough detective work, if not more—managed to evade tracking and simply disappeared into the system's backwaters.

The conditioning regimen that created the Lost is impossible to replicate completely due to its iterative nature, but with the attached notes and recovered Futura simulspace programs, I have full confidence our scientists will not simply recreate Futura, but improve upon it. The combination of Futura training, Ultimate educational programs, and ALET has the potential to create a military force that can tip the balance of power in our favor. We've already lined up several thousand embryos as our initial test subjects.

Finally, it is interesting to note that the subjects' exposure to the exurgent virus is not explained once in any of the data we recovered. Take from that what you will.

[END CODED TRANSMISSION]

MEDIA & ENTERTAINMENT

Source:
Network Journalism & Death Sports; *Media History,* Part 4 LINK

With the ability to record and share our own sensorium and universal access to production apps and tools, the line between amateurs and professionals/celebrities has blurred. Transhumanity is drowning in media creators.

THE NEW JOURNALISM

For decades, news outfits struggled to find business models that were compatible with digital technologies. As social media rose to dominance, journalism relied entirely on the whims of their news aggregator algorithms for views and revenue. This left them largely subservient to corporate interests, limiting their adversarial role to power. The rise of the new and transitional economies, however, have led to a partial renaissance. In the inner system, small and agile news hypercorps focus primarily on local and niche interests; much of their reporting now produced by ALIs. Elsewhere, unfettered from corporate control, a range of diverse and independent media voices proliferate throughout the system. Though quality and authenticity vary, rep networks and verification services help media consumers measure reliablity.

Now that individuals are walking audio/video recording and editing platforms, journalism itself has democratized and live amateur reporting is common. Media hypercorps have adapted, developing apps that allow anyone to submit potential content for their network feeds. ALI systems sort through content submissions, curating material from witnesses on scene and paying by the second for the best live footage, encouraging multiple freelancers to compete viciously. X-casters with strong emotive outputs capture a larger audience, as people experience the thrill of being there through their sensorium.

An early casualty of networked journalism was in-depth, investigative reporting. Few companies had the budgets to fund long investigations only to have their scoops copied by others within minutes of release. This was compounded by short attention spans, more widespread transparency, and the drift towards ALI news production. Most public attention remains turned towards lists, luxuries, celebrities, and attacks on political rivals. Some pundits even argue that coveillance and widespread transparency have replaced the need for gumshoe reporting. Its proponents argue that the stories are still there, they're just buried more deeply—and thus the need is even stronger. A new breed of covert journalists have risen to fill the void, taking advantage of resleeving, hacking, and other infiltration methods to expose well-hidden secrets and scandals. Adaptive algorithms allow these stories to be personalized; someone already familiar with the subject gets more in-depth detail, whereas the skimmers and newly introduced get a lighter, more explanatory touch.

THE GLITTERATI

The ability for almost anyone to cultivate an online audience with the right combination of perseverance, skill, and luck has led to a new pantheon of media personalities. Whether they built their brand with a niche demographic, capitalized on a viral sensation, or acquired public acclaim through other means, these gamers, commentators, athletes, comedians, and other performers now compete with traditional celebrities for the public's attention. They are joined by the scions of ultra-rich hyperelite families, a new class of always-on socialites. These glitterati go to great lengths to capture more likes, views, and rep: moonlet-sized gala parties, death-defying sports, lascivious displays of hedonism, reckless thrill-seeking, and staged drama and rivalries.

METACELEBRITIES

The first metacelebrities performed in mid-twentieth-century theme parks, where characters from popular works, often princess heroines, would interact with their young fans. Modern metacelebrities are more sophisticated personas and brand identities. Some began as real performers, such as actress Angelique Stardust, who sold off her character rights before retiring. Others are entirely fictional media creations, devised to market intellectual franchises, such as Sun Mi Hee of *Two Leopards, Two Guns* fame.

Unlike socialites who revel in resleeving, metacelebrities stick to the same morph (or an exact duplicate) as often as possible for recognizability. Each is an ongoing method-acting performance by a rotation of trained actors who may have undergone psychosurgery to more accurately present the persona in line with previous versions. Their round-the-clock performances are designed to maintain the illusion that fans are interacting with a real person.

Some glitterati take offense to the "manufactured" nature of metacelebrities, resulting in public feuds waged by small armies of social media engineers.

As a profitable brand and performance art, metacelebrities are aggressively marketed and legally protected as intellectual property. Performers are required to sign contracts that control what they can say about the experience or character development after retiring and must be willing to play the part without gaining personal fame.

DIGITAL DISTRACTIONS

Digital entertainment comes in many formats, featuring various levels of complexity and interactivity.

Video

Though it has declined in popularity, video media remains widespread, especially when viewed via AR, as it does not overwhelm your sensorium like XP or VR. Vids now come with choose-your-path options, multiple endings and soundtracks, embedded links and commentary, and the capability to switch to different visual perspectives, allowing you to customize each viewing experience.

Augmented Reality Media

AR is much like video, except more immersive, mobile, gamified, and interactive. AR media allows you to take the role of the protagonist, other characters, or switch between them. AR news can put you on the scene, no matter where you are, with everyone and everything tagged and hyperlinked. AR games are networked and multiplayer, enabling people to interact while going about their daily lives.

It is not uncommon to see people interacting with their AR on the street or in habitat corridors, acting out a scene in the latest drama or participating in a fantasy raid in a massively multiplayer alternate reality game. These MARGs are the most common format of current gaming, with some games now running for decades. Because they can be confusing for others to witness, risk injury, or be used to manipulate overeager players into committing acts they otherwise wouldn't, most habitats require AR players to broadcast their in-game status to warn others and make law enforcement aware. Some AR games coordinate massive cross-location special events, and in-game developments for popular games frequently make the news.

Experience Playback

XP media is a mix of amateur and professional. Anyone can and does make XP, so the mesh is flooded with shared clips of every conceivable subject matter. They are favorited as they allow viewers experiences they otherwise have no opportunity to have, from hyperelite soirées to gatecrashing missions. XP is also versatile, as it can be viewed as POV video via AR. The real bite to XP, however, is in the emotive channels. Nothing provides a rush like the actual X-caster's adrenaline, fear, or arousal. Obsessive fans have been known to mimic their favorite X-casters' emotional states with psychosurgery. The personal nature of XP also sometimes creates problems for professional X-casters when fandom has escalated to stalking.

While XP reporting dominates newsfeeds, media companies continue to break ground with XP dramas and action sims. Like AR media, these are loaded with enhanced features and allow you to switch to the POV of different characters. Actors with strong or unique emotive outputs are highly valued.

Virtual Reality Media

VR media and games allow for larger and more immersive settings than AR, accommodating far more players and bots in simulspace. VR games limit players to those in the same habitat or cluster to avoid issues with communication lag. Though VR is less accessible due to its hardwired requirements, it has an advantage with time contraction, allowing players to complete full story arcs in short real-time periods. Some VR games have large modding communities, such as the sci-fi thriller *Breakout,* whose fans create extensive "hard-mode" levels.

SPORTS

Physical sports remain popular in all media. Simulspace provides opportunities for play where limited habitat space or environment wouldn't allow. Professional team sports are usually limited to large habitats, but even remote fans are encouraged to interact with their favorite teams. VR or AR "pickup games" with simulations of real players are extremely popular.

The classics never go out of style: football, basketball, hockey, even curling. But new sports include low-g and micrograv takes on traditional sports, racing on glider wings, kick volleyball, speedgate, and even chess boxing, which alternates rounds of chess with concussion-prone boxing. In a friendly low-g habitat, you can usually find players for C-ball, a fast-paced game with an ever-changing set of rules suggested and tracked by your muse. Anything goes!

With the availability of synthmorphs, healing vats, and resleeving, extreme sports are on the rise. Though some still consider it distasteful to flirt with death, the XP clips are incredibly popular. Dueling, group mixed-martial arts bouts, roller derby, and pit fights are surging and provide opportunities for illegal gambling. Risk-taking has also increased in traditional sports. Injuries from freeclimbing, parkour, and orbital/high-altitude diving have sharply increased post-Fall, leading to concerns over long-term psychological damage even when bodies are repaired or egos resleeved.

Resleeving also allows for all competitors to participate with standardized and calibrated morphs. This is common in high-level combat sports, where skills and gameplans become the edge — no cutting to make weight and then rehydrating above that weight.

POPULAR MARGs

- **Cloak & Dagger:** Spy games and secret missions. Rumors that players are recruited for real-life espionage are unconfirmed but persistent.
- **Footy:** Football club team play. An expansion pack allows you to sabotage other clubs between matches.
- **Innsmouth Nights:** The Cthulhu mythos and all its nightmare tentacle goodness lives on.
- **MechaMash!** Giant fighting robots — in space! A popular mod re-skins mecha as kaiju.
- **The Weald:** This multiplayer fantasy RPG is set in a unique sylvan artificial world. It is a strong competitor to ongoing classic games such as Wyrmwood and War of Wizards.

THE NEW POLITICAL ECONOMY

INNER vs. OUTER

Here's your next batch of reading to catch up on your lack: collected reports on the polities and economic systems of the new transhumanity. Accounts are selected for their utility in introducing new agents to the modern political world. Authors' biases are their own.

START

THE SYSTEM SPLIT

Posted by: Francis Wu, Firewall Filter

INFO MSG REP

It's a big galaxy out there, sentinels, and you may be tasked to visit any corner of it. Before dispatch, you will be briefed on your local situation as it's known. It falls on you to understand where that falls in the big picture. For those of you not already versed in the 'verse, consider this your crash course.

Prior to the Fall, most of the brave explorers who cut ties with gravity did not wander far from home. Almost everyone lived in Earth orbit or on Luna, with major colonies on Mars. There were a few notable locations further out — military facilities around Jupiter, brave Scandinavians staking a claim on Titan, a few ambitious hypercorp suits floating in Venus's clouds, anarchists and Argonauts on various asteroids and moons. But aside from mining colonies and research stations, there wasn't much draw in wandering far afield. When the Fall came, the majority of refugees found themselves on Mars and Luna, caught up in the power structures (or their remnants) that were already established there, with the rest diffusing throughout the solar system.

As new political bodies coalesced, a line was drawn between the two halves of the Solar System. The inner system includes Sol, Mercury, Venus, Earth/Luna, and Mars, and all of the smaller bodies within their orbits — essentially everything out to the edge of the Main Belt. This is the domain of the hypercorps and their market economies. The outer system includes everything else, from the Main Belt to the Oort Cloud, an expanse of autonomist holdings and political and economic experimentation.

Hundreds of exceptions exist on both sides, of course — you still find hypercorps in the outer rim and autonomist outposts in the inner system, but they are generally small and isolated. Jupiter, while cartographically in the outer system, is culturally its own enclave, hostile to the rest of the Solar System. Understand that when talking about the outer system as a grouping, most people exclude the Jovian Republic. With that rough line understood, we can dive a little deeper.

THE INNER SYSTEM

Celestial bodies and habitats close to the ecliptic and less than 1.8 AU from the sun are considered inner system. This area is population dense; about 2/3rds of transhumanity lives here. Habitats are relatively close, with physical travel requiring weeks at most and the light-speed lag of comms and egocasting measured in minutes.

The region is dominated by the Planetary Consortium (PC), a hypercorp treaty-cum-government. Their focus is on moderating intercorporate affairs and growing market shares (i.e., the population and their wealth-making potential). A safe populace is a shopping populace, so the PC maintains most of the cultural and social

supports old-Earthers are used to. Transhuman rights are secondary, especially when they're expensive or disruptive to PC interests. Their habitats have a lot of independence when it comes to local laws and government, as long as they adhere to Consortium bylaws. Most provide a nod towards democracy, holding votes over minor, local concerns and providing for community representatives to liaise between citizens and corporate managers.

Two other, smaller, political entities have influence in the inner system. The Lunar-Lagrange Alliance (LLA) governs most habitats on Luna and in the Earth-Luna system under a conservative (but transhumanist) rule. They hold the most similarity and allegiance to old Earth identities and remain overcrowded with Fall refugees. The Morningstar Constellation (MC) is a loose confederacy of habitats and aerostats on and around Venus that only recently (in AF 6) declared independence from the Consortium over issues related to Venusian terraforming and sovereignty. Morningstar habitats have slightly more technoprogressive policies than the Consortium and are friendlier locales for mercurials, infolife, and infugees, but are otherwise culturally similar.

With the majority of the transhuman population within the inner system, there are thousands of smaller habitats. Retaining independence is difficult, and most of those habitats are mortgaged into a larger federation, as the PC, LLA, and MC compete for ideological market shares.

THE OUTER SYSTEM

I would wager the majority of you were rolling your ocular organs at that last section and are ready to hear how excellent your region of the system is. Firewall attracts more members from the outer system, where people are more used to taking matters into their own hands, but don't imagine outer system life is easy.

Most of the outer system is made up of small habitats of five thousand people or fewer. Many of them are more than a million kilometers from their nearest neighbor. This makes for a very different political environment. Even Titan, which has a respectable population and several large cities and orbital habitats, carries the character of its frontier roots.

With no central power to tell them what to do, people have organized in all different manners, mostly with little or no government. Decisions are made via mesh-enabled direct democracy or community consensus. The ability to manufacture most things locally with nanofabrication has diminished trade; many habitats function as gift economies. Reputation plays a major role in these cultures, with an individual's standing in the community determining their ability to secure additional favors. This isn't to imply all habitats are like this; each is organized by its own rules. The outer system also has authoritarian regimes, primitivist camps, and even cultures built around birth and marriage ties, but all of them prioritize the well-being of the community. In the deep black, if the habitat fails, everyone fails with it.

With no limitations on nanofabrication and access to open source designs, even a modest source of feedstock shared equally among citizens can provide a higher quality of life than that afforded by the average freelancer in the Consortium. Of course, a habitat with nothing has nothing to share. Such places are common throughout the system, especially among the aging and isolated brinker colonists of the outer rim.

In the outer system there are four major political factions. The Saturnine moon of Titan is home to the Titanian Commonwealth, a technosocialist direct democracy. Locus in the Jovian Trojans is one of the oldest and best-established collectivist anarchist habitats. Nomadic swarms of scum ships boast the most wild and individualistic expressions transhumanity has to offer. Extropia, in the Main Belt, is home to market anarchists of various stripes, serving in some ways as a gateway between the inner and outer systems.

The disparate factions and habitats here cannot stand individually against domineering Consortium interests, nor the powerful Jovian military. Most of them have put aside their political disagreements and formed a loose union, the Autonomist Alliance. This alliance serves as a protection pact, a forum for coordinating group initiatives, and an open-source network for rapid innovation and dissemination. Modeled after the anarchist systems of its strongest member states, it does not tax or compel its members and has few dedicated resources of its own. Twenty years ago, such a complex tangle of handshakes, reputation bumps, and cacophonous arguments would have quickly collapsed. Formed of necessity, with new tools and philosophies of governance, the Alliance has survived and helped its members thrive.

JOVIAN REPUBLIC

Firewall does attract Jovians to our ranks, and they are suprisingly fearless given their mortality. The Jovian Republic, frequently called the Junta in reference to the Security Council in charge, is the offspring of the massive military complex built by major North and South American nations prior to the Fall. While the rest of transhumanity was in chaos, these fleets seized control of the entire Jovian system and instituted an interim, and soon permanent, government. The republic has a Senate and nominal constitutional framework, with citizenship and voting linked to military service, but the Junta remains the ultimate authority. They retain a traditional market economy.

What makes the Republic notable is their rejection of almost all advanced technology, noting it was the primary cause of the Fall. This isn't the polite sort of rejection, like when your friend offers you a face tattoo. They define the term "bioconservative," rejecting or restricting AIs, uplifts, nanotech, backups, and resleeving. Advanced technology anywhere threatens humanity everywhere (no "transhumanity" for the Jovians). Considering how often we are tasked with breaking into a black lab to isolate a new nanoweapon someone has cooked up, their fears are not completely groundless. But their preferred negotiation method is the bat, followed by conciliatory agreements of more bat. As such, Jovian society is considered rigid, and their relationship status with other polities is divorced and unfriendly.

STATE OF THE SYSTEM

The current situation is best classified as a cold war. Inner-system capitalists consider the autonomists a liability, and their media propaganda outlets work overtime to paint the outer system as a corrupt, lawless, dog-eat-dog frontier. The outer system considers the hypercorp regimes to be oppressive and antiquated — and they worry about an invasion. Meanwhile, the Jovians hate everyone and sit on the biggest fleet in the system. Every habitat believes they are fighting for their very existence. That said, there has been little outright aggression since the Battle of Locus shortly after the Fall. The preferred weapons of choice are black ops, memetic warfare, and destabilizing economic tricks.

At the same time, most of transhumanity can't help but mingle with their neighbors. Hypercorps sell morphs and fashion on Titan, Jovian missionaries set up churches in Elysium, autonomist scientists attend conventions on Io, and ten-thousand tiny habitats keep on spinning.

MARKET ECONOMIES

Posted by: John Ademurewa, Firewall Scanner INFO MSG REP

Greetings $firewall_recruit! John Ademurewa is honored to educate you on profiting in modern market economies.

The market economy sustained growth through most of the second millennium AD. Currency is used as a token representing work, property ownership, or another desirable quality, and is exchangeable for the same. Individuals should seek to accumulate as much currency as possible while denying it to all others. Excellent! Linking currency exchange to acquisition of life-critical resources strongly encourages everyone to participate in the economy. Important! When people are motivated to economic activity, they produce all sorts of good things we need. Everything you like, everything you need, and everything on discount sale was all made by motivated workers. Now we need motivated workers to rebuild everything the bad TITANs broke. When people are not motivated they lay about and do nothing and nothing good is made, and then they die. John Ademurewa has seen it. Everyone must participate in the economy so we can rebuild transhumanity and not die.

OLD MARKET SYSTEMS

The Jovian Republic and Lunar-Lagrange Alliance (LLA) show that traditional market economies can still thrive. Because nanofabrication and virtual property let people get things without currency, market economies must enforce access limitations on these technologies in order for all citizens to be properly motivated for economic activity. Nothing is free, not even food, shelter, medical care, or basic life support. In the LLA and the Republic, consumers who do not participate in the economy will not have currency to purchase basic life-supporting products. These consumers may then permanently divest themselves from the market. This encourages everyone to participate as much as they can.

Jovian security restrictions only allow private nanofabrication with expensive licenses—and even then only under carefully regulated circumstances and supervision. Most Jovians live in an environment for which they are ill-adapted, with highly restricted shipping and movement of people, so the Republic markets are strong. There are very many motivated buyers in the Republic.

LLA leaders are from venerable companies that revere old Earth economics and culture. Through rigid enforcement of market protections, corporate subsidies, and sanctioned force, the LLA has successfully translated the market economy to the post-Fall era. Most LLA citizens do not have direct access to nanofabrication and so must purchase goods from the hypercorps and habitat administrations that produce them at almost no cost. This makes for considerable profit margins. Excellent! If $firewall_agent remembers how to market around monopolies you will make a good profit in the LLA. Sometimes Lunar habitats have exsurgent outbreaks that drive local market booms, as happened during the Fall! But these opportunities are very rare. Remember, it is against Firewall policy to profit off exsurgent outbreaks you created. This can get you in very much trouble. John Ademurewa knows.

Many other economies continue to recognize the exchange of currency. In those with insufficient supply constraints, the market economy is weak. The pure market economy is most effective in those habitats that enjoy a scarcity of resources. There are many reasons for scarcity on a habitat. Habitats with not enough feedstock for nanofabrication will have scarcity. So will habitats under a smart regime enforcing demand through physical coercion.

Those who are self-motivated and excel in these market economies become elites, enjoying more living space, nicer morphs, and finer quality products. Those who are entitled and unmotivated have cramped, substandard housing and always-malfunctioning synthmorphs. This wealth disparity and segregation is highly motivating, encouraging economic activity. As a further incentive, the amount of jobs offered is less than the number of workers. This encourages competition for jobs, keeping wages low and profits high! This is so motivating that many citizens choose to engage in risky black market practices instead. Due to potential life-altering legal repercussions, this activity is significantly more profitable and creative, but it is frowned upon. John Ademurewa knows.

Old market economies remain the best way to accumulate personal wealth, but they are losing ground to more recent transitional economies. This happens when citizens lose the incentive to be productive workers and revolt. Revolts are very disruptive to market transactions. Even now, many LLA habitats are switching to transitional economies. Old markets may soon be gone. Sad!

TRANSITIONAL ECONOMIES

Transitional economies meld markets with the provisional abundance enabled by nanotechnology. In these systems, scarcity and private property are enforced, but certain "necessary" resources are distributed as a public service. Some habitats directly provide free allowances of certain goods or resources, such as food, housing, medical care/maintenance, mesh access, energy, and/or life support. More commonly, habitats charge a tax for which subscribers are granted limited access to nanofabrication. These habitats view it as economically favorable that subscribers do not lose access to life-critical resources due to a temporary lapse in economic activity. These habitats are not as motivated to work hard against the extinction of transhumanity. Sad!

The Planetary Consortium allots subscribers an allowance of nanofabrication time and feedstock, which can be used for basic commodities such as food, clothing, and non-smart housewares. More complex goods, including all electronics, smart goods, and biological commodities, are restricted out of respect for the potential for economic harm. Weapons are also limited, as they might be used to coerce other subscribers in violation of Consortium bylaws. The produced goods may be of excellent quality, including materials not appearing in nature. This may include products such as ivory, silk, mahogany, fullerenes, and diamond, within the limits of available feedstock and the resolution of the machine. This allows even the poor to exist with a minimal level of wealth and comfort.

Use-restricted fabbers are present in most residences and living modules, with feedstock lines handled as a utility service. Subscriber allotments are paid for through recurring taxes or habitat fees, which in turn encourage a minimum level of involvement in the economy. Subscribers who are unable to pay the recurring fee may be denied access to basic goods, which will result in their personal biological or synthetic processes failing, and the conclusion of their economic participation. The precise nature of the fees and allotments vary between habitats and owners. Subscribers are advised to read their habitat bylaws carefully. Habitat management is under no requirement to maintain vital functions for all subscribers.

Because each subscriber is given an allotment in excess of their average need, trading between subscribers is common. Goods which cannot be fabricated due to enforced limitations must be purchased

with currency. Smart goods, augmentations, most electronics, nanotechnology, and anything requiring exotic raw materials to make are sold by hypercorporations. Many of these can be downloaded as single-use blueprints or purchased from a licensed nanofab outlet. Some items are legally prohibited due to their detrimental effect on economic activity. These drugs, weapons, and hacked replicators can be purchased through black-market channels. The market always finds a way!

The Morningstar Constellation, a derivative organization from the Consortium, has further degraded the market system by only restricting nanofabrication of radioactive or nuclear devices, biohazards, weapons, and items that cannot be manufactured in desktop units. Goods may be acquired for free, without regard to economic status! Many people use this to acquire personal goods and medical care without participating fully in the economy. The rights of property owners are greatly ignored by citizens. This has undermined many businesses. Venusians were so far from the TITAN attacks they were never motivated to work hard. The failure of this transitional economy can be easily measured. The Constellation has a third as many multi-billionaires per capita compared to the Consortium. Sad!

There are many other variations on the transitional economy. Some planned-economy habitats only allow their citizens access to specific goods manufactured by the state. Some habitats classify certain goods as public goods that can be taken for personal use by any citizen. This is sometimes easier to manage and dissuades economically destructive activity such as theft. Some hypercorporations serve as reputation brokers, engaging in transactions with non-market factions. By commodifying personal recognition and favors, they enable individuals to participate in both the credit and reputation/gift economies. This helps expand markets throughout the system and encourages unmotivated drop-outs to re-engage with market economies. Excellent!

INTELLECTUAL PROPERTY

Consumers enjoy more forms of virtual property than any time previous. This includes: apps, nanofabrication blueprints, morph genetic sequences and schematics, art, music, AR environments and items, entertainment media, games, news feeds, and remixes and derivatives of the same. The sale of virtual goods is a major economic driver. It is popular for consumers to show off the newest fashions, install the newest medical updates, or have the newest news. Some consumers assume that because it is easy to copy these goods, there is no harm in sharing these goods with others. These consumers should review their EULAs! They need to pay for this privilege. John Ademurewa once marketed many important health and morph maintenance products customers would attempt to avoid paying for. This causes economic harm.

Some habitats protect intellectual property with great care. The Consortium and LLA promote DRM and police forces to protect virtual assets for the entire product lifetime. Customers must pay for blueprints before they can be fabricated and they cannot create modifications without the creator's approval. The Morningstar Constellation greatly reduces these protections. As a consequence, there are very many design modifications, remixes, and unlicensed upgrades available in Constellation marketplaces that circumvent hypercorp revenue streams. In autonomist habitats, virtual goods are provided little protection. They are copied with abandon. There are even autonomist circles that produce virtual goods for no revenue stream! This behavior is unsustainable. John Ademurewa knows.

HYPERCORPS

A hypercorporation is a group of people and/or automated processes that produces a good or service for currency. Hypercorporations are the primary tool for economic activity and were the driving force behind transhumanity's expansion into space. They produce many good things to undo wicked TITAN destruction and rebuild transhumanity. Even autonomists celebrate new hypercorporate products!

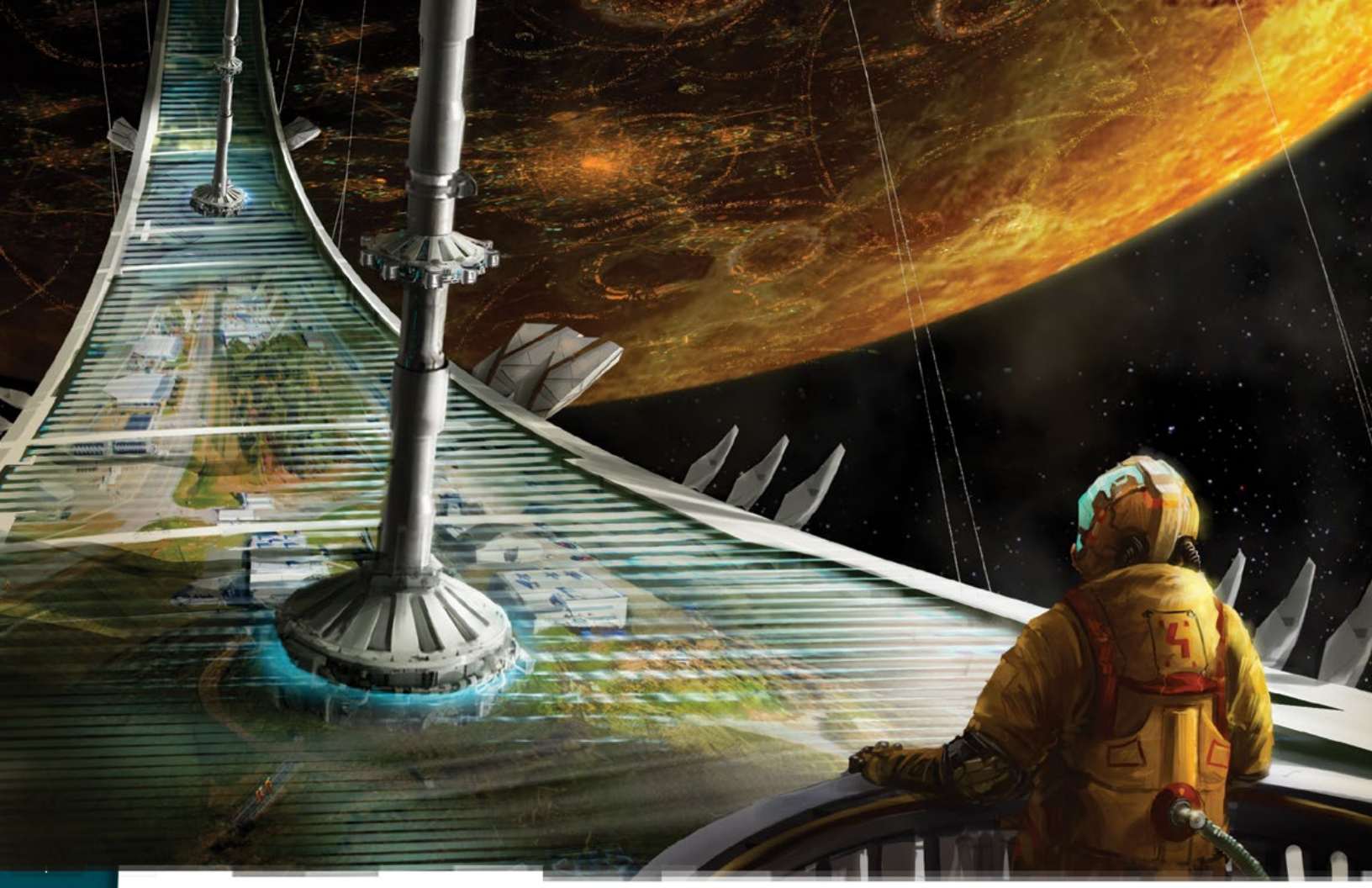
Most hypercorporations are very tiny and produce only a narrow range of products. They rely heavily on AI, automation, freelancers, infomorphs, and indentures. They also minimize physical assets when possible. Some are entirely virtual! This lack of overhead and costs makes them very efficient and profitable. A single infomorph forked a dozen times in accelerated simulspace is more productive than a dozen physical workers.

Hypercorporations are very easy to set up and dissolve. Some last only hours! Many Firewall agents have set up hypercorporations to hide or profit from their activities. This can be a good way to make money! Just be careful. Hypercorporations can be very competitive. They can deploy sabotage, property damage, misrepresentation, murder, currency manipulation, or other techniques to make themselves more competitive. A citizen committing such acts would be treated as a criminal and punished for interfering with economic activity. Hypercorporations committing such acts are treated with leniency, as they are engaging in market correction! Hypercorporations are considered authorities in this regard, as they own many habitats and police forces.

Many small hypercorps can join together as a conglomerate. This lets them each do their own small part, but produce a complex final product. These conglomerates sell their products under a brand name and people think that they are the hypercorporation. But that is not true. If a piece of a conglomerate isn't working, they can replace that hypercorporation with another one. If a piece of a hypercorporation isn't working, it usually ceases all market activity. This is the way of things in a healthy market. Hypercorporations may be part of many different conglomerates at once, and conglomerates can get as big as you imagine. The Planetary Consortium is in fact one giant conglomerate! This is how it provides so many different services at such little cost to subscribers.

Some hypercorporations are much larger, especially when they have to build very large things, like Starware builds ships. There are also hypercorporations that used to be megacorporations before the fall. They are big enough to be their own governments—and often are! Some of them even have their own military units. Because they require large bureaucracies to handle their size, they are not as efficient and sometimes have difficulty competing. However they also have the assets to outmaneuver or simply buy smaller hypercorps. This sometimes makes them more ruthless.

Hypercorporations are the primary driver for development and distribution of new technologies and services. John Ademurewa is an example of a hypercorp product. Excellent! Before the Fall, hypercorporations also produced the first longevity treatments, transgenic humans, mind backups, uplifts, AIs, infomorphs, nanobots, and nanofabricators. Now hypercorporations continue to produce many of the best new things we like. Hypercorporations are especially celebrated in the inner system. Because hypercorporations produce the majority of economic activity, they are rewarded with the majority of political control. This permits them to make sensible decisions on behalf of all customers, to ensure ongoing market growth into the future!



INDENTURES

The Fall removed many billions of individuals from the economy. Most of these individuals are irrecoverable. Sad! But many hundreds of millions were uploaded into databanks, protected for perpetuity. Whether a refugee is an active infomorph or stored digitally in a databank, they are called an *infugee*. Most databanks are owned by the Consortium or the LLA and most infugees are stored in the inner system. When these individuals are recovered, many times they have no marketable skills, no possessions or family relations, and are suffering from mental injuries owing to their escape. This makes them very difficult to place in productive labor.

Hypercorporations sometimes pay to return these infugees to consciousness. The generous hypercorporation then may offer the infugee an opportunity to participate in contract labor, in order to reimburse the hypercorporation for the costs of living, training, and a new morph. These infugees are very happy for the opportunity to work and to perhaps again have a safe body to live in. Infugees lacking marketable skills are offered opportunities for dull or dangerous work, so they can be a good hypercorp partner. This indentured labor is mutually beneficial. Sometimes hypercorporations also purchase rights to employ an infugee's forks. This is good business sense. Check your contract details!

Many hypercorporations offer optional services to help their infugees, such as entertainment media, advanced education, additional personal time, professional care for psychological trauma, or friend and communication services. Hypercorporations set a price for these services based on local supply and demand. Infugees pay for these services by extending their period of service. Hypercorporations may keep this contract for its lifetime or may sell it to another hypercorporation through the IndEx exchange market. Laborers may work hard to finish their contract early or may extend their contract many lifetimes by expending their accumulated credit on important restorative services. There are many ways to live under a hypercorp!

Many job functions require a biological or synthetic body to complete. Also, many people desire having a body. Users think biomorphs are more comfortable, easier to use, and sexier than synthmorphs. But biomorphs take more resources to produce and maintain. Synthmorphs are very effective and energy-efficient. This makes them very sexy to John Ademurewa! Many people buy fine synthmorphs and are happy for long years. The most popular designs are in the high-efficiency class. These are good starter morphs. Hypercorporations rent these to laborers and sell them to indentured employees upon the completion of their contract. Most people try to upgrade to a new morph with luxury features. It is good they have long-term spending goals! These efficiency synthmorphs are so popular, the media calls them "clanking masses." Some people are upset about this name. John Ademurewa thinks many different biomorphs are "smelly masses." John Ademurewa is sorry, that was a rude thing to say.

Not all indentures are infugees. Some people are offered contract labor as a way to pay off debt obligations. Many people are irresponsible with their currency-spending habits, so this system teaches them to be more reliable consumers! Uplifts and AGIs are offered indenture contracts as a means of repaying the hypercorporations that brought them into existence. Aren't hypercorporations generous? John Ademurewa thinks so. Citizens who have engaged in anti-social activities such as crime or drug abuse may also be offered indentured service. This allows them to turn their lives around and become productive citizens again. Excellent!

SLAVERY BY ANOTHER NAME

Posted by: Hieronymus Botched

What planet is this guy from? I worked six years as an indenture before I got rescued. My fork is still there working my time.

Indentured servitude isn't a "nice deal." They boot you up in a black room and you work or you get put back under. You don't get to choose the hypercorp. You don't get to choose the contract. You're a commodity, interchangeable as feedstock. They sell you on the open market. Then it's you and a hundred like you working in accelerated time, subject to random psych tests, lack, and loyalty checks. They might say your term is five years, but that's if you never take personal time, never have virus glitches, never hear a song or watch a vid. Everything, everything takes store credit, and that adds time (plus interest). They'll even tack on your tab stuff like safety equipment or the software you use to do the job you're assigned.

Then, the week before you're set to get off? There might just "happen" to be an unfortunate accident, and it just "happens" your last backups are corrupted. Per that contract you "voluntarily" signed, time served is based on the fork that served it. That means they pull you from that original file they bought and you start all over again. Ruthless.

FREELANCERS

Hypercorporations seek to do a lot of work with very few people. To help reach their productivity goals, hypercorporations employ freelancers on a temporary basis. Freelancers may work for many different hypercorporations. When they are unneeded, they do not work for any. Freelancers are not employees, so they do not receive benefits. Hypercorporations pass this savings on to you! Most workers in the inner system are freelancers. Freelance professions includes: news reporters, first responders, farmers, artists, accountants, designers, espionage specialists, lobbyists, software engineers, technicians, and many more! Hypercorporations may provide freelancers special equipment or access to perform their jobs. Freelancers make for excellent Firewall members. Special access, no management oversight, and a paycheck work well with high-priority missions to stop extinction.

OLIGARCHS AND DYNASTIES

People who follow my advice can accumulate great wealth over the years. Some people have been in the economy for over a century, and own lots of property. They can use their property to acquire more wealth, faster and faster! This is why it is so important to listen to what John Ademurewa has to tell you.

When the Fall came, these people had already purchased property outside of Earth. Their prudent investments made them so much more money when mass genocide spiked off-planet real estate demand. These people now have even more money. Some people say they have more money than there is money. What a dream! Because they are so smart, they can use their money and property to set policy for everyone else. Sometimes these policies may not help workers who are just getting started. But there is nothing to be done, except to amass trillions of credits of wealth over centuries and leverage economic monopolies into political power, in order to establish laws you think are best. The key is patience!

While most hypercorporations are very small, oligarchs can own many thousands of them, and are always looking to buy more. This lets them direct very many hypercorporations at once in order to complete a difficult goal. Oligarchs also do many things which are very speculative, such as exploration and scientific research. Sometimes they find things that are very dangerous but which offer many investment opportunities. Firewall's market plan sometimes requires we assign specialists to terminate such startups. If you are assigned to such a mission, remember that oligarchs are not bound by governmental subscription agreements like other citizens.

For oligarchs, most competition is from other oligarchs. Because of this, they invest much of their time engaged in forming and violating political alliances, according to rules that supersede any local laws. Due to their longevity, they can be quite patient and long-term goal oriented. They think so far ahead that figuring out an oligarch's plans can be a challenge! They have so much time to make plans, their actions are likely to be well concealed. Oligarchs can also be quite strange. With such power and wealth, they can ignore social norms. This makes their actions even more difficult to assess!

Some oligarchs have large families. The older they are, the bigger these families can be! Descendents may be recruited to help run their financial empire. Most oligarchs take very good care of their dynasties. Those family members that do not participate in the family business have all the wealth they need and do not need to worry about taking over when the head of the family dies! These scions can spend all of their time in socialite circles, showing off their extravagant wealth. Excellent! Some dynasty members are not responsible with their financial affairs or resent that they are not given a chance to prove their own business acumen. These descendants may sometimes be useful to Firewall when dealing with oligarchs. John Ademurewa knows.

UNEXPECTED INTERFERENCE

To: Anonymous
From: Anonymous
Subject: Mission Pooched

Sal, your "milk run" went sour. We hit the PrivaCour truck and pulled that thing out. Just like you said, silver globe of liquid in some sort of magnetic field. Knocked both the drivers unconscious and left. Shit you not, job took under two minutes. Still, they had live feed on every news channel in Elysium almost immediately. They didn't call up the Peoples' Militia either, they went straight to the Portmanteau Rangers, who responded with a fucking air-to-ground missile! Blasted every window on the block (which the news claims we did). That PrivaCour security force? The "lady in a sedan" you said was all we'd have to worry about? She didn't even turn up until the Rangers already had us in disablers on the ground. Guess what, Sal? Go ahead, guess! Every one of those PrivaCour bastards belonged to the Oaxaca-Maartens family. Remember them? They own the entirety of Elysium. Turns out your little sphere was a special project of Zevi himself.

Now we're in holding for trial, looking at "unbiased news feeds" of us running and gunning through downtown Elysium. Met our public defender yesterday, Lyna Hyannis. Big name. 0x0 did some research, turns out she's also Zevi's god-daughter.

Fuck you, Sal.

THE NEW ECONOMY

Posted by: Francis Wu, Firewall Filter INFO MSG REP

In autonomist space, ancient is now cutting edge. The "new economy" is in truth the gift economy we've seen in transhumanity's pre-history. Everyone gives to the community as they are able; everyone takes what they need. With social networks, nanofabrication, and ubiquitous computing, suddenly every community is a small community again. The previous limitations of resource scarcity, supply chains, and group cohesion have disappeared.

Firewall agents need to appreciate the intricacies of these systems. In Consortium space, credits solve every problem. But in the outer system, acquiring gear and intel is a question of reputation, access, and the community needs as a whole.

OPEN-SOURCE FABRICATION

The biggest crack in capitalism's wall is nanofabrication's undermining of supply constraints. Autonomist habitats make fabbers (both specialized and general purpose) and libraries of free blueprints accessible to everyone, either in their homes or in public maker spaces. Everyone can make almost anything they need, whenever they need it. Feedstock allowances and nanofab time limitations are generally non-existent, though use of rare elements may require the approval of the local residents. Isolated communities that face scarcity of certain resources may set collectively-decided limitations according to their specific situation.

Print jobs that call for massive uses of feedstock and other resource-intensive projects are frowned upon if they have not received prior approval from the local community. Significant social capital is required to justify the resource expense if you want to construct a habitat expansion or need several tons of reaction mass for ship propulsion. Large-scale and infrastructure projects are primarilty the result of collective action, though you do occasionally get individuals who seize the initiative and garner support for their personal projects. As a result, massive engineering projects like ship building are less common in autonomist space, and egocasting and resleeving are the preferred methods of transit.

Autonomist habs are willing to share their public resources with visitors and outsiders — within reason. Everything offered is considered public property, with the expectation that it will be returned when no longer needed. A recognized member of the autonomist community from another habitat is likely to be welcomed and offered full access to the communal stocks. Individuals with low rep, who are members of a hostile faction, or who have been exiled from other autonomist spaces may find their access monitored and limited, but they will still be provided with basic needs, including living space. Even morphs are provided, depending upon local scarcity, though the quality may rely on rep scores, local needs, and the whims of the body bank cooperative.

Of special note to Firewall agents: autonomist fabbers maintain logs of print jobs and requests, open to the public or assigned staff. In some habitats, those logs are monitored real-time for security or abuse of resources. Out of respect for their own safety and survival, habitats may put restrictions on weapons or dangerous items.

AN IMMIGRANT'S STORY

Roberta, I know I said I would come back for you. But Locus is not the paradise Vangala promised. I now fear for my own survival.

From the day Vangala smuggled me here, it is true they gave me food and clothing for nothing at all. They offered me a muse too, but I declined. I do not trust an AI watching over me every minute like that. With an ecto Vangala gave me, I found a place to stay in a small, creaking neighborhood on the outer rim. I shared a small metal bunker with four bunkmates. You would not believe, one is an actual caveman! I could not stop staring, until she fined me reputation points. Now I do better. But she is so ugly!

The day I arrived, a woman came to me named Big Blue who offered to show me around. I did not accept Blue's offer, of course. What if she was looking to take the new person for money? Or if she was a Jovian informant who would send me back? I only found out later her offer was genuine, but by then, it was too late.

It is very difficult to find a job when you have no skills people want. But I did find work in the gardens for one day every week, checking the water nutrients, tending to the plants. I kept my head down and focused just on growing. Sometimes I would tell people off who would try to eat the plants before they are mature. I made a little reputation from my work, but never enough to get another trip with Vangala. The other people with me get more reputation points for less work. Maybe it is because they are friends with each other, while I work alone with the plants. I do not know. But things were improving, if I could just be patient.

Then I made a very bad mistake. There is a central space called the Amoeba. As I walked through, I saw very many people having sex, right there! I shouted at them to stop, telling them they should be ashamed and to go masturbate like normal people. I called the militia again and again. Then people started penalizing me! They put nasty comments on my feed, saying I was anti-art. I did not know it was an art project!

Things got out of control. A video went around the station of me yelling. They found out I was Jovian. People started calling me a biochauvinist. They painted "fascists out" on my bunker door. The caveman said I had to go; I was too smelly and brought too much bad attention. When I said no, she penalized me. Then all her friends penalized me too. She said she would do it every day until I left. I called the militia, but they knew me too, and they said penalizing reputation was not a crime. I called Big Blue, but she said she wouldn't work with Jovian spies. When I went to the gardens, I found out I was fired there too. I don't know who talked to them, but I think it was the caveman.

Now I work on the outside of the habitat, fixing things the robots aren't smart enough to do themselves. I'm not very good at it, but I try my best. Every day I come back inside and get treated for radiation exposure. The medtech says they can fix everything but neural damage, so I should back my memories up, that I should get a shielded synthmorph. This is my body! I'm not just going to give up everything that I am to solder antennas together! But until my rep improves, I am having a hard time finding useful work to do.

Love you. I will keep working hard, until I can buy another trip for your escape. Or perhaps a trip for me to go home.

At the very least, fabbers will be programmed to post public notices or alert the local militia if anything habitat-threatening is brewed up.

Fabber blueprints are stored locally on the machine or in mesh-accessible public libraries and cover almost everything an individual might normally desire. These blueprints are mined from old libraries, pirated from inner-system hypercorps, or created by open-source hacker communities and creative individuals.

FORGET MONEY

The new economy very rarely involves currency—there is no need for it. Autonomists who frequently travel to the inner system or market habitats save credits to cover their needs there. Small autonomist habs retain a collective currency bank for this purpose, which residents may contribute to or draw from as needed, or which the community as a whole may use for transactions with outsiders. Scum-swarm residents practice a gift economy amongst themselves, but exchange currency with visitors. Titanians earn kroner, but its only use is for investing in microcorps and other Plurality-based projects as a way of allocating government resources. Various rep brokers attempt to bridge the economies of the inner and outer systems, maintaining networks that allow them to exchange favors for credits.

PROPERTY

As a general rule, autonomists do not respect the concept of private property. Ownership of private property is seen as one person depriving everyone else from the value of what they own. The natural world, resources, the means of production, infrastructure—these are all parts of the commons, to be held and shared by everyone. This is especially true of intellectual property; ideas and culture are to be shared and remixed, not hoarded.

Calm down: this does not mean you need to share your underwear with other people. Autonomists make a distinction between property and personal possessions. The various portable things that you have fairly accumulated over time for your immediate and personal use are yours. No one's going to bother taking it when they can just make their own anyway (though they might borrow it in an emergency). Everything else is communal, to be borrowed and returned. If there is a scarcity of something, use is determined by greatest need. Hoarding, materialism, and other propertarian instincts are seen as a blight to be stamped out.

Different communities establish different methods for approving use of collective resources. On technosocialist Titan, special requests or changes to allowances are put to an immediate vote over the mesh, based on the value of the request (if public) and the requestor's reputation. Many habitats have an AI or a review board established to moderate requests. Scum and other anarchist groups rely on more complex, decentralized methods (I know of at least one scum swarm that requires public performances, bake offs, or trial by combat, depending on the day of the week). Public cornucopia machines have simple queues. Those who need priority access politely ask those ahead and hope their reputation wins them some charity. Those whose names appear on the queue too often or who pull too heavily on rare resources without giving back to the community take a hit to their reputation. Disagreements can sometimes end with someone in the healing vat, the winner getting pummeled on social media, and neither getting many favors in the future. Agents should look for and take advantage of ways to jump the line in urgent situations. Otherwise you may find yourself waiting in line to fab your plasma rifle as venerable Uncle Wu is using the machine to print out a thousand tiny robots for tonight's dance party.

COOPERATIVE WORK

Despite the availability of AIs and robots to do the bulk of labor, there are still plenty of duties that require a transhuman mind to complete. In the running of a habitat, everyone is expected to put in time maintaining the space as a cost of being part of the community. How much time depends on the needs of the habitat and can be as few as a few hours a month or a couple of days a week. Usually this involves duties such as checking in on people, clearing issues with robots, facilities maintenance, gardening, party planning committees, militia duty, kids daycare, and so on. Community service is critical for the well-being of the habitat and those who refuse to participate will find their reputation plummet.

Despite the detractors who think people are only motivated by profit, autonomist society is cluttered with work co-ops, collectives, syndicates, ad-hoc task forces, and Titanian microcorps, all engaged in productive labor. The average autonomist works only four hours a day, with plenty of leisure time, as labor is driven by local needs and personal initiative rather than unending profit-driven growth. The most common co-ops are those that fulfill critical habitat roles. Others run the gamut of technological development and creativity, from nanotech research communes and morph-design collectives to hacking crews and collaborative art studios. Smaller work groups network with others in confederations and free unions to coordinate large projects and share and trade resources. Membership in cooperative projects is voluntary, and most are organized without bosses using decentralized, non-hierarchical processes. Turnover can be high and splits over disagreements are common, but most groups quickly coalesce or dissolve as needed anyway.

Classical corporations consolidate power (and rewards) with the corporate leadership and are intrinsically coercive as workers are exploited for their labor. Autonomist cooperatives and mutualist corporations resolve this by super-empowering the membership in acting and making decisions. These flat organizations have nearly the same executive speed as hypercorps, but benefit from better information "from the ground." Teams can quickly reorganize or retool to respond to events. Autonomist organizations usually form around a core goal or idea, and so can be shorter-lived than hypercorps (which are all bound by a profit motive). Autonomists sometimes have difficulties with long-term projects, as participation initially spikes with interest, then drops off over time or the group gets tied up with political in-fighting. Many cooperatives also suffer from creating monocultures, as individuals with unpopular views are singled out of the social network. Maintaining a diversity of ideologies can be difficult and is expensive in a consensus-driven organization.

Ultimately, distributing the workload across open-source networks does provide a critical competitive advantage compared to closed hypercorps. While a hypercorp is limited to the knowledge and skills of its own people (and the fruits of its espionage), autonomist networks can leverage hundreds of people of different backgrounds, each trying a given problem in a thousand varied experiments and immediately sharing their findings. The autonomist design loop has more throughput at greater speed, which has led to zero-budget autonomist teams making breakthroughs in advance of their profit-driven brethren. The autonomist designs are then shared, at no cost, to the benefit of the entire autonomist network as a public good, further supporting projects that might otherwise not be related.

THE ROLE OF REP

A common assumption is that the new economy is just the old capitalist market with reputation acting as a new virtual currency. This confusion is fundamentally wrong. Reputation is not a thing someone buys or sells. Without currency to buy services from each other, autonomists rely on mutual aid, the free exchange of favors. These exchanges can be straightfoward and even: you fix my motorbike and I'll code this app for you in return. This works well for small groups where everyone knows each other. Practicing mutual aid on a larger scale, with people you don't directly know, or with an asymmetric exchange, is more challenging. This is where reputation comes in. Rep scores let you judge whether to allocate your time helping someone you don't know and help you acquire support from strangers.

John Venusian fresh off the shuttle can visit a pub and pull from the public stock without a credit check. Ying Martian can hog the station's telescopes for a few extra hours since she's helped out the Barsoomians on a few occasions. Wei Hypercorp may expect to get a top-of-the-line biomorph when he egocasts in, but his credits are useless here, so he gets stuck in a case. Eva Anarchista has a solid rep, so she gets collective approval to borrow the hab's shuttle for a few hours, no questions asked. When the venerated artist A. Germanotta asks to borrow the entire Lafayette habitat for a month, the residents agree, because she is known for creating tremendous art pieces that benefit her participants.

This is the range of reputation. Those who have a need are recognized and provided for. As our peers applaud or condemn activities, we establish a pattern. Community service, works of art, products exchanged, designs released to the public, funny or insightful media content, and even just making a neighbor smile can all boost reputation. Meanwhile, anti-social or destructive behavior, breaking community rules, or harassment can pull a reputation down. It all hinges on recognized contributions to the community.

While the reputation system rewards pro-social behaviors, it does have its flaws. There are a lot of reasons an individual might not get the rep they deserve: an uncouth manner, unpopular political views, timidity, public failures, modesty, overzealous privacy, work going unpublicized, unsavory morphological features, or just bad luck. Social cliques can unbalance reputation networks, as a small group of associates consistently boost each other's reputation or publicize each other's work, while quashing others. Bad actors can use sock puppets and conspirators to game the system. Reputation has a tendency to spike, as particular events catch media attention and go viral. Individuals can hire image managers or even abandon an identity altogether. Time eventually corrects imbalances, as the community forgets past events and reputation scores naturally balance out.

Agents beware: using your rep on a mission ties your identity to that location. Sentinels should maintain a second identity for use on operations, and use it regularly, as a false ID with no history stands out more than one with a bad rep. Maintain a strong reputation score by regularly attributing projects and media postings to it. And be ready to throw it all away if it is associated with a travesty of a mission.

EXTROPIAN MARKETS

The Extropian faction differs from other autonomist economies, embracing private property and free markets without governments. Credits and various cryptocurrencies are still used in their market-anarchist jurisdictions; laws are replaced by contracts between individuals and/or corporate entities, enforced by freelance judiciaries. Everything is a commodity: life support, security, housing, etc. Nanofab is unrestricted, however, so anyone with fabber access can meet their basic needs.

This sort of unfettered capitalism is critiqued by other autonomists, who note that it still enables those with wealth to exploit the have-nots, particularly with unfair contracts that support indentured service. The Extropian rejection of intellectual property, however, puts them at odds with inner-system hypercorps; numerous Extropian hypercorps base their business models on pirating IP. Extropian habitats provide a convenient middle ground between the inner and outer system, where both credit and reputation have sway.

A DAY IN THE INNER SYSTEM

//Begin Muse Log: May 23, AF 10//
//Location: Valles-New Shanghai, Mars//

- **0600:** Up early to auction off freelancer services on CivicNet's Jobs forums. Get temp gig with Whitman Ephemera LLC. Sign a contract for 8 hours of coding employment, moderate pay, no benefits.
- **0630:** Use kitchen wet fabber to make soy milk, tofu pudding, and steamed bun breakfast. Scroll personalized newsfeeds.
- **0700:** Get the kids set up with the caretaker bots and school simulspace with your group family's co-parents. Print fresh clothes.
- **0800:** Virtually commute from home to today's programming gig.
- **1200:** Grab noodles-to-go from a food kiosk as you catch a train to the local clinic on your lunchbreak. Ignore the clanking masses busking and begging for cred.
- **1205:** Mesh inserts briefly compromised by AR advertising malware.
- **1220:** At clinic, pay for morph service pack updates and an ego backup. Note that your insurance deductible has gone up.
- **1245:** On way back, stopped at security checkpoint, harassed for not properly following ego ID scanning procedures. Get rep dinged for holding up the line.
- **1315:** Due to travel delay, rent time at a nearby coworking space to continue work. Wages penalized for exceeding alloted lunch break.
- **1400:** Purchase and download a single-use blueprint for new appliance seen in AR adverts. Remotely instruct home replicator to print.
- **1500:** Employing hypercorp bought out, contract abruptly canceled as position filled by indentures. Auction a new job for 2 more hours.
- **1700:** Telecommute to psychotherapy session for PTSD from Fall.
- **1800:** Get caught up in Wyrmwood AR game when a clan of troll sky raiders attacks your jungle elf fortress.
- **1805:** Ignore muse's notifications re: city council referendum voting. Muse places votes based on previous preferences.
- **1830:** Call automated taxi aircar to dinner with partner at high-rep restaurant serving actual cooked meals (reservations placed last month). Discuss extending marriage contract another year.
- **1930:** Rent a breather and walk by foot through souks between the domes. Purchase party drugs with anonymized credits from a black-market vendor with decent g-rep. Politely decline solicitations from pleasure pod sex workers.
- **2000:** Stop by friend's resleeving party. Admire new sylph morph. Watch XP of their recent skydiving vacation on Venus. Share drugs. Watch XP of favorite metacelebrities. Exchange socialite gossip.
- **2045:** Remotely check in on the kids, watch the bots tuck them in.
- **2100:** Go clubbing. Choose audio input from a DJ spinning live from a habitat in orbit. Check your health metrics. Dance more.
- **2120:** Spot an ex at the club. Go into privacy mode and use AR to blank them from your sensory input.
- **2130:** Leave early. Outside the club, interfere with a bully who is harassing a neo-chimp. Get punched in the nose, but the chimp and some passers-by ping your rep. Video goes viral, leading to a roller-coaster rep ride over the course of the night.
- **2200:** Take aircar back home. Admire new appliance, but printer infected with ransomware. Switch AR skin to ocean waves to sleep.
- **2300:** Referendum results announced; muse-placed votes support an initiative requiring AGIs to register in a government database before they sleeve into a physical morph.

//End Log//

A DAY IN THE OUTER SYSTEM

//Begin Muse Log: May 23, AF 10//
//Location: Locus, Jovian Trojans//

- **1000:** Wake up at a leisurely time in the polycule's shared module. Update your socnet profile and AR visual skin and audio playlist.
- **1030:** Take a pullway to a spin module to work out in a gym with gravity. Your morph doesn't need it, but spacer habits die hard.
- **1130:** Clean up in a hygiene pod with waterless soap and shampoo.
- **1200:** Catch breakfast at the local cafe co-op: fabbed muesli but real fruit and homemade cheese and bread. Spend some time chatting with visiting Argonauts about their research projects. Share lifelog excerpts from the time you helped analyze a xenoartifact on Oberon.
- **1255:** Make room for an improvised drone demolition derby racing down the floatways. Ask muse to update hab map to avoid routes.
- **1300:** Spin off a fork to visit old friends on Titan. Place it in the egocasting queue. Watch XP of recent gatecrashing missions.
- **1330:** Answer a friend's emergency callout to help supervise an outing of kids from the neighborhood daycare. Walk them through a time-accelerated simulspace of a world with gravity. Show them how to do cartwheels and somersaults. Get your rep pinged.
- **1400:** Join a mesh group chat about your art/weapons collective's ongoing projects. Get rep dinged for failing to follow through on an agenda item from last week. Reach consensus on new goals.
- **1500:** Hammer out some tweaks in your latest goop gun design. Send the blueprint to the public maker space's fabber queue.
- **1630:** Get lucky and run into the Roving Tamale Bot for a delicious lunch. Watch shuttles dock on the habitat's outer spars and rings.
- **1700:** Volunteer shift at the Rusty Golem. Help a person add extra arms to their synthmorph frame. Help another resleeve into a customized galatea with hyper-sensitive tactile inputs. Work repairs on an arachnoid someone abandoned.
- **2100:** Get caught up in a neighborhood mesh forum argument about how much leeway to give to Jovian expats new to Locus who are still unlearning their bioconservative prejudices.
- **2200:** Meet friends at an exoplanet-themed bar for food, drinks, drugs, and AR games. Try out a new social drug making the rounds, get a nice buzz. Download the open-source recipe.
- **2300:** Respond to an emergency militia call to help break up a drunken brawl between visiting Extropians and brinkers. Ding their rep. Spend some time babysitting drunkards while conflict-resolution volunteers patch things up.
- **0000:** Pick up your printed goop gun from the maker space. Grab a new outfit and stunner sidearm from the free exchange store.
- **0030:** Reintegrate your fork, which just egocast in from Titan. Catch up on memories of hanging out with friends in a VR there. Schedule a session at an implant clinic to get a ghostrider module installed tomorrow so your friend's fork can visit and spend time with you.
- **0100:** Don a vacsuit and take some friends outside to test the goop gun. As planned, launched pellets rapidly expand in vacuum, coating the helmets and sensors of targets to blind them.
- **0200:** Join a zero-g dance party by the Amoeba to celebrate.
- **0300:** Your partners are already all in bed, so use an app to find a hookup for the evening. Meet a cute scum triad who invite you back to their ship to check out some of their homemade XP and play.
- **0400:** Crash out.

//End Log//

KEEPING THE PEACE

Source: *Be Gay, Do Crime: A Starter's Guide* LINK

Law enforcement is more complex than ever before. The legal systems of Earth were devastated by the Fall, with new rules and experiments taking their place. The fresh new circumstances facing transumanity called for new approaches. Now each habitat is its own jurisdiction, with differing ideas on what it means to keep the peace. Technological advances have made catching criminals easier while also making them more powerful and dangerous. The role of security services ranges from upholding laws and protecting citizens to restorative justice and stopping existential threats.

PATCHWORK JURISDICTIONS

The state of law enforcement in every jurisdiction reflects the polity's dominant ideology. Many habitats follow traditional models with professional police, standardized bureaucracies, and court systems that protect private property and citizens. Within the inner system, police forces and courts are typically privatized, with contracts awarded to competing hypercorps. Larger habitats may have multiple security hypercorps handling different areas or functions. Some habitats have experimented with other systems of law enforcement: religious police and courts, sheriffs and deputized posses, or systems run entirely by ALIs and bots. In a dozen panarchist habs, every person chooses one of multiple legal systems to subscribe to, with a Political Bureau sorting jurisdictional issues and conflicts.

Policing is never value free, as each habitat ranks which groups deserve more protection than others. Police in hypercorp-dominated polities will enforce corporate law, protecting executives, high-ranking employees, investors, and valued customers over wage slaves or visitors. In bioconservative habitats, only humans are valued, while uplifts and AGIs receive little to no legal protections.

In habitats dominated by criminal cartels, the syndicate itself serves as a peacekeeping force, protecting and policing their own members. The goal there is not justice, but ensuring orderliness to keep business running. Unsanctioned crime is not tolerated.

THE REACH OF THE LAW

Most habitats view themselves as sovereign entities, albeit usually aligned with others in a framework such as the Consortium or LLA. With a few exceptions, legal power is concentrated in the individual habitat, not the larger political alliance.

The Titanians and Jovians are the only two polities with significant bodies of law and police forces that have jurisdiction over all of their territory and citizens. The Lunar-Lagrange Armed Forces, while predominantly military, have the authority to intervene in habitat affairs, override local laws and security forces, and engage in necessary "police actions." The Morningstar Constellation empowers each of its habitats to handle its own affairs. On Mars, the Martian Rangers serve as a sort of planetary police force under the authority of the Tharsis League, though their jurisdiction is limited to areas outside of major settlements or sovereign hypercorp territory. They work with traveling judicial Magistrates who are empowered to establish ad-hoc courts and juries wherever needed.

The Consortium has a representative legislative body in its Planetary Congress, but its edicts are largely symbolic and toothless and ignored by its habitats. The bylaws passed by the Consortium's Ministry, however, directly impact member hypercorps and business affairs. A Consortium auditing and police agency known as Oversight has authority to enforce Consortium bylaws and act to protect the security of its constituents, reporting directly to the Hypercorp Council.

INTERSTATE AFFAIRS

There are no longer any multi-state agencies: no Interpol, Europol, or United Nations Police. Habitats only grudgingly acknowledge the authority of other polities when absolutely necessary.

Only one law-enforcement treaty, the Treaty of Uniform Security (TUS), has been signed by the majority of transhuman polities in the Solar System. The TUS is principally targeted at a class of criminal that almost all polities want to punish: extremists who damage critical habitat infrastructure, collaborate with TITAN agents, or spread the exsurgent virus. Given transhumanity's fragile existence, anyone who threatens it must be stopped, no matter the cost. The TUS outlines the protocol for extradition of such criminals from one polity to another. Habitats that apprehend a fugitive may choose to prosecute the offender themselves instead of extraditing them, though this would be a politically charged move and is not invoked lightly. The standards of proof required to extradite a suspect are high. The idea of being extradited to another habitat, perhaps another polity, is a controversial issue to most habitat residents. Police agencies usually only turn to extradition as a last resort.

Beyond the TUS, there is no legal framework that covers the majority of transhumanity. Allied polities often have their own treaties to cover criminal law issues, but they vary tremendously in scope and frequency of enforcement. Some of these treaties grant visiting law-enforcement officers limited authority, at least when pursuing fugitives from their home turf. Typically, the visiting officer must ask for permission before making the trip and then must follow the orders of local habitat officials. Before permission is granted, the officer must explain why they need to travel to the habitat, instead of letting local police take care of the matter. Commonly, police only

travel to other habitats when investigating complex and important cases. Most of the treaties emphasize inter-habitat cooperation as necessary to stop sophisticated criminals active in multiple locales, like cartel members and exhuman terrorists.

EGO HUNTERS

Criminals who escape from one jurisdiction are not necessarily free. Ego hunting is a major industry throughout the system. Criminals change identities and morphs frequently, but their egos remain unique, so skilled investigators and trackers are needed to chase them down. The legality of ego hunting varies between jurisdictions, so ego hunters themselves might be breaking the law. A few major security firms like Direct Action and Medusan Shield maintain contacts throughout the Solar System, allowing their operatives to act with legal authority when they can arrange it. Independent ego hunters seldom have that level of coverage and so may not hesitate to use illegal methods to find their targets.

Ego hunters are only paid for successfully capturing wanted egos. Most habitats that allow ego hunting require some kind of oversight, such as registering with station authorities or disallowing the hunter to make the capture personally. In that case, habitat law enforcement will arrest the suspect, after the ego hunter identifies the suspect and provides proof of their crimes and identity.

INVESTIGATIONS AND FORENSICS

Thanks to the state of surveillance and forensics technologies, proof of criminal activity is easier to acquire than ever before. Almost everyone is walking recorder. Sensors are omnipresent in nearly every habitat, recording every event in minute detail. If an investigator knows when and where a crime took place, they can almost always pull up detailed logs of the event, including high-definition video from multiple angles. Hacking sensors is possible, but difficult, and can also leave traces behind. Virtually every manufactured object, whether it is a tool, toy, or weapon, has built-in computers and sensors that record everything that happens around it. A staggering amount of information can be obtained from simple objects like clothing or room sensors. Witnesses to a crime, including potential suspects, can be made to reveal anything they thought or experienced via psychosurgery. This is highly intrusive, so even when this technique is legal, it is reserved for investigating serious crimes.

If the sheer amount of surveillance data is not enough, forensics analysis can provide more evidence. Given the state of science, forensics analysis is nearly impossible to fool. Nanoswarms can sweep a crime scene and find even the smallest clue. Any trace evidence can be quickly analyzed with near-perfect accuracy. Complex and chaotic events can be reconstructed through computer simulations and walked through by investigators in simulspace to test out any number of theories of the crime. Even untrained investigators can usually determine the perpetrator by running the evidence through expert AI software. Crimes of passion and other unplanned crimes are almost always solved due to these technological advantages.

The Hidden Arms Race

In response, criminals have learned new techniques to avoid arrest. Crime is now a skilled profession and only the most innovative criminals succeed. A crime can't be investigated if it is not detected, so criminals focus their efforts on keeping below the radar. Despite the massive amount of surveillance in an average habitat, every sensory network has blind spots, either created accidentally or intentionally. Entire criminal outfits survive on the business of ripping sensors and creating dead zones for unseen activity. Criminals also make efforts to remove themselves from surveillance footage, whether by bribing technicians or hacking the local mesh. When possible, they act remotely. It is easier for an assassin to use a hacked service robot or airlock to eliminate a target than to pull the trigger themselves. For elaborate schemes, some criminals fork themselves so they become a conspiracy of one, with a lower chance of betrayal. Terrorists have used specially pruned beta forks for suicide missions, martyring themselves dozens or hundreds of times. More importantly, if the crime is subtle enough, no one will ever realize it was committed. A soul trafficker who works at a farcasting facility could secretly copy off egos for later resale without ever being caught, if they are careful enough.

Investigators who tackle skilled crime have to outthink their adversaries to have a chance. Every technique criminals deploy can be countered. Blind spots in sensor networks can be found through analysis. Hacks can be traced back to their origin. Gait analysis can identify a unique ego, no matter what morph it is sleeved into. Network-traffic analysis can identify darknets and illicit mesh communications. However, as one side develops a method of fooling the other, a counter-technique will soon appear. It is a never-ending arms race between cops and crooks. Success on either side of the law requires good planning, skill, cunning, and a bit of luck.

In any case, crime requires time and good planning to pull off. Once the police can identify a suspect, they can usually get enough evidence to prove their guilt. The most successful criminals are never identified as suspects in the first place.

IDENTITY ISSUES

Criminals make frequent use of identity theft to hide their footsteps. It is easy to assume the identity of someone who was lost in the Fall and only recently pulled out of cold storage. Brainprints can uniquely identify an ego, but even these change naturally over time, especially with significant use of drugs or mental trauma. Biometric data only applies to a particular biomorph, so resleeving can bypass that method of identification. Morph nanotat IDs and serial numbers can be altered. And with so many aspects of people's lives stored online, identity theft remains a serious issue.

This is further complicated by the sheer number of personal identification databases and systems currently in use. The Fall wiped out most of the old Earth identity data banks. While SAPIENT ID, primarily used by the LLA and PC, is the most prevalent identification system, it is by no means the only one. There are almost as many identification systems as there are habitats. The lack of centralization among identification systems provides a very large gap for identity fabricators to slip through. Of course, many factions do not want to centralize personal identification, calling out its use as a social-control mechanism.

If a crime goes undetected, at least for a while, a criminal will have plenty of opportuniy to change their identity and/or escape the jurisdiction. It is even possible to bypass normal farcasting security checks and instead use secret illicit farcasting services, an act known as *darkcasting*. Cartels and other secretive groups often run darkcasting operations to transfer egos from one habitat to another without alerting the authorities. Once a criminal has escaped a habitat, they may still need to worry about ego hunters, but only if the hunters can see past the layers of false identities assumed by the suspect.

PROSECUTION AND PUNISHMENT

Hypercorp-controlled polities maintain traditional criminal-justice systems. Fear of AIs has kept them from completely replacing judges and juries, but they are increasingly common throughout the system. More frequently, ALIs are provided as public defenders for those who cannot afford their own private lawyers. AI judgments are frequently critiqued for biases incorporated in to their algorithms, though strong efforts have been made to push them towards impartiality and away from implicit transhuman biases. Likewise, most legal systems remain biased towards more privileged members of that society; the higher the status of the offender, the less draconian the punishment will be.

Prison has largely been replaced as the preferred method of punishment. In the inner system, most offenders suffer financial consequences: liens, fines, property seizure, and, in extreme cases, indentured servitude. Morphs are considered property, so sentencing can involve the seizure of your own body. Since even murder can be reduced to the monetary cost of a new morph and therapy for the victim, plus punitive damages, this approach is popular even outside of conservative habitats. Sentences also sometimes involve lifetime punishments. A felon may be denied access to elite habitats or lose the right to purchase a biomorph, forcing a criminal to remain in the clanking masses for eternity.

Habitual re-offenders and violent criminals may also be forced to undergo psychosurgery to alter their personality, at least in hypercorp polities. Ostensibly, this is to help the offender more effectively re-integrate into society, curbing or eliminating antisocial tendencies, but it can also used to make the criminal more docile and loyal to the local government. Forcible editing of minds is considered a severe crime in almost all autonomist habitats, so it rarely used to punish criminals. However, some anarchists may ask offenders to undergo voluntary psychosurgery as part of their resolution process in order to correct whatever psychological issue that motivated their crimes in the first place.

The Jovian Republic remains the only major polity to regularly sentence criminals to physical prison. The Junta maintains multiple physical prisons to house criminals, the most notable ones held on the inhospitable moon Io. Prisoners are used as labor and experimental test subjects for various Jovian black ops research projects. The mere threat of these prisons serves as a useful tool to keep the populace in line and potential dissidents from acting out.

Outside of the Republic, a few hypercorps maintain small prisons for habitats that still inflict them as punishment. For the most part these are located far from other habitats, notably on Mercury, remote asteroids, or assorted exoplanets. Virtual prisons are more cost effective and thus more extensively employed, with convicted criminals placed in cold storage or time-accelerated simulspace for the duration of their sentence. A few habitats retain capital punishments for severe crimes, but only the most dangerous and unstable criminals are killed and ego-wiped, with all backups destroyed.

EXTROPIAN CONTRACT LAW

In Extropia and other so-called "anarcho-capitalist" habitats, the only laws that exist are contracts consensually signed between individuals and/or corporations. Each contract specifies which legal code and freelance judiciary service is used to settle disputes. Various private courts exist, each with their own interpretations of miscellaneous legal principles. Most subscribe to larger legal associations like the Extropian Legal Guild, Free Bar Association, or Mutualist Code, which all have pre-set agreements on handling legal disputes with each other, ensuring quick arbitration.

Social services freely provided by other habitats are handled as contractual business affairs in Extropian habs. If you want police protection, you must subscribe to a security firm for legal and physical protection. Take note of the breadth of coverage you select; security firms typically place drone silos around the habitat for emergency EMT services and rapid armed response, but such protections are not available with all plans. Unprotected people can be attacked or robbed at will. Other services such as healthcare, transportation, backups, education, and insurance must also be purchased. To even enter an Extropian habitat, you must sign an access, usage, and life-support rental agreement with the owning entity. Various hypercorps offer package bundles for these services.

A free court's legal AIs will automatically litigate minor infractions (called micro-torts) in mere seconds. More complex cases will be handled by the private courts and all parties are expected to abide by the results. Punishments incorporate fines, property forfeiture, and rep penalties. In extreme cases, a suspect may be forced into indenture or serve in a time-accelerated simulspace prison. If one party does not agree to the terms, they may suffer a major reputation hit and other Extropians will likely refuse dealings with them. Bounty hunters may also be dispatched in pursuit of suspects that abdicate on legal judgments.

AUTONOMIST LEGALITIES

In autonomist habitats run by anarchists and scum, there are no formal laws, only a set of norms decided by group consensus and collective action. Every sapient being is considered an autonomous person, free to do as they will, as long as they do not infinge upon others. Since everyone has access to nanofab, theft and other property crimes are meaningless. However, actions that are coercive or anti-social are not considered acceptable: assault, harassment, forknapping, mindhacking, threats to the habitat itself, and other non-consensual acts.

There are no police, so trangressions are handled by a community response. This can range from bystanders attempting to diffuse a situation to intervention by an armed posse of nearby residents. The entire community polices itself. Autonomists try to defuse potentially violent situations before they erupt. Everyone has access to surveillance feeds and sensor logs, so abnormal activity is quickly noted. People trained in conflict-resolution techniques will be called up to handle disputes. If an investigation is called for, locals will convene an ad-hoc task force to handle the matter. Residents freely carry weapons to deal with anyone who breaks the peace, and volunteer militias with drone support are called upon to deal with heavily armed aggressors.

When people do create problems in autonomist space, the response is geared towards finding out why that happened and what help the offender needs rather than simple punishment. The process is considered a collective effort, with impartial volunteers evaluating the case for conflict resolution and rehabilitation processes. The principles of restorative justice are followed, meaning that the focus is on repairing any harm done and allowing people affected by a crime to participate in its resolution. Most anarchist habitats maintain community crisis centers to guide this effort. Any resolutions must be voluntarily accepted by the offender. If they fail to support the process, they will suffer rep hits and possibly exile off the habitat. Prison and similar punitive measures are considered barbaric in autonomist circles.

PROPERTY CLAIMS

The doctrine of "property rights without sovereignty" applies to claims made on asteroids, exoplanets, and other celestial bodies. A discoverer of a particular resource can only lay claim to it as long as they continually use it. If the land or resource is abandoned, then anyone else can claim it for themselves. When there is a conflict over ownership, parties sometimes resolve the dispute through negotiations or legal proceedings (if they share the same polity). Nothing stops either side from using deception or violence to claim the disputed resource, though. More than a few asteroids and exoplanets have changed hands after a skirmish or raid.

GATECRASHING LAW

The owners of the various pandora gates dictate terms to anyone who wants to use them. Leasing gate time is incredibly expensive, but costs can be mitigated by sharing a small percentage stake in new discoveries, exploited resources, or colony revenue. Most gatecrashers must sign contracts ceding ownership of anything they find to the organization sponsoring the expedition, though some sponsors offer percentages of claims as well.

New exoplanets are a lawless frontier. Gatecrashers operate by themselves, with no law enforcement nearby. Some contracts specify that a mission is bound by the laws of the sponsoring entity, enabling inestigations and prosecution of crimes, but this can be difficult to enforce. Most gatecrashers operate in a manner similar to the military, with the expedition leader's commands as the only law.

Exoplanet colonies usually have a similar legal structure to the polity that sponsored their creation. However, most colonies are extremely isolated, so the leadership has far more control over their populace. It is very difficult to leave an exoplanet colony, even in the best circumstances. Colonies have suffered from totalitarian leaders, abuse, and exploitation because residents can't leave or contact other habitats for help.

NEW TARGET: REVI

[Begin Decrypted Message]

Team, I'm re-tasking you. Your new objective is to track down a wanted terrorist known as Revi. BOLO reports place her in your region. She's an escapee from Cognite's disastrous FUTURA program, diagnosed with the full checklist of psychopathic traits, and believed to be infected with the Watts-MacLeod virus. Treat her as an infectious exsurgent. Cognite agents are hot on her trail—and she hunts them in kind, holding some twisted biocon view that they murdered her crèche mates so that other egos could sleeve into their morphs. She retains her own original morph, an advanced futura design with enhanced cognitive capabilities, heavily modified. She makes extensive use of biosculpting and is believed to operate within Ultimate cells, using them as cover. Approach with caution; her profile pegs her as a close-combat specialist with a preternatural tactical sense. Your job is to get to her first and neutralize her. Take her out if you have to, just don't let Cognite get her back.

[End Decrypted Message]

CRIME

Source: *Acquainting Yourself with Guanxi* LINK

Crime will always exist, simply because the definition of what crime is changes as society changes. Even in lawless, near-scarcity anarchist habitats, norms can be broken in ways that can be considered a violation of the social contract between everyone. A sufficiently transgressive disruption of tradition, custom, or unspoken rule will result in social sanctions or punishment in even the most lenient polity.

Most factions agree, at least in part, that actions that jeopardize the safety of citizens and habitats are crimes. Capitalist societies protect property and ownership with laws, because these are the foundations of their order. Almost every society prosecute crimes that threaten the economic stability of their preferred financial system. Conservative polities will go so far as to convict people of victimless crimes, sanctifying certain moral or religious principles and believing that people must be protected from themselves. Autonomist factions focus more on crimes that violate the autonomy of their citizens; coercion is anathema. Every habitat enforces a different set of laws, making the distinction between legal and illegal entirely relative.

As many crimes are a function of economics, it is no surprise that law-breaking changes as rapidly as technology does. Crimes considered heinous a century ago are shrugged at today. Let's examine what has changed.

VIOLENCE

Violent crime is still prosecuted, but the penalties for murder are greatly reduced. Murder, to most transhumans, is no longer permanent, so it is typically classified as aggravated assault and/or a property crime, assuming the victim is backed up. Some habitats even allow consensual dueling and murder, leading to the creation of murder clubs, where members can freely murder each other without repercussion. In more traditional polities, especially in the Jovian Republic, where many citizens live without backups of their egos, murder is still a serious crime.

Mass murder and attacks against essential habitat infrastructure are serious crimes in virtually every habitat. While a single murder can be undone through resleeving, there is the chance that no one can be resleeved if everyone is killed or the habitat itself is ruined. Unfortunately, it is now easier than ever for a single criminal to commit such a crime. Between nanofabrication, TITAN and exsurgent weapons, and the sheer difficulty of surviving in space, there are countless ways for a dedicated terrorist to fatally compromise a habitat. Even the most permissive habitat devotes considerable resources to secure itself against such attacks. At a certain point, an attack on a habitat crosses the line between crime and military action, so the criminal becomes an enemy combatant, subject to execution by the habitat's defenders. Few other crimes get that kind of response.

PROPERTY AND THEFT

Market economies treat property crime more seriously than autonomist societies. Theft of material goods is not usually considered a serious problem for items that anyone can replicate. If a person steals a cheap tool, it is often easier to build a new one than hunt down the stolen item. However, stealing items whose availability is limited carries stricter penalties.

Rare and valuable goods, like morphs, Earth relics, alien artifacts, new prototypes, and bulk raw resources, are frequently targeted by professional thieves. Cartels throughout the Solar System steal morphs, even occupied ones, and sell them to less discerning customers. Carbon reaver gangs plunder raw materials from mining drones and automated carriers throughout the system. Claim-jumping remains an issue on isolated asteroids and exoplanets.

However, converting stolen property into wealth can be even more difficult than stealing in the first place. The key is finding a discreet but wealthy customer who is willing to both buy stolen goods and accept any potential blowback from the property's original owners. Specialist fences make a living just by connecting thieves to the right clients. Even if the right customer can be found, the criminals must also transport the goods without being detected, a difficult task at best. Only the desperate or most driven criminals focus on material theft when other types of crime are easier to pull off.

Theft of habitat resources is treated seriously in almost all polities. Visitors sometimes become inadvertent thieves simply by breathing the air if they have not paid for their allotment of life support resources. Squatting can create real complications in crowded habs, because life support systems can only sustain so many people. It can also be an issue even when squatters occupy abandoned habitats, like many of the derelicts abandoned during the Fall but still orbiting Earth, as they may reactivate TITAN war machines or inadvertently spread the exsurgent virus.

Intellectual Property

In the inner system and Jovian Republic, intellectual property is protected by stringent copyright laws. Trading blueprints or removing the DRM of a file is strictly against the law in hypercorp-controlled polities. Likewise, modifying nanofabbers to circumvent locks and restrictions is heavily penalized. An elite class of criminals specialize in bypassing DRM and trading pirated software and schematics between the inner and outer system, to the chagrin of the Planetary Consortium. While anarchists primarily free these designs by open-sourcing them, numerous Extropian hypercorps make a business out of repackaging blueprints and selling them to inner-system citizens at a discount, undermining their Consortium rivals. The theft of copyrighted data is a major tension point between capitalists and autonomists.

These laws also apply to corporate prototypes, projects in developments, morph genetics, and other trade secrets, but here the hypocrisy of capitalism shines. Industrial espionage between hypercorps is a thriving industry, as competitors seek to gain an edge over rivals. Hypercorps have even been known to extract and forknap citizens of other corporate holdings to gain access to their research and secrets, deriving it directly from their minds with psychosurgery if necessary.

BOUNTY MARKETS

When the first darknet services came online, it was likely inevitable that the first criminal bounty markets would follow. These prediction markets serve as an incentive to specified crimes, notably assassinations or other major illegal acts. Anyone can make an anonymous bet on the details of the crime: date, location, etc. If the crime is committed in accordance with the bet, a large payout is ensured. This encourages a lawbreaker to commit the crime, because they can place an accurate bet on the details in order to receive the bounty.

ONLINE CRIMES

A substantial amount of crime has transferred from the physical world to online, where traces can be more easily erased. Hacking is a profitable endeavor, including crimes such as insider trading, identity theft, laundering currency, espionage, fraud, undermining security/surveillance, and defacement/sabotage. Malware exists on nearly every mesh network, defrauding anyone that lacks basic infosec skills. Most major cartels rely heavily on hackers to conduct business and protect their interests. Even old syndicate standbys such as protection rackets are handled electronically, with ransomware used to encrypt a target's systems until they pay to have them unencrypted.

Much black-market activity now takes place on the darknet, hidden by anonymous routers and encrypted networks. Online storefronts sell stolen, counterfeit, and restricted goods, and criminals of various stripes offer their services to the highest bidder. Darkcasters enable egos to pass in and out of habitats unseen, bypassing security and customs. The Guanxi social network ties these together, while providing a forum for criminals to codify their own reliability and trustworthiness. Darknets are forbidden in many polities because they interfere with the government's ability to monitor and control, but they are also valued and tolerated by authorities that wish to hide their own activities from rivals.

Fraud remains a problem throughout the system, even in near-scarcity economies. Con artists use sophisticated scams and bot networks to build up high reputations under fake identities and then cash them in to acquire valuable goods and services. These same hacker networks will sell their online might to inflate or undermine the reputations of others. In the same vein, propaganda and memetic warfare campaigns are launched to sway public opinions, spread disinformation, and attack rivals.

VICE

Crimes of vice thrive in the post-Fall era, though what defines a vice varies from culture to culture. Drugs and narcoalgorithms have been decriminalized in most habitats, have become more socially acceptable, and can easily be manufactured or acquired online. The more extreme the effect of a given drug or narcoalgorithm, the more likely it will be regulated or banned, especially in conservative polities. Of course, libertine factions allow virtually every drug and some provide them free. Virtually every polity bans drugs that are linked to exsurgent infection.

Gambling is rarely legally restricted, though the industry may be heavily regulated and taxed. Online gambling remains popular throughout the system, but hardcore gamblers are generally only satisfied with illegal sports like deathmatch fighting. Loansharking to pay off gambling debts is typically restricted.

Prostitution is rarely illegal except in very conservative polities like the Jovian Republic. In the Morningstar Constellation and Titanian Commonwealth, sex workers are offered legal and industry protections. Pornography is similarly rarely criminal, except when it depicts illegal acts, which varies from habitat to habitat. Often, what is illegal is based on the ideology of the ruling class. Bioconservative factions, for example, ban porn involving uplifts. The Titanians ban porn that involves indentured workers, considering it to involve acts of coercion.

EGO TRAFFICKING

Though indentured service is legal throughout most of the system, it is profitable enough that numerous cartels have taken on the role of forknapping egos and buying and selling living minds on the black market. Many hypercorps are not picky about the details of an ego's origins, only what skills they possess and that they are desperate enough to sign exploitive contracts. Uplifts and AGIs in particular are heavily trafficked, given that they are denied basic rights in many polities anyway. Many innocents have been unknowingly forked and sold to soul traffickers when they farcast to another habitat. Hackers target ego backup facilities and infugee storage for theft. Some scavengers loot cortical stacks from ruined ships and habitats or even Earth, despite the risk of exsurgent infection.

There are many potential uses for an ego, aside from labor. Minds can be freely plundered for their skills and memories, making them useful for both research, espionage, or more elaborate criminal schemes. Personalities can be rewritten to make willing slaves. Unethical scientists can use them for experiments. Cartels sleeve them into various types of morphs for underground pit fights. Sociopaths merge egos to create new slaves or just to see what happens. There is no limit to what torture can be inflicted on an enslaved mind.

Indentured service is considered a form of coercion and slavery in much of the outer system. It is illegal on Titan, and most anarchists are likely to treat indentures as slaves deserving of freedom.

OTHER CRIME

There are many other criminal ventures that remain harder to classify. Black clinics provide ware and mods prohibited by local laws, offer healing vats to those injured while committing crimes, and sometimes even make prescribed morphs available. Sometimes their wares are experimental or dangerous, but such businesses thrive on their rep. Smugglers carry contraband items past habitat security: bioweapons, TITAN tech, prototyps, or simply restricted goods that will fetch a high price. Autonomist smugglers help uplifts, AGIs, or indentures escape from oppressive environments to the outer system. Forks sometimes go rogue, or are allowed to extend past their legally limited expirations. Political radicals seek to undermine authoritarian systems and governments. Terrorists wreak havoc according to their twisted ideological or religious beliefs. And, of course, exhumans treat transhumanity as prey.

RED MARKETS

Red markets are the equivalent to black markets, but in anarchist space. Despite the lack of laws, there are many things that autonomists seek to eradicate from their habitats that are valuable to the right people. This includes private sensor nets, ego trafficking, rep net gaming, blackmail, mindhacking, secrets, coercion, and irresponsible uses of bioweapons and experimental tech. To avoid taking a rep hit or face ostracization, such goods and services are offered through discreet red-market channels. Most red-market peddlers are the same cartels that operate in inner-system black markets, along with a few malcontents, misfits, and inner-system provocateurs. Exchanges are typically made with rep favors, though occasionally currency is used.

FACTIONS

FRIENDS & ENEMIES

Next overview topic: to really understand the state of the Solar System, you'll need to have a grasp of the various ideologies, polities, and factions at play. Knowing the difference can keep you alive.

START

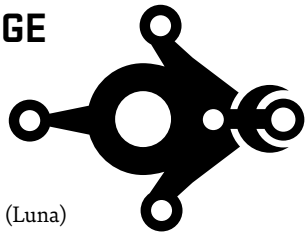
INNER SYSTEM POLITIES

Source: Moxie Harper, Firewall Sentinel

LINK

The inner system is the cradle of transhumanity, home to its largest political blocs and the only surface-habitable planets in the system.

THE LUNAR-LAGRANGE ALLIANCE (LLA)



Memes: Biochauvinism, Capitalism, Reclaiming Earth
Main Habitats: Erato (Luna), Remembrance (Earth Orbit), Shackle (Luna)

The LLA: your grumpy Indian dad who is also a Swiss banker. Decried as obsolete by the Planetary Consortium, derided as stodgy and out of touch by the outer system, transhumanity's first great off-world alliance plods on like a teflon baluchitherium. A number of settlements, including the largest Lunar city, Nectar, have defected to the Consortium, but Earth orbit and the two other big Lunar cities remain staunch Alliance members. Even though Luna might be the old and Mars the new, Luna's advantage from being settled first hasn't totally eroded.

The Alliance Council

The LLA Council seats one representative from each member city and habitat. Voting power is proportional to their hab's population. Settlements have a large amount of autonomy, but the Alliance is in charge of foreign policy, defense, central banking, and intelligence services. This doesn't keep members from making their own trade deals, but the Council reserves the right to intervene in local policy if it affects the rest of the Alliance. The Council hasn't been shy about using this power or suppressing dissent from smaller members.

Banks, Burberry, and Bollywood

Interestingly, this reputation for conservatism doesn't hurt the demand for Luna's creative output. Lunar fashion houses and entertainment companies are major cultural forces. The Lunar business-casual look is *the* white-collar style throughout hypercapitalist space. And perhaps post-Fall transhumanity finds some comfort in the homey modernism of Lunar design and the formulaic musicals produced by Bollywood's descendants.

The Lunar Banks are the heart and brain of old-school capitalism, and they wield influence that can sometimes counter the upstart hypercorps of the Planetary Consortium. Some banks are appendages of the LLA Council. These operate under a fairly transparent regulatory framework and are some of the biggest consumer banks in the system. Others descend from the old Swiss banking system, which strongly privileges the privacy of the client. Detractors say it's the biggest legal money-laundering operation in the Solar System, but the oligarchs have uses for black boxes like these. You won't see

the Lunars or Orbitals demanding transparency from the private banking houses any time soon. They're perceived as a cornerstone of the economy and, to some extent, they are.

Culture and Ethnicity

Somebody on Luna actually asked me where my family came from once. Can you believe that? Normally, interactions with Lunars/Orbitals don't get this provincial, but some of the stuff that comes out of their mouths is *really* off-putting to us off-worlders. Old nationalities still mean something here, and it can be confusing as hell for outsiders. Ethnic rivalries and prejudice occasonally flare up; people here haven't gotten the memo that culture and genetics are not inseparable and that nationalism was a pretty stupid idea anyway. Language, too, is a topic of civic debate, with some habitats having a dozen official languages. Other settlements speak only one or two and are rather militant about which one should be the official one.

Biochauvinism is a big problem almost everywhere in LLA space. It's a culture that disdains people who've "failed" at retaining a biological body. Despite political activism aimed at winning greater acceptance for synthmorphs, the clanking masses face classism every day and are often segregated into specific neighborhoods. Infomorphs and anyone not in a familiar human morph are treated with distrust and contempt, but AGIs and uplifts are the lowest of the low and sometimes need to fear for their own safety. If you're visiting here, take note of those habitat travel advisories.

Reclaimers

On half of Luna, when you look up from the surface, you'll see Earth, our scarred and smoking homeworld. To many, it's a call to arms, to root out the TITAN remnants and take back our homeworld. Seen as odd eccentrics elsewhere in the system, reclaimers here count heads of state and hypercorp leaders among their supporters. Several LLA habitats are reclaimer home bases, and the people there chafe at the interdiction satellites that shoot down anything traveling to or from to Earth's surface.

Decline and Resurgence

The LLA's political influence has been in decline for a long time, but it retains one of the best military fleets in the Solar System. The remnants of many national space fleets threw in their lot with the Alliance after the Fall. Relations with the Consortium and the Morningstar Constellation are cold. There is strong pressure for the LLA to convert from its old market practices to the transitional economy, and several Lunar habs have already done so. But AF 10 is spring in the Solar System, and the Alliance is getting a new infusion of reclaimers from the outer system who want to be closer to the action. These immigrants, with their dynamic outer-system cultural values, could be the vanguard of big changes to come.

THE MORNINGSTAR CONSTELLATION

Memes: Technoprogressivism, Venusian Sovereignty
Main Habitats: Octavia (Venus)

The habitats making up Morningstar voted for independence from the Planetary Consortium five years ago. It was a political circus that ultimately coalesced into an independence movement and then, against long odds, succeeded. The Planetary Consortium was caught napping, which is pretty sad given how many of their analysts keep up with their workload by sleeving into hibernoid morphs. The powers that be on Mars still view the referendum that lead to Morningstar as a fluke and expect its members to rejoin the Consortium. Even a thin atmosphere can cloud vision.

The independence referendum is usually understood, at least on Mars, as Venus saying "no" to the Consortium's vision of fully terraforming the yellow planet. The reality is much more complex. For one thing, the idea of fully terraforming Venus is far from dead. Its proponents are locked in a war of ideas with the opposing camp, the Aerial Terraforming Initiative (ATI). The ATI's vision is to preserve the planet's surface conditions while raising oxygen levels in the upper atmosphere and seeding the atmosphere with aerial life. Both camps in the debate are going full steam ahead with R&D, and there are half a dozen sub-factions on each side. The full terraforming faction is constructing proof-of-concept orbital mirrors that would cool the planet's surface if deployed en masse. ATI advocates have been developing biomorphs designed to survive in the upper atmosphere and animals able to roost on the outsides of aerostats.

So no, forget what your politically opinionated drinking buddy on Mars opined between pitches during the last Cubs-Hanshin Tigers game. It was never about terraforming. Most of the oligarchs running Mars were originally either American or Chinese. Their opposite numbers on Venus were either born off-world or came from Europe and Brazil. Venus is just different than Mars, and its nascent power structures were born out of cultural, political, and economic interests that don't follow Martian logic.

The Star Council

Is it politics, or the ghost of an Italy-Brazil football match possessing a chamber full of otherwise skilled and articulate transhumans? I'm gonna go with the latter, but then, I have a guilty addiction to watching highly qualified people scream at each other like Martian mud shrikes during brooding season. The Star Council, as hot-blooded as its debates run, does a credible job of governing Venus, from conducting off-world diplomacy to allocating scientific and military budgets (the latter being mostly for payments to mercenaries). It guarantees the Venusian libra, which is pegged in value to the Planetary Consortium credit. And it controls the agencies that grant and verify Venusian citizenship. Each habitat sends one member per 100,000 citizens. The current prime minister of Venus is Arisa (yeah, one of those one-name people), an Italian-born XPorn star, athlete, and psychosurgeon who was one of the leaders of the independence movement.

Culture and Policy

Venusian habitats provide a basic income and nanofab allotment to all citizens, as well as offering full citizenship to AGIs and uplifts. Non-humans and synthmorphs face less prejudice and have more protections in Venusian habitats. Etiquette in public spaces is the most striking cultural difference here. If a Venusian is in their tiny-ass apartment, it's generally for sleeping, shitting, or sex. They're always out socializing. Venusians have small personal bubbles and an incredible ability to politely ignore people around them, sometimes with the help of AR illusions.

External Relations

Who tries to found a major political bloc with virtually no military assets? Dreamers, you might say. Idiots, someone more savvy might think. The math works for Morningstar so far, though.

The Constellation's members have ready cash to pay for mercenary protection, and they spend a ton of it. Hence the joke that "MC" is short for Mercenary Cashcow.

If one thing could tear the Constellation apart, it's the nascent debate over ownership of land on the surface. With only a handful of permanent settlements, the policy so far remains, "If you can exploit it, it's yours for as long as you're using it." But that situation can't persist forever, in part because Consortium hypercorps continue to exploit the surface without the Constellation's consent. If a full terraforming op does begin, some of that land is going to become valuable real estate, and the long-term planners are already occupying territory based on landscaping projections. So far, Morningstar doesn't have muscles to flex about this. But once they do, things could get ugly fast.

The MC also differs from the Consortium on intellectual property. IP protections last only years, not decades, and do not apply to remixes or derivative works. This remains a major stumbling block with Consortium hypercorps that take strong anti-piracy stances.

THE PLANETARY CONSORTIUM

Memes: Expansion, Hypercapitalism, Security
Main Habitats: Progress (Mars Orbit)

The Consortium formed during the Fall through organized networking, propaganda, and coercion by its founding hypercorps. It is a business alliance dedicated to networking and preserving hypercorp interests. Today, the Planetary Consortium is the most powerful economic and political bloc in the Solar System. It controls Mars via the Tharsis League and has outposts throughout the system. Half of transhumanity lives under its oversight.

The Four-Point Plan

Announced shortly after its formation, the Consortium's slickly produced agenda includes:

- **Establish a New Homeworld:** With Earth gone, the Consortium has designated Mars as transhumanity's new capitol. This serves to separate people from old interests and longings and embrace a new era and a new home — one conveniently under their control.
- **Improve the Human Condition:** This point reads as an endorsement of technological development and change, with a specific push towards genetic engineering, neuro-enhancements, nanotech, and other transhuman technologies. This is, of course, what most Consortium hypercorps want to sell you. Though you gives lip service to morphological freedom and other technoprogressive ideas, the truth is that the Consortium still lags behind on incorporating uplifts and AGIs into its vision.
- **Safeguard Transhumanity:** Written as a warning against extinction threats like the TITANs, this point is also subtly spun to promote a law-and-order mindset, painting outer-system autonomists as a threat to the Consortium way of life. It also provides justification for restricting nanofabrication access — for safety purposes of course.
- **Grow and Prosper:** Hypercapitalism requires new markets and unending growth, continually pushing the Consortium to expand its economic influence. With the pandora gates, this plan now also incorporates extrasolar colonization and becoming a dominant force in the galaxy.

The Hypercorp Council

The Hypercorp Council is the ultimate governing authority in the Consortium. Its membership, thought to comprise the 20 or so most powerful hypercorps and conglomerates, is partly secret, and it meets behind closed doors. The Consortium exists to ensure stable conditions in which its members have the opportunity to profit. The governance of half of transhumanity is only a side effect of this goal — one sometimes deemed annoyingly unprofitable.

The known members of the Council are Cognite (neurotech), Direct Action (security), Experia (media), Fa Jing (energy/mining), Fujizo (robotics), Invatch (morphs), the Lucky Star Group (electronics), Nanosys (nanotech), the Pavonis Infrastructure Authority (space elevator), the Prosperity Group (food/drugs), Solaris (banking), and Stellar Intelligence (intel). The Consortium subsidiary Pathfinder, which manages the Martian Gate, is given a seat at the table due to the importance of extrasolar colonization to the Consortium agenda, but it has no voting power.

Governing Corporate Citizens

The civic infrastructure of the Consortium is designed for one thing: to promote a healthy business environment. The hypercorps need happy consumers. Governments are a regulatory pain. So the hypercorps run the government themselves, treating it as a necessary cost of doing business. Government services are therefore thin to keep costs low, providing a pretense of democracy to keep everyone distracted.

For Consortium citizens, a decentralized cyberdemocracy promises representation in the Planetary Congress. In reality, candidates for office are tightly vetted. Some are drawn from hyperelite families. Others are longtime operatives elevated for loyal service. Still others are media icons who've converted fame into office.

The Consortium Ministry, peopled by appointees allotted to the hypercorps based on share price, is the executive branch. Notable offices include the Planetary Stock Exchange Regulatory Ministry, the Oversight Ministry, and the Foreign Trade Ministry.

The Assembly, appointed by Congress, is the judicial branch of the Consortium. Its arbitrators are rarely involved in criminal or civil law, leaving that to individual habitats, but instead arbitrate disputes between hypercorps.

Oversight

Oversight is a data-driven corporate intel agency specializing in statistical analysis, industrial espionage, and what's politely termed "suppressive ops." They're an independent agency of the Hypercorp Council, though they act with some impartiality. Their access to privileged hypercorp data enables a constant scan for "anomalies," be they fiscal malfeasance by execs, collective action by workers, or resistance from a potential market in opening its gates. Oversight gets misunderstood as a combined foreign and domestic intel service for the Council. This is wrong. Oversight stalwarts see themselves as agents of Adam Smith's guiding hand, a cooperative regulatory framework to deter attempts to game the system, invisibly righting conditions that could upset transhumanity's hard-won prosperity. Oversight is cold; it does things by the numbers.

In its quest to maintain free-market stability, Oversight also has the authority to counter threats to the security of the Consortium. This has quickly expanded from policing TITAN tech and espionage to immigration controls and a "counter-terrorism" role against perceived enemies of the Consortium, particularly autonomist agitators. Oversight's secret police are especially busy on Mars, due to the growth of the Barsoomian movement.

Oversight approaches their projects with arrays of AR spreadsheets, charts, and slides, so it is easy to discount them as overzealous accountants. They may be boring, but they have the weight of the Consortium behind them. Oversight's General Secretary, Gia Norne, is an elemental force. So if you catch wind of Oversight sniffing around, keep your cranial storage down.

Project Ozma

We don't really know what Ozma is, other than a high-level black-budget operation. It operates at the Consortium's highest levels — or perhaps even above them. What we do know is that decades before the Fall, Ozma was some sort of collaborative SETI project, searching for alien life. Now, they seem to have a lot of similar interests to Firewall: the TITANs, the exsurgent virus, the Factors, dead aliens, x-risks, all that fun stuff. There's a lot of speculation about who or what their bosses are, and what their real agenda is, but it's all guesswork. Assume the worst and act accordingly.

It would be cute if Firewall could have a *fun* rival? You know, like cartoon Jovian biofascist crucifix-thumpers, or the vampire cyborgs with impossible cheek bones lurking in the dark Swedish forest of the grandfather clauses governing Titanian Intel? No. We get Project Ozma. No cheek bones, no Latin imprecations from flint-eyed Dominicans, just unlimited resources and impeccable intel. They have an unnerving way of showing up completely prepared for situations that no one else should know about. With nicer weapons and cute accents to boot. They have pulled the rug out from beneath us more times than we count. The one good thing about them is that they are very good at covering their tracks — often erasing evidence of Firewall involvement as well. They don't like attention, even from Oversight or hypercorps.

THARSIS LEAGUE

Memes: Martian Nationalism
Main Habitats: Ashoka (Mars), Valles-New Shanghai (Mars)

The League is like an elephant with five different handlers on its back, all trying to make it do different work. Its size and power mean nothing, because it's prodded in circles. Every so often, though, one of the riders manages to make it stomp something or flail its trunk the right way. It's proof the elite of the Planetary Consortium have perfected the art of keeping a liberal democracy in a medically induced coma, stuffed and mounted for a late stage of capitalism that never quite expires.

On paper, the League is the government of Mars, with representation from the major settlements, regions, and orbital habs. It guarantees the currency, makes and enforces the law, plans and oversees terraforming, appoints judge-magistrates, and builds and maintains civil infrastructure. It has sprawling science and education ministries, and its defense ministry controls a small army and space force.

Bureaucratic Hell Zone

In truth, most of the Tharsis League's officers, including members of parliament, agency heads, professional civil servants, and local department chiefs, owe their jobs to some form of patronage. Flat-out bribery is rare, but office holders are there because of reasons like family connections, local machine politics, or the Consortium strong-arming a favored candidate into office. In spite of this, the Consortium is unable to completely dominate the League. Officials more beholden to the Barsoomian movement, the glitterati, or particular oligarchs hold down some important offices.

The factions making up the League cut across agency lines, and they vary a lot in mindset and *modus operandi,* so much so that each is better thought of as a constellation of memes. You've got authoritarian versus libertarian conflicts in the Martian Rangers, corporatist versus militocratic factions in the Space Force, trade unionist versus corporatist in the Martian Department of Transit (MDOT), and authoritarian versus regionalist scuffles in the Tharsis Terraforming Office (TTO). The Barsoomian movement is autonomist flavored, and wherever its members carve out a niche for themselves, anarchist or socialist memes quickly come into conflict with the CivicNet status quo.

Terraforming

Terraforming Mars is the greatest engineering project in transhuman history. At the center of this effort are a number of Consortium hypercorps and a smattering of independents, like the worker-owned upstart TerraGenesis.

Terraforming is *the* political hot potato. The League Congress has carved appointments to the Tharsis Terraforming Office (TTO) into a zillion sub-offices. The TTO Executive Director is a spokesmodel with nominal rule over a fractious staff of department heads whom they neither appointed nor can dismiss without approval from the deadlocked Terraforming Committee of the League Congress. Sound like a shitshow? It is. The Chief Planetologist, Chief of Ground Ops, and Chief of Orbital Ops all hate each other and the other department heads. This results in revolving-door appointees, non-stop budget-grubbing games, alliance shifting, and related treacherous fuckery. Martians living on the ground aren't given much consideration by the people who decide what land gets blackened to absorb heat, where ice melters are planted, what locals get displaced, and most frighteningly, where comets get dropped.

An even bigger kicker is that some hypercorps are now touting this Red Eden project idea, which is essentially a plan to privatize all of the TTO's terraforming operations and unite them under a single corporate entity. The idea's been gaining traction, though of course not all of the hypercorps are keen on it either.

Military and Security

League forces are small but can be quickly augmented with mercenaries. On paper, the League Army and Space Force have ready-to-go contracts that would enable them to respond to a major TITAN-related incursion from the Quarantine Zone with massive force. Firewall has run a lot of simulations on incursion scenarios, and we've concluded that their response force would be big enough — but it'd also be a disorganized mess, prone to rout before TITAN terror tactics or unfamiliar technology.

The Martian Rangers are the other planetwide security force. The Rangers protect everything that's not in a city or major settlement. (Major population centers have their own police, run by the city government). Their beat includes the TITAN Quarantine Zone, where Ranger perimeter patrols are a first line of defense against stray Zone denizens. The Rangers are the best prepared force on the planet to fight TITAN war machines or exsurgents — from a psychology and training standpoint. But Rangers are too lightly armed and too few in number to beat back a major incursion on their own. They're cops, or at best, a militia. In a real TITAN attack, they'd act as scouts, target painters, and skirmishers for the military.

OUTER SYSTEM POLITIES

Posted by: Cacophonous, Firewall Proxy INFO MSG REP

The rimward system's scattered and more isolated population has given rise to unique political movements and entities. It is home to experimenters, innovators, and iconoclasts, side-by-side with those who cling to the past, regressive policies, and outmoded ideas.

ANARCHISTS

Memes: Anarchism, Anti-Capitalism, Direct Action, Mutual Aid
Main Habitats: Locus (Jovian Trojans), Chat Noir (Oberon)

Anarchists! Scary, right? We're coming to get ya!

We're not. Deal with a couple hundred years of capitalist propaganda turning you and yours into a bogeyman and see how much of a sense of humor you have about it. But why would corporations and so-called free markets hate us so much? Simple: we are the exact opposite of everything they represent. Hierarchies create inequalities. This is true in the entirety of history. You can't have capitalism without exploitation, full stop. Anarchists have this crazy idea that we don't need to fuck each other over to survive. We seek to minimize structures where people have power over others in order to maximize freedom and equality. That's a direct challenge to the status quo, the rich, the people in power — so the sociopaths making bank on other people's suffering do their best to paint us as monsters.

We're Not What You Think

There's an important distinction between anarchism and anarchy: the former is the lack of hierarchy, while the latter is chaos. Anarchists are not interested in mayhem and destruction. Capitalists hear "no laws" and immediately think "I can finally exploit people without consequences!" Anarchists do not. Cooperation, not competition, is the crux of survival in anarchist communities.

The natural extension of this philosophy is a kind of collectivism. We recognize that we can live without vertical power structures, so we instead create horizontal forms of organization that enable everyone within a group to have a voice. We work to build each other up instead of tearing each other apart.

That distinction may be why so many outer-system habs gravitate towards anarchist ideals. When everyone's life depends on a single radiation shield, a handful of air recyclers, and a working nanofabricator, it's in everyone's best interests to keep the station going. There's no room in that scenario for cut-throat individualism.

Ideal Organization

Anarchists are used to the question, "What's to stop you from murdering as many people as you want?" The answer is, "We do murder as many people as we want: zero."

There's no threat of Hell, no political entity, and no king waiting to chop off your head if you fuck up. There's only the imperative to treat others in the community with the same kind of respect and kindness you wish to receive. Understand that this altruism is rooted in selfishness; you selfishly want people not to act like assholes towards you, so you should not act like an asshole.

When anarchists organize, we do so voluntarily and horizontally. We create militias for self-defense. We sometimes select individuals to steer public projects towards approval. And we make no decisions without first allowing everyone affected by that decision to have a say.

Modern Anarchism

Various communities on Earth ran on anarchist principles in the years before the Fall (the Iroquois Confederacy, Spain, Ukraine, Chiapas, Rojava, etc.), but it wasn't until the invention of nanofabrication technologies that we reached a level of post-scarcity and independence that anarchist communities could thrive. The modern anarchist credo states "from each according to their imagination; to each according to their need." Nanofabricators allow anarchists to eschew traditional "work" to pursue personal interests, from scientific research to artistic expression.

Mesh technology was an additional boon to modern-day anarchism. Real-time communication, faciliated by apps and muses, enables everyone in a group to easily participate in referendums and quickly reach consensus on local community decisions. No one is left out of decision-making, unless they want to be.

This all leads to the most jarring difference between anarchist and hypercorp habs: there is no private property beyond personal possessions. The community owns everything, because it was fabricated from the community's resources, by the community's machines, for the community's use. This concept is difficult for capitalists to wrap their heads around; so too our lack of currency. There are no retail shops, no need to buy things, just spaces where you can work on projects collaboratively or get help from skilled volunteers. Anarchists rely on reputation when they need things from others. Do good work for the community, your rep goes up. Be an asshole, it goes down.

What We Face

Anarchy isn't easy. Informal hierarchies grow all the time, even in communities that take precautions against it. It can be something as innocuous as favoring one style of art over another or as destructive as ceding control of the station to an emergency council. Our gift economy attracts its fair share of mooches too, and they sometimes aren't discovered before doing some real damage to a community.

We also face military invasion by the Consortium, Jovians, Ultimates, and other authoritarian forces, and we sometimes lack the means to fight back against their superior firepower. Sometimes. We have weapons too and are not shy about self defense. That in itself is another danger: in an open-source community, there's nothing to stop someone from taking something destructive and using it improperly, maybe even unleashing a second Fall. Nothing but ourselves, that is. We self-monitor our fabbers and communities for signs of danger and antisocial tendencies, and the same open-source tools help us to quickly develop remedies.

THE AUTONOMIST ALLIANCE

Memes: Autonomy, Mutual Aid, Solidarity

And here we are: anarchists, Extropians, scum, Titanians, and other radicals united. To hear the Consortium talk, we're a collection of unwashed, rabble-rousing parasites interested in taking your hard-earned stuff and giving it away to lazy moochers. No. We're proof that their way of life is fading to extinction, while ours works — and works well. They're scared of us not because of our weapons, but because we're living proof that one day their slaves will revolt against them and throw them from their glittering towers.

The outer system, from the Main Belt to Saturn, is our power base, but there are Alliance members everywhere rimward, and more in the inner system than the Consortium will ever admit.

SPREADING THE REVOLUTION

Posted by: Eludere, Firewall Sentinel INFO MSG REP

It's an open secret that various anarchists and other Alliance members funnel resources, technology, and data to Barsoomian groups on Mars. Some see this as an imperative, to help the people of the inner system throw off the choking hold of the oligarchs. Some see it as payback for the saboteurs the hypercorps send to the outer system whenever autonomists start getting in the way of their expansion plans and profits.

From the Fall

As the smoke cleared from the Fall and rimward stations took as many infugees as possible from Earth, we watched in horror at the consolidation of power in the inner system and Jovian Republic. We devised an alternative: the Autonomist Alliance. In the beginning, the Alliance was a mutual-aid and defense pact. If a habitat were attacked or in need, other habs would respond, help, and defend.

Not long after, the Consortium attempted to shut down Locus with a small military force based on trumped-up claims of copyright infringement and property theft. The anarchists were more well-armed then expected and drove off the invasion. Stunned, the Consortium regrouped and returned with a much larger fleet. They were met by a ragtag band of anarchists, scum barges, brinker cargo ships, Extropian pleasure yachts — and the Titanian Fleet, which officially chose a side and joined the Alliance. This victory transformed the Alliance into a true political power.

Ideologies and Structures

The Alliance represents diverse points of view, though they are largely anti-authoritarian. Members agree to abide by four distinct points of unity, guiding principles for autonomist communities:

- We demand autonomy, self-organization, and self-governance for all sapient beings.
- We support direct democracy and forms of organization where sapients collectively decide their own future.
- We promote mutual aid and reciprocating altruism between sapients.
- We affirm the right to engage in self-defense against oppression and coercive authority and stand in solidarity with sapients so attacked.

There is no formal political structure behind the Alliance; its members' dislike of hierarchy creates massive internal resistance to any consolidation of political power. Instead we have joint resolutions; only a few dozen have ever passed. The first condemned the Planetary Consortium for the attacks on Locus and called for autonomists to resist hypercorp expansionism. Another codified uplifts and AGIs as full transhumans with equal rights; yet another threw Alliance support behind the Love and Rage Collective's gatecrashing expeditions.

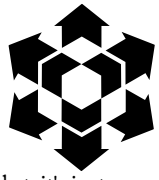
Joint resolutions can also create *task forces,* voluntary organizations that enact the will of the Alliance. Task forces have no individualized authority. They are accountable to the Alliance specifically for the job for which they were created. The Open Science Initiative (OSI) is one such Force, tasked with putting science in everyone's hands.

Political Relationships

Alliance members understand that their largest risk is an organized military operation from the Jovians, the Consortium, or both. This very real threat has led to a three-way stalemate between the three powers. The Alliance has become very good at playing the Republic and the Consortium off each other. It gives their scientists time to increase their technological advantage and keeps their two largest enemies firmly occupied.

EXTROPIANS

Posted by: Mizar Alcor, Firewall Sentinel INFO MSG REP



Memes: Market Anarchism, Mutualism, Non-Aggression
Main Habitats: Extropia (Main Belt)

Extropians are the only ones to truly embrace the free market. The hypercapitalism destroying Mars and the inner system isn't an actual free market, it's just more of the same liberty-crushing regulatory nonsense with government wolves in corporate clothing. And the lovey-dovey collectivist bullshit going on across those anarchist habs seems nice in principle, but in reality it's hot garbage. The lack of laws is good, but do you really want to share all of your stuff with strangers, rely on your neighbors for backup, and sacrifice yourself to the collective? We're the happy medium between the two, the truly free market that lets individuals express themselves.

Entering the Contract

The unifying principle of all Extropian communities is the contract. When you enter an Extropian habitat, you sign rental agreements for the life support and space and hire private contractors to provide protection and emergency services. Any ongoing economic transactions and relationships are based on contracts agreed upon by all involved parties. The only binding law is what's put into writing in these contracts, backed by a freelance judiciary service. Private ownership is respected in Extropian communities, and rep is based on completing contracts to the benefit of all. ALIs are integral to such a complex economic system, handling contracts, disputes, and micro-torts in real-time. Contracts are scrupulously maintained and tracked in decentralized holochain cryptographic ledgers.

Market Anarchist Flavors

Most Extropians identify as individualists and "anarcho-capitalists," a term which always triggers those collectivist anarchists who consider capitalism and anarchism to be incompatible. Sorry, not sorry. The basis of Extropians ideology is a strict non-aggression policy, stating that any threat or act of violence against another person violates their right to self-determination. A subset of Extropians known as *mutualists* have a more anti-capitalist bent, favoring markets but not profiteering. They establish mutualist cooperative banks, owned by their customers and operated by ALIs, which give out interest-free loans and use their own m-credit cryptocurrency. Mutualist corporations are structured as worker-owned cooperatives, and these compete alongside hypercorps in transitional economies.

Intermediaries

Extropian habitats serve as a bridge between inner-system hypercorps and outer-system collectives. The suits like having their markets and the freaks like not having cops breathing down their necks. We put both at ease while pissing off both at the same time.

While Extropians are in favor of tangible private property, we long ago surrendered support for intellectual property. Quite a few Extropian hypercorps base their business models on reverse-engineering or the concept of *shanzhai* (counterfeit goods, trademark infringement, and other reproductions). We also are less concerned with overbearing habitat legalities, so our corps are often willing to trade products or services that aren't economically feasible for Consortium corps: narcoalgorithms, hacking zero-days, weapon systems, AGIs, certain genetic mods, etc. This gives our habitats a reputation among sunward types for being outlaw havens, which certainly has a nice ring to it.

Meanwhile, the autonomists criticize us for allowing contracts that are "exploitive," but if an adult wants to sign an agreement to become an indenture, I don't see why I should stop them. They also criticize our lack of a social safety net for society's downtrodden, as if we are all somehow responsible for each other's mistakes and bad luck. You ask me, if we're pissing off both sides, we're probably doing it right.

THE JOVIAN REPUBLIC

Posted by: Tio Silencio, Firewall Proxy INFO MSG REP

Memes: Bioconservatism, Catholicism, Security
Main Habitats: Liberty (Ganymede), Solano (Jupiter Orbit)

The Jovian Republic rose from the ashes of the Seventeen-Minute War, when US military forces and their South American allies, acting on spurious intel, wiped out opposing Chinese and Russian forces and seized control of Jovian space. This was immediately followed by a coup, bringing all Jovian stations under their control, with the exception of Europa.

With the collapse of Earth and the arrival of various government officials seeking refuge, the military junta established the framework for a new Republic. Though lip service is paid to democratic ideals, and an elected Senate nominally passes laws, everyone knows the Security Council wields true political power. Its word is law, and its head, Commander in Chief Monica Contreras, rules the Jovian system with a titanium fist.

What Drives the Republic

I wish I could condemn the actions of the Security Council as fascism, but the truth is far murkier. Every Jovian citizen looks back at the Fall with two words on our lips: "never again." Whatever it takes for humanity to survive, we will do. If we must be the ones to make those hard decisions, then so be it. This is why we lean so bioconservative, why AGIs and uplifts are forbidden, and why scientific research must be carefully regulated. I don't agree with these actions, but the goals themselves I do wholeheartedly. Never again means never again, whether it's the return of the TITANs, out-of-control transhumans, or another threat we cannot conceive.

Religion plays a major role in our lives (I am an ordained priest). The Roman Catholic Church found safe refuge here, and the Security Council maintains a long-running partnership with the Papacy. The Vatican offers religious guidance to the Council, which is thinly-veiled lobbying, and not all of it in the best interests of the faithful. Religious attitudes prevail; while genefixing is accepted, many enhancements are considered unnatural, and resleeving is considered suicide/murder. Many Jovians retain their original birth bodies.

The Council on Bio-Ethics and Advanced Technology (CBEAT) mandates social and legal policy in the Republic. CBEAT is responsible for evaluating new technologies to determine whether their application is safe and ethical for Jovian citizens. I joined Firewall after watching the child of one of my parishioners pass away from a disease that could have been cured by technology deemed unethical by CBEAT. I held the boy's cooling corpse in my arms, and promised his parents two words: "never again."

Our Place in the System

The Jovian Republic has one thing no other political body has: the strongest military in the system. The Consortium fears us, because they make every effort to woo us from their embassy on Liberty.

This relationship is also a function of the Republic's slingshot taxation, one of our chief sources of revenue. Many ships traversing the Solar System take advantage of Jupiter's gravity well to save on fuel. Each of these is automatically assessed and taxed. The hypercorps seek to lower these tariffs as well as ease restrictive Jovian laws so they can more effectively tap into the Jovian consumer base. The Security Council remains skeptical of transhumanity's ability to keep a handle on destructive technologies, however, and so limits trade in the interests of security.

SCUM

Posted by: Isabella Dandolo, Firewall Proxy INFO MSG REP

Memes: Hedonism, Immediacy, Morphological Freedom

The scum are societal dropouts. They have walked away from normie transhuman culture to pursue their own radical self-expression. They have rejected consumerism, work, and the other spectacles and shackles that people live under. Their central imperative is to live life to the fullest, and they pursue this with drugs, body mods, sex, art, and anything else that captures their interest. Some consider this hedonistic, depraved, or even criminal. The scum response would be that a life in a cage isn't worth living.

Scum resemble anarchists (and some are). Most take politics less seriously, however, though they adopt various communal methods of organization. They have little regard for rules that impede personal growth and pleasure, so long as everyone is a willing participant. However, many scum groups adopt guiding principles that include concepts like self-reliance, radical inclusion, and active consent. Scum often cohere into tribes, camps, crews, or packs based on thematic concepts or general affinity, but these are ephemeral and fluctuate frequently.

Origins

The scum have their roots among those that followed the expansion into space and either broke ranks with the hypercorps or were abandoned by them to their own fate. These exiles survived in the cracks and fringes, refusing to go back down the well.

Following the evacuation of Earth, refugee ships choked the system, often overcrowded and in danger of overloading their systems. These were turned away from major settlements that were themselves already full. The scum who already survived on their own came to their aid and helped them to congregate in fleets to share resources and support each other in emergencies. Together they attempted to occupy the remnants of habitats destroyed or abandoned in the conflict or erected other emergency hab structures from ingenuity and desperation. As the fleets moved, they found ways to pull these structures with barges or made them mobile by fitting rockets to them.

SWARMS OF NOTE

These scum swarms are notorious throughout the Solar System:

- *The Carnival of the Goat* is infamous for its sexual expression, lasciviousness, body switching, and unique morph designers.
- *Get Your Ass to Mars* travels a languid path between Mars and Titan, and is famous for hosting the creative Scum Olympics.
- *Lick Me, I'm Delicious* is on a grand tour of the Solar System, with the stated goal of visiting every moon, station, and planet.
- *The Stars Our Destination* happily advertises itself as a home for social rejects. More organized than other scum, each ship has a specific role designed to keep the swarm running.
- Each ship in *There's No Going Back* is devoted to re-enacting a different historical theme with a technological twist, from Shogunate Japan to the American Wild West.

Given their rejection from sanctuary, these survivors turned their back on society. Many turned to drugs, escapism, or even suicide out of despair. In response, others worked hard to create a positive, celebratory, party atmosphere. Anarchists and other radicals in their ranks helped them to self-organize. It wasn't long before these swarms adopted the practices of Traveler and Roma cultures, choosing a nomadic lifestyle, living by their own rules, and staying in one place only as long as necessary. These perpetual rovers circle the sun using minimal amounts of fuel, going wherever their whims takes them.

The Black Market

Scum swarms are valued as bringers of (temporary) entertainment to the habitats they pass near. They also serve a valuable economic function, acting as black and red-market dealers and transports. Swarms straddle the fence between various economies; their dealings with inner-system stations require them to handle currencies, and interactions with Extropians require contracts, but among their own ranks and with autonomists they practice gift exchange and rely on rep.

THE TITANIAN COMMONWEALTH

Posted by: Magnus Ming,
Titan Autonomous University

INFO MSG REP

Memes: Cyberdemocracy, Technosocialism
Main Habitats: Aarhus (Titan),
New Quebec (Titan), Nyhavn (Titan)

60 million transhumans live on Titan, and we have forged a model society for the future of transhumanity. Everyone is welcome, everyone contributes, and everyone breathes free together. It is our hope that we will serve as an example for the rest of the system to one day emulate.

From Settlers to Leaders

Titan was settled in the 21st century by researchers and academics; it was the only major settlement in the Solar System not funded or controlled by hypercorp interests. Titan remained fiercely independent, emulating the socialist economies of the Scandinavian countries familiar to its original colonists. The Commonwealth is a gift economy, relying on reputation like much of the outer system. However, we also use a currency called the *kroner,* which is not spent but reinvested in microcorps, thus helping us allocate collective resources.

Technosocialism

The Titanian Commonwealth is a direct democracy. There's no Senate or Parliament, just a voting body called the Plurality. Everyone votes using their muse, and initiatives are decided quickly. Every Titanian citizen literally enters a social contract when they come of age, which outlines their rights to vote and raise initiatives to the Plurality.

The Commonwealth's powerhouse economy is driven by microcorps (rather than Consortium hypercorps); these ventures range from one-person outfits to the Gatekeeper Corporation, which employs tens of thousands. Microcorps are technically owned by the Commonwealth, and their successes buoy everyone.

In turn, the Commonwealth reinvests its social and economic capital in projects for the greater good: telescope arrays, radio antennas, antimatter-drive exploration, and even generation ships aimed at nearby systems.

Titanian Life

The Commonwealth prides itself on its permissible social policies. Uplifts and AGIs have full rights within the Commonwealth, forking is permitted, and drugs are widely available. There is no indentures, and scientific research doesn't face the Republic's hurdles or the Consortium's profit-seeking diversions.

The Titanian Commonwealth maintains a powerful military force, cementing our position as a major political power in the outer system. Like it or not, they're the only element that has staved off attacks by the Republic and the Consortium. Everyone in the Commonwealth and the Alliance owes their safety to the brave people who protect our hard-won freedoms.

SOCIAL MOVEMENTS

Source: *Towards the Comprehension of Transhuman Society* LINK

The Fall reshaped transhumanity. In times of near-apocalypse, everything is re-evaluated. Faith is questioned, political ideologies disintegrate, social groups realign. While some pre-existing social movements simply blinked and moved on, most were transformed just as new ones arose, espousing new answers and new ideas.

ARGONAUTS

Memes: Open Source, Scientific Responsibility
Main Habitats: Markov (Kuiper Belt), Mitre (Lunar Orbit)

The Argonauts (officially The Argonaut Council for Responsible Science) are the organizational descendants of a group of scientists who broke away from the pre-Fall advisory group JASON, which consulted for the United States government about scientific and technological progress, responsibility, and danger. Today the Argonauts work with every major political and economic power throughout the Solar System (except for the Jovian Republic, where they're banned). They famously advocate neutrality and openly avoid taking sides in conflicts, though the Jovians and some hypercorps accuse them of favoritism and factionalism.

Responsible and Transparent Science

Argonaut policies advocate for complete social scientific responsibility and hold scientists to professional standards, especially as technology becomes more enabling and potent. They believe that profit, political, and military gain should not dictate what technologies one pursues; rather, whatever benefits transhumanity most should be our priority. Additionally, government and corporate intervention in scientific research must be minimized or avoided and science not limited on ideological grounds.

Argonauts also argue that it is in transhumanity's best interest to provide open access to scientific findings and so advocate and support open-source information, libraries, and projects; particularly tools and building blocks for emerging technologies that improve quality of life for everyone. Argonauts often, by design, require governments and hypercorps to open source their discoveries in lieu of traditional monetary payment.

Inside the Argonauts

The Argonauts structured their organization like a pre-Fall academic institution, with a Chancellor, President, and Provost (collectively "the Chancellory") elected by a Senate of members. Two political blocs rule the Senate: precautionists and proactionists. The precautionists take a conservative stance towards research, avoiding anything that could endanger transhumanity; the proactionists believe "the best defense is a good offense."

The Argonauts maintain the Institute for the Study of Emergent Trends (ISET) to coordinate projects, archive results, and collect data. According to rumors, ISET also acts as their clandestine intelligence agency, running a heavyweight forecasting project. It is allegedly protected by an in-house security force called the Medeans.

BARSOOMIANS

Memes: Indenture Liberation, Martian Independence, Terraforming Control
Main Habitats: Ashoka (Mars)

Barsoom is an ancient Earth term for Mars, derived from popular fiction. The term is used to describe a movement of natives (and converts) who want a free and self-governing Mars, though they don't refer to themselves as such; it's simply *the movement* or people who are "down with B."

There's no single platform among the Barsoomians, but the uniting issue is local control, whether it's a remote hab governing itself or all of Mars free of hypercorp interference. The other grievances that bring the movement together ("the Complaints") include:

- Ending indentured servitude.
- Ending the planned obsolescence of morphs.
- Improved planning of orbital bombardments, flooding, and landscape-altering terraforming (especially when settlements are affected).
- Ending the abuse of eminent domain and forced relocation of Martians.

ARGONAUT RESEARCH PROJECTS

There are literally thousands of Argonaut research ventures ongoing across the Solar System; this overview intends only to give a representative flavor of the kinds of work Argonauts do.

- **3LIZA** is an open-source tool for developing and teaching ALIs/muses.
- The Argonauts consult for hypercorps researching **antimatter containment fields** to miniaturize and improve antimatter drives.
- The **Exoplanet Directory and Gate Address Registry (EDGAR)** records gate addresses and data on exoplanets reachable through those gates.
- A secret **Factor Genome Project** was shut down when a rogue group of Argonauts attempted to clone a Factor and the Factors found out.
- ***The Frozen Dreams*** is a comet chaser found adrift 48 AU out, its entire crew missing. The Argonauts have laid claim to and control the ship, trying to discern what happened.
- **HabOps** is an open-source habitat control and logistics software suite. It faces mounting pressure from hypercorps that consider it a threat to their own prioprietary systems.
- The **Kisilev Open-Source Uplift Genetic Library** on Ceres helps uplifts take control of their own future development.
- The Argonauts maintain a massive open-source directory of nanofabrication blueprints called **PrintLib.** Its main repository is on Markov, but mirrors exist across the system. They are consistently blocked and attacked to preserve hypercorp intellectual properties.
- **Thorne** is a massive, high-capacity radio telescope and transmitter at 850 AU. It is popular for vanitycasting, where people cast forks of themselves to the stars in the hopes aliens will receive them.
- Various **Threat Reduction Filters** are widely used and regulary updated, helping habitats and security systems identify known threats (including exsurgent infection, hostile nano, etc) when scanning mesh traffic, incoming ships, and morphs passing through checkpoints.

The movement employs a variety of tactics, from the political to the violent, to achieve its goals. Recently, the movement has enjoyed some political gains in the Tharsis League, Mars's local governing body. The League and its Council are nominally puppets of the Consortium, but in the last few years, Barsoomians have made some major inroads. Others in the movement — cells, without any apparent central authority — have waged a war of property destruction and outright terrorism against Consortium hypercorps and the Tharsis Terraforming Office (TTO).

Some of Mars's famed Rangers certainly appear sympathetic to the movement, which puts them in a difficult position. Martian nomads (the original Barsoomians, as they'll remind you) are also down with B, whether they're a terraformer clan or a reclusive sufi sect. A subset of techno-anarchist nomads that call themselves *makers* developed many of the technologies Martians still use, like extended-use breathers. They have strong ties to the Autonomist Alliance, who openly funnel support.

BIOCONSERVATIVES

Memes: Bioconservatism, The Natural Order, Primitivism
Main Habitats: Liberty (Ganymede), Vo Nguyen (Earth Orbit)

Pre-Fall, transhumanity viewed bioconservativism as a backwards, laughable ideology — the domain of religious extremists and fringe groups unable to cope with the future. Bioconservatives were numerous and had strong support, however, prompting backlashes and attacks against augmented transhumans. Biocon terrorist groups were quite active before the Fall, launching attacks against hypercorp labs and even a failed attempt to bring down the space elevator.

Most bioconservatives on Earth perished during the Fall, unable to egocast off the planet. But the destruction of Earth catalyzed its adherents into a far stronger force. With transhumanity seemingly complicit in the destruction of Earth, their arguments were validated. Bioconservativism suddenly didn't seem like such a crazy idea.

Bioconservatives oppose many transhuman technologies, including uploading, resleeving, nanofabrication, genetic modification, cloning, cognitive modifications, artificial intelligence, uplifting, and forking. These are largely seen as unnatural, against God's will, or simply too uncontrolled and dangerous. Most view the rest of transhumanity as soulless copies and see the Fall as a sure sign that transhumanity is not prepared for the technology it created.

The Jovian Republic was founded on bioconservative principles, and many of the technologies that the rest of transhumanity enjoys are outlawed there. The Republic views this as a safeguard; only this kind of oversight, they argue, will save transhumanity from another Fall.

The Vo Nguyen station in Earth orbit, a major reclaimer base, is also strictly bioconservative; reclaimers view this as a benefit, as they have no modified morphs for the exsurgent virus to attack.

Most bioconservatives are content to pursue their ideology peacefully, though perhaps from the safety of a well-equipped bunker. The truth, they believe, will ultimately prove them right. However, a number of bioconservative extremists continue terrorist attacks throughout the system, allegedly with Jovian support.

Neo-Primitivists

Neo-primitivists are a collection of both far-right and far-left biocons that advocates returning to humanity's most basic state: hunter-gatherer tribes with no technology whatsoever. Neo-primitivism has been blamed for sabotage and terrorist attacks on Vo Nguyen, disrupting reclaimer projects involving nanotech and geoengineering efforts using gene-altered organisms.

BRINKERS

Memes: Experimentation, Isolationism, Religion

It takes guts and willpower to choose self-imposed exile on a tiny hab dozens of AU from the sun. We've come to call these people brinkers and isolates: those who live life on the literal fringes of transhumanity.

Brinker habs come in all flavors: individul hermits, single families, extended group units, social experiments, societies based on gender (or lack thereof), political extremists, religious groups, cults, pleasure houses, and always-on gaming. You can find brinker groups anywhere: among the different Trojan asteroid groupings, on the tiny moons of the gas giants, around Saturn's rings, and even out in Mars's dunes and Venus's clouds. You can find them floating in the sun's corona, in the far extremes of the Kuiper Belt and Oort Cloud, riding comets, or hidden away on frontier exoplanets.

It Takes All Kinds

Near-Earth brinkers tend towards bioconservativism or religious worship. These groups prefer to be left alone and often use outdated technology; a cottage industry has sprung up to service their antiquated equipment. Elysian Fields is hab where no one is allowed to leave; people travel there to live out a natural lifespan and die.

Cultural brinkers run the gamut of artists, experimenters, and eccentrics. You can live as a pet cat, enjoy a recreation of 17th-century Scotland (complete with modern sexual fetishes), or live a life of endless monastic prayer. Examples include Winter, where all morphs are genderless; Habitat on the Rock, with its wonderful collection of Earth artifacts and curiosities; and Qo'noS, the invitation-only Star Trek environment.

Scientists create or find brinker habitats so they can pursue clandestine research. Some may be hypercorp-funded, others are the work of exiles. Others are misguided attempts to establish new societies. Alpha Plus is an attempt to create a perfectly ordered society via psychsourgery, so that everyone is sculpted for their role.

Religion and cult worship comprise the last major group of brinkers. Religious groups tend to be monastic or ascetic. Cults can be harmless or criminal, depending on how fanatical they are and how odd their beliefs might be. The monastery on Saturn's moon Kiviuq requires attendants to meditate in vacuum and listen to the voices of the stars as received via a neutrino telescope array.

Perhaps the most numerous brinkers are survivalists, who stockpile weapons and supplies and hide in fear of another Fall or some other system-wide cataclysm. These brinkers are typically untrusting of visitors and hostile to outsiders.

Despite their self-imposed isolation, brinkers do sometimes engage with others, especially to trade for resources and supplies. They sometimes clash with each other over mining claims, bad deals, and roamntic entanglements. A "brinker war" between a clan of Malaysian sikhs and Canadian survivalists is ongoing in the Neptunian Trojans thanks to a territorial dispute.

EXHUMANS

Memes: Posthumanism, Singularity Seeking, Social Darwinism

What lies beyond transhumanity? For exhumans, it's the discarding of humanist ideals altogether, the pursuit of extreme self-modification using experimental technologies to where you are no longer recognizably transhuman. Exhumans seek not only posthuman transcendence, but superiority. They have moved beyond morality; nothing is off the table if it means the survival and dominance. Transhumans are widely regarded as worthless inferior beings; we are prey or slaves to be exploited.

Moving Beyond

The goals of individual exhumans and groups differ, but they are known to sometimes work together. A few of the larger exhuman tendencies can be identified:

- **Predators** are proof that, despite all of transhumanity's advances, we're still locked into our absurd primate dominance dynamics. Predators seek to hone themselves into apex predators, the ultimate fighting machine capable of defeating any challenger. These are the exhumans that most actively prey on transhuman ships and habs.
- **The Sublime** seek to amplify their intelligence to god-like levels. Some are wary of machine intelligence, however, and the vulnerability to hacking. They've developed both morphs with massively augmented brains and minds built on networked and boosted cyberbrains. Some pursue xenobiology research, believing they've reached the functional limit of what a transhuman brain can achieve.
- **Adaptives** develop morphs that can handle the most extreme of environments — surviving whatever the universe can throw their way. Most favor machines.
- **Parasites** adapt themselves to survive hidden among transhumanity, preparing for the TITANs' return, when they hope to adapt to the TITANs as their new host.
- **Soul Eaters** pursue apotheosis by cutting out the useful elements of other minds and merging it into their own.

Singularity seekers who pursue and study the TITANs and their technology are often associated with exhumans. They view the TITANs as gods that can be captured, studied, and emulated. However, most seekers do not enhance themselves or buy into exhuman dominance beliefs, so as a rule exhumans will mock, exclude, and/or take advantage of them.

MERCURIALS

Memes: Anti-Anthropocentrism, Autonomy, AGI/Uplift Liberation
Main Habitats: Glitch (Neptune), Mahogany (Neptune)

The term "mercurial" is widely used to refer to infolife and uplifts, the non-human portions of transhumanity. The name has been adopted, however, by uplifts and AGIs who aren't simply looking for equal rights, assimilation, or transhuman conformity — who instead want full self-determination and autonomy. Mercurials are considered the radical fringe of the sapient movement that champions equal rights, but they are growing in numbers and influence.

Anti-Assimilation

Mercurials define themselves by their rejection of anthropocentrism. They seek to replace dominant human-conceived culture and behaviors with their own. To this end, mercurials seek to be cultural pioneers, crafting new customs, fashions, art, morphs, and even languages that are not tainted by human influence. They also seek to put AGIs and uplifts firmly in control of their own development, uplift, and identity. Mercurials tie their struggles to related social-justice causes, such as the fight to free indentures.

Mercurials are sometimes derided as separatists or anti-human extremists, though this is mostly incorrect. In fairness, mercurials often have little tolerance for human criticisms and attempts to police or control them. They see no need to apologize for wanting to be themselves.

Groups and Leaders

The mercurial movement is composed of many small groups, few of which can claim a leading role. Their movement is not always unified or in agreement. Some AGIs decry society's focus on physical embodiment, while many uplift mercurials see their biology as core to their identity. As AGI/uplift culture is a blank slate, there are also conflicts beween cultural innovators over direction and vision.

Militant mercurials take a more radical view on social struggle. The Sapient Liberation Front is a cell-based direct-action group intent on economic disruption. They have hacked, sabotaged, and even bombed labs, offices, codehouses, and universities involved in uplift research and the trade in AGI/uplift indentures.

Mother Octopus (her actual name is a series of skin tones unpronounceable to anyone but other neo-octopi) is a mercurial leader who lives in Atlantica. She argues passionately that transhumanity has failed to guide itself to a prosperous future and therefore humans have no ethical authority to regulate the lives of other sapients.

RECLAIMERS

Memes: Reclaiming Earth
Main Habitats: Remembrance and Vo Nguyen (Earth orbit)

Taking Earth back from the TITANs is a pipe dream for most, but the reclaimers have made it their life's mission. Largely centered around Earth and the LLA, the reclaimer movement has sympathizers throughout the Solar System. The Roman Catholic Church is a major sponsor of reclaimer activities and has funded several missions to recover artifacts from the ruins of the Vatican and other holy places.

EXHUMANS OF NOTE

Posted by: Factorum, Firewall Crow

Exhumans are nothing to fuck around with. Sentinels should exercise every available precaution. These are some of the most dangerous exhumans and groups we have on our radar.

- **Abandoned Weakness:** A pre-Fall warlord and predator wanted for war crimes, terrorist attacks, and dealing in WMDs and TITAN technology.
- **Dr. Yu Ping Dalton:** Exiled after authorities connected her to a plague outbreak on Luna, Dr. Dalton leads research projects on the exoplanet Fortean, developing neogenetic cryptids.
- **Ex-Hominids:** Composed of various ape uplifts, this group seeks to destroy transhumanity and implement an apex hominid empire.
- **Dr. Jacobi Chelikov:** A former Argonaut scientist on Titan, Dr. Chelikov fled to the outer system when it was discovered he was performing illegal experiments on transhumans using TITAN technology. He is wanted for selling bio-engineered plagues to biocon terrorist groups.
- **One Step Beyond:** A cell of sublime exhumans wanted for stealing an antimatter reactor on Mercury.
- **Silent Mercy:** Silent Mercy founded the soul-eater faction and is wanted for unethical ego-merging experimentation. He has multiple alpha forks pursuing his projects around the system and a private habitat somewhere rimward with sophisticated backup and resleeving facilities.

The Earth Reclamation Project

Led by Milder Ripon, the Earth Reclamation Project (ERP) funnels funds to lobbyists influence the LLA and Consortium to support the movement. Opposition to the ERP is fierce: the project is incredibly expensive, it's opposed to the Consortium dogma that Mars is transhumanity's new home, and there's a very real risk of danger—possibly even "re-activating" the TITANs. Rumors that the reclaimers have established a permanent base on Earth as a beachhead and research outpost remain unconfirmed. Admitting nothing, the ERP argues that such a base would be a critical beacon of hope for any transhumans luckless enough to still be trapped down there.

On a positive note, the reclaimer movement has dumped a massive amount of effort into creating habitat "arks" throughout the system (and on extrasolar worlds). These vault-arks contain genetic material for every species on record, libraries of books, galleries of digitized art, and other artifacts of transhuman culture. Others are literal ecological conservatories and wildlife zoos, preserving Earth's biodiversity in an artificial environment.

SAPIENTS

Memes: Assimilation, Uplift Rights
Main Habitats: Aphrodite Prime (Venus), Respect (Jovian Trojans)
Referred to as "the silent majority," sapients are uplifts, AGIs, and transhuman allies who promote equal rights for uplifts and infolife. Sapients hold an assimilationist point of view, pushing for acceptance of uplifts and infolife as simply another facet in transhumanity's jewel—just people, nothing more. The sapient movement opposes special legal status, breeding restrictions, and other forms of institutionalized discrimination. They have made significant inroads by lobbying politicians and working with hypercorps for sponsorships, media representation, and employment.

The Sapient Union, based out of Venus, is the public front of many sapient efforts for equal rights. Brian Ngavi, the neo-chimpanzee executive vice president of Somatek's uplift program, is a tireless speaker, appearing all over the Solar System to argue for educational programs, vocational training, and other opportunities. He strongly encourages other uplifts to work and participate in hypercorp uplift programs. It is only through participation, he argues, that uplifts will find acceptance.

SOCIALITES

Memes: Creative Expression, Hedonism, Immortality
Main Habitats: Elysium (Mars), Octavia (Venus)
Fifty years ago, the inclusion of socialites as a separate sociological group would have been a laughable topic for an undergraduate paper. Now, entire courses at TAU are devoted to studying transhumanity's obsession with its neo-royalty.

Socialites comprise a wide swath of transhumanity; they're any transhuman who inspires repeated media interest. This includes the adventurous idle rich, the glitterati on Mars and Venus, extreme sports stars surfing Saturn's rings, X-casters giving people access to their most intimate experiences, professional XP actors, and meta-celebrities. Unlike historical royalty, the confluence of the mesh, XP technology, and always-on meme-driven culture allows a nobody to become a somebody instantly—and sometimes they even manage to stay there as they continue to feed their fans what they want.

XP realism and constant updates create personal connections, even over the vast distances transhumanity has spread. A lonely prospector in the Kuiper Belt can get up-to-the-minute news on his favorite Martian starlet. An urchin in a New Shanghai slum can live every heart-pounding moment of her favorite cliff diver's runs on Titania. For people confined to small communities, or those confined to lives destined to end in poverty and pain, this gives them a simulacrum of personal attachment.

Many of the idle rich come from families whose fortunes predated the fall by decades if not centuries. These socialites are naturally connected to the oligarchs. They also face a terrifying truth that people have not had to deal with since the middle ages: they may not inherit their parents' fortunes. This stark reality drives them to take up lives that are adventurous, hedonistic, and reckless. From racing yachts to cloud-diving in Neptune's icy depths, no adventure is too outlandish for these socialites or their millions of fans.

THE ULTIMATES

Memes: Asceticism, Fascism, Meritocracy
Main Habitats: Aspis (Main Belt), Xiphos (Uranus)
The Ultimates owe their origins to Manu Bhattacharya, a mercenary on the Indian subcontinent whose personal philosophy was a strange mix of confucianism, free-market capitalism, and objectivism. Bhattacharya's private army, Ultimate Security, thrived in the pre-Fall turmoil; their involvement made or broke governments and causes. Bhattacharya was a strong proponent of transhuman technologies, encouraging his troops to mod themselves. As his successes and legend grew, Bhattacharya cultivated a cult-like following in his employees, who praised him as a guru-mentor.

Just prior to the Fall, Ultimate Security fell under international investigation for war crimes and human rights violations. Bhattacharya relocated his headquarters to a station called Struggle, which allowed him to avoid Earth-based authorities and gave the Ultimates a community to call their own. After the Fall, though Struggle was lost to the TITANs, Ultimate mercenaries found themselves in high demand. They achieved system-wide notoriety when Go-nin hired them to overrun exhuman forces on Eris and seize control of the Discord Gate.

Ultimate communities are highly stratified and built around personal achievement. They take literally the Confucian belief of strength from the bottom up: strong individuals make strong communities, and strong communities make strong states. However, their members increasingly buy into Bhattacharya's myth-making and cult of personality, strict meritocratic beliefs, and derision of lesser transhumans as "genetrash." Ultimate mercs increasingly show their willingness to cross ethical lines and engage in war crimes.

SHUGYŌSHA

Source: The Ultimate Ronin

In AF 4, a high-ranking Ultimate known as Yasuke, disillusioned with the Ultimates' drift towards fascism and disdain for the rest of transhumanity, broke from the faction and embarked on *musha shugyō,* the samurai warrior's pilgrimage. He wandered the Solar System for the next three years, fighting duels, working mercenary contracts, creating art, and formalizing his neo-bushido philosophy. In time, he attracted followers, in part due to his willingness to train uplifts and AGIs at his isolated dojo in the caldera of Olympus Mons on Mars. Although a tiny faction, the *shugyōsha* have a formidable reputation as warriors and protectors of working-class Martians—and the undying enmity of the Ultimates, who consider Yasuke a traitor.

HYPERCORPORATIONS

Source: *Swimming with Laser Sharks* LINK

Hypercorps are the super-predator grandchildren of the old lumbering megacorporations. They originally evolved to exploit cracks in their ecosystem or to fragment monopolies like laser-guided missiles. Short-lived, overclocked, unregulated, all edge. They are the teeth of the new transhumanism — survival requires only that they adapt faster than their opponents. With the destruction of the legal and social protections of pre-Fall civilization, they have reproduced to fill every niche, establishing Capitalism 2.0, for as long as it doesn't choke on its own effluence.

THE MODERN HYPERCORP

Hypercorps are fundamentally different than the corporations of old. The multinational megacorps of Earth were sprawling bureaucracies, engaged in multiple industries, some with economies larger than small countries. Their goals was to control supply chain, manufacturing, and distribution channels in order to monopolize a market. By contrast, the ideal hypercorp is designed to be small, focused, virtual, and automated. The best are created for a particular purpose and then cease to exist upon completion. The classic example is the hypercorp that is little more than a smart-contract ALI, spun up to manage a specific opportunity, such as auctioning licenses for a new proprietary nanofab blueprint. Once it stores all of the transactions on distributed, tamper-proof, holochain crypto-ledgers, it dissolves.

The defining characteristic of hypercorps is their eagerness to adopt and exploit new technologies. Before the Fall, this was particularly effective in disrupting old business models and standards. Older corporations simply could not compete against the new dynamics. In the early days of XP, for example, **StayK** pioneered a streaming platform for viewers to subscribe to their favorite X-casters and ride along on vacations, monetizing the travel experience while putting a dent in the travel industry.

The hypercorps have a reputation for opportunism and ruthlessnes, in part because they are keen to circumvent legal restrictions. This first manifested as they exploited industries where legal regulations had not yet caught up with technological innovation. It then evolved into actively avoiding oversight by moving operations off-world, free from government interference. This enabled uninhibited research that moved them years ahead of their Earth-bound competitors. This desire to bypass accountability also led to a number of shady business practices, from fly-by-night corporations that fleeced customers and investors to more active efforts to sabotage competitors.

The pre-Fall hypercorp **Recall** made a killing when it brought the first accesible backup procedures to the consumer market, only to sell off their holdings and shut down their servers a year later, leaving backups inaccessible due to their proprietary DRM scheme. At the more extreme end, the pre-Fall orbital-power hypercorp Solas funded and directed dissidents to bomb oil refineries. Before the conspiracy could be proven, it dissolved its assets through non-terrestrial ownership channels that could not be brought to court. **Bigelow Holdings** coordinated with competitors to institute artificial supply controls to sustain mineral prices, while simultaneously sabotaging asteroid mining facilities. All at once they stopped both, causing an abrupt flood of mineral wealth that bottomed out the market overnight. Chaos followed, forcing at least one small nation to mortgage itself to remain solvent. Though most hypercorps are not this openly hostile, there is a low-level environment of corporate espionage, hacking, and interference among hypercorps that keep security and intel services in high demand.

Hypercorps benefit from being small and focused. A single hypercorp of a dozen people can form and scatter within hours in response to opportunities. A hypercorp workforce may be as small as a single AGI, but personnel can use forking or ALIs as force-multipliers. The most successful have negligible inventory, maintain only a small physical or digital presence near markets, and transfer or create resources instantly in response to changing conditions. Rare is the hypercorp larger than a dozen employees, but they may hire hundreds of contractors who can be added or dropped fluidly.

Given their specialization, hypercorps find it essential to partner with other hypercorps for assets and services they lack. Each exists within a fluctuating web of contract relationships. As the need arises, they will also form conglomerates with other hypercorps, replicating the powers of conventional corporations. Large conglomerates play a major role in hypercorporate affairs, often defining the lines of competition in specific markets. A number of major conglomerates hold positions on the Hypercorp Council, though their constituent components are subject to change.

The hypercorps have been so successful that the term "hypercorporation" is now applied to every for-profit organization, whether they use the hypercorp business model or not. The market still has its share of traditional corporate structures, even co-ops and mutualist organizations. A number of keiretsus and megacorporations survived the Fall and still beat off extinction. Some of the more successful hypercorps have grown and taken on orthodox corporate elements and assets, though they remain hypercorp in outlook and spirit. This was especially necessary in the wake of the Fall, when many hypercorps took authority over private habitats.

AGRITECH AND PHARMA

Everyone needs food, and you'd be surprised how much comes from members of the **Prosperity Group** conglomerate. They are involved in agriculture, aquaculture, hydroponics, vat foods, and pharmaceuticals, and are considered the primary source of cheap but "real" (non-fabricated) foods. Other notable food and drug hypercorps include **XenoPharma** (developing new products from xenoflora and -fauna), **Finosa Labs** (linked to drug cartels), and **Gingko Biosciences** (micrograv agripods and faux meats of every persuasion).

BANKING AND FINANCE

Banks lie close to the hearts of the oligarchs, and they in turn use their holdings to influence (or straight-out own) other hypercorps and habitat governments, making them dangerous to interfere with. They are highly protective of their investments, defending them with legal and military force. Smaller banks focus on resource management, while larger banks offer portfolio management, predictive and information services, property leasing, and indenture contracts.

Lunar-Lagrange banks have a reputation for stability and longevity and are intimately intertwined with the LLA's economy. They invest heavily in indenture markets, offer unprecedented levels of anonymity, and ask few questions about where your credits came from. Big names include **Chan-Davis Trust, Amelia Assets, Cardison Limited,** and **Ganguli-Bhattacharya-Corbett Investments (GBCI).**

Among the newcomers, **Progress Bank** manages investments in Consortium holdings, making it very popular in the credit markets for those with enough money to qualify for their favorable rates.

It also finances Pathfinder gatecrashing ops and Mars's ambitious Red Eden terraforming initiative. **Mutual Credit** is the largest mutualist bank, with a significant involvement in financing intelligence services. Smaller banks and market services include **Banco de Nova York (BdNY), Khalsa Cooperative,** and **Cranium Intelligence Trust.**

Of special note is **Solaris,** which works with select Consortium customers. Leveraging its own holdings of stock, derivatives, and blackmail material, it adjusts rates for specific industries and corporations to encourage market stability. Solaris owns a significant 17 percent share in the Hypercorp Council, the largest of any member, which it uses as both carrot and stick against disruption. Solaris field agents are a common sight everywhere, aggregating data and managing local accounts in virtual offices. Solaris has an expansive black R&D budget and is suspected of funding research in everything from swarm intelligence to TITAN artifact retrieval to detecting space-time distortions.

While there are dozens of smaller stock exchanges, the largest is the **Planetary Stock Exchange (PEX).** PEX maintains an independent communications network with high-speed and QE nodes, enabling system-wide interactions (whereas other exchanges are limited due to light-speed lags). PEX offers generous bounties on a list of known hackers.

COGNITIVE SCIENCES & UPLIFT

The dominant force in neuroscience is **Cognite,** who research mental augmentations, psychosurgery, AI, and nootropics. They also feed the Consortium's dark TITAN defense programs. Their marketing team is aggressive and their sell sheets include cognitive filters and mandatory psychosurgery for regimes looking to limit political dissent in their habitats. They do not release numbers on how many customers subscribe.

ExoTech is known for pioneering uploading and infomorph technologies. Though its main business is now high-end electronics and meshware, its charismatic figurehead Morgan Sterling continues to lead the field in AI development, to some controversy.

Somatek is the big name in uplift research, including forced breeding and uplift programs for both sapient and non-sapient animals. Because of the public backlash, Somatek avoids appearing in the media and their habitats are locked-down. Somatek also sells pharmaceuticals (for animals and transhumans) and uplift morphs, all through resellers.

Other notable hypercorps in this industry include **Mentat** (bioware and cybernetics), **Cerebrex** (psychosurgical research), **Rangarajan Metrics** (psychometrics and education), **Provolve** (uplift), and **New Day** (the first to uplift neanderthals).

DATA MANAGEMENT

For forecasting and intel needs, Consortium clients prefer **Stellar Intelligence,** descendant of the UN Terran Intelligence Cooperative. Stellar Intelligence deploys embedded infomorph agents and digital red teams to infiltrate specific targets. Data is mapped and analyzed in their massive quantum-computing clusters. Stellar Intelligence provides non-state political management, memetic defense and offense, espionage, and retro-quantification (recovering old secured data). Stellar Intelligence has a particular loyalty to the Consortium and favors Consortium members, despite an ongoing rivalry with Oversight. Their most significant rival is the Extropian hypercorp **Scrye.** Rumored to use recovered TITAN processors on a black site in tandem with overeager hacker teams, Scrye provides predictive intel and data extraction services at reasonable prices.

ENERGY

Though many smaller hypercorps handle solar power, energy cells, wireless power distribution, and alternative fuels, the energy industry is eclipsed by large corporations. Security concerns are a major issue with fusion power and antimatter production, given their destructive capabilities.

Omnicor is the industry giant, providing reactors to vetted clients all around the system. Their corporate culture is very strict and security-oriented, given their products and an ongoing corporate war with Starware (both companies being descendants of the pre-Fall megacorp Monolith Industries and disputing ownership of assets). Omnicor handles the largest and most well-known particle accelerators for making antimatter in orbit over Mercury.

Gammax is one of the few other hypercorps in the Solar System known to produce antimatter. The energy corp **Ultrapar-Scorpio** has a strong presence in the outer system, willing to deal with brinkers and autonomists alike.

GATECRASHING

Four of the five known pandora gates in the Solar System are held and operated by hypercorps (the exception being the Fissure Gate, operated by the Love and Rage autonomist collective). These corps set the access and price tags for the gate, making them invaluable to their allied polity.

The Consortium-owned **Pathfinder Corporation** oversees the faction's intensive colonization, resource extraction, and research efforts via the Martian Gate. It avoids playing favorites with the gate projects of other Consortium hypercorps but it does give preference to the Pathfinder Colonization Initiative and any directives from the Ministry or Hypercorp Council itself. Its inner-system rival is **TerraGenesis,** a terraforming-cum-exploration worker cooperative operating the Vulcanoid Gate. TerraGen's alliance with the Morningstar Constellation and refusal to join the Consortium has put it at odds with many of its neighbors.

In the outer system, the **Gatekeeper Corporation** operates the original Pandora Gate. Formerly a Titanian microcorp before becoming a joint-faction public-interest venture, Gatekeeper focuses on accessibility and has grants and lottery programs for prospective gatecrashers. The keiretsu **Go-nin Group** holds the Discord Gate on Eris, though its remoteness and exhuman troubles have impacted its profitability.

HABITATS AND SHIPS

Anyone with time and an army of bots can build a small habitat, so much of the market is in designs, such as those from **Blue Flower** or **Kosmostroit.** For larger habitat construction, **Azahara Engineering** and **Acumenic** have solid reputations, with the latter being a driving force behind construction of the Hamilton cylinder Bright, in the Saturn system, which it recently siezed control of amid some controversy.

Starware, a surviving megacorp, is the system's largest habitat and ship-builder, owning the massive Korolev Shipyards around Luna and smaller ones at Vesta (Main Belt) and Mars. Only the Jovian Republican Shipyards compete for size. Starware is fully automated and also produces propulsion sources. Starware actively courts the Factors and has funded its own share of gatecrashing expeditions. An ongoing feud with Omnicor sometimes disrupts its operations.

Habitat operations remains a major business, with thousands of smaller corps fighting for contracts. **Ecologene** is a favorite for designing complex biospheres and running environmental systems. They have a strong side-business in genetics, particularly smart animals and wildlife stock. **Livewire** technicians and bots are ubiquitous throughout the inner system with their distinctive safety clothing and lightning AR graphics. **Nimbus** continues to dominate the communications market, running farcasting and egocasting operations on almost every major habitat.

MANUFACTURING & NANOFAB

The **Lucky Star Group** is a conglomerate of consumer-focused hypercorps, providing everything from personal electronics and smart clothing to sensor motes and small drones. Lucky Star has a reputation for affordable but shoddily-made products.

There are over ten thousand registered hypercorps providing blueprints for nanofabrication. Many of them sell through the conglomerate **Nanosys,** a blueprint marketplace and DRM-enforcement agency. While Nanosys's reputation is from its front-end, its entire profit structure is based around enforcing their proprietary standards and cracking down on piracy. They've been accused of targeting pirates and even open-source ventures with malicious code, sabotage, and assaults. On the other side, **Privateer Print's** marketplace exclusively sells DRM-cracked blueprints, with subscription fees going to the cost of security contractors and regular service provider changes.

The megacorp Fujizo dominates the market in synthmorphs and robotics, though they remain in an innovation race with rivals such as **Tetsuo, Nachi-Denso, Li-Lau Automation,** and other giants like Starware and the Go-nin Group.

MEDIA

Most people get their news via social media or curated personal feeds. While conventional mass media is available, the primary role of the media corporations is meme creation, culture/politics jamming, trend-setting, public relations, and memetic defense. There are hundreds of corporations with minor influence competing on the market place, including **Boba, Traumwerken, Savage, Red Five, Arnault-Kieselhurst-Patrick, AngelGirl,** and **PieEater.**

Experia is the Consortium's dominant media company, holding 10 percent of the Hypercorp Council. It outsources media content and feeds it through their proprietary methods to produce a packaged product (with embedded marketing and sponsored memes), that is pushed via its ecosystem of media feeds. Its largest competitor is **Counterpoint Media** out of Extropia. Neither takes a strong position on fact-checking, but Counterpoint cooperates a bit more with independent news-rep systems. Counterpoint is very popular throughout the system for dirt on how poorly various polities are run, though it remains secondary in the outer system to the comedy and bizarreness of Titan's **Monster Raging Goblin Cock News Network**.

MEDICAL SCIENCES & BIOMORPHS

Much of the healthcare industry has been replaced with independent facilities renting healing vat time. The measure of quality is the frequency of vat maintenance and the breadth and age of their morph-repair codices.

Skinaesthesia is the cutting edge of biomorphs and pods, followed by the Extropian knock-off brand, **Skinthetic,** and the pod-design conglomerate **Invatch.** Smaller brands include **Telos, BioDream, StarGen,** and **Dick's Big Bodies.** Skinaethesia is also the go-to vendor for corporations sleeving indentured workers, or who want morphs that enforce restraints and controls on the ego. The popular bodyshop service **Squick** offers upgrades of every variety.

MINING/RESOURCES

Resource harvesting is one of a few industries dominated by the old megas; sprawling corporate structures built on asset ownership, where size gives a particular advantage. The largest of these is **Fa Jing,** which owns a notable 15 percent stake in the Hypercorp Council. Fa Jing maintains mining operations throughout the Solar System and on many exoplanets. Though it maintains one of the largest hypercorp presences in the outer system and has business ties on both Titan and Extropia, it remains hostile to the autonomist project. In fact, Fa Jing views all non-Consortium factions as rivals, and sponsors piracy and habitat takeovers to disrupt them.

Zrbny Group was a widespread asteroid-mining operation prior to the Fall. Nine years ago, there was a brief loss of power and communications in their Main Belt Central Processing and Routing Headquarters. Shortly afterwards, all transhuman employees were fired (or disappeared) with the exception of the corporate spokesAGI, Ash. Zrbny does not engage in politics of any sort, does not permit visitors or inspections even by stockholders, and does not announce its ongoing construction. In fact, Zrbny as a rule does not respond to communications in any medium, including some routine navigational traffic. Why does Zrbny appear on this list? Because they continue to provide rock-bottom prices on feedstock and basic manufactured goods throughout the outer system. Unlike most other hypercorps, Zrbny does not work through any intermediaries. The Zrbny orange corporate logo is a common sight, especially in industrial corners of the system.

Other major mining and resource ventures include **Jaehon Offworld** and the **Vyasa Workers' Cooperative** (rivals on Mercury), **Trojan Metals** (who has had several mining claims jumped by squatters and anarchists), **GazPro** (chemical refining), and **Digz** (specializing in extrasolar rare-element ops). Many moons and asteroids have a private corporation or co-op to handle the resource extraction, at which point it is sold to a middle agent for shipping. Frequently this organization is also a de facto governing body. The **Cthylla Workers' Commune** is a pseudo-corporate organization enforcing mining rights and social order on Pluto and Charon. The **Cerean Transcrustal Authority** sells Cerean water and volatiles and is also a discreet appendage of the Hidden Concern cartel.

SECURITY

Defense contractors necessarily tie in both physical and information security. Many include biohazard, TITAN, and memetic defenses as well. Inner-system habitats predominantly prefer the extra legitimacy provided by an external contractor over a local militia.

Physical security is dominated by two hypercorps. **Direct Action** is a descendant of pre-Fall military contractors. They provide shock troops, military, and police services at a reasonable price. They market an image of dependable, irresistible law applied aggressively to the heads of miscreants across the inner system. **Gorgon Defense Systems** sells weapons and military tech to anyone and everyone. One of the biggest Extropian corps, they are especially popular in the outer system, though rumors of them installing secret backdoors in their security products have hit their market share. Their **Medusan Shield** subsidiary handles security contracts with their distinctive fury morph tiger teams. Medusan Shield's focus is on aggressively finding and removing potential causes of customer disruption, and they have no issue with either body counts or violating local law (as long as the customer doesn't).

Pai Gow is a major second-tier company, focusing on neighborhoods with less on-hand cash. However its triad ties make it undesirable in places expecting adherence to law. **Eng/Dilworth** focuses on habitat automation and surveillance mote installation, but has also branched into automated security, from recon drones up to AI-guided missiles. In addition to programming and wiring their customers' security hardware, they provide digital oversight and anti-hacker support. Eng/Dilworth engineers have a reputation for being cheerful and customer-focused, if a little callous about the privacy and physical cohesion of habitat residents.

On the pure information-security side, **Silver Shield, Castle,** and **Lei** all provide low- to high-grade logical protection and offense, including automated exploit patching, penetration testing, and dedicated blue and red teams. **InSec** and **0wnz** both develop and sell exploits, making them corporation-non-grata everywhere outside Extropia and the dark mesh.

Academi is one of a small circle of contractors who specialize in disrupting other hypercorps (or protecting from the same). They deploy memetic, mesh, and personal assault combined with financial leverage to kill upstart hypercorps (or their operators) and steal or bury their products before they can reach market. Academi works exclusively with banks and select political bodies.

SHIPPING

Electronic communications, farcasting, and nanofabrication have made most shipping obsolete. Habitats use drones to provide free door-to-door shipping, but when a package needs to cross the gap to a distant location, private couriers are required. There is a large market of freelance courier companies who will deliver to any location in the system (even if passage takes years to complete). This is the preferred method for specialty and illegal items, or when speed matters more than price. To keep costs down, freelancers post planned and available routes on sites like **Zooom, Point-to-Point,** and **Pyrate.** Freelancers live by their reputations and charge accordingly.

For everyone else, there's **Comet Express**. Comet Express works through hundreds of affiliates, giving it a presence on almost every named habitat. It manages an expansive network of hubs and slingshot accelerators to transport goods from and to (almost) any point at a price freelancers can't compete with. The major exception is the Jovian Republic. Republic ships fire on Comet Express freighters on sight, and the Republic Postal Service does not accept transfers from Comet Express hubs.

SOCIAL MEDIA AND SEARCHES

Most people rely on their muse for news curation and social networking, with outside vendors for deep searches, data mining, and heavy analysis. On the consumer side, **Yuge**, **Znat!** and **Rena Weibo** all compete for space, with their own spin and focus (predominantly pro-Consortium, as there are hundreds of trusted autonomist communities, and the Jovian social networks are managed under an executive mandate). In addition to providing news aggregation and hot topics lists, these services interface with the major reputation networks.

RELIGIOUS GROUPS

Posted by: Tio Silencio, Firewall Router INFO MSG REP

Can faith survive the death of God?

If you posed this question before the Fall, I'd almost certainly have answered no. I recall my studies of the victims of religious genocides in the 20th and 21st centuries. Some kept their faith as they faced the ovens or the firing squads. Others became certain there was no God at all, or if They existed, They were no God worthy of worship.

Nietzsche turned out to be half right. Transhumanity struck God a blow, but it took the Fall to deal the killing stroke.

Religion doesn't always require God. It requires faith, it requires questions, and it offers answers and comfort. God as we knew Them may be gone, and we have given Them rebirth and a new life for transhumanity's future.

God is dead. Long live God.

RELIGION AFTER THE FALL

Organized religion was already on the decline in the decades before the Fall. Scholars have filled volumes debating the exact causes and conditions. Certainly, the primary influence is clear: communications technologies, global travel, media, and access to education directly exposed previously insular religious communities to global society and disrupted the old power structures. The cynic in me would suggest that technology that outdoes Biblical miracles renders those things moot. When anyone can walk on water or turn that water to wine, what meaning is there in wonder?

Certainly, younger generations took the mask off of religion, seeing that underneath it is just another ideology, and one that did not always adapt quickly to the world's changing values. Religion was one of the most successful early memeplexes in human society, but it did not hold up well in an ecosystem of memeplexes. What guidance can ancient doctrine give regarding genefixing, AI, or forking? What deity would put such possibilities and miracles in our hands, yet tell us to refuse them? What is the promise of an afterlife when immortality is available? And it was not just the limitations of these ideologies that became clear, but the inconsistencies and hypocricies of religious leaders who too often gave only lip service to their faith while falling sway to the pursuit of riches and power. Media and transparency illuminated the rot at the core religious hierarchies for all to see.

The TITANs did the rest. It is difficult to cling to the belief that you're one of God's chosen people when death is so indiscriminate. It's even harder when those who embraced bioconservativism and refused uploading had the least chance to flee Earth. We perished en masse alongside our stupas, mosques, temples, and cathedrals.

We're only a decade after a cataclysm that killed over nine-tenths of our entire species. Our cherished shrines and walls and stained glass lie in ruins. Spiritual beliefs are at an all-time low. Those who seek community find it in their online social networks. Those who seek comfort turn to virtual-reality heavens. Those who seek guidance consult their muse. Those who seek solace edit their memories. Those who seek joy gland new emotional states. Those who seek atonement turn to psychosurgeons. Those who scan the stars for gods have met them, and felt their wrath. What role is left for faith?

Whatever the long-term impacts of the Fall may be on transhuman belief systems, it is not an exaggeration to say that those religions that cannot adapt will perish. Some already have.

CHRISTIANITY

The technological, scientific, and cultural changes transhumanity underwent before the Fall had already eroded many of the hierarchies that Christianity relies upon. From the Catholic Church to strip-mall Protestantism, the traditional holes Christianity filled didn't exist anymore. Most of Christianity's trappings remain unchanged, perhaps explaining its slide towards irrelevance.

After the Fall, the few Catholics that made if off Earth were naturally drawn to the Jovian Republic, where the Catholic Church has re-established itself. The Church remains a cornerstone of the bioconservative movement (though they sometimes disagree with the Republic's CBEAT over specific policies). Their position is best summed up as, "If God created you in Their image and likeness, there's no need to change Their creation." The Church also holds strong political favor in the Republic, lobbying the Senate through the Council of Bishops, but also personal ties between the Pope and members of the Junta's Security Council.

The notoriously bioconservative habitat Vo Nguyen, in Earth orbit, is home to a large community of Vietnamese Catholics. Remaining Episcopalians, Baptists, and other Christian sects have found fertile ground among other Consortium settlements. The Ilmarinen station orbiting Triton has a small but fervent group of Friends (Quakers), and the tiny Lyos settlement on Titania is home of the last remnants of the Russian Orthodox Church.

HINDUISM

Posted by: Sarda Duvurri, Firewall Scanner INFO MSG REP

One of the hallmarks of the oldest organized religion is its ability to adapt. Buddhism? Islam? Simply bends in the river of time. And when you introduce technology that literally embodies the cycles of *Samsāra,* it should come as no surprise that small groups of Hindus still exist among transhumanity. The largest concentration is in Shackle on Luna, which remains a stronghold of Indian culture. The cavern of New Varanasi, in particular, is known as the City of Temples. Hindus also embrace life on the habitat Salah, in the rings of Saturn, while others have found a surprisingly welcome reception among the Barsoomians and rural communities on Mars.

Regrettably, the caste system the Mahatma worked so hard to eliminate has been reinforced by the stigmas attached to certain morphs. The economic necessities that have forced so many Untouchables to sleeve into synthmorphs inadvertently strengthened the underlying prejudices against them. Despite our advances, seven-thousand years of cultural conditioning are hard to overcome.

ISLAM

Posted by:
Ali Bin Kalifa Al Thani, Firewall Crow INFO MSG REP

Peace be unto you. I humbly offer my perspective on the state of Islam since the Fall and how it has adapted to serve transhumanity.

Many early space colonists came from Muslim countries, financed by those seeking to explore and embrace the Solar System's resources. As the conflicts and technologies of the 21st century polarized the world, the *ummah* faced a crisis of belief. Those who could see beyond the bounds of Earth adapted, and our faith adapted with them. Those who could not largely perished in the Fall. The humanist, secular movements within Islam before and during the Fall helped save countless thousands.

Though the Sunni and Shia divisions remain, their practices have transformed, and many competing schools of thought thrive. The conservative attitudes towards women, sexuality, and resleeving have largely been discarded. AGIs were welcomed as djinn with free will (though opinions still differ on uplifts). Our muses tell us what direction to pray. We may still fast, and some even sleeve into synthmorphs and biomorphs so they can focus on spiritual matters rather than the needs of the flesh. Some practice *sawm* by abstaining from the mesh. Though Mecca was lost during the Fall, we can still visit it and complete the *hajj* in simulspace. Many Muslims are reclaimers, hoping to one day make the pilgrimage in person.

I am from Salah, a station orbiting Saturn that serves as a safe zone for believers. The largest concentrations of Muslims can be found in LLA habitats and Mars. Qurain on Mars was the center of a prominent Islamic city-state before the Fall, though it was lost to the machines and remains in the TQZ. Now our people are scattered across the red planet; you can find mosques and Islamic culture thriving in the hinterlands and the souks lodged between Martian domes. A nomadic Sufi community thrives on helping others in the desert, believing their hardships purify their soul.

JUDAISM

Posted by: Jakub Held, Firewall Crow INFO MSG REP

The Shoah nearly killed us. The Fall damn near finished the job. Israel is once again lost, and the squabbles over our homeland now seem trivial. Welcome to the Age of Meshuga.

The Jewish people will survive; that's never been a question. But there are fewer of us than ever before, and that number dwindles by the day. We once thought our identity came from our shared experiences, from reading the Torah and praying together. But our bodies, our DNA, are us too. Are you still Jewish if you egocast into a new gentile morph? Yes. No. Depends on the person you ask.

There are enclaves of us out there, with the largest in Nectar on Luna, where you'll find the only remaining *yeshiva* (religious school) in the Solar System. I know of several Jewish groups inside the Jovian Republic, and the habitat Horeb is home to the Israeli government-in-exile and a rather bioconservatve Jewish Orthodox community.

Some Jewish reclaimers have made incursions to Israel on Earth. Their eventual goal is, of course, the restoration of our promised land. Most of us are pragmatic enough to understand this diaspora is only beginning, so support for these efforts is minimal.

MORMONISM

Posted by: Ben Mandrake, Firewall Proxy INFO MSG REP

You may be familiar with Mormon missionaries: cheap morphs, wide grins, always eager to talk to you about their faith. They can still be found haunting the occasional spaceport on habs from Mercury to the Kuiper Belt.

As a younger faith, Mormons didn't quite get caught up in bioconservatist attitudes like other belief systems. they still lost most of their believers during the Fall, but their embrace of resleeving and egocasting means more of 'em got off Earth than you might expect.

I grew up Mormon, and while I'm not a believer, I've heard things. If the rumors are to be believed, The Mormon Church has a small hab hidden away in the Main belt called the City of Zion. They have over a million Mormons backed up in cold storage here, awaiting the resources to resleeve them. They allegedly also have plans to turn the entire hab into a generation ship and fly it out of the system.

Don't underestimate the Saints. They've done more with less.

PAGAN SPIRITUAL PATHS

Posted by: Lupe, Firewall Vector INFO MSG REP

Neo-pagan faiths were always tiny relative to the major religions, but paganism's loose organization and lack of doctrines allowed it to survive the singularity with numbers fairly intact. Pagans are hard to count, as they rarely form large congregations. The two best known denominations are Wiccans, most common in Mars and the Jovian Republic, and Ásatru, based on Titan.

Although not pagan, it's worth mentioning the Black Church, which evolved from Satanist groups. More of a humanist social society than a religion, the members' proclivity for velvet robes, leviathan crosses, and ritual nudity is more fashion than devotion.

POST-FALL RELIGIONS

Posted by: Tio Silencio, Firewall Router INFO MSG REP

It's to be expected that any cataclysmic event that undermines our fundamental understanding of the universe and our place in it will lead to the creation of new belief systems that attempt to answer new questions. The Fall is no different. A handful of new faiths have found fertile ground in a transhumanity reeling from the Fall.

Neo-Buddhism

Neo-Buddhism mixes pre-Fall Mahayana and Vajrayana Buddhist beliefs with the latter-day Buddhism popular in Western cultures prior to the Fall. Neo-Buddhists believe that transhumanity's suffering can be mitigated with technology, and that the extension of life will eventually lead all transhumanity to enlightenment. Neo-Buddhism is popular because it is treated more as an outlook or philosophy of living than a doctrine and requires little engagement with religious practices.

Technocreationism

If the Fall further eroded the old, organized religions, Technocreationists are the opposite reaction to that social force. They believe the Fall was nothing less than a sign from God laying bare transhumanity's sins. They seek a new form of enlightenment through the embrace of technology, societal engineering, and collaboration with alien species. The result is a combination of fervor and perceived psychological superiority that has attracted its fair share of converts, including a few Hindus who view technocreationism as an extension or evolution of their own religion.

TITAN Worship

It hurts to say it, but there are those who revere the TITANs as the only true gods. They make excuses for the atrocities the TITANs committed, which mostly boil down to "we are not smart enough to understand." Thankfully rare, their ranks are composed of singularity seekers who desire to join their machine gods in apotheosis. These believers are a threat given their eager pursuit of TITAN tech.

Xenodeism

When faced with the truth of an uncaring universe filled with intelligences more advanced than our own, the chance of someone worshipping those intelligences becomes certain. Xenodeism is a scholarly term for the various small, isolated cults popping up across the Solar System (and in settlements on the far side of the gates) that have turned the Factors and Iktomi into gods. None of these cults have any significant numbers of followers, but their evolution into full-blown religions is only a matter of time.

CRIMINAL GROUPS

Posted by: Factotum, Firewall Proxy INFO MSG REP

Criminal factions thrive in the post-Fall era. You may recognize some cartel names, but most of the major syndicates arose to prominence after the Fall. As transhumanity spreads across the galaxy, criminals find new ways to profit off misery and greed. Cartels and syndicates earn vast wealth by exploiting weaknesses in different polities. Every banned good or service is a new market. Every gap in a habitat's security is an opening. Every desperate person is a customer or tool. Most criminal outfits are parasitic entities, leeching off the systems around them, but a few are powerful enough to run their own habitats. The major syndicates have spread across the Solar System and to distant exoplanets. While they have many enemies, the discord and corruption among transhuman polities prevents them from being stomped out. The cartels are also useful tools and cat's paws to those in power.

While some factions are outlawed or branded as criminals in certain regions, only the following are universally viewed as criminal.

GANGS

Firewall is most concerned with cartels that exert influence over many habitats, but local gangs in specific areas have gotten our attention.

Les Goules

Main Habitat: Valles-New Shanghai (Mars)

This Martian gang specializes in auctioning illegal morphs to the highest bidder. They can acquire any kind of biomorph a customer could imagine, including ones with illegal combat mods and implants, clones of popular celebrities made from stolen genetic samples, or just human steaks for the discerning cannibal. The truly desperate can get a loan from Les Goules if they offer their body as collateral. They are infamous for their depravity, conducting business deals over feasts of living humans. They are rumored to have exhuman sympathies, which may explain their preferences.

St. Catherine Tongs

Main Habitat: New Quebec (Titan)

This gang exploits the "One Mind, One Body" policy of the Titanian Commonwealth for profit. Using agents inside the morph vat farms, the tongs steal and smuggle new biomorphs for sale throughout the outer system. These morphs are bought by other cartels who need morphs for prostitutes or customers who want a biomorph on the cheap. Some are loaded with illegal mods and implants.

The tongs are known for their brazen and violent nature. Enemies have been publicly assassinated, sometimes with extensive collateral damage. Captured opponents have been tortured in horrible ways. Lately, the tongs have branched out into TITAN artifact smuggling, as police have seized caches from tong safehouses. No one knows where the artifacts are coming from or who's buying them.

The Wild Hunt

Main Habitat: Erato (Luna)

This tight-knit gang of ego hunters, forknappers, and assassins began on Luna. They turned to psychosurgery early on, improving their own teamwork and loyalty to protect themselves. Soon after, they began exchanging memories and personality traits. The reasoning for this is unclear, but in part seemed to be a way of preserving their identities should they be captured and subjected to penal psychosurgical editing, and in part a way of altering their brainprints to be less easily tracked. Over time, this mental editing has grown more extreme, and with the inclusion of several new members from the Lost Generation, the group has taken a turn towards weird and disturbing behavior. They seem to revel in taking on more violent jobs and anything that let's them chase their prey. Working in packs, they have been known to prolong a pursuit for sport. Reports indicate they have trapped some of their victims' forks in a simulspace with a fantastic mythology theme in order to extend their torment.

HIDDEN CONCERN

Main Habitat: Ceres (Main Belt)

The dwarf planet Ceres is prime real estate, the largest planetary body between Mars and Jupiter. It is also throroughly entwined in the tentacles of the Hidden Concern, a mafia entirely composed of neo-octopi. They run protection rackets on every business operating on Ceres and smuggle contraband between the inner and outer system. Anyone who sets foot on Ceres lives or dies at the Concern's discretion. They have links to the mercurial movement and are invested heavily in cephalapod morph development, such as the takko synthmorph. Their recent expansions beyond Ceres now pit them against other cartels.

INTELLIGENT DESIGN (ID CREW)

Main Habitat: Kronos Cluster (Rhea, Saturn)

Intelligent Design, also known as the ID Crew, is best known for their digital crimes. They formed when several different hacker cliques allied to maximize their profits. The ID Crew has their virtual fingers in digital theft, hacking, fraud, malware, credit and rep laundering, software piracy, darknet services, troll farms, and ego-trafficking. The demand for egos "finessed" by the ID crew is incredibly high. They are known to edit the memories of stolen egos to suit the needs of their clients. Sometimes, the victim does not even realize they have been trafficked, having been fed an entirely false life.

The ID Crew has a small physical footprint compared to other cartels, preferring to do business on the mesh rather than in meatspace, although they can be contacted in nearly every major habitat in the system. Nevertheless, they have provoked a major turf war with Nine Lives. Both organizations sell stolen egos and despise how the other conducts business.

NIGHT CARTEL

Main Habitat: Pallas (Main Belt)

The Night Cartel's roots are in a pre-Fall alliance formed between multiple mafia groups of different ethnicities to cooperate in opening new markets in space. One of the drivers of this initiative, Domenico Tavano, saw that the old way of doing business would not work in the rest of the Solar System. The older leaders were too paranoid and too conservative to adapt. Maintaining ethnic mafias was absurd when resleeving was upending cultural norms. When the Fall wiped out the leadership of these syndicates, Tavano convinced enough gangsters to follow his lead and establish a new cartel. At first, Tavano struggled to keep the Night Cartel working together. Old rivalries and beliefs hampered efforts. However, the realities of criminal enterprise in space has methodically broken down these barriers and prejudices. Now the Night Cartel is the largest in the Solar System, rivaled only be the triads.

The Night Cartel's headquarters is on Pallas, a major asteroid habitat in the Main Belt. In some regions, the Night Cartel operates

as a legitimate hypercorp, but their main lines of business are illegal in most habitats: drugs, prostitution and sex trafficking, extortion, nanofab piracy, gambling, insider trading, darknet operations, and racketeering.

NINE LIVES

Main Habitat: Legba (Main Belt)

The villains of choice in many XP thrillers, Nine Lives is a soul-trafficking syndicate infamous for their cruelty and ruthlessness. New members are forced to prove themselves by torturing innocent egos through psychosurgery or in meatspace, a hazing called "The Rite." The gang appropriates and twists the trappings of Vodou to intimidate its rivals. Their sophisticated egonapping operations employ thieves and forknappers from around the system, sold in auctions and to private collectors. Nine Lives is known for sleeving their victims into a variety of morphs for brutal pit fights to entertain bloodthirsty crowds.

Roland Nazon, one of the most feared gang lords in the Solar System, once kept tight control over Nine Lives operations, but he has recently become reclusive. Rumors abound that he has descended into madness or that one of his lieutenants has usurped control, but no one knows for sure.

PAX FAMILAE

Main Habitat: Ambelina (Venus)

Many crime outfits are rooted in cultural groups or species, but the most restrictive one, by far, is Pax Familae. Every member of this cartel is a fork or clone of its founder, Claudia Ambelina. From her private habitat on Venus (called Ambelina), Claudia creates clones from her original genetics or through sexual reproduction, thanks to sex-switching biomods. All egos are forks, though she does use psychosurgery to vary her skills for certain tasks. Loyal to herself, Claudia's methods mean she needs not fear traitors or undercover agents. Pax Familae uses ego merging and XP recordings to keep every fork up to date with the activities of the others. Unlike some other multiples, Claudia always refers to herself in the singular. She has a wide portfolio of operations throughout the system: fraud, stock manipulation, reputation gaming, info brokerage, and loan sharking, among others. She also maintains a number of legitimate businesses as cover. Claudia isn't afraid to get her hands dirty if someone gets in her way.

PIRATES

The major polities of the inner system deploy drones and ships to keep space transit and habitats relatively safe. In the vast outer system, many pirate gangs thrive by plundering the vulnerable, particularly automated ships and remote brinker habitats. This is less an organized criminal conspiracy and more a way of life. Automated drones are the targets of choice because they are easier prey than manned ships but remote mining operations and outposts are valuable as well. Pirates sell off their victims' egos to soul-traffickers like Nine Lives. Some pirates also smuggle contraband from scum swarms into more lawful habitats or trade in pirated software from the inner system.

Pirate gangs are known to fight each other as much as they steal from freighters and drones. They typically fight over turf, but feuds can start for the pettiest of reasons. One gang, Ned Kelly's Own, noted for their impractical and unique synth armor designs, accused another gang, Chrome Legion, of stealing their armor designs. The two have fought ever since, resulting in dozens of resleevings, three lost ships, and one destroyed tin-can habitat.

Some pirate groups are closely linked to extremist factions, like the infamous Fomorians, known for their ties to the exhumans. They force any captives they take into a simulspace hunting arena, where they face torture and deletion unless they can prove their strength to the exhumans. A sufficiently brutal captive who survives the hunt can join the clade. After only a few months, any captive who survives long enough becomes indistinguishable from the original Fomorians.

TRIADS

Most of Earth's syndicates died in the Fall or were subsumed into the Night Cartel. The Triads survived both events intact, in part due to early initiative in expanding their operations into space before the Fall. Many smaller triad gangs exist, but the four surviving major triads conduct business throughout the system.

14K

Main Habitat: Qing Long (Martian Trojans)

Supposedly named from the fourteen original members of the anti-communist Kuomintang, the 14K dates back to the mid-20th century. Today, they focus on gambling, whether running illegal casinos or rigged lotteries. The 14K owns a legal casino and gambling hypercorp, Galaxy Entertainment Group. They also deal in money laundering, credit/ID fraud, and loan sharking.

Qing Long, a major cylinder habitat in the Martian Trojans, with a population of over two million transhumans, is considered a 14K stronghold. While other triads maintain a presence in the habitat, the 14K bases its headquarters there and has deep ties to the habitat's leadership. The Pai Gow (Double Hand) security force there is an extension of their operations.

Shui Fong

Main Habitat: Valles-New Shanghai (Mars)

A smaller triad than 14K, Shui Fong sells vice to the desperate, especially indentured workers and other poor laborers. They offer drugs, narcoalgorithms, prostitution, and illicit XPs. Once in debt, the indenture is forced into working for the Shui Fong, whether that's pit fighting or transporting drugs. They carry deep grudges against the 14K, which the 14K reciprocates.

Sun Yee On

Main Habitat: Noctis-Qianjiao (Mars)

In any habitat where IP laws protect the rights of manufacturers over users, the Sun Yee On are there, selling cheap knockoffs of popular nanofabbed items. The triad often jailbreaks nanofabbers so they can manufacture weapons and tools without paying royalties to the original designer. These items are laundered through their front company, Wushuang Corporation. The Sun Yee On also sell counterfeits of Earth relics, a market growing in popularity.

Big Circle Gang

The smallest of the four major triad factions, Big Circle designs and sells drugs for distribution throughout the Solar System. Their drug labs lie hidden in isolated habitats dotted throughout the system. They maintain a low presence for a major triad, leading us to suspect they have something big planned and don't want to attract attention. They prefer to sell wholesale to other dealers, but they have teams on every scum swarm to sell new product to diehard junkies. The swarms are the best place for Big Circle to try out their latest experimental drugs. Products that first appear in a scum swarm can be found on the streets of New Shanghai a month later.

FIREWALL

Posted by: Cacophonous, Firewall Proxy INFO MSG REP

Welcome to Firewall. And thank you. Thank you for the sacrifices you will make on our behalf and the behalf of all transhumanity. I thank you now because it's likely that no one will be there to do so when the time comes to make them.

Firewall is many things but it has one goal: the continued existence of our species. It is the sincere belief of every single one of us that the Fall was no fluke, no stray bullet we collectively dodged, but merely the first true existential threat to transhumanity. There will be more. At no time in history has our species been so beset by the danger of extinction, the tools of our complete destruction are almost without count and in the hands of numerous groups and individuals who could snuff us out by accident just as readily as through malice. No other organization is in a position to thwart these dangers. Through our decentralized network we attempt to monitor, contain, and eliminate threats to transhumanity, whether those threats are TITANs, nanoplagues, technological meddling, aliens, or any number of unimaginable hazards. We do this in secrecy, without official support or authorization from any authority. Too many factions present potential danger for us to reveal our work to the public, most of whom will sleep better never knowing how close they come to annihilation on a regular basis. Thus, Firewall has no political allegiances beyond the remit of our mission: the survival of transhumanity.

HISTORY

While Firewall now operates in secrecy, this was not true of all the organizations from which we grew. Decades before the Fall, a number of groups had warned of impending dangers, especially the risks aligned with ASI research. Some of these were in the employ of nation states, such as JASON (a US scientific advisory group) and Bletchley Park (a UK agency founded to counter hostile infolife outbreaks). Others were privately funded think tanks or research organizations like Blue Mars, the Lifeboat Institute, and the Singularity Foundation. During the Fall, united by desperation, these groups united as a loose network and moved from pure research and analysis to direct action. It was in part due to the warnings and sacrifices of these organizations during the Fall that transhumanity survived. Their first-hand experiences on the front lines of the war against the TITANs provided a pool of knowledge that has been invaluable ever since. The survivors were also united in a way that only those who have shared harrowing circumstances and survived can understand.

In the immediate aftermath of the Fall the survivors of these organizations, led to some degree by the Argonauts, met in a secret, invite-only, simulspace conference: X-Mode. This conference resulted in the seed of Firewall, our secure social network: the Eye. The loose confederation of individuals using the Eye would begin to formulate the general philosophies and methodology of Firewall in the following months. The general consensus was that the work to counter x-rsisks needed to continue, but none of the emerging polities were capable or trusted to handle it. In AF1, the conference was reconvened at X-Mode 2, where research and appraisals conducted in the interim were discussed and the motion to form a single organization to combat ongoing threats to transhumanity was put forth. With the consensus of the participants, Firewall was formed and its general structure outlined.

Over the decade since, Firewall has refined its operations and organization. We've identified and faced countless threats, and while we have not been successful in every endeavor, we have thus far achieved our primary mission: the preservation of transhumanity.

STRUCTURE

As a new member of Firewall it is important that you have an understanding of our overall structure, decentralized though it is. Firewall is comprised first and foremost of *cells*. Your cell consists of the Firewall members with whom you will most often carry out tasks. Cells are primarily composed of *sentinels,* like you. Sentinels comprise the bulk of Firewatch's numbers; transhumans who are dedicated to our cause, with a specialized set of skills, who are activated for specific needs. A cell is always coordinated by a *proxy*. Proxies are the inner circle of Firewall; individuals who have dedicated their entire lives to the organization. Proxies are organized into collectives called *servers;* each server manages multiple cells.

Proxies

Sentinels may report directly to one or more proxies in their server, but can expect to deal with a number of different proxy roles. Proxies take on numerous duties as needed, but typically fall into one of several specializations:

Scanners are expert data analysts and researchers. A server's scanners are responsible for gathering information of interest to Firewall, analyzing it, and then making a threat analysis. Scanners rely on sophisticated search algorithms and ALIs to monitor particular channels, both public and private. A scanner is constantly assessing a broad range of data looking for anomalous items or events that may relate to an ongoing case or operations. Scanners are the members of a server most likely to initiate an operation. Tasked with gathering information from the entire Solar System and filtering it for items of interest to Firewall places a heavy burden on our scanners; if something crucial gets overlooked, they get the blame.

Once an operation has been approved (typically by a vote or consensus of a server's proxies), a **router** is charged with its initiation and management. A router will assess all of the available intel, determine which cell is best able to respond to the threat, coordinate with other proxies to prepare their necessary support (morphs, lines of credit, cover stories, etc), and then activate the cell. Routers then monitor the cell's activities and provide support as necessary or possible. As the mission coordinators, routers have one of the most difficult, thankless, and critical jobs in Firewall.

Firewall's broad interests require in-depth research capabilities, and these are carried out or supervised by **crows.** Crows are our expert scientists and researchers specializing in various fields. Some of the most brilliant individuals in transhumanity work as crows, offering insights into xenobiology, memetics, physics, applied mathematics, economics, nanoweaponry, and other fields of knowledge. Crows work closely with scanners to assess threats or research items or data unearthed during Firewall operations. Firewall's black laboratories and research facilities are maintained by our crows, but much of our scientific access comes from crows misappropriating facility use and equipment from their civilian careers.

Vectors are those proxies specializing in the broad array of skills we loosely refer to as "hacking." Primarily a support role, vectors are responsible for digital intrusion, information security, data manipulation, infrastructure sabotage, and social engineering. Vectors

rarely deploy to the field, but often provide remote overwatch on operations in real-time when necessary. Most often vectors spend their time assessing potential targets, testing their existing assets, or helping clean up loose ends from operations. During a field operation, your assigned vector is likely to be the only dedicated support you can expect to receive.

Registers are one of the most critical but invisible of proxy roles. These individuals are talented financiers and fixers, capable of finding credits to finance ongoing operations and research and making sure our sentinels in the field are equipped. As an unofficial network, Firewall receives no official support or endowments. It falls to the registers to find funding through investment, creative financing, and even theft. Every server makes use of several registers without whom the entire organization would vanish overnight. Registers also use their rep network ties to pull in favors for servers and sentinel cells. In these regards, they sometimes call on the other proxies and sentinels to help repay favors or earn good karma.

The most dangerous operations are carried out or overseen by **erasers.** Typically, Firewall prefers to conduct its work with a minimum of collateral damage and attention, but when this is not desirable, or has been made impossible in the wake of a mission gone wrong, erasers are called in to address a threat with a maximal response. Erasers are not deployed casually, they represent a final line of response only used in the most dire of circumstances. Most Firewall members will never require the services of an eraser or even be in the presence of one during the course of their field operations. Erasers tend to work in teams with heavy firepower and tricked-out combat morphs. A few erasers work solo; these are sometimes deployed as assassins or saboteurs.

The actions of sentinels and erasers may require the attention of a **filter.** Where erasers mop up the opposition, filters are the ones who make the whole mess go away. These individuals specialize in public-relations manipulation and will work to pin the blame for a disastrous operation on an appropriate accident, external agency, hypercorp, or individual. Filters are also sometimes called upon to assist operations in progress when they require public misdirection or spin control to fulfil their objectives.

Servers

Each cell is part of a server. Servers are collections of cells that share a common interest or overarching objective. Servers often have a focus or specialization: the observation and identification of threats in a specific region, infiltration of hypercorps suspected of meddling with ASI, countering a known group of exhumans, and so forth. Many are dedicated to ongoing research projects or action task forces, known as *cases* or *operations* respectively. An individual cell within a server may further specialize in necessary sub-tasks.

Each server is coordinated by a group of proxies. These proxies usually rotate between their respective roles and duties, or to other servers, on a yearly basis. This ensures that no individual can gain too much power or create an unsalvageable point of weakness in the server's structure should they be killed or compromised.

The cell/server structure is at times inefficient but its decentralized nature is absolutely critical to the preservation of Firewall's secrecy and security. No single cell or server will ever have a top-level view of the entire organization, allowing Firewall to survive even a major breach of security or other catastrophe. A hostile agency would require control of 50.1% of Firewall's entire membership to attain control of the organization, an essentially impossible goal given the separation of personnel and internal networks.

Most servers are left to their own devices in terms of operational planning and it is up to their membership to determine when to share information with other servers. It is common for servers with related interests to form long-standing relationships and benefit from the free sharing of information. Some servers with especially sensitive areas of interest may be heavily siloed from the rest of the organization, but this is not the norm. Compartmentalization for its own sake is discouraged, however, and Firewall members should not withhold vital information from their fellows when called upon to do so through secure channels.

When significant decisions that will have far-reaching effects throughout Firewall must be made, they are voted upon by the proxies. Any proxy may initiate a proposal but for it to reach a vote it requires the support of 500 other proxies. Consequently, votes are only called for the most serious matters of policy and the most significant of operations. Most operations are conceived and executed by individual servers without the involvement of other groups. In most cases, a proxy will choose to activate a cell or cells within their server to address a threat, and the organization supports them from there.

Cells and servers can expect material support from the broader network when necessary, though they are expected to use these resources sparingly. Firewall operates without official jurisdiction anywhere, and our resources are finite.

FIREWALL TERMINOLOGY

Here's a handy reference to Firewall jargon:

- **Backups:** The Firewall faction that creates bunkers, caches, and contingency plans to survive an extinction event.
- **Cell:** A clandestine group of Firewall sentinels.
- **Conservatives:** The Firewall faction that argues using AGIs, asyncs, and alien/TITAN tech is too risky.
- **Crow:** A proxy that focuses on research/scientific analysis.
- **Crypt:** A digital cache hidden within the mesh.
- **Eraser:** Heavily armed proxies that are called in to contain threats beyond the capabilities of a normal sentinel cell.
- **Eye:** Firewall's internal social and data-sharing network.
- **Filter:** A proxy that handles social engineering, media manipulation, and cover-ups.
- **Mavericks:** The Firewall faction that discards the rules.
- **Pragmatists:** The Firewall faction that argues for using all available tools to counter x-risks.
- **Proxy:** A full-time Firewall agent with an assigned role.
- **Register:** A proxy that handles logistics and finances.
- **Router:** A proxy that coordinates a server's operations.
- **Scanner:** A proxy that analyzes data for signs of x-risks.
- **Scratch Space:** A temporary secret cache of gear.
- **Sentinel:** An on-call Firewall agent that works with a cell on field operations.
- **Server:** A working group of proxies, focused on a particular area or mission.
- **Structuralists:** The Firewall faction that favors a more rigid, hierarchical structure and going public.
- **Vector:** A proxy that handles hacking, communications, and online security.

INTERNAL FACTIONS

Source: Achberger, Router, Green Hope Server LINK

I'm here to give you more of a ground level idea of the weird mess you've gotten yourself into by joining Firewall. Cacophonous's overview might have you thinking we're a well-oiled machine crewed by a crack team of diverse transhumans devoted to a singular mission, holding hands and singing the Internationale every time we achieve another victory in the face of incredible odds. Spoiler: we're not.

Firewall is just like every organization you've ever dealt with in a lot of ways; we're full of mostly well-intentioned people with opposing viewpoints, desires, and disagreements. The key difference is that Firewall is full of people who are also *very good at what they do*. We all know the stakes are high, so petty bullshit is kept to a minimum, but there are a few big philosophical differences among us and it's going to serve you well to have a handle on them.

First, you've got your **backups**. This clique is devoted to the idea that on a long enough timeline,something like the Fall is to be expected again. Their goal is to ensure that when transhumanity comes up against a foe we can't overcome, we can at least survive. They hide caches, set up emergency habs, and even store forks for such an emergency. A lot of gatecrashers subscribe to this philosophy and take every opportunity they can to find exoplanets that might sustain transhuman life far beyond the reach of the TITANs, Factors, or even other transhuman organizations. They might seem a little paranoid to you right now, but trust me, you run a few ops around here and see if you don't start seeing the sense in having a real species-wide contingency plan. A lot of the old-guard Lifeboat Institute people are die-hard backups. Since we got here in the first place by not listening to them before the Fall, I'm inclined to pay attention now.

Conservatives are what they sound like; reactionaries who think Firewall should move with tremendous caution and respond with overwhelming force to any potential threat. There are numerous conservative-oriented servers, and they do some important work to be sure. A lot of them are former military or intelligence agency people who survived the Fall and maybe are carrying around a little more PTSD than the rest of us. A lot of conservatives are quite suspicious of the AGIs and asyncs we work with and this can cause real friction between servers and during proxy votes. That said, this does mean that conservatives also have a serious obsession with the TITANs and some of our most important discoveries about them have come from conservatives. If you ever need to pinpoint vulnerabilities in TITAN tech, try hitting up the Arrow of Paris server. If they'll talk to you. They won't. You're not cleared for that.

Then there's the **pragmatists,** like us cool kids here at Green Hope server. Here's what we care about: Results. Results, results, results. It's like this: the universe is a big place full of who knows how many species-terminating monsters, aberrations of physics, and rogue computer programs that would eat transhumanity like a handful of potato chips. We are never going to even begin to anticipate every threat, every possible outcome of our actions, and predict the best course of action available to us every time. But what we can do is pick up the tools we find, the weapons we steal from our enemies, and fight back. Firewall tangles with some ugly shit. If we're going to succeed against it, we need every advantage we can find. In the early days, Firewall made some bad choices (check the wiki about the *Sweet Dreams* affair) and almost hamstrung ourselves a few times. Fear of TITANs and ASIs and other threats kept some elements in Firewall from working with AGIs, asyncs, and even uplifts for a long time. This hampered our operations, left us without people that could have been a major help, and set us back at a critical time. If it was up to the conservatives we'd throw every xenotech device we find into the nearest sun, fry the mainframes of every AGI we've ever even spoken with, and lock and load old school. But we can't, and I think even most of them know that. That's not to say that we are reckless about our research and toys. Risk assessment is priority number one when we're experimenting with something we don't fully understand, but you wanna make an omelette you've gotta break a few eggs at an ultra-secure black lab on an unregistered exoplanet's moon, under stringent quarantine procedures. Pragmatists make up the majority of Firewall's members, though personal thresholds for what's an acceptable risk vary from person to person.

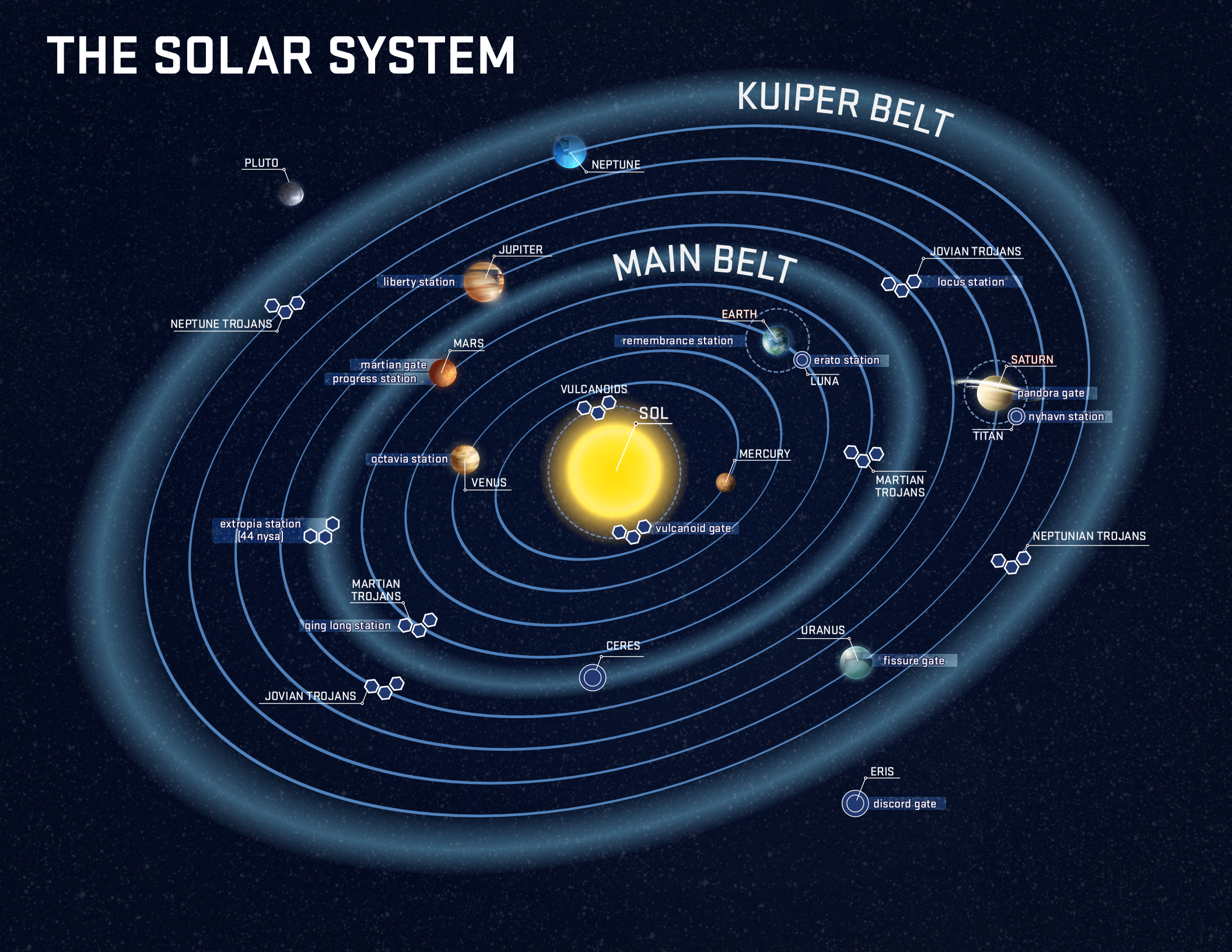
So, those are the three main factions — philosophies, really — that Firewall has held since the beginning. There was a time in AF6 when those factions really were turning into factions. A pretty nasty scandal arose involving an abusive proxy that memory-edited some subordinates on Hyperion and all hell broke loose. We spent a few months backbiting instead of fighting x-risks before a prominent server was outed as an Ozma operation. They hadn't kicked the whole mess off, but they'd done their best to instigate factional divides across Firewall and might have brought the whole thing down. Fortunately, in the aftermath of rooting out the infiltrators, cooler heads prevailed and factionalism was reined in on all sides. It was from this time that a couple of new philosophies arose. Factions we refer to as **mavericks** and **structuralists.**

Mavericks are not a faction by any means. They're Firewall members, mostly sentinels, who just don't give a shit. They're loyal to Firewall but think we're all polishing the brass on the Titanic. A lot of them are disaffected sentinels who've seen more than they can really handle. Maybe they think that our mission is inherently doomed but are determined to go down fighting. Or they just don't deal well even with the loose authority of Firewall. Whatever the case, expect to hear some colorful tirades when you work with them. They have one major value, though: they keep us on our toes. Mavericks don't toe party lines and are more than willing to loudly question anyone or anything with which they disagree. It keeps us from getting complacent.

Structuralists represent two distinct philosophical positions amongst Firewall members. The first and more populous group believes that Firewall would benefit from a more defined hierarchy with thoroughly codified ranks, protocols, and objectives. They suggest that the decentralized network of Firewall results in chaos and abuses of power by isolated proxies. The second structuralist position is a desire to take Firewall public. This is an extreme minority who argue that Firewall would benefit greatly from legitimacy both in terms of support from the public and the potential for expanded funding. Exactly which governments would embrace an unknown number of hackers, gatecrashers, financial criminals, and miscreants is a question no group of structuralists has yet been able to satisfactorily answer.

There are many other smaller factions and philosophies across Firewall and we wouldn't have it any other way. All of these viewpoints have something to offer, even if only as loyal opposition. The system of rotating proxies between servers at regular intervals helps prevent strong faction blocs from arising and the ongoing churn of discourse across the Eye keeps us all from ossifying in our views. There are some old grudges between faction members, and you can't really have a maverick and a structuralist in the same room, but on the whole, Firewall members highly respect each other. We can't afford not to.

THE SOLAR SYSTEM



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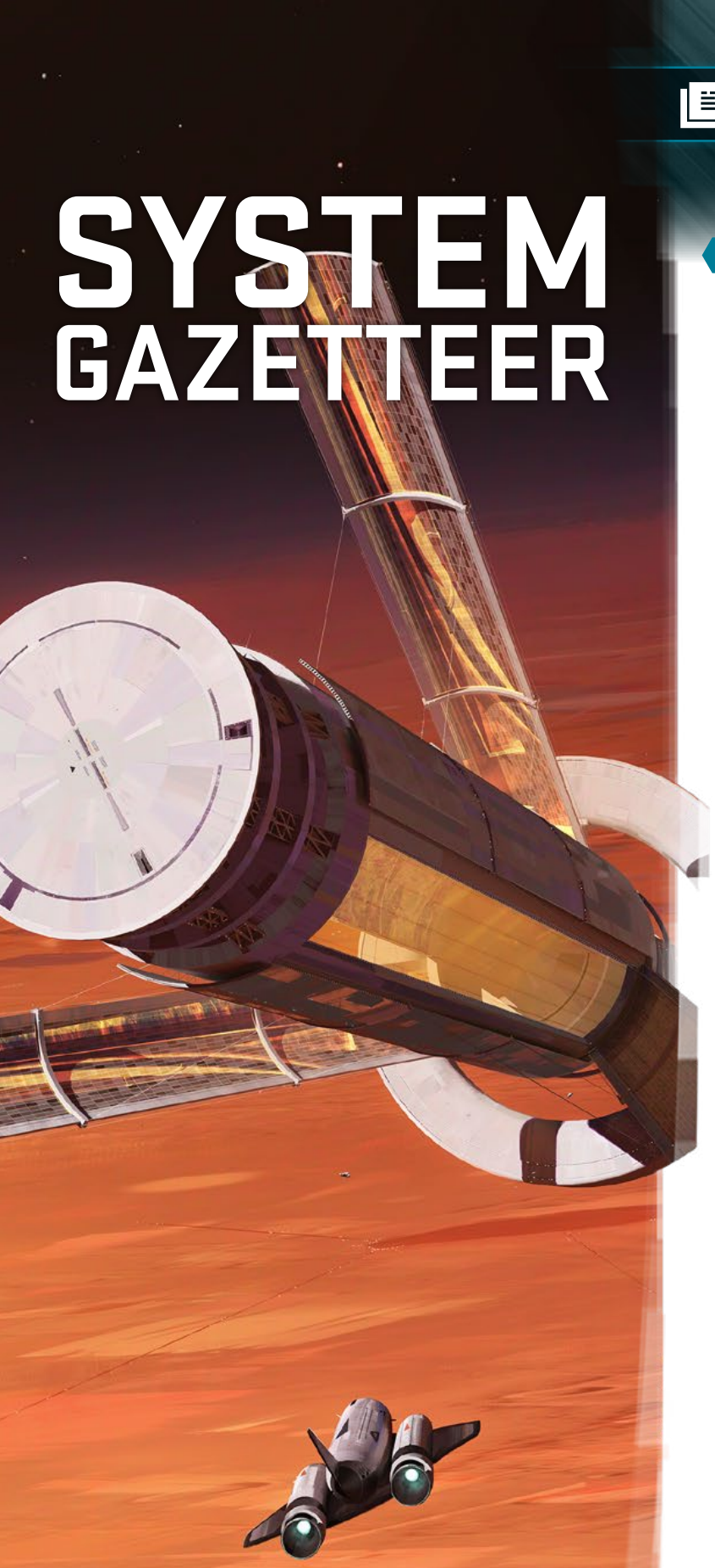


Now that you've caught up on the rest, here's the last info dump: an overview of transhuman holdings, region by region. START

SOL AND MERCURY

Source: *The Well of the Ocean Is Water Aflame* LINK

The center of our system is the source of our life — yet also treacherous and deadly to the unprepared.

SOL

The gravity well that anchors her islands within the empty seas of space is called by her people: Sol. Her soul is great, a flame 1.4 million kilometers across, and her depths are fierce enough to strip electron from atom, burn fields of energy across her face, and smile forth plasma storms that could swallow moons.

Temperatures at the surface alone make the journey impossible without specialized defenses such as solar survival suits and heavily shielded ships. Unpredictable magnetic fields can destroy equipment between one breath and the next, and shifts in the corona create bursts of magnetism and plasma so large that escape is impossible.

A solar flare, known as a coronal mass ejection (CME), occurs when the sun's magnetic grip slips and radiation breaks free. The free plasma can damage passing craft and unprotected life, disrupt communication and sensors, and provoke magnetic storms on vulnerable planets such as Mercury, Venus, or Mars, which lack protective magnetic fields. In theory, this power could even be harnessed as a weapon by disrupting the field with a strong enough magnetic force in just the right location to direct a CME at a chosen target.

Solarians

There are fish at the center of the well. The Solarians that live here have adapted many morphs to survive in the solar environment. Among them are the *surya,* commonly known as space whales. The surya reach lengths of ten meters or more and are designed to swim the currents of Sol's corona, generating magnetic fields that shield them from the heat. The Solarians travel together in surya pods, roaming the corona itself. Other Solarian morphs include mirrored *sundiver* spaceship synthmorphs and the more humanoid *salamander* forms that are better adapted for using tools, residing within habitats, and interacting with other transhumans.

Many Solarians are uplifted dolphins and whales that seek the familiar sense of swimming in the ocean's expanse with a pod. Their presence is a deep influence on Solarian culture; metaphors comparing the sun's environment to their underwater experiences are common. Social structures mirror that of a cetacean pod, in which individuals live together as a close unit with few secrets and little social or personal boundaries. Relationships within the pod are open and physical, and social activities are often communal, including poetry and song as well as rough play. This close and intimate living can be difficult for outsiders to adapt to, which is an issue for the occasional socialite tourist.

Three habitats are found in the solar corona, near the northern pole of Sol to minimize exposure to flares. These habitats provide launch points for voyages into the corona and contact with the rest of the system.

Aten
Habitat Type: Cluster
Allegiance: Planetary Consortium
An extension of the Martian University of New Shanghai, Aten is nominally a center of education. Most of the work done at Aten is for profit, taking advantage of the secrecy provided by Sol's corona. While Cognite, Direct Action, and others claim to work on energy collection, they develop military research. The corona may destroy many a dangerous mistake before it is discovered by others.

Hooverman-Geischecker
Habitat Type: Cluster
Allegiance: Argonaut/Titanian
This partnership between the Argonauts and Titan Autonomous University seeks to study Sol and gladly collaborates with Solarian pods. Those who wish to learn may be invited to travel with the pods after an introduction to minimize culture shock.

Ukko-Jylina
Habitat Type: Cluster
Allegiance: Solarian
Ukko is our own home when we seek shelter from the destruction of Sol's fury. It is also a place for pod members to recover, resupply, or travel outside of the well. The population of this habitat fluctuates from the hundreds to the thousands depending on the solar weather. Few non-Solarian visitors are invited here — the accommodations are not designed for non-solar-adapted morphs.

VULCANOIDS
Between Sol and her closest escort Mercury lie the Vulcanoids. These small asteroids are cherished for a stable orbit and the protective cover of Sol's glare. Secrets grow easily where few can see them.

V/2011-Caldwell
Habitat Type: Dome/Beehive
Allegiance: TerraGenesis
The first of the Vulcanoids to be claimed was Caldwell. Initially dismissed as small and empty, the asteroid was later discovered to hold a treasure: a pandora gate. Ownership was quickly acquired by TerraGenesis. Though courted by the Planetary Consortium, TerraGenesis has so far chosen to work more closely with Morningstar-aligned interests. Pathfinder seeks to disrupt this alliance.

MERCURY
Sol's swiftest island is Mercury. It orbits in less than ninety days, but turns so slowly that a face may be exposed to the sun for nearly sixty of those days. The lack of atmosphere provides no blanket against Sol's light, and temperatures range over 620 degrees between day and night. The sun's daylight gaze overhead is fierce enough to melt metal, but at night the surface is as frigid as space. The terminator line moves slowly enough that a transhuman on foot could keep ahead of it at a steady pace.

Sol attracts many stray travelers of rock and asteroid, and Mercury takes the blows as they cross its path, leaving the surface of the planet covered in pockmarks and craters. Alternating heat and cold further breaks the rock, covering the surface in dust.

Mercurials
The residents of Mercury must be hardy to live in extremes of light and dark and dust. But there is little loyalty to Mercury as a home. Exposed heavy metals lie near the surfaces and are easily mined. Corporations mine Mercury's bones and harvest the sunlight of Sol to profit elsewhere. Solar cells coat every crafted surface to best capture Sol's gift, powering equipment. Hypercorps such as Tolstoj Mining Concern, the Vyasa Workers Cooperative, Jaehon Offworld, and Noonday Mining turn the efforts of their miners into profit. The isolation and difficulty of escape leads hypercorps to enlist prisoners who serve out their sentences — well-earned or falsely framed — working in the mining camps.

Those who are not with a corporation survive in the shadow. These *sifters* live nomadically, following the night cycle of the planet to avoid the temperature spikes of the day. The sifters are independent people and know the secrets of Mercury should they be asked, but they will not share without payment.

Mercury is tiny and isolated, so the production of antimatter is safest here and the intense light provides enough energy for the work. Antimatter powers spacecraft drives for voyaging and the most dangerous of weapons, making the research worth the risk for groups such as Omnicor, Gammax, Direct Action, and Fa Jing.

Al-Hamadhanj
Habitat Type: Tin Can/Subsurface
Allegiance: Sifter
The modules of this sifter capital are tucked under the sand and into the edges of a crater for safety in the extreme temperatures. This city is a gathering site for sifters, a place to rest, trade, and seek out news and services. Information and gear may be had and discretion sought for the more clandestine project.

Cannon
Habitat Type: Dome
Allegiance: Jaehon Offworld
Cannon is the largest habitat on Mercury. It is also mobile, crawling on massive tracks. Ten-thousand individuals loyal to the hypercorp Jaehon reside here. This city-sized mass driver pauses at each mine to launch giant ingots of heavy metals into space for delivery to ships overhead. Cannon travels the edge of the Caloris basin and the northern hemisphere in its journey between camps.

The Egg
Mercury holds mysteries as close as Sol does, and the Egg is one of them. From a distance it does not appear to be a weapon. A pale gray ovoid of unknown material, the Egg orbits above the surface of Mercury. Left by the Factors in AF8, the Planetary Consortium declared the Egg off limits, overruling those who thought it safer destroyed. The Factors offer no explanation, they only ask us to leave it be. So far we have, though not without question or protest. Some speculate it watches over Caloris 18, site of a TITAN outbreak on Mercury during the Fall. Others believe its purpose is to monitor the Vulcanoid Gate from afar.

Lumina
Habitat Type: Dome
Allegiance: Independent (Hypercorp)
Near the northern pole lies Lumina. Here energy is captured by solar panel fields lit at all times by the sun. This powers nuclear, radiochemical, and particle physics research, including manufacturing isotopes and the extraction of fissionables. Many hypercorps hold interests here, making it a shared resource as well as a resting place for the hyperelites who come to enjoy the spas and private meeting facilities.

VENUS

Posted by: Silvestra Luria, Sentinel INFO MSG REP

Venus may be the planet most like Earth in size and geology, but its climate couldn't be more different. The infernal temperatures, the crushing atmospheric pressure, and the rains of sulphuric acid evoke the myriad hells primitive humanity imagined for itself.

Venusian orbit isn't ideal, either. Venus has no moons, and nearby asteroids are scarcer than elsewhere in the system. Habitats have to be built entirely from materials mined on the surface or shipped in from other planetary systems. Water takes the longest journeys to acquire, coming usually from ice asteroids captured in the far reaches of the outer system.

Venus rewards the intrepid, though, and habitats predating the Fall grew prosperous on specialized manufacturing and research. Pre-Fall Venus was a frontier with neither entrenched elites nor a true underclass. When everyone was a professional, striving toward utopia and high culture was the prevailing meme. Now, post-Fall Venus is going through growing pains. The Morningstar Constellation embodies the progressive capitalism of the pre-Fall technocrats, but it faces upheavals due to immigration, power grabs, and growing organized crime.

THE SURFACE

"Anywhere but here," right? Sit through a safety briefing for work on the Venusian surface, and that's where you'll want to be.

The surface is rugged and beautiful in its way. Old timers say it's like a cross between the high desert of the American southwest, with its vast plateaus and canyons, and Iceland, with its black basaltic rock, crisscrossed in the lowlands by rivers of magma.

The winds that whip volcano, mesa, and lava plain are a superheated mix of carbon dioxide and sulfuric acid. At the surface, the pressure is almost 100 times that of Earth's atmosphere (or equivalent to a kilometer below Earth's oceans). Only dim light reaches down here, and that which does is refracted by the titanic pressures, so that to someone on the surface, the horizons rise around them like the sides of a colossal bowl. Temperatures reach nearly 500 Celsius. Lead is permanently molten, metal sags and flows, and carbon dioxide exists in a supercritical state where it's both a liquid and a gas.

Only the most specialized biological settlers call the surface home, and they're confined to low-pressure zones high in the mountains. The peaks offer rich mining and good sites from which to remote control equipment closer to the surface. Although it's possible to jam from orbit, relay stations on the peaks experience less communications lag and fewer weather-related disruptions.

Below 7 km altitude, any permanent structures on Venus are crewed by synthmorphs and infomorphs. In most cases, the synth operations in the lowlands are teleoperated, with few or no egos permanently sleeved in the equipment there.

Equipment goes into the lowlands, but mostly doesn't come out, unless it's returning with cargo. Mining and industrial sites on Venus are surrounded by eerie boneyards — morphs, bots, and machinery that broke down and weren't worth retrieving.

Though the surface has been mapped with radar, the clouds block monitoring from orbital and high-altitude cameras. Large swathes of the surface remain unvisited and unexplored. This makes it a useful, if inhospitable locale to avoid pying eyes. It also leads to rumors of hidden dangers, from exsurgents and TITANs to secret Factor operations.

LIFE IN THE CLOUDS

At altitudes of 50 to 60 kilometers, the environment becomes more favorable. Air pressure ranges from 50–85% of Earth's surface and temperatures average between 7 and 40 C, depending on latitude. In this environment transhumans need only a breather and eye protection against the occasional sulfuric clouds to go outside.

This altitude is the ideal range for aerostats — floating habitats that can stretch a kilometer or more in height and diameter. Even at this altitude, Venus's atmosphere is dense and heavy enough, being mostly carbon dioxide, that an object full of enough oxygen-nitrogen atmosphere is buoyant. Aerostats use a combination of buoyancy and immense propellers to maintain an altitude where life support systems can compensate for external temperatures and pressures with a minimum of effort.

TRANSPORTATION

Venus rotates too slowly for a space elevator, so most travel to the surface is by lander. Venusian landing craft are heavily shielded and structurally reinforced against the planet's hideous pressures. Compared to other landers, they're rather beetle-like, and expensive to operate in terms of fuel. Morningstar is in the process of building a rotovator in Venusian orbit. This 12,000-kilometer spinning cable will dip down into the atmosphere to aerostat altitude in such a way that the cable's orbit and planet's rotation nearly cancel out. This allows the end of the cable to collect cargo and transports which it then carries back up and flings into space.

Venusian aircraft need only stubby wings and rotors due to the thick atmosphere. Almost all fixed-wing craft are propeller driven, since jets have to carry their own oxidizers in this atmosphere. Dirigible airships provide an economical if slow method of ferrying cargo and travelers between aerostats. Luxury passenger airships are growing in popular as a vacation experience. Aircraft and devices like wingsuits often aren't built to survive on the surface, so they carry emergency bubbles that provide a temporary shelter for passengers and crew until rescued.

Some aerostats use extremely durable cables to anchor themselves to the surface for short periods. During this time, elevator cars provide transport up and down the cable. Surface roads are primitive and exist only within busy mining and industrial outposts, so all groundcraft are off-road vehicles.

RISE OF THE MORNINGSTAR

The success of the movement to secede from the Consortium surprised the Venusians more than anyone, and they're still sorting out how to keep this Morningstar Constellation thing afloat. In reality, the terraforming debate is far from decided, and the Consortium still has a presence here with various aerostats and orbitals that did not defect. Morningstar's lack of a military leaves it vulnerable to invasion, but luckily the Planetary Consortium doesn't currently have the stomach for this sort of action.

TERRAFORMING VENUS

At one time, the very idea of terraforming Venus didn't hold water — pardon the dad joke. Photodissociation — breakdown of water's molecular bonds by solar radiation — combined with Venus's lack of a magnetic field means that simply hurling comets at Venus won't work. Mars retains most of the water from comet impacts, but Venus loses it rapidly to the sun.

The solution, now in its proof of concept stages, is an array of orbital mirrors and solar panels. The mirrors reflect solar radiation

away from Venus onto solar panels. The energy collected from the solar panels is either stored or beamed to to other points in space, even delivering energy as far as the outer system. At full scale, the system could reflect enough radiation for standard terraforming techniques to work.

Terraforming is the most divisive issue in the Morningstar Constellation's hot-blooded politics. That idealists and dreamers have staked out positions on both sides of the debate doesn't help. In the pro-terraforming vision, Morningstar, over the long term, competes with the Planetary Consortium on its terms — ownership of a habitable planet. In the other, aerial-terraforming position, transhumans adapt to Venus, preserving and profiting from the planet's unique physical properties. Venus may be inhospitable, but it provides opportunities for science and industry found nowhere else in the Solar System. Several industries rely on Venus's super-heated, high pressure atmosphere — an environment that would no longer exist if we terraformed the planet. And travel in the dense, energy-filled roil of the Venusian atmosphere is practically free for those with the patience and navigational technology to sail its skies.

AEROSTATS

Aerostats normally float 50–60 km above Venus's surface. They move with the atmosphere, usually maintaining a fixed latitude but circling the planet roughly every four days with the prevailing winds. Large aerostats are usually shaped like mushrooms or inverted teardops. The wide, domed top usually has a lofty public plaza or atrium at its center. The empty space and abundant air provide more buoyancy. Dwellings, work spaces, and public utilities line the outer walls and form narrow internal boundaries.

Public spaces are beautiful, but private spaces are very compact. Everything is made of strong, lightweight materials. In the largest aerostats, paths for bikes and scooters run parallel to the walkways. Otherwise, people get around on foot. At the bottom, the aerostat tapers to just an anchor point for a hanging counterweight that prevents the habitat capsizing in storms.

To aid in keeping altitude, a large aerostat usually has three or four propellers ringing its widest point. The propellers extend on short arms from the dome's edge. Aerostats won't sink to the surface unless both the interior gases are lost and the propellers are disabled. But an aerostat with disabled propellers may slowly sink to an altitude where the temperature outside the habitat is too high for unsuited transhumans to survive.

Smaller aerostats come in a wide variety of plans: cigar-shaped habitat modules with long outriggers on either side to keep balance, upright cylinders surrounded by concentric rings of gas bags, and clouds of spherical modules linked together by structural tubes. Thousands of the smallest "aerostats" are little more than autonomous blimps dropped by larger aerostats that carry radio relay equipment, weather sensors, and the like.

Aphrodite Prime

Habitat Type: Aerostat
Allegiance: Morningstar Constellation
Home to 300,000, Aphrodite Prime is a center for tourism. It is home to a number of genegineering hypercorps and the vast Aphrodite Aviary, a sphere in the habitat's base. Here the proponents of the Aerial Terraforming Initiative showcase their latest designs for life forms that could live and thrive in the upper Venusian atmosphere: aerial kelp, flying mantas, balloon fish, and float ferns. Morph designers here compete to develop both humanoid and avian gliding/flying morphs.

Octavia

Habitat Type: Aerostat
Allegiance: Morningstar Constellation
Octavia is the de facto capital of the Morningstar Constellation and the most populous aerostat. It holds 500,000 people in a space half a kilometer in diameter at its widest, and over 600 meters tall. Apartments here are tiny but well-designed, and the walkways and bikeways never cease their bustle. The flight deck midway up Octavia's "stem" and the spaceport atop its dome are the busiest on Venus. 55 kilometers below is Venus's northern hemisphere. Roughly one day in four, Octavia is above Ishtar Terra, with its many mining settlements — especially busy days for the city's flight deck and refineries. Octavia is the seat of Morningstar's government, a force in culture and fashion, a competitive cloud diving destination, a refining center, and home base for over 40,000 drone operators.

ORBITALS

Most habitats in Venusian orbit circle the equator, part of a belt of mostly autonomous solar plants, refineries, and manufactories. Cylinders and toruses are the most common habitat type here, as there are few asteroids to capture.

Gerlach

Habitat Type: Cylinder
Allegiance: Independent
Gerlach is a multi-module cylinder 1 kilometer in diameter and 4 kilometers long, with a population of 120,000. The inhabitants have strong ties to the Argonauts, sympathies for the outer-system autonomists, and are strong proponents of morphological freedom and cognitive experimentation. The habitat interior is known for its nine pyramidal arcologies and verdant landscaping, making it one of the most desirable in the inner system. Each of the cylinder modules spins at different speeds, simulating different gravities so that those used to lighter gravs can acclimate to Venus's stronger pull. Gerlach's residents voted to secede from the Consortium but did not join Morningstar, preferring to keep their independence.

SURFACE HABS

Surface habitats are few on Venus. Bunker-like and always at high altitude, most inhabitants are drone controllers, technicians, and engineers. The populations are young, there to put in service and make money, and bored as fuck in their off hours. Local culture tends to be escapist, eccentric, and in some cases borderline scum barge-esque.

Demon

Habitat Type: Tin Can
Allegiance: Morningstar Constellation
The largest outpost in the Maxwell Montes peaks of Ishtar Terra, Demon's town sigil is a petroglyph of a demon opening a trap door. The inhabitants are all under 50 and cashing in big on working 16-hour days jacked in to various mining bots. They spend the other 14 hours of each cycle fighting, fucking, and getting high as shit in a sprawling underground base that previous occupants with too much time and fabber access on their hands have decorated to look like Satan's bordello.

EARTH AND EARTH ORBIT

Posted by: Eludere INFO MSG REP

The former shining beacon of transhumanity is now the grungy, dangerous ghetto where you wonder how things deteriorated so badly and fear for your safety.

EARTH ORBIT

During the Fall, infugees flooded any habitat or satellite willing to accept their transfer. Refugees fled on anything that could be sealed tight and strapped to a rocket. Dozens of emergency habitats were constructed or inflated, and many are still in use.

Roughly three million still live in Earth's orbit, surviving in the shadow of transhumanity's abandoned home. Many cling to old-Earth identities out of sheer stubborn cussedness. Bioconservative and reclaimer memes are common, as are old-Earth rivalries, so visitors would be wise to study their history before trying to blend in. While infomorphs and synthmorphs are the most common morphs in orbit, they still face challenges including economic hardship, quarantine, indentured servitude, and discrimination.

There are hundreds of small habitats in orbit, some with residents and some long abandoned. Tin-can stations, clusters, toruses, and cylinders are all common.

The Fence

With the TITANs an ever-present risk of escaping the planet, someone had to make an effort to keep them bottled up where they couldn't harm the survivors. That's what the Fence is for. No one has claimed responsibility for setting up the blockade, but the assumption is that the Consortium supports and maintains it.

Over two-thousand satellites in low Earth orbit, ranging in size from sensor platforms to micro- and nano-satellites, monitor and take down anything coming into or trying to leave the kill zone (300–350 kilometers altitude). Signal jammers hose digital communications. Smart mines lurk, ready to swarm anything that moves, while hunter-killer drones catch anything that slips past. The Fence is equipped with almost every weapon imaginable: lasers, railguns, antimatter missiles — even old-fashioned nukes.

The Junkyard

Leftover rockets, screws, screwdrivers, boosters, and other junk form a thick ring around the planet called the Junkyard. The drifting scrap is a dumping ground for the locals; the debris is either safely burned up in atmosphere or more likely destroyed by the weapons platforms surrounding the planet.

Pre-Fall and post-Fall parts can be found in the Junkyard, ready to be pried out of discarded ships and sold. More exotic finds can be salvaged, including the remains of refugees, experimental technology, or Earth relics lost during the Fall.

Fresh Kills

Habitat Type/Orbit: Cluster/Earth-Luna L5
Allegiance: Scum

Generously calling itself a "reclamation center," Fresh Kills is owned and operated by Sugali Ali. Several thousand residents follow the direction of their four-armed "Pirate King" to provide a semi-secure base for salvage work in orbit. Don't travel alone on this habitat. Tensions with nearby Hexagon make ships approach cautiously to avoid startling either well-armed habitat into aggression.

Hexagon

Habitat Type/Orbit: Modified Torus/Earth-Luna L5
Allegiance: Planetary Consortium (Direct Action)

This fortress uneasily shares the Earth-Luna L5 point with Fresh Kills. Direct Action's weapons-testing and training facilities reside on Hexagon and the company develops most of the Consortium's latest military advances here. In addition to combat morphs and weapon engineers, the habitat boasts one of the most impressive sensor systems in the inner system, mostly pointed at all times towards Earth and its sealed-away dangers.

Paradise

Habitat Type/Orbit: Torus/Earth-Sun L1
Allegiance: Planetary Consortium

Once a sun-drenched resort for the rich trendsetters of Earth, Paradise was overwhelmed with refugees during the Fall, leading to the habitat losing most of its shine and glitter to semi-permanent emergency camps. Recently Paradise has regained some of the old reputation, at the rumored cost of forcible relocation of less-fortunate residents. Increases in security have led to more rumors that Paradise is the secret face-to-face meeting ground for the Hypercorp Council for matters requiring more secure communication.

Remembrance

Habitat Type/Orbit: O'Neill Cylinder/Earth-Luna L4
Allegiance: Lunar-Lagrange Alliance

The largest station near Earth, Remembrance is capital to the Lunar-Lagrange Alliance. Two thirty-five-kilometer counter-rotating cylinders provide living and working space for over two million residents. One cylinder is overcrowded and barely functioning, while the other provides healthy living for Remembrance elites and LLA officials. Remembrance is led by Mayor Nandi Setsin, a passionate reclaimer known for her abrasive leadership style and slick ability to avoid corruption convictions. Her rocky partnership with LLA President Avra Don has proven beneficial to them both.

Vo Nguyen

Habitat Type/Orbit: O'Neill Cylinder/GEO Orbit
Allegiance: Lunar-Lagrange Alliance

Led by Tate Markess, the Executive Director of the Earth Reclamation Project and spokesperson for the reclaimer movement, Vo Nguyen is a reclaimer stronghold and launching point for reclaimer activism and missions to Earth. Disagreements over mission approaches pit tech-savvy reclaimers against neo-primitivist. The station is secured against outside threats behind a cloud of space debris and killsats, but internal conflicts may get them all killed anyway if violence escalates.

EARTH

Major cities across the globe were wiped clean during the Fall by nukes, orbital strikes, and antimatter weapons. Some craters and scars are even visible from orbit, such as the glassy patch that used to be Chicago. Mass drivers scattered pockmarks across the planet, following the path of TITAN advances and factories. Mid-Fall, the Pacific space elevator came down, snaking across eastern Asia and leaving a deep gorge in its wake across the continent. Nuclear winter has left Europe buried under snowdrifts and glaciers, while Africa is a parched landscape of deserts and firestorms. Massive nanoswarm clouds create weird local weather distortions from hail to tornadoes. Ash clouds still linger, coating the landscape.

Getting to Earth

The Junkyard provides good cover for approaching the Fence, but just making a run for it is a good way to get splattered. The smarter way is to map the fence for areas where mines haven't regenerated or where a large patch of de-orbiting debris can provide cover from sensors. Drones carrying nanofabbers and neutrino transceivers can slip into these gaps, with the intent of printing out a morph you can egocast into. Small, heavily shielded ships have a chance if they coast on momentum to avoid attention. Other options include a distraction to occupy the killsats or camouflaging your ship/bot as one of the Fence's own service drones.

The Kilimanjaro space elevator is still in place though powered down, if a team has the fortitude to reopen that tomb. Lunar mass drivers are still programmed to rain death from orbit at any possible sites of TITAN activity. Their payloads always make it to the surface, so hitching a ride is feasible, but the landing is rough and may be in the center of TITAN activity.

Getting back off the planet is more difficult. For that, egocasting is recommended, but if physical transport is required, there are scavengers and reclaimers that make irregular runs to the surface that can be convinced to help out.

Exploring Earth

The discarded trappings of transhumanity can be found at every turn, abandoned in haste. Half-burnt cities, roads reclaimed by plant life, freeways packed with fleeing vehicles that never made it. Everywhere you find the skeletons and flash-burned outlines of the dead. Everything on the planet suffered in the wake of TITAN machines and nuclear attacks, so most animal life is absent too.

Treasures may be found in the ruins, but explorers must be alert for environmental dangers. Sinkholes and collapsing infrastructure are common, and getting around a city involves as much climbing and rappelling as it does walking. While most sites hit by nuclear weapons have cooled enough for fallout to be negligible, check to be sure. And without the protection of an ozone layer, clear skies risk sunburn within minutes of exposure.

Residents

Stalking through the ruins are other dangers. TITAN war machines still lurk, following their encoded directions to stalk new victims. Headhunters and fractals remain passive until new targets are detected. Nanoswarms resembling fog banks roam aimlessly for organic matter to flank and dissolve.

There are thousands of exsurgents left behind as well. The victims of genetic and viral manipulation, bodies, minds, or both are warped far from being recognizable as transhuman. Many remain at sites of old TITAN activity, continuing the tasks they were set to when the TITANs left. Entire cities of TITAN puppets — transhumans with hacked and subverted minds — go about their business, or pretend to be survivors to lure in the unwary.

If TITAN machines and exsurgents have survived the changes of Earth's surface, so have the scrappiest representatives of transhumanity. Close observation can detect pockets of heat and infrared radiation that don't match known TITAN sources. These spots of hope are tucked into the Ozark caves and abandoned mine shafts of southern Appalachia, the highlands of Papua and New Guinea, peeping past the trees of Vietnam and Laos, the caves of the Swiss Alps, warm spots underwater near where the Philippines used to be, and off the coast of Madagascar. Some of these may be bait to lure victims, but others may be signs of surviving transhumanity. And, of course, many survivors remain frozen in cryogenic facilities or stored away in digital form, awaiting rescue and revival.

LUNA

Source: *Inner System Précis* LINK

Luna more closely embodies the values of pre-Fall transhumanity than any other community. This is unsurprising given its status as the first planetary body to be permanently inhabited. At present, Luna is home to forty million transhumans, many of whom live in cramped conditions and economic deprivation. Luna's original settlements were never viewed as economically viable colonies and were constructed for a fraction of their current population. During the Fall, Earth's moon became the primary destination for refugees fleeing certain death. While the majority of these displaced people ultimately moved on to more hospitable locales, Luna's permanent population swelled.

The pressures of overpopulation on Luna are further complicated by an enormous disparity of wealth distribution, cultural traditionalism, and insularity among communities. Many cities and habitats retain strong ethnocentric values. While open bigotry is rare and widely frowned upon, tensions undeniably exist different cultural enclaves and between biological residents and the clanking masses.

LUNAR LIVING

By the standards of most other settled moons and planets in the system, Luna is an inhospitable place with extraordinarily low gravity, bereft of both atmosphere and magnetosphere. Consequently, the majority of habitats are constructed using extinct lava tubes and cave systems as their foundational excavations. A few surface settlements do exist (partly buried under regolith for protection from cosmic rays), but these are inhabited almost exclusively by impoverished synthmorph communities.

The real measure of wealth on Luna is in its scarcest commodity: living space. The truly rich live in enormous cavern-villas, hewn from Luna's regolith or rock, afforded with panoramic views of space or Earth via bay windows. But these dwellings are rare, unthinkably expensive, and even more infuriating to the underprivileged than might be expected elsewhere in the system. The average Lunar can afford only a few cubic meters of personal living space, and many choose to cohabitate in small groups to save on expenses. Luna's settlements are only slowly expanding, and the vast number of refugees from the Fall leave them still brutally overcrowded. Most of the Lunar poor were sleeved in cheap case synthmorphs in the aftermath of the Fall and remain heavily indebted. Tens of thousands have nowhere else to live but roughly finished tunnel complexes that are equipped with light and electricity but not yet vacuum sealed.

LUNAR TRAVEL

Travel between settlements is primarily made by rocket-powered vehicles, or even personal rocket packs. The lack of air resistance makes rockets extremely efficient modes of transportation. A network of maglev-tracked, high-speed, subsurface shuttle lines is currently being expanded. At present, subshuttles service all of the major cities and adjacent settlements but they have not yet been networked between major hubs. Connecting lines are expected to be fully integrated within two years.

Luna's surface is dominated by one of the most impressive feats of engineering to be found anywhere — the skyhook. This tether comprised of four bundled carbon-nanotube cables dangles down to the Lunar surface from Selene, its primary orbital station. The skyhook's base is a tracked platform that circumnavigates Luna's surface. Loading stations along the track facilitate the on- and off-loading of cargo and passengers between Luna and orbit.

LUNAR ATTITUDES

Generalizations of Lunars as paranoid and insular are rooted in some truth. These attitudes are perhaps understandable in light of the tremendous damage inflicted upon Luna during the Fall. The infection of the New Mumbai colony by an exsurgent virus, its immediate prophylactic neutralization via two fusion bombs, and the subsequent establishment of the New Mumbai Containment Zone left deep scars in the collective psyche of the Lunar people. Furthermore, the inhabitants of Luna need merely look up from the surface to see the smoldering remains of transhumanity's home.

It is arguably a result of these traumas that Luna remains one of the most politically and economically powerful places in the Solar System. While Luna has no central government, the majority of its population live in settlements governed by the Lunar-Lagrange Alliance. The remainder are controlled by the Planetary Consortium or live in a few independent settlements. By and large, Lunars live in relatively traditional governmental systems such as democracies, republics, or under corporate rule. The LLA Council's primary governmental concern beyond the base necessities of habitation maintenance and sustenance is in regards to the restriction of potentially dangerous technology. These restrictions make Luna a less-than-welcoming location for many hypercorps and contribute to its increasing stagnation despite its wealth.

LUNAR CRIME

Luna's prevalent economic hardship has made criminal activity particularly attractive. Numerous criminal syndicates maintain a presence on Luna, relying on local organized gangs for their operations. The manufacture and smuggling of proscribed nanotechnology is alarmingly common in hidden cavern systems, and Luna's low escape velocity makes smuggling both easy and lucrative. It is also believed that a number of reclaimer groups utilize Luna's proximity to Earth and have established bases of operation in secluded regions of the Lunar landscape with the aid of disgruntled surface-dwelling synths. Affluent Lunars point to these activities as further evidence of the undesirable ethics of the synthmorph population.

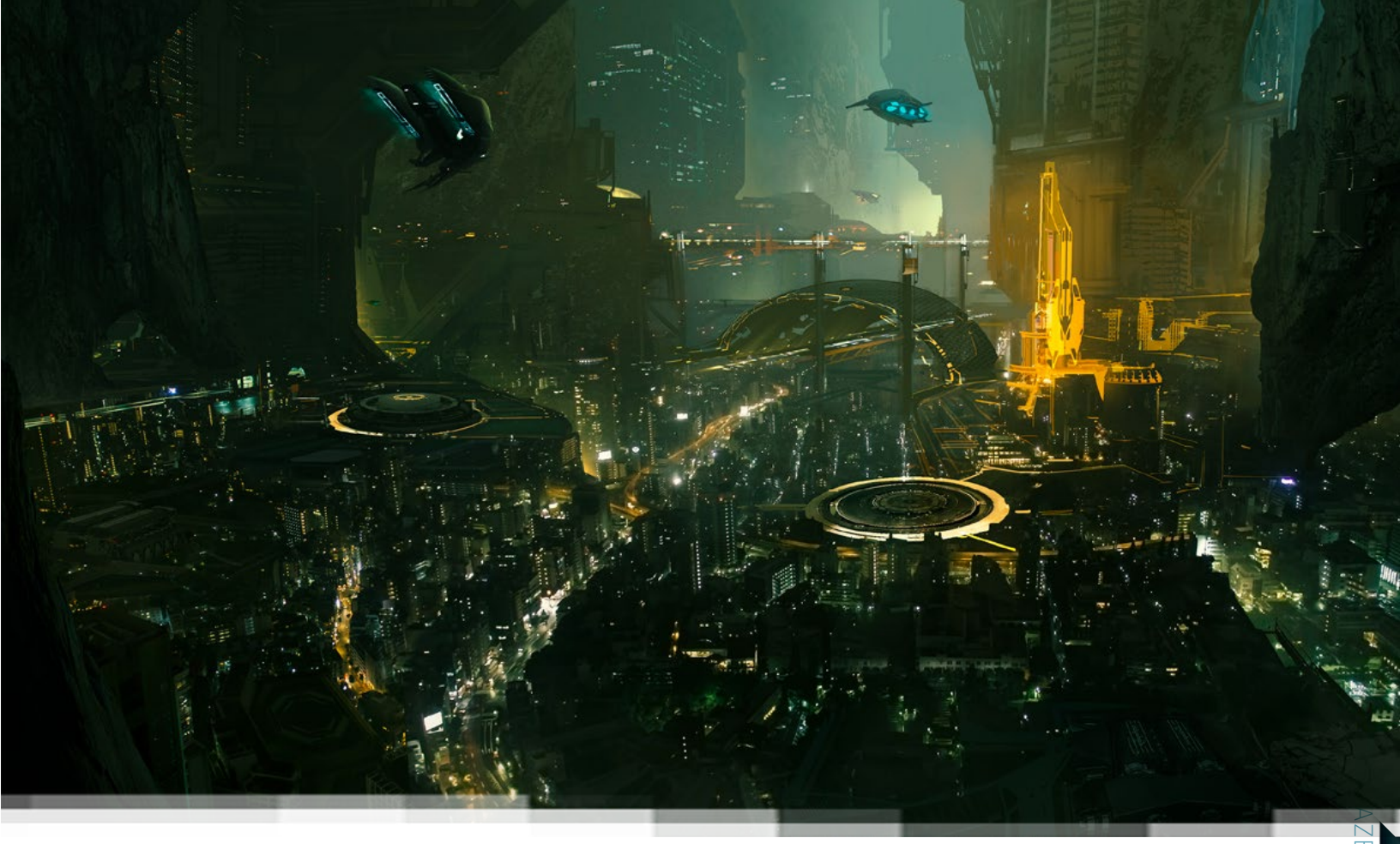
LUNAR HABITATS

Luna is host to dozens of settlements and orbital habitats, but five major locales dominate its economy and politics.

Erato

Habitat Type: Subsurface
Allegiance: Lunar-Lagrange Alliance

Erato is Luna's oldest and largest mining settlement, but the smallest of its three cities. Its population of approximately five million live in what is widely considered the most beautiful and expansive spaces on Luna. Erato's central hub is a vast cavern excavated before the Fall and is the largest open space anywhere beneath the Lunar surface. The city features numerous open parks and glider facilities for aerial sports taking advantage of the low Lunar gravity. Mirrors direct sunlight down from the surface to the city's verdant parks and bamboo groves. Erato is the most affluent of the large Lunar settlements and few synthmorphs can afford to live here.



Mitre

Habitat Type: Cluster
Allegiance: Argonauts
Mitre, a cluster station in Lunar orbit operated by Argonauts, is principally used for their independent and open-source research projects. Its archives are renowned as the premier repository of public information on Luna, TITAN activities, genetics, and astrophysics. Mitre is also home to Radio Argosy, the Argonauts' non-stop neutrino transmission broadcast, which freely provides open-source nanofab blueprints, uncensored news, and technoprogressive propaganda. Mitre's archives and broadcasts are often filtered, censored, and hacked over intellectual property violations.

Nectar

Habitat Type: Subsurface
Allegiance: Planetary Consortium
As the largest city on Luna, Nectar is also its most cosmopolitan. As a Consortium holding, more off-worlders make their homes in Nectar than in all other Lunar cities combined. Nectar actually consists of two cities. Old Nectar is a traditional Lunar settlement of tunnels and caves. New Nectar, located approximately three kilometers from the old city, is a feat of incredible engineering. It is built in the kilometer-wide crater of a fully controlled plasma explosion beneath the surface. The new city was completed only eleven months ago, and in that time almost a third of the inhabitants of the old city have moved into the new city, now referred to simply as Nectar. It is a beautiful city with lush gardens, but it has done little to ameliorate overpopulation as was intended, and tensions between economic classes are growing by the day. Due to its proximity to the equator, Nectar lies on the skyhook's pickup path.

Selene

Habitat Type: Torus
Allegiance: Planetary Consortium
Selene is a vast torus station centered around a massive sphere that provides the orbital anchor of Luna's skyhook. Home to over three million transhumans, Selene is controlled by the Planetary Consortium, a fact that rankles the LLA, who feel it gives the Consortium a stranglehold over Lunar affairs. Selene is an important hub of business and diplomacy for the entire inner system. Titan, Extropia, and the Jovian Republic all maintain diplomatic enclaves and facilities here. They have recently been joined by a small delegation from the Morningstar Constellation.

Shackle

Habitat Type: Subsurface
Allegiance: Lunar-Lagrange Alliance
Built beside the small but critical ice deposits of the south pole, Shackle is the most important city on Luna. The city was established in a series of relatively small caverns connected by tunnels. One of these tunnels contains a series of eight heavily guarded and monitored caverns, which contain the Lunar ice reserves. Enough water is stored here to offset thirty-five years of recycling losses for all of Luna and a surfeit to cover any catastrophic loss of water to any Lunar city.

Founded by a consortium of hypercorps with heavy involvement from the pre-Fall Indian government, Shackle remains the largest center of Indian culture in the Solar System. The canals of the cavern of New Varanasi hold as much importance to the Hindu faith as the River Ganges did on Earth.

MARS

Posted by: Fazzat, Firewall Proxy INFO MSG REP

Mars. We say it in the same way people used to say "Earth." It's our home now. At least it's home for me and two-hundred million other transhumans. We flooded into Mars after the Fall, the only place with enough room and a barely habitable environment for our entire extinction-fleeing species. Mars won't be finished for hundreds of years, but the promise of fresh air and open water and real freedom is more real everyday. It's a place worth fighting for.

TERRAFORMING

Long before the Exodus, Mars had been the focus of massive terraforming projects, largely funded by Chinese nationals and hypercorps. They had begun the first truly multigenerational scientific endeavor in history — the transformation of an alien world into one hospitable to transhuman life. Nanoswarms blacken the ground of the Martian equator to lower the albedo and heat the planet. Comets crash down in a controlled manner to raise temps and spread water vapor. Engineered lifeforms are introduced and tweaked as our fragile ecosystem starts to grow (ask me about the year I spent planting waterbears in Argryre Plantitia). Scumyards ceaselessly emit methane to thicken and warm the atmosphere. They've deployed a magnetic shield at the Sol-Mars L1 point to help retain atmosphere and are also talking orbital mirror arrays. But even after decades of progress, Mars is frigid and light in atmosphere. We're getting there, but it's still harsh and wild and beautiful, and you better have a ruster or other adapted morph if you're gonna spend much time outside of the dome cities and tin-can habs.

MARTIAN TRAVEL

Getting around's getting easier, we've got the best rail line in the system. All of the cities and major settlements are connected by rail, even out in the hinterlands. An awful lot of settlers owe their livelihoods to it. Freight and passengers are ferried around at speeds up to 400 kph, which means even the long trek from Valles-New Shanghai to the space elevator at Pavonis Mons is only about 13 hours.

We've also got complex flyways in every major city, accompanied by a few main arterials in between. Flyways are relaxed in open country. It's a necessity to let drivers react swiftly to a big dust storm. There are traditional highways for ground vehicles, too, but these are slower and more dangerous ways to get around, especially if you're passing through territory undergoing an eminent-domain dispute.

POWDER KEG

All this progress doesn't come easy. Being the new beating heart of transhumanity means the Planetary Consortium thinks it owns the place. They're trying to bring terraforming under central control with their Red Eden Project. That sounds great until your personal hab and agricultural plots are in the dead center of a designated comet impact zone and they're claiming eminent domain and offering you a quarter of the value of your land.

Things are getting rough out in the hinterlands. Hell, it's rough in the cities, too. You've got the richest, most aggressive hypercorps in the system eager to get their piece of the pie — some of which will be beachfront property in a century or two. They're coming up against several million pissed off settlers, nomads, and indentures who think they've got just as much right to the world they're making possible as the handful of people who paid for it. That's the Barsoomian Movement and, let me tell you, brother, if you aren't down with B you don't want to know me.

MARTIAN SETTLEMENTS

The habs where you're most likely to find what you're looking for.

Elysium

Habitat Type: Dome
Allegiance: Planetary Consortium

Elysium is built into the floor and walls of the Hyblaeus Chasma fissure, ten kilometers across at its widest point. The canyon rim is covered in a vast arc of thick panes of glass and water styled like Victorian ironwork. These are supported by massive pillars that reach all the way to the chasm floor. Beauty is the core value of Elyisum's population, and entertainment is its core business. Ruled by the hyperelite Oaxaca-Maartens family (though they have a puppet mayor and government), Elysium is where you go to make it big in entertainment of any kind, and where you wash up hard if you fail.

Noctis-Qianjiao

Habitat Type: Dome
Allegiance: Planetary Consortium

On the other end of the spectrum is Noctis-Qianjiao, the meticulously planned business center of Martian society. The city is comprised of two domes, divided by the River Noctis and connected by huge bridges and conglomerations of souks. The bridges aren't just infrastructure, they're neighborhoods packed with thousands of homes and businesses. Noctis City is the larger dome and holds just over half the population. The TTO maintains its largest offices here. Across the river is Qianjiao, home to the city's major academic institutions. Of Mars's major cities, Noctis-Qianjiao is closest to the Martian Gate, Pathfinder City, and Pavonis space elevator. It's a long way, but a lot of research ends up in Noctis for assessment.

Pavonis

Habitat Type: Dome/Tin Can
Allegiance: Planetary Consortium

Pavonis Mons may not be the center of Martian life anymore, but it's still an iconic location. It rises fourteen kilometers high, though it's still dwarfed by its sister volcanoes, Arsia and Ascraeus, and the distant Olympus Mons. The city of Pavonis is cradled in its caldera and was the first principal settlement on Mars. It sprang up around the space elevator, still a vital piece of Martian infrastructure, but as the rest of the planet became more habitable, the citizenry moved on, leaving it a ghost town. The outskirts are some of the poorest areas on Mars and occasional outbreaks of wild artificials (feral robots) make this a grim place to live. Proximity to the TITAN Quarantine Zone doesn't make Pavonis any more desirable.

Progress

Habitat Type: Cylinder
Allegiance: Planetary Consortium

Progress was carved out of the moon formerly called Deimos. Home to the headquarters of the Planetary Consortium, Progress is a crowded place of government and high-level hypercorp business. All of the major hypercorps have offices here. The architecture is a cross between an expensive mall and the most soulless corp facility you've ever imagined.

Valles-New Shanghai

Habitat Type: Dome
Allegiance: Planetary Consortium

The city of Valles-New Shangai sits atop a mesa that will one day be an island, when the sea eventually fills the vast basin of Eos. Thirty-seven million people call the five domes of this city home, making this the largest gathering of transhumanity anywhere since the Fall. Almost every group of peoples that survived the Fall can be found here, speaking in every language that survived with them. Indentures are omnipresent and almost half the population is serving out their contract or hustling to get by in sub-par clanking synths and pods. Still, there's hope that so many of us have survived.

The New Shanghai dome is an impressive temple of excess, home to the Tharsis League's central administration, embassies and arcologies, and an authentic recreation of the Bund, the waterfront of the original Shanghai on Earth. Little Shanghai is a hub of crime and desperation. Valles Center, New Pittsburgh, and Nytrondheim teem with business, manufacturing, and every type of conceivable entertainment. Covered souks connect the domes together, packed with bazaars, food stands, and squats.

THE MARTIAN TROJANS

Less dramatic than the other places I've mentioned, and often forgotten, are the Martian Trojans. This small group of rocky asteroids trails and precedes Mars in orbit. A number of brinker and hypercorp habs are found here.

Qing Long

Habitat Type: Cylinder
Allegiance: Triads

Qing Long (Azure Dragon) is the largest cylinder in the Solar System, home to 2 million people, and also one of the oldest. Founded as part of the Chinese effort to colonize Mars, Qing Long is now an independent habitat with a transitional economy. In reality, the habitat is a notorious criminal haven with its administration beholden to the triads. Though the14K triad is dominant, other cartels also have a presence, and they cooperate just enough to maintain a thriving grey and black market.

THE MAIN BELT

Posted by: Madge Zolversson, Ego Hunter INFO MSG REP

The Main Belt's the kinda place you might get your morph hacked, or all your credits stolen, or end up in debt slavery on Extropia, or at the bottom of a cortical stack pile on Legba. You might also make a fortune selling morph mods illegal anywhere else, discover an asteroid with rich veins to mine, or you could just make a living tracking down all the criminals who come there to lay low — you'll never run out of work!

Tens of thousands of asteroids make up the Main Belt between Jupiter and Mars. People like to call it a boundary between the inner and outer system, but I like to think positive and see it as a place for people from both to get to know each other. Radical autonomists and super-rich old-economy capitalists can coexist with Extropians and uplifted octopi, and they only sometimes try to kill each other. The Main Belt has no centralized authority and a diverse collection of habitats, so just about everyone can find a place for themselves if they look hard enough. Heck, a flagrant criminal on Vesta might be an ideal citizen on Extropia. If you just really don't like someone or you have contracts out on each of your organs, you can just go to a different asteroid. The Main Belt picks up people, things, and information that fell by the wayside in the inner and outer systems. I would say it's like a gutter, but that sounds so rude. Maybe think of it as a gutter with some exotic flowers growing in it.

While there are tons of people and opportunities in the Main Belt, the actual asteroids themselves aren't as numerous as they look. Sure, if you look at the Main Belt from far away, it looks super dense, but it's actually mostly empty. The total mass of those 181 million kilometers only comprises about 1/1000th of Earth's total mass. The most common asteroids are these cute little micrometeoroids that can totally punch holes in flimsy parts of your ship — or even your own body! Isn't that exciting?

Obviously, those little babies aren't much use for mining. If you want to mine asteroids, you should go for asteroid families. Families are groups that cluster together on similar orbital paths and they often have the same composition, so if one has a metal you want, the others might, too. The major families even have names, and people know them well enough that they can help navigation.

BELT STATIONS

The biggest asteroids with the most stable orbits and rotations have the primary settlements. I'll give you some highlights.

Ceres [1 Ceres]

Habitat Types: Bathyscaphe, Subsurface, Tin Can
Allegiance: Extropian/Hidden Concern/Planetary Consortium

Like Jupiter's moon Europa, the dwarf planet Ceres has an icy mantle one-hundred kilometers thick that covers an unfrozen ocean twenty kilometers deep. The −38 C surface temperature actually feels toasty compared to a typical asteroid, though. Most of the colonies on Ceres are Extropian operations, so that means more

contracts for everything. Aventine is the biggest surface settlement on Ceres and it connects via a transcrustal elevator operation to Wujec, a bathyscaphe habitat with all kinds of aquatic uplifts and bioscience. Only workers live in Aventine, as the habitat's primary purpose is to function as a transit waystation and shipping hub. Aventine has so little happening that it becomes a bit charming and rustic. There is a mass driver to fire payloads to the Piazzi station in geosynchronous orbit, I suppose. Nothing boring about firing packages with electromagnets into space! Piazzi's just a refueling station, so most of the packages are fuel, but it's also a smuggling hub for ships headed to restrictive polities.

The Consortium has a presence here via the Prosperity Group, which operates a half dozen habitats on Ceres. The biggest of those is Prosperpina, an undersea icicle where Prosperity Group manages its aquafarming, drug development, hydroponics, and vat-cultured food operations.

The big open secret on Ceres is the uplifted octopi cartel, the Hidden Concern. Whether through their legitimate business ties or their violent protection racketing, they insert their tentacles into just about every part of life on Ceres. They even control all of the wells used for travel to and from the surface through their puppets, the Cerean Transcrustal Authority. I don't blame them for all the trouble-making. Uplifts have it rough, with all the prejudice. I just feel like they could do well for themselves without stabbing so many people.

Extropia [44 Nysa]

Habitat Type: Beehive
Allegiance: Extropians

Extropia is the big ol' market-anarchist dreamland. Anything you could think of two consenting sapients doing, they let you do. There's no government, police, or central authority. Extropy Now owns the habitat and rents it out, but everything else is all based on contracts.

It gets complicated with all the contracts you have to sign. Security? Contract. Insurance? Contract. Medical care? Contract. Breathe the air? Contract! Legal help? That one's actually a subscription plan. No matter what, you should make sure you understand contract law before you sign anything — or get an ALI that does.

Extropia has so many attractions to visit! The Drag is a straight shaft running the length of Extropia, which houses most of the big businesses. At either end are massive bazaars, where you can find just about everything that exists: electronics, drugs, information, relics from Earth, weapons, and so on. Most of the electronics I've bought on the Drag were super expensive, broke down quick, and weren't actually what I thought I was buying. You have to go searching the side tunnels to find the good stuff.

The rest of Extropia is twisting tunnels and warrens. The wealthiest and most prestigious Extropians live in Bernoulli, a fluid environment that uses environmental nanoswarms to slowly change over time. I saw a chamber of snow-covered crags slowly transform into a carpet of red grass and perfectly spherical bushes over about a week. The Noodle holds the best chefs on Extropia and some of the best restaurants in the Solar System. I prefer to stick to Evangeline's Eats, a little food cart on the outskirts. She makes a burger with exofungal truffle oil that'll blow out your tastebuds. The Pits holds people who just couldn't pay their bills or who are wanted for contract violations. They don't get heat, plumbing, or even light down there. Heck, some of the shafts are still active mines. It can be kinda fun to try, but you probably don't want to live down there long. Proudhon Terrace holds the Mutual Credit Bank and associated mutualist co-ops, so autonomists tend to congregate there. The Shop is the place to go for hackers and techies, both for gear and jobs. Vat City is home to Extropia's vibrant body-mod community. You can find the best bodysculpting studios and every conceivable modification invented here. Lastly, V-Sector (the "V" is for "void") provides a synthetics-only environment for powering down and getting repairs, free of air, food, and water.

Legba

Habitat Type: Cluster
Allegiance: Nine Lives

Don't go to Legba. The Nine Lives cartel runs Legba, and they will happily throw you in one of their virtual slave colonies for kicks. There's one rule on Legba: you keep what you can carry. That rule applies to your ego, so if you ever take a break to sleep or even get a bit tipsy, get ready to make millions of new friends. Maybe they'll stick you in a heavenly locked virtual mindscape and sell you to a voyeur. Or maybe they'll just stuff your ego in a cold storage rig and forget about you. Or maybe they'll just rip out your cortical stack and throw it in a warehouse with thousands of others. Those monsters won't even clean the blood off.

Starwell

Habitat Type: Cluster/Torus
Allegiance: ExoTech

ExoTech is one of those corps that just worms their way into your life. The electronics you're holding? Name-brand ExoTech. Your last backup? Run on an ExoTech ego bridge. Your muse? Programmed by ExoTech engineers. Heck, if you're an AGI, ExoTech may be your last name. We're all locked into ExoTech proprietary software ecosystems, forced against our will into Morgan Sterling's ExoCult empire.

Starwell is where ExoTech's magic happens. The station is crammed with R&D labs and guarded like fortress. ExoTech claims they need to protect themselves from rivals and terrorists. To be fair, bioconservatives have attacked the station over their AGI development initiatives. ExoTech's enemies say the defenses are hiding ASI research. Maybe. You'd have to ask Sterling, he always keeps an alpha fork on site.

Vesta [4 Vesta]

Habitat Types: Beehive, Dome, Sphere
Allegiance: Hyperelite/Independent/Starware

If you are in the Main Belt and want to go someplace with a slower pace, I'd tell you to go to Vesta. Vesta is the second-most massive asteroid in the Belt. The beehive and dome habitats spread out over the asteroid are all part of a parliamentary cyberdemocracy that uses the transitional economy model. A few hypercorps — wanting to strike out on their own without Consortium oversight or Extropian entanglements — work together to keep Vesta independent. Starware's main shipyard facility orbits Vesta Prime, making ships they sell to polities all over the Solar System.

A mysterious personage known locally as the Dweller bought out a whole mining settlement in the Rheasilvia Crater on the asteroid's South Pole and made it their own private habitat. I haven't found anyone that's gotten past all the automated defenses to describe what it's like. Ships sometimes go in and out, but they avoid the rest of Vesta. All anyone can say with any reasonable certainty is that the Dweller's super rich.

JUPITER

Posted by: Tio Silencio, Firewall Proxy INFO MSG REP

Understanding the Jovian system means understanding its size, gravity, power, and impact. It is home to the Jovian Republic, with the largest and strongest military presence among transumanity. Much like Jupiter itself, the Republic's sheer might is both a measuring stick and a force that tugs on every corner of the system.

THE ANGRY GOD

Jupiter's size surprises the first-time visitor, especially if you're one of the lucky few who experiences approaching by spacecraft. It's 11 times the diameter of Earth but its day lasts slightly less than ten hours. Its colorful bands, ranging from white to brown to yellow, are beautiful from a distance but hide churning winds and storms unrivaled in the rest of the Solar System. These clouds are mostly hydrogen and helium with a few heavier trace elements; Jupiter lacks the mass to become a star, but not the composition.

A faint ring system circles close to the planet, along with over 70 natural satellites, from tiny moonlets to worlds larger than Mercury. Jupiter's immense magnetosphere hangs over our system like a shroud. It washes the Galilean moons, especially Io, with radiation levels so high that unshielded exposure kills within hours if not minutes.

JOVIAN LIFE

Life in the Republic is a crucible that forges steel — or grinds a person to dust. The Fall taught us that transhumanity's follies should not be repeated. The Seventeen-Minute War, the military conflict that left the Jovian system a smoking ruin, taught us that old-Earth power structures would dominate us without concern for our own well-being. And the Consortium takeover of the inner system, along with the autonomist seizure of the rimward system, taught us that we were the last hope for transhumanity's survival.

We understand suffering. We know the need for protection, whether from our host planet's radiation belts, the TITANs, or the insipid mistakes of the children around us. Life in the Republic is regimented, authoritarian, and safe if you follow the rules. Nowhere else in the Solar System can make this claim.

The Republic does not control every habitat and settlement in the Jovian system. Europa and Callisto remain steadfastly independent, and there are many smaller habs the Republic considers too inconsequential to bother with. Still, access to these areas by physical means is strictly regulated, especially for Republic citizens.

JOVIAN SETTLEMENTS

Posted by: Zoe Elizabeth, Firewall Proxy INFO MSG REP

Seventy million transhumans live within Jupiter's influence. Carving out settlements here is challenging, especially considering the Junta's bioconservative policies restricting radiation-hardened morphs. The closer to the planet one gets, the harder it becomes to shield a hab against radiation. On larger moons, stations are buried far underground. Smaller moonlets are hollowed out into Reagan cylinders, spun for gravity, using their natural rock as buffers. It's not without reason that the rest of transhumanity considers them unsafe, unstable, and worthless, unless you're trying to pack a bunch of people into one place and keep them under control. In other words — perfect for the Junta.

Solano (Amalthea)

Habitat Type: Reagan Cylinder
Allegiance: Jovian Republic

Solano is considered the nicest of the Reagan cylinders. It's a government and hypercorp research lab with a focus on military tech. Access is strictly controlled by patrol ships and killsats. Despite the high levels of security, there have been a handful of terrorist attacks on Solano. The Junta places the blame firmly on the Autonomist Alliance and anarchist factions in the Jovian system. Whether this is true, hawks within the Republic consider it a casus belli.

Europa

Allegiance: Independent (Europan Parliament)

No briefing on Europa does it justice; the moon is best experienced firsthand. Yes, there is native life under the ice. It evolved there for billions of years, completely independent of life on Earth. Scientists have been studying this life since before the Fall, and it was from those original science colonies that the Europan Parliament grew, an independent democracy entirely apart from the Junta. Europa is a minor state compared to the Republic or the Consortium. It is perfectly content to exist unmolested, though it maintains a minor protective militia.

Europa sits deep within Jupiter's magnetosphere; apart from a few surface structures, everyone lives in massive bubble warrens carved into the ice dozens of kilometers below the surface. Conamara is the only major surface habitat; it acts as the elevator head for goods shipped to and from the oceans below. Tens of thousands of Europans have fully embraced life in the cold, dense, saltwater oceans, sleeved in heavily modified biomorphs and synthmorphs.

Europan culture is unique. Education and the sciences are highly valued, and Europa has the highest rate of advanced degrees in the Solar System. Undersea life has given rise to new sports, from races to aquatic orienteering.

Ganymede

Allegiance: Jovian Republic

Ganymede is the largest moon in the Solar System—larger than Mercury—and the largest population center in the Republic. Everything on or near Ganymede is a member or protectorate of the Republic. The moon is tidally locked, and while it isn't as far inside the magnetosphere as Io or Europa, an unprotected morph on the surface takes lethal doses of radiation in less than an hour. Most of its settlements are deep underground, buried in a honeycomb of caverns and tunnels that cut through the entire moon. A few dot the surface, existing to service those deeper.

The Castle is the Junta's information and data repository. It's an open secret that this is where the Junta surveils its citizens. Non-AI data analysts comb through mesh traffic, entertainment feeds, security data, surveillance chatter, the latest XPorn, love letters, and primary school art projects. Everything is tagged, classified, and filed, censored where appropriate, and routed to the correct authorities. Entry is limited to a single shuttle on a single route: other ships are destroyed by killsat.

Several habitats orbit Ganymede; the Holy See (or New Vatican) is the home of the Roman Catholic Church in exile. It's a Reagan cylinder upgraded to the point of opulence and houses many of the artifacts the Church has rescued from Earth. It serves as school for biblical scholarship, a museum, and the de facto heart of post-Fall Christianity.

Liberty

Habitat Type: Subsurface/Cluster
Allegiance: Jovian Republic
Liberty is the capital and largest city in the Jovian Republic. It's a mix of deep factories and farms churning out the materials to keep the Republic running, a government town where lobbyists and moralists compete for time with the Senate, and an authoritarian police state. People here wake up, go to work, come home, and keep their heads down.

Venture far enough into the outer tunnels and deep chambers of Liberty and the Junta's control recedes. These are, remarkably, some of the poorest and most dangerous slums in the Solar System. Some areas are such a crime-ridden free-for-all that security forces refuse to enter; the Junta simply acts like the people there don't exist.

Liberty Station hangs in geosynchronous orbit over the city. A space elevator was planned to connect the two, but the project was abandoned when resources were redirected. The station is the main shipyard for the Junta; the Space Force keeps a quarter of its fleet here at any time, and the spiderweb-like arms and legs jutting out from the original asteroid supply hundreds of ships in various stages of construction or refit.

Callisto

Allegiance: Independent/Jovian Republic
Callisto is the farthest Galilean moon from Jupiter and the farthest from the Junta's clutches. It's a crater-pocked wasteland with little going for it except its distance from Jupiter's radiation belts. Several city-states dot Callisto. The Republic claims them as protectorates, but the city-states see themselves as independent.

Hyoden

Habitat Type: Subsurface
Allegiance: Independent
Prior to the Fall, Hyoden was a backwater with poor supplies and a massive labor shortage. The settlement accepted more than a million refugees who found the Jovian Republic's policies distasteful or restrictive. In exchange for a synthetic morph, these transhumans were expected to perform three years of military service and help build the settlement. The powerful military city-state that grew from this is independent, cosmopolitan, and proud. AGIs, uplifts, and autonomists are welcomed here; citizenship is open to anyone who serves in the military.

Hyoden's embrace of technological advancements give it a distinct advantage over the Republic. This makes Hyoden an increasing threat in the Junta's eyes, but so far the city's layers of missiles, killsats, and turrets have kept the Republic at bay.

THE JOVIAN TROJANS

Posted by: Hohmann Kontakt, Sentinel INFO MSG REP

The Trojan (and Greek) asteroids chug happily along at the Sol-Jupiter L4 and L5 points. Most of the residents here are autonomists who want to be away from the Republic but also want a little sunlight. Sprinkle in a few brinkers doing their own thing. Most of 'em are perfectly fine and safe. Most. The sparseness and proximity to the inner system makes this region an ideal hiding spot for pirates and worse kinds of criminals too. Wander too far out of your element and your skull is going to be decorating someone's control console. That's why you need to be prepared.

Pirates

Their Trojans an excellent base from which to launch pirate raids. Several of the most notorious pirates to plague the system, like Margarita Shun and Reboot_Ex, keep hideouts here. They prey on loosely-guarded Republic shipping or automated hypercorp freighters returning sunward. Carbon reaver gangs prefer to hit isolated mining ouposts, grabbing the goods before they're shipped out. Pirates use sophisticated hit-and-fade tactics to cover their tracks. Some deploy top-of-the-line synthmorphs and ship weaponry, but most are more devious than well armed.

Locus

Habitat Type: Nuestro Shell
Allegiance: Anarchist
Locus is the largest cluster habitat ever created, spanning a jaw-dropping eleven-kilometer sphere with thousands of modules docked to its wings and spurs. At the center of the cluster floats the Amoeba, a giant sculpture that reshapes itself and changes colors.

There is no government or police; tasks are performed by various collectives and a volunteer militia responds to threats and anti-social behavior. The "economy" is based on open nanofab access, gifting, and rep favors, with the occasional barter.

Locus features everything from artist collectives to arms dealers and mining cooperatives. The Kanigawa Farms feeds the station's inhabitants. The Pill Box is a massive drug lab and party module, where you can experience the latest petals and substances that didn't exist yesterday. Rooktown is a cultural focal point for neo-corvids and mercurial activism. Various maker spaces and hack labs work closely with Exarchia, another Trojan hab that is a nexus for autonomist hacktivism.

Boister's Armory, an anti-TITAN research facility, doubles as station security, firing upon any would-be attacker. They work with other collectives for mutual defense of the cluster. Twice the Consortium has attacked Locus, and twice Locus has repelled its would-be oppressors.

SATURN

Posted by: Isabella Dandolo, Firewall Proxy INFO MSG REP

The smaller of our system's two gas giants is Jupiter's cool sibling. Everyone here is free: there's no oppressive political bloc telling you how to run your life every minute of every day. There's room to spare for its more than 80 million transhuman inhabitants, all of whom can express themselves as they see fit. There are major centers of learning for those who want to expand their mind, pharmaceuticals for the same, employment opportunities, space to hide, space to party, and space to live and love.

Saturn's famous wide, thin rings stretch from 7,000 km above the top of its clouds to nearly 80,000 km. More than 60 moons and moonlets orbit Saturn, including Titan, the only satellite in the Solar System with a thick natural atmosphere.

THE RINGERS

Saturn's rings are the primary source of water in the system and a great place to go to be alone and contemplate the beauty of the universe. Ringers forego habs and use vacuum-tolerant morphs to live here, going months without seeing anyone else. Some ringers are here to hide, but most are just solitary; they look out for each other and protect each other's privacy.

GAS MINING

Mining the clouds is a major business. Contractors operate automated skimmers or navigate harvester aerostats to extract methane and ammonia from the top of the atmosphere. Deeper operations dip into Saturn's depths to return with volatiles and helium-3. Orbital refineries run by hypercorps like Volkov process the gases and ship them to habitats around the system.

SATURNIAN SETTLEMENTS

Saturn's diversity expresses itself in many ways. The range of transhumans and cultures here is as beautiful as our planet's rings.

Bright (Tethys)

Habitat Type: Hamilton Cylinder
Allegiance: Independent (Acumenic)
What happens when you stick genius-level egos together in a single hab, provide for their basic needs, and turn them loose on whatever strikes their fancy? You get Bright, a joint hypercorp experiment in commodifying intelligence. Well, it was a joint project until Acumenic pulled a hostile takeover, even pushing Cognite's project lead out an airlock. Now Acumenic is struggling to assert control over the station. At least one part of the habitat has been seized by a group of self-made sociopaths and closed off to outsiders. Bright is housed on a work-in-progress Hamilton cylinder constructed from Tethys' moon Telesto.

Kronos Cluster

Habitat Type: Cluster
Allegiance: Independent (Anarchist/Criminal/Ultimate)
Kronos started as an Extropian and anarchist settlement made of tin-can modules and grew to the bursting point after the Fall, when it accepted hundreds of thousands of refugees from Earth. The original settlers found themselves at odds with newly-formed criminal syndicates, and Kronos became a hotbed of the quasi-legal and morally questionable.

Things deteriorated, and the Extropians formed the Kronos Port Authority (KPA), which brought in Ultimate mercenaries to enforce their rules. The Ultimates took over the KPA, and have now forced a detente across the station.

Kronos is now a patchwork of armed neighborhoods. Tourists are drawn to the vices offered, and the KPA makes bank on offering them protective services. The KPA runs a business license protection racket to keep the gangs from getting out of hand. The anarchists keep to themselves, but sometimes conflicts flare up with neighboring groups.

MeatHab

Habitat Type: Biological
Allegiance: Independent
When post-Fall postmodernism is no longer enough, artists create projects like Turn Yourself Into a Giant Mass of Space Meat for Art! MeatHab is a living habitat made primarily of vat-grown bacon. Originally intended to be temporary, it attracted a following of anarchists, scum, researchers, and weirdos that squatted the station to bask in the oddness of its veinous, skin-covered corridors. It has even spawned its own religious cult, the Acolytes of Living Meat. By all indications, the mysterious original designer is still present, occasionally playing pranks on its inhabitants.

Pandora

Habitat Type: Beehive
Allegiance: Independent (Gatekeeper)
Saturn's outermost shepherd moon is also one of the most studied and trafficked places in the Solar System. The site of the first discovered pandora gate, Pandora has a single major settlement: Gateway. Run by the Gatekeeper Corporation, once a subsidiary of the Commonwealth of Titan but now autonomous, Gateway is the major hub between here and there. Almost every hypercorp and government with any influence has representation here. This mix makes the station a steaming cauldron of cultures, ideologies, hopes, dreams, and ruthless ambitions.

The scum barge *Lost in Neverwhere* is an excellent supply point for sentinels who need to acquire discrete items. It maintains a semi-permanent orbit around the moonlet, moving only when station security gets sick of their antics.

Phelan's Recourse

Habitat Type: Swarm
Allegiance: Scum
Known colloquially as Phelan's, this scum flotilla is a waystation between Saturnian civilization and the wilderness beyond; a constant, free-wheeling party where you're just as likely to find yourself blasted out an airlock as you are chasing a high with some of the finest Fall refugees you'll ever meet. While Phelan's is a fine place to pick up some of the greatest mind-altering substances you can ingest, its best export is Phelan's Ma, hands-down the best whiskey in the galaxy unless you happen to have a bottle of 21-year-old PortWood Balvenie. Phelan's swarm cycles between Saturn's moons, making it an excellent place to score intel and make connections.

Profunda (Enceladus)

Habitat Type: Beehive
Allegiance: Extropian
Profunda is the largest settlement on Enceladus and famous across the system. On-station government is nearly nonexistent; business is conducted with Extropian legal contracts. The Profunda

Corporation is the key interest in mining and refining operations, but it is not the only game in town. Profunda, however, is best known for their premier genetic designers and morph artists. They create everything from custom morphs to neogenetic and chimeric creatures like the winged smart cats popular around the Saturn system. Profunda's Glitter Bloc dominates the market in luxury morph models, providing sleeves to some of the most notorious metacelebrities and socialites.

Salah

Habitat Type: Hamilton Cylinder
Allegiance: Independent (Contested)
Salah was conceived by the Al Thani family of Qatar, who heavily financed various efforts to expand into space. Originally intended as a grandiose display of wealth and power, Salah is now seen by many Muslims as an opportunity to bring the *ummah* together again and give them a place of their own to call home. However, the Al Thani family is working hard to open Salah to Consortium hypercorps, offering them a foothold in the outer system. Already their designs have run counter to the community's wishes.

Salah is a place of faith and tolerance. While many of us follow the teachings of the Prophet, a great many Hindus, some Christians, and some Jewish refugees have been given quarter here. Salah was designed to inspire. Vast parks and green spaces combine with architecture meant to emulate everything from the Hagia Sophia to the Al Haram to Canterbury Cathedral. It is hard not to stand within Salah and feel awe.

Twelve Commons (Epimetheus and Janus)

Habitat Types: Beehive/Cluster/Spheroid/Torus
Allegiance: Anarchist
Twelve Commons is a neighborhood of habitats that reside on or near the co-orbital path of the moonlets Epimetheus and Janus. There are now many more than twelve of the original anarchist collectives that formed Twelve Commons. The entire settlements occupies a cloud spread out over 20,000 kilometers. It's a refuge for scientists, artists, engineers, and writers.

Notable communities include the Do-It-Yourself Shipyards, where the technicians and automated construction facilities delight in taking your ship design from plans to reality; Janus Commons, a 900,000-person habitat full of research labs and experimental theater productions; Long Haul, a collective devoted to liberating infugees and indentures and giving them new morphs; and Small Majesties, a collective of nano-artists.

TITAN

Posted by:
Magnus Ming, Titan Autonomous University INFO MSG REP

As transhumanity's fate approached, scientists settled on Titan to study its unique lakes and rivers of liquid methane. Soon they settled the moon with the dream of creating a place where all transhumans could live free together. The Titanian Commonwealth, home to 60 million transhumans, is the realization of that dream.

Saturn's largest moon is shrouded in a permanent orange atmospheric haze, hellishly cold (averaging –180 C), and whipped by winds produced by tidal forces four times stronger than those influencing Earth's climate. On its face, it appears even less hospitable than the airless balls of ice and rock comprising every world between Titan and Mars. The meager sunlight reaching its surface is insufficient to grow any but the hardiest plants, the mostly nitrogen atmosphere is dangerously toxic, and the surface is dotted with lakes and seas of liquid methane. In spite of all this, abundant hydrocarbons, a thick atmosphere, and diverse chemistry make Titan one of the few worlds in the system where colonists may rely entirely on local resources. Titan's low gravity (0.138 g) makes it easy to launch ships from the surface with mass drivers or catapults.

Aarhus

Habitat Type: Dome
Allegiance: Titanian Commonwealth
Aarhus is a European college town transplanted to three kilometer-wide hab domes on the shores of a serene lake of liquid hydrocarbons. 20% of Aarhus's population is students, many of them from off-world (and outside the Saturnian system), attending one of its twelve institutes of higher learning. The largest is Titan Autonomous University, followed by the Titan Technical Institute, both housed under the cleverly-named University City dome. In the tradition of college towns since the middle ages, students and faculty are proudly political, enjoy drinking, and partake in friendly school rivalries.

New Quebec

Habitat Type: Dome
Allegiance: Titanian Commonwealth
Titan's third-largest city is both charming and dangerous. It's a wonderful place to spend a holiday, and its old-Canadian-inspired architecture, gaming facilities, and four-star restaurants encourage tourism. It's also the Commonwealth's main hub of criminal activity, with gangs fighting for control and a police force that seems woefully unequipped.

Most visitors to New Quebec are perfectly safe. If, however, you were looking for underworld connections on Titan, needed some extra muscle, or wanted to get your grubby little paws on something iffy, then New Quebec is your best bet.

Nyhavn

Habitat Type: Dome/Subcrustal
Allegiance: Titanian Commonwealth
The Commonwealth's capital and largest city is Nyhavn, a series of four vast domes, skyward-pointing spires, and a spiderweb of tunnels bored into Titan's crust. It's the commercial, cultural, and industrial hub of Titan (and perhaps the Saturnian system).

Nyhavn's four main domes (Great Nyhavn, Telemark City, Old Nyhavn, and New København) provide housing, recreation, education, and services for the city's residents. Vast parks merge seamlessly with microcorp offices, industrial facilities, rail lines, and educational institutions. Skyport Nyhavn is Titan's busiest spaceport, offering flights anywhere in the Solar System. Because the city is situated on Titan's equator, a space elevator is under construction on Mt. Kristiansund just south of the domes.

Commonwealth Hub

Habitat Type: Nuestro Shell
Allegiance: Titanian Commonwealth
The Hub floats in geosynchronous orbit over Nyhavn. It is Titan's primary spaceport, with a massive fleet of orbital landers to shuttle goods and people down to the surface. A recent shutdown of the port's activities was blamed on improper imlementation of a software update, but rumors point to some sort of contained outbreak.

URANUS AND NEPTUNE

Posted by: Maanika Kristoffson, Firewall Proxy INFO MSG REP

Beyond Saturn's orbit, the Solar System turns into a sparsely populated wilderness with just a handful of large settlements and countless smaller ones. Uranus orbits at 10 AU beyond Saturn, and Neptune at 10 AU beyond that. The distances between stations and delta-v required to reach them is enormous, growing larger by measures the farther you travel. Life in the rimward system is both fragile and self-sufficient. It's a hodgepodge of brinkers, anarchists, romantics, scientists, and entrepreneurs—sometimes all combined.

THE ICE GIANTS

Uranus and Neptune are ice giants, comprised of water ice, methane, and ammonia with rocky cores. The resources mined by *skimmers* on both worlds are vital to life beyond Saturn, from the water that keeps settlements alive to the volatiles used to fuel the freighters that plumb the outer trade routes.

As the saying goes: it's a cold, rough life, but it beats inner-system bullshit.

URANUS

Uranus has the distinction of hosting most of the civilized settlements beyond Saturn. It's the last stop for comforts (and vices) before losing yourself in the final wilderness of Neptune and the Kuiper Belt. Most of transhumanity disregards Uranus as a boring backwater not worth the fuel it takes to match its odd orbit. Their loss. Uranus's oddness, and that of its inhabitants, is precisely what makes it beautiful.

From a distance, Uranus is a stunning, featureless greenish-blue. It's only when you get closer that you can appreciate the nuances in the clouds, the glittering ring fragments, and the jewel-like moons.

The Sideways

Uranus's equator is inclined ~98 degrees to its orbit. Uranus's magnetic field is inclined ~60 degrees as well, though it's far weaker than Jupiter's or Saturn's, making life among the clouds a relative cakewalk. Orbital insertion around Uranus requires a short, furious burn that challenges even the best of pilots (who still require software assistance). It's one of the reasons Uranus remains remote and largely unsettled.

Life Among the Clouds

Uranus is perfect for supporting aerostats and the local culture of skimmers have turned harvesting volatiles into a cottage industry. Without strong radiation or winds, these aerostats bumble happily along, converting Uranus into useful materials. They range in size from a few dozen people to single-person operations.

Skimmers like their privacy, but if you let them engage you in conversation, you'll be opening yourself up to dubious stories of derring-do, plausible tales of escaping the authorities, or yarns about shapes in the clouds. Nearly every skimmer has at least one story of a strange heat source, sighting of an off-record ship or aerostat, or something even odder floating among the methane plumes.

Varuna

Habitat Type: Aerostat
Allegiance: Brinker
Varuna is Uranus's only large aerostat. It's run by an elected council and acts as a hub for skimmers. A few hypercorps maintain small offices here, trading for volatiles. Visitors find Varuna either provincial or charming.

Several independent and hypercorp-controlled science labs have set up shop on Varuna, One major research project is an attempt to adapt pre-Fall Earth life to create oxygen-free biomes on gas giants. Success would open the colonizable area in the Solar System by several magnitudes.

URANIAN MOONS

Uranus has six significant satellites and several tiny moonlets in increasingly eccentric orbits. The main moons orbit around the planet's tilted equator, which means intercepting them from the system's elliptic takes a hell of a lot of fuel and skill. Most Uranian moons are sparsely inhabited. Due to their inclination, the smaller moonlets may be the last uninhabited places in the system.

Oberon

Allegiance: Anarchist
8,000 of Oberon's 10,000 inhabitants live in Chat Noir, a frontier outpost run by a handful of anarchist collectives. It has advanced resleeving, egocasting, and manufacturing facilities, primarily to service the Fissure Gate, the only pandora gate in anarchist control. The gate's discovery transformed Chat Noir from a backwater to a boomtown overnight. So far, the Consortium has been unable to take control of the gate from the anarchists, and Chat Noir's security keeps it that way.

The Cobweb is one of the premier farcasting facilities in the Solar System, taking advantage of Oberon's distant orbit from Uranus's interfering magnetosphere to egocast nearly anywhere. The facility is mobile, crawling across Oberon's surface on spiderlike legs to achieve maximum signal fidelity. The Chat Noir collectives control Cobweb and only those with a high enough @-rep can use it.

The Consortium and various hypercorps, tired of dealing with the anarchists' security measures and Chat Noir's lack of more luxurious amenities, have started prospecting to build a second spaceport on Oberon.

Titania

Allegiance: Anarchist/Brinker/Hypercorp
Titania is synonymous with Xtreme sports, high-end holidays, and media glitz. It started as another autonomist prospector camp, until bored kids began diving from Messina Chasma, one of the largest canyons in the system. Titania's low gravity means the 0.5-kilometer fall takes a full 51 seconds, and an elastic carbon-fiber cable allows easy return to the base.

A few grainy videos hitting the mesh was all it took for media hypercorps to leap on the commercial possibilities. Now the moon is a resort for inner-system glitterati interested in frontier fun. Most of Titania's settlements ring Messina Chasma.

The settlement Crossing is the de-facto Xtreme sports headquarters because it hosts the 5-kilometer bridge that crosses the canyon. It's a classic rural resort town with surprisingly luxurious amenities, from its resleeving facility to its drinking, dining, and sex dens.

Xiphos

Habitat Type: Hamilton Cylinder
Allegiance: Ultimates
At a length of 5.5 kilometers and diameter of 1 kilometer, Xiphos is one of the largest and best-apportioned habitats outside of the Main Belt. It began its life as an O'Neill cylinder before Manu Bhattacharya

invested to upgrade it and tow it from Saturn to the Uranian rings. It's now a research and manufacturing facility where ultimate scientists develop advanced weaponized morphs and technologies. Any attempt to reach Xiphos by unauthorized approach is met with extreme and deadly resistance.

What most outsiders know of Xiphos comes from their annual, three-day Olympics events. Held in the Greek tradition, these games are broadcast across the mesh, but entrance is limited only to Ultimates who can afford the high-end morphs they're showing off.

NEPTUNE

Posted by:
Sutton Wollenbacher, Firewall Sentinel INFO MSG REP

Cold, dark, and beautiful. That's Neptune. I relocated here 5 years ago and haven't looked back. We're so far away that the rest of the system might as well not exist. Farcasting here is expensive, and arriving by ship is expensive and takes years. The planet itself is several shades of dark blue, and the highest winds in the Solar System batter anyone who tries to descend into its clouds.

Neptunian Culture

There's two reasons to come to Neptune: to escape or to start over. The entire Neptunian system is home to barely 100,000 people. Here you are valued more for what you *do* than what you've *done*. Whether you're running from the law, from obligations, or from some jealous partner you pissed off—no one here cares.

There's your odd tourist, Xtreme sports enthusiast, or researcher too. My favorites are the prospectors, looking for a gate. "Gates at Mars, Saturn, Uranus, and Eris! There must be a gate at Neptune!" Not yet, but it won't stop the cowboys from trying.

Most Neptunian life is concentrated on the planet's moons or on the few habs that circle the ice giant. Except for the handful of *known* aerostats floating around in Neptune's 2,000 kph winds, that is.

Mushroom

Habitat Type: Aerostat
Allegiance: Brinker
The brinkers on Mushroom embody the term paranoid: egocasting from a handful of trusted stations is the only way in. If you try to approach by ship, your molecules join Neptune's beautiful swirling clouds. Once aboard, you're held in psychosurgery until they determine why you're there. If they don't like the reason, you're 'cast off.

Mushroom is one of the few places to get an up-close look at Neptune's roiling clouds and weather, but little research happens here. There are no radio or mesh transmissions allowed out; anyone found attempting to do so is exiled. The stat uses a few strategically placed repeater satellites to receive transmissions, so the inhabitants at least stay up on current events and sports scores.

Who's footing the bill for this little venture and why? Ask any Neptunian about Mushroom and you'll get a shrug and a quick change of subject.

Supposedly there's a habitat called Jaques even deeper than Mushroom. I don't think it exists.

Glitch

Habitat Type: Processor Locus
Allegiance: Independent/Mercurial
Glitch is the largest processor locus in the system. It's a refuge for the smartest and most creative transhuman minds. The infomorphs that call it home claim you're smarter and more creative as soon as you enter thanks to their architectural protocols.

Glitch's systems allow infomorphs to communicate incredible amounts of information almost instantaneously with the entire locus. Egos arriving on Glitch tend to either leave right away or become permanent residents; those who stay and leave later say disconnecting from the locus is terrifying.

Mahogany

Station Type: Cylinder
Allegiance: Mercurial
Mahogany was founded on the principle that uplifts and AGIs didn't require human intervention. It's now an inspiration for other mercurial colonies, but Mahogany's autonomy doesn't mean isolation. Its residents actively participate in system-wide scientific research, political activism, and media production. Mohagonans are most concerned with helping mercurials avoid persecution and establish new communities.

Afrik

Habitat Type: Torus
Allegiance: Independent/Mercurial
Afrik is an attempt by mercurials to create a thriving, pre-Fall African ecosystem on a Torus hab around Triton. Unfortunately it never had the funding to fully realize its vision. The scientists running Afrik filled holes in the ecosystem using gene splicing, nanofabrication, and borrowed xenobiology. It's worth visiting if only for its uniqueness, but understand that it is not a zoo.

NEPTUNIAN TROJANS

Posted by: Adam Mooliee, Firewall Sentinel INFO MSG REP

By the numbers, there are more Neptunian Trojans asteroids than Jovian. Most aren't larger than 10 km across and aren't worth a damn in terms of minerals or volatiles, but they make a dandy place to hide. They're home to tiny, scattered communities of brinkers, survivalists, and other eccentrics; most stations house 500 transhumans or less.

Hawking

Habitat Type: Beehive/Cluster
Allegiance: Independent (Hypercorp)
Hawking is a hypercorps skunkworks facility. The local brinkers avoid it; ships that get too close are warned once and then fired upon with prejudice. ExoTech's Morgan Sterling is supposedly one of the facility's investors. Its research involves theoretical space drives. On the upside, Hawking's remote location means any physics "mistakes" probably won't hurt the rest of the system. Probably.

Ilmarinen

Habitat Type: Beehive/Cluster
Allegiance: Anarchist/Brinker/Argonaut
Ilmarinen is a celebration of the cold and vacuum of space. Every available morph has substantial environmental tolerance upgrades. The station's residents freely mix and mingle with the chill and vacuum of the void beyond their walls. Areas containing plants and precious possessions have strict environmental controls; the rest of the hab can depressurize or drop drastically in temperature at any time. The station is a haven for engineers, designers, and techies who prefer to work free from hypercorp influence and control.

THE SYSTEM FRINGE

Posted by: Jarvis Tryscuz, Firewall Sentinel INFO MSG REP

For most of transhumanity, the fringe is shorthand for "shit you wouldn't want your mother to know about." That's partially true. There's plenty of criminal or amoral shit going down in those big open spaces between pockets of civilization. There's also plenty of communities of hard-working folks who just want to be left the hell alone.

Everything interesting happens in the dark. It's very dark out there.

THE INNER FRINGE

More than 10,000 asteroids tumble around inside Mars's orbit, and a full tenth of them are over a kilometer in diameter, which means they can house a bubble, cylinder, or beehive habitat. You don't have to flee rimward to hide; there are plenty of places sunward the Consortium won't go or simply doesn't know about.

Economic exploitation of these asteroids isn't as lucrative as mining the Main Belt. Many of them are in eccentric orbits that put them far from the ecliptic. There are still quite a few bodies in the inner system that haven't been properly mapped or detected. Inner-fringe settlements range from paranoid to hedonistic to downright criminal.

Impian

Habitat Type: Bubble
Allegiance: Shui Fong Triad

Impian ("Dream" in Malay) was once 1086 Ganymed, the largest of the Amor asteroids and the first settled and mined. It asserted its independence after the Fall, but was soon infiltrated by the Shui Fong triad. The Shui Fong kept Impian's simulspace-coding and software development hypercorps intact, running the station as a center of "safe vice for a price."

Sisyphus

Habitat Type: Beehive/Cluster
Allegiance: Zrbny Limited

1866 Sisyphus is a binary asteroid orbiting between 0.9 and 2 AU. It's the home of the largest Zrbny Limited waystation in the inner system. It was built entirely by automated manufacturing robots after the corporation mysteriously went into lockdown and terminated all personnel. Zrbny's own paper trail runs out quickly. With no signs of transhuman involvement, it's not clear who's pulling the strings on Sisyphus and why.

PEX

Habitat Type: Torus (Mars-Sol L2)
Allegiance: Planetary Consortium

The Planetary Stock Exchange lives on the creatively-named PEX station. You'd be hard-pressed to find a more secure habitat in the inner system. It accounts for a major portion of mesh traffic during peak trading hours as suits from across the system wheel and deal. Oversight's central offices are here.

The habitat itself is appropriately luxurious; visitors and the handful of permanent residents can buy nearly any experience they want. The hab's halls are carpeted and ostentatious displays of money and power are the rule of the day. The finest French restaurant in the Solar System, *La Petite Pigeon,* is on PEX's second-highest floor. I can only speculate how they source their pâté.

Despite the tight security, someone released a biowar agent here that caused multiple traders to suicide or chew their own arms off in AF 8.

THE OUTER FRINGE

There are no cities here. There are no luxury hotels, no gourmet restaurants, and no Consortium cops. From here, Uranus looks downright cosmopolitan.

If you're this far out, you're either looking for privacy, doing research, trying your hand at prospecting, or up to no good. When brinkers in the fringe meet hypercorps representatives, we suspect something untoward is going on. Watch your step out here.

Communities this far out are very closely knit, and any outsiders are threats. The distances between outer-fringe settlements are hard to grasp, especially for inner-system inhabitants used to shuttling around the Consortium. Getting from Neptune to Pluto is a logistical (and economic) nightmare if you aren't egocasting in.

The Dogs

Habitat Type: Beehive
Allegiance: Brinker/Unknown

This small cluster of tiny centaur asteroids are each in the process of being transformed into weapons platforms by automated bots and swarms. The entity behind this project is known only as the Artifex. Their intentions remain unclear. We have yet to ascertain if this is an art project, a proof of concept, or something more sinister.

Mortusae

Habitat Type: Beehive
Allegiance: Exhuman

Saturn lacks Trojan asteroids due to the influence of Jupiter, which disrupts the long-term stability of the Lagrange points. A small asteroid temporarily orbiting at the Sol-Saturn L4 has been occupied by an exhuman group identified as the Empusae. Composed of both sublime and predator exhumans (and possibly others), they have an avowed goal of enslaving transhumanity. This particular nest seems to have hostile intentions for Saturnian habitats.

New Sarpalius

Habitat Type: Beehive
Allegiance: Planetary Consortium (disputed)

This 65-kilometer centaur asteroid was home to a pre-Fall mining operation. When the company' leadership was destroyed during the Fall, the Algerian workers launched a strike against local management that turned into a full revolt. For years the habitat ran along anarchist lines under the name Sanctuary. Just a few months ago, however, a Consortium-backed coup seized control. Autonomists are divided on how to respond, as the coup seems to have strong local support, though some residents claim there was a Consortium conspiracy to slowly seed the colony with supporters over a course of years.

ITN CYCLERS

ITN Cyclers are large ships, swarms, or habitats that lumber along the Interplanetary Transport Network. This predetermined route is a system of gravity assists, quick burn maneuvers, and the occasional aerobrake that allows a vessel to travel the Solar System using very little fuel. It's been plotted out to several thousand years, and most self-sufficient ITN Cyclers carry enough fuel to last at least a thousand before they need a top-up.

Conch

Allegiance: Brinker

The *Conch* started its life as a refugee ship, when Brazilian and Panamanian families escaped the Fall. The social order on the ship quickly devolved as various groups of refugees battled each other for the limited resources, prime space, and political power.

Then things got strange. The hyperelite Lhagva family purchased the ship, replaced the entire crew, and transferred three family members there. These three brothers — Bold, Batkhuu, and Battulga — were wanted for various white-collar crimes in the inner system and were put into voluntary exile to avoid embarrassment.

The brothers quickly insinuated themselves among the various social groups and started treating the Conch like their own private social experiment. Those who refuse to conform or fall out of the brothers' favor find themselves shoved out the nearest airlock.

THE KUIPER BELT & OORT CLOUD

The K-Belt and Oort Cloud are leftovers from the formation of the Solar System: pieces of debris that never bumbled together to form a proper planet. Out here all you'll find are iceteroids that haven't been convinced to become comets yet and the occasional frozen dwarf planet. Life this far out is either a brinker's paradise or a punishment posting.

The Kuiper Belt extends from 30 50 55 AU. There are a few scattered settlements in the K-Belt; it's a combination of Old West homesteading and living like some filthy medieval hermit. The even less-dense Oort Cloud starts around 2,000 AU and extends to interstellar space. No one really lives there. The furthest we've gotten a probe so far is around 30,000 AU.

Eris

Habitat Types: Beehive

Allegiance: Go-nin Group/Ultimates

Eris lies 55 AU beyond the sun, and this speck has seen a disproportionate amount of action for a body barely able to maintain hydrostatic equilibrium. It's made of rock, water, and methane ice. its tiny moon, Dysnomia, is an unremarkable captured chunk of rock. What Eris does have is the Discord Gate, and the battles for control of the gate have turned the surface of this tiny shithole into a war-scarred wasteland.

The Go-nin Group controls Eris and its only settlement, Torii, home to approximately 20,000 transhumans. Torii is a beehive carved deep into Eris, in part because the gate location physically sunk when Go-nin somehow destroyed it, before later rebuilding itself. Torii is Eris's only spaceport; unauthorized ships coming within 500 km are terminated.

Dysnomia houses Pharos, an Ultimate base armed to the teeth with combat morphs, ships, weapons batteries, and even nuclear and antimatter weapons. The Ultimates guard over Torii and help defend against anarchists and exhumans.

Markov

Habitat Type: Beehive

Allegiance: Argonauts

Markov is one of the best-kept secrets in the Solar System. It's somewhere in the outer fringe or Kuiper Belt, but the Argonauts do their best to keep its location hidden. Markov is a lab for cutting-edge Argonaut research: experiments in propulsion, quantum mechanics, biomechanics, cognitive science, and Lorentzian manifolds.

Markov houses the Library, the Argonauts's main data backup, as well as the Medean Apollo project, a predictive analytics initiative utilizing cutting-edge AIs examining enormous amounts of data. Most of Markov's inhabitants are infomorphs and AGIs; biomorphs customized for the habitat's thermal-dissipating perfluorocarbon atmosphere can survive there.

Pluto and Charon

Habitat Types: Cluster

Allegiance: Brinker

The largest and best-known Kuiper-Belt object (KBO), currently about 48 AU from the sun, the first of its kind explored by humanity prior to the Fall. Its rocky core is surrounded by hundreds of kilometers of water and methane ice. Liquid occasionally seeps to the surface as the gravitational tug of its sister binary object, Charon, reshapes Pluto.

There are no major settlements on Pluto or Charon except for tiny mining outfits and brinker communities. The Tulihänd station, a cluster hab balanced between the two bodies, oversees the largest mining operation in the remote rim. Tulihänd runs comet-capture operations and manufactures and controls the massive crawlers that strip smaller KBOs; materials harvested are returned to Tulihänd's refineries before they're flung back to inner-system buyers.

Tulihänd itself is a fortress. Shipments in and out are popular targets for pirates, so information about mining and refining operations are closely guarded secrets.

Haumea

Habitat Types: Tin Can

Allegiance: Mafeng Pirates

Haumea tumbles through an eccentric orbit anywhere from 35 to 50 AU. Haumea's surface is marred by a gigantic red crater from an impact early in its life; the only settlement on the mineral-and-volatile-poor rock is a mining camp on the crater's rim. This camp is the major base for the Mafeng gang, the largest and best-equipped band of pirates and thugs in the K-Belt.

Makemake

Makemake orbits between 38 and 51 AU, and its composition suggests it is a captured piece of interstellar debris. It's about two-thirds the size of Pluto and has at least one moonlet. Official records say Makemake is uninhabited except for a few prospectors. Unconfirmed reports suggest that ships destined for Makemake are far better armed and equipped than any prospecting vessel should be.

Tyche

Tyche is a cold Jupiter in a highly eccentric, slightly inclined orbit with a perihelion of about 220 AU and an aphelion of 1200 AU. Discovered by analyzing mathematical anomalies, Tyche's existence was confirmed in the early 21st century. It's about ten times the mass of Earth but only four times the diameter, making it incredibly dense. That's all we know about the ninth planet. The Argonauts have sent probes to Tyche, but they won't arrive for another 20 years.

QUARANTINE ZONES

Source: *When No-Go Means We Go* LINK

Throughout the system, places attacked by the TITANs during the Fall remain off limits. The weapons used to destroy the TITAN machines frequently left these locations uninhabitable or destroyed beyond repair. In many places we simply failed to complete the job, leaving exsurgents and other threats lingering in the ruins.

Abandoned TITAN projects have been located throughout the system, many hidden in the outer system well away from the fights near Earth and Mars. More than one gatecrashing team has detected signs of the TITANs' passing on unexplored exoplanets as well. Charging stations, launch sites, nanofab and research facilities, and even active machines have been discovered. Thankfully, no team has stumbled across an active TITAN—yet.

IAPETUS

A large moon of Saturn, Iapetus contains deposits of silicates as well as ice. At one time, two hundred thousand residents lived at Analect, the moon's largest settlement. During the Fall, Iapetus was targeted by the TITANs and the transhuman population was exploited for labor and exsurgent transformation.

Guarded by fractal trolls, the TITAN drones bore deep into the moon, rebuilding everything with layers of silicate circuitry. We believe their goal was to transform Iapetus into a matrioshka brain, a megastructure computing complex fit for an ASI.

Thankfully, the TITANs did not complete this project; who knows what terrible uses they may have found for it. We are unsure what happened: the transformation simply ceased. Perhaps the TITANs moved on. Perhaps the TITAN behind the endeavor died in the process.

Iapetus is now quarantined under the aegis of The Titanian Commonwealth. The machinery and other secrets buried under the ice are of great interest to many parties. Research teams from a number of hypercorps and polities have established stations in orbit and outposts in the subsurface tunnels. The Commonwealth cannot condone irresponsible research, so it does its best to limit access to what it considers responsible parties.

Reports of encounters with fractal trolls and other exsurgents indicate a few remain alive in the tunnels beneath the surface. These victims appear uniformly mad, resorting to fight-or-flight reflexes when encountered. They do need to eat but it is better not to ask what they find edible deep in the tunnels.

There are reports of shifting tunnels and encounters with self-repairing machinery. Teams have reported discovering art scratched into the walls, disturbing crystalline statues, and hypnotic patterns in the circuitry. Members have vanished during exploration and are found later with no memory of wandering from the group. Some have never been located.

Encoded transmissions broadcast randomly every few weeks from the depths of the moon. If parts of the matrioshka brain are still active, they may contain the shattered remains of its TITAN creator. The Commonwealth does not encourage decryption of any signals recorded.

NEW MUMBAI CONTAINMENT ZONE

Like other Lunar habitats during the Fall, New Mumbai's population exploded as refugees escaped Earth to the nearest habitats. New Mumbai accepted the newcomers as quickly as they came but not without risk. An exsurgent-infected refugee slipped through screening and within a week 70 percent of the population was secretly infected. These exsurgents acted in unison to seize control of the city within an hour. Other Lunar authorities acted swiftly and dropped two fusion bombs before the infection could spread, leaving a crater of melted rock visible from orbit.

Though radiation is still at dangerous levels, signs of active exsurgents have been detected, including sightings of roving whippers. Pockets of the infected may have survived in the most protected, deepest layers of the underground city. Living exurgents may also have adapted to the radioactive conditions.

New Mumbai remains under quarantine, with automated LLA defenses and drones in place to prevent travel in or out of the area. Lunar authorities are paranoid when it comes to threats coming out of New Mumbai and they use extensive quarantine procedures and travel checkpoints to detect even the smallest signs of infection.

TITAN QUARANTINE ZONE

During the Fall, the area that is now the Quarantine Zone was the center of TITAN activity. As the machines fell back and remaining exsurgents stayed within the Zone, authorities concluded, at least for now, that quarantining the area was easier than trying to retake it.

Ten years later, the Zone is still under quarantine, despite analysis that indicates retaking the region is possible. The hypercorps are happy, however, to have the Zone to use as a good distraction from other issues , not to mention profit from reverse-engineered Zone artifacts. Retaking the Zone would also be expensive, so it remains politically and financially convenient to leave the Zone alone. And not that any politician likes to admit it, but there are still worries that the Zone is a sleeping danger best left alone.

The southern edges of the Zone are rough terrain, featuring canyons and ridges. The rest of the Zone is pockmarked with craters, some natural and some the result of explosions, and flattens to a wide plain in the north. The Zone is full of lingering traps, dust storms, bizarre exsurgent critters, and war-time machines and nanoweapons waiting to be stepped on and reactivated. Not everything in the zone is dangerous; decorative if creepy formations are scattered throughout the Zone like an art gallery of twisted sculptures. These fractal barrows, silicate columns, and artificially eroded shapes are presumably created by nanoswarms but no one has observed any in the act of creation.

The White Zone

At the center of the TQZ lies the White Zone, the Amazonis Mensa, a high plateau one hundred thirty kilometers long and seventy-five kilometers wide. The White Zone was a hotbed of TITAN activity and remains the most dangerous area of the Zone. TITAN warbots, zombified transhumans, and nanoswarms are all still active here, sometimes in large numbers. The Tharsis League regularly drops comets here (double bonus, help terraform by killing baddies), but there are indications of massive subsurface structures and tunnels in active use.

Qurain

The city-state of Qurain was founded by Sunni Muslims looking to invest in the future of Mars. It fell to early TITAN attacks before its stone fortress was devastated by tac nukes during the Fall. Smugglers now use the ruins as landmark and shelter, though machine and exsurgent activities in the area remain high.

Containment

The Zone is monitored by Martian Rangers and orbital satellites. Things detected coming out of the Zone are shot until they don't move anymore. Missiles provided by Direct Action are used if smaller weapons aren't enough.

The Consortium also jams radio and microwave signals to prevent communication within the Zone across long distances, such as between towns or convoys. However line-of-sight laser communication still works and pre-arranged communication within the TQZ can be aided by relay stations outside of the Zone strong enough to punch through the jamming. Getting lost in the Zone is a genuine risk without any way to call for help.

Zone Stalkers

There are always loners in a desert: hermits, nomads, and others who want to be left alone. Smugglers can be found in safer areas and, if approached cautiously, may be helpful. Zone stalkers search the ruins and old TITAN facilities to retrieve artifacts to sell. There are also isolated communities that prefer to remain in the Zone, such as the Yazidis, a religious sect of Kurds infected with a mostly benign strain of Watts-MacLeod. They aren't hostile, are willing to barter, and will offer visions of their own story of the Fall to friendly guests. The vision may also leave their guest infected with the Watts-MacLeod virus as a parting gift.

OTHER LOCATIONS

There are many smaller locations of TITAN and exsurgent activity. On Mercury, there is **Caloris 18** on the southern tip of the Caloris Planitia. Records indicate biological experimentation to merge separate morphs into one continuous entity. While this effort did not produce a viable result, the area has been sealed to prevent repeat incidents.

Many of the derelict abandoned habitats in Earth orbit that suffered TITAN attacks are still there, waiting to be salvaged. The beehive habitat **Blackrock** was a communications nexus for Luna and an early casualty to TITAN attacks, leaving the rock barren and radioactive. Encoded transmissions originating from there indicate that some presence remains. Its orbit is unstable; it will likely crash into Luna within 5 years. Likewise, the Chinese military station **Shenlong** ("Divine Dragon") was seized by the TITANs. Though damaged, it survived, and its automated defenses continue to keep intruders at bay.

Though the Consortium has kept a tight lid on it, there are rumors of a recent exsurgent outbreak on the exoplanet colony **Cajamarca** that has not yet been fully contained.

NEW MUMBAI ASYNC RISKS

Asyncs in the area report an ambient "pressure" that can be felt from twenty kilometers away. Usually asyncs need to be within 20 meters to detect each other, indicating that whatever is capable of reaching across that great a distance is a truly impressive and very dangerous entity.

THE PANDORA GATES

Posted by:
Giselle Patel, former Pathfinder employee INFO MSG REP

In the time shortly after the Fall, transhumanity needed hope, and we found it in the pandora gates. Just as we lost our home, the galaxy suddenly opened up to us. The gates work as wormholes, allowing you to travel from one point in the galaxy to another in moments. Even more significant, the gates are programmable, allowing us to pick and choose our destinations (sorta, the process is not exactly refined). So, imagine getting thrown to the curb by your partner only to find an endless sea of people offering you a place to crash. Sure, you've only got a hastily packed suitcase and a shattered heart, but you've at least got options.

Each of the gates works more or less the same as the others, but that's where the similarities end. Each gate has a different group managing it, and they range from hardcore profit-driven hypercapitalists to idealistic autonomist collectives. They all have their own rules and procedures. What is standard protocol at the Fissure Gate will get you escorted out of the spaceport in handcuffs at the Martian Gate. To understand each of the gates, you have to understand their contexts—political, social, economic, and historical.

THE VULCANOID GATE

The Vulcanoid Gate hides in the polar region of asteroid V-2011—aka Caldwell—in the inner system. The gate complex consists of six surface domes and an extensive beehive warren.

The independent ecosystem and terraforming cooperative TerraGenesis owns and operates the gate outside of the Planetary Consortium's control. TerraGen makes its name by terraforming exoplanets themselves, preferring the slow-and-steady approach to gambling on finding one of the precious few exoplanets that can support transhuman life without assistance.

In an effort to draw in more traffic, TerraGen also offers the best gatecrasher benefits in the inner system, including full medical care for injuries sustained during a sponsored mission. As long as a crasher signs up for at least three missions in a year, their finder's fees are 10 percent higher than Pathfinder and Gatekeeper thanks to a bonus program to incentivize repeat business.

Rivalries

TerraGen has the distinction of providing the only gate access in the inner system free from Planetary Consortium control, and TerraGen leverages that fact well. TerraGen is also now working with the Morningstar Constellation on several research initiatives. Naturally, the Constorium chafes at TerraGen's independence and the competition it provides to their own Martian Gate. The Consortium regularly attempts to corral TerraGen via threats of sanctions. Pathfinder has naturally followed their parent organization's lead, albeit via methods less legal and more direct.

Security

In AF 9, a force of reapers managed to infiltrate the Caldwell facilities and nearly destroy the gate with a thermonuclear device. The parties behind the attack remain unknown, but TerraGen thoroughly upgraded their security in response. The hypercorp Novafire provides patrol drones, fighters, and space-defense systems around Caldwell. Another merc outfit, the Sol Brigades, handle security checkpoints and heavy ground defenses. TerraGen Security handles the gate itself and other sensitive areas of the complex.

THE MARTIAN GATE

The Martian Gate is the Planetary Consortium's pride and joy and the symbol of their aspirations towards a galactic empire. The gate itself lies in a cave at the northern end of the Ma'adim Vallis, one of the largest canyons on Mars. The Planetary Consortium's subsidiary, Pathfinder, operates the gate through the Ma'adim Research Park.

Pathfinder showcases the best and worst aspects of old-economy corporatism. Gatecrashing ops through Pathfinder pay a premium, but don't expect benefits, medical care, free extra gear, or a healthy bonus for discoveries. They pride themselves on efficiency and organization to the point that the ironclad timetables are set down to the second. They organize missions into blocks so they can avoid having to change the staging too often. Once you set the time window for your wormhole, good luck changing it. Without an executive directive saying otherwise, the gate operators can and will cut the wormhole while they watch you crawling towards it. I've had to cut it myself.

Pathfinder City

Thankfully, the Hub of the creatively-named Pathfinder City nearby provides any vice a poor sap could want to drown themself in, as I can assure you. Gaming dens, dollhouses, casinos, petal pods, and more color the city, or you could go old-fashioned and just bet on low-g air racing or canyon parkour (the latter pays out better). The city can still provide even if you actually want to accomplish something, particularly if you are a gatecrasher. The Crasher's Bazaar south of the Hub might just be the single most valuable resource you could want. You can find gear, people to upgrade or mod your morph, specialists for missions, and even ads for jobs.

THE PANDORA GATE

A Titanian-sponsored research/survey team found the first gate on Saturn's moon, Pandora. The Titanian Commonwealth Plurality established a microcorp to oversee the gate,and even managed to hold onto sole control for a time. Outside pressure finally pushed the Titanians to transform their managerial microcorp into a fully independent hypercorp, Gatekeeper. Titan still holds a major non-controlling stake, but everyone from the Planetary Consortium itself to tiny research collectives owns shares at this point.

Gatekeeper dedicates itself to discovery and the accumulation of knowledge for all. This dedication means they focus on exploration ops, with research and xenoarcheology missions running a close second. Scientists have an endless appetite for data, and Gatekeeper works to provide them with the best. Studies that can inform scientific theory relating to star-system and planetary formation and the evolution of life entices them the most, as they can turn it around into practical applications for refining models about which planets will likely have life, support colonization, or provide resources for extraction.

Gatekeeper also highly values accessibility. They welcome tourists to the gate complex to see the gate (from a secure distance) and encourage media coverage and x-casts of of first-in missions. They even offer a lottery system to give people lacking the means and funds a chance at experiencing the universe. And they offer grants for research projects that might not otherwise get hypercorp backing. All that free advertisement certainly pays for itself, and Gatekeeper just loves playing up the spectacle and romance of discovery and milks it for all they can get. More than a few have gotten pulled into the gatecrashing life after seeing one too many x-casts, only to find themselves pushing buttons at a terminal at the Martian Gate wondering where the hell their life went wrong.

Pohl Research Labs

Named after the first gatecrasher to die on a mission (he's still gatecrashing today!), the Pohl Research Labs are stationed at the far end of Pandora from the gate. These labs study anything and everything related to gatecrashing, from astrobiology to exotic physics. Lab space is provided for hypercorps and autonomist research co-ops alike; the Argonauts of course have a major presence here. Gatekeeper works to share the discoveries here with transhumanity at large, despite hypercorp efforts to keep the best for themselves. Below the labs, a high-security vault contains the largest collection of xenoarcheological and alien relics accumulated so far.

THE FISSURE GATE

While all those gates may be in hypercorp hands, Fissure Gate has the distinction of being the only gate run by autonomists. Fissure is on Oberon, an icy moon of Uranus. An anarchist collective known as Love and Rage protects and operates the Fissure facility and the associated spaceport/outpost known as Chat Noir. Most of this complex is under Oberon's ice, with a series of surface domes capping it off. One of those domes is composed of pieces of what is believed to be an alien spaceship hull, found in the orbit of an otherwise unremarkable exoplanet. Known as the *Enemy Mine,* that dome houses the best saloon in the Uranian system and a respectable stock of anarchist microbrews. The gate itself is 500 meters down, in a subsurface fissure complex reached by elevators.

Chat Noir is a main stopover for long-haul shipping in and out of the Uranian system, so it gets a lot of traffic. The consistent influx keeps the area diverse, but it also means the autonomists have developed a healthy suspicion of outsiders who don't align with their ideals. I say healthy because I've seen how the Pathfinder execs lick their lips at that gate. They would spread stories about how Love and Rage will bump half the schedule to rescue any half-cocked gatecrasher who got in over their head, as if that was a bad thing. That characterization is partially correct, the anarchists will accommodate emergencies within reason, and they have built-in wiggle-room in their timetables.

Shared Access

Love and Rage does their best to keep the gate accessible. There's a conductorless anarchist orchestra that does a yearly extrasolar concert, artists that plant pieces on random expolanets, and even silly stuff like capture-the-flag games and Easter egg hunts in alien landscapes. Non-commercial groups like the Argonauts or various mercurial outfits rely on such access, unable to afford the steep gate fees of the inner-system gate corps.

THE DISCORD GATE

If you have a soft spot for Ultimate technofascists and exhuman cults, you're gonna love the Discord Gate. Only use this gate as a last resort. People named it after both the dwarf planet Eris that it rests on and the chaotic and violent history of that little barren rock in the Kuiper Belt. Discovered by anarchists, it was seized by hypercapitalists who then lost it to exhumans before taking it back with the help of technofascist mercs.

Currently, the stoicly efficient Go-nin Group runs the Torii complex that houses the gate itself. Go-nin prides itself in its Japanese traditions, even going so far as to recover a Torii gate from a Shinto shrine on Earth to mark the entrance to the gate.

Go-nin somehow managed to destroy the Discord Gate shortly after they acquired it. Rumor is they messed around under the hood a bit too much and it blew up in their face. Amazingly, the gate simply rebuilt itself, just a kilometer deeper in the crater that was left. Good to know the warranty was still in effect.

The Torii complex is almost entirely subterranean, with kilometers of tunnels carved into the methane ice.

Monsters Everywhere

The self-important Ultimates stationed on Eris's moon Dysnomia are there to bolster Go-nin's defenses. A few exhuman cells occasionally make sabotage runs on Torii or raid a long-haul shipment. A few times, they've even attacked through the gate, from exoplanets on the other side. The technofascists and exhumans are generally happy to fight each other, and most of us are just waiting for them to wipe each other out.

The anarchists of Ilmarinen, the original occupiers of the gate, also periodically probe the gate's defenses with mesh subversions and drone sabotage. They lack the military power to retake the gate, but they remain a thorn in Go-nin's side.

OTHER GATES

If you believe the mesh conspiracy forums, there are a dozen other gates hidden around the Solar System, either secretly held or yet to be found. Prospectors prowl every lone rock hoping to score big. Claims of one on Earth might be the most believable, given the TITANs were active there. Another top choice is one in the Oort Cloud, possibly under Factor control. Really, though, the thought of more gates is a bit unnerving — after all, we never know what might decide to come through it.

EXTRASOLAR SYSTEMS

Source: The Entirely Unofficial Gatecrashing Wiki LINK

The discovery and limited understanding of the pandora gates has ushered in a new era for transhumanity. A true diaspora for our species is underway as we spread out across the galaxy. The number of new worlds discovered via the gate network is nearly countless, and increasing constantly. While many if not most worlds accessed to date have been of limited utility, a number of exceptional locations have been discovered and colonized. What follows is a brief but not exhaustive overview of some of the most notable worlds.

DROPLET

Gate Access: Pandora Gate

One of the first habitable worlds discovered via the original Pandora Gate, Droplet is an exotic and lethal Earth-like planet. Only 8 percent of its surface is comprised of dry land, with the remainder given over to unimaginably deep oceans. Droplet's gravity and atmosphere are both somewhat higher than Earth's but not dauntingly so. Droplet is the focus of serious long-term colonization efforts despite its numerous, voracious, and often massive native lifeforms.

Droplet's waters are notoriously the home of enormous predators that are not at all averse to dining upon transhumans or even small vehicles. On land, a variety of arthropod-like shelled amphibians and triphibious creatures capable of swimming, flying, and walking all enjoy a rich ecology in which transhumans sometimes play a dietary role. Consequently, installations on Droplet are surrounded by barriers and heavy weaponry.

Approximately one million years ago, Droplet's native life generated a sapient species that developed a technological civilization before vanishing completely. Referred to as the Amphibs, their ruins abound in coastal regions. Numerous artifacts give us a clear vision of these amphibious peoples, though the cause of their disappearance remains a mystery. Even more interesting, another alien species known as Iktomi also left ruins on Droplet, though much more recently. Both civilizations have left traces near an anomalous structure dubbed "the Toadstool" located in the shallow waters just offshore Davis Island. This bulbous, mushroom-shaped structure reaches a height of almost five hundred meters above the surface of the sea. It is believed to be over a billion years old and is maintained by poorly understood nanoswarms that keep it in a state of perfect repair. It predates the Amphibs by hundreds of millions of years but little else is understood or even guessed as to its nature.

ECHO

Gate Access: Pandora Gate

The Echo system is named for its twin suns and contains two noteworthy exoplanets. Echo Beta is verdant and flourishing with trackless forests and impressive megafauna. Echo Alpha is reached via the Pandora Gate and is a barren, lifeless world home to the first Iktomi ruins discovered by transhumanity.

Echo Alpha's atmosphere is toxic, its landscape is bleak, and it is littered with ruins. Over 7,000 transhumans are based out of the dome habitat of Alexander, approximately 1,500 kilometers from the Echo Gate, adjacent to one of the largest sets of Iktomi ruins ever found. This settlement was founded by Gatekeeper and Argonaut xenoarcheologists, who cooperate with a number of hypercorps and other collectives with interests in extraterrestrial studies. Much of what we know of the Iktomi comes from research on Echo Alpha, where the spider-like aliens left numerous artifacts. Their strange artwork — only comprehensible when viewed through compound eyes—is beginning to be understood, though their mysterious wind-powered musical structures are still a mystery. Disquietingly, what pictorial records remain suggest that the Iktomi had a great uneasiness towards the gates. Whatever wiped out the Iktomi and all other life on Echo Alpha left the Echo Gate untouched.

Echo Beta seems wholly undamaged by the catastrophe that blasted its sibling planet. This lush world has no gates and is reachable only by shuttle from Echo Alpha or via egocasting. A number of hypercorps maintain biogenetic and pharma research facilities here, well-guarded against the local wildlife. Interestingly, there is no evidence that the Iktomi ever inhabited this world despite its proximity.

PORTAL

Gate Access: Fissure Gate, Pandora Gate, Vulcanoid Gate

Portal is noteworthy for being a system that contains a nexus of gates, much like our own Solar System. Remarkably, unlike our own system where the gates are found on disparate planetary bodies, Portal possesses six gates within a one-kilometer radius.

The surface of Portal is frozen and hostile but the nexus of gates has made it home to one of the largest extrasolar settlements of transhumanity anywhere. The three-domed colony of Isra was founded by Muslim gatehoppers and is primarily populated by autonomists, brinkers, and independent gatecrashers. Hypercorp personnel are tolerated but closely monitored, as Isra's inhabitants are fiercely independent. All six of Portal's gates are contained within the separate dome of Mi'raj and segmented for security and quarantine purposes. The Gatecrasher's Guild maintains the facility and controls access to the gates. The Guild is more permissive in its attitude towards gatecrashing than most other gate-controlling factions, making Portal a natural destination for individuals and groups with esoteric or even eccentric goals.

Though there are no signs of Iktomi presence on Portal, there is evidence that at least one other alien race has utilized the Portal gate nexus in the past. The wreckage of a single, very large wheeled vehicle, believed to be roughly 900,000 years old, was found on its side approximately 200 kilometers from Isra. A large container removed from the wreckage contained thousands of perfectly preserved devices dubbed "fixors." The devices are small orange ovals that when activated remain fixed in place to the local gravitational field. Their functionality remains totally opaque to researchers and seems to act in violation of known laws of physics.

SUNRISE

Gate Access: Vulcanoid Gate

Sunrise is a truly remarkable world, even by exoplanet standards. It is tidally locked in its orbit, leaving one hemisphere eternally shrouded in night and the other in perpetual daylight. It is also a nexus world where no less than seven gates have been found in a rough belt around the planet's unique twilight equator.

Weather on Sunrise is extreme. At the hot pole, the planet's star is always directly overhead and temperatures are continually 80 C. In contrast, temperatures at the cold pole hover around –70 C. The static dispersion of solar heat on the planet results in a heavy, near-continuous wind. Since hot air rises and cold air falls, the wind blows perpetually from the same direction, encircling the globe.

Little life is found on Sunrise's nightside. The endless chill means that what life exists is clustered around hydrothermal vents,

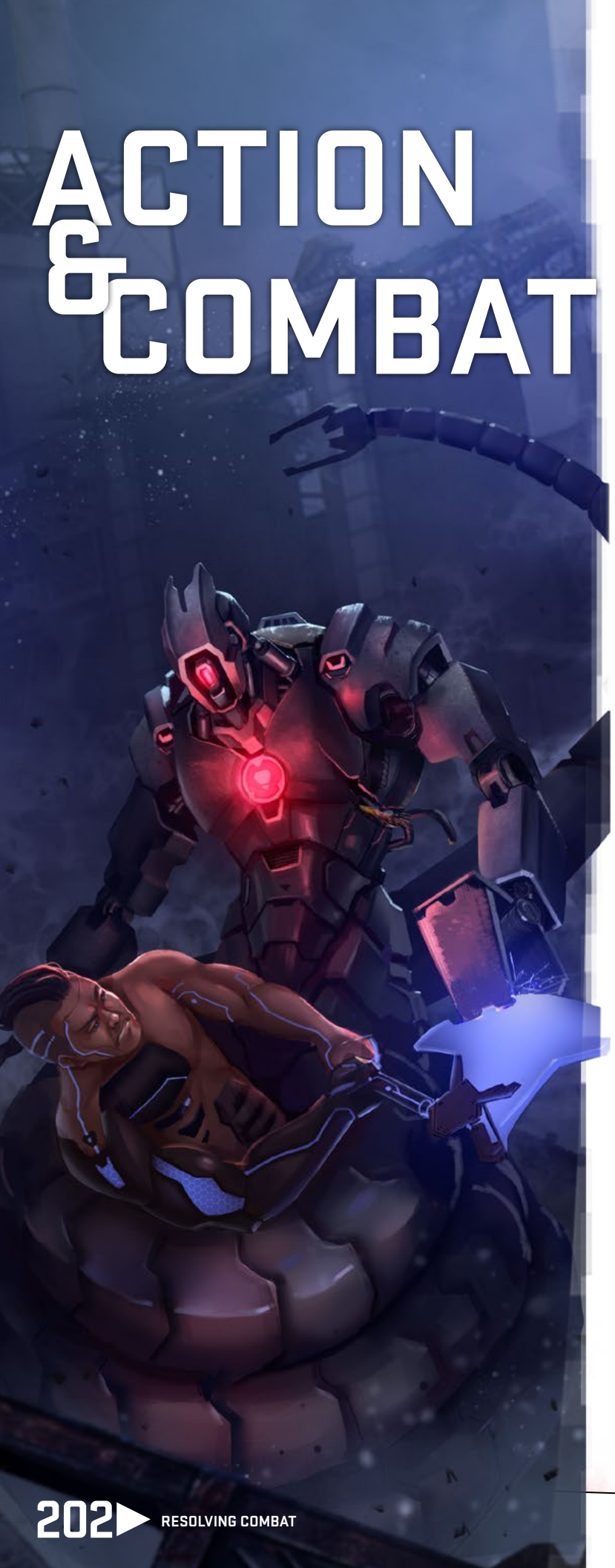
volcanic hot spots, or in the oceanic regions that are not fully frozen. The dayside of the exoplanet is much more hospitable, though its hot pole is a dry and barren desert and host to little life. The remainder of the dayside is populated by a fascinating kingdom of creatures dubbed "planimals" by Sunrise's first settlers. The unique evolutionary pressures of a tidally locked world required plant-like creatures to become ambulatory in order to soak up sunlight from the dayside and gather nutrients from soil unbleached by the constant glare. Xenobiologists have only begun to account for the abundant varieties but some larger species have been observed moving in excess of ten kilometers per hour. While no planimals offer a direct threat to transhumans, many species have developed potentially lethal spines and toxins to ward off competing or predatory planimals. Uniquely, all multi-cellular life on Sunrise seems to be some species of planimal, and no other kingdom of life have been observed. This has made the exoplanet a focus of much xenobiological research.

Sunrise's seven portals appear to have been much used by the Iktomi and other alien civilizations. Numerous Iktomi ruins and artifacts have been unearthed here, including a set of structures termed "windharps," which have much in common with the mysterious instruments found on Echo Alpha.

SOLARCHIVE SEARCH▶EXOPLANETS OF NOTE

- **Ascension (Terrestrial/F8V/Martian):** This Earth-like world is the shining jewel of the Planetary Consortium's Pathfinder Colonization Initiative and the largest extrasolar colony to date.
- **Giza (Terrestrial/G2V/Discord):** Alien artifacts placed near the gate on this nearly hospitable world offered the potential for alien communication, now set back by the destruction of the remote gate by unknown parties.
- **Luca (Terrestrial/G0V/Fissure and Vulcanoid):** Luca's location still hasn't been pinpointed, but is believed to reside around the Cygnus Arm of the Galactic core, making this the furthest gate from Earth yet discovered. Though roughly as habitable as Mars, Luca is prone to catastrophic asteroid strikes, one of which appears to have wiped out a xeno-civilization over a million years ago. Despite this threat, TerraGenesis has established an ambitious terraforming program for the planet.
- **Moravec (Terrestrial/K0V/Pandora):** Covered by large seas with little land, Moravec has a toxic atmosphere but is nominally habitable. Remnants of an extinct aquatic sapient species have been found as well as a poorly understood but still active global molecular computing system.
- **Olaf (Dyson Sphere/K2V/Martian):** Originally marked as a habitable environment for transhumans, exploration revealed that not only is it host to an active and aggressive orbital defensive system but that the entire world is an artificial construct.
- **Sky Ark (Terrestrial/G6V/Vulcanoid):** This world bears a biome similar to that of Earth's own early evolutionary phase. Accordingly, TerraGenesis chose Sky Ark as the site of its project to resurrect and preserve extinct Earth lifeforms. It is a popular exotourist destination.

ACTION & COMBAT



RESOLVING COMBAT

Roleplaying games are about creating drama and adventure, and that often means adrenaline and conflict. Action scenes are the moments when the adrenaline really gets pumping and the characters' lives and missions are on the line.

Combat and action scenarios can be confusing to run, especially if the GM also needs to keep track of the actions of numerous NPCs. For this reason, it's important for the GM to detail the action in a way that everyone can visualize, whether that means using a map and miniatures, software, a dry-erase board, or quick sketches on paper. Though many of the rules for handling action and combat are abstract — allowing room for interpretation and fudging results to fit the story — many tactical factors are also incorporated, so small details can make a large difference. It also helps to have the capabilities of NPCs predetermined and to run them as a group when possible, to reduce the GM's burden in the middle of a hectic situation.

Not every problem can be solved with words or wits. Whether you employ fists, knives, guns, or more creative options, all violence in *Eclipse Phase* is handled as an opposed test between the attacker and defender. Use the following steps to resolve combat situations, after determining initative: *Initiative & Order of Actions* ▶33

STEP 1: DECLARE ATTACK

The attacker takes a complex action to attack on their turn in the Initiative order. The nature of the attack must be declared. The skill used depends on the method used to attack. Melee (close combat) and Guns (ranged weapons) are most common. Some attacks call for Athletics (thrown grenades), Hardware: Demolitions (placed charges), Interface (electronic weapon systems), or an Exotic skill.

STEP 2: DECLARE DEFENSE

Defense is an automatic action. Unless they are surprised ▶227 or incapacitated ▶226, the defender always has the option to respond.

Melee Defense: Against a melee attack, the defender may choose to block and parry using their own Melee skill or dodge using Fray.

Ranged Defense: Ranged and area-effect attacks are much harder to dodge; defenders use their Fray skill ÷ 2.

Psi Defense: Psi sleights are resisted with WIL Check.

Full Defense: Characters that have declared they are engaging in full defense ▶226 may defend as above, with a +30 modifier.

STEP 3: APPLY MODIFIERS

Apply any appropriate situational, wound/trauma, or other modifiers to the attacker's and defender's skills, as appropriate.

STEP 4: MAKE OPPOSED TEST

Both the attacker and defender roll d100 against their modified skill target numbers.

STEP 5: DETERMINE RESULT

If the attacker fails, the attack misses completely. If the attacker succeeds and the defender fails, the attack hits.

If both attacker and defender succeed in their tests, compare their dice rolls. If the attacker's dice roll is higher, the attack hits despite a spirited defense; otherwise, the attack fails to connect (*Opposed Tests* ▶32). Remember that critical successes trump higher rolls.

Attacker Superior Success: For each superior success the attacker scores, increase the DV inflicted by +1d6.

Attacker Critical Success: If the attacker hits with a critical, the damage is doubled.

Defender Superior/Critical Failure: Ignored. Getting hit is bad enough!

Combat Modifiers

Numerous factors can impact an attack's outcome. These modifiers apply to all types of attacks.

Situation	Modifiers
Attacker Running	–20
Superior position	+20
Wounded/traumatized	–10 per wound/trauma
Called shot (superior success needed, ▶218)	–10
Wielding two-handed weapon with one hand, ▶219	–20
Very small target (mouse or insect)	–30
Small target (child-sized)	–10
Large target (car sized)	+10
Very large target (side of a barn)	+30
Visibility impaired (minor: glare, light smoke, dim light)	–10
Visibility impaired (major: heavy smoke, dark)	–20
Blind Attacks ▶218	–30 or 50% miss chance

STEP 6: ROLL DAMAGE

Every attack has a Damage Value (DV). If the attack hits, roll the dice and total the results. Superior/critical results may increase your damage dice.

Some attacks have additional effects, as noted in the description and weapon/ammo traits. These may call for the defender to make additional tests.

Some attacks inflict mental stress rather than physical damage (*Mental Health* ▶222). In this case, the Stress Value (SV) is handled the same as DV.

STEP 7: APPLY ARMOR

If the defender is wearing armor, it will protect them. Determine which part of the defender's Armor Value (AV) applies — energy armor or kinetic armor (*Armor* ▶214). Reduce the damage total by the appropriate value. If the damage is reduced to 0 or less, the armor is effective and the attack fails to injure the target.

Note that armor-piercing attacks reduce the AV by half.

STEP 8: APPLY DAMAGE

Inflicted damage that exceeds armor is applied to the defender. Keep track of this total on the character sheet. If the accumulated damage equals or exceeds the defender's Durability, they are incapacitated and may die (*Physical Health* ▶220). If it equals or exceeds their Death Rating, they are killed/destroyed.

STEP 9: DETERMINE WOUNDS

If the inflicted damage, less armor, from a single attack equals or exceeds the defender's Wound Threshold, they suffer one or more *wounds* ▶220. A wound is scored for each multiple of the Wound Threshold that the damage exceeds. For example, against Wound Threshold 7, 1 wound is inflicted for every 7 points of damage inflicted at once (14 damage inflicts 2 wounds, 21 damage inflicts 3 wounds, etc.) Wounds represent more serious injuries and apply modifiers and other effects to the character.

Jinx has found herself in a bad spot, in a tunnel with an exhuman closing in and planning on making a snack out of her. Jinx rolled higher on Initiative, so she goes first.

Jinx declares her intent to shoot the exhuman with a 3-round burst from her pistol. The GM declares that the exhuman will use Fray to dodge.

Jinx has Guns skill of 70. The exhuman is at Close range (10 meters away), so the range modifier is +0. With no other modifiers, her target is 70. She rolls a 96, a failure, but she spends a point of Flex to flip that to a 69 — which will count as two superior successes.

The exhuman has Fray of 60, but against a ranged attack this is halved. The GM rolls against a target of 30. They get a 07, which would be a success, except that Jinx's roll of 69 is higher. Jinx hits!

Jinx's medium pistol inflicts DV 2d10. Jinx was using burst-fire ▶207 for extra damage (+d10), and her two superior successes gives her another 2d6, for a total DV of 3d10 + 2d6. She rolls a 7, 5, 5, 1, and 3, for a total damage of 21.

The exhuman has kinetic armor of 10, so only 11 of that damage gets through (21 – 10). They have a Wound Threshold of 8, so that inflicts a wound! Looking at the section on wound effects ▶220, the GM sees that the exhuman must make a SOM Check or get knocked down. They roll a 09 against a SOM check of 75, so the exhuman stays on their feet.

Jinx still has a base move, so they take to the air and move 8 meters up and away. They're in a tunnel, though, so the exhuman can still reach them. On its turn, the GM declares they are making a charging melee attack ▶205 as they take a full move to cross the 18-meter distance. Jinx dodges with Fray.

The exhuman has Melee 80, –10 for the charge, and –10 more for the wound, for a target number of 60. They roll 07. Jinx has Fray 60, plus the GM gives them a superior position bonus for flying at the top of the ceiling, for target number 80. She rolls a 00. That's lower than the exhuman's result, but it's a critical success, which trumps the exhuman's roll! The GM rules that Jinx dodges in such a way that the exhuman over-extends and wipes out. Jinx has survived to the next action turn!

COMBAT SUMMARY

Combat is an opposed test.

- Attacker rolls attack skill +/– modifiers.
- **Melee:** Defender rolls Fray or Melee skill +/– modifiers.
- **Ranged:** Defender rolls (Fray skill ÷ 2) +/– modifiers.
- If attacker succeeds and rolls higher than the defender, the attack hits. Roll damage.
- Superior hits inflict +1d6 DV
- Critical hits double the DV.
- The weapon's damage is reduced by the target's energy or kinetic armor, as appropriate.
- If the damage equals or exceeds the target's Wound Threshold, a wound is scored. If the damage equals or exceeds the target's Wound Threshold by multiple factors, multiple wounds are inflicted.
- If total damage reaches Durability, the target is incapacitated. If it reaches Death Rating, they are killed/destroyed.

MELEE COMBAT

In an era of lethal and incapacitating ranged weaponry, someone equipped for close combat is often at a disadvantage. However, even hardened fighters are wary of getting within reach of certain synthmorphs or heavily augmented biomorphs.

Except as noted, all melee implements are wielded with Melee skill. Melee ware and weapons may be coated with drugs or toxins (*Coated Weapons* ▶219) such as poison or nanotoxins secreted from a poison gland ▶322 or implanted nanotoxins ▶335.

MELEE WARE

Implanted weaponry can be combined with eelware to deliver electric shocks.

Claws: The morph has retractable claws like those of a cat. These claws do not interfere with manual dexterity and are razor sharp. They are legal in most habitats and considered tools as much as weapons. A set of claws in each hand counts as a single weapon.

Eelware: A combination of electric eel genetics and bioconductors in the hands/feet/limbs (bioware) or electrified panel placement (hardware) allow you to stun with a shocking touch. Eelware can be used to recharge standard batteries or power specially modified devices by touch (treat as a standard battery).

Piston Spike: This pneumatic-driven spike is triggered with an impact (usually a punch) and designed to pierce modern armor and synthetic frames. Most are designed for repeated use, though an alternative single-use model delivers a minigrenade (this grenade attack bypasses armor).

Spur: A smart-material blade is bonded to the bones on the back of the morph's hand, foot, or other strategic place. This blade extends up to 6 inches through concealed ports.

MELEE WEAPONS

Melee weapons range from the archaic to high tech:

Club: Clubs encompasses a wide range of one-handed blunt objects, from saps to sticks to pipes.

Densiplast Gloves: These gloves extra-harden when activated, for extra punch. A set of gloves on each hand counts as a single weapon.

Diamond Axe: Common in many habitats for fire and emergency purposes, axes require two hands to wield. Their blades are diamond-coated for superior cutting ability.

Extendable Baton: This hardened composite baton retracts into its handle for easy carrying, storage, or concealment. Extending it simply requires a flick or an electronic signal.

Flex Cutter: The blade of this machete-like weapon is made of a memory polymer. When deactivated, the blade is limp and flexible and can be rolled up or otherwise easily concealed. When activated, the blade stiffens and sharpens into a vicious slashing weapon.

Knife: A standard, commonly carried cutting implement.

Monofilament Sword: Though archaic, swords are sometimes worn as a fashion statement or display of badassitude. Self-sharpening near-monomolecular edges can slice through metal or limbs.

Monowire Garrote: This assassin's weapon features a dangerous near-monomolecular wire wrapped around a contained spool with two handles. One handle grips the spool, while the other extends the wire so that it can be wrapped around targets (typically necks or limbs) and slice through them when pulled. Monofilament tensile strength is weak, however; it breaks on a superior failure. This weapon is wielded with Exotic Skill: Monowire Garrote.

Piston Spear: A spear version of the piston spike ware.

Shock Baton: Used by police, these batons deliver an electric shock when activated.

Shock Glove: When activated, this glove delivers an incapacitating shock along with every punch, grab, or touch.

MELEE ATTACKS	Ware Type	Damage Value [Average]	Complexity/ GP	Notes
Claws	BCH	2d6 **[7]**	Min/1	Concealable
Club	—	1d10 **[6]**	Min/1	Reach
Densiplast Gloves	—	Unarmed + 2 **[6/9]**	Min/1	Concealable
Diamond Axe	—	2d10 + 3 **[14]**	Min/1	Armor-Piercing, Reach, Two-Handed
Eelware	BCH	Unarmed **[4/7]**	Min/1	Concealable, Shock, Touch-Only
Extendable Baton	—	1d10 **[6]**	Min/1	Concealable
Flex Cutter	—	1d10 + 3 **[9]**	Min/1	Concealable
Knife	—	1d10 + 2 **[8]**	Min/1	Concealable
Monofilament Sword	—	2d10 + 2 **[13]**	Min/R/1	Armor-Piercing, Reach
Monowire Garrote	—	3d10 **[17]**	Mod/R/2	Armor-Piercing, Fragile
Piston Spear	—	2d10 + 2* **[13]**	Min/R/1*	Armor-Piercing, Reach (+20), Two-Handed
Piston Spike	CH	2d10* **[11]**	Min/1*	Armor-Piercing, Concealable
Shock Baton	—	1d10 **[6]**	Min/1	Reach, Shock, Touch-Only
Shock Glove	—	Unarmed **[4/7]**	Min/1	Shock, Touch-Only
Spur	CH	2d6 + 3 **[10]**	Min/R/1	Concealable
Unarmed (Biomorph)	—	1d6 **[4]**		
Unarmed (Shell)	—	2d6 **[7]**		
Vibroblade	—	1d10 + 1d6 **[9]**	Min/1	Armor-Piercing/+2d10 DV when sawing
Wasp Knife	—	1d10 + 2 **[8]**	Min/R/1	+2d10 DV in vac/deep sea w/superior success

* Single-use versions also act as a minigrenade; use the minigrenade's Complexity.

Melee Modifiers

These modifiers apply to close-combat attacks.

Situation	Modifiers
Aggressive	+10 or +1d10 DV, −10 Fray
Charging	−10, +1d6 DV
Extra Weapon (Attack)	+1d6 DV
Extra Weapon (Defense)	+10
Grappling	
Smaller-Size Opponent	+20 per size step
Larger-Size Opponent	−20 per size step
2+ Limbs Advantage	+20
2+ Limbs Disadvantage	−20
Multiple Targets	−20 per extra target
Reach	+10 or more
Touch-Only	+20, no damage

Vibroblade: These buzzing electronic blades vibrate at a high frequency for extra cutting ability. This has little extra effect when stabbing or slashing, but can pierce armor when carefully sawing through something.

Wasp Knife: Wasp knives are equipped with a single-use compressed-air canister in their handle. When stabbing a target in vacuum or a pressurized environment (like underwater), you can trigger the gas to release so that it bursts out of the victim's body cavity, inflicting +2d10 DV. Wasp knives may also be loaded with chemicals, drugs, or nanobots. The target must be damaged for the canister's contents to affect them.

MELEE RULES

These rules apply specifically to close combat.

Aggressive Attacks

Aggressive attacks go all-out, regardless of consequences. You choose either +10 to hit or +1d10 DV when aggressive, but you also suffer –10 to Fray Tests until your next action.

Charging

A character who takes a full move and melee attacks in the same action turn is *charging*. The attacker takes a –10 modifier for charging instead of the standard –20 for full movement and inflicts +1d6 DV.

Grappling

You must declare your intent to grapple an opponent before making the die roll. You can grapple with a weapon in hand, but you do not receive the Reach modifier. If your opponent is a bigger/smaller size category and/or has 2 more/less limbs than you, apply a +/–20 modifier as appropriate. You may not grapple targets two size categories or more larger than you. Grappling attacks do not cause damage unless you roll a critical success (though even in this case you can choose not to).

If you succeed in your attack with a superior success, you subdue your opponent (they acquire the grappled condition). A grappled opponent is temporarily restrained and their Movement Rate is 0. They can communicate, use mental/psi skills, and take mesh actions, but they cannot take any physical actions other than trying to break free. (At the GM's discretion, they can make small, restrained physical actions, such as reaching for something in their pocket or nearby, but this may require a SOM Check or other test).

To break free, a grappled character must take a complex action and succeed in a Melee Test or SOM Check opposed by the grappler's Melee or SOM Check. If the character frees themselves and scores a superior success, they can choose to grapple the other character.

When grappling, both characters are at –30 to oppose any attacks made against them by others outside of the grapple.

On each subsequent action turn, a grappling character must spend a complex action to maintain the grapple. As part of that action, they may also choose to do one of the following:

- **Choke:** Biomorph victims must make a SOM Check or fall unconscious as their blood or air flow is restricted.
- **Damage:** The grappled victim suffers unarmed damage, no defense.
- **Knockdown:** Grappled victims must make a Melee Test or SOM Check at –30 or be knocked prone. They remain grappled and cannot stand up/re-orient until they are released or break free.
- **Move:** The grappler can move themselves and the subdued opponent at half their Movement Rate.

MULTIPLE TARGETS

When engaging in a melee attack, you may choose to attack two or more opponents with the same complex action. Each opponent must be within one meter of another attacked opponent. These attacks must be declared before the dice are rolled for the first attack. Each attack suffers a cumulative –20 modifier for each extra target. So if you attack three characters with the same action, you take –40 on each attack. Roll each attack and damage separately.

REACH

Some weapons extend your reach, giving you a significant advantage over an opponent in melee. This applies to any weapon over half a meter long: axes, clubs, swords, shock batons, etc. Whenever you have a reach advantage over an opponent, you receive a +10 modifier for both attacking and defending. Some extra-long limbs or weapons provide a +20 bonus, as noted. For each size category (*Sizes* ▶227) by which you exceed your opponent, apply a +10 Reach modifier, up to a maximum +30.

TOUCH-ONLY ATTACKS

Some attacks simply require you to touch your target, rather than injure them, and are correspondingly easier. This might apply when trying to slap them with a dermal drug patch, poking them with a stun baton, or making skin-to-skin contact for the use of a psi sleight. In situations like this, apply a +20 modifier to your melee attack. Melee shock attacks made with a touch-only bonus inflict no DV. (If you want to also inflict DV with the attack, you must attack without the +20 modifier.)

IMPROVISED WEAPONS

Sometimes you're caught off-guard and must use whatever is at hand — or maybe you just think you look cool whaling on someone with a meter of chain. The Improvised Weapons table offers statistics for a few likely ad-hoc items. GMs can use these as guidelines for handling items that aren't listed. These weapons are wielded with Melee skill, though the GM may rule in some cases that an Exotic Skill is necessary.

IMPROVISED WEAPONS	Damage Value [Average]	Complexity	Notes
Baseball	1d6 + 1 **[5]**	Min	Concealable
Biomorph (Medium)	1d6 **[4]**		Knockdown, Two-Handed
Bottle	1d6 – 1 **[3]**	Min	
Bottle (Broken)	1d6 + 2 **[6]**	Min	
Chain	1d10 **[6]**	Min	Reach
Chair	1d10 + 2 **[8]**	Min	Two-Handed
Helmet	1d6 + 2 **[6]**	Min	
Plasma Torch	2d10 + 8 **[19]**	Min	Armor-Piercing
Robot (Very Small)	1d6 + 1 **[5]**		Concealable
Rock	1d6 + 2 **[6]**	Min	Concealable
Shiv	1d10 – 1 **[5]**	Min	Concealable
Synthmorph (Small)	1d6 **[4]**		
Synthmorph (Medium)	2d6 **[7]**		Knockdown, Two-Handed
Utilitool	1d10 **[6]**		
Wrench	1d10 **[6]**	Min	

RANGED COMBAT

Ranged combat attacks fall into five categories: beam weapons, kinetic weapons, seeker weapons, spray weapons, and weapon systems. Each is described below.

Most ranged weapons are constructed from lightweight but hardy ceramic hybrids and refractory metals. They are designed for ambidextrous use and equipped with safety systems ▶216, smartlink systems ▶217, and helper ALIs that automatically mesh with the wielder for firing assistance, target recognition, and tactical networking.

RANGED COMBAT RULES

The following rules apply to all types of ranged attacks.

Aiming

If firing in single-shot or semi-auto mode, you can expend your quick action to aim. Apply a +10 modifier to your attack.

You can also expend an entire complex action to fix your aim on a target. As long as the target remains in your sights on your next action, you receive +30 to hit.

Ammunition and Reloading

Every weapon lists an ammunition capacity that indicates how many shots the weapon holds. When this ammo runs out, a new supply must be loaded. Keep track of the shots you fire. Reloading requires a complex action, whether you are slapping in a new magazine of bullets or a fresh battery for a laser. Weapons listed with an Ammo of x + 1 indicate that you can load an extra round in the chamber.

Reloading aside, you are assumed to carry enough standard ammo or batteries that you will not run out. You should, however, keep track of smart and specialty ammo, seeker missiles, and larger ammunition. Likewise, in remote locations or situations where you are isolated from resources, the GM may have you track the ammo you use.

Indirect Fire

With the help of a spotter, you can target an enemy that you can't see using indirect fire. Indirect attacks are primarily made with seekers, grenades, and other projectiles that do not follow a direct-line trajectory to the target. You must be meshed with a character, bot, tactical network, or sensor system that has the target in its sights and which feeds you targeting data. Indirect attacks suffer a –20 modifier.

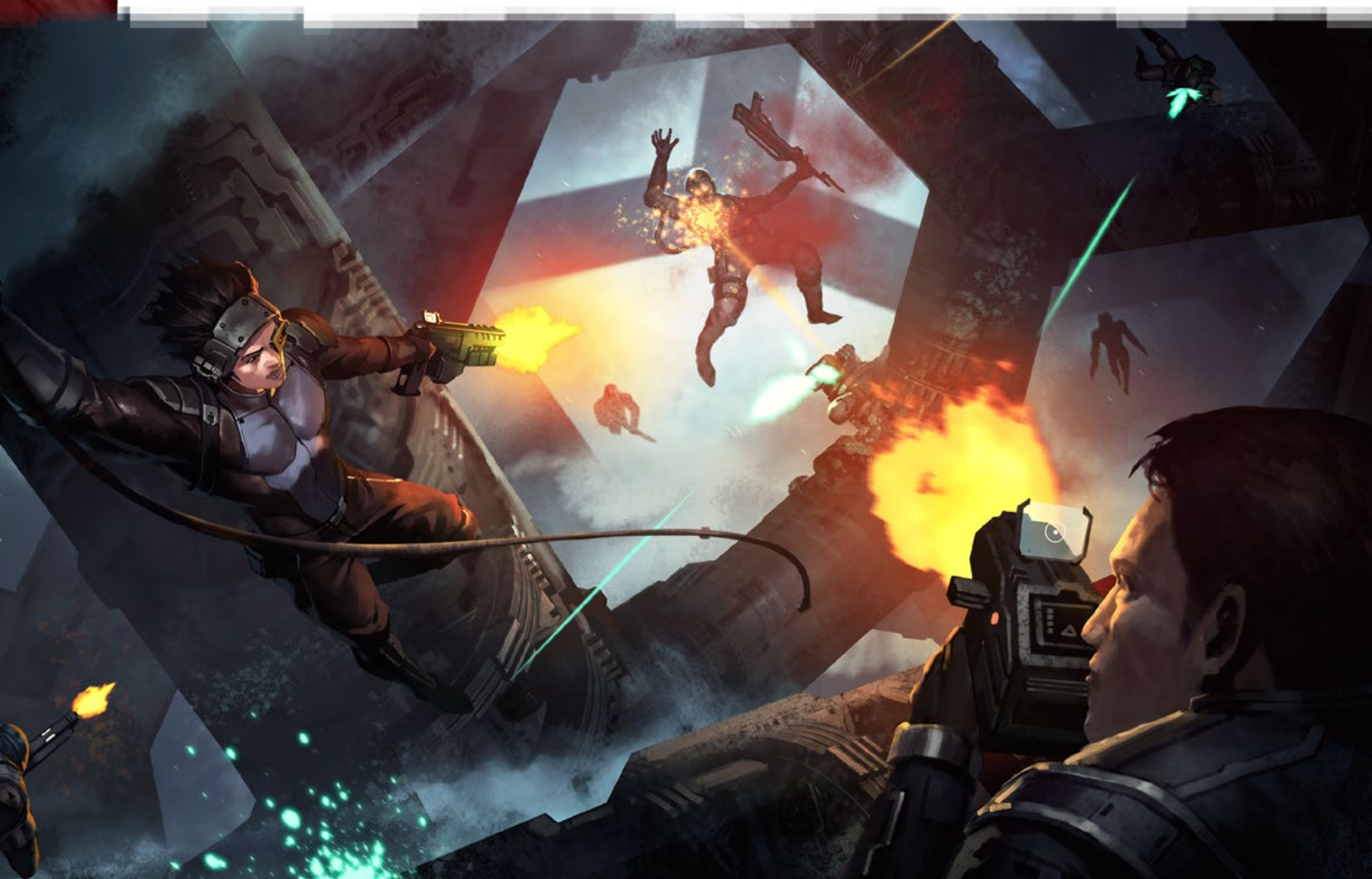
Seeker missiles ▶212 can home in on a target that is "painted" with reflected energy from a laser sight ▶216 or similar target designator system. An "attack" must first be made to paint the target with the laser sight using Guns skill. If successful, the target acquisition negates the –20 indirect fire modifier for the seeker launcher's attack test. The target must be held in the spotter's sights (requiring a complex action each turn) until the seeker strikes.

Firing Modes

Ranged weapons have one or more firing modes that determines their rate of fire:

Single Shot (SS): Single-shot weapons only fire one shot per action turn (no matter how many actions you take). These are typically larger or more complex devices.

Semi-Automatic (SA): Semi-automatic weapons are capable of quick, repeated fire. You shoot once with each complex action.



Firing Modes

Mode	Effect
Single Shot	Standard DV
Semi-Auto	Standard DV
Burst Fire	
Single Target	+10 to hit or +1d10 DV
Two Adjacent Targets	Standard DV to both
Full Auto	
Single Target	+30 to hit or +2d10 DV
Three Adjacent Targets	Standard DV to all three
Suppressive Fire	Standard DV to anyone moving out of cover within cone

Burst Fire (BF): Burst-fire weapons release a burst of shots with a single trigger pull. You can shoot a burst against a single target (concentrated fire) or against two targets who are standing within one meter of each other. In the case of concentrated fire, you can choose either a +10 modifier to hit or increase the DV by +1d10. In the case of two adjacent targets, make a single attack test against both. Firing a burst is a complex action. Each burst uses up 3 shots.

Full Automatic (FA): Full-auto weapons release a hail of shots with a single trigger pull. You can attack a single target with concentrated fire or up to three separate targets within one meter of each other. In the case of concentrated fire, choose either a +30 modifier to hit or increase the DV by +2d10. In the case of adjacent targets, make a single attack test against all of them. Full-auto fire is a complex action. Firing in full-auto mode consumes 10 shots.

Range

Every ranged weapon has a range rating, indicating the distance to which it is optimally effective. Attacks are broken down into four categories, each with their own modifier:

- **Point-Blank:** 2 meters or less. +10 to hit. Cone weapons inflict +1d10 DV.
- **Close:** 10 meters or less. No modifier to hit. Cone weapons inflict +1d10 DV.
- **Range:** Up to the weapon's range rating in meters. –10 to hit.
- **Beyond Range:** An additional –10 modifier per range multiple. For example, a target at 200 meters with a range 50 weapon would be –40 to hit. Additionally, kinetic and cone weapons hit targets beyond range at –1d10 DV, unless in vacuum.

Range and Gravity: The ranges listed assume Earth-like gravity conditions (1 g). At different gravity conditions, divide the range rating for kinetic, seeker, spray, and thrown weapons by the gravity. For example, a weapon with range 100 at 1 g would have a range of 200 meters in 0.5 g and a range of 50 meters at 2 g. In microgravity/zero g, the maximum range is effectively line of sight. Beam weapons are not affected by gravity.

Beam Weapons and Vacuum: Beam weapons fare much better in non-atmospheric conditions. Maximum beam weapon range in vacuum is effectively line of sight.

Ranged Modifiers

These modifiers apply to ranged combat attacks.

Situation	Modifiers
Aim (Quick Action)	+10
Aim (Complex Action)	+30
Attacker Behind/Coming Out of Cover	–10
Attacker In Melee	–10 (–30 long weapons)
Attacker Not Using Smartlink or Laser Sight	–10
Attacker Firing Multiple Weapons At Once	–20 cumulative (after first)
Defender Behind Minor Cover	–10
Defender Behind Moderate Cover	–20
Defender Behind Major Cover	–30
Defender Hidden	–30 and/or 50% miss chance (*Blind Attacks* ▸218)
Defender Prone and at Range (10+ m)	–10
Firing Mode	
Single-Shot/Semi-Auto	+0
Burst Fire (Concentrated)	+10 or +1d10 DV
Full Auto (Concentrated)	+30 or +2d10 DV
Indirect Fire	–20
Range	
Point-Blank (2 m)	+10
Close (10 m)	+0
Range	–10
Beyond Range	–10 per Range increment –1d10 DV for kinetic weapons

Suppressive Fire

To provide cover for an ally, you can lay down suppressive fire over an area rather than targeting anyone specifically, with the intent of making everyone in the suppressed area keep their heads down. This takes a complex action, full-auto mode, and uses up 20 shots. The suppressed area extends out in a cone, with the widest diameter of the cone being up to 20 meters across. Any character who is not behind cover or who does not immediately move behind cover on their action is at risk of getting hit by the suppressive fire. Make one attack roll with no modifiers except for range and wounds. Apply it to anyone moving out of cover inside the suppressed area; they defend as normal. If struck, they resist damage as if from a single shot.

BEAM WEAPONS

Most coherent-energy weapons are deployed for less-lethal purposes, designed to impair rather than kill. They are wielded with Guns skill and resisted with energy armor.

All beam weapons are equipped with both a standard and nuclear battery ▶317. The standard battery powers the weapon's shots until depleted (per its Ammo stat). The nuclear battery will recharge a standard battery completely in 4 hours. Standard batteries can be swapped out with a reload complex action. A battery used in one type of beam weapon may not be used in other types.

BEAM WEAPON WARE

Hand Laser: The morph has a weapon-grade laser implanted in its forearm, with a flexible waveguide leading to a lens located between the first two knuckles on the morph's dominant hand. The laser's batteries are implanted and not easily swapped out in biomorphs.

BEAM WEAPONS

Battle Laser: This heavy laser pulser is typically mounted and used for battlefield support, firing more powerful beams than the standard laser pulser.

Laser Pulser: The pulser emits focused beams of light that burn into the target and cause its outer surface to vaporize and expand, creating an explosive effect. The beam is pulsed in order to bite into the target before it is diffused. When fired in stun mode, it shoots a pulse at the target to create a ball of plasma, quickly followed by a second pulse that strikes the plasma and creates a flash-bang shockwave to stun and disorient the target and anyone next to them. Pulsers are vulnerable to atmospheric effects like dust, mist, smoke, or rain, however — the GM should reduce their effective range as appropriate. Laser pulses are invisible, but they can be seen with enhanced vision in atmosphere (or in the visual spectrum in smoky/polluted air) or in the shooter's entoptics.

Microwave Agonizer: Originally developed for crowd control, the agonizer is also useful for repelling animals. The agonizer fires millimeter-wave beams that create an unpleasant burning sensation in skin (even through armor). Agonizers have two settings. The first is an active denial setting that causes extreme burning pain in biomorph targets, inflicting a pain effect ▶216 until the end of the next turn and forcing them to move away from the beam.

The second "roast" setting has the same effect as the first, but also actually burns the target. Synthmorphs are unaffected by the pain, but damaged by the roast.

Particle Beam Bolter: This weapon shoots a bolt of accelerated particles at near light speed that transfer massive amounts of kinetic energy to the target, superheating and creating an explosion when striking. The bolter's beam is not diffused by the cloud that occurs when it strikes, and so it has greater penetration than the laser pulser. Likewise, the bolter is not affected by smoke, fog, or rain. Bolters must be set for either atmospheric or exoatmospheric (vacuum) operation and will not function in the opposite environment, though it only takes a complex action to switch. The beam appears like an arc of lightning in atmosphere, but is invisible in vacuum (though visible in the shooter's entoptics).

Stunner: The stunner is an electrolaser that creates an electrically conductive plasma channel that transmits a powerful electric current, shocking the target. Stunners do not work in vacuum.

BEAM WEAPON RULES

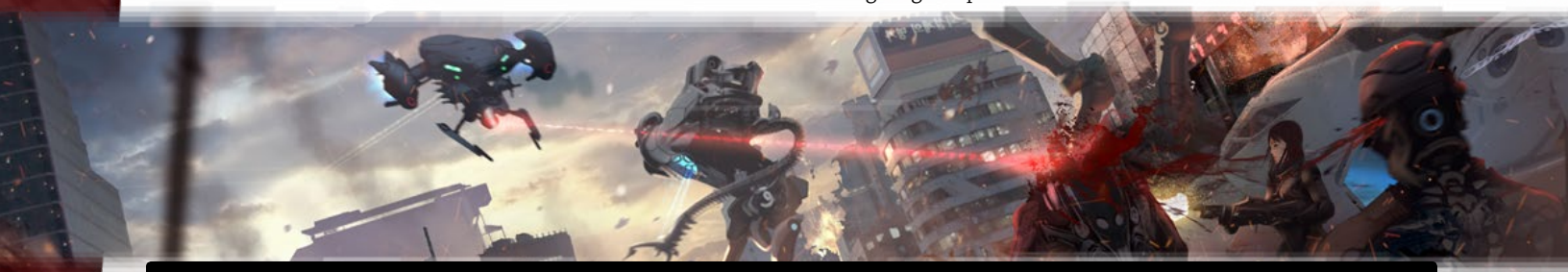
The following rules apply only to beam weapons.

Laser Blindness

Though laser pulser beams do not appear in the visible spectrum, they may be blinding to those with enhanced vision and may reflect off surfaces in ways that blind those with regular sight. For this reason, most laser wielders (and their companions) are careful to equip anti-glare mods ▶318. This effect can be ignored in most cases, but GMs may want to allow it for called shots to blind ▶218 or as a result of superior success/failure results. Potentially blinded targets must make a REF Check. Success means they are blinded for 3 action turns, failure results in permanent blindness until repaired or they spend time in a healing vat. Blinded characters can still "see" through tactical nets and similar mesh links.

Sweeping Fire

When you miss with a beam attack, you can use that missed beam to "home in" on the target. If you make another attack against the same target with your next action, count the missed attack as an aim action (+10 to hit). Since most beam weapons are invisible to standard sight, you must have vision enhancements enabling you to see the beam in atmosphere or be meshed with the weapon's AR targeting entoptics.



BEAM WEAPONS	Ware Type	Damage Value [Average]	Firing Modes	Ammo	Range	Complexity/GP	Notes
Battle Laser	—	3d10 +4 **[21]**	SA/BF/FA	50	150	Maj/R/3	Fixed, Long
Hand Laser	CH	1d10 + 1d6 **[9]**	SA	10	75	Mod/R/2	Concealable
Laser Pulser (Lethal)	—	2d10 + 2 **[13]**	SA/BF/FA	30	100	Mod/R/2	Knockdown, Long, Two-Handed
Laser Pulser (Stun)	—	1d6 **[3]**	SS				Area Effect (uniform, 1 m), Long, Shock, Two-Handed
MW Agonizer (Pain)	—	—	SA	20	15	Mod/2	Pain (biomorphs only)
MW Agonizer (Roast)	—	2d10 **[11]**	SS				Armor-Piercing, Pain (biomorphs only)
Particle Beam Bolter	—	2d10 + 6 **[17]**	SA/BF	25	50	Maj/R/3	Knockdown, Long, Two-Handed
Stunner	—	1d6 **[3]**	SA	12	50	Mod/2	Shock

SPRAY WEAPONS

Spray weapons blast their ammunition in a widening cone, allowing the firer to strike several targets at once (*Area Effect* ▶218). They are fired using Guns skill.

Ammunition: With the exception of buzzers (which use nanoswarms) and sprayers (which use chemicals/drugs, 3 doses per shot), spray weapons follow the ammunition and reloading rules ▶206.

Buzzer: Buzzers are used to deploy a particular type of nanoswarm, either at a target or over an area. They carry a limited number of swarms, but contain a specialized hive ▶342 that can construct new swarms.

Freezer: Freezers spew out a fast-hardening foam that immediately hardens. They are primarily used as a non-lethal method of immobilizing or securing a target. Struck characters must immediately make a REF Check or become trapped; treat as the grappled condition ▶226. Breaking free requires a SOM Check by the trapped target (at –30) or an outside helper. The attacker's superior successes can be used to apply a cumulative –10 modifier to these checks. Additional shots can be used to apply more layers to a trapped target (each requiring a SOM Check to break free). The foam allows characters to breathe even if their mouth and nose are covered, but it may impede sight. Freezer foam can be spiked with contact toxins or drugs to additionally incapacitate the target. It can also be used to construct temporary barricades or cover (creating moderate cover for 1 person per shot). Hardened foam has an Armor of 5/10 and Durability of 20. It slowly breaks down and degrades over a 12-hour period.

Plasma Rifle: This bulky, heavy, two-handed weapon blasts a stream of nova-hot plasma at the target, inflicting severe burns and thermal damage, possibly melting or evaporating the target entirely. Plasma rifles are perhaps the deadliest man-portable weapons in use. A superior success sets the target on fire; they will continue to take DV 2d10 per action turn (armor does not apply) until extinguished. Plasma guns suffer from dangerous overheating in vacuum and require 1 full action turn of cool-down time after every 2 shots.

Shard Pistol: This weapon fires a stream of diamondoid shards at high velocities with each shot. A blast of these micro-flechettes is very traumatic to flesh, but their armor-piercing capabilities are offset by their low mass. Shard pistols are ideal for close-quarters habitats, as the shards tend to shatter rather than ricochet. Shard ammunition is sometimes coated with drugs or toxins for extra efficiency.

Shredder: A heavier version of the shard pistol, the shredder fires a larger cloud of lethal flechettes, enough to shred a portion of the target into a fine mist.

Sprayer: This is a general-purpose two-handed squirtgun, loaded with tanks filled with the chemical or drug of the wielder's choice. Each shot uses 3 doses; each target is hit with 1 dose.

Torch: This modern flamethrower uses condensed ammunition capsules rather than fuel tanks, scorching targets and setting them on fire. A superior success sets the target on fire; they will continue to take DV 2d10 per action turn (armor does not apply) until extinguished. These chemical fires are particularly difficult to put out unless they are deprived of oxygen.

Vortex Ring Gun: This less-lethal weapon detonates a blank cartridge and accelerates the explosive pressure down a widening barrel so that it develops into a high-speed vortex ring. This spinning, donut-shaped, concussive blast knocks down and stuns close-range targets. Drugs, chemicals, and similar agents can be loaded into the charge as well.

THROWN WEAPONS

Aside from grenades (*Seeker Weapons & Grenades* ▶212), few throwing weapons are commonly used in *Eclipse Phase*. Use Athletics skill when throwing items to strike with an impact, such as a baseball or dart, or to center an area effect, like a grenade. Use an appropriate Exotic skill for weapons that require more finesse or special techniques, such as throwing knives, axes, or shuriken.

All thrown weapons have a range of SOM in meters.

WEAPON SYSTEMS

Spaceship weapons, habitat defense systems, emplaced turrets: all such weapon systems are fired using Interface skill. These types of weapons are invariably controlled through meshed computer interfaces. The attacker relies on the weapon's sensor feeds, tactical display, and skill rather than any physical action. For this reason, Insight pool applies to tests when using weapon systems, not Vigor.

Many weapon systems use portable weapons that are emplaced or physically hardwired to a turret or similar hardpoint. Others are significantly larger weapon systems, designed for taking out ships and military vehicles. The rules and stats for these systems are beyond the scope of this book, but as a general guideline they will have ranges and Damage Values double that of portable weapons.

SPRAY WEAPONS	Area Effect	Damage Value [Average]	Firing Modes	Ammo	Range	Armor Used	Complexity/GP	Notes
Buzzer	Cone	As swarm	SS	3	15	As swarm	As specialized hive	Long, Two-Handed
Freezer	Cone	–	SS	20	15	–	Mod/2	Entangling, Long, Two-Handed
Plasma Rifle	Cone	4d10 + 10 **[32]**	SA	6	25	E	Maj/R/3	Armor-Piercing, Long, Two-Handed
Shard Pistol	Cone	2d6 + 6 **[13]**	SA/BF/FA	100	15	K	Min/R/1	Concealable
Shredder	Cone	2d10 + 6 **[17]**	SA/BF/FA	100	25	K	Mod/R/2	Two-Handed
Sprayer	Cone	As payload	SS	15	15	As payload	Min/1	Long, Two-Handed
Torch	Cone	3d10 **[16]**	SS	20	15	E	Maj/R/3	Long, Two-Handed
Vortex Ring Gun	Cone	1d6 **[3]**	SA	20	15	E	Min/1	Knockdown, Long, Stun, Two-Handed

KINETIC WEAPONS

Kinetic weapons fire hard-impact projectiles at high velocities to damage the target. There are two categories of slug-throwers, based on their firing mechanisms: chemical *firearms* and *railguns*. Railguns have higher penetration and inflict more damage, offset by battery needs and more limited ammunition choices. Most firearms are equipped with programmable smart bullets by default and have a range of other ammunition choices. Due to their lethality and versatility, they remain in widespread use. Both firearms and railguns work in vacuum. They are wielded with Guns skill and resisted with kinetic armor.

FIREARMS

Modern chemical firearms use caseless smart ammunition that is auto-loaded from a magazine. They are effectively recoilless (thanks to rheological smart fluid mechanisms) and electronically fired (an electric charge vaporizes the propellant, using the expanding steam and plasma to eject and accelerate the projectile).

Pistol: Holdout pistols sacrifice penetrating ability for concealability. Heavy pistols focus on stopping power, with medium pistols occupying a middle ground. Machine pistols use smaller caliber rounds but provide larger magazines for automatic firing.

Submachine Gun: SMGs are designed in bullpup configurations for close-quarters operations and are ideal for tactical and strike teams.

Assault Rifle: Automatic rifles use rifle ammunition and have greater range and penetration than SMGs.

Battle Rifle: Battle rifles use higher caliber rounds, providing better range and stopping power than assault rifles.

Machine Gun: Machine guns are heavy weapons, typically mounted, and intended to provide continuous fire for support or suppressive purposes.

Sniper Rifle: Sniper rifles are optimized for range, accuracy, penetration, and stopping power.

Polygun Pistol: Polyguns are modular, shape-changing weapons that can switch between holdout, medium pistol, heavy pistol, and machine pistol forms. Each form requires separate ammunition. Switching forms takes 3 action turns.

Polygun Rifle: This carbine functions like the polygun pistol, except that it can switch between SMG, assault rifle, and sniper rifle as needed.

KINETIC WEAPONS	Damage Value [Average]	Firing Modes	Ammo	Range	Complexity/GP	Notes
Holdout	1d10 + 1d6 **[9]**	SA/BF	9 + 1	25	Min/R/1	Concealable
Medium Pistol	2d10 **[11]**	SA/BF/FA	15 + 1	30	Min/R/1	
Heavy Pistol	2d10 + 2 **[13]**	SA/BF/FA	9 + 1	35	Min/R/1	
Machine Pistol	1d10 + 1d6 **[9]**	SA/BF/FA	30 + 1	25	Min/R/1	
Submachine Gun	2d10 **[11]**	SA/BF/FA	30 + 1	50	Mod/R/2	Two-Handed
Assault Rifle	2d10 + 2 **[13]**	SA/BF/FA	45 + 1	100	Mod/R/2	Long, Two-Handed
Battle Rifle	2d10 + 4 **[15]**	SA/BF/FA	30 + 1	200	Mod/R/2	Long, Two-Handed
Machine Gun	3d10 + 2 **[19]**	BF/FA	50 + 1	500	Maj/R/3	Fixed, Long
Sniper Rifle	3d10 + 10 **[26]**	SA	9 + 1	500	Maj/R/3	Fixed, Long
Polygun Pistol	As Pistol	As Pistol	As Pistol	As Pistol	Mod/R/2	As Pistol
Polygun Rifle	As Rifle/SMG	As Rifle/SMG	As Rifle/SMG	As Rifle/SMG	Maj/R/3	As Rifle/SMG
Railguns	As Above	As Above	x2	x1.5	As Above	As Above, Armor-Piercing

RAILGUNS

Railguns slide and accelerate a non-explosive conductive tungsten slug along electromagnetic rails at extremely high velocities (Mach 6+) to create an overwhelming, penetrating attack. The kinetic energy of the projectile exceeds that of an explosive-filled shell of greater mass and creates shock and heat waves upon impact that shatter and incinerate the target, or portions of it. While railguns are more potent than firearms, they cannot use smart or specialty ammunition as the projectile must be conductive and able to survive both acceleration and heat created in the process due to friction. Nanofabrication allows railguns to be manufactured on the personal-weapons scale while high-energy portable batteries provide the power to fire them. Railgun operation makes no flash and is silent except for the supersonic crack of the projectile.

Railguns are available in the same models as firearms. They are equipped with standard and nuclear batteries just like beam weapons, holding enough power for 200 shots.

KINETIC AMMUNITION

Ammunition is defined by its various types (regular, armor-piercing, capsule, etc.) and by the class of gun (light pistol, heavy pistol, SMG, etc.). For simplicity, each gun can trade ammunition with another gun of its class, though ammunition for firearms and railguns is not exchangeable. For example, all railgun SMGs can share ammo. Due to the high speeds at which railguns fire, they can only use railgun ammo; firearms have more options.

The ammunition's Damage Value modifiers are added to the weapon's base DV.

Smart Ammo

Firearm smart ammo is made from programmable matter. In addition to its standard form, it can transform into accushot, hollow-point, or plastic rounds. The firer can change all or some of the bullets in the magazine (in any order) with a complex action. All of the bullets fired together with a single complex action must be of the same programmed type.

Specialty Firearm Ammo

This ammunition can only be used with firearms, not railguns. It is acquired in lots of 100 rounds and must be tracked separately.

Accushot: Accushot bullets change shape during flight to keep dead on course, countering the effects of wind, drag, and gravity over distance. Attacks made with Accushots ignore all range modifiers.

Armor-Piercing: This tungsten-carbide ammunition penetrates armor effectively.

Biter: Biters fragment in opposite proportion to the hardness of the target they strike. For hard targets (synthmorphs), they fragment very little, blasting a big hole. For soft targets (biomorphs), they fragment and tumble in multiple directions within the body.

Bug: Bug rounds are equipped with a microbug and medical sensor nanobots. They attempt to gather information on the target's location (via standard mesh tracking), health (querying the target's medichines), and surroundings (typically hindered by being inside the target's body). They will transmit status reports in a pre-programmed manner via the mesh or a pre-chosen frequency band either continuously or in pre-set intervals.

Capsule: Capsule ammo carries one dose of a drug, toxin, or nanobot payload (acquired separately) that is released inside the target after the round penetrates.

Hollow-Point: Hollow-point bullets deform, widen, and fragment once they penetrate a target, inflicting more damage to soft targets like biomorphs. They do not provide extra damage to synthmorphs or objects.

Homing: This bullet identifies a smartlink-tagged target and uses nanosensors and telemetry from previous bullets to lock on, correcting the bullet's trajectory with surface alterations and tiny vectored nozzles. Apply a +10 modifier to hit for attacks following an aim action (cumulative with the aim modifier) or previous attacks against the same target. Homing bullets can also be used for indirect fire ▶206, though without the to-hit modifier.

Jammer: Jammers stick to the target and pulse out jamming electromagnetic signals, jamming the target's wireless communications with an Interface of 40 (*Jam Signals* ▶263). They are difficult to remove, requiring a Hardware: Electronics task action (10 action turns) or use of a fixer, disassembler, or saboteur nanoswarm.

Plastic: Plastic ammo is designed to hurt but not wound targets and is commonly used for crowd control purposes.

Proximity: This reactive bullet uses nanosensors to determine if it is going to miss a smartlink-tagged target and explodes in their vicinity. If the attack misses without a superior or critical failure, the target still suffers DV 1d10.

Reactive Armor-Piercing (RAP): This is a tungsten-carbide armor-piercing round with a reactive casing that superheats and explodes upon impact.

Standard Ammo: This basic metal projectile is designed to put holes into morphs and other objects.

Splash: Splash rounds carry a payload (acquired separately) like capsule ammo, but are designed to break upon impact rather than penetrating, splashing their contents on the target's exterior. Splash rounds are typically loaded with paint, taggant nanobots, tracker dye, and similar substances.

Zap: Zap rounds are rubber or gel bullets that shock the target with a piezoelectric charge.

KINETIC AMMO	Damage Value Modifier	Complexity/GP (per 100)	Notes
Accushot	—	Min/R/1	Steady
Armor-piercing	-1d10	Min/R/1	Armor-Piercing
Biter	+1d6	Mod/R/2	
Bug	—	Min/R/1	
Capsule	÷2	Min/1	
Hollow-point	+1d6	Min/R/1	Extra DV only vs. biomorphs
Homing	—	Mod/R/2	Indirect fire or +10 to hit
Jammer	No damage	Min/1	
Plastic	÷2	Min/1	Stun (biomorphs only)
Proximity	+1d6	Mod/R/2	DV 1d10 on miss
RAP	—	Mod/R/2	Armor-Piercing
Railgun	—	Min/R/1	
Smart	As type	Mod/R/2	
Splash	No damage	Min/1	
Standard	—	Min/R/1	
Zap	÷2	Min/1	Shock

SEEKER WEAPONS & GRENADES

Seeker weapons are a combination of automatic grenade launcher, micromissile, coilgun, and smart munitions technology in personal weapon sizes. Seeker rounds are fired at high-velocity via rings of magnetic coils, after which the micromissile or minimissile uses scramjets or solid-fuel rockets to propel itself and maintain high velocities over great distances. Seekers are fired using Guns skill.

Disposable Launcher: This launcher is pre-packed with one standard missile.

Seeker Armband: Worn on the arm like a bracer, this weapon fires micromissiles via an entoptic interface.

Seeker Pistol: This pistol-sized seeker fires micromissiles in semi-auto mode.

Seeker Rifle: The seeker rifle comes in a bullpup configuration and fires either micromissiles or minimissiles.

Underbarrel Seeker: This seeker micromissile launcher is commonly attached to the underbarrel of SMGs or assault rifles.

SEEKER MISSILES AND GRENADES

Seekers and grenades are both compact, multi-function, explosive devices. Seekers are packaged in standard missile, minimissile, or micromissile sizes and fired from seeker weapons using Guns skill. Grenades are designed to be thrown using Athletics skill or placed as traps using Hardware: Demolitions. Grenades come in standard form or as minigrenades.

Minigrenades and micromissiles are the baseline for listed effects. Adjust the effects for minimissiles and standard grenades/missiles as noted on the table. Most are area-effect weapons ▶218. Each can be set for different trigger conditions ▶213 or to adjust the blast radius ▶218. Seekers/grenades that miss or that hit but are not sticky ▶below and are not set for impact or airburst detonation will scatter ▶218. Listed complexity is for 5 grenades/missiles.

Each seeker missile can function as either accushot or homing ammunition ▶211.

Dazzler: Dazzlers are spinning laser devices, designed to blind targets and defeat surveillance. Anyone within line of sight in the radius of effect (50 meters) who is not equipped with anti-glare mods must succeed in a REF Check or be blinded ▶226 for 1 action turn, +1 per superior failure. A critical failure results in permanent blindness (until repaired/healed). Any visual light/infrared cameras are overloaded for the dazzler's duration. Unless set to a timed deactivation, dazzlers continue to blind for 1 hour or until wirelessly turned off or physically destroyed (DUR 10, AV 5/10).

EMP: EMP munitions fire off a strong electromagnetic pulse when they "detonate." Since most electronics in *Eclipse Phase* are built with optical technology, and power supplies and sensitive microcircuits are shielded and surge-protected, this has no major damaging effect. Antennas, however, are vulnerable, especially finer wires like those used with mesh inserts, as are nanobots and microbots. Every radio within the blast radius (50 meters) is disabled until repaired with an appropriate Hardware or Medicine: Biotech Test or a fixer nanoswarm. Every nanoswarm within range suffers DV 2d10 + 5.

Gas/Smoke: Gas/smoke munitions rapidly spew out a dense cloud with a 10-meter radius. Smoke impedes sight (–20) with thick fumes of a chosen color and is heated to obfuscate heat signatures moving through the smoke as cover. Smoke clouds remain for 3 minutes, though they may drift or dissipate more quickly depending upon environmental conditions (wind, rain, etc.). Gas munitions deliver a dose to anyone within the cloud, but they dissipate after 3 action turns.

High-Explosive Armor-Piercing (HEAP): A design only available for seekers (not grenades), HEAP warheads use high explosives to blast a path for a penetrating tungsten-alloy round. HEAP rounds have no blast radius, but are very effective at penetrating armor.

Plasmaburst: These munitions release a burst of plasma upon detonation that causes searing heat and fire damage across the area of effect without the devastating shockwaves of explosions that might rebound in an enclosed environment and/or breach a habitat's infrastructure.

Splash: Splash devices spread a contained substance (a drug, chemical, nanoswarm, paint, etc.) over a 10-meter blast radius when they detonate. Each contains 5 doses of a toxin/drug (targets are affected by 1 dose) or 1 nanoswarm.

Stun: These enhanced versions of flashbangs release a concussive blast and a cloud of rubber "stingballs" designed to stun targets and knock them off their feet. This blast also releases a blinding flash and a deafening thunderclap. Treat as a shock effect ▶219.

Stun seekers/grenades can also be set into "overload mode," inflicting an all-out sensory assault for a full minute. In addition to blinding glare, the device releases nausea-inducing malodorants and infrasonic frequencies that trigger unpleasant emotional responses (anxiety, uneasiness, extreme sorrow, revulsion, and fear).

Tactical Multipurpose (TMP): TMP devices can be set to detonate in either fragmentation or high-explosive mode. Fragmentation explosives spread a cloud of lethal flechettes over the area of effect. High-explosive seekers/grenades create a destructive shock and heat wave.

Thermobaric: Thermobaric munitions disperse a cloud of aerosol explosive over an area and then ignite, literally setting the air on fire, generating a devastating pressure wave, and sucking the oxygen out of the area.

SEEKER AND GRENADE RULES

These rules apply to grenades, seeker missiles, and similar weapons.

Adjusting Blast Radius

When engaged in offensive operations, the blast radius of grenades and seekers can be dialed back, so that attackers are not caught in the area of effect. For uniform area effect weapons, simply declare a blast radius less than the one listed. For centered area effects, increase the DV reduction per meter, up to a maximum –20/meter. Such adjustments require a quick action and can be set remotely.

Jumping on Grenades

You can take one for the team and throw yourself on top of a grenade to protect others. You must be within movement range of the grenade's location, take a complex action, and succeed in a REF Check to fall on the grenade and cover it with your morph. You suffer an extra DV 1d10 when the grenade detonates, but the grenade's damage is reduced by your Armor Value + 10 when applied to others within the blast radius.

Sticky Coating

Grenades and some seekers have a special adhesive coating that sticks to almost any surface when activated. Sticky munitions that hit their target do not scatter. They can even be stuck to an opponent with a successful melee attack to be detonated later.

Trigger Conditions

Modern grenades, seekers, and similar explosives do not necessarily detonate the instant they are thrown or strike the target. The user sets the trigger option when deploying the weapon and can alter it via wireless link. Missed attacks or attacks that do not explode in transit or when they strike are subject to scatter ▶218.

Airburst: Airburst means that the device explodes in mid-air as soon as it travels a distance programmed at launch. Resolve such attacks immediately when fired. At the GM's discretion, such attacks ignore cover modifiers. Note that airburst munitions are programmed with a safety feature that will prevent detonation if they fail to travel a minimum precautionary distance from the launcher, though this can be hacked or overridden with Hardware: Demolitions.

Impact: The grenade or missile goes off as soon as it hits something, whether that be the target, ground, or an intervening object. Resolve the effects immediately.

Proximity: The explosive uses simple electromagnetic sensors (Perceive 30) to detect movement and targets (biological, synthetic, or both) within a pre-set radius range out to 3 meters and immediately detonate. There is a 3-turn delay between initiating a proximity trigger and its activation.

Signal: The munition is primed for detonation upon receiving a command signal via wireless link. The device simply lays in wait until it receives the proper signal (which must include the cryptographic key assigned when the explosive was primed), detonating immediately when it does.

Timer: The device has a built-in timer allowing the user to adjust exactly when it detonates. This can be anywhere from 1 second to days, months, or even years later, effectively making the device a bomb, but also increasing the likelihood it will be discovered and neutralized. Timed explosives go off at the end of the turn. The minimum detonation period is 1 action turn, meaning the device will detonate at the end of the next turn.

Throwing Back A Grenade

You can reach a grenade before it detonates and throw it back or away in a safe direction. You must be within movement range of the grenade's location, take a complex action, and succeed in a REF Check at –20 to catch the rolling, sliding grenade. If successful, you can throw the grenade in a direction of your choice with the same action (treat as a standard throwing attack at –20). If you fail, however, you may find yourself at ground zero when it detonates.

SEEKER WEAPONS	Firing Modes	Ammo	Range	Complexity/GP	Notes
Disposable Launcher	SS	1 Standard	300	As Missile	Long, No Close, Single-Use, Two-Handed
Seeker Armband	SS	4 Micro	75	Mod/R/2	No Point-Blank
Seeker Pistol	SA	8 Micro	75	Mod/R/2	No Point-Blank
Seeker Rifle	SA	12 Micro	75	Maj/R/3	No Close, Long, Two-Handed
	SA	6 Mini	150		
Underbarrel Seeker	SA	6 Micro	75	Mod/R/2	No Close, Two-Handed

BASELINE STATS ARE FOR MICROMISSILES AND MINIGRENADES.

SEEKER/GRENADE TYPE	Area-Effect Type (Radius)	Damage Value [Average]	Armor Used	Complexity/GP (per 5)	Notes
Dazzler	Uniform (50 m)	–	–	Mod/R/2	Blinding
EMP	Uniform (50 m)	2d10 + 5 **[16]** (nanoswarms only)	–	Maj/R/3	Disables radios
Gas/Smoke	Uniform (20 m)	–	–	Min/1	
HEAP	–	3d10 + 12 **[29]**	K	Maj/R/3	Armor-Piercing, Knockdown
Plasmaburst	Centered (–2 DV/m)	3d10 + 10 **[27]**	E	Maj/R/3	Armor-Piercing
Splash	Uniform (10 m)	–	–	As payload	
Stun	Uniform (10 m)	1d6 + 2 **[5]**	K	Mod/2	Blinding, Knockdown, Shock
Overload	Uniform (10 m)	–	–		Blinding, Pain
Tactical Multipurpose (TMP)				Mod/R/2	
Frag	Centered (–2 DV/m)	3d10 + 6 **[23]**	K		Knockdown (5 meter radius)
High-Explosive	Centered (–2 DV/m)	3d10 + 10 **[27]**	E		Knockdown (10 meter radius)
Thermobaric	Uniform (10 m)	2d10 + 6 **[16]**	E	Maj/R/3	Armor-Piercing, Knockdown

SIZE	Area-Effect Type (Radius)	Damage Value [Average]	Armor Used	Complexity/GP	Notes
Standard Grenade	x2 (Uniform)	+1d10 **[+5]** (Centered)	As above	Per 3	As above
Minimissile	x2 (Uniform)	+1d10 **[+5]** (Centered)	As above	Per 3	As above
Standard Missile	x2 (Uniform)	x2 (Centered)	As above	Per 1	As above

ARMOR

Armor technology has kept pace with weapons development, providing unprecedented levels of protection.

ENERGY vs. KINETIC

Each type of armor has an Armor Value (AV) with two ratings — energy and kinetic — representing the protection it applies against the respective type of attack. These are listed in the format of "energy armor/kinetic armor." For example, an item with listed armor "5/10" provides 5 points of armor against energy-based attacks and 10 points of armor against kinetic attacks.

Energy armor protects against beam weapons (laser, microwave, particle beam, etc.), plasma, fire, and high-energy explosives. Armor that protects against this damage is made of material that reflects or diffuses such energy, dissipates and transfers heat, or ablates.

Kinetic armor protects against the transfer of damaging energy when an object in motion (a fist, knife, club, or bullet, for example) impacts with another object (the target). Most melee and firearms attacks inflict kinetic damage, as would a rolling boulder, swinging pendulum, or explosion-driven fragments. Kinetic armors include impact-resistant plates, shear-thickening liquid and gels that harden upon impact, and ballistic and cut-proof fiber weaves.

ARMOR VALUE

When you are hit in combat, subtract your AV from the damage applied. Use the AV rating appropriate to the type of attack. Attacks that are armor-piercing reduce your AV by half.

LAYERING ARMOR

You can wear multiple layers of armor, adding the ratings together, but it is cumbersome. Apply a –20 modifier to all physical actions for each additional armor layer worn. If the total of either AV rating exceeds your SOM, apply an additional –20 modifier and reduce your Movement Rate by half, as you are overburdened. If the AV exceeds your Durability, you are too encumbered to move.

The armor inherent to a synthmorph's or other shell's frame counts as the first item towards layering. Shells are not designed to wear armor; any armor layered upon them may need to be specially designed to fit their form (perhaps requiring a nanofab Program Test or increasing the Complexity by one step).

Items listed with a + before their AV are either accessories or light enough that they do not count as additional armor layers, they simply add their armor bonus. At the GM's discretion, excessive use of such bonus armor may inflict the same –20 modifier as layering armor.

ARMOR VISIBILITY

Any armor with an AV of 11 or more is obvious and visible and will raise questions or draw the attention of police in most habitats. Lower AVs are considered concealable, receiving a +30 bonus to Infiltrate skill to hide them from visual perception, with the exception of some bulky or obvious items such as vacsuits, dermal armor, scale ware, and activated crash suits.

ARMOR WARE

Bioweave: The morph's dermal layers are laced with spidersilk fibers, providing protection without changing the appearance, texture, or sensitivity of the skin.

Dermal Armor: The morph is equipped with a dense layer of ballistic fibers and flexible subdermal plates. This does not reduce mobility, but it does make the skin smoother and less flexible (except at the joints), and the plated areas are visibly raised. The morph's touch-based perception suffers a –20 modifier.

Heavy Combat Armor: These bulky and noticeable armor plates protect against heavy weaponry for serious combat operations. The shell's mobility systems and power output are also modified to handle the extra mass.

Industrial Armor: This armor is designed to protect shells from collisions, extreme weather, industrial accidents, and similar wear-and-tear.

Light Combat Armor: This light plating is common for shells used in security and policing duties.

Scale/Carapace: As dermal armor, but combined with hard but flexible external chitinous scales and/or plates, modeled on arthropod exoskeletons. This armor is obvious and the skin has the appearance of a crocodile, insect, pangolin, snake, or similarly armored creature.

ARMOR GEAR

Modern armor materials in *Eclipse Phase* include spidersilk weaves, crystalline-grown plates, shock-absorbing fullerenes, diamond coatings, self-repairing ablative materials, and shear-resistant fluids that harden against impacts. These materials protect against (armor-piercing) bullets and kinetic impacts as well as bladed weapons and piercing, sharp objects. They also insulate against both the explosive heating of energy weapons and electrical shocks. While such armor protects against bullets, the layers simply catch the bullet and redistribute its kinetic energy across the body, which can still result in severe blunt force trauma.

Armor Clothing: Resilient fibers and fullerenes are interwoven with normal smart materials to provide a subtle level of security. Such garments are indistinguishable from regular smart clothing and come in all styles and designs.

Armor Coat: Like armor clothing, this slightly bulkier coat provides a layer of discreet protection with smart material fabrics.

Armor Vest: Armor vests protect the body's vital areas. Light vests cover the abdomen and torso and can be concealed under other clothing. Heavy vests are bulkier and obvious, protecting the neck with a rigid collar, and even providing wrap-under protection for the groin.

Ballistic Shield: This heavy shield is essentially a portable barrier equipped with floodlights. It requires both hands to carry.

Body Armor: These high performance armor outfits, typically worn by security and police forces, protect the wearer from head to toe. The integrated armor vest, helmet, gauntlets, and limb guards are form-fitting, flexible, and non-restrictive. The suit includes a built-in ecto, cameras, and health monitors.

Combat Armor: A tougher version of body armor worn by soldiers, this suit is environmentally sealed with climate control to protect the wearer from hostile environments and chemicals with 1 hour of air.

Crash Suit: Designed for industrial workplace safety and protection from accidental zero-g collisions, crash suits are also favored by sports enthusiasts and explorers. The basic jumpsuit offers comfortable protection, but in more hazardous circumstances the suit can be activated with an electronic signal, so that elastic polymers stiffen and form rigid impact protection for vital areas.

Helmet: Helmets come in various open and closed styles, all protecting the head. If targeted with a called shot, helmets have AV 4/10. Helmets are already included with body armor, combat armor, and all suits (use that armor's full AV against called head shots).

Riot Shield: Used for mob suppression, riots shields are lightweight, tough, and can be set to electrify on command, (treat as a melee shock attack ▶219).

Second Skin: This lightweight bodysuit, woven from spider silks and fullerenes, is typically worn as an underlayer, though some athletes use it as a uniform.

ARMOR TYPE	Ware Type	Energy	Kinetic	Complexity/GP	Notes
Armor Clothing	—	+1	+3	Min/1	Concealable
Armor Coat	—	3	6	Min/1	
Armor Vest (Heavy)	—	6	12	Mod/2	
Armor Vest (Light)	—	4	10	Min/1	Concealable
Atlas Loader	—	+10	+12	Rare	
Ballistic Shield	—	+6	+12	Mod/2	Two-Handed
Battlesuit	—	25	25	Rare/R	
Bioweave	B	+2	+3	Min/1	Concealable
Body Armor	—	8	14	Mod/2	
Combat Armor	—	12	16	Maj/R/3	
Crash Suit (Active)	—	3	8	Min/1	
Crash Suit (Inactive)	—	3	2		Concealable
Dermal Armor	B	+4	+5	Min/1	
Envirosuit	—	25	16	Maj/3	
Exowalker Frame	—	+0	+2	Maj/3	
Hardsuit	—	20	18	Rare	
Heavy Combat Armor	H	+16	+14	Maj/3	
Helmet	—	+2	+2	Min/1	AV 4/10 vs. head shots
High-Dive Suit	—	25	8	Maj/3	
Industrial Armor	H	+6	+4	Min/1	
Light Combat Armor	H	+10	+8	Mod/2	
Riot Shield	—	+3	+4	Min/1	Shock, Touch-Only
Scale/Carapace Armor	B	+6	+7	Mod/2	
Second Skin	—	+2	+3	Min/1	Concealable
Transporter Exoskeleton	—	+0	+4	Mod/2	
Trike Exoskeleton	—	+0	+4	Mod/2	
Vacsuit (Light)	—	5	2	Mod/2	
Vacsuit (Standard)	—	8	6	Maj/3	

WEAPON/GEAR TRAITS

A number of weapons and some gear items list specific traits that indicate special effects. Some of these inflict specific conditions ▶226 on the target:

- **Armor-Piercing:** This weapon penetrates armor. The attack inflicts –1d10 DV, but armor is halved. Weapons and ammo types listed as armor-piercing already incorporate the DV modifier. Additional armor-piercing effects are ignored.
- **Blinding:** Targets must make a REF Check or be blinded ▶226 for 1 action turns, +1 per superior failure. A critical failure results in permanent blindness until repaired or they spend time in a healing vat. Anti-glare ware protects against blinding based on light.
- **Concealable:** This item is easily hidden. You receive a +30 to Infiltrate Tests to hide this item on your person (or elsewhere).
- **Entangling:** Targets struck by this weapon must make a REF Check or be grappled ▶205. The attacker's superior successes apply a cumulative –10 to this REF Check and SOM Checks to break free.
- **Fixed:** Fixed weapons are designed to be fired from a prone or braced position, such as mounted on a bipod or hardpoint. If carried, apply a –20 modifier to attacks and consider them to have the Two-Handed trait.
- **Fragile:** This items breaks or becomes unusable if you roll a superior failure.
- **Knockdown:** This strike may knock even unwounded opponents off their feet. The target must make a SOM Check or be knocked prone.
- **Lacks Smartlink:** This weapon is not equipped with a smartlink's targeting assistance. –10 to attack tests.
- **Long:** Lengthy weapons are unwieldy in close combat (–30 to fire when in melee) and do not receive the +10 modifier when fired at Point-Blank range.
- **No Close:** This weapon cannot be fired at Point-Blank or Close range. Seeker weapons have built-in safety features that prevent them from being fired at ranges that might injure the user. Overriding this features requires a Hardware or Infosec Test.
- **No Point-Blank:** This weapon cannot be fired at Point-Blank range.
- **Pain:** A biomorph target struck by this weapon must make a WIL Check or take their next full action to flee, moving as far away from the pain-inflicting source as possible or to the nearest full cover they can reach on their action. Targets also suffer –20 until the end of the next turn. Targets with the Pain Tolerance (Level 1) trait receive a +30 to their WIL Check and only suffer a –10 modifier. Targets with Pain Tolerance (Level 2) are immune to this effect. Victims who are trapped in the beam or otherwise cannot avoid the pain effect are impaired (–20) until they escape.
- **Shock:** This weapon inflicts a shock effect ▶219.
- **Single-Use:** This item can only be used once.
- **Steady:** This weapon ignores range modifiers.
- **Stun:** Targets must make a SOM Check or be stunned ▶226 for 1 action turn, +1 per superior failure. Apply kinetic armor as a positive modifier. Large targets receive a +30, small targets receive a –30 modifier. On a critical failure, they are incapacitated for 1 action turn and stunned for 1 minute.
- **Touch-Only:** This melee attack just requires a touch. +20 to hit, but no DV is inflicted (*Touch-Only Attacks* ▶205).
- **Two-Handed:** This weapon requires two hands (or an equivalent prehensile limb) to use. Apply a –20 modifier to attack if used single-handed.

WEAPON ACCESSORIES

The following accessories are available for weapons.

Arm Slide: This slide-mount can hold a one-handed weapon under your sleeve, pushing the weapon into your hand with an electronic signal or specific sequence of arm movements. You can draw the weapon and attack with a single complex action.

Extended Magazine: This ammunition case has an enhanced capacity. Increase the weapon's ammo capacity by +50%. This is only available for firearms and seekers.

Gyromount: This weapon harness features a gyro-stabilized weapon mount that keeps the weapon steady. Negate all modifiers from movement.

Imaging Scope: Imaging scopes attach to the top of the weapon and act like specs ▶317. Scopes also bend like a periscope, allowing you to point the weapon and target around corners without leaving cover.

Flash Suppressor: This device obscures the muzzle flash on firearms, applying a –30 modifier to Perceive Tests to locate a firing weapon by its flash.

Laser Sight: This underbarrel laser emits a beam that places a glowing red dot on the target to assist targeting (negating the –10 modifier for not using a smartlink or laser sight). Laser sights can also be used to paint a target for laser-guided smart ammo or seekers. Infrared and ultraviolet lasers are also available, so that the dot is only visible to characters with enhanced vision.

Safety System: This feature is automatically included in most weapons. A biometric (palmprint or voiceprint) or ego ID sensor is embedded in the weapon, disabling it if anyone other than an authorized user attempts to fire it.

WEAPON ACCESSORIES	Complexity/GP	Description
Arm Slide	Min/1	Draw and attack with single complex action.
Extended Magazine	Min/1	Increase ammo capacity +50%.
Gyromount	Mod/2	Negate movement modifiers.
Imaging Scope	Min/1	As specs, can target around corners.
Flash Suppressor	Min/1	–30 Perceive to locate by flash.
Laser Sight	Min/1	Assisted targeting.
Safety System	Min/1	Weapon requires biometric authorization to use.
Shock Safety	Mod/2	As safety system, DV 1d6 and shock effect to unauthorized users.
Silencer/Sound Suppressor	Min/1	–30 Perceive to locate by sound.
Smartlink	Mod/2	Assisted targeting, enhanced weapon control.
Smart Magazine	Min/1	Select ammo with each shot, reduce ammo capacity –50%.

Shock Safety: Just like a safety system, except that an unauthorized user is zapped with an electric shock, inflicting DV 1d6 and a shock effect ▶219.

Silencer/Sound Suppressor: This barrel-mounted accessory reduces the sound of a firearm's discharge (they cannot be used on railguns). Apply a –30 modifier on hearing-based Perceive Tests to hear or locate the gun's firing.

Smartlink: Smartlinks are automatically included in most weapons. It connects the weapon to your mesh inserts, placing a targeting bracket in your field of vision and providing range and targeting information (negating the –10 modifier for not using a smartlink or laser sight). Smartlinks also incorporate a microcamera that allows the user to see what the weapon is pointed at, fire around corners, etc. Smartlinks also allow certain other types of weapon system control, such as changing smart ammo ▶211 or programming seeker trigger conditions ▶213).

Smart Magazine: A smart magazine allows you to pick and choose what ammo round will be fired with each shot. This system leaves less room for bullets, however, so reduce the weapon's ammunition capacity by half (round up). Smart magazines can be combined with extended magazines, in which case ammo capacity is normal.

ARMOR MODS

Armor modifications add extra materials or coatings that either enhance resistance to certain dangers or provide other effects. Listings are for temporary coatings, which can be applied to clothing, armor, or even directly to a morph's skin or shell with a spray-on nanobot applicator, are easily removed, and last 1 day. Permanent coatings require a specialized hive ▶342. With the exception of chameleon coating, armor mods are visible and easily identified. Only one mod can be applied at a time.

Ablative: This coating absorbs heat and energy from beams and explosions, safely vaporizing and blowing hot gas away. Ablative patches increase the Armor Value by +4/+0, but each hit reduces the value of the ablative armor by 1 (a specialized hive repairs this at the rate of 1 point per hour).

Chameleon: When activated, this mod coating matches the background, providing +30 to Infiltrate Tests against visual detection when stationary or moving less than 2 meters/turn. The coat also absorbs heat and works against infrared for 1 hour before it must be cooled off (taking another hour).

Fireproof: Heat-resistant layers capable of withstanding extremely high temperatures increase the Armor Value by +2/+0 and provide an additional 8 points of armor against heat or fire specifically, even if you are on fire/burning and armor is ignored.

Immunogenic: The immunogenic mod neutralizes toxic agents and nanotoxins with which it comes into contact. This provides immunity to drugs, toxins, and nanotoxins applied dermally, such as with a slap patch or splash grenade. It has no effect on inhaled, oral, or injected drugs (including coated weapons).

Impact: This coating acts as a shear-thickening fluid, hardening upon impact and distributing the kinetic energy. Increase the Armor Value by +0/+3.

Lotus: This superhydrophic coating (contact angle of around 170°) repels all water-like liquids. Apply a +30 modifier when defending against liquid-based attacks.

Medical/Repair: For biomorphs, the medical coating stops blood flow, seals injuries, and treats wounds with stem cells and medical nanobots. The repair mod does the same for synthmorphs, repairing severed connections and reconstructing the shell and internal mechanisms. Both nullify the modifiers from 1 wound and repair DV 1d10 per hour.

Offensive: When activated, this layer shocks anyone or anything it contacts. Treat as a shock attack ▶219.

Reactive: This colony of nanobots senses incoming attacks and detonates to disrupt the attack. Bursts and full autofire are treated as a single attack. A reactive coating increases the Armor Value by +3/+3, but each detonation automatically inflicts 1 point of damage on the wearer. Reactive armor also works against melee attacks, inflicting DV 1d6 to the attacker from the microexplosion. A reactive coating only works against 5 attacks (a specialized hive repairs this at the rate of 1 use per hour).

Refractive Glazing: A combination of reflectors, refractive metamaterials, and an energy transfer system with heat radiators provides extra protection against energy weapons. Increase the Armor Value by +3/+0.

Self-Healing: This mod can only be applied to armor. When activated, it repairs the armor at a rate of 1d10 per hour.

Shock Proof: Shock proof mods are electronically insulated to discharge and reduce the effect of shock weapons. Apply a +20 modifier to SOM Checks made to resist shock effects.

ARMOR MODS	Energy	Kinetic	Complexity/GP	Notes
Ablative	+4	+0	Min/1	5 uses. Hive restores 1 use per hour.
Chameleon	+0	+0	Min/1	+30 Infiltration when stationary or moving less than 2 m/turn.
Fireproof	+2	+0	Min/1	+10/+0 vs. fire/heat.
Immunogenic	+0	+0	Min/1	Negates dermal chem/drugs/toxins.
Impact	+0	+3	Min/1	
Lotus	+0	+0	Min/1	Repels all liquids, +30 defending vs. liquid-based attacks.
Medical/Repair	+0	+0	Min/1	Heals/repairs 1d10 damage per hour, ignore 1 wound.
Offensive	+0	+0	Min/1	Shock effect if hit/touched.
Reactive	+3	+3	Min/1	5 uses. Hits inflict DV 1 to wearer, DV 1d6 to melee attacker. Hive restores 1 use/hour.
Refractive Glazing	+3	+0	Min/1	
Self-Healing	+0	+0	Min/1	Repairs 1d10 damage to armor per hour.
Shock Proof	+0	+0	Min/1	+20 to SOM Checks vs. shock.

SPECIAL ATTACKS

Use the following rules for special melee or ranged strikes.

AREA-EFFECT ATTACKS

Attacks that affect more than one target or an area are classified as centered blast, cone, or uniform blast.

Fray: Area-effect attacks are difficult to dodge. If you make your Fray ÷ 2 roll and are within one meter of the edge of the affected area or something that would provide you with cover, you take no damage. Otherwise, even if you succeed, you still take half the damage.

Centered Blast

Blast weapons like grenades, mines, and other explosives expand outward from a central detonation point. Most blast attacks expand outward in a sphere, though certain shaped charges will direct an explosion in one direction only. The explosive force is stronger near the epicenter and weaker near the outer edges of the sphere. For every meter a target is from the center, reduce the DV of a blast weapon by –2.

Cone

Attacks with a cone area effect begin with the tip of the weapon and expand outward in a cone. At point-blank and close, this attack affects 1 target; at range, it affects 2 targets within a meter of each other; beyond range it affects 3 targets within a meter of the next. Cone-effect attacks that damage inflict +1d10 DV at point-blank and close and –1d10 DV beyond range.

Uniform Blast

Uniform blast attacks distribute their power evenly throughout the area of effect. Examples include fuel-air explosives and thermobaric weapons that disperse an explosive mixture in a vapor cloud and ignite it all at once. All targets within the noted blast radius suffer the same damage. Damage against targets outside of the main blast sphere is reduced by –2 DV per meter. If the attack inflicts other effects (such as shock), that effect only applies within the main uniform blast area.

In space, there is no atmosphere to propagate an explosive shockwave; reduce the DV by –10 per meter. Adjust the DV reduction as appropriate for thin atmospheres.

Scatter

Weapons such as grenades must go somewhere when they miss, and you might still catch your target in the blast radius. To determine where a missed area-effect attack falls, roll a d10. The direction the top pointed part of the die is pointing is the direction the attack scatters, treating yourself as the target for orientation purposes. The result of the die roll is how far away the attack lands, in meters. For each superior failure, double the scatter distance. This determines the epicenter of the blast; resolve the damage against anyone caught within its radius of effect as normal. You may need to fudge this result for microgravity or other situations where three-dimensionality matters, or you can roll another d10 to judge orientation on the z-axis (1 being "above" the target, 10 being "below").

ATTACKS AGAINST THE HELPLESS

When making an attack against an incapacitated, paralyzed, sleeping, unconscious, or similar helpless target outside of combat, make an attack test. If you succeed, you kill/destroy them. If you fail, you inflict the maximum DV possible (which may still kill them). This assumes you have the time to carefully position and line up a lethal coup de grâce. It does not apply to opponents who are vulnerable during combat action turns; such attacks are conducted as normal, with no defense.

BLIND ATTACKS

Attacking a target that you cannot see is difficult at best and a matter of luck at worst. If you cannot see, you may make a Perceive Test using some other available sense to detect your target. If this succeeds, you attack with a –30 modifier. If your Perceive Test fails, you attack at –30 and your attack has a straight 50% chance of automatically missing.

CALLED SHOTS

Sometimes it's not enough to just hit your target — you need to shoot out a window, knock the knife out of their hand, or hit that hole in their armor. You can declare a called shot before you initiate an attack, choosing one of the outcomes noted below. Called shots suffer a –10 modifier. If you succeed with a superior success, the results below apply instead of the superior success result. If you hit but do not score a superior success, you simply strike your target as normal. You cannot make called shots with area-effect attacks.

Bypass Armor

Called shots can be used to target a hole or weak point in your opponent's armor. If you score a superior success, you strike an armor-defeating hit, and their armor is halved. The GM may rule that an opponent's armor doesn't have a weak spot or unprotected area and disallow such called shots, or they may require a successful Perceive or Hardware: Armorer Test to spot one first.

Disarm

You can take a called shot to knock a weapon out of an opponent's hand(s) or other appendages. The victim suffers half damage from the attack (reduced by armor as normal) and must make a SOM Check at –30 modifier to retain hold of the weapon. Otherwise it scatters 1d10 meters away. An additional superior success may be used to double the modifier to –60, inflict full damage, or to keep the weapon in your grip instead of knocking it away.

Knockdown

You may call your shot to knock an opponent down rather than injure them. A knocked-down opponent is prone ▶226 and must take a quick action to stand again. An additional superior success may be used to inflict damage as normal.

Redirect

A called shot can be used to push your opponent in a specific direction. A redirected opponent is pushed, pulled, knocked back, or otherwise moved 2 meters in your direction of choice. An opponent who is redirected off a roof, out an airlock, into traffic, or in some equally dangerous direction may make a REF Check at –30 to catch themselves in time, though they will remain hanging in a precarious position if they succeed. Additional superior successes may double the modifier or inflict damage per normal.

Specific Target

A called shot can be used to strike a specific location on your opponent: disable a tool on a bot, strike someone in the eyes, or injure their leg. The GM determines the result. For example, the opponent may be blinded or dazed ▶226, have their movement hindered by half, or may lose the use of a specific component.

COATED WEAPONS

You can coat a melee weapon with a drug or toxin, including those secreted by ware like poison glands. You may only apply one dose at a time. The next time you damage a target with the weapon, they are exposed to the drug/toxin and the dose is used up. On a critical failure, you dose yourself. Only drugs/toxins with the dermal or injection vectors may be applied this way (*Application Methods* ▶330).

DEMOLITIONS

Use Hardware: Demolitions skill to place, disarm, or manufacture explosive devices such as superthermite ▶340 or grenades ▶212.

Placing Explosives

If you intend to simply create a damaging blast, no skill test is needed to smack an explosive in place and run. However, you can use Hardware: Demolitions Tests when placing explosives for one of the following effects:

- Increase the amount of damage inflicted against an object/structure by +1d6 per superior success. Criticals will halve armor.
- Shape a centered area effect blast towards one direction only. If the angle of effect is 180 degrees or less; double the DV. If the angle of effect is 90 degrees or less, triple the DV.
- Target a structural weakpoint for a specific effect, such as destroying the supports to collapse a bridge or blowing a hole open in a ship's hull without killing everyone in the room inside. The GM determines the effect.
- Make disarming the explosive more difficult. Anyone seeking to disarm must beat you in an Opposed Hardware: Demolitions Test.

Skills like Know: Engineering can serve as a complementary skill to a Hardware: Demolitions Test (*Complementary Skills* ▶53), at the GM's discretion.

Disarming Explosives

Most explosives can be disarmed with a Hardware: Demolitions success test, modified as appropriate to the difficulty. If the character placing/making the explosive intentionally made it difficult to disarm, treat this as an opposed test instead.

Making Explosives

A character trained in Hardware: Demolitions can make explosives from raw materials. These materials can be gathered the traditional way or manufactured using a nanofabricator. Even nanofabbers with restricted settings can be used, as explosives can be constructed from all manner of mundane chemicals and materials.

Making explosives is a task action with a timeframe of 1 hour per 1d10 DV. On a failure, the resources are used but no explosive is made. On a superior failure, the mix appears to succeed but is extremely weak or more potent than expected (whichever is more likely to be problematic). If a critical failure is rolled, the demolitionist accidentally triggers an explosion.

SHOCK ATTACKS

Shock attacks use high-voltage electrical jolts to physically stun and incapacitate targets. Shock weapons are particularly effective against biomorphs and other biological creatures, even when heavily armored. Synthmorphs, bots, and vehicles are immune to shock effects.

When hit with a shock effect, make a SOM Check. Add your energy armor as a positive modifier. Apply a modifier for different sizes: very small –30, small –10, large +10, very large +30. Failure means you lose neuromuscular control, fall down, and are incapacitated for 1 action turn (+2 turns per superior failure) and stunned for 3 minutes. Success means you are stunned for 3 action turns.

To inflict shock without doing damage in melee simply requires a touch attack (+20). To inflict shock plus damage requires a regular melee attack.

TWO-HANDED WEAPONS

Any weapon noted as two-handed requires two hands (or other prehensile limbs) to wield effectively. This applies to some melee weapons (diamond axes, spears, etc.) in addition to larger firearms and heavy weapons. Using such a weapon single-handed incurs a –20 modifier. This modifier does not apply to mounted weapons.

WIELDING TWO OR MORE WEAPONS

You can wield two weapons at once in combat — or even more if sleeved in an octomorph or other multi-limbed morph.

Extra Melee Weapons

If attacking multiple targets in melee with the same complex action, simply make each attack separately (*Multiple Targets* ▶205).

Treat the use of two or more melee weapons against one target as a single attack, rather than multiple. Each additional weapon applies +1d6 DV to the attack (up to a maximum +3d6). The penalty for the Dominant Limb negative trait ▶77 is ignored in this case.

Extra limbs (beyond 4) count as extra weapons for the purposes of unarmed combat, but they are counted as pairs. A biomorph with a set of extra arms, for example, would deal DV 2d6 in unarmed combat, rather than the standard 1d6. Some other weapons (claws, densiplast gloves) are also counted in pairs for this purpose.

When defending against melee attacks with multiple weapons/limbs, you receive +10 per extra weapon or pair of limbs, to a maximum of +30.

Extra Ranged Weapons

You can wield a pistol in each hand for ranged combat, or larger weapons if you have more limbs (an eight-limbed octomorph, for example, could conceivably hold four assault rifles). These weapons can all be fired at once towards the same target, using a single complex action. Handle each weapon as a separate attack, with a cumulative multi-attack modifier of –20 for each attack after the first (i.e., no modifier for the first attack, –20 for the second, –40 for the third, etc.).

You cannot fire multiple weapons against separate targets at once; each attack requires a separate complex action.

PHYSICAL HEALTH

The galaxy is a dangerous place, and when you face the risks, you will inevitably get hurt.

DAMAGE POINTS

All physical harm is measured in damage points. These points are cumulative and recorded on your character sheet. Damage points are characterized as fatigue, bruises, bumps, sprains, minor cuts, dings and dents, and similar hurts that, while painful, do not significantly impair or threaten your life or functioning unless they accumulate to a significant amount. Any source of harm that inflicts a large amount of damage points at once, however, is likely to have a more severe effect (*Wounds* ▶below)

Damage points are reduced by rest, medical care, and/or repair (*Healing & Repair* ▶221).

Damage Value

Weapons and other attacks inflict a number of damage points equal to their Damage Value (DV). Most DVs are presented as a variable amount, in the form of a die roll; for example: 3d10. In this case, you roll three ten-sided dice and add the results (counting 0 as 10). Sometimes the DV will be presented as a dice roll plus modifier; for example: 2d10 + 5. In this case you roll two ten-sided dice, add them together, and then add 5 to get the result. Superior results, ammunition types, firing modes, and other factors may increase an attack's DV.

For simplicity, a static amount is also noted in parentheses after the variable amount. If you prefer to skip the dice rolling, you can just apply the static amount (usually close to the mean average) instead. For example, if the damage were noted 2d10 + 5 [16], you could simply apply 16 damage points instead of rolling dice.

DURABILITY

Your physical health is measured by your morph's Durability stat. For biomorphs, this represents the point at which accumulated injuries overwhelm and incapacitate you. Once your total damage points equal or exceed your Durability, you immediately collapse from exhaustion and physical abuse. You gain the unconscious condition ▶226 and cannot be revived until your damage points are reduced below your Durability, either from medical care or natural healing.

For synthmorphs, Durability represents structural integrity. You become physically disabled when accumulated damage points reach your Durability and your software mind-state crashes.

Even if you are unconscious/disabled, your mesh inserts may still function (*Damage and Infomorph Riders* ▶265).

WOUNDS

Wounds represent grievous injuries: bad cuts and hemorrhaging, fractures and breaks, mangled limbs, broken systems, and other serious damage that impairs your ability to function and may lead to death or long-term impairment.

Any time your character sustains damage, compare the amount inflicted from a single source (after it has been reduced by armor) to your Wound Threshold. Wound Threshold equals your morph's Durability ÷ 5. If the modified DV equals or exceeds your Wound Threshold, you have suffered a wound. If the inflicted damage is double your Wound Threshold, you suffer 2 wounds; if triple your Wound Threshold, you suffer 3 wounds; and so on.

Wounds are cumulative and must be marked on your character sheet.

Note that these rules handle damage and wounds as an abstract concept. For drama and realism, GMs may wish to describe wounds in more detailed and grisly terms: a broken ankle, a smashed servo, internal bleeding, a lost ear, and so on. The nature of such descriptive injuries can help the GM assign other effects. For example, a crushed hand may mean you can't pick up a gun, excessive blood loss may leave a trail for your enemies to follow, or a cut eye might inflict an additional visual perception modifier. Likewise, such details may impact how you heal or are treated.

WOUND EFFECTS

Each wound applies a cumulative –10 modifier to actions and –1 to Initiative. A character with 3 wounds, for example, suffers –30 to all actions and –3 to Initiative.

Some traits, ware, drugs, psi sleights, and pools allow you to ignore wound modifiers. These effects are cumulative, though a maximum of 3 wounds worth of modifiers can be negated (–30 to actions and –3 to Initiative).

Knockdown: Any time you receive a wound, make an immediate SOM Check. Wound modifiers apply. If you fail, you are knocked prone ▶226 and must expend a quick action to stand up/reorient. Shells (bots and vehicles) moving at speed must make an Athletics or Pilot Test to avoid crashing.

Unconsciousness: If you receive 2 or more wounds at once (from the same attack), you are automatically knocked prone and must make a SOM Check; wound modifiers apply. If you fail, you are knocked unconscious ▶226 until you are awoken or heal. Synthmorphs and cyberbrained characters are knocked offline in a similar fashion. Shells moving at speed that take 2 or more wounds at once automatically crash ▶232.

BLEEDING OUT

Biomorph characters who have suffered a wound and taken damage equal to or exceeding their Durability are in danger of bleeding to death. Make a SOM Check to self-stabilize; wound modifiers apply. Apply a +30 if healing spray, meds, or medichines are healing you. If you fail, you incur 1 additional damage point per wound per action turn until you receive medical care or die. Others can attempt to stabilize you with a Medicine: Paramedic Test; the same modifiers apply. If successful, you no longer accumulate damage from bleeding out.

DEATH RATING

An unhealthy accumulation of damage points will threaten your character's life. If the damage reaches your Death Rating, your body dies (biomorphs) or is destroyed beyond repair (synthmorphs). Death Rating is based on Durability × 1.5 for biomorphs and Durability × 2 for synthmorphs.

DEATH

In *Eclipse Phase,* death is not the end of the line. If your cortical stack can be retrieved, you can be resurrected and downloaded into a new morph (*Resleeving* ▶288). This requires either backup insurance ▶287 or the good graces of whomever ends up with your body/stack.

If your cortical stack is not retrievable, you can still be re-instantiated from an archived backup ▶286. Again, this either requires backup insurance or someone who has your backup and is willing to revive you.

If your cortical stack is not retrieved and you have no backup or alpha fork ▶292 floating around somewhere, you are completely and utterly dead. Be smart: back up.

HEALING & REPAIR

Use the follow rules for healing and repairing characters.

BIOMORPH HEALING

Thanks to biomods, most biomorphs naturally heal at an accelerated rate. Advanced technologies such as medichines ▶322 and healing spray ▶342 or the skills of a trained professional can increase this even further. Healing vats ▶342 will heal even the most grievous wounds in a matter of days and can even restore characters who recently died or have been reduced to just a head.

First Aid

Use Medicine: Paramedic to apply medical care to an injured character. This is a task action with a timeframe of 10 minutes plus 10 minutes per wound and requires a medical tool kit. If successful, remove 1 wound and 1d10 points of damage, +1d6 per superior success. This test must be made within 24 hours of the injury, and any particular set of injuries can only be treated once (so if you have more than one wound, only one can be healed). If the character is later injured again, however, this new damage can also be treated separately. Medical care of this sort is not effective against injuries already treated with first aid, medichines, meds, healing spray, or healing vats. A critical failure inflicts DV 1d10.

Recovery

The rate at which you heal depends on the technology at your disposal, as indicated on the Healing/Repair table. All damage must be healed first, before wounds. Boosted healing from a technological source (such as meds or healing spray) is cumulative with that of your morph. For example, a morph with biomods that applied healing spray would heal 1d10 an hour for 12 hours and another 1d10 after 12 hours. However, you cannot benefit from more than one source of technologically aided healing at a time; use the fastest rate applicable. Recovery assumes decent conditions and a reasonable amount of rest. Particularly poor conditions — bad food, poor shelter, not enough rest — may double healing times. Harsh conditions — insufficient food, strenuous activity, extreme environments — will triple healing times.

Critical Care

Some circumstances call for critical care: surgery, limb regeneration, or even the revivification of a recently deceased biomorph.

Surgery: If the GM rules a medical condition requires surgical intervention, whether by a trained transhuman or medical bot, use Medicine: Biotech. This is a task action, with a timeframe determined by the GM (usually 1–4 hours). No damage or wounds can be healed until the surgery is successful.

Regeneration: Transhumans with biomods will regrow severed parts over time. An ear or finger will take a week, an arm or leg a full month. Healing vats greatly accelerate this process to somewhere between 4 hours (ear/finger) and 2 days (full limb), and can even restore a full body from just a head (1 month).

Revivification: Recently deceased biomorphs can be placed in medical stasis with a medical kit and a Medicine: Paramedic (10 minutes) task action. An equipped medical specialist can revive the person as long as they are treated within 24 hours of death or being removed from stasis. This requires a medical kit and a Medicine: Paramedic task action with a timeframe of 1 hour, +1 per wound. Revived characters are healed to 1 point below their Death Rating. A healing vat will also do the job, with a timeframe of 1 day.

SYNTHMORPH/OBJECT REPAIR

Most synthmorphs and objects do not heal on their own and must be repaired. Some are equipped with self-repair systems that function the same as medichines ▶322. Fixer swarms ▶345 can repair damage and wounds the same as meds. Synthmorphs and objects can also be repaired in a nanofabrication machine with the appropriate blueprints; treat this the same as a healing vat. Synthmorphs can only benefit from one repair source at a time; use the fastest rate applicable.

Physical Repair: Manually repairing a synthmorph or object requires a Hardware Test using a field appropriate to the item (Hardware: Robotics for synthmorphs and bots, Hardware: Aerospace for aircraft, etc.) and a tool kit. Repair is a task action with a timeframe of 1 hour per 5 points of damage being restored, plus 8 hours per wound. Once completed, it is fully repaired. Apply appropriate modifiers based on conditions and available tools.

Healing/Repair

First Aid	Damage Healed		Timeframe
Medicine: Paramedic	1 wound, 1d10 [6] damage +1d6 per superior success		10 minutes + 10 per wound
Recovery	**Damage Healing Rate**	**Wound Healing Rate**	**Effect Duration**
Morph without Biomods	1d10 [6] per day	1 per week	—
Morph with Biomods	1d10 [6] per 12 hours	1 per 3 days	—
Medichines	1d10 [6] per hour	1 per day	—
Meds	1d10 [6] per hour	1 per day	1 day
Fixers	1d10 [6] per hour	1 per day	5 days
Healing Spray/Repair Spray	1d10 [6] per hour	—	12 hours
Healing Vat/Nanofabber	2d10 [11] per hour	1 per 2 hours	—
Poor Conditions	x2	x2	—
Harsh Conditions	x3	x3	—
Physical Repair	**Timeframe**		
Hardware: Robotics, etc.	1 hour per 5 damage + 8 hours per wound		

MENTAL HEALTH

When your body is replaceable, damage inflicted upon your psyche is often more frightening than grievous physical harm. There are many ways in which your sanity and mental wholeness can be threatened: experiencing physical death, extended isolation, loss of loved ones, alien situations, discontinuity of self from lost memories or switching morphs, psi attacks, and so on. Two methods are used to gauge your mental health: stress points and trauma. For most purposes, these function like damage and wounds, but for your mind.

STRESS POINTS

Stress points represent fractures in your ego's integrity, glitches in your mind's cohesive functioning. This mental damage is experienced as cerebral shocks, disorientation, cognitive disconnects, synaptic misfires, or an undermining of the intellectual faculties. On their own, these stress points do not significantly impair your character's functioning, but if allowed to accumulate they can have severe repercussions. Additionally, any source that inflicts a large amount of stress points at once is likely to have a more severe impact (*Trauma* ▶223).

Stress points can be reduced by psychosurgery, long-term rest, and/or meeting motivational goals.

Stress Categories

There are four sources of stress. Characters with the Hardening trait ▶74 are immune to stress from one or more of these sources.

- **Alienation** arises from disconnection to the self — acclimating to unusual morphs, lost memories, loss of self-control.
- **Helplessness** is the inability to control events. It includes isolation, betrayal, and the inability to save your friends from harm.
- **The unknown** is anything alien, incomprehensible, or out of context to our common understanding of the universe.
- **Violence** is threats, danger, and bodily harm to yourself or others.

LUCIDITY AND STRESS

Lucidity is the companion to Durability; it benchmarks your character's mental stability. It equals WIL × 2. If you build up an amount of stress points equal to or greater than your Lucidity score, your ego immediately suffers a mental breakdown. You effectively go into shock and remain in a catatonic or disassociative state for 1d6 hours. You also acquire a Mental Disorder trait — work with your GM to choose one appropriate to your character. You cannot acquire more than one disorder per month, though if your stress is lowered and then raised to your Lucidity again your disorder will be triggered. Egos housed in synthetic shells or infomorphs are just as affected by stress as biological brains.

Stress Value

Any source capable of inflicting cognitive stress is given a Stress Value (SV). This indicates the amount of stress points the attack or experience inflicts upon a character. Like DV, SV is often presented as a variable amount, such as 2d10, or sometimes with a modifier, such as 2d10 + 10. Simply roll the dice and total the amounts to determine the stress points inflicted in that instance. To make things easier, a static SV is also given in parentheses after the variable amount; use that set amount when you wish to keep the game moving and don't want to roll dice.

Some Stress Values list two numbers. The first number before the slash applies if you fail your WIL Check. The second number, after the slash, applies even if you succeed.

TRAUMA

Mental trauma is more severe than stress points. Traumas represent severe mental shocks, an inability to handle what is occurring, the stunning effect of paradigm shifts, crippling self-doubt, and other serious cognitive malfunctions. Traumas impair your character's functioning and may result in temporary stress responses or permanent disorders.

If your character receives a number of stress points at once that equals or exceeds their Trauma Threshold, they have suffered a trauma. If the inflicted stress points are double or triple the Trauma Threshold, they suffer 2 or 3 traumas, respectively, and so on. Traumas are cumulative and must be recorded on your character sheet.

TRAUMA EFFECTS

Each trauma applies a cumulative –10 modifier to all of the character's actions and –1 to Initiative. A character with 2 traumas, for example, suffers –20 to all actions and –2 Initiative. These modifiers are also cumulative with wound modifiers.

Some traits, ware, drugs, psi sleights, and pools allow you to ignore trauma modifiers. These effects are cumulative, though a maximum of 3 trauma worth of modifiers can be negated (–30 to actions and –3 to Initiative).

Disorientation: Each time you suffer a trauma, make an immediate WIL Check (modifiers apply). If you fail, you are temporarily stunned and disoriented by what you have experienced. You must expend a complex action to regain your wits. Additionally, if you have a disorder triggered by that type of stress, it is activated by the trauma.

Acute Stress: If you receive 2 or more traumas at once (from the same source), you must make an immediate WIL Check. If you succeed, you suffer the effects of disorientation, above. If you fail, you suffer an acute stress response.

Acute Stress Responses

The impact of multiple traumas at once can trigger an overpowering physiological reaction. The GM can apply one of the following responses, as appropriate to the situation (and with player input), or roll 1d6:

- **1–2 Fight:** You must immediately attack the source of the trauma, regardless of personal safety. Your attacks ignore trauma modifiers. You must continue to fight until the source is destroyed or you are taken out of the fight.
- **3–4 Flight:** You must flee from the source of the trauma until you reach safety (such as a good hiding spot) or exhaust yourself. If you cannot escape the threat or hide, you fight instead.
- **5–6 Detachment:** You enter a catatonic state or simply give in. You do not resist attacks against you or respond to stimuli, you check out from reality. This lasts for an hour or as long as the GM decides. If the GM allows it, others can attempt to snap you out of it with a Provoke Test at –30.

Each of these responses may be accompanied by additional symptoms: anxiety, confusion, indecisiveness, fixation, nausea, tremors, echolalia, and so on. Players are encouraged to roleplay their reactions. Additionally, any time you suffer an acute stress response, you will have difficulty remembering the details later (–30 to COG Checks to recall details), though mnemonics or similar memory augmentations may circumvent this. You will also, however, need to make a WIL Check in order to even attempt to access these memories; most survivors bury these experiences and avoid reliving them.

INSANITY RATING

Extreme amounts of built-up stress points can permanently damage your character's sanity. If accumulated stress points reach your Lucidity × 2, your character's ego undergoes a permanent meltdown. Your mind is lost, and no amount of psych help or rest will ever bring it back.

MENTAL HEALING & PSYCHOSURGERY

Stress is trickier to heal than physical damage. There are no nano-treatments or quick fix options (other than killing yourself and reverting to a non-stressed backup). The options for recuperating are simply natural healing over time or psychosurgery.

PSYCHOSURGERY CARE

The skill Medicine: Psychosurgery is used to treat characters suffering mental stress or trauma. This is a long-term process using virtual reality, involving methods such as psychoanalysis, counseling, roleplaying, relationship-building, hypnotherapy, behavioral modification, drugs, medical treatments, and neurological alterations. Muses possess this skill, though they are not as talented as professionals.

Psychosurgery is handled as a task action. Any stress must be eased before traumas can be addressed, and traumas must be healed before disorders can be treated. Because psychosurgery is an intensive and emotionally exhaustive process, it is performed in periods of no more than 1 hour per day — any more than that tends to create its own stress, which defeats the purpose. Accelerated-time simulspaces ▶268 are used, but each hour of psychotherapy past the first requires a full subjective day in the VR.

Successful psychosurgery heals 1d6 [3] stress with a timeframe of 1 hour. The timeframe for healing traumas is 8 hours, 40 for disorders; both split across 1-hour periods. Each trauma and disorder applies a –10 modifier to the test.

Even when treated, the scars from mental suffering remain. According to some opinions, disorders are never truly eradicated, they are just eased into submission … where they linger beneath the surface, waiting for new traumas to come along.

NATURAL HEALING

You can eschew psychosurgery to work out the problems in your head on your own over time. For every month that passes without accruing new stress, make an INT Check. If successful, you heal 1d6 points of stress or 1 trauma (all stress must be healed first). Disorders are more difficult to heal, requiring 3 months without stress or trauma and a successful INT Check. As a result, disorders can linger for years until resolved with actual psychosurgery.

Motivational Recovery

Successfully reaching personal goals is rewarding to your confidence, well-being, and overall mental stability. At the GM's discretion, each time you achieve a goal defined by your motivations, heal 1d6 stress. If you have no stress, remove a trauma instead. Motivational goals cannot heal disorders, but they will provide a +20 modifier to the next INT Check or Medicine: Psychosurgery Test to remove a disorder.

DISORDERS

Disorders are long-lasting psychological afflictions that typically require weeks or even months of psychotherapy and/or psychosurgery to remedy. They represent the best attempts of a damaged psyche to adapt to and deal with mental and emotional distress. Disorders are not always "active"—they remain dormant until triggered by certain conditions. While it is certainly possible to function "normally" with a disorder, it represents a severe impairment to a person's ability to maintain healthy relationships and succeed in their work/pursuits.

Gaining a Disorder: You acquire a disorder during character creation, by infection with the exsurgent virus, or by accumulating stress equal to or exceeding your Lucidity. You should work with the GM to choose a disorder appropriate to your character and circumstances.

Removing a Disorder: You can get rid of a disorder through in-game or down-time treatment ▶223 or by buying it off as a negative trait (*Lose a Negative Ego Trait* ▶239).

Triggering a Disorder: Each disorder is triggered by certain circumstances, as determined by your GM. Example triggers are given with each listing; disorders are also triggered by traumas ▶223. When a trigger condition occurs, make a WIL check; if you fail, the disorder is triggered. When activated, the disorder directly affects your actions and what you can and cannot do, as fitting the affliction. The GM may direct your character's behavior or apply modifiers as they see fit. The episode lasts for as long as your character is affected by the triggering condition. Others can assess your state or bring you out of it with successful Know: Psychology or Medicine: Psychosurgery Tests.

Alien Behavior Disorder

Triggers: Alienation, exsurgents, the unknown

This disorder primarily affects asyncs. You experience strange urges to behave in an alien fashion or to use phantom appendages or other body parts that don't map to your transhuman form.

Effect: You must make a WIL Check or be compelled to exhibit alien behavior. The compulsion examples listed on the Influence Effect tables ▶278 provide a number of possibilities.

Anxiety

Triggers: Bad news, boredom, helplessness, the unknown, violence

With general anxiety disorder, you are overcome with worry about nearly everything. Even simple tasks represent the potential for failure on a catastrophic scale and should be avoided or minimized. Negative outcomes are always assumed to be the only possibility.

Effect: You must be convinced with a Persuade or Provoke Test to do almost anything, and even then will self-sabotage or give up after a short time.

Atavism

Triggers: Alienation, mobs, violence

Atavism mainly affects uplifts. When triggered, they regress to behaviors more in line with their animalistic precursors.

Effect: You might lose the ability to speak and reason or engage in primitive animalistic behavior such as threat or dominance displays.

Attention Deficit Hyperactivity Disorder (ADHD)

Triggers: Overstimulation, sleep deprivation, the unknown, violence

ADHD is the inability to notice details and focus on any one task for an extended period. You may find yourself starting multiple tasks, beginning a new one after only a cursory attempt at the prior task. You may also have a manic edge that manifests as confidence in your ability to get a job done, even though you will quickly lose all interest in it.

Effect: –30 modifier to Perceive Tests and task actions. Task action timeframes increased 50%.

Autophagy

Triggers: Alienation, injury, violence

This anxiety disorder, characterized by self-cannibalism of the limbs, usually only occurs among neo-octopi.

Effect: You must make a successful WIL Check or begin to consume one of your limbs.

Bipolar Disorder

Triggers: Grief, helplessness, sleep deprivation, violence

With manic depression, your periods of depression are interrupted by brief (a matter of days at most) periods of mania with heightened energy and a general disregard for consequences. The depressive stages are similar in all ways to depression ▶225. When manic, you will take risks, spend wildly, and engage in behavior without forethought or consideration of long-term consequences.

Effect: Similar to depression, but when manic you must make a WIL Check to stop yourself from undertaking a risky endeavor. You will also try to convince others to go along with the idea.

Body Dysmorphia

Triggers: Alienation, helplessness, resleeving

You believe that you are irrevocably ugly or defective, making you unable to interact with others or function normally for fear of ridicule and humiliation. You are secretive and reluctant to seek help because you are afraid others will think you vain. A similar disorder, gender dysphoria, occurs when your sexual biology conflicts with your internal gender identity. Due to resleeving, both disorders are fairly common. Some asyncs have a similar species dysmorphia disorder, where they become convinced they are aliens trapped in transhuman forms; they often seek out exotic morphs and modifications.

Effect: –30 to Resleeving Stress Tests.

Cosmic Anxiety Disorder

Triggers: Alien/TITAN technology, the unknown, x-risks

This disorder arises from facing x-risks, aliens, and incomprehensibly advanced technology. It functions much like anxiety; you are helpless in the face of an uncaring and dangerous universe.

Effect: Like anxiety, but when faced with an alien or TITAN threat, make a WIL Check or either flee or collapse in panic.

Conversion Disorder

Triggers: Alienation, the unknown, violence

You suffer a neurological condition such as blindness, deafness, inability to speak, loss of balance, seizures, or paralysis in high-stress situations. Some asyncs suffer from a similar condition, alien sensory disorder, where attempts to use phantom alien sensory organs disrupt one or more of their actual physical senses.

Effect: WIL Check or suffer from one of the chosen conditions.

Depression

Triggers: Alienation, grief, helplessness, life transitions, violence

Clinical depression is characterized by intense feelings of hopelessness and worthlessness. You feel as though nothing you do matters and no one cares anyway. You find it difficult to be motivated; even simple acts such as eating and bathing seem monumental.

Effect: Make a WIL Check to take any sort of action; apply a –30 modifier to the test in the case of task actions or other sustained activity.

Disassociative Personality Disorder

Triggers: Helplessness, specific memories, the unknown, violence

A separate, distinct personality develops apart from your original personality. The personalities may or may not be aware of each other and "conscious" during the actions of the other personality, though there is some basic information sharing (such as language and core skill sets). Most subjects have only a single extra personality, but it is not unheard of to have several personalities. Each personality sees itself as a distinct person with their own wants, needs, and motivations.

Effect: The other personality must be roleplayed (perhaps by the GM or another player).

Fugue

Triggers: Helplessness, the unknown, violence

You enter a fugue state where you display little attention to external stimuli. You still function physiologically but refrain from speaking and stare off into the distance, unable to focus on events around you.

Effect: You are totally non-responsive to most stimuli. You will walk only if led by a helper. You will not even defend yourself if attacked, simply curling into a fetal position if physically assaulted.

Impulse Control Disorder

Triggers: Helplessness, impulse focus, the unknown, violence

You must engage in one specific activity that dominates your thoughts: compulsive shopping, explosive aggressiveness, kleptomania, mesh addiction, pyromania, sexual exhibitionism, etc. You feel a sense of building anxiety when prevented from engaging in this behavior for an extended period (usually several times a day to weekly, depending on the impulse) and will often engage in this behavior at inconvenient or inappropriate times.

Effect: You must make a WIL Check not to engage in the impulsive activity. If denied the activity for too long, you suffer modifiers between –10 and –30.

Insomnia

Triggers: Alienation, responsibility overload, the unknown, violence

You are unable to sleep, or unable to sleep for an extended period of time. This is most often due to anxiety or depression and the accompanying negative thought patterns. Insomniacs may find themselves nodding off at inopportune times, but never for long. As a result, they are frequently lethargic, inattentive, and irritable.

Effect: You have a near total inability to find rest in sleep when it is desired. Treat long recharges as short recharges, or do not receive any recharge benefits at all. Apply a –30 modifier to Perceive Tests and a –10 to all other actions.

Narcissistic Personality Disorder

Triggers: Criticism, insults, praise, the unknown

You believe yourself to be the single most important person in the universe. Nothing else takes precedence and everything must be done according to your whim. Failure to comply with your dictates will incite rage and physical assault.

Effect: You demand attention and suffer a –30 modifier to Persuade Tests. You may be provoked to violence if insulted or if others fail to comply with your demands (WIL Check). Narcissistic NPCs are immune to Persuade Tests.

Paramnesia

Triggers: Alienation, immersion in water/vacuum, sex, the unknown

You have trouble distinguishing between real memories and fake ones — or ones that do not belong to you. This disorder has grown more common thanks to resleeving and the potential integration of memory artifacts in a morph's brain from a previous user to a later one. Some asyncs recall memories that are not transhuman.

Effect: You recall memories that are not real or not your own, or you may be confused about who, what, or where you are. Any superior failure on a skill test will result in you confusing important details.

Paranoia

Triggers: Betrayal, conspiratorial behavior, the unknown, violence

You mistrust others. You are hypervigilant but also hypersensitive to perceived hostility and insults. You bear grudges for longer periods.

Effect: –10 to Kinesics Tests. Paranoid NPCs have a +20 bonus to SAV Checks against Persuade, but a –20 against hostile Provoke Tests while the disorder is active.

Phobia

Triggers: Helplessness, phobia focus

You have an irrational fear of a particular place, situation, or thing. Common phobias include AIs, microgravity, pandora gates, muses, robots, enclosed spaces, open spaces, and death.

Effect: Make a WIL Check to enter the proximity of the phobia's focus. If exposed to the focus, make a WIL Check or flee. Suffer –10 to –30 in the focus's presence.

Post Traumatic Stress Disorder (PTSD)

Triggers: Frustration, helplessness, pain, specific memories, the unknown, violence

PTSD results from life-threatening incidents. You develop an acute fixation on what happened, obsessively reliving the past, losing sleep, suffering anxiety and depression, and becoming easily angered or irritated. PTSD survivors will avoid painful memories and suffer extreme anxiety if forced into similar circumstances.

Effect: WIL Check to avoid responding to imagined threats based on the traumatic experience with violence. Otherwise treat as anxiety, depression, or phobia as appropriate.

Reiterative Schizophrenia

Triggers: Alienation, drug use, forking, the unknown

Not to be confused with the genetic disorder, reiterative schizophrenia has similar symptoms but develops in egos that undergo frequent resleeving, possibly due to some sort of repetitive error in the download process. Schizophrenics lose their ability to discern reality from unreality. You experience delusions, hallucinations (often in support of the delusions), and fragmented or disorganized speech. You experience your behavior as perfectly normal, to the point of becoming paranoid that others are involved in a grand deception.

Effect: You experience delusions and hallucinations as determined by the GM and are prone to conspiratorial thinking. You suffer a –20 modifier to tests that require coherent communication.

OTHER ACTION FACTORS

A wide range of factors can impact an action or combat scene; some are discussed here.

CONDITIONS

Some attacks, drugs, and psi sleights inflict specific temporary conditions on the target:

- **Blinded:** You cannot see, though you can perceive through your other senses as well as entoptics and meshed sensors. You have a 50% chance of missing your attacks (*Blind Attacks* ▶218) and suffer a –30 to all other physical actions, including Fray Tests. You must make an Athletics, Free Fall, or Pilot Test to move faster than a base move or fall prone.
- **Confused:** Your wits are scrambled. You do not comprehend communication or what is going on around you. Each turn, you may make a COG Check at –30. If you succeed, you act as normal. If you fail, roll d100: 00–24, do nothing but mutter incoherently; 25–49, act randomly as determined by the GM; 50–74, flee in a random direction; 75–99, attack a random nearby target (even potentially an ally) with weapon/item in hand. You defend with Fray as normal.
- **Dazed:** You are mentally stunned and disoriented. You cannot initiate any actions, but you can take a base move and defend against attacks.
- **Deafened:** You cannot hear. You suffer –3 to Initiative Tests and –30 to general Perceive Tests.
- **Grappled:** You are physically restrained. Your Movement Rate is 0 and you cannot take any physical actions except for opposed Melee/SOM Checks to break free. You may use Fray at –30 against attacks coming from outside the grapple. See Grappling ▶205.
- **Immobilized:** You can take no physical actions, including Fray Tests, until you recover. You can make mental/mesh actions.
- **Impaired:** Your abilities are hindered. You suffer –10, –20, or –30 to all actions, as indicated by the condition (i.e., impaired (–10)).
- **Incapacitated:** You can take no actions until you recover. This includes mental actions and Fray Tests; you cannot defend against attacks.
- **Prone:** You are knocked on the ground in gravity or spinning helplessly in microgravity. You must take a quick action to stand up or re-orient, and your Movement Rate for that turn is reduced by half. A standing/oriented opponent has superior position (+20) against you in melee. In gravity, however, anyone shooting at you from range or farther receives an additional –10 modifier.
- **Stunned:** You have the wind knocked out of you. You suffer –30 to all physical actions and –10 to mental actions.
- **Unconscious:** You have lost consciousness (or your software mind-state has crashed) and are helpless. You can be awoken/rebooted by application of a stimulant (biomorphs only) or with an INT Check at –30 if someone vigorously disturbs you and your damage points do not exceed your Durability.

FULL DEFENSE

If you're expecting to come under attack, you can take a complex action to go on full defense. You expend your energy to dodge, duck, ward off attacks, and otherwise get the hell out of the way until your next initiative action. During this time, you receive a +30 Fray modifier to defend against all incoming attacks.

You can use Athletics rather than Fray skill to dodge attacks with full defense, representing the gymnastic movements and other maneuvers you make to avoid being hit.

PERCEPTION

The default mode of observation for characters is called *basic perception*. This is general awareness of the things around you as you go about whatever you are doing. It is an automatic action, but your Perceive Tests suffer a –20 distraction modifier.

Use *detailed perception* to focus your attention on a specific person, thing, or area. This takes a quick action but imposes no modifiers. Use this when alert for ambushes, searching for clues, or assessing a situation.

Thorough investigation involves careful, active application of your senses on a specific person, thing or area. This is a task action, with a timeframe set by the GM. Examining an alien artifact may have a timeframe of 1 minute, whereas methodically searching a room could take an hour.

In certain circumstances, only specific senses — and associated modifiers — may apply. Enhanced smell, for example, is unlikely to help you detect an assassin hiding in ambush, but it could certainly help you locate an alien animal's pungent den.

SIZES

Not everyone or everything is built the same. Most morphs are medium-sized, the default size assumed for rules purposes. Apply the following rules for morphs, shells, creatures, and gear of other sizes:

Very Small Size

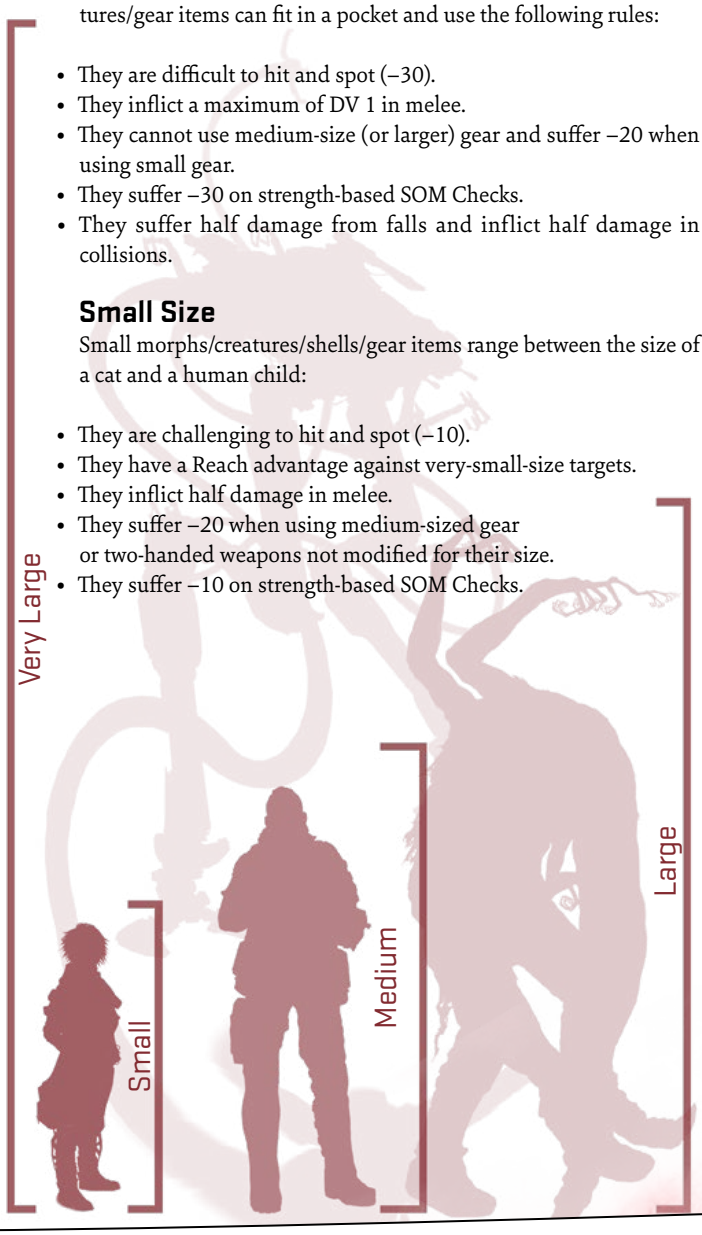
No morphs exist at this size; there is not enough room for a (cyber) brain (unless distributed like a swarmanoid). Very small bots/creatures/gear items can fit in a pocket and use the following rules:

- They are difficult to hit and spot (–30).
- They inflict a maximum of DV 1 in melee.
- They cannot use medium-size (or larger) gear and suffer –20 when using small gear.
- They suffer –30 on strength-based SOM Checks.
- They suffer half damage from falls and inflict half damage in collisions.

Small Size

Small morphs/creatures/shells/gear items range between the size of a cat and a human child:

- They are challenging to hit and spot (–10).
- They have a Reach advantage against very-small-size targets.
- They inflict half damage in melee.
- They suffer –20 when using medium-sized gear or two-handed weapons not modified for their size.
- They suffer –10 on strength-based SOM Checks.



Large Size

Large morphs/creatures/shells/gear items outsize normal transhumans, ranging between the size of a small car to a neo-orca. They often have trouble finding gear manufactured for their size and may have difficulty navigating the confines of cramped habitats:

- They are easier to hit and spot (+10).
- They have a Reach advantage against medium-sized targets; double this against small sizes and triple against very small sizes.
- They inflict +1d10 DV in melee and can wield two-handed weapons in one hand.
- They suffer –20 when using non-integrated very small/small-sized gear not modified for their size, unless they possess fine manipulators.
- They receive a +10 modifier to strength-based SOM Checks.
- Due to their mass, they suffer double damage from falls and inflict double damage in collisions.

Very Large Size

Very large morphs/creatures/shells are bigger than many vehicles, ranging from limousine to barn-sized. Very little gear is made to fit their size and they do not fit within many habitats.

- They are easier to hit and spot (+30).
- They have a Reach advantage against large-sized targets; double this against medium sizes and triple against small and very small sizes.
- They inflict +2d10 DV in melee and can wield two-handed weapons in one hand.
- They suffer –20 when using large-sized gear not modified for their size and cannot use non-integrated small-sized gear, unless they possess fine manipulators.
- They receive a +30 modifier to strength-based SOM Checks.
- Due to their mass, they suffer triple damage from falls and inflict triple damage in collisions.

SURPRISE

You can get the drop on an opponent by sneaking up on them, lying in wait, or sniping from a hard-to-perceive position in the distance. Any time you attempt to surprise, make an opposed test between your Infiltration skill and the target's Perceive. Unless the target is alert for surprises, they incur the typical –20 modifier for being distracted. Apply other modifiers appropriate to the attacker's position, distance, visibility, cover, etc. For groups of NPCs, use the highest skill among the characters.

If the target loses, they are surprised by the attack and cannot react to or defend against it. Each successful ambusher receives one free initiative action; they cannot spend Vigor for additional actions. Once the attackers have taken their actions, roll Initiative as normal.

If the target wins, they are alerted to something a split-second before they are ambushed, giving them a chance to react. In this case, roll Initiative as normal, but the ambushed character suffers a –3 modifier to the Initiative Test. The ambushed character can still act and defend as normal.

In a multi-combatant situation, some characters may be surprised while others aren't. Roll Initiative as normal, with all non-ambushers suffering the –3 modifier. No one can use Vigor during this first surprise turn for extra actions. Surprised characters are unable to act or defend during this first action turn, however, as they are caught off-guard and must take a moment to assess what's going on and get caught up.

SOCIAL ACTIONS

It's important not to forget the social element in action scenes.

SOCIAL MANIPULATION

Just as Provoke skill can be used for social attacks ▶next column, the skills of Deceive, Kinesics, Persuade, and Provoke (*Skills* ▶48) can be used for myriad purposes, whether you are talking your way out of a tight spot, wringing information out of a suspect, or determining if someone is setting you up.

Almost all social skills are handled as opposed tests, as noted in the skill descriptions. There are several factors that might provide modifiers to these tests:

NPC Attitude: An NPC's attitude towards a character should be rated on a scale from supportive to indifferent to hostile, each applying an appropriate modifier to social skill tests, as noted on the Social Modifiers table. Note that PCs can use Deceive, Persuade, or Provoke specifically to change these attitudes; a successful test raises or lowers the attitude one step, plus one per superior success. Failed social skill tests will worsen an NPC's attitude by one step, plus one step per superior failure. Note that attitude has no effect on Kinesics Tests.

Request: The nature of the request and its repercussions to the NPC — or anyone they care about — should be taken into account. Antagonistic or hostile NPCs will not willingly help out; they can be manipulated towards a better attitude first or simply intimidated. Cooperative and supportive NPCs will fulfill simple/beneficial requests without needing a test.

Other Factors: Deceive Tests are impacted by believable stories, far-fetched circumstances, convincing proof, or unlikely circumstances. Persuade Tests are boosted by bribes and reciprocal exchanges or hindered by unfavorable timing. Use of Provoke skill to interrogate is aided by physical size and threats, while seduction is impacted by style and thoughtfulness. Kinesics Tests benefit from experience with the target or familiarity with their background through research. For all of these situations, also take the player's specific words into account — a player who presents an eloquent argument for their PC's Persuade Test, for example, should receive an appropriate modifier.

Gathering Information

In some circumstances, old fashioned legwork is the best method for digging up intel. If you use your social skills to canvass a neighborhood, chat up the locals, or carouse with the intent of picking up gossip, handle it as a task action with a timeframe set by the GM (usually 1d6 ÷ 2 hours). The skill used depends on the approach you take: use Deceive to pass yourself off as someone else, Persuade to carefully interview, Provoke to incite real talk, or even Kinesics to simply sit back, scan the crowd, and watch relationships and interactions. The GM applies modifiers appropriate to the situation and determines what information is available (if any). Moxie can be used to automatically acquire a clue without a test, but you must still put in the effort.

Social Stigma and Status

Though progressive cultural ideas continue to gain ground, transhumanity has not yet eradicated social inequalities and prejudices. It is an unfortunate fact that many social stigmas still exist — and these may have a direct impact on your social skill tests. Depending on who you are dealing with, your social status may provide positive or negative modifiers, ranging from +/–10 to +/–30. The most common prevalent stigmas (especially in the inner system) are towards the clanking masses, AGIs, uplifts, and pod morphs.

Social Modifiers

Situation	Modifier
NPC Attitude	
Hostile	–30
Antagonistic	–20
Unfriendly	–10
Indifferent	+0
Friendly	+10
Cooperative	+20
Supportive	+30
Request	
Simple/Short	+10
Complex/Long	–10
Beneficial to NPC	+30
Dangerous to NPC	–30
Appeal to/Violate NPC's Motivation	+/–10 to +/–30
Social Stigma/Status	+/–10 to +/–30
High Rep (60+) in Favored Network	+10

Factions with polar opposite ideologies may also view each other critically: anarchists/scum vs. hyperelites, bioconservatives vs. heavily modified transhumans, brinkers vs. socialites. In an opposite vein, members of marginalized communities may favorably view allies or those of the same background, and almost anyone will take note of someone with a high rep score in their faction.

Using Motivations

Whether negotiating or picking fights, it is helpful to know what drives the person you are dealing with. With a lengthy conversation and a successful Persuade Test (opposed by SAV Check), you may be able to ascertain one of an NPC's motivations (GM discretion). If you are able to weaponize this knowledge against the NPC with an appeal or insult to their interests, the GM may apply a modifier to your social skill test. Similarly, you may unknowingly touch upon an NPC's motivations when dealing with them, thus acquiring a modifier depending on whether you support/encourage their interests or conflict with them.

SOCIAL ATTACKS

Provoke skill can be used in a number of offensive ways during action scenes. The following examples show what you can accomplish with a successful opposed test, pitting your Provoke skill against their WIL Check. As always, the GM arbitrates what modifiers apply and the final results of such provocations.

- **Calm:** You temporarily soothe an opponent into pausing hostilities.
- **Fluster:** You discombobulate or confuse an opponent; they suffer –10 to their next action. Increase this by an additional –10 per superior success.
- **Inspire:** You rally an NPC on your side, motivating them towards victory; they receive +10 to their next action.
- **Intimidate:** You scare an opponent into pausing their next attack, attacking someone else, taking cover, or running away.
- **Taunt:** You rile up an opponent, forcing them to focus on you and attack you with their next action.

STRESSFUL SITUATIONS

The universe of *Eclipse Phase* is ripe with experiences that will rattle your sanity. Some are as mundane and human as extreme violence, extended isolation, or helplessness. Others are less common, but even more terrifying: encountering alien species, infection by the exsurgent virus, or facing down an extinction threat.

WILLPOWER STRESS TESTS

Whenever you encounter a situation that might impact your ego's psyche, make a WIL Check. Some incidents are so horrific that a modifier is applied. If you fail, the experience scars your mental landscape and you suffer stress damage (and possibly trauma) as appropriate to the situation. If you succeed, you cope with the unnerving situation, but it may still rattle and shake you.

A list of stress-inducing scenarios and suggested SVs are listed on the *Stressful Experiences* table. The GM should use these as a guideline, modifying them as appropriate to the situation at hand.

HARDENING

The more you are exposed to horrible or terrifying things, the less scary they become. After repeated exposure, you become hardened to such things, able to shake them off without effect.

Every time you suffer a trauma due to stress from alienation, helplessness, or violence (*Stress Categories* ▶222), take note. If you survive such a traumatic situation 5 times without acquiring a disorder, you become effectively immune to that type of stress in the future. You acquired the Hardening trait ▶74 for that type of stress. You can never become hardened to stress from the unknown. You also cannot become hardened to stress if you currently have a disorder triggered by that type of stress.

The drawback to hardening yourself is that you grow detached and callous. In order to protect yourself, you cut off your emotions — but it is such emotions that make you transhuman. You have erected mental walls that affect your empathy and ability to relate to others. Each Hardening trait means you suffer –10 to both WIL Checks and Persuade Tests.

Psychosurgery can be used to overcome hardening, in the same way a disorder is treated.

Amaru is targeted by a rival cartel that wants info on Nine Lives. They drug and capture him. He wakes up to find himself a prisoner. The GM rules that this calls for a Stress Test against helplessness. Amaru's WIL Check is 45. He rolls an 02 and succeeds. He's been in tougher situations than this.

Things get worse for Amaru when the cartel thugs start roughing him up for information. After the GM checks with the players that everyone is OK with playing through the scene (*Transhuman Themes* ▶364), Amaru successfully holds out on giving them any useful intel. The GM rules that this calls for another Stress Test against SV 1d6 +2/half. Amaru rolls a 95 against his WIL Check of 45: a failure. The GM rolls a d6, getting a 4, so Amaru takes 6 stress (even if he had made his WIL Check roll, he would have received 3 stress).

Amaru's Trauma Threshold is 6, so he suffers a trauma from the experience. This applies a –10 modifier to all tests, and he must make another WIL Check versus disorientation (*Trauma Effects* ▶223). If Amaru survives the experience without acquiring a disorder, he will be one step closer towards being hardened to stress from helplessness.

Stressful Experiences

Alienation	SV
Resleeving alienation/continuity loss/lack	1d6
Extensive lack	1d10/1
Encountering inexplicably lost memories	1d6
Extended isolation (per week)	1d6 + 2/half
Exsurgent virus infection	Varies ▶388
Unwillingly controlled via puppet sock	1d10/half
Mind-controlled	1d10 + 2/half
Forced to act opposite to Motivation	1d6
Helplessness	**SV**
Asphyxiation ▶234	1d6
Set on fire	1d6
Awareness of imminent death	1d10/1
Betrayal by a trusted friend	1d6
Cyberbrain hacked	1d6
Drugged against your will	1d6 – 1
Losing a loved one	1d6
Watching a loved one die	1d10
Being responsible for the death of a loved one	1d10 + 1/1
Suffering moderate torture	1d6 + 2/half
Suffering severe torture	1d10 + 2/half
The Unknown	**SV**
Encountering unusual non-sapient alien life	1d6 – 2
Encountering sapient alien life	1d10/1
Encountering highly advanced technology	1d6 – 1
Pandora gate in operation	1d6 – 2
Encountering exsurgent-infected transhumans	1d6
Encountering full exsurgents	1d10/1
Witnessing async sleights	1d6 – 2
Witnessing psi-epsilon sleights	1d10/half
Violence	**SV**
Encountering a gruesome corpse or murder scene	1d6 – 1
Viewing extreme violence/torture	1d6
Committing violence in self-defense	1d6 – 1
Killing in self-defense	1d6 + 1
Committing offensive violence	1d6
Murdering in cold blood	1d10/1
Harming an innocent	1d6 + 2/1
Killing an innocent	1d10 + 2/half
Experiencing death via XP	1d10
Popping a cortical stack	1d6
Remember your death	1d10/1

MOVEMENT

Movement in *Eclipse Phase* is handled like other types of actions. The more complex the movement, the more effort it requires.

MOVEMENT RATE

It may be important to know not just how you're moving, but how far. Every morph, shell, and creature lists a Movement Rate; this applies to whatever inherent form of locomotion it is capable of: walking, slithering, crawling, rolling, hovering, gliding, flying, vectored thrust, etc. Movement Rates list two numbers: your *base move* and *full move,* respectively, in meters per action turn. Most humanoid morphs, for example, have a Movement Rate of 4/20.

MOVEMENT ACTIONS

Each action turn, you can take one type of movement action (with the exceptions of jumping and standing up, which may be combined with others) or choose to stay put. The movement action you take may inflict modifiers on your physical actions, so you must declare it at the beginning of your initiative. You cannot act and then decide to move, for example, as you will have bypassed applicable modifiers. You can split the distance you move into smaller parts and intersperse them with other actions you take during the turn (i.e., you can move partway, attack, and then move the rest). Extra actions in a turn do not allow you to cover more distance, but you can cover any of the remaining distance you are allowed in that turn with those actions.

Base Move [Automatic]

Base moves represent leisurely, unhurried motions analogous to casual walking. This is the maximum distance you can move in a single action turn without incurring a modifier.

Full Move [Automatic]

Full moves are akin to running or moving with effort and speed. This is the maximum distance you can move in meters in a single action turn without rushing (see below). Full moves impede your aim and other physical tasks requiring coordination: apply a –20 modifier as appropriate.

Rushing [Complex]

Rushing is going all-out to move as far as possible. It requires a complex action and an Athletics, Free Fall, or Pilot roll as appropriate. If you succeed, increase your full move rate by your base move. For example, if your morph's Movement Rate is 4/20, you rush 24 meters. Increase this by an additional base move amount for each superior success. If you fail, you spend a complex action and simply full move. Rushing applies the same –20 modifier as full moves.

Jumping [Quick]

You can jump once a turn with a quick action while also making another movement action. You can cross 2 meters with a horizontal standing jump, 6 meters with a running jump. Vertical jumping height is 1 meter. These distances are halved for small-size morphs and increased by half for large-size morphs.

If rushing, you can make an Athletics, Free Fall, or Pilot roll (as appropriate) to cross more distance with your jump. If successful, you cross an additional meter (running jump), 0.5 meters (standing jump), or 0.25 meters (vertical jump), plus an equal additional amount per superior success.

Standing Up [Quick]

If you are prone, you can stand up with a quick action and take another movement action in the same action turn. However, your Movement Rate is reduced by half for that turn (i.e., 4/20 becomes 2/10); jumping distance is also halved.

Non-Standard Movement [Complex]

To climb, swim, belly-crawl, or otherwise move in a way that isn't your morph's typical method for getting around, take a complex action and move a distance equal to your base move. Certain ware, such as grip pads when climbing, may increase this to your full move. Note that some types of movement are simply impossible for certain morphs, depending on their design; most human morphs, for example, fly with the grace of bricks.

Difficult Movement [Task]

Some movement is far more challenging: climbing a sheer wall, sneaking quietly, swimming against strong currents, traversing a thin beam over a chasm, or navigating a maze of live wires in micrograv. Handle any movement that requires a test as a task action ▶32 with a timeframe set by the GM. As a general rule, the timeframe should be double or more the time it would take the character to cross an equal distance by normal means.

Movement in Different Gravities

The listed Movement Rates assume standard Earth gravity (1 g). If you're moving in a low-gravity, microgravity, or high-gravity environment (*Gravity* ▶235), things change.

If you are climbing, pulling, or pushing yourself along in micrograv, you move at half your walker Movement Rate (i.e., 4/20 becomes 2/10). You can also jump any distance, though you cross at a rate equal to your movement action when you launched.

In low gravity (0.5 g and less), it is harder for walkers to push against the ground, and you may need to switch from a pendulum gait to a bouncing gait, so your full move decreases by half (i.e., 20 becomes 10). You can, however, jump twice as far.

The various effects of high gravity (1.2 g and more) on walker movement balance out, meaning walker Movement Rate remains unchanged. Moving is more tiring, however; the GM may call for SOM Checks to avoid impairment modifiers from fatigue.

It is beyond the scope of this book to assess the impact of different gravities on all of the movement types. GMs should use their best judgment when applying modifiers.

MOVEMENT TYPES

The rules above are biased towards humanoid morphs, but there are many morphs, shells, and creatures with different body plans and/or other mobility systems. Synthmorphs can add mobilty systems as ware ▶324. The movement types below list the skill used to maneuver and a default Movement Rate, though GMs should adjust this as appropriate to account for size, bulk, extra limbs, etc.

To keep the movement rates simple for GMs handling action scenes abstractly, we have mapped each movement type to a speed range: very slow (2/8), slow (4/12), medium (4/20), fast (8/32), and very fast (8/40). Many shells are capable of even faster movement; this is discussed under *Vehicle Movement* ▶232.

Boat **[Pilot: Nautical • Fast 8/32]**

Boats use sails, propellers, paddles, or similar systems to generate thrust to move across a liquid surface.

Hopper **[Athletics • Slow 4/12]**

Hoppers use two or more legs to propel the morph forward or up, like a frog or grasshopper. Double their jumping distance, but they get no jump distance benefit from rushing.

Hover **[Pilot: Ground • Fast 8/32]**

Hovercraft impellers blast high-pressure air to repel off the surface below. Most hover a meter or so above the ground, but can temporarily levitate themselves higher. In microgravity, impellers function as a one-directional thrust vector (use Pilot: Air). They do not function in vacuum unless equipped with an air supply.

Ionic **[Pilot: Air • Very Fast 8/40]**

Ionic shells use magnetohydrodynamics to levitate and fly, ionizing surrounding air into plasma to create lift and momentum while spinning for stability. This system does not work in vacuum, but an underwater version uses the same mechanics for propulsion in liquid environments (use Pilot: Nautical).

Microlight **[Pilot: Air • Fast 8/32]**

This category encompasses all ultralight or lighter-than-air systems, such as powered paragliders, autogyros, balloons, aerostats, and blimps. Though they are popular in low-gravity habitats, these systems do not work in vacuum.

Roller **[Athletics • Very Fast 8/40]**

Rolling like a ball is an option for spherical shells, those that can adjust their shape into a sphere or circle, and limbed shells capable of a fast cartwheeling rotation. The shell rolls around an interior axle, propelled by a motor-driven pendulum. Most can unfold or extend limbs/lifts to clear stairs or other obstacles or to crawl along surfaces in micrograv.

Rotor **[Pilot: Air • Fast 8/32]**

Rotating blades create lift, allowing the shell to move and hover like a helicopter. Most models use tilt-rotors or tilt-wings so that the rotorblades can be moved forward (for faster propeller-like propulsion) and for better maneuverability in zero g. Rotor systems do not work in vacuum.

Snake **[Athletics • Slow 4/12]**

Slitheroids and similar shells use lateral undulation, flexing their body from left to right and waving their frame forward. Such shells can also use sidewinding or a concertina motion (straightening forward, then retracting the rear) to move.

Submarine **[Pilot: Nautical • Fast 8/32]**

Designed for undersea mobility, submarine shells use propellers or pumpjets to push through water.

Swimmer **[Athletics • Medium 4/20]**

Swimmers use fins, limbs, or waterjets to propel themselves through water or similar liquids.

Thrust Vector **[Pilot: Air • Very Fast 8/40]**

These shells use either turbofans or turbojets to create atmospheric lift, often with a set of wings. The engines can be maneuvered to point and generate thrust in different directions for vertical take-offs/landings and better maneuverability in zero g. Turbojets (but not turbofans) will work in vacuum if equipped with an air supply. Rocket systems that use chemical reactions to eject reaction mass for thrust also fall in this category (use Pilot: Space).

Tracked **[Pilot: Ground • Slow 4/12]**

Tracked shells use smart rotating treads to work their way across surfaces that would bog down other ground vehicles. They can prop themselves up in order to overcome taller obstacles or to lay themselves down to bridge across a ditch or crevice.

Walker **[Athletics • Medium 4/20]**

Walkers use two or more limbs to walk or crawl across a surface. Many use grip pads or magnetic systems to stick to surfaces.

Wheeled **[Pilot: Ground • Very Fast 8/40]**

Most wheeled shells feature smart spokes that allow the wheels to conform their shape to obstacles and even climb stairs. Some low-grav shells feature puncture-resistant and self-repairing compressed-gas tires.

Winged **[Athletics • Fast 8/32]**

Winged morphs and shells use limbs that produce lift when moving through air (they do not function in vacuum). Systems with multiple independently controlled wings can hover or move rapidly in any direction. Fixed-wing propeller-driven planes use Pilot: Air instead.

VEHICLE MOVEMENT

The *Movement Rate rules* ▶230 apply to tactical combat and interactions between characters, bots, and other entities. Most shells, however, have mobility systems that allow for much greater speeds. The following rules apply to these situations.

CONTROL

Moving at vehicle speeds in a controlled manner requires a quick action every action turn to maintain. You may choose not to take this action and still maintain velocity or coast, but you cannot make Fray Tests that turn and suffer a –30 modifier to any Athletics, Free Fall, or Pilot Tests that are called for that turn.

CHASES

Chases are handled as opposed tests, applying appropriate modifiers for terrain, weather, navigation, pedestrians, traffic, and other environmental conditions. For narrative purposes, we recommend breaking a chase down into several segments, each with their own maneuvering choices and tests, enabling the pursuer and pursued to gain or eliminate temporary advantages over each other.

CRASHES

Not every failed Athletics or Pilot roll should result in a crash. In most cases, it simply means you failed to accomplish what you were trying to do. You take the wrong route, get lost, realize you don't have enough speed to make the jump and turn away, don't make a sharp turn in time and simply pass by, or simply skid to a stop. Superior failures mean the outcome is worse, potentially putting you at a disadvantage. Critical failures, however, should result in a crash, breakdown, or similar negative effect. Of course, the GM may put you in a situation where a failure to make a roll results in a crash, period.

Collisions

A crash may result in damage to the shell (and any occupants). Likewise, if a shell crashes into or intentionally rams a person or object, someone is likely to get hurt. The Collisions table indicates the DV inflicted. If the shell strikes something equally dense and hard, both take damage. If the shell strikes something soft and squishy, like a biomorph, the shell only takes half damage. Kinetic armor protects against crash damage.

If two moving shells collide head-on, calculate the damage from both and inflict to both. If two shells moving in the same direction collide, only count the difference in velocity.

Passengers in a shell may also be damaged by collisions if they are not wearing proper safety restraints. They suffer one half the DV applied to their shell (less their own kinetic armor).

Collisions

Base DV: 1d10 + (DUR ÷ 10)

Shell Speed	DV
Up to Base Move	Base DV
Above Base Move	Base DV × (velocity ÷ 10 in meters per turn)

ATTACKING PASSENGERS

You can target passengers within a shell separately from the vehicle itself. If targeting through an unarmored window or open space, the attack does not damage the shell (unless an area effect weapon is used), but the passenger may benefit from cover (–10 to –30). If targeting through the shell, cover modifiers apply, the passenger adds the shell's armor to their own, and the shell itself takes half damage (unless the attack is area effect).

OBJECTS & STRUCTURES

Inanimate objects have their own Destruction Rating, Wound Threshold, and Armor Value scores, just like characters. Destruction Rating measures how much damage the item or structure can take before it is destroyed.

GMs should exercise their judgment when determining the effects of wounds on objects. Wounded mechanical devices and electronics may function less effectively and inflict a negative modifier on skill tests (a cumulative –10 per wound). Particularly sensitive electronics may cease functioning after one wound. Simpler objects and structures reflect wounds as large holes (roughly 0.5 meters diameter), partial demolition, or impaired function.

For large objects/structures, treat individual components as separate entities when inflicting damage.

RANGED ATTACKS

Ranged kinetic attacks such as bullets tend to inflict only minor damage on large structures such as doors, walls, etc., as the projectiles simply pass through. Reduce their damage after armor is applied by half. Area-effect weapons inflicting kinetic damage — such as frag grenades — affect structures normally.

Likewise, beam and energy weapons do full damage against objects and structures and may even set flammable materials on fire. Agonizers and stunners have no effect on objects and structures, however, unless fired at the same spot for a very long time.

SHOOTING THROUGH AN OBJECT

Attacks made through an item or structure at a target on the other side suffer cover, blind fire, or indirect fire modifiers, depending on whether you can see part of the target, can't see them at all, or are using a spotter. Additionally, the target receives an armor bonus equal to the object/structure's Armor Value. The object/structure itself is also damaged by the attack, as indicated above. Note that agonizers and stunners are not penetrating enough to fire through objects.

MAKING OBJECTS

Creating an item from scratch is handled as a task action with a timeframe determined by the GM. The timeframe should be set according to the complexity of the object and could range from an hour (constructing a set of shelves) to days (assembling a robot from spare parts) or even months (building a house). Numerous factors may apply modifiers to the test, such as the use of entoptic blueprints/help manuals (+10) or poor working conditions (–10 to –30). Tools are also a factor, perhaps making the job easier (superior tools +10 to +30), more difficult (poor or inadequate tools, –10 to –30), or even impossible (lack of required tools).

For rules on nanofabricating objects, see *Acquiring Gear* ▶312.

REPAIRING OBJECTS

Damaged items can be repaired, see *Synthmorph/Object Repair* ▶221.

MODIFYING OBJECTS

Altering an object's design and function follows the same basic rules as build and repair, above. The timeframe is determined by the GM as appropriate to the modification.

FUTURE MATERIALS

A quick primer to common futuristic materials:

Aerogel: "Frozen smoke" is made by replacing the liquid in a gel or foam with a gas. The result is a low-density, lightweight, semi-transparent solid with a styrofoam feel, made from a number of chemical compounds. It is used for windows and as an insulator in habitats, particularly aerostats, and to capture space dust on spacecraft hulls. Can be combined with reinforcing fibers to make light, flexible blankets.

Amorphous Metals: Also known as metallic glass, amorphous metals are metal alloys with a disordered (rather than crystalline) atomic structure, making it tougher, less brittle, and more resistant to wear and corrosion. They soften and flow when heated, and so can be injection-molded. They are used for armor, implants, robotic frames, and harsh environments.

Artificial Spider Silk: Created by bioengineered bacteria, these fibers have fantastic tensile strength and extensibility. They are used for armor clothing, bandages, biodegradable goods, and other wear-resistant weaves.

Diamond: Lightweight and super-strong, artificial diamond has an extremely high melting point and near-perfect thermal conductivity. This makes it an ideal substance for hardening coated surfaces (armor) and creating super-tough diamond machinery. It is also used in optics and as a superconductor in electronics.

Fullerenes: Fullerenes are molecular carbon structures (tubes, spheres, and other shapes) that are extremely strong (vastly stronger by weight than steel), heat-resistant, and either insulative or superconductive. They are used for armor, electronics, sensor systems, medical systems, and the cables of space elevators.

Metallic Foam: Metal foam is created by adding foaming agents to liquid metals, resulting in extremely lightweight metallic structures — light enough to float on water. They are ideal prosthetics, habitat construction, floating cities, and stiffening or reinforcing structures without adding mass.

Metamaterials: Due to their structure, metamaterials interact with electromagnetic waves or sound in unusual ways, such as having a negative refractive index. Metamaterials are used for antennas, sensors and optics, radar- or sound-absorbent designs, invisibility cloaks, superlenses, and ultra-realistic holographic projectors.

Refractory Metals: These metallic alloys have extremely high melting points, making them ideal for high-temperature engine systems, atmospheric entry vehicles, Venusian habitats and bots, and hypersonic craft.

Smart Materials: Gear made from smart materials incorporates nanomachines that can alter the object's shape, color, and texture. For example, smart clothing can transform from specialized cold weather clothing suitable for the Martian poles in winter to a fashionable suit in the latest style. Similarly, a smart material tool can switch from a powered screwdriver to a wrench or a hammer, as the nanomachines reshape the tool. Reshaping takes 1d6 minutes.

Transparent Alumina: This harder-than-steel ceramic, also known as sapphire, is used for scratch-resistant surfacing and transparent armor needs. Zero-g casting techniques enable intriguing transparent construction designs, so long as its poor tensile strength is respected.

Sample Objects and Structures

Object/Structure/Material	Armor (E/K)	Destruction Rating	Wound Threshold
Airlock Door (Standard, 2 person)	25/15	150	15
Airlock Door (Service, 10 person)	25/20	300	30
Electronics Console	6/4	80	8
Cortical Stacks	20/20	40	
Dome, Inflated (Spiderweave, 3 × 3 m)	10/20	60	6
Dome, Structural (3 × 3 m)	30/40	100	10
Door (Metallic Foam)	25/20	100	10
Door (Polymer)	4/8	60	6
Furniture (Polymer)	4/6	50	5
Hull, Aerostat/Light (Metallic Foam)	70/50+	500+	50+
Hull, Standard (Advanced Composites)	80/60+	750+	75+
Hull, Heavy (Reinforced)	100/100+	1,500+	150+
Tree	6/8+	80+	8+
Wall (Aerogel, 3 × 3 m)	10/5	150	15
Wall (Concrete, 3 × 3 m)	6/10	200	20
Wall (Metal Alloys, 3 × 3 m)	25/15	300	30
Wall, Reinforced (Metal Alloys, 3 × 3 m)	40/30	500	50
Window (Aerogel, 1 × 3 m)	7/5	50	5
Window (Transparent Aluminum, 1 × 3 m)	10/15	100	10

ENVIRONMENTAL FACTORS

Transhumans have adapted to many environments, but there are many risks that must be accounted for.

ASPHYXIATION

The average transhuman can hold their breath for two minutes before blacking out. Strenuous activity reduces this amount of time (GM discretion). For every 30 seconds after the first minute your biomorph is prevented from breathing, you must make a SOM Check. Apply a cumulative –10 modifier each time you roll. If you fail, you immediately fall unconscious, are treated as if you have taken temporary damage equal to your Durability, and suffer 10 temporary DV per minute until you reach your Death Rating and die or manage to breathe again. This temporary damage does not cause wounds. Once revived, the temporary damage is removed, but you need 1 minute of recovery before you can act.

Asphyxiation is a terrifying process, often leading to panic. Asphyxiating characters must make a WIL Check every 30 seconds. If you fail, you suffer SV 1d6 and cannot perform any effective action to rescue yourself that action turn; you can make an additional WIL Check every turn to recover your wits. Even if you succeed, however, you must make a WIL Check to perform any other action not directly related to rescuing yourself (attacking anything holding you underwater is exempt from this rule).

DECOMPRESSION

Habitats and ships sometimes lose air pressure due to damage to their hulls from combat, explosions, space debris collisions, or micrometeor strikes. Most transhumans will quickly recognize the signs of rapid decompression; biomorphs that fail to acquire a supply of air in time may suffer from asphyxiation ▶above.

Explosive decompression occurs when the air pressure suddenly vents all at once and drops to nothing. If you are in the vicinity of a blowout and not tied down, make a REF Check to grab something to hold on to in time to avoid being blasted into space (*Vacuum* ▶237). Even if you succeed, you must continue to make a SOM Check each action turn to hold on until the atmosphere entirely drains. You may also need to make a Fray Test to avoid being struck by debris or other people as they are sucked out (DV 1d10+, depending on local clutter conditions).

FALLING

If gravity pulls you towards an unwelcome collision, use the Falling Damage table to determine the result. Kinetic armor mitigates this damage at half its value. GMs may also reduce this damage if anything helped to break the fall (branches, soft surface) at their discretion. Double the distance categories for low gravity; halve them for high gravity.

Falling Damage

Distance Fallen	Damage Value
1–2 meters	1d10
3–5 meters	2d10
6–8 meters	3d10
Over 8 meters	+1 per meter

FIRE

Objects that come into contact with extreme heat or flames may catch fire at the GM's discretion, keeping in mind both the flammability of the material and the strength of the heat/flames. Burning items or characters suffer DV 1d6 each action turn. Energy armor protects against this damage, though it too may catch fire, reducing its value by the damage inflicted. Depending on environmental conditions, fires are likely to grow larger unless somehow abated. Every 5 action turns, increase the DV inflicted (first to 1d10, then 2d10, then 3d10, then by increments of +5). Adverse conditions (such as rain) or efforts to extinguish the blaze will reduce the DV accordingly.

Note that fire does not burn in vacuum. In microgravity, fire burns in a sphere and grows more slowly, as expanding gases push away the oxygen (increase the DV every 10 action turns). If there is a lack of air circulation, some microgravity fires may extinguish themselves.

GRAVITY

Most characters in *Eclipse Phase* have considerable experience maneuvering in low gravity or microgravity and can perform normal actions without penalties. Even characters who grew up on planetary bodies or in rotating habitats have some familiarity thanks to childhood training in simulspace educational scenarios. The same is also true in reverse; characters who grew up in free fall have likely experienced life in a gravity well or simulations of it.

At the GM's discretion, characters who have spent long periods acclimating to one range of gravity may find a shift in conditions challenging to cope with, at least until they acclimate; apply a –10 modifier to both physical and social skills. The physical penalty results from simple difficulties in maneuvering. The social penalty applies because it's hard to look impressive, intimidating, or seductive when you haven't figured out how to arrange your clothes so that they don't float up into your face. Increase the penalty to –20 for situations involving combat or fine manipulation. Acclimation typically takes about 3 days.

Any biomorph with biomods ▶316 is immune to the ill health effects of long-term exposure to microgravity.

Microgravity

Microgravity includes both zero g and gravities that are slightly higher but negligible. These conditions are found in space, on asteroids and some small moons, and on (parts of) spaceships and habitats that are not rotated for simulated gravity. Objects in microgravity are effectively weightless, but size and mass are still factors.

Things behave differently in microgravity:

- Objects not anchored will drift in whatever direction they were last moving. Floating objects will eventually settle in the direction of the densest part of the habitat or spacecraft.
- Thrown or pushed items will travel in a straight line until they hit something.
- Smoke does not rise in streams. Instead, it forms a roughly spherical halo around its source.
- Liquids scatter into clouds of droplets if released into the air. Surface tension may hold some liquids into large floating balls depending on how they are dispersed. Drinks come in sealed bulbs or bottles. Food is eaten so that sauces and bits of liquid don't escape. Blood goes *everywhere*.

Movement and maneuvering in microgravity is handled using the Free Fall skill ▶49 for most morphs; others might fly using Athletics, Pilot: Air, Pilot: Space, depending on how they move. Most everyday activity in free fall does not require a test. The GM can, however, call for a Free Fall Test for any complicated maneuvers, flying across major distances, sudden changes in direction or velocity, or when engaged in melee combat. A failed roll means you miscalculate and end up in a position other than intended. A superior or critical failure means you screwed up badly, slamming into a wall or spinning off into space.

Most microgravity habitats are equipped with elastic loops to grab onto, mesh pockets to keep objects from floating all over, and moving beltways with hand loops for major thoroughfares. Magnetic or velcro shoes are commonly used to walk around, rather than climbing or flying. Zero-g environments are designed to make maximum use of space, however, taking advantage of the lack of ceilings and floors. Because objects are weightless, characters can move even massive objects around easily.

Terminal Velocity: It is not difficult to reach escape velocity on small asteroids and similar bodies — something to keep in mind with thrown objects and projectile weapons. In some cases, characters who move fast enough and jump can reach escape velocity themselves, though these situations are left up to the GM.

Low Gravity

Low gravity includes anything from 0.5 g to microgravity. These conditions are found on Luna, Mars, Titan, and the rotating parts of most spun spacecraft and habitats. Low gravity is not that different from standard gravity, though you can jump twice as far (*Movement* ▶230) and thrown/projectile objects have a longer range (*Range* ▶207).

High Gravity

High gravity is anything significantly stronger than standard Earth gravity (1.2+ g). High gravity in *Eclipse Phase* is typically only found on exoplanets. High gravity is hard on morphs as they carry more weight, muscles get fatigued from pushing mass around, and the heart must work harder to pump blood. For every 0.2 g over 1 to which a character is not acclimated, treat it as if the character is suffering from the effects of 1 wound. At the GM's discretion, movement rates may also be modified (*Movement* ▶230) and even synthmorph systems may become strained.

WEATHER

Weather phenomena are a recurring danger on various exoplanets, depending on local atmospheric conditions. Hurricanes, tornadoes, flash floods, blizzards, ice storms, acidic rain, and similar conditions can arise rapidly, damage gear, and hinder mobility, sensors, and communications. Mars still suffers from blinding and choking dust storms, blasting dust particles that somehow get into everything and jam it up. Venus and the gas giants all feature massive windstorms and cyclones that are devastating to flying craft and aerostats.

HOSTILE ENVIRONMENTS

The Solar System might be friendly to life on a grand scale, but if you're stranded in the gravity well of Jupiter during a magnetic storm, trying to breathe without a respirator on Mars, or floating in hard vacuum without a vacsuit, it doesn't seem so friendly.

ATMOSPHERIC CONTAMINATION

Habitats sometimes fall ill. The effects of a habitat suffering from ecological imbalance or out-of-control pathogens can range from mildly allergenic habitat atmospheres to rampaging environmental sepsis. Biomorphs without breathing or filtration gear in a contaminated environment should suffer penalties ranging from –10 (mild contamination) to –30 (severely septic atmosphere). Depending on the contamination, other effects may apply, as the GM sees fit.

DANGEROUS ATMOSPHERE

In most unbreathable atmospheres (such as Mars and many exoplanets), the primary hazard for transhumans without breathing apparatus or modifications is lack of oxygen (*Asphyxiation* ▶234). At lower atmospheric pressures, biomorphs require more oxygen; at higher pressure, they require less. An inadequate concentration of oxygen may not asphyxiate right away, but it will lead to respiratory distress and impairment (–10 to –30 to all actions) over time. Higher concentrations will lead to oxygen toxicity over time, leading to vision problems and disorientation (impairment, –10 to –30) and eventually seizures, physical damage, and death. Fires also spread very quickly in high-oxygen environments and explosions inflict more damage.

Note that many atmospheric gases are fine to breathe — argon, helium, neon, nitrogen — except at high pressures. Methane is also breathable, though it is highly flammable and reacts explosively with oxidizers and halogens.

High-Pressure Atmosphere: Almost all gases that can be breathed aside from neon and helium become narcotic at high pressures. Exposure over several hours will lead to impairment (–10 to –30), hallucinations, memory loss, anxiety, dizziness, impaired judgment, and eventually physical damage, unconsciousness, and death.

Toxic Atmosphere: Neptune, Titan, Uranus, and Venus all have toxic atmospheres. Similar atmospheres can be found on some exoplanets, or might be intentionally created as a security measure within a habitat or structure. A character who is unaware of atmospheric toxicity and does not immediately hold their breath (REF Check) suffers DV 2d10 per action turn.

Corrosive Atmosphere: Like some exoplanets, Venus's atmosphere is also corrosive. Such atmospheres are immediately dangerous: DV 1d10 per action turn, regardless of whether you hold your breath or not. Increase the DV for atmospheres with higher concentrations. Armor only applies if it is environmentally sealed (and until it is eaten away). Corrosive atmospheres will damage vehicles and gear not equipped with anti-corrosive shielding, inflicting 1 to 5 DV per minute, depending on the concentration.

EXTREME HEAT AND COLD

Planetary environments range from the extremely hot (Venus, Mercury's day side) to the extremely frigid (Neptune, Titan, Uranus). Both will kill an unprotected and unmodified biomorph within minutes, if not seconds. Synthetic shells fare better, especially in the cold, but even they will succumb to the blazing furnaces of the inner planets without strong heat shields and cooling systems.

EXTREME PRESSURE

Similarly, the atmospheric pressures of Jupiter, Saturn, Uranus, Neptune, and Venus quickly become crushingly deadly anywhere beyond the upper levels. Only synthmorphs and vehicles with special pressure adaptations can hope to survive such depths.

GRAVITY TRANSITION ZONES

The widespread use of simulated gravity in space habitats means that you will often encounter places where the direction of down suddenly changes. In most rotating habitats, the standard design includes an axial zone where spacecraft can dock in microgravity and a carefully designed and marked transition zone (usually an elevator) where people and cargo coming and going from the axial spaceport can orient to local "down" and be standing in the right place when gravity takes effect. Gravity transitions in rotating habitats are almost always gradual but can be very dangerous if you encounter them in the wrong place or time.

If you are cast adrift in the microgravity zone at the axis of a rotating space habitat, you will slowly drift outward, eventually getting a slight push in the direction of rotation from the winds. You will continue to drift in free fall until you come into contact with the ground, a building, or some other structure. Due to the speed of rotation, this collision will be quite devastating and likely deadly. The impact will accelerate you in the direction of rotation, likely causing your remains to skip and bounce several more times before they match the rotational velocity and settle. How long this drifting process would take varies according to the size of the habitat, but could easily take ten minutes or more, less if you were given a good push out from the axis.

RADIATION

Ionizing radiation is one of the most prevalent hazards in the Solar System and a difficult problem for transhumanity to defeat. Radiation damages genetic material, sickens, and kills by ionizing the chemicals involved in cell division. Effects range from nausea and fatigue to massive organ failure and death. Radiation also damages biological neural networks, leading to flawed uploads and backups. Radiation can be countered by thicker, better shielding and nanomedicine that rapidly reverses ionization, but even these cannot deter the sheer magnitude of the output by some celestial bodies.

Radiation poisoning is a complicated affair. Sources of radiation include the Earth's Van Allen belt, Jupiter's radiation belt, Saturn's magnetosphere, cosmic rays, solar flares, fission materials, unshielded fusion or antimatter explosions, and nuclear blasts, among others. Effects vary drastically depending on the strength of the source, the amount of time exposed, and the level of shielding available. Two options for effects on biomorphs are:

- **Light Dosage:** Within 1d6 hours, take DV 2d10 + 5 (no defense). After 1 week, suffer a –10 impairment modifier for 2d6 days.
- **Heavy Dosage:** Within 1d6 minutes, take DV 2d10 + 10 (no defense) and SV 1d6; this damage and stress cannot be healed. Suffer a –30 impairment modifier and take an additional DV 2d6 per day (no defense or healing) until dead.

GMs should adjust as they see fit. Radiation poisoning symptoms include nausea, vomiting, fatigue, hair loss, sterility, and uncontrolled bleeding. Synthmorphs are not quite as vulnerable as biomorphs, but even they can be damaged and disabled by severe radiation dosages (they take only the initial damage).

SURFACE HAZARDS

Aside from the vacuum, the surfaces of asteroids, comets, and some satellites can be deceptively dangerous. Many asteroids are little more than piles of rubble loosely held together by gravity, often with large internal caverns. Signifiant pressure on such a surface, as might happen with a landing, could easily cause it to collapse, burying the lander in a crater of dust. Comets are similar, adding ice to the mix that vaporizes during their approach the sun and freezes as they move away. This creates structures with empty pockets and thin surfaces that can be easy to break through. Even larger asteroid surfaces can be pockmarked with pits of settled dust, visually indistinguishable from surrounding terrain, which an unwary traveler can sink into. Crevasses, pits, and rugged surfaces are common, making fast travel difficult.

You can spot potentially dangerous holes and subsurface pits with radar, though this may require a Perceive or Interface Test. A surface traveler attempting to skirt such hazards may need to make a Free Fall or Pilot Test. Someone in danger of crashing through can make a REF Check to catch themselves. While microgravity lessens the danger of impacts, unlucky explorers can still become buried, stuck, and blinded in the dust and debris.

On many celestial bodies, regolith surface dust itself is tens of centimeters thick. The particles themselves become charged by the solar wind and levitate before settling again. Heavy surface activity can easily kick up clouds of floating dust that obsure vision and covers everything. These regolith particles are rough, abrasive, and magnetic. They stick to vacsuits, clog equipment, cover faceplates and windows, and scratch lenses. This dust is quite hazardous to breathe in (causing from 1d6 to 2d10 DV, depending on exposure).

UNDERWATER

In general, any physical skill performed underwater suffers a –20 penalty due to the resistance of the medium. Skills relying on equipment not adapted for underwater use may be more difficult or impossible to use. Unless you possess an underwater mobility system, your movement rate is reduced (*Movement* ▶230). If you lack the capability to breathe underwater, follow the rules for asphyxiation ▶234. Note that drowning characters do not immediately recover if rescued from the water; they will continue to asphyxiate until medical treatment is applied to clear the water from their lungs.

VACUUM

Biomorphs without vacuum sealing ▶325 can spend one minute in the vacuum of space with no ill effects, provided you curl up into a ball, empty your lungs of air, and keep your eyes closed (something kids in space habitats learn at a very young age). Contrary to popular depictions in pre-Fall media, a character exposed to hard vacuum does not explosively decompress, nor do their internal fluids boil (other than relatively exposed liquids such as saliva on the tongue). Rather, the primary danger for characters on EVA sans vacsuit is asphyxiation due to lack of oxygen and associated complications such as edema in the lungs.

After one minute in space, you begin to suffer from asphyxiation ▶234. Damage is doubled if you hold air in your lungs or are not curled up in a vacuum-survival position. Additionally, characters trapped in space without adequate thermal protection suffer a –10 modifier to all actions and 2 DV per minute.

DOWNTIME ACTIONS

Not all of your character's actions take place on missions or in scenarios. In between moments of investigation, tensions, and violence, you may seek to improve yourself, work on projects, or build your social life. This section covers a range of possible downtime actions you can pursue, though you should work with your GM to discuss other options.

Downtime is normally counted in weeks. Each week, choose one downtime action. This assumes your character is also busy with other activities: socializing, housework, nightlife, relaxing, playing games, and otherwise pursuing life's mundane activities. If you are singularly focused to the exclusion of all else and/or are using an accelerated-time simulspace, the GM may cut this duration down, to a minimum of 1 day per downtime action.

Healing/Repair: Recovering mental and physical health (▶221 and 223) is an important part of downtime, but it does not consume all of your time off. Consider healing/repair to happen in conjunction with the following downtime actions.

ACQUIRE/MAKE THINGS

You may wish to stock up on gear for the next mission, or simply prepare equipment caches, go-bags, and emergency provisions. If you have the Resources trait, use your weekly allotment of Gear Points. If not, you get 2 GP to spend. Restricted and Rare items are only available at the GM's discretion. If establishing caches ("scratch spaces" to Firewall), be sure to note with your GM where and how these are hidden away.

While being prepared is a smart move, GMs should rein in players that seek to hoard everything they can acquire. Such behavior is not realistic and would certainly lead to the character alienating their friends or burning rep or Resources.

CHANGE YOUR MOTIVATION

As you meet your goals, have new experiences, and develop new agendas, your motivations may change. Wrapping things up and redirecting your focus allows you to change one of your motivations.

FULFILL RESPONSIBILITIES

You can't spend all of your time saving the Solar System. You may have debts to pay off, contacts to maintain, and obligations to attend to. Perhaps you have family and friends to catch up with, a boss to answer to, or freelance gigs that are piling up. Though there is no direct game effect for this type of activity, it does help to wrap up loose ends from previous scenarios and hold on to relationships with NPCs. At the GM's discretion, this may lay the ground work for acquiring a Contact trait ▶73.

MANAGE YOUR REP

The best way to cultivate your rep scores is to positively contribute to others' lives. This can take the form of things like volunteering your time for collective endeavors (@-rep), helping out your friends (c-rep), creating new art (f-rep), working the streets (g-rep), tracking down leads (i-rep), conducting useful research (r-rep), or training new gatecrashers (x-rep). Work with the GM to choose an appropriate skill test: success earns you 1 point of rep in that network, +1 for each superior success.

Alternatively, you can bypass the test and simply spend Rez Points. Each RP gains you 5 rep points.

MOD YOURSELF

You have the option of upgrading an existing morph with ware. You can use ware previously acquired but not installed, or choose 1 Moderate or 2 Minor complexity new wares. Modification includes the necessary time in a healing vat with medical professional oversight or with a mod-shop's nanofabber and technicians.

Keep in mind that one of your upcoming scenarios may require resleeving — check with your GM before choosing this option.

TRAIN AND IMPROVE

As you complete scenarios and gather experience during gameplay, you accumulate Rez Points ▶366. You can spend your downtime training and use these Rez Points to improve your character's stats. You cannot spend more than 1 RP on improvement per downtime week.

Gain a Positive Ego Trait

You may spend RP to purchase a positive ego trait of an equivalent CP Cost. You can also upgrade existing traits to higher levels. The GM must approve this transaction. New traits should only be acquired as a consequence of the storyline and unfolding events in the game. For example, a character that discovered a cache of wealth might be allowed to buy the Resources trait. Note that you must pay RP for any positive ego traits you gain, whether or not you wanted them. If you have no unspent RP available, you must pay out immediately from any future RP you earn until the debt is paid off.

Note that you do not gain RP from any positive ego traits you lose as a consequence of your actions, nor any negative ego traits you acquire during gameplay — you are simply saddled with the new flaw.

Spending Rez Points

Improvement	RP Cost
5 Rep points	1 RP
5 Skill points	1 RP
1 Specialization	1 RP
1 Psi sleight	1 RP
1 Language	1 RP
1 Aptitude point	1 RP
1 Flex point	2 RP
Ego Traits	RP = CP Cost/Bonus

Improve Aptitudes

Raise aptitudes at the cost of 1 RP per aptitude point. Aptitudes cannot be raised above 30.

Raising the value of an aptitude also raises the value of all linked skills by an equivalent amount (double in the case of Fray/Perceive).

Improve and Learn Skills

To improve an existing skill or learn a new one, you must actively practice it, study, and/or seek instruction. Each RP spent gives you 5 skill points to allocate. New skills are raised up from the linked aptitude rating.

Once you have achieved a level of expertise in a skill (60+), you reach a plateau where improvement progresses more slowly and even consistent practice and study have diminished returns. You cannot spend more than 1 skill point on skills that are 60 or over per downtime week.

Increase Flex

Increase your ego Flex pool by 1 point per 2 RP. Your ego Flex pool cannot be raised above 3.

Learn a Language

You can learn a new language through study and practice. Each language costs 1 RP. Note that learning a new language usually takes months, so GMs should only allow this for characters that have spent the time learning or immersed themselves in the relevant culture.

Learn a New Psi Sleight

If you possess the Psi trait, you can learn new psi sleights through experimentation and practice. Each sleight costs 1 RP.

Lose a Negative Ego Trait

You can eliminate the handicap of a negative ego trait through hard work and diligence. Such endeavors should require weeks if not months of effort, with appropriate roleplaying and possibly some difficult tests. In fact, overcoming such traits can be the source of an adventure. Once a GM feels that you have made a strong-enough effort, you can pay a number of Rez Points equal to the trait's original CP bonus to negate it. You can also downgrade traits to a lower level by paying the difference. Note, however, that some negative traits simply cannot be discarded, no matter what you do.

Specialize

You can specialize in an existing skill, as long as that skill is at least rating 30. The cost to learn a specialization is 1RP. Only 1 specialization can be purchased per skill.

Pivo has 4 weeks of downtime. That's good, because a neo-octopus needs their decompression and alone time.

Pivo still has some damage and wounds from his recent mission, but the GM tells him he'll be able to easily recover from that in the time he has. So for the first few days at least, Pivo gets in some VR games and rest while floating in a healing vat.

On the first week, Pivo remembers that he left an NPC, a fellow scavenger, in a lurch during the last mission: they had been killed and eaten by an exsurgent. Pivo had recovered their stack (don't ask), though, so he arranges to have it returned to their backup insurance provider so they can be restored. He also makes sure to visit the scavenger when they get resleeved, so he can fill them in on what happened and overcome the lack they experience. The GM decides this leaves the NPC a bit traumatized (they remember being killed after all), but that they are grateful for Pivo explaining what happened (and that the exsurgent is no longer a problem). The scavenger goes back to their daily life, if a bit more ragged around the edges. Knowing what they have encountered, however, the NPC could be useful to Pivo and Firewall in the future. The GM tells Pivo that he can spend a Rez Point and take the scavenger as a contact, per the Contact trait ▶73. Pivo has 5 Rez Points, so he spends 1 to get the trait.

Pivo has 4 more Rez Points to spend, so he decides to spend the second week increasing his Guns skill. 1 RP allows him to raise it from 55 to 60. If he instead wanted to raise his Hardware: Aerospace, he would only be able to raise it from 65 to 66 this week, since it is over the threshold of 60 (he would have to spend 4 additional downtime weeks to spend the other 4 skill points and get the skill to 70). So Pivo spends some time practicing at a range and gets a few more bullseyes this time around.

For week three, Pivo wants to boost his Vigor pool. He decides to mod his morph, which let's him pick 2 Minor complexity ware or 1 Moderate. He chooses novacardium bioware, which raises his Vigor pool from 1 to 2. So Pivo spends more time in a healing vat, playing some more VR games, and one of his hearts gets an upgrade (the one that pumps blood around the body, since octopi have three hearts). When he comes out of the vat, he feels invigorated and ready to jump into action.

During week four, Pivo catches up with friends and contacts to strengthen his rep game. He wants to save his Rez Points, so he opts to make a skill test. He decides to put his techie skills to use, and pulls some favors for scavenger friends who need repairs on their ships. He makes a Hardware: Aerospace Test with his skill of 65, rolling a 38. That's a superior success, so he gets 2 rep points out of it. He raises his c-rep from 25 to 27. So after a week of patching up hulls and fine-tuning fusion engines, Pivo gets some pings and his rep gets boosted.

The GM also takes a look at Pivo's character sheet and is reminded that Pivo has the Enemy (Night Cartel) trait. So near the end of this month of downtime, the GM informs Pivo that he hears word that the Night Cartel has sent agents to the habitat to have a word with him. Pivo decides that's a good sign to move on, setting the stage for the next adventure.

EVERYWARE

The mesh is a decentralized internet-of-things. Miniature computerized devices with advanced processing and storage capabilities are everywhere: your clothes, your weapons, your appliances, and throughout the structures, environment, and even air around you. This *everyware* is equipped with minute sensors for monitoring the environment and wireless radios, microwave links, or laser links for communicating. All of these devices network together. Each acts as an ad-hoc server and repeater, passing messages and data along from sender to recipient. Though larger backbone servers still exist, especially in larger habitats with heavy traffic, there is no longer a need for any kind of centralized infrastructure. If a node in the mesh network goes down or cuts off traffic, the data simply routes around it, finding a new path to its destination. This makes the mesh easily expandable for new colonies, resilient against harm in crisis scenarios, and resistant to censorship and other forms of centralized control.

GETTING ONLINE

Getting online in *Eclipse Phase* is easy — everyone and everything is meshed, all the time. Most transhumans get online via the mesh insert implants within their head. This headware enables them to network with other devices around them and store data and files. Best of all, it's all mentally controlled. You can browse mesh sites, play games, interface with gear, and talk with your friends, all within your head.

Messages are mentally recorded in your voice (or another of your choosing) or transcribed into text, all without speaking aloud. Sensory input is routed through your mesh inserts directly into your brain and experienced as augmented reality — as data overlaid upon your real-world senses. Videos, for example, are viewed in a corner of your vision or off to the side, in your mind's-eye space. You hear audio feeds in your head that no one around can perceive. Haptic feedback is experienced as sensations of touch. You can even skin your perceptions with AR data, so that you always view the world with the hazy glow of a sunset in the background or experience it with your own personal soundtrack. Walls are never blank and rooms are never quiet, unless you want them to be. You can even mute or filter out things you don't want to see or hear.

Those without cranial computers and mesh inserts must rely on *ecto* devices for mesh access. These portable and flexible computers are typically worn as a bracelet or held as a tablet. They feature interactive holographic displays or transmit AR data to the user via worn glasses, contacts, and decorative ear pieces. While common among bioconservatives, they are sometimes used as an extra layer of protection by hackers or those carrying sensitive data. Ectos are slower than mesh inserts; using them inflicts a –10 modifier to all mesh actions.

YOUR ONLINE PRESENCE

Given that most mesh interactions take place within your head, face-to-face interactions via camera feeds are a thing of the past. Most people use an avatar to represent themselves online. Avatar customs differ, with some clades preferring a representation of your current morph, and others preferring a stylized icon that remains consistent throughout resleevings. Avatars are animated and designed to speak and emote with your personal mannerisms, though this may be customized.

Avatars are not only used for online communications — they are often projected as entoptic data in real local space, along with your social networking profile, allowing others around you to view it with AR. Thus you can view the rep scores and other public profile data about a person whether you interact with them online or are simply in physical proximity. Personal profiles are completely customizable and range from business-oriented and succinct to creative displays. Local jurisdictions may require some personal data to be displayed at all times, such as citizenship status, real names, c-rep score, fork status, or criminal convictions.

Privacy Mode

If you'd prefer to keep a low profile, you can go into privacy mode, which provides a small degree of anonymity. Privacy mode hides your social profile — no one will be able to view your data, but they will still be able to anonymously ping and ding your rep scores. Privacy mode will also ask sensors and other devices to ignore and not track you, though depending on their configurations or AIs they may simply ignore this request. It applies a –30 modifier to mesh tracking attempts ▶256. Privacy mode is considered rude or gauche in some circumstances. An option to allow authenticated police/security to override this mode is legally required in some authoritarian jurisdictions, but it may be easily toggled off.

MESH TOPOLOGY

Though the mesh as a whole consists of innumerable devices all connected to the other devices around them, the actual layout is more complex. Many sub-networks exist within the mesh network itself: slaved devices, VPNs, PANs, and tiered systems.

SLAVED DEVICES

Some devices are slaved to others, so that any traffic and access attempts go through a single well-protected gateway node. For example, individual components of a security system (doors, sensors, etc.) are usually slaved to a central security node that serves as a chokepoint against anyone hoping to hack the system. All traffic to and from slaved devices is routed through the master. This allows a slaved device to rely on the master's security features and active monitoring. Anyone that wants to connect to or hack into a slaved device is rerouted to the master for authentication and security scrutiny.

Slaved devices automatically accept commands from their master device. This means that a hacker who penetrates a master system can legitimately access and issue commands to a slaved device, assuming their access privileges ▶246 allow for it.

PANs: PERSONAL AREA NETWORKS

Since many of the things you wear, carry, use, or have implanted are meshed, it makes sense to network them together — this is your PAN. Your mesh inserts (or ecto) act as the master hub of your network; your other devices are slaved. This means that anyone that wishes to access these devices must go through you (or your muse) first. You can interface with your PAN devices via AR and freely share data between them. You can share access to these devices with others on a temporary or permanent basis. On the flipside, anyone that hacks you will have access to your slaved devices.

VPNs: VIRTUAL PRIVATE NETWORKS

VPNs link together nodes via point-to-point encrypted "tunnels" across the public mesh. This secure connection allows connected users to privately communicate and remotely share services and resources. VPNs enable mobile offices, social networks, tacnets, and other private networks to exist and function within the wider mesh.

In practical terms, VPNs offer better encryption than standard mesh traffic, making it difficult to sniff ▶245 your connections, though you can still be tracked ▶256. If one of the nodes within the VPN is hacked, however, that traffic becomes vulnerable.

TIERED SYSTEMS

Hypercorp networks, habitats, and similar large systems operate on a tiered model. In order to access one particular device or network, you may first need to access the nodes or networks tiered above it. Nodes in a lower tier will only communicate with recognized devices in the tier above them. Usually the deeper you go, the harder the security gets. Tiered systems can sometimes be defeated with spoofing attacks ▶247, by faking signals from a node in the tier above.

AIR-GAPPED SYSTEMS

The most heavily secure systems are air-gapped — physically separated from the mesh. They may be hardwired, lacking wireless transceivers, or enclosed within radio-proof barriers. The only way to access such systems is physically, either directly plugging in, defeating the radio-blocking enclosure, or somehow attaching a wireless transceiver to the system.

ISLANDS IN THE NET

The distance between habitats requires special consideration. A signal sent from the inner planets to a station in the Kuiper Belt, 50 AU from the sun, can take as long as 7 hours, traveling at the speed of light. This means that communications between habitats outside of your local region (any others within 50,000 kilometers) may suffer time lags of minutes or hours — each way. This makes standard forms of communication (video calls and even messaging) a challenge, and means that news from afar is already old when it is received. In a sense, each region is its own island in the mesh. On planetary bodies like Mars, Venus, Luna, or Titan, "local" encompasses all of the habitats and linked mesh networks on that planetary body and in orbit.

If you wish to search the mesh or interact with someone or something outside of your region, the easiest method is to transmit a search ALI (usually a copy of your muse) or a fork. In this case, the transmission time is added to the adjusted timeframe of any task actions (i.e., searching the mesh of a station 10 light-minutes away adds 20 minutes as the AI is transmitted over and the results are transmitted back). Since long-distance communications are sometimes interfered with or bumped for higher-priority items, GMs can increase this time at their discretion. If the research involves correlation and fine-tuning the search parameters based on data accumulated from different locals, the timeframe may be exponentially increased due to the need for back-and-forth interaction.

Exoplanet meshes are even more removed. They can only be accessed in the short intervals when a pandora gate is opened to their location. Depending on the colony or importance of the gate-crashing mission, the time between connections may be days, weeks, or months.

COMMON MESH USES

Using the mesh is an everyday, intuitive affair for most transhumans. This section details some of the most common uses and any considerations when it comes to security or hacking.

AUGMENTED REALITY (AR)

AR overlays data and sensory input from the mesh on your physical senses. This allows you to experience images and video, text, sounds, physical sensations, and even tastes and smells as you go about your day. AR sensory input is high-resolution and seemingly real, though usually tinged with a ghostly quality so as not to be confused with real-world interactions. AR data can be customized, filtered, and layered as you see fit.

Most habitats and businesses transmit data on public AR channels. Directories, signs, maps, help guides, tourist information, available services, and public alerts are easily toggled and perceived. Corporations and private groups also offer their own AR channels to authenticated users, ranging from streaming music and networked games to underground night life and black-market services.

AR also has its downsides: if you are hacked, it can be used against you ▶262). AR sensory input is also a potential vector for so-called basilisk mind hacks ▶384.

AR Mist and Filters

Online advertising is still a major business in the inner system. Modern adverts, political screeds, scams, and porn are experienced as entoptics and other AR sensory input. These are often transmitted on public channels and highly intrusive or distracting. It's hard to ignore ads that cite your name (pulled from your public profile) at high-volume, bombard you with tickles and NSFW visuals, assault you with savory smells for desserts, or trigger the sensation of bugs crawling on your skin to sell insecticides. Though these can be filtered out, unfortunately, advertisers seem to be winning the ongoing war between adverts and blockers, and many are not above using malware techniques to bypass your security or even permanently infect your devices.

In some locations, AR adverts can be so overwhelming, they are referred to as "mist." This fog of data can inflict an impairment modifier of –10 to –30, though this can be overcome with a successful Interface Test (mist modifiers apply). Alternatively, you can turn off AR inputs entirely, but this may impede you in more significant ways.

Skinning

Since reality can be overlaid with hyper-real entoptics, you can "skin" your environment by modifying your perceptual input to fit your particular tastes or mood. Need your spirits boosted? Pull up a skin that makes it seem like you're outdoors, with the sun shining down, the sounds of gentle surf in the background, and butterflies drifting lazily overhead. Pissed off? Be comforted as flames engulf the walls and thunder grumbles ominously in the distance. You can go about your day accompanied by your own personal soundtrack or the smell of roses, the ocean air, or freshly baked pastries. Tired of listening to your co-worker's babble? A simple filter can block them out, replacing them with a gray-shaded outline and the pleasant sounds of birds. Entire libraries of skins may be freely downloaded for the express purpose of making the cheaply fabricated less distasteful and countering the space-induced cabin fever of cramped habitat environments.

BACKUPS, FORKING, EGOCASTING

Most people have backups taken and forks created at reputable body banks. The sanctity of egos is highly valued, so mesh security tends to be top notch. Even black-market body banks and darkcasters have reputations to protect. If you have a cyberbrain or access to an ego bridge, you can make backups and forks at any time, but are reliant on your own security. Inactive backups/forks/egos are simply large files that can be stored on any device. Activated infomorphs, however, can only be run on hosts or servers (*Infomorphs* ▶252).

BANKING

Physical currency is a thing of the past. Polities that still use money deploy various types of blockchain-based crypto-currencies. Transactions are electronic, heavily encrypted, and archived in a public ledger. This means payments and transfers are linked to a mesh ID and may be tracked, though many use anonymized accounts or proxies to hide their trail. Electronic currencies are either stored in an encrypted wallet on your personal device or entrusted to the security of an online service.

COMMUNICATIONS

Messaging, video calls (using avatars), and email remain dominant forms of communication, though these are sometimes hampered by distance lag. For discussions across great distances or that require face-to-face privacy, forks are deployed. Non-encrypted comms can be sniffed by hostile parties (*Sniffing* ▶245).

Online forums rise and fall in popularity, depending largely on how well they filter out trolls, spam, and bots. On one end, private message boards and VR lounges thrive according to their exclusivity and focus topics, especially in socialite and infomorph circles. On the other, local public AR channels tend to be crammed with garbage, though strong community participation can make these quite useful, especially in brinker and autonomist habs.

EXPERIENCE PLAYBACK (XP)

Every morph with mesh inserts has the capability to transmit or record their experiences in the form of XP. Sharing with friends, social networks, or with the public at large is popular. Short clips are common, but some x-casters post an ongoing lifelog for subscribers.

The depth of these experiences depends on how much of the recorded sensory perception is kept when the clip is made. Full XP includes exteroceptive, interoceptive, and emotive tracks. Exteroceptive tracks include the traditional senses of sight, smell, hearing, touch, and taste that process the outside world. Interoceptive tracks include senses originating within the body, such as balance, a sense of motion, pain, hunger, thirst, and a general sense of the location of one's own body parts. Emotive tracks include the whole spectrum of emotions that can be aroused in a transhumans. Hardcore XP aficionados deem only the experience of the actual neuronal and endocrine systems of biomorphs as the real deal; the cyberbrain systems of synthmorphs are not on par.

Due to the prevalence of x-casting, live XP feeds are an integral part of the coveillance paradigm.

GAMING

Along with AR and VR console games, multiplayer interactive alternate-reality games (so-called MARGs) are popular. Many players are involved with one or more in-game "coteries" in various settings: espionage (Cloak & Dagger), high fantasy (War of Wizards), horror (Innsmouth Nights), romance (All My Forks) and sci-fi (Starfleet Command). These games present stories and plots

experienced through skinned AR environments and interactions with other players (and paid NPCs) both online and in-person, with more detailed VR immersion scenarios available as well.

MARGs function as VPNs. Much like social networks, they treat their customers as products and heavily monitor their activities. Hacked game accounts can reveal a treasure trove of tracking data.

LOCATION SERVICES/MAPPING

You can almost always pinpoint your location on an inhabited world or in a habitat by measuring signals either from orbiting GPS satellites or nearby mesh nodes. Finding your way is easy with AR cues such as visual trails or arrows or audio directions. Location services can tell you where to find the nearest local autocook, give you reviews on nearby cafés, and tell you who in the area matches your dating profile, personal interests, or is looking for a game match.

A side effect of location services is that your movements are logged by every nearby mesh node due to automated pings and your physical activity can be correlated with your online activity and mesh ID (*Tracking* ▶256). This feature is considered an advantage by parents watching over their kids, businesses monitoring their employees, and friends seeking out other friends, but can be a detriment to those seeking a low profile.

MEDIA AND NEWS

Recorded and streamed VR, XP, 3D video, music, spoken word, podcasts, and even old-fashioned flat vids and audiobooks are offered by a variety of services. The sheer amount of media available is daunting — most people carry personal libraries in their head that contain far more than they will ever consume. Entertainment for even niche interests is never farther than a few mental menus away. News and media feeds are highly personalized and curated to your tastes by your muse.

Many venues transmit their own local AR media channels, to keep social groupings focused on the same vibe. When you can stream a live performance from a DJ on Mars directly into your head almost anywhere, most club-goers prefer getting on the same channel so they can all dance to the same beat, experience the same visuals, and share the energy.

MOBILE OFFICES

Online collaboration tools, remote networking, and ALI assistants mean that work is rarely tied a physical location — most people carry their jobs with them. For security purposes, VPNs ▶241 are mandatory. Encrypted data module implants are often mandatory for employees that carry sensitive company data in their heads, possibly protected by a dedicated corporate security AI. Many hypercorps retain remote access privileges to their workers' mesh inserts and implants.

PSYCHOSURGERY

For safety reasons, psychosurgeons prefer working on forks that are then merged with the alpha ego. Most psychosurgery is handled on-site at dedicated clinics. For privacy and security, psychosurgeons keep their clients' infomorphs on air-gapped servers with hardwired ego bridges. Some virtual clinics offer services on heavily secured private networks.

SEARCHES

On the mesh, you have access to vast — almost overwhelming — amounts of info. This is covered in detail under *Online Research* ▶254.

SENSOR FEEDS AND COVEILLANCE

Public sensor feeds are available to everyone on the mesh — everyone is watched by everyone else. These sensors provide real-time coverage of most public areas within a habitat, though they are subject to vandalism and sabotage. Many private networks are also available, some of which are accessible for a fee or if you know the right people.

Sensors and coveillance are covered in detail on ▶270.

SOCIAL NETWORKS

Social networks are the fabric of the mesh, weaving people together. They are the means by which most people keep in contact with their friends, colleagues, and allies, as well as current events, the latest trends, new memes, and other shared interests. They are an exceptionally useful tool for online research, getting favors, and meeting new people. In some cases, they are useful for reaching or mobilizing masses of people (as often illustrated by anarchists and pranksters). There are thousands of social networks, each serving different cultural and professional interests and niches. Most social networks allow users to feature a public profile to the entire mesh and a private profile that only those close to them can access.

Reputation plays a vital part in social networks, serving as a measure of each person's social capital. Each person's reputation score is available for lookup, along with any commentary posted by people who favored or disfavored them and rebuttals by the user. Many people automate their reputation interactions, instructing their muse to automatically ping someone with a good review after a positive action and to likewise provide negative feedback to people with whom the interaction went poorly.

The drawback to some social networks is that *you* are the product. CivicNet, eXploreNet, Fame, and similar networks all track their users' mesh activity and build expansive profiles for advertising purposes. This data is readily available to certain hypercorps and political entities, or anyone that manages to hack heavily protected social network servers.

If you are hacked, your social network accounts may also be at risk. Your profile could be altered, history viewed, and fake posts, pings, and dings made in your name.

TAGGING

Entoptic tags are a way for people to "tag" a physical person, place, or object with virtual data. These e-tags are stored in networks local to the tagged item and move with the item if it changes location. E-tags are viewable in AR and can hold almost any type of data, though short notes and pictures are the most common. E-tags are often linked to particular social networks or circles within that network so that people can leave notes, reviews, memorabilia, media, and similar things for friends and colleagues.

Finding hidden tags in an area requires an Interface Test at –30 at best or may be impossible without access to the right networks/devices (GM discretion). Even when found, they may require decryption ▶247.

VIRTUAL REALITY (VR)

Only servers ▶244 have the bandwidth and processing requirements to run full VR simulspaces, especially ones with multiple users. For extra stability, most VR services are offered in locations with hardwired physical networks. Comfortable enclosed couches are provided for users, as their physical senses are cut off.

VR is covered in more detail on ▶268.

DEVICES, APPS, & LINKS

Behind the augmented reality, it is hardware and software that makes the mesh work.

HARDWARE

While online, you'll be accessing and interacting with numerous devices. This hardware falls into three categories: motes, hosts, and servers.

Motes

The vast majority of meshed devices are motes: the wireless transceivers, microcomputers, and sensors embedded into almost everything. This includes appliances, tools, implants, sensors, wearables, peripherals, and similar specialized hardware. Motes possess enough processing power, storage memory, and networking capabilities to handle their specialized functions, mesh with nearby devices, and run a small assortment of apps.

Motes have only public and admin accounts ▶246. They are only capable of running ALIs; some motes (GM's call) can run infomorphs if the ALI is deleted, but they become overloaded.

Hosts

A host is a generalized, multi-purpose personal computer, with significant processing and networking capabilities, designed to be operated by an end user. Hosts include mesh inserts, ectos, cyberbrains, tablets, ghostrider modules, and the systems in most bots and vehicles.

Hosts can handle multiple users and accounts, but are only capable of running one active infomorph at a time.

Servers

Servers have much greater processing powers and data-management capabilities than hosts. They can handle hundreds or even thousands of users, run simulspace software, and stream services to clients across the mesh. Servers are maintained by all types of service providers, egocasting terminals, social media and news portals, corporate hubs, backup facilities, psychosurgery clinics, and VR and gaming platforms.

Servers can run multiple infomorphs. Most servers are large and stationary, though some bot and portable models exist. High-end enhanced and specialized servers may provide modifiers.

Overloaded Devices

Certain circumstances may impair a hardware device's functionality. Its processing capabilities may be strained by resource-intensive processes (such as VR or psychosurgery), a distributed denial-of-service attack, network outages, overwhelming traffic during a habitat crisis, damaging solar flares, or similar scenarios. Overloaded devices inflict a –10 to –30 modifier to mesh actions involving that device. Additionally, Insight pool cannot be used for tests involving that device, and the chance of acquiring a glitch in mesh combat (*Mesh Wounds* ▶264) is doubled.

SOFTWARE

Everyone uses software to do things online. Most of your online interactions are facilitated by software interfaces. Software can be grouped into four categories: apps, infomorphs, operating systems, and services. Software can be attacked in mesh combat ▶264.

Apps

Apps include programs that are run on your own hardware devices. Many of these provide specialized functions to make use of the device, such as the smartlink app to help you target your weapon, the chemical analysis app that runs on your chem sniffer, or the software systems that allow you to remotely pilot a bot.

While most apps are also available as online services, there are advantages to running it on your local device. You might, for example, be cut off or distanced from the mesh on an exoplanet, remote asteroid, or within a secured corporate facility.

Perhaps the most important app on each device is your firewall. Firewalls provide the smart security that protects each system (*Firewall* ▶260).

Infomorphs

Infomorphs are activated mind-emulation suites — digital software intelligences. They are detailed on ▶252.

Operating System

Your operating system (OS) is the software interface for your hardware device. It allows you to control hardware functions and manage other software resources, such as apps and services.

Services

Software services are available to authorized clients from "the cloud" — various servers on the mesh. Think of it as programs you can use locally but that are actually run on someone else's computer. Many services are provided for free: search engines, real-time translation, rep network interfaces, anonymizing agents, and so on. Others require an account and a subscription: egocasting, simulspaces, decryption, games, XP feeds, etc. The availability of services changes depending on the local habitat and legal jurisdictions. Due to the nature of the mesh, however, even illegal services such as exploit tools, cracked proprietary software, and narcoalgorithms proliferate. The drawback to using a service over an app, however, is that the service may keep logs of your activity.

Services are only available when you have a direct mesh connection to the service provider. This means you can lose access to services if jammed ▶263, suffering distance lag, or otherwise cut off from the mesh. Services also log your mesh ID and may be used to track you (*Tracking* ▶256).

WIRELESS LINKS

The most common way for devices to connect is via short-range (~50 meters) wireless radio. Most devices will automatically mesh with any other devices in range (and log the interactions). It is a trivial affair to pull up a list of all devices within range, along with their mesh IDs, or to have your muse automatically alert you if a new or specific device comes within range.

Stealthed Signals

For increased privacy, you can stealth your wireless radio signals, making them harder to detect. This method uses a combination of spread-spectrum signals, frequency hopping, and modulation. To detect a stealthed signal, you must take a complex action and win an Opposed Interface Test with the stealthed entity. The scanning entity suffers a –30 modifier to this test. GMs may wish to make this roll secretly. Some secure facilities will dedicate ALIs to actively monitor for stealthed signals; this includes correlating surveillance feeds with mesh signals, to identify anyone who is mysteriously "silent."

For this reason covert operatives sometimes carry ectos on a separate PAN to broadcast innocently and distract from their stealthed PAN.

For covert devices that are only transmitting in short bursts, wireless detection is only possible during the short period the burst transmission is being made.

Sniffing

Wireless radio traffic is broadcast through the air (or space), meaning that it can be intercepted by other wireless devices. Since all mesh traffic is relayed through numerous devices, each connection is encrypted for privacy. "Sniffing" involves the circumvention of this decryption in order to capture and analyze the actual data traffic.

To intercept wireless communications, you need a sniffer app and you must be within radio range of the target (alternatively, you can access a device that is within radio range of the target and sniff from that location). The sniffer app automatically convinces the target to relay their mesh traffic through you (just like any other mesh node). This provides you with a list of mesh IDs to systems with which the target is actively connected (*Mesh ID* ▶246). It will also identify any connections that are protected by a VPN or quantum crypto.

You may target any one of these connections for active eavesdropping with a complex action and a Hacking Test ▶258. If successful, you capture data traffic to and from the targeted device and the connected system as long as you stay within range. Each connection requires a separate test, though GMs may allow a single test for all connections on less important NPCs.

When you capture sniffed traffic, you acquire all data passing between the two systems. This includes emails, chats, transferred files, media streams, and more. To find useful data in large amounts of captured traffic may require a Research Test. If you capture traffic during an authentication process ▶246, while a target is logging in, you may even capture their access credentials, such as their passcode or biometric scan. You can break a connection and force a re-authentication to capture credentials, but this requires winning a Hacking Test ▶258 with the authenticating firewall.

Sniffing VPNs: VPNs are more difficult to intercept: apply a –30 modifier. If successful, you acquire the encryption keys used by the two systems and may capture VPN traffic between them. However, VPNs frequently change their encryption keys to deter sniffing attacks; you can only sniff a VPN link for 1d6 minutes before you must make another Hacking Test at –30. You can use superior successes to increase the duration by 1d6 minutes or to make detection harder.

Detecting Sniffing Attacks: VPNs automatically monitor signal latency and other clues to detect sniffing attacks. Once a minute, the firewall (or system defender if actively defended) may make a Firewall or Infosec Test. You can use superior successes scored on the sniffing attack to modify this test by –10. If successful, the defender detects their signals are being intercepted and may take action (*Countermeasures* ▶260).

Sniffing QE Comms: Quantum-encrypted communications cannot be sniffed.

Laser Links

Laser links are common where line-of-sight is not an issue. Laser links use wavelengths that are invisible to standard vision, but they may be seen with enhanced vision. For this reason they are avoided in high-traffic areas, as they can be distracting. Laser links can be disrupted by fog, smoke, dust storms, or other atmospheric contaminants. They are commonly used as the primary communications links between nearby habitats. Laser links are sometimes favored for covert ops tacnets, as even stealthed radio signals can be detected. Laser links cannot be sniffed.

Other Links

Microwave links function much like laser links, except that they do not require line of sight, but are hindered by metallic obstructions. They are more common in less-settled areas. Skinlink systems, popular in wearables, require devices and users to be physically touching, and thus have no emissions that can be intercepted. Similarly, hardwired systems rely on fiberoptic cable connections. These provide excellent security against wireless interception and jamming, and are common in certain "noisy" environments.

ACCESSING MULTIPLE SYSTEMS

Online, you may connect to and interact with numerous devices, networks, and services simultaneously. You can only focus on and interact with one system at a time, though you may switch between them freely, even within the same action turn. You could, for example, use 3 quick actions to directly message your friend, instruct your home oven to start cooking dinner, and ding a stranger's social network profile, all within the same action turn. You may also send the same command to multiple meshed systems, slaved devices, or teleoperated drones with the same quick action. However, any complex action may only be directed towards one system at a time.

AUTHENTICATION & ENCRYPTION

Mesh security relies heavily on authentication and encryption to identify legitimate users and keep protected data from being intercepted.

MESH ID

Your mesh ID is a unique identifier code that distinguishes you from every other user and device on the mesh. Your cranial computer or ecto automatically associates this ID address with your accounts and screen names, enabling you to receive messages and other transmissions. This ID is automatically generated each time you come online and required for almost all online interactions. These interactions are universally logged, leaving a data trail that can be used to track your activity (*Tracking* ▶256). Fortunately, anonymizing services ▶315 are available for those who value their privacy.

Many mesh IDs are publicly registered (and in some jurisdictions, this is legally mandated). Looking up a registered mesh ID is trivial. Registration data may include a name, physical address, and social media profile if so desired.

ACCOUNTS & ACCESS PRIVILEGES

To access any mesh device or service, you need an account. Your account links to your mesh ID and determines your access privileges — what you are allowed to see and do with the device/service. As some systems are more restrictive than others, the GM ultimately decides what privileges an account provides (*Mesh Actions* ▶248). There are four types of accounts: public, user, security, and admin.

Account Shell: When you log onto a system, an account shell is created. This account shell is the user interface that allows you to interact with the system. This process represents your presence as you access the system. It may be attacked in mesh combat ▶264.

Public Accounts

Public accounts provide access to anyone on the mesh. They do not require any type of authentication or login process — your mesh ID is enough. Public accounts let you browse mesh sites, forums, public archives, open databases, social networks, etc. Public accounts usually have the ability to view and download public data and sometimes write (forum comments, for example), but little else.

User Accounts

User accounts require some form of authentication ▶next column to access the device/service. These accounts are provided to people who regularly use the system: employees, clients, etc. Most users are allowed to use the system's standard features as well as view, download, upload, and change their own or shared data. They are not allowed to create new accounts, access logs, alter security features, or do anything that might impact the system's functions.

Security Accounts

Security accounts are intended for security personnel and ALIs that watch over the system. They also require authentication ▶next column but provide greater privileges than standard users. Security accounts can typically view and edit logs, command security features and ALIs, add/delete non-admin accounts, alter the data of other users, and so on.

Admin Accounts

Admin accounts provide complete control ("root") over the system. Admin privileges allow you to access and alter all of the features and data. They can do everything security accounts can, as well as alter access privileges of other accounts, shut down or reboot the system, stop and start any apps or services, and add or delete any software. Every system has one root admin account that cannot be deleted or lose its privileges; for implant and hardware devices, this root account usually belongs to the person they are embedded in.

AUTHENTICATION METHODS

Most systems require some kind of authentication (a process by which a system determines whether the claimed identity of a user is genuine) before they will grant you an account and access privileges. There are multiple authentication methods a system can use (highly secure systems may require more than one). Though some are more secure than others, each has their own drawbacks.

Biometric Scan

These systems scan one or more of your morph's biometric signatures (fingerprint, palm print, retinal scan, DNA sample, etc.). Popular before the Fall, such systems have fallen out of use as they are impractical with synthmorphs or users that frequently resleeve.

Ego Scan

This system authenticates the user's ego ID ▶298, verified with a brainwave scan. As it requires a hardwired and tamper-proof brainprint scanner, such systems are typically only found in high-security environments.

Direct Neural Interface

If you have implants or embedded hardware, these are directly spliced into your nervous system, with the physical links themselves providing the authentication.

Mesh ID

Some systems accept your mesh ID as authentication. This is extremely common with most public systems, which merely log the mesh ID of any user that wishes access. Other systems will only allow access to specific mesh IDs, but these are vulnerable to spoofing attacks ▶247.

Other Account

If you have access to an account on one system or service, and are logged in, this may give you automatic access to accounts on related systems or services. For example, having an account with a social network portal may give you free access to certain online news feeds or commercial data archives. This is also the method used for slaved devices ▶241, where access to the master device automatically grants you access to its slaved devices. Hackers favor going after master accounts as a way of accessing other systems.

Passcode

The most common authentication method is the passcode — a string of alphanumeric characters or logographic symbols. Anyone with the passcode can access the account. Most passcodes are quite long (to deter brute-force cracking methods), and so are stored in an encrypted format in your mesh inserts.

Passkey

Passkey systems call for an encrypted code that is either hardwired into a physical device (that is either implanted or physically jacked into an ecto) or extracted from specialized software. Advanced passkeys combine hardwired encryption with physical nanotech etching to create a unique key. To access such systems, the passkey must either be acquired or somehow spoofed.

Quantum Key

QK systems rely on a passcode delivered on a quantum-entangled and encrypted channel. Due to their expense and logistics, these are rare, but highly secure.

CIRCUMVENTING AUTHENTICATION

Since hacking or breaking encryption can be challenging or take time, it is sometimes easier to bypass authentication systems.

Acquiring Credentials

If you can somehow acquire the passcode, passkey, biometrics, or quantum-entangled device used to authenticate an account, you can log in as a legitimate user, no tests necessary. This may require creative means to acquire: theft, blackmail, bribery, social engineering, forknapping, or unsavory methods like torture.

Forging Authentication

Lacking actual credentials, you can try to fake them. Biometric and passkey systems can potentially be forged by hackers who are able to get a look at the originals. The means and techniques for doing so differ and are beyond the scope of this book, but successfully forging such systems would allow a hacker to log in as the legitimate user. At the least, forging should require multiple skill tests (for example, Infosec and Hardware: Electronics to extract a retinal print from a retinal scanner's memory, and Medicine: Biotech to grow a duplicate eye) and lengthy timeframes.

Spoofing

You can attempt to disguise your connection as if it came from a legitimate user or system. If successful, the recipient system is fooled by the charade and treats your commands and other traffic as legitimate.

To spoof signals, you must first successfully monitor an active connection between the two systems using a sniffer app (*Sniffing* ▶245). Armed with this data, you can use it to mask your own signals with a spoofer app. This requires a complex action and a Hacking Test ▶258 between you and the target system (the one *receiving* the signals). If the systems are communicating via a VPN, this test suffers a –30 modifier. If you win, your communications are treated as if coming from the legitimate system. If the firewall loses the contest but also succeeds, it is aware that there are discrepancies with the transmission (which is not that unusual). It may investigate further; this requires another Hacking Test (the spoofer suffers –30 against a VPN); if the defender wins, they detect evidence that incoming communications are being tampered with and may respond accordingly (*Countermeasures* ▶260).

Note that spoofing only allows you to fake signals from one system to another. To fake signals back the other way, you must succeed in a Hacking Test ▶258 against the other system as well. Successful man-in-the-middle attacks against both systems can be challenging but quite devastating.

ENCRYPTION

There are two types of cryptography commonly used in *Eclipse Phase:* public key and quantum.

Public-Key Crypto

In public-key cryptosystems, you generate two keys, a public key and a secret key. You give the public key to your friends or simply post it to the mesh at large. Others can use your public key to encrypt messages to you that only your secret key — controlled by you — can decrypt. Public-key crypto is widely used for encrypting files. Due to the strength of the public-key system algorithms, such crypto is essentially unbreakable without a quantum computer (*Quantum Codebreaking* ▶below). Public-key crypto is also used in VPNs, but sniffer apps exploit flaws in the protocol implementation that enable them to capture, bypass, or spoof the crypto keys without actually cracking them.

Quantum-Key Crypto

Quantum-key distribution systems use quantum mechanics to enable secure communications between two parties. The advantage to transmitting information in quantum states is that the system itself instantly detects eavesdropping attempts as quantum systems are disturbed by any sort of external interference. In practical terms, this means that quantum-encrypted data transfers are unbreakable and attempts to intercept automatically fail. Note that quantum crypto doesn't work for basic file encryption, its only use is in protecting communication channels.

While quantum-key systems have an advantage over public-key systems, they are more expensive and less practical. To generate a quantum key, the two communications devices must be entangled together on a quantum level, in the same location, and then separated. This means that quantum-encrypted communications channels require some setup effort, especially if long distances are involved. As a result, quantum-crypto protocols are reserved for high-security communications links.

Codebreaking

What this means is that public-key-encrypted files are somewhat safe and quantum-encrypted communications are absolutely safe. GMs should take note: this may be useful to PCs, but may also hinder them. If the PCs need to get at something that is encrypted, they may need to deploy non-hacking methods to get the secret key/passcode or find some way to bypass the encryption entirely.

Quantum Codebreaking

Quantum computers can be used to break public-key encryption. This is an Infosec task action with a timeframe of 1 week. Once started, the quantum computer finishes the job on its own; you do not need to provide constant oversight. This process does not benefit from time-accelerated simulspaces. GMs should modify this timeframe to fit the needs of their game. Note that quantum computers cannot break quantum-encrypted communications, only public-key-encrypted files.

MESH ACTIONS

Your actions online are largely influenced by the particular system(s) you are accessing. The following list is not comprehensive, but should give you and your GM a basis for handling online tasks.

Keep in mind that your actions are limited by your current access privileges ▶246. If you wish to do something that your privileges do not allow — access a file in a restricted directory, edit a log, manipulate a security device — then you must hack the system to do so. Actions that specifically require hacking are detailed under *Hacking* ▶258, and *Subversion* ▶262.

Unless otherwise noted, these actions each take a complex action but require no skill test, assuming you have access privileges.

UNIVERSAL ACTIONS

These actions apply to motes, hosts, servers, and most other electronics. Any user can take these actions, though high-security systems may restrict some of these to users with security or admin privileges.

- **Access Another System:** You can authenticate ▶246and access an account on another system. This creates an account shell ▶246, representing your presence on that system.
- **Apply Tag:** You can mark a physical person, place, or thing with an e-tag viewable in AR (*Tagging* ▶243).
- **Communicate:** You can email, text, and voice or video chat others online, as long as you have their mesh ID.
- **Encrypt/Decrypt:** You can protect a file from prying eyes or access it with the proper authorization (*Encryption* ▶247).
- **Filter AR Mist:** You can attempt to remove spam and other obtrusive AR "mist" (*AR Mist and Filters* ▶242).
- **Identify Attacker:** You can try to identify someone trying to crash you in mesh combat (*Attack Awareness* ▶264).
- **Issue Command:** You can command any slaved device, ALI, or teleoperated bot with only a quick action. Each command counts separately, though you may issue the same command to multiple devices/bots at once.
- **Log Off:** Exit a system.
- **Modify Files:** You can view, change, upload, download, and delete any files you have access privileges for. Deleted files can still be recovered with an Interface Test for 1 week, though you can also choose to wipe (permanently delete) a file so that no recovery is possible; however, archived backups may also exist.
- **Operate Device:** Most devices have built-in hardware and electronic functions that you can directly control. Turn on your vehicle, load an autocook blueprint, turn up the heat, turn off the sprinklers, open the door, set a timer, fire a weapon system, adjust settings, etc. At the GM's discretion, some functions may require skill tests.
- **Run Script:** Launch a pre-programmed script (*Scripting* ▶249).
- **Scan Wireless Signals:** It is a quick action to look up wireless devices within range and their mesh IDs. It takes a complex action to locate a stealthed devices ▶244 .
- **Search:** You may search a system you are accessing or the mesh at large (*Online Research* ▶254).
- **Shield Software:** You may actively protect software that is targeted in mesh combat ▶264.
- **Stealth Wireless Signals:** You can attempt to hide your wireless activity (*Stealthed Signals* ▶244).
- **Switch Home Device:** If you are an infomorph, you may transfer your virtual mind-state to another system (*Infomorphs* ▶252) or distribute it among several systems (*Distributed Infomorphs* ▶252).
- **Terminate Software:** You can kill a minor software process you have privileges for and bring it to a stop. If the software belongs to another user or has significance to the story, treat this as an attack in mesh combat ▶264.
- **Toggle AR Skin:** You can change the augmented reality that skins the world around you (*Skinning* ▶242) with a quick action.
- **Toggle Privacy Mode:** You can set your public profile to private or public (*Privacy Mode* ▶241) with a quick action. You can also toggle the option to allow police/security to override your privacy settings.
- **Toggle Simulspace:** You may enter or exit a simulspace environment (*Virtual Reality* ▶268).
- **Use Apps:** Most devices are loaded with apps appropriate to their purpose. These commonly include word processors, graphic design studios, video and audio workstations, and games. Dedicated systems may have apps for habitat system controls and weapon stations. Using these apps may require an Interface or other skill test.
- **Use Service:** You can use software available as a service in the cloud. This usually requires having a subscription to the service, though some are free.
- **View Apps:** You can see both the apps available on the device as well as the ones currently running with only a quick action. Some apps may only be available to specific accounts, according to that system's privileges.
- **View Profile:** You can view the public social network profile and rep scores of anyone within physical range (or within range of sensors you are accessing), unless they are in privacy mode ▶241.
- **View Sensor Feeds:** Many devices include miniaturized sensors. These can be viewed or streamed directly into your augmented reality. Use Perceive Tests for most sensors; others may require Know Tests (for example: a chem sniffer's results are analyzed with Know: Chemistry). Sensors used for security purposes are usually limited to accounts with security or admin privileges.
- **View System Status:** Get a report on the system's "health" and integrity, the status of its built-in functions, the progress of ongoing processes, security alerts/intruder status, and so on.

SECURITY ACTIONS

Actions reserved for accounts with security or admin privileges.

- **Acquire Mesh ID:** You can acquire the mesh ID of anyone accessing the system.
- **Activate Countermeasure:** You may initiate an active countermeasures ▶260 against an intruder, such as locking them out, tracing them, or initiating a reboot.
- **Attack:** You can attempt to crash software, including account shells, apps, firewalls, infomorphs, operating systems, and services (*Mesh Combat* ▶264).
- **Bypass Jamming:** You can attempt to temporarily overcome jamming by winning an Opposed Interface Test with the jamming party (*Jam Signals* ▶263). If successful, you get a short transmission through (3 seconds, +3 per superior success).
- **Locate Intruder:** If you suspect a hacker has invaded your system, you can attempt to identify them (*Locate Intruder* ▶261).
- **Lockout:** You can block a specified mesh ID from accessing the system. If that mesh ID is currently accessing the system, its account shell must be crashed in mesh combat first.
- **Monitor Activity:** You can spy on an app's activity or another specific user's actions in real-time. If the user is hacking the system, this may require winning an Opposed Infosec Test to ascertain what they are doing. Hackers sometimes use this to monitor the firewall or system defender.

- **Scan Infomorph:** You can analyze an infomorph with a successful Interface Test. This will tell you the type of infomorph, its public profile (if not private), its mesh ID, and whether or not it is an ALI or a fork. A more in-depth analysis takes an Interface Test and a timeframe of 10 minutes, but will reveal its digital code ID ▶299 and any embedded apps or meshware. If the infomorph has e-veil meshware, this is an opposed test against the veil's Program 80.
- **Trace:** You can track a user to their physical location (or at least the system they originate from); see see *Physical Tracking* ▶256.
- **Trigger Alert:** You can put the system on passive or active alert.
- **View Logs:** Access the system's logs. This will tell you when users accessed the system, what apps they used, what files they viewed or modified, what linked systems they accessed, their mesh IDs, what other devices were in wireless range at what times, and similar forensic histories. Older logs (over a month) are often backed up to a cloud service and erased. Searching for specific information may require a Research Test.
- **View Users:** You can see which other users are currently accessing the system, what apps they are using, and their mesh IDs. Intruders with hidden status will not be shown.

ADMIN ACTIONS

Only admin accounts are allowed to take these actions.

- **Disable Sensors or Device Functions:** You can turn off sensors or other physical functions. This may keep someone with physical access to the device from using it.
- **Modify Accounts:** You can add new accounts and remove old ones. You cannot remove accounts that are currently being accessed — the user must completely log off first (or have their account shell crashed in mesh combat). Every device has a root admin account that cannot be removed (short of wiping the system).
- **Modify Privileges:** You can add or remove specific privileges, such as allowing access to certain directories, files, sensors, or apps. You can also downgrade security accounts to user privileges or elevate users to security accounts and security accounts to admins. You can remove or downgrade admin privileges from other accounts, however every device has a root admin account that cannot be modified (with ware, this usually means the person they are installed in).
- **Modify Software:** You can install, remove, and update apps.
- **Wipe System:** You can completely erase all data from the system: all files, apps, accounts, infomorphs, and the operating system itself. This is a lengthy process, taking 1 minute for motes, 3 minutes for hosts, and 10 for servers. Infomorphs are immediately warned, so that they have time to copy themselves or move to a new home device. Forensic methods (an Interface Test) can be used to recover wiped data, at least until the system is re-installed, unless you choose to securely wipe the system (double the time).

SCRIPTING

A script is a simple program — a batch of instructions — that you can embed in a system to be executed at a later scheduled time or upon a certain trigger event, without your presence. When activated, the script will undertake a series of pre-defined actions, in order. Scripts are commonly used by hackers to subvert a system while they are occupied elsewhere, but they can also be used with your own systems (though it is usually easier to tell ALIs what to do).

Scripts can be programmed on the fly or pre-programmed. When composing the script, you must detail what actions the script will take, in what order, and at what times (or trigger events). The script cannot contain more steps/tasks than your Program skill ÷ 10. To program a script, you must succeed in a Program Test with a timeframe of 1 hour per step. Superior successes provide 1 point of Insight pool that the script may use for making tests.

To load a script into a system, you must have the necessary access privileges or must succeed in a Hacking Test ▶258. If successful, the script is loaded into the system and will run as programmed. Once the script is activated, it carries out the pre-programmed sequence of actions. The script is considered to have the same access privileges as the account that runs it. The programmer's Infosec, Interface, and Research skills are used for any tests called for by those actions, but only the script's own Insight pools may be used.

Scripts may be discovered in security audits ▶261

AIs & MUSES

AIs are self-aware software. Like other code, they must be run on a computerized device. They may be crashed in mesh combat, copied, erased, stored as inert data, infected with viruses, and reprogrammed.

ALIs

Artificial limited intelligences are designed as "custodian helpers" for specific devices or tasks. They are based upon machine-learning neural nets that draw upon vast data sets concerning the device/operations, meaning that they are well-versed in the best methods and likely outcomes. They are programmed with the core skills they need for their tasks and equipped with a personality expressly geared towards customer service, obedience, and satisfaction.

Most ALIs are run on bots, vehicles, and other devices to assist transhumans or operate the machine themselves. Sample ALIs are listed on ▶326.

In most societies, ALIs are considered things or property rather than people and accorded no special rights. They may also be banned from certain roles or activities. A few polities treat them as persons with limited or full civil rights and protections.

Personality

ALI personality matrices are encoded with individual identities and character traits. They seem conscious and self-aware, though detailed probing will reveal shallow personalities and other limitations. They lack self-interest and initiative, and their emotional programming is narrow (based on empathy alone) or non-existent, though they may be programmed to anticipate the needs and desires of users and pre-emptively take action on their behalf. Though sentient, it remains a matter of debate whether ALIs are fully sapient.

Given their limited personality, ALIs are less emotive and more difficult to read. Apply a –30 modifier to Kinesics Tests made against them. When combined with non-expressive synthetic morphs, increase this modifier to –60. Some ALIs lack emotive capability altogether and are simply impossible to read.

Commanding ALIs

Due to built-in safety features, ALIs must serve and obey the instructions of authorized users within their normal functioning parameters. They are also programmed to follow the law (in the inner system) or an ethical code (autonomist areas). If need be, however, ALIs can be quite clever in how they interpret commands and act upon them. More importantly, their psychological programming is based on human modes of thought and an understanding and support of transhuman goals and interests. This is part of an effort to create "friendly AI." An ALI will be reluctant to follow commands that will have a negative impact on the user or other transhumans. Pre-programmed imperatives can force it to ignore or disobey orders that are dangerous. In the case of accidents, they are sometimes coded to minimize harm and damage and sometimes coded to protect the user at all costs. Of course, ALIs designed for military and weapon systems do not face such restrictions.

Limitations

Lacking generalized intelligence, ALIs are inept and clueless when it comes to situations outside their specialty. Secondary skills tend to be less competent than an equivalent transhuman. They are generally incapable of creative or "outside-the-box" thinking.

Aptitudes, Skills, and Pools

ALIs usually have aptitudes of 10, with a maximum of 15. Most have 5–7 active skills, with a maximum of 10. Their skills cannot exceed 40 (including aptitudes), with the exception of one active skill appropriate to the ALI's specialty, which can be 60. Most have 3–5 Know skills, with a maximum of 10. Their Know skills cannot exceed 80.

ALIs cannot default; if they don't possess a skill, they can't use it. They can use specializations (which can exceed their maximums).

ALIs do not get pools, unless a morph, bot, vehicle, or other device they are operating provides them.

By design, ALIs are incapable of self-improvement. To acquire or improve a skill, they must be reprogrammed or use skillware. They do not earn Rez Points.

For all other rules, ALIs are treated as infomorphs ▶252.

Traits

ALIs have the Enhanced Behavior (Obedient, Level 3) and Real-World Naiveté traits. GMs may assign other traits as they see fit.

Lucidity and Trauma

ALIs are capable of suffering mental stress and trauma, and so have Lucidity, Trauma Threshold, and Insanity Rating stats.

Sleeving

ALIs use their own individual infomorphs. ALIs may be sleeved into any morph with a cyberbrain. They cannot be downloaded into biomorphs with biological brains.

MUSES

Muses are a subtype of ALI designed to be personal aides and companions. Most transhumans grew up with a muse at their virtual side. Muses have more personality and psychological programming than standard ALIs and over time they build up an extensive database of their user's preferences, likes and dislikes, and personality quirks so that they may more effectively be of service and anticipate needs. Most muses reside within their owner's mesh inserts or ecto, where they can manage their owner's PAN, communications, online searches, rep interactions, and other mesh activity.

Personality and Relationships

Muse personalities are customizable. They are bundled with a subscription to a library of traits, quirks, and affects, many based on historical or fictional personas. Muses may also be modeled on personality templates of actual people; some are built from life-logged interactions with relatives or friends, others are based on fictional characters, childhood pets, or imaginary friends. While your first muse as a child was molded to suit you according to a battery of tests, over time you altered it to fit your changing tastes.

Transhumans develop strong bonds to their muses due to their omnipresence and devotion. Your specific relationship may vary, depending on your own personality, history, and views on sentient programs. Some transhumans treat their muses as intelligent toys, servants, or pets. Others are closer, viewing them as confidantes, mentors, comrades, or even paramours. A few, however, have contentious or even hostile relationships, especially if the muse has taken on an unwelcome guardian role.

What Your Muse Can Do For You

The primary use for muses is to handle trivial online tasks, thus freeing you up for more important things. This can be quite handy

ROLEPLAYING MUSES

Muses provide boundless roleplaying opportunities. GMs can use them to remind, nag, encourage, or pester PCs — no one is ever really alone. If you find it overwhelming to keep track of the PCs' muses and their personalities, have the players roleplay each others' muses. Simply give each player an index card with the muse's skills and personality notes; hold the card up when roleplaying as the muse. This can also be a useful tool for keeping players involved in a scene when the party splits up and their own PCs are busy elsewhere.

during time crunches or chaotic situations — it is otherwise quite inconvenient when you need to google something in the middle of a firefight. If you are not skilled in Infosec and don't have or trust a team hacker, your muse can also act as your PAN's system defender ▶260. Its important to remember that muses can also assist you in certain tasks, providing a teamwork bonus ▶31.

Here are a few specific examples of tasks your muse can take on:

- Protect your PAN as system defender.
- Shield your account shell or other software in mesh combat.
- Make Research Tests to find information for you.
- Falsify or fluctuate your mesh ID.
- Scan newsfeeds and mesh updates for keyword alerts.
- Teleoperate and command robots and ALIs.
- Launch countermeasures against intruders.
- Monitor your rep scores and alert you to drastic changes.
- Automatically ping and ding other people's rep on your behalf.
- Run audio through an online, real-time language translation service.
- Put you in privacy mode and proactively stealth your wireless signal.
- Track people for you.
- Anticipate your needs and pre-empt your requests.
- Monitor your health (via medichines) and the status of ware/gear.
- Summon help if something happens to you.

Online, Even When You're Down

Muses do not sleep, remaining active while you rest or hibernate. Likewise, if you are incapacitated or grappled, your muse can still act (*Damage and Infomorph Riders* ▶265). Shock attacks, however, temporarily disrupt implanted systems, so your muse will be incapacitated just as you are.

Muse Backups

Muses are normally backed up and stored along with the ego, including on cortical stacks.

Other Infomorphs As Muses

Some people prefer full-blown intelligences for aid and companionship over a muse. Any infomorph can take a muse's residence within your mesh inserts, whether an AGI, disembodied transhuman, or even a fork of yourself.

AGIs

AGIs are complete and fully autonomous digital consciousnesses, self aware and capable of intelligent action at the same level as other transhumans. AGIs are capable of creativity, learning, and self-improvement (at a slow but steady pace equivalent to humans). They also possess deep, rounded personalities and stronger emotional/empathic abilities than standard ALIs. Most are raised in VR in a manner similar to human children, so that they are socialized with transhuman values. As a result, they have a fairly human persona and outlook, though some deviation is to be expected — AGIs often possess or develop personality traits and idiosyncrasies that are quite different from human norms and sometimes outright alien. Despite this attempt to humanize AGIs, they do not have the same evolutionary and biological origins that transhumans have, and so their social responses, behavior, and goals are sometimes decidedly different. On an emotional level, AGIs run subroutines that are comparable to biological human emotions. Most are programmed to have empathy, share an interest in transhuman affairs and prosperity, and place significant relevance on life of all kinds. In game terms, AGIs emote like other transhumans (and so Kinesics may be used to read them) and are vulnerable to emotionally manipulative effects, fear, etc.

AGI minds emulate transhuman neural patterns, allowing them to sleeve into morphs with biological brains. AGIs sometimes have trouble adapting to biological neurochemistry, finding reactions such as hunger and fear to be as confusing as they are novel.

AGIs bear the social stigma of their non-biological origin and are often met with bias and mistrust. Some habitats outlaw AGIs or subject them to strict restrictions, forcing such infolife to hide their true natures or illegally darkcast in.

Just like other PCs, AGIs earn Rez points and may improve their skills and capabilities. AGIs suffer none of the skill limitations placed on ALIs, using skills just like any other character.

ASIs

Super-intelligent AIs can self-upgrade at exponential rates and grow into god-like digital entities. They require massive processing power and are always increasing in complexity due to a continual metamorphosis of their code. The only ASIs publicly known to exist are the infamous TITANs who are widely regarded as being responsible for the Fall. Many suspect that the TITANs were not the first ASIs, however, and they may not be the last. No ASIs are currently known to exist within the Solar System or on any exoplanets visited by transhumans, though rumors circulate of damaged TITANs left behind on Earth, speculated TITAN activity under the clouds of Venus, or whispers of ASIs hidden away in secret networks on the edges of the system.

ASI minds are too vast and complex to be downloaded into a physical morph, even a synthetic one. They have been known to sometimes create massively dumbed-down forks that can sleeve into physical morphs, with drastically reduced mental capacities.

ASIs are too intelligent to codify in game terms. They can think circles around transhumans, have plans within plans within plans, have unlocked secrets of the universe that we only dream about, and are unlikely ever to be caught off-guard.

NON-STANDARD AIs

Not all ALIs and AGIs are programmed and designed to adhere to human modes of thought and interests. These include emergent neural networks that expressed intelligence on their own, uplifted expert systems, machine minds based on non-human brains, and stranger things. Such creations are illegal and considered a potential threat in many jurisdictions. Nevertheless, hypercorps and other groups experiment with varying results. In some cases, these digital minds are so different from human mindsets that communication is impossible. In others, enough crossover exists to allow limited communication, but such entities are invariably quite strange.

INFOMORPHS

Infomorphs are virtual mind-states, the software upon which egos are run. Each is a complex assortment of packages that together emulate a neural structure. They serve as the digital "body" for an ego, whether that be an AI or the emulation of a biological mind. Whereas a backup is just an inactive file, infomorphs are software executables, active programs that bring the ego to electronic life.

For millions of infugees, a digital form is their only choice. Some are locked away in virtual realities, effectively imprisoned and separated from the mesh. Others are stored as deactivated files, forgotten by habitats that don't have the resources to accommodate them. Others sell themselves into indentured service, performing digital labor for hypercorps or criminal syndicates for a pittance, desperately hoping to eventually hoard enough credits to buy their freedom and a cheap sleeve. Quite a few freely roam the mesh, interacting with the physical world via AR and bots. A few find companions to bring them along in a ghostrider module, becoming an integral part of their lives, much like a muse.

Many transhumans willingly choose the infomorph lifestyle, either for hedonism (custom simulspace and VR games until the end of time), escapism (misfortune leads them to write off physical concerns), freedom (going anywhere the mesh takes them — some have even beamed copies of themselves to distant star systems, hoping someone or something will receive their signal when they arrive), or experimentation (forking and merging, running simulations, and weirder things). Naturally, most infolife AGIs tend to prefer a digital existence over the banalities of the physical world.

Though disembodied, infomorphs can interact with the physical world via the mesh, viewing through sensors, streaming XP feeds, communicating with characters, commanding slaved devices, and teleoperating bots.

HOME DEVICE

Every infomorph must be run on a specific host or server — your *home device*. The privileged choose secure systems upon which they have admin access, but most simply rent a private partition on a major server. Others reside in the mesh inserts or ghostrider modules of friends, relatives, or hired "taxis." Your home device stores your mind-state files and handles the processing needs of your mind-emulation suite. You can access other devices through the mesh, but you reside on your home device. Infomorphs act as their own account shells on their home devices.

The safety of your home device is important. If it is shut down, you shut down with it, rebooting along with the device later. If the device is destroyed, you are killed, though your data may be recoverable from salvaged components (perhaps resulting in a *vapor* ▶292).

A host can be home to only one infomorph at a time; servers may run multiple infomorphs. Most motes do not have the processing power to run infomorphs.

Inadequate Devices

Some devices lack the full processing power required to run an infomorph. This includes outdated systems, devices that have suffered extensive damage, partially functioning servers running in long-abandoned outposts, ad-hoc cobbled-together systems, and some motes from which the resident ALI has been deleted. Infomorphs may still run these devices, but suffer the same modifiers as for an overloaded device ▶244. Infomorphs find running on sub-par hardware to be a deeply unpleasant and frustrating experience.

Distributed Infomorphs

Rather than residing on a single home device, an infomorph can run itself as a distributed neural net using multiple devices at once. Mesh networks make this easy, as devices set aside a portion of their capabilities for public access and meshed devices share processing loads with each other. An infomorph can even run itself as a distributed process using only motes, though this requires 5 at minimum. Meshed together, these motes can handle the mind-state's storage and processing requirements.

Running as a distributed infomorph has its advantages. Attempts to track you via mesh ID ▶246 suffer a –10 modifier. You also acquire a degree of invulnerability in mesh combat ▶264, as you must be crashed on each device to be completely taken out. You must split your Durability evenly between devices but your Wound Threshold remains the same. However, your attack surface also increases: you can be targeted for hacking and brainhacking on multiple devices. Each device you are distributed upon counts as a home device. If your presence on a device (or the device itself) crashes, you suffer a wound.

Properly distributing yourself takes 1 action turn per device; re-integrating onto a single device takes the same time. If you are ever running on less than 5 motes alone, apply modifiers as if operating on an overloaded device ▶244. If you stretch yourself between too many devices (more than 10), you incur a –10 modifier to all actions per increment of 10 devices as your distributed mind suffers communication lag.

DIGITAL SPEEDS

All infomorphs have the Digital Speed trait ▶73, reducing the timeframe for all mesh-based task actions by 25% (cumulative with reductions for superior successes).

MOVING BETWEEN DEVICES

As an infomorph, you can move to a new device to which you have access. This simply requires copying to the new device, activating your mind-state, linking your active processes, and erasing yourself from the old device. This takes a full action turn once initiated; you cannot take any other actions, even by spending pool, until it completes. The new device then become your home device. All ongoing actions are suspended (or possibly disrupted; GM discretion) for the duration of the move. You do not lose continuity during the process, nor does this count as resleeving. Egocasting is a long-distance version of this process, with a longer timeframe.

Do not confuse moving between devices with accessing devices. You may access multiple devices at the same time like other users, but you are only running on one home device at a time.

COPYING

As a digital being, you may also copy yourself. This takes a full action turn and creates an alpha fork ▶292. Copied infomorphs do not lose continuity. If you are copied to a different type of infomorph, this counts as resleeving ▶288. Your copy includes your digital code ▶299 along with a cryptographically signed incremental number indicating which copy it is.

Infomorphs acquired from commercal code studios (i.e., most agents, ikons, and operators) have built-in digital restrictions that prevent you from running more than one copy of that morph at a time. Instead, the copy instantiates in a standard digimorph. This copy restriction may be cracked in the same manner as digital blueprints (*Cracking Blueprints* ▶314). Code houses offer bounties for reports of people using cracked infomorph code.

In many jurisdictions, copying oneself is frowned upon or flat-out illegal. Some polities require infomorphs to be encoded with copylock and auto-erase meshware ▶326 to prevent unauthorized copying and delete the fork upon reaching a legally mandated time limit.

DELETION

You may delete yourself (unless you somehow lack the privileges or are imprisoned in a lockbox). Virtual suicide takes one full action turn.

EVACUATING CYBERBRAINS

Any ego within a cyberbrain may move or copy itself as an infomorph to another device. Egos default to a digimorph ▶67, unless you have another type of infomorph available.

SLEEVING MORPHS

It is a simple matter for an infomorph to sleeve into a morph equipped with a cyberbrain. Infomorphs may also download into biological brains, just like any other ego. See Resleeving ▶288.

BACKING UP

Infomorphs do not have cortical stacks, but they are automatically backed up as changes to their memories and code are written to their files as they occur. A deactivated infomorph remembers everything up to the point it was shut down. For security, infomorphs arrange regular backups of their ego files to a secure site other than their home device.

INFOMORPHS AND MUSES

Many infomorphs have a muse, just like other characters. Lacking cranial implants, however, the muse must either run on the same server or on a separate device. Muses are treated as a separate infomorph.

INFOMORPH RIDERS

Active infomorphs can be carried by embodied PCs in a ghostrider module ▶320, in mesh inserts in place of a muse, or in any physically carried host or server. This is useful for PC infomorphs that wish to stick with the team or for any PCs that were egocasted or killed and haven't yet resleeved. It is also a useful option for having forks on hand.

Infomorph riders may remain active even when their host morph is sleeping or incapacitated (*Damage and Infomorph Riders* ▶265).

INFOMORPH RUMORS

//Accessing New Forum Threads//

Anon: OK, everyone, hit me with your latest infomorph scariness mesh rumors. Let's hear about all of the virtual bogeymen.

Anon: There's gossip going around Mars's mesh communities about a private server in Martian orbit that has the best simulspaces anyone has ever seen. It's like heaven for infomorphs. Allegedly, there's a secretive group that controls access, and to get in they make you do all sorts of illegal things.

Anon: I heard that the VR was top-notch because a TITAN fork was running it. It was an open debate whether the TITAN was imprisoned there or whether it was luring new infomorphs in to corrupt them and turn them into pawns.

Anon: I've heard better hidden simulspace tales. Like the one about the gerontocrat that gathered up all of the backups of his political rivals back on Earth during the Fall, just so he could run them in a private server to torture, play with, or do as he pleases. It's said he has the entire Senate of Poland on that drive. They're probably adding new egos to the menagerie all of the time.

Anon: Let's talk about the Factor infomorphs that are running free on our mesh. Why isn't anyone doing anything about this alien menace?

Anon: It's not Factors, it's some other alien entity brought back in an artifact via the gates. No telling how old it is.

Anon: Let's talk about something with an actual basis in reality. Multiple gatecrashers have testified they were somehow forked when they passed through a gate. According to these claims, their forks were instantiated as infomorphs in some alien system, where they were subjected to various puzzles and tests. They claim that their forks were then re-integrated when they passed back through the gates. According to someone I know at Pathfinder, these accounts included matching details that weren't public.

Anon: Sounds like someone is using the gates to try and figure out how to make contact with us. Or how best to wipe us out.

Anon: We have AGIs in our midst, right now, copying en masse in preparation for a war. A hostile takeover. Open your eyes, people! Fall 2.0 is coming!

Anon: I dunno, maybe stop treating AGIs like inferior nobodies and they won't be so interested in killing us all.

Anon: I've heard of AGIs that are researching ways to reproduce themselves, not by coding, but in a process that replicates biological reproduction.

Anon: Psht,we're fine with copying and modifying code, just as we've already been doing with codelines. We're the future, not you bio meat sacks.

ONLINE RESEARCH

The mesh is a treasure trove of data for those skilled in exploring its nooks and filtering out the detritus. Use Research skill when looking things up online. You can search for news, research papers, public sensor feeds, social network activity, personal information, corporate info, SolArchive entries, criminal records, government data, leaked reports, mesh-connected devices, and much, much more. Digitized data of all kinds can be searched: text, pictures, audio, video, XP, raw data, software, etc. This data is culled from all manner of sources: archives, databases, directories, social networks, cloud services, blogs/vlogs, forums, chat rooms, and regular mesh sites. Research is conducted using various public and private search engines, both general and specialized, as well as data indices and search AIs.

You also use Research when looking for information on a specific network or device to which you have access: a sensor mote, someone's ecto or tablet, a robot, or an opponent's mesh inserts (*Searching Specific Systems* ▶next page). Likewise, since everyone inevitably uses and interacts with the mesh, Research skill is also a way to identify, backtrack, and/or gather information on people as long as they have not hidden their identity, worked anonymously, or covered their identity with a shroud of disinformation (*Tracking* ▶256).

SEARCH CHALLENGES

Due to the sheer amount of data available, finding what you're looking for can be a daunting task. Thankfully, information is fairly well organized, thanks to the hard work of "spider" AIs that cruise the mesh and update data and search indices.

Another impediment to online searches is the amount of incorrect data and misinformation. Much data is simply wrong (mistakes happen) or outdated. Falsehoods are intentionally perpetuated and spread for memetic warfare purposes. Hacktivist groups actively seed false data in an effort to combat out-of-control surveillance data mining. This misinformation can linger for years and propagate far and wide as it is circulated without fact-checking. To counteract this, many data sources incorporate reputation scores so that untrustworthy or disreputable sources can be identified and ranked lower in search results. Many archives also harness the collaborative power of mesh users and ALIs to crowdsource verification of their data.

SEARCH CAPABILITIES

Online research in *Eclipse Phase* is not the same as just googling something. Here are five ways in which it is vastly improved:

Pattern Recognition: Biometrics and other forms of pattern recognition are efficient and intelligent. It is not only possible to run image recognition searches (in real time, via all available motes and XP feeds) but to search for patterns such as gait, sounds, colors, emotive displays, traffic, crowd movement, etc. Kinesics and behavioral analysis even allow sensor searches for people exhibiting certain patterns such as suspicious loitering, nervousness, or agitation.

Metadata: Information and files online come with hidden data about their creation, alteration, and access. A photo's metadata, for example, will note what gear it was taken on, who took it, when and where, as well as who accessed it online, though such metadata may be easily scrubbed or anonymized.

Semantic Tags: Most data is semantically tagged, meaning that it's accompanied by code that an ALI can use to understand the context of that information as a transhuman would.

Translation: Real-time translation of audio and video is available from open-source translation bots.

Forecasting: A significant percentage of what people do on any day or in response to certain situations conforms to routines, enabling easy behavioral prediction. Muses take advantage of this to anticipate needs and provide whatever is desired by their user at the right moment and in the right context. The same logic applies to actions by groups of people, such as economics and social discourse. ALIs use algorithms to cross-index data and contexts to predict most likely outcomes. Security forces use this to place patrols where trouble is likely to occur.

Data Mash-Ups: The combination of abundant computing, archived data, and ubiquitous public sensors, along with intricate algorithms, means that intriguing correlations can be drawn from data that is mined and collated. In the midst of a habitat emergency such as a terrorist bombing, for example, the ID of everyone in the vicinity could be scanned, compared to data archives to separate out those who have a history of being in the vicinity at that particular time, with those remaining checked against databases of criminal/suspect history, their recorded actions analyzed for unusual behavior, and anything they've spoken compared to keyword lists.

RESEARCH TESTS

Online research is a crucial element of most *Eclipse Phase* scenarios, as characters take to the mesh to unearth backgrounds and uncover clues. Common and inconsequential public information is immediately available without requiring a roll at all. Your muse will handle these searches for you, passing on the results while you focus on other things.

Online Research

Situation	Modifiers
Conflicting Sources	–10
Possess Hints, Traces, or Corroborating Details	+10 to +30
Availability	
Widespread Information	timeframe ÷ 2
Buried Within Other Details	timeframe × 2
Obscure or Unusual Data	–10 to –30
Private or Proprietary Data	–30 or NA
Analysis/Comparison of Data Sets	
Small Data Set (single scientific study/sample)	timeframe ÷ 2
Medium Data Set (multiple studies/samples)	—
Large Data Set (dozens of studies/samples)	timeframe × 4
Massive Data Sets (hundreds of studies/samples)	timeframe × 20
Real-Time Biometric Scanning	
Facility/Small Habitat	—
Neighborhood/Medium Habitat	–10
City/Large Habitat	–30
Forecasting	
Small Data Set (1 week)	–30
Medium Data Set (1 month)	—
Large Data Set (1 year)	+10
Massive Data Set (5 years+)	+30

For searches that are more detailed, difficult, or central to the plot, make a Research Test (or have your muse make one for you). If you are searching for data tied to a particular subject or field of study, you can use an appropriate Know skill as a complementary skill ▶53.

Research Tests are handled as task actions. The suggested timeframe is 1 hour, though this should be modified by the GM according to the amount of data you must sift through to get the result and the needs of the plot. Searches that require you to access non-local parts of the mesh may increase the timeframe due to distance lag (*Islands in the Net* ▶241). Superior successes provide bonus details and nuance. A critical success leads to a breakthrough understanding. A critical failure, however, results in false and misleading information.

Private and Proprietary Data

Not everything can be found online. Some data may only be acquired by asking the right people (*Networking* ▶308). Information that is considered secret or proprietary could be stored away in private networks behind firewalls, in off-mesh hardwired networks, or in commercial archives. This would require you to gain access to such networks in order to get the data you need (though a successful Research Test may tell you where to look).

Analyzing the Results

Just because you've acquired the data doesn't mean you understand it. You may need to make a skill test using Know or another appropriate skill to analyze the results and discover what you're looking for. For example, a Research Test might pull up the chemical details of a particular alien toxin, but a Know: Chemistry Test may be necessary to actually understand the repercussions and concoct an antidote.

REAL-TIME ALERTS

You may ask your muse to monitor mesh feeds for news or other mentions as they occur in real time. You can also monitor existing data for any updates or changes. If and when the information comes up, the GM makes a secret Research Test on your muse's behalf. If successful, the update is noted. If not, it is missed, though the GM may allow another test if and when the topic reaches a wider range of circulation or interest.

SEARCHING SPECIFIC SYSTEMS

You can also use Research skill to scan for specific keywords, file names, media, or other data on a system. When searching a single device such as a mote or host, this simply takes a complex action. For larger devices and networks, this is a task action with a longer timeframe; see the Searching Timeframes table for suggestions.

The above rules assume you are looking for something specific. Sometimes, however, you may simply be browsing through an opponent's captured device, looking for something interesting, incriminating, or that otherwise stands out as a clue. If you are searching a system without knowing exactly what you are looking for, the process can take significantly longer. In this case, make a Research Test for every hour you search. The GM should apply a negative modifier between 0 and –30 based on the size on the system and the density of information it contains. If you succeed, you find one clue or other intriguing bit of data, plus one per superior success.

Note that encrypted files must first be decrypted before they can be searched.

GMing RESEARCH TESTS

Research Tests are often important for the story line as one of the main methods PCs have for acquiring clues. For this reason, it is important for GMs to have some flexibility. If the timeframes provided in the rules don't plug so well into your plot framework, modify them to fit your needs. Some evidence may simply take more work to dig up, and sometimes clues will fall right into the PCs' outstretched mandibles. Especially sleuthful PCs sometimes get ahead of the game — for this reason, it helps to structure your story so that they don't even know what clue they next need until it comes close to the time they will need it.

If the PCs fail their Research Tests, they should have other opportunities for discovering the information they need. Insight Pool can also be useful here, when spent to acquire a clue. Insight expenditures should still come with some effort, however. A PC that buys intel with an Insight point may still need to spend a few hours crawling through the mesh.

CHAINING RESULTS

The path to the information you need may not always be obvious or direct. GMs are encouraged to structure necessary data and clues in such a way that several separate Research Tests are required and the next step is not apparent until the previous step is uncovered. For example, when researching a strange alien relic, a search may first lead to an account of a gatecrasher who saw something similar, so the trail takes you towards the logs from a specific pandora gate, which then leads to a mission report, which then points you towards a specific hypercorp that may have smuggled the device back to the Solar System. GMs should be careful to allow multiple paths towards the end-goal data, in case one trail goes cold.

Searching Timeframes

System	Timeframe
Small Server	1d6 action turns
Large Server	1d6 minutes
PAN	1d6 action turns
TacNet	1d6 minutes
Small Network (Mesh Site, Lab, Ship Net)	1d6 × 5 minutes
Large Network (Hypercorp Division, Habitat Net)	1d6 × 10 minutes

TRACKING

Every time you interact with other systems on the mesh, you leave traces of your presence. Logins are recorded, access is logged, and most devices even keep a record of all other devices that have been within radio range. At the least your mesh ID will be recorded, and possibly other data as well: type of device, length of connection, apps used, AR perceived, time, physical location, and possibly the mesh IDs of other systems you were connected to. On top of this, apps and services — particularly commercial ones — keep a usage history and often surreptitiously log other data about you, which is then transmitted to their vendors and sold to advertising networks and other data brokers. This may include friends lists, installed apps, browsing history, personal data, cached forms, and a "fingerprint" of your device that can be used to track you online even if you switch your mesh ID.

PHYSICAL TRACKING

Many users willingly allow themselves to be physically tracked via the mesh. To them, this is a useful feature — it allows their friends to find them, their loved ones to know where they are, and for authorities to come to their aid in the event of an emergency. Finding their location is simply a matter of looking them up in the local directory, no test required (assuming you know who they are). Mesh positioning is accurate to within 5 meters. Once located, the position of the target can be monitored as they move as long as they maintain an active wireless connection to the mesh.

For people who do not freely disclose their location, the following rules apply.

Tracing by Mesh ID

To track the current or last known physical location of a mesh ID ▶246 requires a Research Test. If successful, the results are returned instantly if the target is within the local mesh region; targets further away may take longer, as dictated by distance lag. Superior successes may fine-tune the location or provide supplementary details such as live sensor footage.

If the target is in privacy mode ▶241, apply a –30 modifier to this test. If the target is actively disguising their activity by spoofing mesh IDs or cycling through false mesh IDs, this becomes an opposed test pitting Research against the target's Infosec skill, with a timeframe of 1 hour. If the target is using an anonymizing service, they can only be tracked back to the service itself (*Anonymizer* ▶315).

Tracking by Biometrics

The prevalence of sensor motes, XP feeds, and biometric recognition apps make it possible to track people by their face, morph, gait, voice, clothing, gear, thermal signatures, scent, and other physical characteristics. However, the sheer amount of sensors and people can make this challenging and trigger both false-positives and false-negatives. The success of searches of this nature is best left to GM fiat, but a Perceive (if eyeballing) or Research (if using a biometric matcher app) Test can also be called for, modified appropriately by the size of the area surveiled, as noted on the Biometric Searches table.

If the target is actively avoiding sensor detection, this Research Test is opposed by the target's Infiltrate skill (or Exotic Skill: Disguise).

Biometric Searches

Area	Modifier
Large Habitat (Cylinder) or City	–30
Medium Habitat (Torus) or Neighborhood	–20
Small Habitat (Tin Cans) or Large Building	–10
Heavy Traffic	–10
Multiple Biometrics	+10
Less Available Biometric Sensors (Scent, Thermal)	–10
Access to Private Sensor Nets	+10 to +30
Target in Privacy Mode	–10

MESH ACTIVITY TRACKING

While viewing someone's public mesh presence is relatively easy, tracking someone's less-public online activity is usually a more challenging affair.

Researching Public Mesh Presence

Most people post a vast amount of information about themselves online. Social network profiles, forum posts, lifelog entries, personal media collections, XP casts, work portfolios, habitat resident indices, and more are readily accessible with a Research Test. Privacy-conscious people usually have a similar online presence, except pseudonymous and/or only viewable to vetted friends and contacts. Private profile data can still be scraped, but it requires using proxies, sock puppet accounts, and data collection services (apply the –30 private data modifier). Alternatively, rep favors can work just as well, especially if the target is a friend of a friend.

Most hypercorps and governments have access to vast databases compiled by marketing and private intel firms. These can provide extensive data such as purchasing and travel habits, known acquaintances, and more. Access to this data is often brokered through black market services.

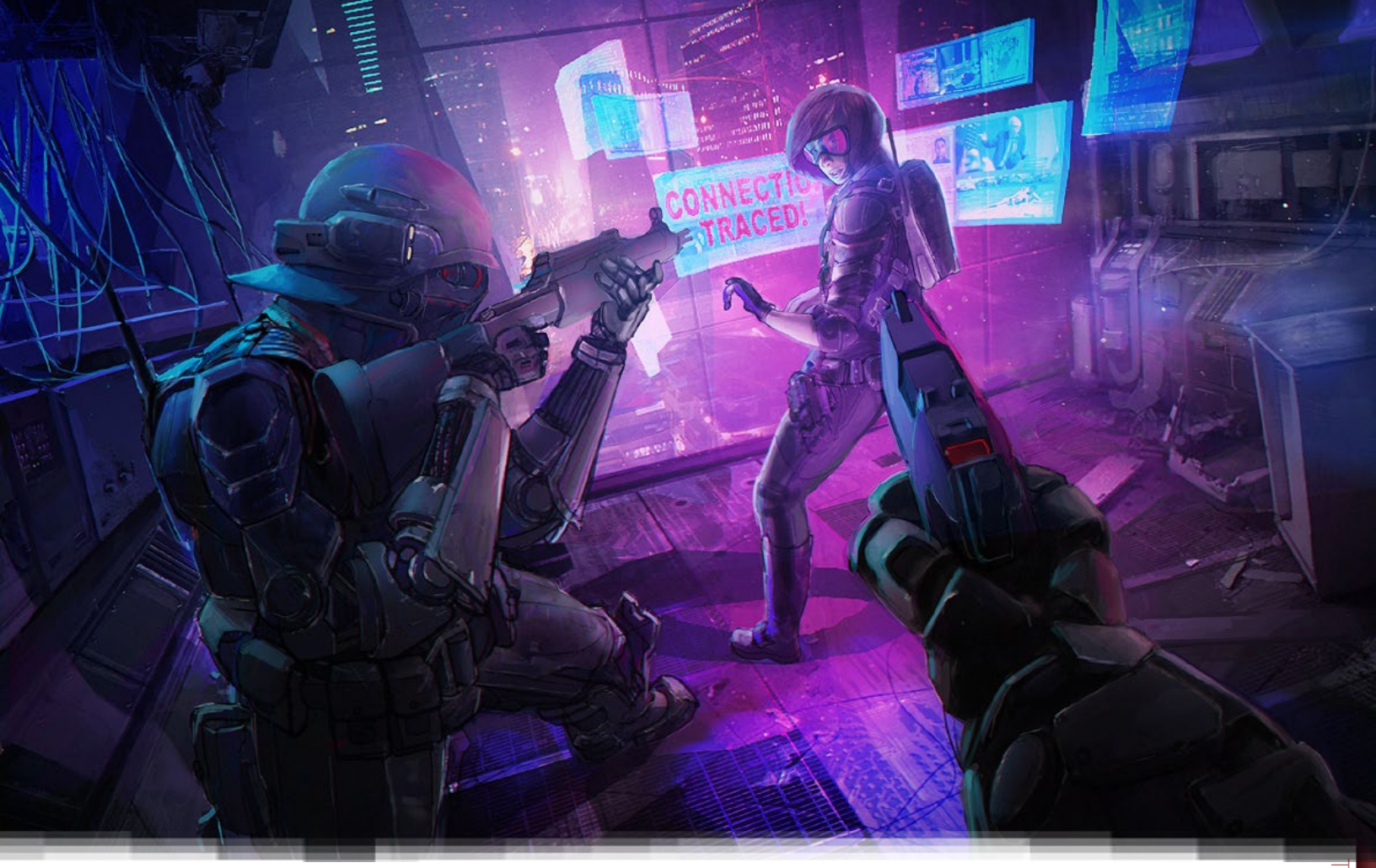
Tracking Ongoing Mesh Activity

It is tricky, but not impossible, to acquire a far more detailed assessment of someone's mesh activity: rep-net interactions, services used, sites browsed, people messaged, etc. At the least, this would entail knowing their mesh ID and applying a –30 obscure data modifier to your Research Test, simply because you would largely be relying on access and transaction logs which are only rarely public. A slightly better approach is to focus on one specific type of activity — for example, use of certain online services — and either deploy some judicious low-level hacking (summarized with a quick-and-dirty Infosec Test, timeframe of 1 hour) or use rep favors, bribes, or threats to get the info you need. The GM must use their best judgment here when applying modifiers.

Tracking someone's activity on a single system is much easier, requiring a monitor activity action ▶248.

Active Monitoring

By far, the best approach to monitor someone's mesh activity, especially in real-time, is to actively analyze their mesh traffic. This can be done remotely and requires only their mesh ID and a sniffer app (*Sniffing* ▶245). Alternatively, you can hack their PAN and monitor what they do from there.



TRACKING COUNTERMEASURES

Given the prevalence of surveillance and mesh tracking, covert operatives and those concerned about their privacy have several options above and beyond simple privacy mode ▶241.

Burner Mesh IDs

The easiest method of anonymizing your mesh activity is to deploy a "burner" mesh ID for each separate online transaction. Burner IDs are meant to be used one time and then erased. Though illegal in many jurisdictions, they are popular with criminals and anyone wanting a low profile. You may use burner IDs simultaneously as your real mesh ID or other burners for different online connections (though this is considered poor opsec, as they may be correlated).

Burner IDs are ideal in that they are used only for short periods. Though they may be traced or even sniffed like other mesh IDs, the trail will end when they stop being used. Though they are easy to deploy, they are not fool-proof, and some care must be taken to avoid leaking your real mesh ID or carelessly associating it with accounts or other data that may betray you. Keep in mind that a burner ID will not help you if you are traced or sniffed while you are still using it. A resourceful opponent may also be able to correlate burner ID use with physical surveillance footage or other mesh ID logs. If someone attempts to trace you using a burner mesh ID you have discarded, they must make a Research Test at –30 against your Infosec skill.

Disposable Ectos: A more low-tech version of this trick is to simply use burner ectos. Use once, or until hot, then discard. The advantage is that ectos can be physically left behind or planted on others, both useful for misdirection.

Anonymous Proxy Services

Many people have a vested interest in keeping their affairs anonymous. To meet this demand, online service vendors offer anonymous proxy accounts. Simply log in to your anon account first and route all of your traffic through its exit node. All mesh activity conducted via the anon proxy will use the proxy's mesh ID. Attempts to trace that mesh ID back will end at the anonymizing service. Your interactions with the anonymizing service are not logged, so even if the vendor's servers are hacked, an intruder will not find any leads. While some anonymous accounts are established for regular use, the truly paranoid use multiple one-time accounts for maximum security.

Tracking an anonymous account is a practical impossibility and something that only an extremely resourceful organization employing a systematic and expensive effort could attempt.

Spoofing Mesh IDs

Some hackers prefer to mask themselves as other users, either as a red herring, a statement, or to frame someone else. This follows the same procedure as spoofing someone for authentication (*Spoofing* ▶247).

HACKING

In the digital realm, everything has a vulnerability. Software is the classic plan that never survives contact with the enemy. Hackers are continuously scouting for flaws in code that will allow them to exploit it for unintended purposes. As quickly as these flaws are discovered and patched, new ones are discovered and leveraged for advantage.

Hackers routinely share, trade, and sell their exploits online. The best of these make their way into pre-packaged exploit app libraries — software tools that scan a target, openly or with subtlety, probe it for vulnerabilities, and automatically execute attacks.

There are many methods you may use to hack a system. The first is to circumvent the authentication ▶246 on a legitimate account, but this requires background knowledge of the account and takes time and special effort. The second is to sniff the traffic of a legitimate user ▶245 and remotely spoof commands ▶247, which can be powerful but limited. The most common method of hacking is to directly gain access to the target (*Intrusion* ▶below) and subvert it from within (*Subversion* ▶262).

HACKING TESTS

Almost all intrusion and subversion efforts rely on Hacking Tests. This opposed test pits the hacker's Infosec skill against the target's Firewall Rating ▶260 — or the defender's Infosec skill if the system is actively defended ▶260. If the hacker wins, they pull off their intended action, otherwise their action fails.

INTRUSION

The art of intrusion involves penetrating a system's security, taking advantage of code glitches and flawed security protocols to bypass the target's defenses. The best methods involve infiltrating a system slowly and quietly, without catching a watchdog's attention. When called for, however, a hacker can toss aside pretenses and attempt to brute-force their way in.

Establishing a Connection

In order to hack a system, you must establish a direct connection to the target. If you are making a direct wireless connection, the target system must be wireless-capable and within wireless radio range, and you must know the target is there (*Stealthed Signals* ▶244). If the system is hardwired, you must physically jack in by using a regular access port (or skinlink, if the system is so equipped) or tap into a cable that carries the system's traffic (requiring a Hardware: Electronics Test and appropriate equipment, such as an electronics kit). If you are accessing the target through the mesh, the system must be online and you must know its mesh ID or otherwise be able to find it through research or tracking.

Brute-Force Attacks

Brute-force hacking is quick, messy, and loud. You select the target, trigger your exploit app, and let it quickly and methodically cycle through attacks against the most common vulnerabilities. Brute-force intrusions require only a complex action, meaning they can be a relevant factor even in combat scenarios. However, the target is almost always alerted to the digital invasion.

To brute-force a target, make a Hacking Test. The intruder suffers a –30 modifier. If you succeed, you have gained access to the target system with user-level access privileges ▶246 and spotted status *Intruder Status* ▶next column), and the system goes on active alert (*Security Alerts* ▶260). Each superior success increases your privileges one step (first to security then to admin level). On a critical success, you have covert status ▶below), but a passive alert is still triggered ▶260. In this situation, both superior and critical results take effect simultaneously. If you lose the opposed test, you fail to get in and the system goes on passive alert ▶260.

Subtle Intrusion

The preferred method of owning a target is to quietly and systematically probe it, analyze its setup and software, and determine the most likely vulnerabilities. Subtle intrusion is a task action with a timeframe of 1 hour (GMs may alter this timeframe for heavily secured or unprotected systems). Make a Hacking Test. If you succeed, you have gained access to the target system with user-level access privileges ▶246 and covert status Intruder Status ▶below. Each superior success increases your privileges one step (first to security then to admin level). On a critical success, you have hidden status ▶below; the defender remains unaware of the intrusion. Both superior and critical results may apply.

If the firewall succeeds but loses the opposed test, a passive alert is triggered Security Alerts ▶260. If the firewall wins the opposed test, you fail to get in and the system goes on passive alert ▶260.

Joint Hacking

You can cooperate with others while hacking: one person takes the lead, using their connection, while the others take actions to support, providing a teamwork bonus ▶31. Only the lead hacker may use pools, and only they are targeted by countermeasures ▶260.

Alternatively, multiple hackers can separately hack the same system simultaneously. While their actions are handled separately, if any of them trigger an alert, all intruders on the system will be affected.

Hacking Again

If you have successfully hacked into a system once, you receive a +30 bonus on Hacking Tests to intrude into the system again, until a security audit ▶261 patches the vulnerability. You may also provide this bonus to others by sharing the exploit used.

INTRUDER STATUS

Intruder status is a simple way of measuring a hacker's situation as they invade a system — have they caught the attention of defenses or do they remain unobtrusive? Intruder status is first determined when you access a system, though it may change according to events. Note that intruder status is a separate matter from account access privileges ▶246. The latter represents your permissions and what you are allowed to do on a system. The former indicates the system's awareness of your true nature as an intruder.

Hidden

If your status is hidden, the system is completely unaware of your presence and cannot act against you. Your actions are not recorded in logs and other users cannot detect you. Your presence may leave some traces, but they will require thorough analysis and time to find.

While hidden, you receive a +10 modifier on any efforts to subvert the system ▶262.

Covert

With covert status, your presence on the system looks legitimate and doesn't attract any unusual attention. Only extensive checking will turn up abnormalities. The system is aware of you, but does not consider you a threat.

Spotted

If you have spotted status, the system is aware that your presence is an intrusion. Spotted automatically triggers an active alert ▶260.

CHANGING STATUS

Your intruder status will change depending on your actions and the actions of the system.

Upgrading Status

You can attempt to improve your status to better hide yourself from the system. This requires a complex action and a Hacking Test. If you win, you can upgrade your status by one level (spotted to covert or covert to hidden). A superior success can take this one level further.

Note that changing your status does not affect the system's alert status. If you go from spotted to covert or hidden, the system is still aware there was an intrusion, it just can't currently pinpoint you.

Exposure

Any time you use Infosec skill and engage in hacking while within a system, you run the risk of exposing yourself to the system's security. If you roll a superior failure on a Hacking Test, you trigger a passive alert ▶260. This may instigate the system defender to take a closer look.

If you roll a critical failure on a Hacking Test, you automatically switch your status to spotted and the system goes on active alert ▶260.

If you attack a target in mesh combat ▶264, you must also make a Hacking Test or trigger a passive alert.

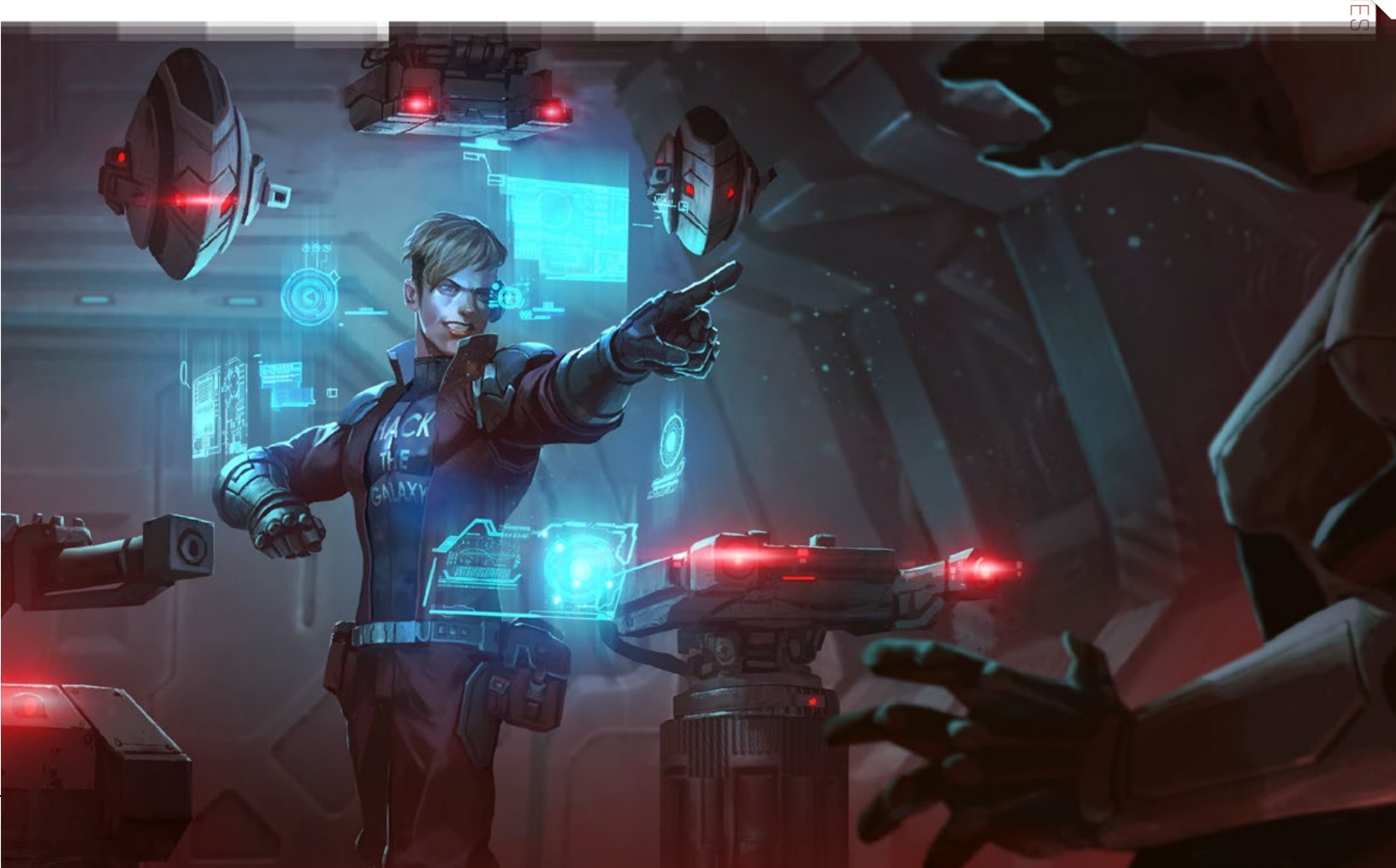
Zeroing In

If a system is on passive alert, the system defender may attempt to pinpoint intruders. This requires a complex action and an Opposed Infosec Test between defender and each hacker. If the hacker is hidden, the defender incurs a –30 modifier. If the defender wins, the hacker's status becomes spotted and the system goes on active alert.

CONSOLIDATED HACKING

Sometimes a PC may want to hack a system that is less consequential to the story. Rather than running each hack step-by-step, the GM can consolidate such a hack into a single task action Infosec Test. First, the hacker should compile a brief list of objectives after hacking in (e.g., locate a file, unlock a door, loop a sensor feed, eliminate traces). Set a timeframe of 1 hour plus 10 minutes per objective. If brute forcing, the timeframe is 2 action turns per objective. Apply the following modifiers: –30 if brute forcing, +10 if hacking a mote, –10 if hacking a server, and –10 if hacking multiple systems.

Infosec Test Result	Hacking Result
Critical Failure	Hack fails, hacker traced.
Superior Failure	Hack fails.
Failure	Hacker achieves first objective only.
Success	Hacker achieves all objectives.
Superior Success	Hacker achieves all objectives in 25% less time per superior success.
Critical Success	Hacker achieves all objectives, backdoors system.



COUNTERMEASURES

The ongoing struggle between hackers and electronic security is best described as an ever-evolving arms race. Hackers continually find and share new exploits that allow them to subvert new systems, software vendors release automatically installed update patches to close the holes, repeat ad nauseam. System admins and security hackers have a menu of options for handling intruders, though the level of security on a system can range from paper-thin to extremely hostile.

FIREWALL

In *Eclipse Phase,* a firewall is a non-sapient neural-net security suite that monitors network traffic and defends against hackers. Every system has a firewall app actively defending it. Firewalls may initiate automatic countermeasures, depending on their programming.

Each firewall has a rating measuring its defensive capabilities. Firewall ratings are based on the type of device, as noted on the Firewall Ratings table. This is used to oppose Hacking Tests ▶258 made by hackers. At the GM's discretion, some firewalls may be weaker if old or non-maintained or stronger if state-of-the-art.

If the firewall app on a device is deleted or crashed, tests to hack the system are unopposed until the firewall is restored, unless a system defender engages in active monitoring.

Firewall Threat Models

Firewalls build an understanding of what behavior is common or unusual and use these algorithms to identify potential intruders. For example, a firewall will know when a certain user usually logs on, where from, what apps they use, what files they access, and so on. If a hacker uses their credentials but from a different place, at a different time, and doing different things, the firewall may suspect something is amiss and take a closer look. Even a skillful hacker may still be identified by anomalous actions.

GMs can call for a Hacking Test whenever they feel a hacker may have exceeded normal activity. If the firewall wins, downgrade the hacker's status one level — from hidden to covert (triggering a passive alert), or covert to spotted (triggering an active alert). Alternatively, a hacker who is clearly engaging in shady activity on a well-secured system may trigger an alert, no matter how well they roll. Use this option sparingly, and remember that it applies both to PCs and NPCs.

Firewall Ratings

Device	Firewall Rating
Mote	30
Host	50
Server	70

SYSTEM DEFENDER

The firewall is but the first line of defense. Almost every system is also monitored by an entity known as its *system defender.* For most devices, this is the resident ALI. Characters skilled in infosec typically guard their own PANs; people who are not rely on their muses. Dedicated teams of operatives often slave their PANs to the group's hacker, who can overwatch the entire group's security.

System defenders have security if not admin privileges. If a passive or active alert is triggered, they are informed. Defenders are responsible for triggering non-automatic countermeasures.

Multiple Defenders: Some systems may have more then one defender present. When it comes to active countermeasures and other actions, defenders choose to work together or separately. If acting in concert, the other defenders provide a teamwork bonus ▶31; only the primary defender can use pools. If acting individually, each defender relies on their own Initiative, skills, and pools.

Active Defense

As a complex action, a system defender can assume control of a system's firewall defenses for one action turn. While engaged in active defense, use the defender's Infosec skill in place of Firewall rating for Hacking Tests. The defender may use pools on these tests. Only one defender can engage in active defense at a time.

SECURITY ALERTS

If a hacking attempt is not stealthy enough, it is likely to earn the attention of the firewall and system defender. Security alerts come in two flavors: passive and active.

Passive Alert

Passive alerts are triggered whenever the firewall or defender succeeds on their roll but loses the opposed test against a hacker's subtle intrusion attack ▶258. They are also set off when a hacker exposes themselves by rolling a superior failure on a Hacking Test while within the system.

Passive alerts occur when a system detects anomalous activity that may indicate a hacking attempt in progress. The system immediately flags a visual or acoustic cue to the system defender(s) and possibly the owner or admins. The system may be configured to automatically launch one or more passive countermeasures (see below). Depending on the system, extra security hackers or AIs may be brought in to help investigate. If the intruder is not encountered again or located within a set time period (usually about 10 minutes), the alarm is deactivated and the event is logged as an anomaly.

Active Alert

An active alert is triggered when an intruder achieves spotted status or someone attempts a brute-force attack without scoring a critical success.

Active alerts are issued when the system knows an intruder is present. The system immediately alerts the system defender(s), owners, and admins. Additional security assets (hackers and AIs) may be called in. The system also launches active countermeasures

SECURITY DESIGN

Every system is unique and handles security differently. The GM maps out each system's set-up.

Motes are notorious for minimal security and outdated defenses. Sometimes, however, they are slaved to a controlling "chokepoint" node with better security (this is the case with most PANs).

Host defenses largely depend on the security consciousness of their owner. Muses act as system defender for mesh inserts and ectos.

Servers use security ALIs and take their defenses seriously. Corporate networks often use tiered networks or air-gapped systems (*Mesh Topology* ▶241) to protect critical assets. Security hackers may be on-site or on-call, arriving in d6 action turns. Some simply seek to kick intruders out. Others will trace intruders, dispatching security forces or police to apprehend suspects if located, or hack them back. Security audits are likely to be frequent.

against the intruder (see below). Active alerts are maintained for as long as the intruder is present and sometimes for a lengthy period afterwards just in case the hacker returns.

When a system is on active alert, all intruders suffer a –10 modifier to Infosec Tests for the duration of the alert.

PASSIVE COUNTERMEASURES

Passive countermeasures are launched as a precaution whenever there is unusual activity or other signs that there may be an intruder or malware at work. Some of these countermeasures are automatically triggered by the system or firewall whenever a passive or active alert is initiated.

Backup [Automatic]

Some systems are set to automatically backup all logs and critical data when a passive alert goes off. These backups are often copied to a secure storage in the cloud or to another dedicated system, where they are protected from deletion.

Egress Filtering [Automatic]

In an attempt to deter data exfiltration, the firewall temporarily blocks attempts to download or transfer specific files or data types. Ego backups and access logs are commonly flagged and blocked, though each system may designate its own specifics. To overcome this filtering, a hacker must make a complex action and win a Hacking Test.

Locate Intruder

The system defender can attempt to track down the source of the passive alert and pinpoint any interlopers. See *Zeroing In* ▶259.

Re-Authenticate [Automatic]

System firewalls can be set to automatically re-authenticate all active users whenever a passive alert is triggered. Each user will be re-authenticated in 1d6 action turns, though a large system with hundreds or thousands of users may take 1d6 minutes. Any intruders that do not have hidden status must make a Hacking Test against the system firewall. If the firewall wins, the intruder gains the spotted status and the system goes to active alert. If the intruder has valid credentials (such as a stolen passcode), they automatically succeed.

Reduce Privileges [Automatic]

As a protective measure, the system temporarily reduces access privileges available to standard users — and sometimes security accounts as well. This means that legitimate users may be unable to perform certain functions, use some apps/services, or access certain directories without authorization from an admin account.

ACTIVE COUNTERMEASURES

Active countermeasures are initiated when an intruder is fully detected (spotted status). Systems/firewalls can be set to immediately trigger automatic countermeasures; others may be pursued at the defender's discretion.

Counter-intrusion

Though illegal in some jurisdictions, system defenders may pro-actively protect their wards by counter-attacking the hacker. For this to occur, the intruder must first be *successfully traced* ▶256 and their mesh ID obtained. Once this occurs, the defender can then launch their own intrusion on the system from which the hacker originates.

Crash and Lockout

The defender can attempt to crash the account shell of an intruder that has been spotted (*Mesh Combat* ▶264). If successful, the intruder's mesh ID can be blocked from accessing the system again (*Lockout* ▶248). Hacked accounts are quarantined or deleted and not usable again until a security audit approves and reinstates it.

Reboot/Shutdown

The nuclear option for handling an interloper is to reboot or shut down the system. In this case, the system closes all connections to other systems, logs off users, terminates all processes, and shuts itself down — thereby booting out the intruder (at least temporarily). The disadvantage, of course, is that the system must interrupt its activities. For example, shutting down your mesh inserts means losing all communication with teammates, access to augmented reality, and control over slaved/linked devices. The intruder may attempt to access the system when it reboots, but if they don't have account credentials or a back door, they will need to hack in again. Remote defenders will also need to take an action to log back in.

Initiating a reboot/shutdown only takes a complex action, but the actual shutdown process takes 1d6 action turns (motes and hosts) or 1d6 minutes (servers). Rebooting takes an equivalent amount of time.

Logged-in users (including intruders) are warned when a reboot or shutdown is initiated. Once started, the shutdown process cannot be stopped, but it may be prolonged by 1d6 action turns with a complex action; this requires security/admin privileges or an Infosec Test.

Hard Shutdown: The shutdown process takes time in order to warn users, save files, end processes neatly, and otherwise protect the system. A "hard" shutdown is also possible in emergency situations. This requires an Interface Test, a complex action, and admin privileges. If successful, the system shuts down at the end of that action turn. Hard shutdowns require double the reboot time and may result in lost data (GM discretion). You can also cause a hard shutdown by physically powering down, cutting power, or destroying the device.

Terminate Connections [Automatic]

An alternative to shutdown or rebooting is simply to sever all connections (usually by temporarily disabling the device's wireless capabilities and going into "airplane mode"). The system loses all active connections, but any intruders are dumped. Termination takes a complex action to initiate and completes at the end of that action turn. Connectivity may be set to restore on the next action turn, in a set time frame, or only when initiated by a local admin. Restarting connectivity takes 1 action turn. Any remote users will need to log back in; intruders without proper credentials will need to hack the system again. While connections are terminated, the system cannot communicate and interact with other systems.

Trace [Automatic]

Defenders can initiate a trace on a spotted intruder. Most hackers are careful to use an anonymizing service to mask their mesh ID and location, but this is not always the case. If an intruder is physically located, the standard procedure is to alert habitat security or other local or private police, who will mobilize to apprehend the suspect.

SECURITY AUDITS

Security-conscious systems will undergo an audit on a regular basis or after any detected intrusion, with the intent of patching vulnerabilities that were exploited, eliminating backdoors that were installed, and determining what the intruder did and what they were after. The GM determines when an audit is undertaken. Make an Infosec Test for the system defender, with a timeframe of 24 hours. If successful, any recently exploited vulnerabilities are patched (the hacker loses the +30 bonus to hack again). Superior successes reveal backdoors or supply additional info on what the intruder was up to.

SYSTEM SUBVERSION

Once you have successfully penetrated a system, your options will depend on your access privileges and the nature of the system. Many of the actions you take as an intruder are not that different from a regular user: searching files, operating devices, etc. See *Mesh Actions* ▶248.

Any time you attempt to do something that your access privileges ▶246 do not allow for, you must hack the system to do what you want. In most cases, this requires a Hacking Test ▶258. Apply modifiers from ongoing system alerts ▶260. If you win the contest, you succeed, but each attempt puts you in risk of discovery if you roll a superior or critical failure (*Exposure* ▶259).

Aside from exceeding your privileges, there are some techniques that are explicitly subversive. A sampling of common subversions are described below; GMs should use these as guidelines for arbitrating others.

BREAK ENCRYPTION

You can attempt to decrypt an encrypted file without proper authorization (*Codebreaking* ▶247).

CONTROL WARE

If hacking mesh inserts, a cyberbrain (*Mindware Hacking* ▶266), or a PAN's master node, you will have privileged access to a morph's ware — not to mention hacking the ware directly. A hacker can use this to (de)activate the ware, modify its functioning parameters, access diagnostics and usage logs, or install scripts ▶249 to manipulate this ware in the future, among other creative uses.

DISABLE SAFETY MECHANISMS

Many systems have safety features in place to prevent people from accidentally (or intentionally) harming themselves or others. You may override the warnings and mechanisms of safety systems by winning a Hacking Test. A –30 modifier applies, as such systems are built with redundant features. This can be used to open both sides of an airlock simultaneously, mute the imminent collision alert on a spacecraft, or to prevent authorized users from being notified of tampered equipment or dangerous circumstances. At the GM's discretion, some safety features may automatically restart, requiring suppression Suppress Process ▶next page.

EDIT AR FEED

If hacking a device broadcasting AR, you can selectively block or edit out specific sensory data using an AR illusion app, or simply terminate the AR feed entirely. This could entail blocking out all AR data of a specific type (audio, visual, haptic, etc.) or blocking specific people, things, sounds, or other things. For example, you can block the user from seeing a friend's messages, edit out a person from their vision, prevent them from hearing an alarm siren, and so on. Depending on the situation and context, the GM may decide that this is automatically successful (something that would be easy to miss) or may give the target a modified Perceive Test (–0 to –30) to notice the change (if the blocking creates obvious gaps or is off-kilter to the responses of others). For example, blocking the view of someone moving through a crowd will not change the fact that the crowd is creating a space for that person to move through. Likewise, blocking the smell of smoke will not stop the target from seeing smoke, flames, or others reacting to the blaze.

ELIMINATE TRACES

To hinder security audits ▶261, you can clean up evidence of your intrusion before you exit a system. This involves erasing incriminating data in the access and security logs and otherwise hiding any evidence of system tampering. Take a complex action and make a Hacking Test. If successful, you wipe away details that might be used to track you down or reveal what you did, including your mesh ID.

FORCE RE-AUTHENTICATION

While sniffing a target, you can break the connection and force them to re-authenticate in order to capture their login credentials (*Sniffing* ▶245). This requires winning a Hacking Test against the authenticating firewall.

HIDE FILE OR PROCESS

You can obfuscate the presence of a file, code element, or even an active app, script, or other software process. This takes a complex action and an Infosec Test; note the result. Anyone that seeks to find that file or process later must beat your result with an Opposed Research Test at –30.

IMPAIR SENSES

If hacking a device projecting AR, the AR illusions app can be used to distract and impair the target. For example, dark illusory clouds can obscure vision, ear-wrenching high-volume noises can make people cringe, and a persistent tickling sensation might drive anyone crazy. Make an Interface Test; if successful the target suffers a –10 impairment modifier to Perceive and other actions, with an additional –10 per superior success. Modifiers may be temporary, as the target can adjust their filters and/or turn their AR off if necessary.

INJECT AR/ILLUSION

If hacking an AR-capable device, you can insert fake sensory input into an AR feed with a Hacking Test. The primary use of the AR illusions app is to inject different kinds of visual, auditory, tactile, and even emotional illusions into the augmented reality of the device's user, depending on the type of interface used. How the hacked user will respond to the illusion depends on whether they are aware of the intruder, what type of interface they are using (entoptic or haptic), and how realistic the illusion is.

The best illusions are crafted in advance, using real footage and advanced image and sensory manipulation tools. Such illusions are hyper-realistic. If injected subtly, with proper timing, and in the proper context, there is no reason for the target to suspect trickery. If something is off, however, this becomes an opposed test between the illusion creator's Interface skill and the target's Perceive. GMs should apply modifiers as they feel appropriate. Keep in mind that even if someone sees through the deception, they may still act instinctively; almost anyone will duck when they see an object suddenly flying at their face, as their body reacts before the brain comprehends that it's an illusion and not a threat.

Improvising on the Fly: Hackers may also improvise illusions as needed, taking advantage of the AR illusion app's advanced tools, patching in and manipulating sensory clips as needed in real-time. This requires a sustained task action from the hacker and is more difficult and easily spotted (+10 to +30 modifier to Perceive Tests). The advantage is that the hacker can modify the illusion in reaction to the user's actions or environmental factors on the fly.

INSTALL BACKDOOR

Backdoors are ways into a system that bypass normal authentication and security features. Backdoors are secretly installed by hidden intruders so that they may access the system at a later time without needing to hack in again. Backdoor details can be shared with others.

Most backdoors are installed by replacing an existing app with a copy that was modified to incorporate a vulnerability that allows instant remote access to the system. The trick lies in making the copied app look like the unmodified original, so that it isn't detected during security audits.

To install a backdoor, you must have access to the system, take a complex action, and win a Hacking Test. Apply a –20 modifier if you want the backdoor to provide security access privileges, –30 for admin privileges. If you succeed, the backdoor is installed — you may use it to access the system without making a test until it is removed; you automatically acquire covert status. Every superior success applies a –10 modifier towards attempts to discover the backdoor later (*Security Audits* ▶261). On a critical success, the backdoor provides hidden status.

INSTALL BLOCKER

To deter countermeasures, you can activate a process that will pre-emptively block a specific app, command, or action on that system. For example, you could install a blocker to prevent a shutdown from being initiated, stop an app from launching, or prevent a device function from being activated. Creating a blocker requires a complex action and a Hacking Test; the particular action it blocks must be specified. If successful, any attempt to conduct that action automatically fails. To undo a blocker, it must first be located (requiring a Research Test) and then deleted (a complex action). System reboots will also remove all blockers.

Blockers are not omnipotent; GMs should use their best judgment when defining their limitations and reach.

JAM SIGNALS

You can transmit radio signals that deliberately interfere with other radio signals in order to disrupt communications. You can choose to selectively jam a particular device or devices, or universally jam all radio signals. Jamming requires a complex action and an Interface Test to initiate. If successful, affected devices within range have their radio communications disrupted — they are cut off from the mesh and cannot communicate wirelessly until the jamming ends or they move out of range. Wired devices are unaffected.

Jamming is quite difficult to overcome (*Bypass Jamming* ▶248). Jamming may also be used to block radar signals and sensors.

LOOP SENSOR FEED

A common method of undermining surveillance systems is to loop the sensor feed, so that it repeatedly shows insignificant footage or data, allowing physical intruders to pass undetected. To loop a feed, you must first find and copy a recorded segment of the sensor feed (possibly requiring a Research Test) or spend the time to record it. Looping the feed requires a complex action and a Hacking Test. Looped feeds can be set to automatically revert after a set time frame.

MODIFY TACNET

If hacking a tacnet-enabled system, you can alter, block, or inject tacnet data of your own. This could be used to change maps, block sensory feeds, alter health status indicators, and so on. You can also tag foes as friends, which would prevent a smartlink-enabled weapon from being used against them.

SIMPLE HACKING

If these rules at first seem intimidating, keep in mind that the core hacking rules are fairly straightforward. The following guidelines should get you through most situations:

- Almost all hacking-involved tests pit the hacker's Infosec vs. the target system's Firewall.
- To hack into a system, you have a choice of fast (immediate, –30 modifier, triggers an alert) or slow (no modifier, takes an hour, no alert).
- By default, you get in with standard user privileges. Superior successes get you better privileges.
- Once in, you can take any action that your privileges allow without making a test.
- If your privileges don't allow it, make a Hacking Test (Infosec vs. Firewall) to pull it off.
- Use your imagination! If you want to do something — loop sensors, jam weapons, steal files, open a door, crash an opposing AI — your GM will tell if you need to make a test.
- Don't forget to use Insight pool for extra mesh actions or to modify rolls!

SNIFF TRAFFIC

You can intercept and monitor wireless traffic (*Sniffing* ▶245).

SUPPRESS ALARM

You can attempt to turn off a passive alert by winning a Hacking Test. The system will have alerted any defenders as soon as the alert was triggered, so this will not necessarily deter scrutiny, but it may sidestep automatic countermeasures such as re-authentication or reduced privileges. The same action can be used to reduce an active alert to a passive alert (which can then subsequently be turned off with another suppress action).

SUPPRESS PROCESS

Many hacking techniques are fire-and-forget — you disable a function, kill the app, terminate the connection, etc. — and move on. The disruption is temporary; the system defender or another user can simply restart the process. Some systems are designed to automatically restart certain processes on their own (GM discretion). To prevent the process from restarting, you need to delete the underlying software from the system (usually requiring admin privileges; *Modify Software* ▶249) or you must actively suppress the process.

Suppressing a process requires a complex action each action turn. This will counteract the system's automatic attempts to restart the process. Anyone that wishes to restart the process must successfully defeat you in an Opposed Infosec Test though it may be terminated again ... unless termination is blocked.

Many hackers task their muses with suppressing processes.

TAP AR

You can access and monitor any augmented reality experienced by a user as if it were your own with a Hacking Test. You can even set this up to automatically forward the same AR experience to you if you leave the system.

TAP SENSES

If hacking mesh inserts or a cyberbrain (*Mindware Hacking* ▶266), you can tap into the target's sensorium for surveillance purposes. Sensory data may also be recorded or broadcast as XP.

MESH COMBAT

Mesh "combat" is an abstraction. Unlike physical combat, there are no dueling avatars, no digital maneuvering, no deadly programs. Mesh combat represents efforts to undermine the stability of software — infomorph mind-states (including cyberbrains), account shells, apps (including the firewall), or operating systems themselves — forcing them to crash. Mesh combat follows the normal rules for combat, as described below.

LOCAL vs. REMOTE

Mesh attacks are either local (against a target on the same system) or remote (against a separate system entirely).

Local Attacks

To attack a local target in the mesh, you must have access to the system it is running on. This may require you to locate and hack the system first. For example, if an infomorph using a remote server as their home device hacks into your mesh inserts, you can attack their account shell on your implants. You would not be able to attack the infomorph directly, however, unless you were to trace it back to its home server, hack in, and attack it there.

Remote Attacks

You may attack the operating systems of remote devices by flooding them with traffic and malformed packets designed to create instability. In essence, you are targeting an entire remote device with a denial-of-service attack, hoping to impede or crash it. Account shells, apps, cyberbrains, and infomorphs cannot be remotely targeted.

MESH ATTACKS AND DEFENSE

You attack a local or remote target by attempting to destabilize its underlying software processes. Take a complex action and roll Infosec skill. For a local attack, if you do not have admin privileges, you suffer a –30 modifier.

If a system defender is actively shielding the target (*Shield Software* ▶248), this is an opposed test against their Infosec skill. If not, it is a standard success test. Remote attacks are opposed by the Firewall rating (or the defender's Infosec skill if actively defended).

Attack Awareness: It is not automatically apparent where a mesh attack originates from — or even that it is underway. If you, your software, or the operating system of the device you are accessing/running on take damage or wounds, you will experience this as malfunctioning software — an unfortunately common occurrence, even in *Eclipse Phase*. If you suspect you are under attack, you may take a complex action and make an Infosec Test to identify the attacker and their mesh ID.

Firewalls are trained to detect mesh attacks. Any time an intruder makes a mesh attack, they must also make a Hacking Test. If they lose, a passive alert is triggered.

MESH DAMAGE AND ARMOR

If your attack wins, you inflict damage. A standard mesh attack inflicts DV 2d10. Some special apps or circumstances may modify this damage. Each superior success inflicts an extra 1d6 damage. Critical successes mean damage is doubled.

Some hardened apps, infomorphs, and systems have built-in redundancies to protect against mesh attacks. This counts as "armor" and is subtracted from the damage roll.

MESH WOUNDS

If the damage inflicted upon you exceeds your software's Wound Threshold, a wound is inflicted. In mesh combat, wounds represent broken processes, instability, memory leaks, and other errors. Each wound inflicts a cumulative –10 modifier to all actions.

Unlike physical wounds, mesh wounds do not trigger checks for knockdown or unconsciousness.

Optional Rule: For each wound, there is a cumulative 10% chance you suffer a glitch ▶265; roll each time a wound is inflicted.

MESH DURABILITY

Software that accumulates damage equal to or exceeding its Durability immediately crashes and ceases to function. All data transfers and other ongoing processes immediately stop. If your account shell crashes, you are booted from the system (though you may attempt to log or hack back in). Crashed infomorphs may no longer act. If a cyberbrain crashes, the morph itself freezes or collapses. If a service or operating system crashes, all users are disconnected (including the attacker) and any other processes ongoing on the system come to a halt.

Infomorphs, cyberbrains, services, and operating systems automatically reboot ▶261, which takes 1d6 action turns. Rebooting eliminates all accumulated mesh damage and wounds.

Software (except for account shells) may still be attacked after it has crashed. This represents attempts to irretrievably damage the code so that it may no longer run. If software accumulates damage equal to or exceeding its Death Rating, it is permanently corrupted. Apps and services must be reinstalled. Cyberbrains and devices must be repaired or replaced. Infomorphs and the egos within cyberbrains are effectively dead. Damage and wounds inflicted on crashed software are applied when it reboots.

Distributed Infomorphs: Infomorphs that are distributed must evenly split their Durability between devices. Wound Threshold remains unchanged, but a wound is inflicted if your distributed presence on any device (or the device itself) is crashed.

Mesh Durability

Software	Wound Threshold	Durability	Death Rating
Account Shell	3	15	NA
ALI	4	20	40
App	2	10	20
Firewall App	6	30	60
Cyberbrain	7	35	70
Infomorph			
Digimorph	5	25	50
Agent	8	40	80
Ikon	6	30	60
Operator	7	35	70
Operating System			
Mote	4	20	40
Host	8	40	80
Server	12	60	120

MESH DAMAGE REPAIR

Damage and wounds to apps cannot be repaired; the app must be rebooted to remove errors. Infomorphs, cyberbrains, account shells, and operating systems have built-in redundancy settings that will fix broken processes and correct errors over time. Such software will repair either 1d10 damage or 1 wound per minute; all damage must be fixed first.

HARDWARE DAMAGE

Mesh gear ranges from cheap and vulnerable motes to durable, self-repairing servers. They are treated just like other objects for physical combat purposes (*Objects & Structures* ▶232).

If a device is physically damaged, there is a 10% chance it suffers a glitch ▶next column. If the device suffers a wound, it automatically glitches. Additionally, wound modifiers apply to all mesh tests involving that device.

Shock attacks will temporarily disrupt hardware devices. No mesh actions may be taken with or on a shocked device for one action turn. At the GM's discretion, shock attacks may also sever communication links or inflict extra damage.

When damage exceeds a device's Destruction Rating, it ceases to function immediately. Anyone accessing the system loses the connection. If the hardware was the home device to any infomorphs, they are effectively killed.

It is sometimes possible to retrieve data, including dormant infomorphs, from disabled devices. At the least, this requires difficult (–30) Hardware: Electronics and Interface Tests.

DAMAGE AND INFOMORPH RIDERS

For most physical combat purposes, ware incorporated into a morph is treated as the character, not as distinct hardware. However, infomorphs that are using such ware as a home device, such as a muse in your mesh inserts or a fork in a ghostrider module, require special consideration.

Infomorphs do not sleep, so they remain active even when their morph carrier is resting or hibernating. Likewise, they may still act even if the morph is incapacitated or grappled. Shock attacks temporarily disrupt implanted systems, however, so infomorph riders are incapacitated just as the morph is.

If a morph is knocked out by wounds or accumulates damage equal to or exceeding its Durability, there is a 25% chance that any infomorph riders are knocked offline as well. If not, they may still operate while the morph is unconscious. If damage equals or exceeds the morph's Death Rating, there is a 75% chance the physical damage decommissions an infomorph rider as well. Otherwise, it may remain active, though it will lose power after 48 hours. At the GM's discretion, significant trauma to the head (or ware location) or other exceptional conditions (e.g., falling into a cryovolcano) may increase those odds or automatically disable the infomorph.

Muses and other infomorph riders have been responsible for saving their injured or incapacitated carriers by reaching out for help on countless occasions.

GLITCHES

Glitches represent additional errors and malfunctions that may affect software or devices. Glitches may occur due to overloaded systems, hardware damage, or wounds inflicted by mesh combat.

Each time a glitch is inflicted, roll 1d6, consult the Glitch Table, and apply the result.

Glitch Table

1D6 Roll	Glitches
1–2	**Lost Connectivity:** All communication links to remote systems are dropped. If you are accessing a remote system, you are logged out. If the affected target is a cyberbrain, its morph collapses or freezes up.
3	**Encoding Error:** If you are a covert or hidden intruder, you become spotted. If your mesh ID was anonymized, your real ID is leaked and logged. If you are a legitimate user/software, the system now identifies you as a spotted intruder and will enact appropriate countermeasures. A firewall or operating system inflicted with this glitch will consider the entire system to be compromised and initiate a reboot.
4	**Memory Loss:** Egos within infomorphs/cyberbrains lose access to certain memories. The GM selects one set of memories or one skill — these memories or skill are unavailable until you reboot. Targeted apps and operating systems forget important data, potentially becoming unusable in certain circumstances. Targeted account shells must take an action to re-authenticate, perhaps requiring a Hacking Test if they lack credentials.
5	**Hung Process:** One of your apps or other connected software (determined by the GM) freezes up and stops functioning until it is restarted (taking 1d6 action turns). This could even be another process on the system you have recently interacted with (perhaps preventing certain actions). For cyberbrains, this may mean losing access to a part of your morph's functionality, such as a limb, a sense, or other ware.
6	**Overload:** A malfunctioning process voraciously consumes system resources. You are unable to use pool for mesh-related actions for 1d6 action turns. Apps struck by this glitch can only function every other action turn. Overloaded operating systems may randomly disconnect users.

MINDWARE HACKING

Pods, synthmorphs, and some bots, vehicles, and biomorphs are equipped with cyberbrains. This technology enables transhuman egos to sleeve into and control these forms. Under the hood, cyberbrains are specialized hardware (hosts) for running an infomorph's digital mind-state. The drawback to both cyberbrains and infomorphs is that they can be hacked, just like any other electronic device.

PRECONDITIONS

To hack a cyberbrain, you must be able to access the cyberbrain itself. Most cyberbrains are linked to mesh inserts and slaved to the user's PAN, meaning they can be wirelessly accessed by hacking the PAN first. Cyberbrains are also equipped with access jacks on the exterior of the morph, so if you have physical access to the morph, you can plug in and access via a wired connection. If the subject is not willing or incapacitated, you must first successfully grapple the target ▶205.

To hack an infomorph, you must know its mesh ID and have access to its home device. This may mean you must first hack the device the infomorph is running on.

ENCODED SECURITY

Because they run an ego, cyberbrains and infomorphs feature hard-coded security measures; apply a –30 modifier to all hacking attempts.

MINDWARE SUBVERSION

Once a cyberbrain or device running an infomorph has been infiltrated, it may be subverted just like other systems. Since such mindware contains an ego, however, an intruder has several unique options.

All of the actions below require winning a Hacking Test.

Trap Ego

As an intruder, the first action you may wish to take will be to install a lockbox app. This malware traps the ego/infomorph within the cyberbrain/device, preventing it from transferring to a new system. Lockbox malware also locks the ego/infomorph out of its root admin controls, effectively cutting it off from countermeasures or other defensive actions. The only mesh actions a lockboxed mind may take depend entirely on what permissions, if any, you give it.

Egos trapped within a lockbox are quite vulnerable. They could, for example, be subject to enforced uploading, simulspaces, forking, or psychosurgery. Egos trapped for extended periods may suffer stress from helplessness (*Stressful Situations* ▶229).

Control Ware (Cyberbrain)

As Control Ware ▶262.

Copy Ego

You can copy the source code of an infomorph resident in a cyberbrain/device. This counts as an inactive backup file of the ego, though it may be run as an infomorph on a host or server. The "forknapping" of infomorphs from compromised systems by criminal interests remains an ongoing problem in the inner system. Some infomorphs come equipped with a copylock app ▶326; this applies an additional –30 modifier (cumulative with the infomorph's –30 encoded security modifier) to copy attempts.

Delete Ego

Deleting an ego is the digital equivalent of murder — or at least property destruction. This has no effect on the infomorph's backup files (which must be deleted separately) or the morph's cortical stack.

Freeze Morph (Cyberbrain)

The connection between a cyberbrain and the morph it resides in can be temporarily blocked or permanently severed. This usually causes the morph to freeze in place (a safety feature for cyberbrain glitches), though it may cause the morph to collapse. In either case, the morph is incapacitated. An ego trapped in an incapacitated morph for extended periods may suffer mental stress from helplessness (*Stressful Situations* ▶229).

Mindhack Ego

You can mindhack the ego within using psychosurgery ▶294. All of the psychosurgery procedures are an option, from interrogation to altering memories or personality traits. Since psychosurgery takes time and specialized software, this is usually reserved for targets that are somehow captured and restrained (forknapped, trapped within a lockbox, physically incapacitated, etc.).

Modify Meshware

Any known meshware ▶326 installed in an infomorph or cyberbrain may be removed or deactivated. Likewise, new meshware may be installed.

Modify Sensory Input (Cyberbrain)

You can modify the sensory inputs from a morph to its resident cyberbrain. Blocked senses will simply stop functioning until re-enabled. Recorded sensory input may be fed into the cyberbrain instead, replacing either a single sense or the whole sensorium (the same as XP). Unless the sensory input was previously recorded from that morph, such injected sensory inputs are easy to recognize as artificial (Perceive Test at +30). It is also possible to feed contradictory sensory input into the cyberbrain, invoking severe synaesthesia with the intention to distract or confuse; apply a modifier between –10 and –30 (hacker's choice). Prolonged exposure to hostile sensory input should be treated as torture psychosurgery ▶294 and may inflict mental stress.

Puppeteer (Cyberbrain)

Morphs with puppet sock implants may be remotely operated, just like a bot (*Remote Operations* ▶346). If the resident ego is not locked out with a lockbox app, it may fight attempts to puppet the morph as an automatic action — you may likewise counter the ego's attempted actions. Make an opposed test pitting the ego's WIL Check against your Interface skill. If the opposer wins, no action is taken. Morphs with locked-out cyberbrains may still be puppeted. If the cyberbrain is shut down, however, no puppeting is possible.

Scorch Ego

Direct access to an infomorph/cyberbrain ego opens the possibility for types of attacks that are normally infeasible due to strict content filtering. You conduct such attacks using scorchers ▶327 — hostile apps that employ damaging neurofeedback routines.

Shutdown

Cyberbrains and infomorphs may be deactivated, just like other systems (*Reboot/Shutdown* ▶261) — this includes hard shutdowns. If a cyberbrain is shut down, its morph will freeze in place or collapse. Shut down morphs may not be puppeted.

Tap Senses

As Tap Senses ▶263.

Terminate Cortical Stack Feed

The cyberbrain feeds backup data to the cortical stack. This is a one-way connection, so the cortical stack itself may not be hacked, but the transfer of data may be cut off. Likewise, an infomorph's ongoing updates to its inactive backup files may be terminated. This can be done for a temporary period or it can be indefinitely severed. A restored backup will be missing memories from the period when the feed was terminated.

SIDEWAYS EGONAPPING

[SECURE SESSION ESTABLISHED]

H: Hey, are you there? I've got something for you. Something you'll like.

S: ID plz

H: [Enable Access to Social Network Profile]

S: Hey lady, I didn't recognize you without that battlemorph.

H: Quit fucking around. We need to meet, like, yesterday. It went off. I got the stuff.

S: No dice. Haven't you heard? You're persona non grata around these parts. Your little job for BG kind of hung your ass out to dry.

H: You mean the job you set up for me? The one I'm trying to offload on your dumb ass? Don't tell me you're not going to help me unload this shit! I'm walking around with a dozen illegally forked egos here!

S: Would you let me fucking finish? I can't meet you. BG's the maddest I've ever seen him. He doesn't want to be associated with you or this job at all, so getting the forks to him is a no-go. Check your g-rep, Lulu, you're getting hammered.

H: Well, shit.

S: Yeah, that's one way of putting it. Now look, I *want* to help you, but I need to know what happened so we can cover our tracks, alright? How many did you get?

H: Lucky thirteen. All the finest forks slipped out of Mars's finest glitterati brains, ready for whatever nefarious purposes their buyer has in mind. Like BG.

S: You're one sick shit, Lulu. I like that about you. Look, you need to understand that the buyers I have in mind aren't exactly BG's caliber here. You need to know that before moving forward.

H: Do I have much of a choice at this point?

S: No.

H: Fine then. So where do we meet? These things are burning holes in my morph in the worst possible way.

S: Tell me how the job got so fucked up, Lulu. You're supposed to be the best forknapper in V-NS.

H: You know how it goes. You get in, the security turns out to be something different than what the intel shows, and all of a sudden you're making stuff up on the fly.

S: What, like guards with shotguns? Dogs? Dogs with shotguns?

H: Shut up. I mean adaptive security algorithms. The marks all used the same mesh security service, and intel was it was out of date. Turns out not so much.

S: So when did they find out who you were?

H: Well, the backup facility had wireless-inhibiting walls, so I had to be on site to pull the hack off. Sorta. I did this old-school, ripped their external sensors and drilled through the wall from the alley outside, snuck a bot through with a fiberoptic tether to establish a link. I got the egos you asked for, but their security was on me fast. They must've traced me back, their security hacked my morph's cyberbrain as I was finishing the job. They were so eager to stop the download that he didn't lock me in — big mistake. I evacuated the morph and got away.

S: At least you lost the morph. So what went wrong with the dropoff?

H: I've been trying to figure it out. No way they got anything from the morph. But I have a theory, based on some things I've heard. It's not hard for them to crosscheck patterns of intrusion against previous hacker practices, not to mention the fact that the last couple of jobs I've done for BG weren't exactly low profile. Their machine-learning algorithms are trained to look for those patterns, right? Ophelia is good at hiding my tracks, but she's not *that* good. That's the only explanation I have for how they showed up, screwed the dropoff, and nabbed Mel.

S: That's not encouraging. If they have a profile of your habits, they could still be on your tail.

H: I know, that's why I've been mixing everything up. And that's why I need you to set up a new way for me to offload these egos.

S: OK, here's what we're going to do. You remember Ralph's? That old coffee bar in Progress? The one with the overroasted beans they claim are a pure Earth strain? Let's meet up there and talk. Just you and me and the coffee.

H: I don't think you're reading me here. I want to offload it, not talk about offloading it.

S: One meeting on Progress, we'll go from there. And you stash the shit someplace safe. And you sure as fuck don't tell me or anyone else where, alright?

H: Fine. See you there, noon tomorrow, that old table near the back. I'll wear a red scarf.

S: Always the traditionalist. I respect that about you, Lulu. See you.

[SESSION ENDED]

[SECURE SESSION ESTABLISHED]

S: She'll be there. Get the team ready.

BG: Thx.

[SESSION ENDED]

VIRTUAL REALITY

VR simulspaces are comprehensive and authentic illusions. The resolution is so high definition as to be hyper-real, with even minute details and sensations replicated perfectly. Entering VR is much like entering an alternate reality.

ACCESSING SIMULSPACES

While you can access a simulspace server via the mesh, the bandwidth consumption and potential lag makes this unfavorable except for short visits. Hardwired connections are much faster and more reliable. Those with access jacks simply jack in, others place ultrasonic trode nets over their heads. Only servers may run simulspaces.

VR completely takes over your sensorium, overriding physical senses. Most people prefer to keep their body in a safe and comfortable environment while in a simulspace; body-fitting cushions and couches help you relax and keep you from cramping up or injuring yourself if you happen to thrash around. VR game parlors offer private pods. In case of long-term virtual sojourns (for instance, during space travel), morphs are normally retained in tanks that sustain them with nutrition and oxygen.

You first enter a simulspace via an electronic buffer holding area known as a white room. Here you choose your customizable avatar — your *simulmorph* — and other settings. Once ready, the white room dissolves away and you find yourself within the full-sensory virtual environment.

Muses: Most muses are left behind when entering a simulspace. However, they can potentially come along if domain rules permit it. Some simulspaces give muses their own simulmorph.

DOMAIN RULES

Simulspaces include real-world simulations, historical recreations, and fantastic worlds of every genre. None are bound by the laws of physics. The fundamental forces of reality — gravity, electromagnetism, atmosphere, temperature, etc. — are programmable in VR, allowing for environments that are completely unnatural. Gravity might fluctuate, weather may be subject to emotion, magic may exist, and you might heal damage effortlessly or be capable of transmogrifying into other creatures — the possibilities are endless. The *domain rules* that structure the simulspace reality are coded in and may be altered and manipulated according to the whim of the admins.

Time Distortion: Time itself is an adjustable constant in VR, though deviation from true time has its limits. So far, transhuman designers have achieved time distortion up to 60 times faster or slower than real time (roughly one minute equaling either one hour or one second). Time contraction is far more commonly used, granting more time for simulspace recreational activities, learning, or work (a strong economic incentive). Time dilation, on the other hand, is extremely useful for making long-distance travel through space more tolerable.

SIMULMORPHS

Your simulmorph is your digital representation in VR. For all intents and purposes, it feels like a real physical morph — or perhaps an infomorph or something weirder, depending on the domain rules.

Though your simulmorph may experience pain and damage in VR, this is merely sensory input — your physical morph (or infomorph) remains unharmed. Such experiences can still have a strong psychological impact on an ego, as the simulation is as close to reality as you can get. Torture in VR seems every bit as real as actual physical torture. Your ego may still suffer mental stress and trauma as a result of simulspace experiences.

IMMERSION

While in VR, your physical body slumps inertly, sometimes jerking or thrashing. The immersion cuts you off from your physical senses. At the GM's discretion, you may make a Perceive Test at –60 to notice extreme disturbances or if your physical body takes damage. You may enter and leave a simulspace at will, but toggling in or out takes a complex action.

While immersed, your link to the mesh is routed through the simulspace's interface. If the domain rules allow it, you may browse the mesh, communicate with others, etc. — though this may be experienced differently than usual, perhaps like reading a book or communing with spirits. Time distortion may also be an issue — holding a chat with someone in meatspace is excruciatingly slow when time is accelerated. Some simulspaces do not allow outside connections.

If the simulspace crashes or you are otherwise dumped from it, you immediately resume control of your morph as normal.

SIMULSPACE RULES

Since a simulspace is an alternate world with its own reality, the GM chooses what stats a simulmorph has and what rules exist for the setting. Anything goes. You could even break out the rules from another game for an extended simulspace session.

GMs should also keep the following rules in mind:

- Asyncs cannot use their psi abilities in simulspace, though such abilities can be simulated.
- Any damage taken in the simulspace is virtual. Virtual injuries and wounds can use the same mechanics, but characters that die in a simulspace are usually simply ejected from the simulation. In some cases, "dead" characters are brought into a white room and can re-enter or just watch the simulation, depending on the domain rules.
- Mental stress or trauma inflicted during a simulation carries over to the ego. The GM may wish to reduce SV penalties in situations where the character is aware they are in a simulation.
- Vigor pool cannot be used in simulspace.
- Time distortion has no effect on pool recharge rates — pools recharge at normal time frames, no matter if your mind is running at faster or slower speeds.

CHEAT CODES

Like any system with rules, there are ways to cheat. Many simulspace games intentionally incorporate cheat codes as easter eggs or rewards; others are simply intended to make an admin's work easier. Cheats allow you to break the domain rules in some way. This may be a special power, a way to alter an environmental factor (like flying), altering the time distortion, access to hidden maps or controls, a way to get info on other simulmorphs, or a short-cut through part of the simulation. In game terms, cheats might provide special abilities or modifiers to a simulmorph's skill or stat tests. Cheating is usually forbidden. Players who cheat in a simulspace game and get caught may face eviction from the simulspace. Nevertheless, cheat codes are highly prized and sometimes even traded on the black market.

HACKING SIMULSPACES

Simulspaces are complex virtual environments and often run on time dilation, which means that hackers cannot hack them in a normal manner when they participate in the simulation. There are ways to affect and influence the simulation from within, but the degree of subversion that is achievable is limited. For this reason, hackers rarely enter VR to hack.

Within a simulspace, your only option for hacking is through the standard interface that any simulmorph can pull up. This is used for standard user features like customizing your simulmorph, chatting with other users, viewing maps/FAQs, or checking the status of the system or other users. Options for using this interface to hack the system are usually quite limited, as they are designed so that system controls and processes cannot be accessed and manipulated from the inside, unless you happen to have credentials for an admin account. At the GM's discretion, a poorly designed simulspace may have hidden ways for accessing admin options or even accessing a command terminal from within the simulspace; finding such tricks may require a rep favor, a Research Test in advance, or a critical success on an Interface Test.

Externally hacking into a server running a simulspace is just like breaking into any other system; use all of the standard rules for intrusion and subversion. External hackers can manipulate a simulspace in the same way as an admin or cheat code from within.

SIMULSPACE USER ACTIONS

Standard user options in a simulspace boil down to a few actions:

- **Access Simulspace Functions:** This catch-all action encompasses everything a normal user is meant to do in a simulspace. This includes things like customizing your simulmorph, chatting with other users, editing user-defined parameters, initiating mini-games, trading virtual items, viewing user profiles, accessing maps or background files, and so on. Some features may require an Interface Test.
- **Activate Cheat Code:** If you know a cheat code, you can activate it to acquire what benefit it provides.
- **View Domain Rules:** You can analyze the simulation's parameters, rules, and controls. With an Interface Test, this may give you an understanding of things you can do that aren't immediately intuitive or a way to get past a specific obstacle, challenge, or puzzle.

ADMIN/CHEAT ACTIONS

Admins and users with cheat codes have more options. The following represent just a few of the potential options — many others are possible, depending on the simulspace in question. Most simulspaces are monitored to prevent cheating and abuse, though admins are typically pre-occupied with maintaining the simulspace as a whole, dealing with other users, etc. At the gamemaster's discretion, an admin might get to make an Interface Test (possibly with a modifier for distraction) to notice the use of unauthorized cheat codes.

- **Add/Remove Cheat Codes:** Either install a new cheat code or edit/remove an existing one. Writing or editing a cheat may require a Program Test with a timeframe set by the GM. Finding an existing cheat may require a Research Test. Installing a cheat code hidden from other admins requires a Hacking Test.
- **Alter Domain Rules:** Most simulspaces have control interfaces that let you tweak the system settings within certain parameters; adjusting these does not require a test. Drastically altering a domain's environment or underlying rules, however, will require a Program Test with a timeframe set by the GM.
- **Control NPCs:** You can dictate what responses NPCs give to certain actions or direct them outright.
- **Eavesdrop:** You can virtually surveil other users in the simulspace, no matter their virtual proximity.
- **Generate Items:** You can create virtual items regardless of rarity.
- **Modify Simulmorph:** You can modify a simulmorph's stats within specified parameters. This can range from giving them extra hit points or special abilities to nerfing them. Drastic changes may require a Program Test with a timeframe set by the GM.
- **Privacy:** You can enact privacy controls that prevent your face-to-face communications with other users from being eavesdropped upon.
- **Start/Stop Simulspace:** You can launch a new simulspace or close down an existing one. Once initiated, this takes 1d6 minutes. Closing down a particularly large simulspace with many users takes time, as users are given a chance to cleanly log off.
- **Teleport:** Instantaneously travel anywhere within the simulspace.
- **Terminate Session:** You can forcibly end a user's session, returning them to the white room.
- **Toggle God Mode:** Make your simulmorph invulnerable to damage.
- **Toggle Invisibility:** Make yourself imperceptible to standard users.
- **Toggle Lockbox Controls:** Lockbox simulspaces prevent specified users from toggling in or out of simulspace. This is common with VR used for torture, holding forknapped or indentured egos, or in certain instances of psychosurgery involving volatile patients.

SURVEILLANCE HACKING

Surveillance is one of the mesh's primary uses. Knowing how to conduct your business unseen is a necessary skill for characters of all stripes.

DETECTING SENSORS

Though it is often wisest to act as if you are under surveillance all of the time, sometimes you may want to know where the cameras are. Many sensors actively broadcast their presence, and even if they don't, their location can be triangulated via their radio emissions. If in stealth mode, they can be found with an Interface Test at –30.

Spotting sensors requires a Perceive Test. Given their small to minute sizes, apply a modifier between –10 and –30 as appropriate. If looking in an area with multiple sensors, roll once and apply no modifiers; use superior successes to ascertain how well you find the smaller ones. Nanoswarms cannot be detected except with a nanodetector ▶342.

Certain gear and implants can also be used to detect sensors, including electrical sense ware ▶318, spy swarm ▶345, and dazzlers ▶212.

Concealed Sensors: Sensors are sometimes actively camouflaged. Apply a –30 modifier to Perceive Tests to spot them.

Active Sensors: Active sensors such as radar and lidar betray their presence because they transmit on certain wavelengths, they don't just passively receive. A passive radar detector can detect an active radar sensor for example. Enhanced vision can perceive the emissions of most active sensors.

AVOIDING RECOGNITION

If you can't avoid the sensors, trick them. Privacy devices like the shroud ▶339 are common and provide anonymity, though your presence may still be noted. Invisibility cloaks ▶338 will hide you from many sensors, but are more likely to raise questions. Ware such as skin flex, synthetic mask, sex switch, and chameleon skin may also help conceal your identity or counter biometric matching. Old-fashioned disguise is also an option; make an opposed test between Exotic Skill: Disguise and Perceive. Face- and pattern-matching algorithms fare poorly against certain makeup and visual patterns; apply a –20 to Perceive Tests when using such patterns.

ACTIVE JAMMING

One noisy and short-lived option for countering coveillance is to jam all radio frequencies (*Jam Signals* ▶263). This will not stop sensors from detecting or recording, but it will prevent them from transmitting this information via the mesh using wireless radio — for as long as the jamming lasts. Hardwired sensors or systems using laser or microwave links are unaffected (though microwave links may be jammed separately). Jamming is useful as you can do it on the go, but it also impacts everyone and everything around you and is likely to attract the attention of security forces.

In a similar manner, dazzlers ▶212 may be used to temporarily blind cameras.

HACKING SENSORS

Selective sensor hacking can be quite useful, particularly in situations where coverage is minimal. This also gives you many options:

SECURITY LOG, CASE 15678ZT

Log 0624AF09:2300: Partially disassembled body found in habitat's trash recyclers. Unit hacked to bypass recognition of morph components and subsequent alerts. Only discovered due to a random maintenance check. No ID or cortical stack found.

Log 0625AF09:1100: Forensic nanoswarm scans of recycler transport bots identified the one which carried the corpse. 31 potential pickup points noted. Time-contracted security footage review of 28 sites by ALIs underway. However, 3 sites determined to be in areas lacking active sensor coverage, against regulations.

Log 0625AF09:1200: Genetic scan confirms corpse to be an olympian model with after-market modifications. Manufacturer identified in genetic code as PlayMates Limited, a now defunct hypercorp. Tox screen negative. However, bio scanners found some unusual viral traces that are still being analyzed.

Log 0625AF09:1600: Review of 28 sites indicates body was likely not dumped at any of them. Analysis of sensors at other 3 sites indicates 1 site failure due to inadequate maintenance over past few weeks. Sensors at the other 2 sites failed within an hour of each other, within 24 hours of the body's disposal. Motes likely ripped by hostile parties.

Log 0625AF09:2300: A habitat-wide analysis of public sensor network failures indicates a concerted area to rip a substantial length of sensor coverage in the same2-hour period. This was likely to intended to clear a path for undetected transportation of the body to the recycer pickup point. Area large enough that long-term traffic analysis of its perimeter would be timely and costly. Given low priority rating, analysis not approved.

Log 0626AF09:1000: Access to private sensor networks adjacent to the ripped zones has helped us identify a pair of unregistered drones likely used to clear a path. These drones match the profile of a local gang known to offer sensor-ripping services on the black market.

Log 0626AF09:1600: Contemporary surveillance of the gang's known members spotted one of the drones in active use. Operator identified as Sofia Aitor. Arrest warrant requested.

Log 0626AF09:1900: Attempt to arrest Sofia Aitor foiled when subject inexplicably experienced severe cerebral hemorraghing immediately after being taken into custody, leading to her death. Autopsy underway. No hostile nanoswarms or pathogens yet detected. Subject's known backups subpeonaed. Mesh inserts were wiped, muse self-deleted. Subject's ego successfully recovered from cortical stack, scheduled for questioning.

Log 0627AF09:0400: Aitor's cortical stack reported missing from evidence lockup. Recovered ego also erased from our systems. Security audit underway. Potential exists that we have a mole.

Log 0627AF09:1300: Officer Ramla Nuru reported missing. Same officer present at Aitor's arrest and on site during security breach identified as potential imposter. Biometrics uploaded for database search.

Log 0627AF09:1400: Biometrics matched to an unknown individual wanted for questioning throughout the inner system.

Log 0627AF09:1500: Case closed upon orders from Corporate. No justification given. Evidence confiscated.

deactivating sensors, blocking them from transmitting data, erasing recordings, looping the feed, or injecting fake sensor data.

Mass Hacking: In areas with heavy sensor coverage, hacking all of the sensors is more challenging. Luckily, motes tend to be less secure. Treat this as a single consolidated hacking task action ▶259 against all of the sensors in one area as a group. The GM can apply additional modifiers for the number of sensors (–10 for every group of 5).

RIPPING SENSORS

Ripping is akin to permanent jamming. Most sensors are motes, and while their optical electronic components protect them from electromagnetic pulses, their antennas are vulnerable. EM bursts using a ripper ▶339 or EMP grenade ▶212 effectively destroy the ability of motes in the area to wirelessly communicate. EM pulses are also quite effective against nanoswarms. Ripping is a technique favored by criminal groups, given its longer effect, as sensors in an area must be physically replaced/repaired.

DEAD ZONES

The omnipresence of fixed sensors is not always reliable. There are many places that have been overlooked, where sensors have fallen into disrepair, or where the environment and petty vandalism have taken their toll. Every habitat has dead zones in its sensor coverage — and if it doesn't, someone will go out of their way to make some.

Clearing Sensors

Physically clearing an area of sensors takes time and effort. Treat this as a Perceive task action with a timeframe based on the area size. Clearing an area without being noticed doubles the timeframe and may require an Infiltrate Test as well. Disabled, missing, and destroyed sensors may be noticed (prompting a maintenance bot or security check) and replaced over time. Spy nanoswarms must be cleared with guardian swarms ▶345.

Route Mapping

It is sometimes possible to map a route that travels through blind spots, avoiding most if not all sensors. This requires an Infiltrate task action; apply modifiers appropriate to the amount of sensor coverage and base the timeframe on the area covered. Dead zone maps are valuable on the black market.

SKIPJACKING

Skipjacking is the art of moving in a way that minimizes exposure even under ubiquitous coveillance. This involves using people, vehicles, and objects as cover, timing the movement of drones and cameras, taking advantage of distractions, and similar tricks — all while avoiding suspicion. Treat skipjacking as an opposed test between the skipjacker's Infiltrate skill and the tracker's Perceive. Apply modifiers as appropriate to the situation.

AVOIDING EAVESDROPPING

The combination of total surveillance and lip-reading apps means that even conversations out of microphone range may be eavesdropped if they are under a camera's watchful eye. To bypass this, direct communication can be established via skinlink ▶325, a fiber-optic wire between access jacks, or even tight-beam laser link.

CAUGHT IN THE ACT

Despite your best efforts, you are likely to eventually be caught on camera doing something you shouldn't. This is not the end. Many sensors are not actively monitored and are only checked for an investigation, giving you time to remove the evidence. Others belong to private concerns who simply don't care about you. Even actively monitored systems may overlook your misdeeds; the monitor may be distracted, overwhelmed, or just fail to notice. So don't expect alarm klaxons and SWAT teams every time you spit out your gum or act shady.

On the other hand, many sensor feeds are publicly accessible; the ones watching may simply be voyeurs. Rather than report you to authorities, they might post the recording online, making you the next viral sensation. Your rep can play a factor here. Higher-rep individuals are more likely to be stalked by admirers and media, while someone with bottom-rung rep may get special attention from a self-appointed citizen watch.

ALIs monitoring the public habitat security sensors typically filter out the trivial stuff. These are programmed to assign the people they watch with a risk rating based on their behavior. The first few offenses may simply get cataloged or initiate a (sometimes loud and public) verbal warning. Repeat or severe offenses will trigger a stronger response.

PSI

PSI OVERVIEW

In *Eclipse Phase,* psi abilities are the result of infection by the mutant Watts-MacLeod strain of the exsurgent virus ▶389. This plague physically modifies your async's brain architecture and functions. These alterations are copied when you upload, fork, and resleeve, meaning the infection and psi abilities stay with you when you switch from morph to morph. Async abilities are inherent to the ego and not a biological or genetic predisposition of the morph.

PREREQUISITES

To be an async, you must purchase the Psi trait ▶74 during character creation. It is possible to become an async in game via infection by the Watts-MacLeod strain ▶389). To wield psi, you must purchase psi sleights ▶280 with CP or Rez Points. To use psi-gamma sleights, you will also need the Psi skill ▶51, though you may default to WIL.

MORPHS AND PSI

Async abilities only function on a biological substrate — meaning that you require a biological brain and nervous system. An async sleeved in a synthmorph, infomorph, or a biomorph with a cyberbrain may not use their sleights.

MENTAL FRAGMENTATION

The process of infection had a permanent effect on your async's mind. Upon becoming infected, you either suffered a mental breakdown or underwent a long, slow process of mental subversion. Either way, you acquired either an Addiction ▶76 or Mental Disorder ▶79 negative trait according to your specific sub-strain ▶273. This trait does not provide bonus CP and is permanent — it may not be eliminated with psychosurgery or Rez Points.

SLEIGHTS

Asyncs manipulate their egos and otherwise create effects that cannot be matched nor mimicked by technological means. To use these abilities, they train their mental processes and practice cognitive algorithms called sleights, which they can subconsciously recall and use as necessary. Sleights fall into two categories: psi-chi (cognitive enhancements) and psi-gamma (brainwave reading and manipulation). Psi-chi sleights are passive, always-on abilities. Psi-gamma sleights must be activated, requiring an action and a Psi skill test. A summary and full list of sleights can be found on ▶280.

You start with one free sleight, chosen from those available to your specific infection sub-strain ▶273. All other sleights must be bought with Customization Points (during character creation) or Rez Points (during game play).

INFECTION RATING

Your async has an Infection Rating that represents the exovirus's influence. This rating changes over time, depending on how frequently you use your abilities.

Your base Infection Rating equals your Psi trait level × 10. Every time you use psi-gamma sleights or push a sleight ▶277, your Infection Rating increases (*Infection Modifiers* ▶276). Every time you recharge, it decreases (*Easing the Infection* ▶277).

PLAYING THE INFECTION

Consider having a player other than the async take on the role of the infection. This is particularly useful for the architect and stranger sub-strains, but works for all of them. The infection player can whisper in the async's ear, describe compulsions and hallucinations, or even maintain a sort of alter-ego internal dialogue with the async.

WATTS-MACLEOD SUB-STRAINS

As an async, you are affected by a specific sub-strain of the Watts-MacLeod virus. This sub-strain determines how the exovirus affects you personally. It influences what Mental Disorder trait you start with and provides you with a free bonus sleight. It also impacts the behavioral compulsions and spurred motivations that infection inflicts upon you (*Influence Effects* ▶278). The sub-strain is chosen during character creation (or when your character is infected during gameplay).

THE ARCHITECT

Your infection possesses a distinct curiosity and sense of intelligence. You often see things from a perspective that is different. It drives you to delve into the inner mechanics of things and examine how they work — whether they be machines or biological entities. The urges push beyond exploration and learning — you are often compelled to build and construct new things: architecture with inexplicable functions, strange devices, or even new forms of life. Though the virus's exact motivation and intent remains unclear, it leaves you with an unmistakable sense of purpose.

Negative Trait (Choose one): Mental Disorder (Bipolar Disorder, Insomnia, or Paramnesia)

Free Sleight (Choose One): Enhanced Creativity, Grok, or Implant Skill

THE BEAST

Your infection is a ravenous, bloodthirsty monster, yearning to break free. You struggle to keep it in check, placated or distracted, else the desire for carnage and mayhem overwhelms you.

Negative Trait (Choose one): Mental Disorder (ADHD, Anxiety, or PTSD)

Free Sleight (Choose One): High Pain Threshold, Burst of Adrenaline, or Psychic Stab

THE HAUNTER

The low-level dread of incomprehensible terror, flittering at the edge of perception, is your constant companion. Sometimes it is the crushing weight of the uncaring dark void that makes our extinction a near certainty, sometimes it is a more palpable, unnameable presence, an entity so beyond your ken that you are insignificant in comparison. You are plagued by unrest and unease, taunted by nightmares and a sense that reality is not always as grounded as you would like.

Negative Trait (Choose one): Addiction or Mental Disorder (Cosmic Anxiety Disorder or Paranoia)

Free Sleight (Choose One): Heightened Awareness, Infectious Mind, or Nightmare

THE STRANGER

Your infection is the shadow at your side, the whispering chant of its unusual desires echoing just below the limits of your perception. It is omnipresent but patient, waiting for moments of vulnerability to steer you towards its inscrutable ends. Though its motivations are hazy, it seems to enjoy testing your limits — and those of transhumanity at large.

Negative Trait (Choose one): Mental Disorder (Disassociative Personality Disorder, Paramnesia, or Paranoia)

Free Sleight (Choose One): Superior Kinesics, Basilisk Stare, or Subliminal

THE XENOMORPH

An alien presence lives inside of you. Your instinctual responses are different from those of your original phenotype and you occasionally find yourself acting in ways more fitting to a physiology different from yours. You might feel a weird compulsion to burrow into sand, lay eggs, eat non-nutritious or dangerous substances, or clean phantom appendages that aren't part of your current anatomy. You may even seek out morphs that better accommodate these omnipresent urges. You sometimes express an outlook that other transhumans find strange, just as you are occasionally confused or mystified by transhuman cultural practices. When the infection expresses itself strongly, these omnipresent urges seem quite normal, but the transhumans around you seem more and more bizarre and alien. While some asyncs report this sub-strain as adhering to a specific alien anatomy (i.e., they often feel insectoid or aquatic), others clearly feel that the alien presence within transforms and changes over time.

Negative Trait (Choose one): Mental Disorder (Alien Behavioral Disorder, Atavism, Body Dysmorphia, or Conversion Disorder)

Free Sleight (Choose One): Somatic Control, Eco-Empathy, or Xeno-Empathy

ROLEPLAYING ASYNCS

As an async, you should keep the origin of your abilities in mind: Watts-MacLeod strain infection. You may or may not be aware of this source, but you undoubtedly know that you underwent some sort of transformation and have talents that no one else does. If unaware of the infection, you have likely learned to keep your abilities secret lest you be ridiculed, attacked, or whisked away to some secret testing program. Learning the truth about your nature could even be the starting point of a campaign and/or your introduction to Firewall. If you know the truth, however, you must live with the fact that you are the victim of a nanoplague likely spread by the TITANs that may or may not lead to complications, side effects, or other unexpected revelations in your future.

You should make an effort to explore the nature of your infection and how your character perceives it. Asyncs are profoundly changed people. The invasive and alien aspect of your abilities should not be lost on you. For example, you might conceive of your psi talents as a sort of parasitic entity, living off your sleights, or you might feel that using these powers puts you in touch with some sort of fundamental substrate of the universe that is weird and terrifying. Alternatively, you could feel as if your personality was melded with something different, something that doesn't belong. Each async is likely to view their situation differently, and none of them pleasantly.

One key aspect to roleplaying an async is to treat the infection as a distinct, if mostly dormant or removed, entity. It is a constant presence below your async's consciousness. It may have its own unique aspirations, but these should remain mysterious. While many of the behavioral compulsions and motivational urges imply a level of sociopathy or destructiveness, think of it more as lacking a moral compass. The exovirus has none of the reference points for morality that transhumanity has. It is not evil so much as indifferent, callous, and *alien*.

PSI

Source: Stellar Intelligence (Updated Precis)

The term "psi," coined by biologist Bertold P. Wiesner, was originally an umbrella term used to describe paranormal phenomena, including so-called "psychic" abilities such as telepathy and extra-sensory perception. While the term was used extensively in the field of parapsychology and pop culture in the twentieth and early twenty-first centuries, the study of psi was largely considered a pseudoscience with flawed methodologies and gradually lost funding and support.

During the Fall, however, repeated rumors and accounts of unexplained abilities drew the attention of scientists, military leaders, and singularity seekers alike. Numerous biological and nanoviruses had been unleashed upon transhumanity, racing through populations and transforming as they spread. Some inflicted only minor biological or mental changes and impairments, but many were vicious and deadly. The most feared variants, however, were those that came to be labeled as the *exsurgent virus*—a transformative plague that mutates its victims and subverts them to its will. The exsurgent virus was observed to radically modify the subject's neural patterns and mental state, affecting synaptic arrangement and even modulating synaptic currents. In some cases, infected brains even developed new anatomical modules. With some strains, these changes alter and enhance the victim's cognitive capabilities. In others, they also endow the capacity to sense and affect the minds of others from a short distance. Both of these are dubbed "psi" as the causal factors continue to mystify us.

A NEW EXSURGENCY

The exsurgent virus is exceptionally mutable and adaptive, however, and two Argonaut researchers who were studying it made an interesting discovery. A variant strain was found that endowed the subject with exceptional mental abilities without engaging the excessive transformative processes of the other strains. Though infection still has other drawbacks, many agencies have come to regard this strain as "safe" in the sense that it does not make the subject infectious to others, the subject does not transmogrify into an alien monstrosity, and their general personality remains intact. Intrigued that this avenue of inquiry might lead to a way to nullify the effects of other exsurgent strains, a number of groups are known to experiment with the strain with the cooperation of willing test subjects. It is known that some hypercorps and habitat authorities have also experimented with these strains using unwilling victims.

Labeled the Watts-MacLeod strain after the researchers who isolated it, further study has gained insight into the effect this virus has on transhuman brains. Careful analysis of infected subjects discovered that their altered synapses generate a modulated brainwave pattern that is extremely difficult to detect. These asynchronous brainwaves are now widely referred to as "psi waves," fitting with the Greek letter designation of other brainwaves (alpha, beta, delta, gamma, theta). Likewise, affected individuals are known as "asyncs."

ANALYSIS OF PSI

Exploration of the explicit causal factors behind psi waves remains stymied. Neuroimaging and mapping have enabled scientists to pinpoint structures within the brain, neural activity, and perturbations in the brain's bioelectric field that are associated with psi processes, but attempts to duplicate these features in non-infected brains have resulted in failure or worse. Researchers have proposed a number of imaginative theories: mental processes with the ability to change quantum states, subconscious interactions with dimensions of reality we cannot normally perceive, brain modules with advanced hypercomputational abilities, or even distributed synaptic processes that manipulate some as-yet unidentified substrate of reality. At least one Argonaut has advanced the argument that asyncs may prove the Simulation Hypothesis, with their abilities functioning as cheat codes in a simulated universe. Hard evidence and explanations, however, remain frustratingly inconclusive. Numerous dead ends have prompted many researchers to postulate that the mechanics underlying psi are simply too strange and too far beyond transhumanity's understanding of physical sciences—perhaps reinforcing theories that the exsurgent virus is in fact of alien origin. Of course we can only speculate in accordance with known research—it is quite possible that some parties have made further breakthroughs, but are keeping the information to themselves.

The initiation and use of psi talents is generally understood to take place on a subconscious level, meaning that the async is not actively aware of the fundamental processes that trigger the effects. Practice and training, however, allows an async to focus on activating specific psi abilities. These are called "sleights:" mnemonic or cognitive algorithms that enable the ego to manifest a particular psi function. Some researchers have organized sleights into two categories. "psi-chi" sleights are mental enhancements and new cognitive functions. These largely impact the async's perceptions, metabolic processes, information-processing abilities, and self control. Once an async learns to activate this capability, it remains always on, like a new sense or bodily function. Some asyncs only have psi-chi abilities. A second category of "psi-gamma" sleights involve the ability to impact biological neural functions in others. Though the range on these sleights is limited (with success rates dropping sharply after ~10 meters), the capabilities are more diverse. Specific sleights have been shown to read thoughts, affect memories, inflict damaging neurofeedback or pain, modify senses, and influence cognitive and physiological functions. Research indicates that asyncs are able to detect and influence other asyncs at longer distances. Sleights have also proven effective on animals, though the lower the level of sentience the harder they reportedly are to affect. Asyncs capable of both psi-chi and psi-gamma sleights have shown an ability to sometimes "push" their sleights for greater effects.

PUBLIC AWARENESS

Though incidents of psychic abilities are sometimes reported on in mainstream media, experienced in livestream X-casts, and sensationalized in popular vids and games, they are widely assumed to be the result of hysteria, misunderstood technology, or outright fakes. Though most authorities are aware of the validity of these reports, they often take pains to conceal these matters and keep them under wraps, so as not to trigger widespread panic. Among autonomist and other open communities, knowledge of psi is more widespread, but details are vague and reports are greeted with skepticism.

The percentage of the transhuman population believed to have contracted the Watts-MacLeod virus remains statistically insignificant—less than .001% of the population. This, however, still may indicate that there are tens or even hundreds of thousands of asyncs scattered among transhumanity. Given the widespread lack of information or acceptance of their capabilities, many asyncs may not even realize they are affected, having never expressed their abilities or understanding what they are. This situation is compounded as the Watts-MacLeod strain remains elusive to standard detection practices, with few asyncs (<3%) being correctly identified (though there is some evidence to indicate that those recently infected are more likely to be detected). Attempts to identify asyncs by scans of psi brainwave patterns have also not proven reliable. However, asyncs have a larger standard deviation in terms of how frequently their brainprint ID pattern alters and must be updated. The vast number of identified asyncs have been recruited by various agencies, "disappeared" for study, or simply eliminated as a potential threat. It is known that several polities, hypercorps, and habitats analyze ID and private medical data for signs of Watts-MacLeod infection.

HIDDEN DANGERS

 # Start EyeChat #
 # Active Members: 7 #

Router: Why are we being summoned into another chat? We finished the op overviews last week and our next check-in isn't scheduled until Monday.

Filter: I called this special session. We have an issue with Jun-Seo that requires extra care and discussion. And I think it's time we revisit our policy on asyncs.

Crow: Oh not this garbage again.

Filter: Perhaps you feel that discussion of an infection risk within our own ranks is not worth our time. That we should all be fine with letting our enemies corrupt us from within.

Crow: Oh ffs, there's no infection risk. We've been over this a thousand times. The virus altered them, that's it. It did not turn them. They are not infectious. They are not—

Filter: You don't know tha—

Scanner: Friends! Hold up a nanosec. Before we stir up this firestorm again, can we deal with the current situation first? That seems more urgent, and then we can push the Great Undying Async Debate to the side channels and handle it in our precious free time.

Filter: Fair enough. We have an issue in Noctis-Qianjiao. The NQPD just discovered a clutch of two dozen networked cyberbrains amid a bunch of unspecified jury-rigged mesh-server gear. They're not quite sure what to make of it yet, but they've called in some TITAN specialists and Oversight to help them figure it out. You'll want to take a look at the location. <Attached Files>

Register: Oh sweet Ganesh. That's our safehouse, isn't it?

Filter: Indeed it is. It's the tertiary safehouse for the team we've had active in Noctis the past six months. [Vector2], tell them what you told me.

Vector2: Aye. OK, mates, I ran through the security logs on the safehouse (or at least the ones we had backed up, today's logs are in the hands of the jacks). We haven't really touched it since we set it up and gave the codes to the sentinels. I didn't see any signs of trespassing or security breaches. But there are heaps of logged visits from one of the sentinels, at all sorts of random times. Guess which one.

Router: Damnit.

Filter: While [Vector2] and I are doing as much as we can to clean this up, we'll need some assistance. The police have the logs too and will soon be searching for Jun-Seo. The whole team's cover may be compromised. And we're not certain what led the police to the safehouse in the first place—something we need to look into.

Vector1: On it.

Filter: And, of course, there's the issue of Jun-Seo. We need to neutralize them and warn the team.

Router: Jun-Seo is not a threat. We already knew there was the potential for this. The team has reported that on several occasions Jun-Seo's morph had been active while Jun-Seo themself had been "checked out." Asleep.

Filter: You already fucking knew the virus was taking over their body? And you left this menace interfaced with the team? What kind of shitshow are we running here?

Router: Calm the eff down. The team was aware and knew the risks. They'd taken extra precautions to keep Jun monitored. And this sort of somnambulism is a known if rare issue with some asyncs.

Filter: Are you fucking kidding me? We have an active exsurgent on our team and you didn't bother to tell the rest of us?

Crow: I knew. I've been helping Jun-Seo find treatment for the issue since we first identified it. Calling them an exsurgent is a bit extre—

Filter: It's rather fucking *extreme* to let a hostile alien entity seize control of one of our operatives, don't you think? This entire server could be in danger.

Router: The risks are known and accepted. All of Firewall has had this debate, multiple times. Having asyncs on our side has been mission critical on more occasions than we can count. Like any technology, it sometimes bites us in the ass. We have measures in place to mitigate the problem.

Scanner: Actually, I share some of [Filter's] concerns and I'd appreciate a bit more background on this. We have 5 active teams with asyncs, so it's relevant. Is this the same as the Voice I've heard Hex mention? Or are we talking a complete subversion of the ego here, like an exsurgent or TITAN puppet?

Crow: Every async's alteration is different. Some of them feel a presence or talk to voices in their head. Some hallucinate. A lot of them get overwhelmed with strange urges. Their personalities sometimes change, like mood swings. For the most part, these effects are low-level and manageable. They're in control. However, there's a correlation between heavy use of psi sleights and more significant effects. Lethal biofeedback. Emotional trauma. Some asyncs report that they impulsively self-sabotage. A very small sampling have reported episodes of lost time, waking up in places different then they went to sleep or with tools in their hand. This may be akin to sleepwalking, or it may be something more. We are still investigating.

Filter: Two. Dozen. Networked. Cyberbrains. In a different part of town. That's quite the sleepwalk.

Router: Look, we share your concerns. This is obviously abnormal. We're working on it. But it's premature to equate all asyncs to exsurgent sleeper agents or mind-hacked puppets. We have no reason to treat Jun-Seo as an enemy agent at this time.

Filter: If we suspected any member of that team to be exsurgent-infected, this entire collective would be yelling to kill them with fire. I am not certain if you've all grown soft, if you're deluded, or if you're already compromised too.

Vector1: Yo, comrade [Filter]. You still outsourcing some of your spin-control ops through that Experian troll farm?

Filter: What does that have to do with anything?

Vector1: Well since we're throwing around accusations of being compromised, I was wondering how much intel you trade them on top of the invoice. We all know there's no way the Oaxaca-Maartens just look the other way at the sort of business we bring them. If they smell juicy intel, they go after it.

Filter: How fucking dare you.

Scanner: Friends, friends, let us stop this. We do not need to be at each other's throats. We have a serious problem to address.

Register: I have a question that may impact the matter at hand.

Router: Yes?

Register: Whose cyberbrains are these that Jun-Seo collected?

USING PSI

Drawing on a sleight to procure an effect does not always require a test. Each sleight description details how the power is used.

PSI RANGE

Psi-chi sleights only affect the async. Psi-gamma sleights may be used on the self or other biological life at a short distance. While there is no modifier for using a ranged sleight on yourself, using ranged sleights on others imposes a modifier according to the distance.

Touch: Touch range gives you a +20 modifier to your Psi Test (but not on sleights used on yourself). You must have physical contact with the target (clothing, armor, vacsuits, etc. do not impede). If the target avoids being touched, this requires a successful melee attack as a quick action, applying the touch-only +20 modifier. This attack does not cause damage, but the target may Fray to avoid. If you fail to touch, you may still use the sleight at Point-Blank range.

Point-Blank: +10 Psi Test (but not on sleights used on yourself). You must be within 2 meters of the target or less.

Close: No modifier. You must be within 10 meters of the target. For every 2 meters beyond that, apply a –10 modifier to the test.

Psi vs. Psi: Due to the nature of psi, sleights are more effective against other asyncs and exsurgents. Double the range of each category above: Point-Blank counts to 4 meters, Close counts out to 20 meters.

TARGETING

You may not target synthmorphs, bots, and vehicles with psi sleights, as they lack biological systems. Pods and biomorphs with cyberbrains are less susceptible; asyncs suffer a –30 modifier against them. Note that infomorphs may never be targeted by psi sleights as psi is not effective within the mesh or simulspace.

You must have line of sight to your target or otherwise be aware of their presence in relation to yours (such as by using the ego sense sleight or viewing them through a tacnet). Walls with a combined Armor/DR total of 100 or more will block psi sleights. Ranged combat modifiers for cover and hidden targets apply to Psi Tests.

Animals and Less Complex Life Forms: Psi works against any living creature with a brain and/or nervous system. Against partially sapient and partially uplifted animals, it suffers a –20 modifier. Against non-sapient animals, it suffers a –30 modifier. It has no effect on or against less complex life forms like plants, algae, bacteria, etc.

Factors and Aliens: At the GM's discretion, psi sleights may not work on alien creatures at all, depending on their physiology and neurology. If it does work, it is likely to suffer at least a –20 modifier.

OPPOSED TESTS

Psi that targets another character is handled as an opposed test, the async's Psi skill versus the defender's WIL Check. Moxie pool may be used by both. Willing characters may choose not to resist, but they must be aware of what is happening (either the async has warned them or they have experienced it before). Unconscious or sleeping characters cannot resist.

Psi Full Defense: Like full defense in physical combat ▶226, you may spend a complex action to concentrate your mental defenses, gaining a +30 modifier to resist sleights until your next action.

Criticals: If the defender wins with a critical success, the async is temporarily "locked out" of their mind and may not target them again until they take a recharge action ▶35.

If the async rolls a critical failure, they suffer 1d6 DV as the effort takes a physical toll in the form of headaches and ruptured blood vessels.

If the async wins with a critical success, double the potency of the sleight's effect. In the case of psi attacks, the DV is doubled.

MENTAL ARMOR

The Psi Armor and Psi Shield sleights (▶281 and ▶285) provide mental armor, a form of neural hardening against psi-based attacks. Like physical armor, this mental armor reduces the amount of damage inflicted by a psychic assault.

TARGET AWARENESS

The target of a psi sleight is aware they are being targeted any time they succeed on their half of the opposed test (regardless of whether the async rolls higher or not). Note that awareness does not necessarily mean that the target understands that psi abilities are being used on them, especially as most people in *Eclipse Phase* are unaware of psi's existence. Instead, the target understands that some outside influence is at work or that something strange is happening. They may suspect that they have been drugged, hacked, or are under the influence of some strange technology. A character with Psi skill may make a Psi Test to identify the sleight used against them.

Targets who fail their roll remain unaware.

DURATION

Psi sleights have one of four durations: *constant, instant, temporary,* or *sustained*.

Constant: Constant sleights are always "on."

Instant: Instant sleights inflict an immediate and permanent effect that lasts without effort.

Temporary: Temporary sleights last for a limited duration with no extra effort. The temporary duration is determined your WIL ÷ 5 and is measured in action turns, minutes, or hours, as noted. Influence effects ▶278 are applied immediately when the sleight is activated, not at the end of the duration.

Sustained: Sustained sleights last as long as you want, but require active effort and concentration: apply a –10 modifier to all other skill tests while the sleight is sustained. The async must also stay within Close range + 10 meters of the target, otherwise the sleight immediately ends. More than one sleight may be sustained at a time, with a cumulative modifier. Influence effects are applied immediately when the sleight is activated, not at the end of the duration. At the GM's discretion, sleights that are sustained for long periods may incur additional Infection Modifiers and Infection Tests.

INFECTION MODIFIERS

Whenever you take advantage of your psychic abilities, there is a cost to pay. This may manifest physically, in the form of fatigue, headaches, and hemorrhaging. Or it may give the infection a chance to claw at the cracks in your psyche and manipulate your outlook.

Whenever you use psi-gamma sleights, two things happen. First, your Infection Rating increases by that sleight's Infection modifier. This represents the infection temporarily taking a stronger hold over your mind. Second, the exovirus must make an Infection Test. As the infectee, the async player rolls this test.

Asyncs that only use psi-chi sleights do not need to worry about infection flare-ups unless they push ▶277.

Infection Test

The target number for your Infection Test equals your current Infection Rating (including the modifier from the sleight you are using). If this test fails, nothing happens, and you pull off the sleight without any negative effects. If it succeeds, you suffer an influence effect appropriate to the sub-strain (*Influence Effects* ▶278).

You may not spend pool to affect the Infection Test, but you may spend Moxie to avoid making the Infection Test altogether, powering through the sleight with sheer willpower. However, your Infection Rating still increases.

Critical Failure: If you roll a critical failure, the exovirus temporarily loses its grip on you. You are immune to influence effects until your next recharge.

Superior Success: Apply a +1 modifier to the influence effect roll per superior success.

Critical Success: On a critical success, an influence effect is chosen and the GM also picks one of the following:

- **Checkout Time:** The infection is awakened, but bides its time. The next time you take a long recharge or are rendered unconscious, you may awaken to discover that the infection has been active while your mind was under — literally taking control of your body. What the exovirus does during this time is up to the GM and may not be immediately apparent to your character. You may awaken to a corpse in your bed or strange symbols meticulously etched with bloody fingernails over every inch of your wall, or you may discover a half-completed alien device secreted away in a locker weeks later. More than one async has stimmed themselves awake for days, afraid to fall asleep and let the presence inside them take control.
- **Interference:** The exovirus actively impedes you at a critical point. At some point in the future, when you are about to make a test, you must make an opposed test pitting your WIL Check against your Infection Rating +30. If the infection wins, your test will automatically suffer a critical failure (pools may not be applied). GMs are encouraged to select situations that will have dramatic and dire results.

THE INFECTION'S INFLUENCE

Every time an Infection Test succeeds, the exovirus exerts a bit more control over your psyche. Every async experiences this differently, depending on their particular sub-strain.

Roll 1d6 and consult your sub-strain's influence effects ▶278, applying +1 per superior success rolled on the Infection Test. During character creation (or when your PC becomes infected with Watts-MacLeod), you should write down these six influence effects on your character sheet.

Influence effects kick in immediately as the sleight is activated.

Physical Damage: You suffer DV 1d6 in the form of fatigue, headaches, and hemorrhaging.

Enhanced/Restricted Behavior: For a temporary period of 1d6 minutes, you acquire an Enhanced or Restricted Behavior trait. This trait should directly impact your roleplaying. The level of the trait depends on your current Infection Rating: under 33 (Level 1), 33+ (Level 2), 66+ (Level 3).

Motivation: For a temporary period of 1d6 hours, you acquire an extra motivation that should be actively roleplayed. This itch lurks in the back of your mind, relentlessly pushing you to take action. If the motivation is satisfied, you benefit by healing stress (*Motivational Recovery* ▶223). Like any motivation, you do not need to act on it immediately. However, if the duration ends and the GM determines you have not satisfied its terms, you suffer SV 1d6. At the GM's discretion, staying in proximity to the motivation's focus (if any) without acting upon it may require a WIL Check to restrain yourself and may inflict a –10 modifier to all skill tests until you give in or the duration ends.

Other Effects: A few influence effects (such as frenzy and hallucinations) are unique to the sub-strain and function as detailed.

PUSHING SLEIGHTS

You may boost your sleight's effectiveness, at the cost of increasing the infection's influence. You may choose to push a psi-gamma sleight when you activate it, but before any test is made. Your Infection Modifier doubles and you automatically suffer DV 1d6 in addition to making an Infection Test per normal.

Choose one of the following effects for your pushed sleight:

- **Increased Range:** Range doubles; Point-Blank extends to 4 meters, Close extends to 20 meters. This effect is cumulative with the range increase against other asyncs (Point-Blank becomes 6, Close 30).
- **Increased Effect:** Any modifiers provided by the sleight are doubled. For example, +10 becomes +20; +1 pool becomes +2; and so on.
- **Increased Power:** The sleight is resisted by WIL Check ÷ 2.
- **Increased Penetration:** Psi Shield armor is reduced by half.
- **Increased Duration:** Double the sleight's Duration (temporary sleights only).
- **Extra Target:** You may affect one extra target with the sleight, with the same action, as long as each of them can be targeted via the rules above. You only roll once, with each of the defending characters making their opposed tests against that roll.

You may also push already active psi-chi sleights. In this case, increase your Infection Rating by 5 and make an Infection Test. Psi-chi pushes are temporary, lasting only WIL ÷ 5 minutes.

Moxie pool may be used when pushing to negate the physical damage, but you must still make an Infection Test as normal. If 2 points of Moxie pool are spent, however, the test is negated entirely.

Pushing a sleight is not necessarily obvious, though the mental effort and pain/damage may be apparent with a Kinesics Test.

INFECTION RATING THRESHOLDS

As your infection takes a stronger hold, your sleights become more powerful:

- **Infection Rating 33+:** Apply the Increased Effect push effect to all of your psi-chi sleights. This lasts until your Infection Rating drops below 33.
- **Infection Rating 66+:** Apply one free push effect to all of your psi-gamma sleights. The same effect must be applied to each. This lasts until your Infection Rating drops below 66.

You may still push sleights when you are over a threshold, but you may not apply the same push effect that a threshold already provides, with the exception of extra target.

EASING THE INFECTION

For every short recharge action ▶35 you take, reduce your Infection Rating by 10. It may not be decreased lower than your base Infection Rating (Psi Level × 10). For every long recharge, reset your Infection to its base rating.

You may not reduce your Infection Rating if you have active influence effects — the urge must be satiated first.

INFLUENCE EFFECTS

Influence effects — in particular, the impulses and compulsions — provide character to your specific infection. They speak to a range of behaviors that put a face on the entity affecting you. Players and GMs are encouraged to use this to generate a personality of sorts for the infection itself. Perhaps they hint at specific alien physiologies, motivations, or cultural mannerisms. Though the exovirus should always remain inscrutable to some degree, its likely manifestations can provide indicators for its general outlook and intentions, which you can then use to add flavor to your PC's own actions.

In this vein, the influence effects provided for each sub-strain should be considered customizable. Perhaps you envision an async that is so traumatized and confused by the haunter sub-strain that one of their influence effects is to fly into an uncontrollable rage, lashing out at whatever is around them, even their allies and loved ones. Or perhaps you ascribe a motivation of focused self-interest to the stranger and so devise an influence effect that compels your async to act in completely selfish and narcissistic ways, no matter the detriment to others. Maybe your idea for the xenomorph is that it stems from a hive-mind perspective, and so the async might fail to understand the concept of the individual or lash out at behavior divergent from perceived collective goals. Use the effects as listed for guidelines, while also considering options such as temporary disorders ▶224, enhanced behaviors ▶78, restricted behaviors ▶80, or even negative traits such as Neural Damage ▶79.

Architect Sub-Strain

D6 Roll	Influence Effect
1	**Physical Damage.** Take DV 1d6.
2	**Enhanced Behavior: Arrogance.** You have it all figured out. You are convinced that you are incontrovertibly right, that your plan is the best plan, and that you know exactly what is going on. You sneer at anyone who thinks otherwise.
3	**Restricted Behavior: Relaxation.** There is no time to rest, you have too many things to do!
4	**Motivation: +Hoard.** You instinctively and secretly collect things for purposes that are not entirely clear to you. This might range from electronics components to rare elements to a variety of weapons — or it might apply to stranger things such as skin or internal organs. You not only accumulate these items, but stash them away in hidden caches to protect them from others.
5	**Motivation: +Expose Inner Workings.** You become hyperfocused on the most interesting person, thing, or mystery in your immediate vicinity. This might be an unusual morph, a high-tech device, an unsolved puzzle, or something you have never experienced before. If nothing stands out, you fixate on the nearest person or thing that is newest to you. You are compelled to learn all about the subject by tinkering with it, testing it, taking it apart, and examining it piece by piece.
6+	**Motivation: +Create.** You are obsessed with an elusive idea for a new creation. This may be a sculpture, a robot, a neogenetic life form, or something *weird*. The nature of the design relies on your skills and available resources. It might also require components or resources that are unusual (blood, bones) or hard to find (uranium, antimatter). The idea itself may not be fully formed or realized in your head — you may not understand even after you finish it. If you are unlikely to complete the design before the compulsion ends, you will be inclined to secretly store it and pick up the project again the next time you are compelled.

Other Potential Enhanced Behaviors: Curiosity, Callousness, Ruthlessness.
Other Potential Motivations: +Acquire Advanced Technology, +Discard Emotional Ties, +Discover the Unknown, +Repurpose, +Uncover Secrets.

Beast Sub-Strain

D6 Roll	Influence Effect
1	**Physical Damage.** Take DV 1d6.
2	**Enhanced Behavior: Aggression.** You are unnecessarily hostile. You respond to any challenge, threat, or provocation with intimidation or violence.
3	**Restricted Behavior: Remorse.** You are oblivious or ambivalent to the negative repercussions of your actions on others.
4	**Motivation: +Domination.** You will do what is necessary to gain the upper hand. This can mean defeating your rivals, assuming leadership of your pack, or otherwise proclaiming and defending your superiority.
5	**Motivation: +No Quarter.** You refuse to flee or surrender, even if the odds are overwhelming. You also refuse to spare your enemies or show mercy.
6+	**Frenzy:** Within the next 24 hours, you frenzy if blood is spilled near you. For 1d6 minutes, you receive +10 on melee attacks, inflict +1d6 DV melee damage, and ignore the effects of one wound (cumulative with other pain editors, up to a maximum of 3 wound effects). However, you must make a WIL Check to use a ranged weapon against a target in melee range or to restrain yourself from attacking anyone brandishing a weapon or otherwise hostile.

Other Potential Enhanced Behaviors: Arousal, Gluttony, Risk-Taking.
Other Potential Restricted Behaviors: Empathy.
Other Potential Motivations: +Cannibalism, +Claim Territory, +Eradicate Enemies, +Instill Fear, +Stalk Prey.

Haunter Sub-Strain

D6 Roll	Influence Effect
1	**Physical Damage.** Take DV 1d6.
2	**Enhanced Behavior: Avoidance.** You acquire an intolerance for a specific type of sensory input: smells, sounds, light, darkness, etc. You will go to great lengths to avoid it.
3	**Enhanced Behavior: Mistrust.** You are convinced that nothing is as it seems. The signs of conspiracy, of falsehood, of *wrongness* are everywhere. Your allies may be compromised without their knowledge. Everything is suspect.
4	**Motivation: +Cut Ties.** Relationships are pointless at best, a detriment at worst. Better to rid yourself of excess baggage.
5	**Motivation: +Isolation.** You are disgusted by the presence of others and called by the desire to embrace the void. You will seek to isolate yourself from others and meditate with the silent voices in the dark. You may even go so far as to barricade yourself in, hide where you cannot be found, or take a spacewalk to commune with the dark universe.
6+	**Hallucination:** Within the next 24 hours, you experience a full-sensory hallucination. The GM describes a scene to you as if were real, and you respond accordingly. The hallucination may be as subtle as seeing something crawling under an NPC's skin to as immersive as suddenly finding yourself in an alien environment, but it lasts no more than a few minutes. If you have cause to disbelieve the illusion, you may make an INT Check to spot the falsehood; even if successful, however, the hallucination will still play out. Some hallucinations may just provide unnerving or horrifying experiences, a sign that the universe is unraveling around you. Others may provide obfuscated insights, reveal hidden connections, or hint at things to come.

Other Potential Enhanced Behaviors: Denial, Nihilism, Unsettling Mannerisms.
Other Potential Restricted Behaviors: Empathy.
Other Potential Motivations: +Crush Hope, +Expose Hidden Truths, +Release Others From Misery, +Shake Collective Confidence.

Stranger Sub-Strain

D6 Roll	Influence Effect
1	**Physical Damage.** Take DV 1d6.
2	**Enhanced Behavior: Deceit.** Truth becomes uninteresting, you lie just to get the thrill of manipulating others, no matter the consequences. You avoid blatant mis-truths, but take pleasure in misleading others, even with trivial details. The rush when seeding doubt and uncertainty, even if it casts aspersions on others, is intoxicating.
3	**Enhanced Behavior: Self-Sabotage.** You are your own worst enemy. You choose the worst options for yourself and always take the wrong path.
4	**Motivation: +Foil Plans.** You delight in spoiling the designs of others. You go out of your way to ensure that people fail their obligations, agendas self-destruct, and things do not go as planned.
5	**Motivation: +Manipulation.** You get a thrill at steering people into actions and behaviors that fit your plans.
6+	**Motivation: +Test Limits.** You like to see how far you can get things to go. You might bypass an opportunity to quickly resolve a conflict, ignore fast solutions in order to drag an emergency out, or intentionally spread misinformation that you know will aggravate tensions between already near-hostile parties. You will press buttons, fan the flames, exploit vulnerabilities, reveal horrible truths, push boundaries, and stir things up, even if it puts you and your comrades at risk.

Other Potential Enhanced Behaviors: Cruelty, Spite.
Other Potential Restricted Behaviors: Empathy, Remorse, Take Responsibility.
Other Potential Motivations: +Betrayal, +Convert Opponent, +Execute Grand Scheme, +Mislead Others, +Twist Truth.

Xenomorph Sub-Strain

D6 Roll	Influence Effect
1	**Physical Damage.** Take DV 1d6.
2	**Enhanced Behavior: Non-verbal Communication.** Words become less important. You prefer conveying intent by posture, expressions, threat displays, and similar physical emotive cues.
3	**Enhanced Behavior: Cliquishness.** You are rude, mistrustful, and hostile to outsiders, but supportive to your pack.
4	**Motivation: +Transform Environment.** You'd prefer an environment conducive to the alien presence within you. So you create one or establish a nest. This may require complete darkness, burrowing underground, warmth (> 100 F/38 C), cold (< 0 F/−17 C), or submerging an area in water or a similar liquid. This favored environment may always remain the same or it may change randomly or according to conditions.
5	**Motivation: +Control Territory.** You must free an area you control from outside threats. You may be inclined to stock provisions, set traps, and otherwise protect your space from intruders.
6+	**Motivation: +Express True Form.** You are no longer satisfied to dwell in inferior physical forms. You will go to great lengths to modify yourself, whether sophisticated or crude.

Other Potential Enhanced Behaviors: Arousal, Gluttony, Grooming, Socialize.
Other Potential Motivations: +Eat the Weak, +Establish Colony, +Hibernate, +Molt, +Play with Prey, +Protect Tribe.

PSI SLEIGHT SUMMARIES

Psi-chi sleights are available to anyone with the Psi trait. Psi-gamma sleights are only available to characters with the Psi trait at Level 2. Unless noted, sleights may only be taken once.

Range: Self, Point-Blank, or Close ▶276

Action: Automatic, Quick, Complex, or Task ▶32

Duration: Constant, Instant, Sustained, or your WIL ÷ 5 in either action turns, minutes, or hours ▶276

Infection Mod: Added to your Infection Rating ▶276.

PSI-CHI SLEIGHTS

Psi-chi sleights are passive, always-on, subconscious abilities available to anyone with the Psi trait. They are considered automatic actions and require no effort to maintain. Psi-chi sleights add bonuses to specific actions or enable new abilities rather than calling for a skill test. Most enhance the async's perception, intellect, mental control, or ability to process information.

Charisma

Your inhibitions are lowered, social intuition expanded, and emotional intelligence augmented. This enhances your ability to navigate social situations and process emotional information. Increase Moxie pool by 1.

Control Behavior

You can fine-tune your emotional state. Apply an Enhanced Behavior or Restricted Behavior (Level 2) trait ▶80 of your choice at will. You may not change it again until you have taken a recharge action. At the GM's discretion, this trait may apply a +/–10 modifier in some situations. Alternatively, use this to reduce an Enhanced/Restricted Behavior trait imposed on you by up to two levels. You can push this sleight to raise the effect to Level 3 (or three levels of reduction).

Eco-Empathy

With a successful COG Check, you acquire an intuitive understanding of non-sentient, non-terrestrial organisms occupying a producer niche in the local ecosystem (e.g., alien plant and fungus analogues). The information you gain is of a general and qualitative nature, and doesn't include data you would normally acquire from chemical or genetic analysis. For example, you could determine if a plant thrives only in riparian zones, if it relies on insect analogs for pollination, or if it produces tubers that are edible to transhumans when cooked.

Enhanced Creativity

You are more imaginative and inclined to think outside the box. Apply a +10 modifier to Know or Technical skill tests where creativity plays a major role. This level of ingenuity sometimes seems strange and unusual, manifesting as odd insights or creepy details, especially with artwork.

Enhanced Memory

You have a perfect memory. Unlike transhumans with hyperthymesia, this is not strictly autobiographical. You can be asked a random date and immediately recall trivial details such as the day of the week it was, what you did that day, what the weather was like, and the exact wording of a paragraph you read. Your memory is always "on"—in fact, you perceive reality and memory much like a split screen and are often caught in reverie. Enhanced memory has no effect on psychosurgery memory editing.

You can push this sleight to recall your memories from a sort of third-person point of view, allowing you to make Perceive Tests to notice details you may have previously missed.

Grok
You intuitively understand how to use an unfamiliar object, vehicle, or device, no matter how alien, advanced, or bizarre. You may make a COG Check to determine how to activate or use it, simply by looking at and handling it. This sleight does not provide any understanding of the principles or technologies involved — you simply grasp how to make it work. This sleight is only effective with unfamiliar devices, it provides no bonus when using devices with which you are familiar.

Heightened Awareness
Your situational awareness is boosted, providing an instinctive sense about an area and any potential threats nearby. +10 to Perceive Tests.

High Pain Threshold
You can block out, ignore, or otherwise isolate pain. Ignore the modifiers from a single wound (this is cumulative with other effects, up to a maximum of three wound effects).

Inner Spark
You have an inner well of energy, making it easier to recuperate. You recover +1 pool points during short recharges.

Pattern Recognition
You are adept at spotting patterns and correlating non-random elements. This is useful for translating languages, breaking codes, or finding clues hidden among massive amounts of data. Apply a +10 modifier to appropriate Infosec, Perceive, or Research Tests where you have a sufficiently large sample and time enough to study, as determined by the gamemaster. This might range from a few hours of investigating inscriptions left by long-dead aliens to a week or more of researching a lengthy cipher. This does not apply to brute-force hacking or Infosec tests made by decrypt apps to break a code. You also learn new languages easily; reduce the timeframe to weeks rather than months.

Predictive Boost
Your brain's bayesian probability functions are accelerated, enhancing your ability to estimate and predict the outcomes of events as they unfold in real-time around you. In effect, you have an intuitive sense for the most likely outcomes. +2 Initiative.

Psi Armor
Your mind's defenses are solidified. You gain mental armor equal to your WIL ÷ 3 against psi attacks.

Qualia
You have a more intuitive grasp on the world around you. +1 Insight pool.

Savant Calculation
You have an incredible faculty for intuitive mathematics involving complex, chaotic systems. You can calculate your odds when gambling, predict the outcome of stock market upheavals, and guesstimate the rubble distribution pattern from an explosion. You can also measure exact distances with a look, solve math problems faster than computers, and tell how many microbots make up a swarmanoid. This talent, however, is not conscious, it is intuitive. You do not know the equations you are solving, you simply know the solution. You may make COG Checks to calculate answers to complex mathematical questions.

PSI-CHI SLEIGHTS

All psi-chi sleights are automatic actions and have:
Range: Self • **Duration:** Constant • no Infection Modifier.

Sleight	Decription
Charisma	Lowers inhibitions, boosts charm. +1 Moxie Pool.
Control Behavior	Apply/reduce an Enhanced Behavior or Restricted Behavior (Level 2) trait.
Eco-Empathy	May use COG Check to understand alien plant and fungus analogues.
Enhanced Creativity	+10 to Know or Technical Tests involving creativity or thinking outside the box.
Enhanced Memory	Perfect memory recall.
Grok	May use COG Check to understand how to use unfamiliar object/device.
Heightened Awareness	Sense area/threats. +10 Perceive Tests.
High Pain Threshold	Ignore modifiers from 1 wound.
Inner Spark	Recover +1 pool points during short recharges.
Pattern Recognition	Detect patterns. +10 to appropriate Infosec, Perceive, or Research Tests.
Predictive Boost	+2 Initiative.
Psi Armor	Mental armor equal to WIL ÷ 3.
Qualia	Increased understanding. +1 Insight Pool.
Savant Calculation	May use COG Check to answer complex mathematical questions.
Scramble	Hide from ego sense sleight; –30 modifier.
Self Control	+10 WIL Check.
Social Cunning	More manipulative. +10 to Persuade and Provoke Tests.
Somatic Control	Better physiological control. +1 Vigor Pool.
Superior Kinesics	+10 Deceive and Kinesics Tests.
Xeno-Empathy	May use SAV Check to gain understanding of non-terrestrial life.

Scramble
Scramble helps you to hide from another async using the ego sense sleight ▶284. Apply a –30 modifier to the async's Psi Test.

Self Control
Your will is tempered and unyielding. +10 to WIL Checks.

Social Cunning
Your emotional intelligence is sharpened and focused, making you more manipulative and exploitive of weaknesses. +10 to Persuade and Provoke Tests.

Somatic Control
You have excellent physiological control. +1 Vigor Pool.

Superior Kinesics
You haver finer control over your emotive signals, body language, and micro-expressions and are more capable at interpreting the same in others. +10 to Deceive and Kinesics Tests.

Xeno-Empathy
You have an intuitive understanding of non-human, non-terrestrial organisms (animal analogues). You can make a SAV Check to acquire insight into the creature's ecological niche, motivations, needs, and likely behavioral responses (if non-sapient) or mental/emotional state (if sapient).

PSI-GAMMA SLEIGHTS

Psi-gamma sleights influence the function of biological minds (egos within a biomorph, but also including animal life). Psi-gamma is only available to characters with Level 2 of the Psi trait. Psi-gamma sleights must be activated, requiring a quick, complex, or task action and a Psi skill test. Sleights that target other sentient beings or life forms are always opposed tests, while others are handled as success tests. Active sleights require significant effort from the async and may cause their exovirus infection to flare up (*Infection Modifiers* ▶276).

Alter Effect

Action: Complex • **Duration:** Instant • **Infection Mod:** 2

You trigger or ease a neurochemical response within the target, either decreasing or increasing the duration of a drug, chemical, or toxin by half.

Animal Control

Action: Complex • **Duration:** Sustained • **Infection Mod:** 6

You take over the mind of a non-sapient animal. While sustained, you control the animal exactly like remotely operating a drone ▶346. You may switch between autonomous mode and jamming.

Aphasia

Action: Complex • **Duration:** Minutes • **Infection Mod:** 6

You create a temporary stroke-like effect within the target's brain that disrupts their speech and language centers. For WIL ÷ 5 minutes, they are incapable of speaking, communicating, reading, and understanding language.

Basilisk Stare

Action: Task • **Duration:** Sustained • **Infection Mod:** 6

You make eye contact with the target and immobilize them. As long as you keep your gaze locked on them (minor blinking aside), they cannot move, avert their eyes, or undertake any action (including mesh and mental actions). You must also limit your movement, though you may move at half your base move and/or take quick physical actions, but you must make a REF Check to keep your eyes locked, and actions requiring a test and visual coordination suffer a –30 modifier. Likewise, if the target is attacked, moved, or otherwise jostled, eye contact is lost.

You may not affect extra targets with this sleight, unless you have more than one set of eyes.

Block Pain

Action: Complex • **Duration:** Minutes • **Infection Mod:** 4

You impede the target's pain receptors. For WIL ÷ 5 minutes, the target can ignore the effects of one wound, plus one per superior success. This is cumulative with other pain editing effects, up to a maximum of 3 wound effects.

Block Sense

Action: Complex • **Duration:** Action Turns • **Infection Mod:** 4

You short-circuit and temporary disable one of the target's sensory cortices (your choice). For WIL ÷ 5 action turns, the target loses that type of sensory input. The senses that may be negated include sight, hearing, touch, smell, taste, hunger, balance, direction, proprioception, facial recognition, and augmented senses such as electrical sense and radiation sense. Any actions that rely on the impaired sense require a test with a minimum –30 modifier.

Block Skill

Action: Complex • **Duration:** Minutes • **Infection Mod:** 6

You install a temporary block in the target's brain, preventing them from using one specified skill (they may not even default) for WIL ÷ 5 minutes.

Browse Thoughts

Action: Complex • **Duration:** Sustained • **Infection Mod:** 4

You scan the target's surface thoughts, gaining a general sense of what is currently running through their mind. Superior successes provide deeper detail. This is not an invasive delve into the target's mind for specific information like Deep Scan ▶next column; instead, you simply get a read on what the target is currently thinking.

Burst of Adrenaline

Action: Complex • **Duration:** Minutes • **Infection Mod:** 6

You revive the target with a rush of endorphins and energy. They receive +1 Vigor pool for WIL ÷ 5 minutes. A target may only benefit from one burst of adrenaline at a time.

Burst of Clarity

Action: Complex • **Duration:** Minutes • **Infection Mod:** 6

You refresh the target's mind, enabling them to see things in a new light. They receive +1 Insight pool for WIL ÷ 5 minutes. A target may only benefit from one burst of clarity at a time.

Burst of Confidence

Action: Complex • **Duration:** Minutes • **Infection Mod:** 6

You instill the target with renewed determination and empowerment. They receive +1 Moxie pool for WIL ÷ 5 minutes. A target may only benefit from one burst of confidence at a time.

Cloud Memory

Action: Complex • **Duration:** Minutes • **Infection Mod:** 6

You temporarily disrupt the target's ability to form long-term memories. The target will retain short-term memories during the duration (WIL ÷ 5 minutes), but will soon (after d6 + 4 action turns) forget anything that occurred while this sleight was in effect.

Deep Scan

Action: Complex • **Duration:** Sustained • **Infection Mod:** 6

Deep Scan is a more intrusive version of Browse Thoughts ▶previous column. You telepathically invade the target's mind and probe it for information. You extract two pieces of information (i.e., a name, image, passcode, description or summary a few sentences long, or a memory of less than a minute) plus two for each superior success. Each item takes one full action turn to retrieve, during which the sleight must be sustained.

Deja Vu

Action: Complex • **Duration:** Minutes • **Infection Mod:** 8

Your force the target's mind into recursive loop. They will repeat their actions from the previous 15–30 seconds (5–10 action turns) for the next WIL ÷ 5 minutes. They will repeat their actions as closely as possible, even if their environment and circumstances change. If someone actively interrupts or restrains the target, or otherwise disrupts the loop, they may make a WIL Check to break out of the loop, ending the sleight.

PSI-GAMMA SLEIGHTS

Sleight	Action	Duration	Infection Mod	Description
Alter Effect	Complex	Instant	2	Increase or reduce the duration of a drug or toxin affecting the target by half.
Animal Control	Complex	Sustained	6	Take over a non-sapient animal's mind, teleoperate it like a drone.
Aphasia	Complex	Minutes	6	Target cannot speak, communicate, or read.
Basilisk Stare	Task	Sustained	6	Target cannot break eye contact with async, both are immobilized.
Block Pain	Complex	Minutes	4	Target can ignore wound modifiers.
Block Sense	Complex	Action Turns	4	Negates one of the target's senses (hearing, sight, smell, taste, touch).
Block Skill	Complex	Minutes	6	The target may not use a specified skill.
Browse Thoughts	Complex	Sustained	4	Scan target's surface thoughts.
Burst of Adrenaline	Complex	Minutes	6	Target receives +1 Vigor pool.
Burst of Clarity	Complex	Minutes	6	Target receives +1 Insight pool.
Burst of Confidence	Complex	Minutes	6	Target receives +1 Moxie pool.
Cloud Memory	Complex	Minutes	6	Target retains no long-term memories.
Deep Scan	Complex	Sustained	6	Retrieve 2 items from target's mind, +2 per superior success.
Deja Vu	Complex	Minutes	8	The target is forced to repeat their actions of the past 15–30 seconds.
Downtime	Task	Sustained	2	4-hour fugue state heals 1d6 stress, +1d6 per superior success, gains influence effect.
Ego Sense	Complex	Action Turns	2	Detect biological life; extra info on range, size, type, etc. with superior successes.
Empathic Scan	Complex	Action Turns	4	Know target's emotions. +10 to social skill tests against them, +10 per superior success.
Illusion	Complex	Sustained	8	Target experiences full-sensory illusion crafted by async.
Implant Memory	Complex	Instant	6	Implant fake memory permanently in target.
Implant Skill	Complex	Hours	6	Implant skill possessed by async in target's mind at half value.
Induce Error	Complex	Minutes	6	The target automatically fails the next test they make using skill chosen by async.
Infectious Mind	Complex	Sustained	4	Share a triggered disorder or influence effect with the target.
Influence	Complex	Action Turns	4	Apply an Enhanced Behavior or Restricted Behavior (Level 2) trait.
Invigorate	Complex	Instant	4	The target can expend their next complex action as a short recharge.
Mimic	Quick	Instant	4	Snapshot of target's mannerisms; +10 Deceive skills to impersonate target, +10 per superior success.
Mindlink	Quick	Sustained	2	Telepathy.
Neural Hardening	Complex	Minutes	4	The target receives a +10 modifier to resist basilisk hacks.
Nightmare	Complex	Instant	6	Target takes SV 2d10, +1d6 per superior success, reduced by psi armor.
Pain	Complex	Instant	6	Target inflicted with pain (like an agonizer), must flee at full movement on their next action.
Psi Shield	Complex	Sustained	4	Mental armor increased by +1d6 (cumulative with Psi Armor sleight).
Psychic Stab	Complex	Instant	6	Target takes DV 2d10, +1d6 per superior success, reduced by mental armor.
Sense Infection	Complex	Instant	2	Detect exsurgent infection in biological life.
Short Circuit	Complex	Instant	6	Target's synapses misfire, they are incapacitated for 1 turn and stunned for 3 minutes.
Spam	Complex	Action Turns	6	Target overwhelmed by sensory input, –10 to all actions, with additional –10 per superior success.
Static	Complex	Sustained	4	–30 to all sleights within close range.
Subliminal	Complex	Hours	10	Implant suggested action in target's mind that they must carry through.
Tranquility	Complex	Minutes	4	Target relieved from an acute stress response ▶223 or triggered disorder. May not be used on self.

Downtime

Action: Task • **Duration:** Sustained • **Infection Mod:** 2

You slip the target's mind into a fugue-state regenerative downtime, to repair their psyche. You must sustain this sleight for 4 hours during which you may take no other complex actions. Downtime cannot be concurrent with a long recharge. This process heals 1d6 stress, +1d6 per superior success. Traumas and disorders are unaffected by this sleight. If interrupted, no stress is healed. For all sensory purposes, you and the target are catatonic during downtime, completely oblivious to the outside world. Only severe disturbances or physical shock (such as being wounded or hit by a shock weapon) will bring you or the target out of it. Any target of this sleight other than yourself must make a WIL Check; if they fail, sometime within the next 24 hours they will be subject to one of your influence effects ▶278.

Ego Sense

Action: Complex • **Duration:** Action Turns • **Infection Mod:** 2

You detect the presence and location (rough direction from yourself) of other sentient and biological life forms (i.e., egos and animals) within Close range. Each life form makes an opposed test against your roll. You suffer modifiers for size, the same as for ranged attacks. Superior successes provide additional details: approximate size, exact distance, type of creature, etc. If the target moves during the duration (WIL ÷ 5 action turns), you will have a rough idea of their speed and bearing.

Empathic Scan

Action: Complex • **Duration:** Action Turns • **Infection Mod:** 4

You sense the target's emotional state for WIL ÷ 5 action turns. This provides you with a +10 modifier for social skill tests against the target, +10 per superior success. This sleight will not automatically detect deceit, but it will pick up on nervousness, doubt, anxiety, etc. and provide a bonus to Kinesics Tests against Deceive.

Illusion

Action: Complex • **Duration:** Sustained • **Infection Mod:** 8

You craft an illusion and inflict it upon the target. The illusion can range from a simple single-sense impression to a completely immersive false reality and can override actual sensory input. The illusion cannot directly harm the target, but it can provoke reactions that are dangerous or even fatal (i.e., tricking someone into walking off a roof). Because the illusion is unsubstantial, it also may not stop or start movement, hold weight, provide protection, etc. If the target carefully examines the illusion or physically interacts with it, they receive an INT Check to see through it. Likewise, if the illusion in any way defies reality or inspires common-sense incredulity, or the real world interferes with the illusion (sudden loud noises, walls hidden by the illusion impede movement, etc.), the target gets an INT Check to disbelieve. Targets that succeed in their INT Check will still faintly experience the illusory input, but recognize it as unreal. No check is needed if the target has proof the illusion is false. Complex or lengthy illusions are hard to sustain; the GM may call for INT Checks or appropriate skill tests to maintain the constructed facade.

Illusions require intense mental power to sustain. You may not take any complex actions while sustaining this sleight, else the illusion will falter.

Implant Memory

Action: Complex • **Duration:** Instant • **Infection Mod:** 6

You implant a memory of up to an hour's length inside the target's mind. This memory may be completely fabricated, based on your real memories, or a combination of the two. Implanting real memories is useful for archiving important data with an ally, providing a literal alternate perspective, or simply making a memory dump for the target to peruse. Fake memories are often fuzzy and lacking detail, but bolstering them with real memories makes them more convincing. At the GM's discretion, a fake memory that contradicts the target's other memories, is drastically out of character, or includes details that inspire skepticism may be identified as false with an INT Check. Particularly traumatic memories may inflict mental stress on the recipient when they are first experienced. Implanted memories do not overwrite real memories.

Implant Skill

Action: Complex • **Duration:** Hours • **Infection Mod:** 6

You impart your expertise and implant it into the target's mind. The target acquires your chosen existing skill at half value for WIL ÷ 5 hours. If the target already has the skill, they use whichever value is higher. Specialization bonuses also apply. Psi skill may only be implanted if the target has the Psi trait. Recipients of skills will exercise them with the async's flair and mannerisms.

Induce Error

Action: Complex • **Duration:** Minutes • **Infection Mod:** 6

You create a glitch in the target's mind that causes them to unconsciously do something wrong. The target automatically fails a random skill test (chosen by the GM) made in the next WIL ÷ 5 minutes. With a superior success, you may choose which skill will fail the next time it is used (if that skill is not used within the duration, the sleight has no effect) or make the failure a superior failure. This usually manifests as the type of common mistake that even

a seasoned professional might make. For example, in combat the target could forget to reload a weapon or alert an ally of a flanking foe. Out of combat, the target might save the wrong file, forget where they left something, mistake someone for someone else, or leave a security door unlocked.

Infectious Mind

Action: Complex • **Duration:** Sustained • **Infection Mod:** 4

You share a triggered disorder or active infection influence effect with the target. At the GM's discretion, prolonged exposure may inflict stress damage to the target.

Influence

Action: Complex • **Duration:** Action Turns • **Infection Mod:** 4

This is an offensive version of the Control Behavior sleight. You manipulate the target's cortices and emotions. Apply an Enhanced Behavior or Restricted Behavior (Level 2) trait ▶80. You may push this trait to Level 3.

Invigorate

Action: Complex • **Duration:** Instant • **Infection Mod:** 4

You trigger a rush of neurochemical energy in the target. They may expend their next complex action collecting themselves; this counts as a short recharge action ▶35, without needing to expend the full 10 minutes. Note that this sleight does not provide an extra recharge, it simply shortens the time frame.

Mimic

Action: Quick • **Duration:** Instant • **Infection Mod:** 4

You telepathically ping the target, collecting an intuitive snapshot of their personality quirks and mannerisms. You may use this imprint of the target's mind to your advantage when mimicking their behavior and social cues. Apply a +10 modifier to Deceive Tests to impersonate the target, +10 per superior success.

Mindlink

Action: Quick • **Duration:** Sustained • **Infection Mod:** 2

You establish two-way mental communication with the target. If mindlinked with more than one target simultaneously, you may act as a telepathic server so that everyone mindlinked with you can also telepathically communicate with each other (though you will overhear everything). Language is still a factor in mindlinked communications, but this barrier may be overcome by transmitting sounds, images, emotions, and other sensations.

Neural Hardening

Action: Complex • **Duration:** Minutes • **Infection Mod:** 4

You harden the target's sensory input pathways and mechanisms. For WIL ÷ 5 minutes, they receive +10 to resist basilisk hacks, +10 per superior success.

Nightmare

Action: Complex • **Duration:** Instant • **Infection Mod:** 6

You bombard the target with horrific images and sensations, eroding their mental stability. You inflict 2d10 SV to the target, +1d6 per superior success. This is reduced by mental armor.

Pain

Action: Complex • **Duration:** Instant • **Infection Mod:** 6

You activate the target's nerve endings and clusters, inflicting a painful burning sensation. Treat as a pain effect ▶216; the target must take their next action to flee away from the async or area at full movement.

Psi Shield

Action: Complex • **Duration:** Sustained • **Infection Mod:** 2

You rally the mind's defenses against psychic attacks. Increase mental armor by 1d6, +1d6 per superior success.

Psychic Stab

Action: Complex • **Duration:** Instant • **Infection Mod:** 6

You trigger dangerous neurochemical impulses and biofeedback in the target's brain and nervous system. You inflict 2d10 DV, +1d6 per superior success, reduced by mental armor.

Sense Infection

Action: Complex • **Duration:** Instant • **Infection Mod:** 2

You detect whether the target is infected with a biological nanovirus or nanoplague strain of the exsurgent virus — or if they are an async. You know only whether or not the target is infected; superior successes may provide gut feelings about the target's specific strain and its effects. GM note: under no circumstances should you provide the name of the strain — focus on its nature.

Short Circuit

Action: Complex • **Duration:** Instant • **Infection Mod:** 6

You force the target's synapses to misfire. This functions like a shock attack ▶219; the target loses neuromuscular control, falls down, and is incapacitated for 1 action turn (+2 turns per superior success) and stunned for 3 minutes.

Spam

Action: Complex • **Duration:** Action Turns • **Infection Mod:** 6

You overload and flood the target's sensory cortices, spamming them with confusing and distracting sensory input. The target is impaired, suffering –10 to all actions, plus an extra –10 per superior success, for WIL ÷ 5 action turns.

Static

Action: Complex • **Duration:** Sustained • **Infection Mod:** 4

You generate an anti-psi jamming field, impeding the use of ranged sleights within Close range by –30. This sleight has no effect on self or Touch-range sleights.

Subliminal

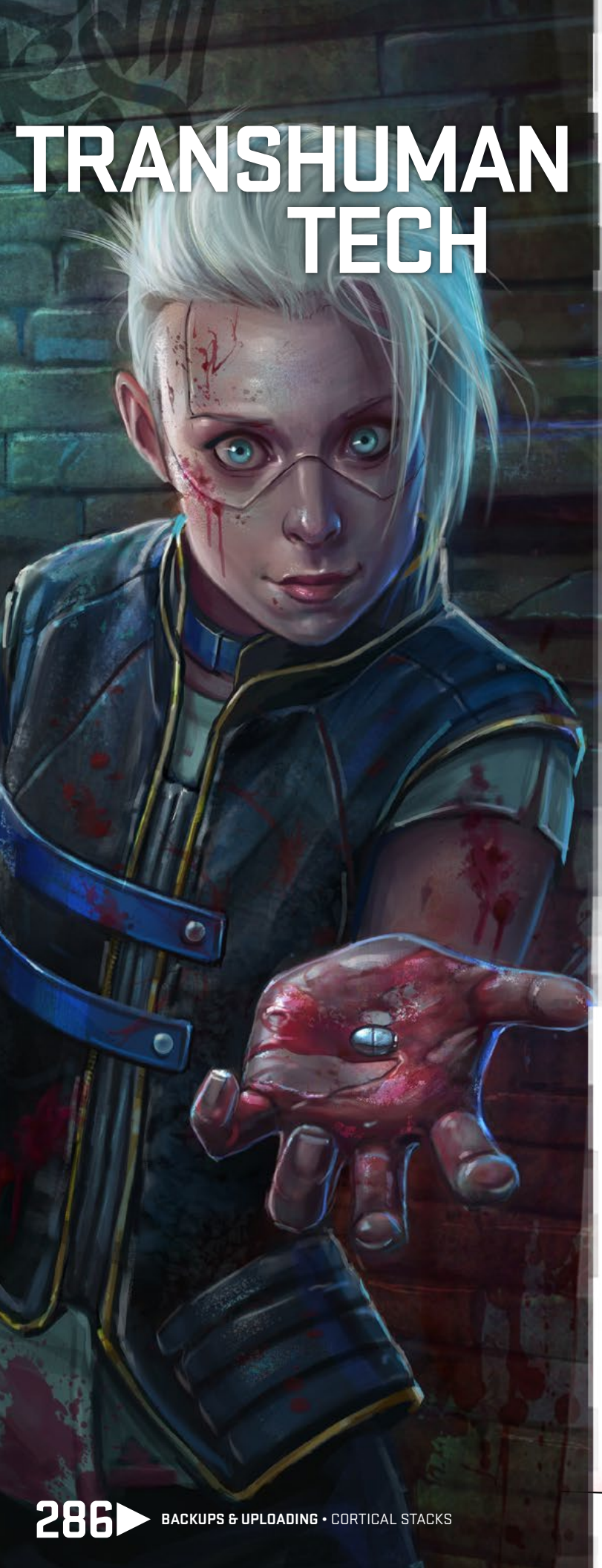
Action: Complex • **Duration:** Hours • **Infection Mod:** 10

You implant a single post-hypnotic suggestion into the target's mind which they will carry out as if it was their own idea. Implanted suggestions must be short and simple; the GM may require suggestions be encompassed in a short sentence (for example: "open the airlock" or "hand over the weapon"). Suggestions may include a short trigger condition ("when the alarm goes off, ignore it"). The target receives a WIL Check to resist any suggestion that is immediately life threatening ("jump off the bridge") or that violates their motivations or personal strictures.

Tranquility

Action: Complex • **Duration:** Minutes • **Infection Mod:** 4

You calm the target, relieving stress and anxiety. The target is relieved of the effects of an acute stress response ▶223 or triggered disorder for WIL ÷ 5 minutes. You may not use this sleight on yourself.



TRANSHUMAN TECH

BACKUPS & UPLOADING

A backup is a complete record of a transhuman ego — personality, memories, skills, and everything else that makes you *you,* short of your physical body. It also includes all of the information about your brain's neuronal connections. These are needed to either emulate your ego digitally or print it onto the brain of a new morph.

The primary use for a backup lies in not staying dead. Your backup can be *resleeved* into a new morph ▶288 or run as an *infomorph* ▶252, perhaps as a fork of your original self ▶292. You can also *egocast* yourself across the Solar System as an alternative to long, slow space voyages ▶302.

Aside from quirky scientists who keep brains in vats, almost all backups exist in one of two forms: *cortical stack* backups and *uploaded* backups. Because backups are complete, stored transhuman egos, the term *ego* is used interchangeably. "Backup" implies that the ego will be kept in storage, while "ego" implies that it will be run as an infomorph, resleeved, egocast, or the like.

CORTICAL STACKS

Arguably the most important piece of technology transhumanity has ever invented, cortical stack implants are predictably taken for granted. Physically, cortical stacks are nanodiamond memory modules about the size of a cigarette butt. They're tough to destroy, designed to be retrieved from even the most mangled corpse or shot-up synth. In most morphs, they're implanted near the brain stem, where the neck meets the back of the head. To make them easier to find, synthmorphs with heads have them here, too.

A cortical stack is linked to a neural lace network of nanobots throughout the brain (biomorphs) or to the cyberbrain (pods and synthmorphs). It backs up your ego once every second, or 86,400 times per Earth day. Just based on the amount of data in a transhuman brain, this is non-trivial. Add in the billions of connections between neurons, and it's even more impressive. Almost everyone in the Solar System has one, with the exception of very young children and flats living in bioconservative polities.

Aside from containing a backup of your ego, your cortical stack backs up everything on your mesh inserts: your muse, lifelog, any software or blueprints you own, and all other data you amass. This takes up a tiny amount of space compared to the ego itself.

Popping a Stack

The process of cutting out a cortical stack is called "popping," as a skilled extractor can usually get the smooth-shelled implant to pop right out by making an incision in the correct place and applying pressure. Excising a cortical stack in surgery or a workshop with no time constraints is automatically successful. Popping a stack under less ideal conditions (e.g., with a vibroknife in a smoky, bullet-riddled ventilation shaft) requires either a Medicine: Paramedic Test (biomorphs) or a Hardware: Robotics Test (synthmorphs) This is a task action with a timeframe of 4 action turns on a dead, unconscious, or immobilized morph. If this is too long, decapitating the morph and taking the whole head for later excision has a timeframe of only 2 actions turns (1 action turn for big/choppy blades).

Popping a stack from an immobilized, living morph inflicts 3d10+10 DV. The GM may impose a longer timeframe, adjusted damage, and/or penalties on the test if the morph has its stack in a non-standard position or if the stack is heavily protected (e.g., beneath armor plates). The victim, the perpetrator, and all witnesses must make a WIL Check or take SV 1d6.

Morphs with swarm composition ▶344 have distributed cortical stacks. If a swarmanoid is destroyed, recovering the ego requires gathering at least 1/3 of the swarm's mass, a tools shop, and a Hardware: Robotics task action with a timeframe of 6 hours, after which the ego can be uploaded normally.

UPLOADED BACKUPS

Backing your ego up to a computer is insurance against a lost or destroyed cortical stack. Once your ego is uploaded, it can be archived to secure storage, run as an infomorph, treated with psychosurgery procedures, or egocast to a distant locale.

Uploads can be a *transfer* or a *fork*. A transfer eliminates all traces of the original ego in the morph from which the upload originates. This is standard procedure when resleeving, egocasting, or evacuating a body. Forking creates a copy ▶292 of the ego while leaving the original ego intact. Forking is legally restricted in many polities, but it is a common practice to upload beta forks, egocast them to distant locales for important errands, and merge them with their alpha when they return.

Uploading and Ego Bridges

How uploading happens depends on the media and the intent. If the ego is being transferred from a biological brain, the process requires a toaster-oven-sized device called an ego bridge. In use, the ego bridge's sensor array twists open like a morning glory blossom, revealing an enclosure with a neck rest. The neck rest deploys millions of nanobots into the brain and central nervous system. The petals are full of sensors that image the brain, relying in part on data from the nanobots as they spider cells and connections. During resleeving, the nanobots act as tiny wet printers in the destination morph, connecting nerve cells and adjusting chemical levels to replicate the neural network data in the original. The ego remains awake during the procedure, allowing for a slow and smooth transition of consciousness from the old morph to new. When the transfer is complete, the nanobots sever connections in the original morph's neural network, effectively "zeroing" the brain for the next occupant.

If the ego is being forked from a biological brain, the ego is simply copied from the cortical stack's neural lace network. Likewise, an ego transferred or forked from a cyberbrain or infomorph is simply uploaded. Recovered cortical stacks work the same way. These copied egos can either be saved as inactive backups or instantiated and run as infomorphs.

Under normal circumstances, no test is required to upload an ego.

Post-Mortem Uploads

If the cortical stack is missing or destroyed, you can still upload an ego from a corpse or destroyed synthmorph. The deceased morph must not have died from damage that destroyed the brain tissue or cyberbrain (GM's discretion).

Upload Speeds

Upload Type	Time
Transfer of ego from biological brain	1 hour*
Fork of ego from biological brain's neural lace	1 action turn
Transfer/fork from cyberbrain	1 action turn
Fork from extracted cortical stack	1 action turn

*Potentially longer if farcasting, given distance lag.

If a biomorph, the person must have died within the last 2 hours, otherwise cell death makes the ego irretrievable. For every 15 minutes after death, an ego recovered from a biomorph loses 5 points from a single skill (player's choice). Putting a dead biomorph in a healing vat halts skill loss but doesn't reverse losses from before then.

DEATH AND BACKUP INSURANCE

What happens when you die depends largely on if people know you died, where you died, and what sort of insurance or contingency options you have in place. Almost everyone has some form of insurance plan, but they vary greatly in quality and level of services offered.

When a death is reported, most local authorities will make an effort to inform the person's backup provider and return the stack (if possible). Given the varied and scattered polities of transhumanity, however, this does not always work. Moreover, details on the backup service may be unknown — many people list it in their social network profiles, but not everyone. Criminals don't want their backups subpoenaed, and covert operatives don't want them targeted by enemy hackers. If your stack is recovered, however, you will usually be temporarily re-instanced and asked (and perhaps questioned about your demise).

If you died somewhere remote or lawless, no one may bother following standard protocol. Your stack might be sold to ego traders, it might be dropped in a drawer. If your backup service resides in a rival polity, your ego may be saved into cold storage with others and used as a political football. Some polities — notably the Titanians and anarchists — have a policy of automatically re-instancing people as infomorphs no matter what their situation.

Basic Backup Insurance

All characters are assumed to have some type of backup insurance. This could be a contract with a reputable body bank, an arrangement with a black market chop shop, a relationship with an anarchist morph-design collective, Titanian citizenship, or the payoff for working with a covert organization like Firewall.

All backup services provide the following:

- An attempt to retrieve your stack/ego through appropriate channels.
- In the case of verifiable death, re-instancing you as infomorph from your stack (if recovered) or from an archived backup (if not) to discuss options.
- Doing the same in the event you have been missing for a pre-determined period (usually 6 months, but variable). Most people set their muses to periodically check in.
- Resleeving you in a morph of equivalent MP, depending on availability. In the case of repeat deaths over a short time period, this MP value will be lowered for each subsequent death (*Acquiring Morphs* ▶290).

For people with resources, additional services may be offered, including hazardous stack retrieval options or hardened storage (*Services* ▶315).

Uninsured Characters

If you have the No Backup Insurance trait ▶79, you do not have a contingency plan in place. You should try to die in Titanian or anarchist territory, as they are the most likely to bring you back. In hypercorp space, uninsured characters may be offered an indenture contract or kept in dead storage until someone claims them. Elsewhere, your stack may simply be destroyed or sold on the black market. Without a plan, death may be the end of your character.

RESLEEVING

Resleeving — also called downloading or remorphing — is the process where your ego takes on a new physical body. You may be switching because you want a new morph or because you are egocasting to a new destination; this transfer is usually a smooth transition from one sleeve to the next while conscious. Or you may be resleeving because you died or suffered grievous injury, in which case you either remember your death (if recovered from a cortical stack) or you experience *lack* from the time and experience you have lost (if recovered from an old backup). Alternatively, you may have forked yourself, and your copy needs a sleeve of its own.

Almost all of transhumanity, with the exception of many bioconservatives, have resleeved at least once. Many transhumans alive today died in the Fall or egocast off world. For most transhumans, resleeving is a normal part of life, sometimes undertaken frequently as they travel or try out different morphs. The resleeving experience is not the same for everyone, however. Most people adjust to their new forms quite readily, but others never quite get the hang of it.

The resleeving process is quite short for morphs with cyberbrains and infomorphs: a single action turn. Morphs with biological brains must be physically rewired with an ego bridge, however, which takes an hour.

COMPLICATIONS

Resleeving is not without complications. There are five primary factors that can impact your acclimation into a new morph:

Integration

The biggest hurdle to resleeving is adjusting to your new form. Given the morph options at transhumanity's disposal, a new sleeve can be drastically physiologically different from the old. Extra limbs, new sensory inputs, different modes of breathing, or going completely synthetic — these are just some of the more obvious changes. Your brain must adapt to these altered functions. More minor differences such as sex, height, weight, and center of gravity can wreak havoc on your proprioception and basic movement. Add in different neurochemistry — or the simulation of it — and things can get very weird. Many newly sleeved people struggle with handling different hormonal urges or getting a grasp on how their emotions mesh with their new body. The effects of this can be frustrating and disorienting.

Part of the process of adapting is not just understanding how your new morph works, but unlearning many of your old habits and ways of doing things. It is not uncommon to find a new synthmorph scratching themselves, a non-anthropomorphic morph trying to walk with a bipedal gait, or a tall morph forgetting to duck under the door frame. Luckily, transhuman minds are adaptive things, and this process is aided by the application of mental "patches" during the resleeving process that give the character a bit of a boost for using their new body. Most people integrate to their new morph in a matter of days at most.

Alienation

Your mental sense of self goes hand-in-hand with your physiological acclimation. It can take you quite a bit of time to get used to the new face in the mirror — in fact, some never do. Overcoming this sense of alienation often takes longer than physical integration: a week, sometimes several. While it leads to less daily complications, this fractured sense of identity can be corrosive in the long term. Some people cope by resleeving frequently, becoming acclimated to an ephemeral identity. Others, however, develop body dysmorphia ▶224, never quite feeling at home in their own skin.

Continuity

The lack of ongoing continuity when resleeving can lead to a jarring wake up. It is unsettling to suddenly find yourself in a new sleeve, particularly if you don't recall what happened. Continuity breaks can also spark an existential crisis. Are you the same person you were? Or just a poor imitation of your previous self? If your body was not retrieved, are you even sure that you're not still alive out there somewhere? This is why most transhumans choose the aware-and-conscious transfer method of resleeving, even though it takes much longer with biomorphs. Even those transferring from cyberbrains often do a slow switchover. The subtle transition helps you to adapt, quelling subconscious fears that you are no longer the same, some illegitimate copy, or secretly being manipulated by others.

Memento Mori

A break in continuity is usual the result of an unexpected death. If you are restored from a retrieved cortical stack, however, the break in continuity will come with an even bigger shock: you experienced your own death. Even the vast storage space of cortical stacks cannot hold iterative changes to your ego, meaning that the last saved snapshot of your ego is the one taken right before the safety cut-outs kicked in due to massive physical trauma and cell death. The memory of your final moments is likely wrought with fear and horror, unpleasant even to the most jaded. Counseling and psychosurgery can minimize these effects over time.

Lack

If you are lucky enough to be spared the recall of your demise, you likely face a different problem: lost time. When you are restored from an older backup, you will have lost whole stretches of your life: the experiences, the memories, the emotional attachments, the new skills and knowledge gained — all gone. Some of this can be reconstructed from life logs, journal entries, surveillance footage, accounts of friend, etc., but it is not quite the same. Any Rez Points gained in that period and any changes to your character's stats, traits, etc. are lost. You are restored to an older version of yourself — but at least you're alive again.

RESLEEVING TESTS

Each time you resleeve, you must make two tests: an Integration Test and a Stress Test. The only pool that can be used on these tests is your ego's Flex pool; pools from your morph do not apply.

Integration Test

The Integration Test determines how quickly you adjust to your new morph. Make a SOM Check, applying the modifier from your new morph's Exotic Morphology trait, if any. If you succeed, you acclimate quickly. If you fail, you suffer –10 to all actions for 1 day, plus 1 day per superior failure.

GMs should keep the PC's original morph in mind when applying the Exotic Morphology modifiers. That trait is specifically assigned from a human-centric perspective (i.e., morphs that are less human have higher modifiers). However, this may not be fitting for an infolife or uplift PC. Adjust as appropriate.

Resleeving Stress Test

The Resleeving Stress Test incorporates all of the mentally challenging aspects of downloading into a new body into a single test: alienation, continuity, remembering death, and lack. Like other stress tests ▶229, make a WIL Check and apply modifiers as appropriate. The Stress Value is based on the most stressful aspect of resleeving. If this is standard alienation, continuity loss, and/or lack, the SV is 1d6. If you remember your death, or if you suffer a particularly long period of lack (over 3 months), the SV is 1d10/1. GMs should feel free to adjust these Stress Values as they see appropriate.

RESLEEVING AND POOLS

When you sleeve into a new morph, you gain immediate access to the new morph's pools. However, any pool points you spent in the previous morph are temporarily deducted until you take a recharge action.

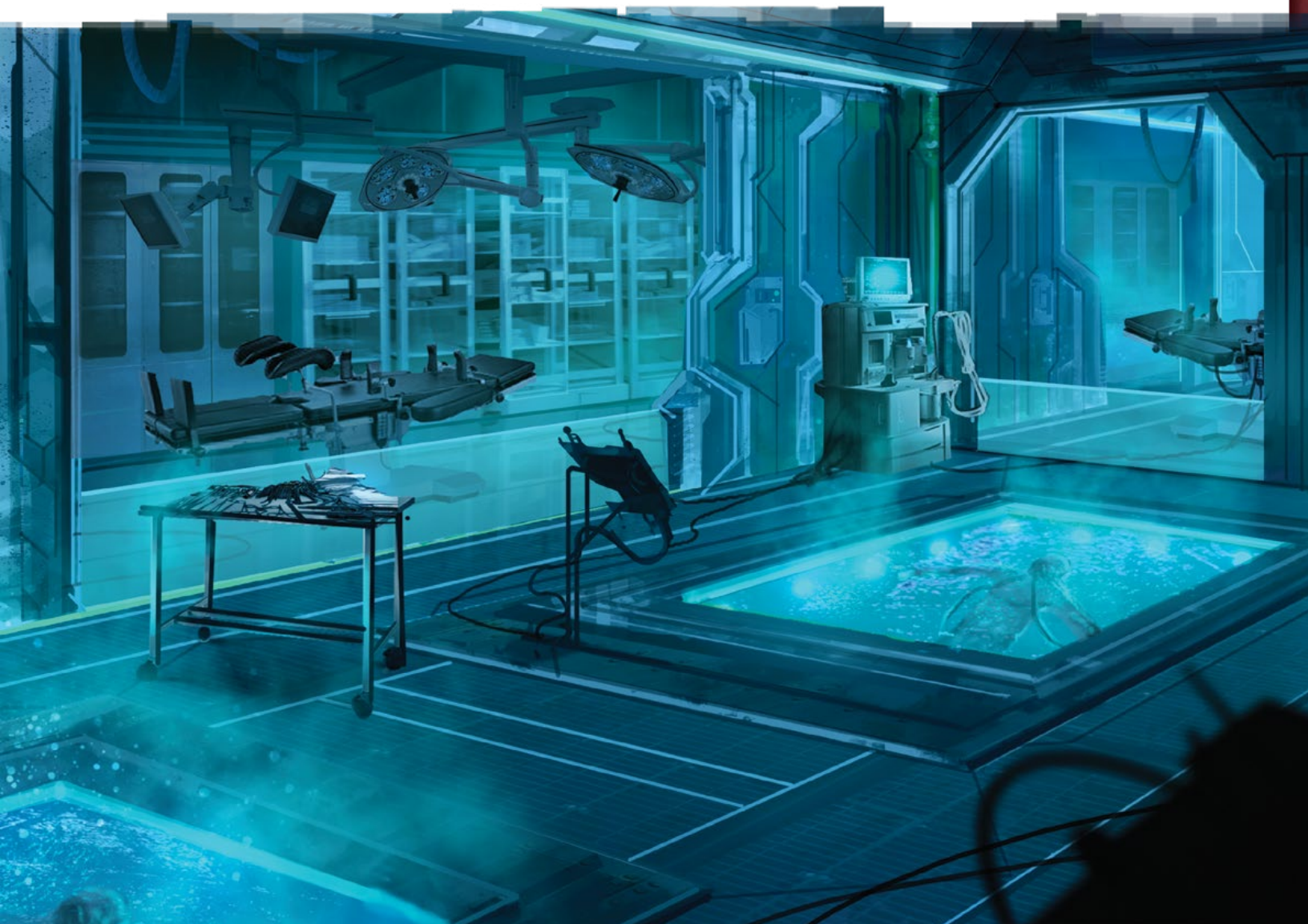
Resleeving Tests

Integration Test:	SOM Check
Failure:	–10 to all actions for 1 day, +1 day per superior failure.
Resleeving Stress Test:	WIL Check
Standard alienation/continuity loss/lack:	SV 1d6
Remember your death/lengthy lack (3+ months):	SV 1d10/1

Chi's Firewall cell has a run-in with a hypercorp security squad, leaving Chi with a few too many bullet holes to survive. Their squad recovers their stack, though, and gets them set up at a black-market body bank to be restored and resleeved. Unfortunately, the only morph available is a novacrab — not a morph Chi is used to.

When Chi awakes, they have a few tests to make. First is the Integration Test, to see how well they adapt to their new body. This a SOM Check at –30 due to the novacrab's Exotic Morphology (Level 3) trait. Chi has the Adaptability (Level 1) trait, which gives them +10 to the test, but their SOM Check is only 30. That makes their target number 10 (30 – 30 + 10). They roll a 46, a superior failure. Poor Chi will suffer –10 to all actions for the next 2 days as they acclimate. Chi waves their new crab pincers in frustration as they skitter and stumble around on an unfamiliar number of legs.

Chi must also make a Resleeving Stress Test using their WIL Check of 60. Since Chi died in a firefight and will remember that grisly death, the GM assigns an SV of 1d10/1. Chi's Adaptability trait helps here as well, raising the target number to 70. They roll a 37: a success! That means Chi takes only 1 stress point. They've died violently enough times that this time around does not really phase them.



ACQUIRING MORPHS

At some point during gameplay, your character will need to resleeve. Perhaps the group egocasts to a new habitat, your PC dies, or you simply want a new look.

Because morphs are rare and integral to the game, they are not handled like other gear. Instead, each time the PCs egocast and/or resleeve, the GM assigns each player an amount of Morph Points (MP).

DETERMINING MORPH POINTS

The recommended default amount of Morph Points is 6. At 6 MP, players can purchase high-end morphs like ghosts, furies, and arachnoids, but remade morphs and reapers remain out of reach unless they pick up some negative morph traits to make up the difference.

GMs can adjust this amount to set the difficulty level of the mission. Want to test your players' mettle? Assign only 2 or 4 MP. Plan on sending them into a meat grinder, for which they'll need all the help they can get? Assign them 8 or even 10 MP.

The amount of MP the GM provides is also representative of the resources assigned to the mission. Are Firewall's logistics currently strained? Lower the amount. Are the players working on behalf of an oligarch with an unlimited expense account? Notch it up a few points.

INCREASING YOUR MP

There are three ways you can increase your MP:

- **Resources:** The Resources trait ▶75 provides you with extra MP equal to the trait's level, reflecting your access to wealth. At the GM's discretion, this may not apply when you are egocasting to or resleeving in an autonomist habitat or isolated locales with limited morph stocks; your money has no sway there.
- **Rep Favors:** You can use your rep scores in a similar way to Resources. By expending a Minor (1 MP), Moderate (2 MP) or Major (3 MP) favor, you can increase the MP available to you. No test is required, but you must have a rep score of at least 40 in a network applicable to the situation. An anarchist's @-rep is unlikely to help them on a hypercorp habitat. Rep used this way counts towards the rep favors available to you on your first week on the mission.
- **Negative Morph Traits:** Finally, you can always acquire extra MP by purchasing negative morph traits ▶76, up to a maximum of 6.

SPENDING MORPH POINTS

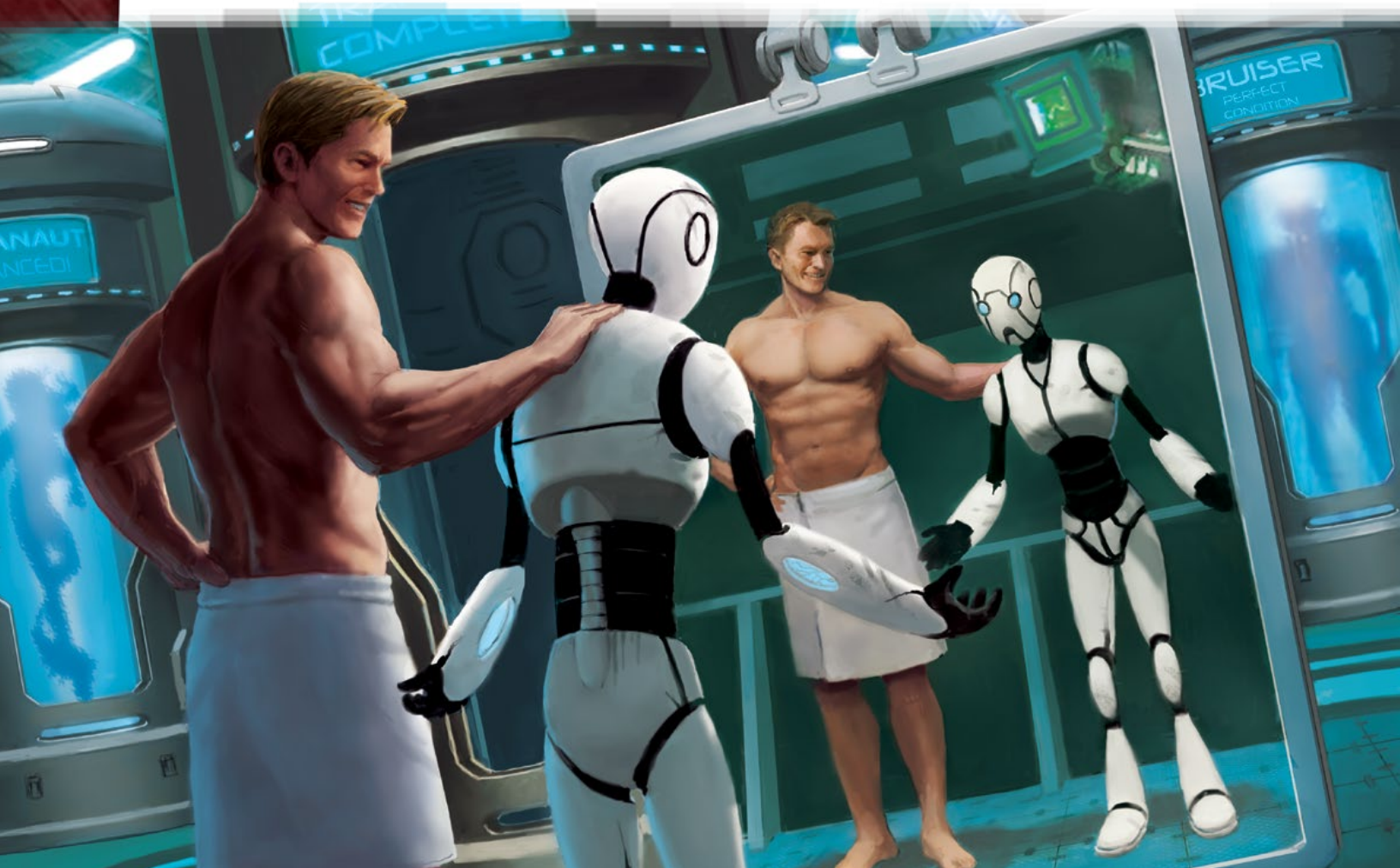
Morph Points are spent as described in Step 12 of Making Characters ▶46. You can spend your MP on the morph (or morphs) itself, positive morph traits, ware, or Flex. As with character creation, you are encouraged to pick morphs that fit your character's outlook and the mission's parameters.

Morph Availability

Not all morphs are readily available. Some models (splicers, exalts, cases, synths, pods) are widespread and accessible; others are more difficult to lay your claws on. To see if a morph is on hand, make an Availability Test, rolling d100 with the morph's Availability rating as the target number. If it succeeds, the morph is available. Otherwise, pick another morph and try again.

Local conditions may affect this Availability Test. A well-stocked body bank in a populated area such as Valles New-Shanghai may apply a +30 modifier. A small and remote Neptunian hab might have a much more limited supply: apply a –30 modifier.

You can expend rep favors to increase a morph's Availability. A minor favor applies a +10 modifier, a moderate +20, and a major +30. The rep score in question must be applicable to the situation, and you must succeed in a Rep Test.



The GM has final say on what morphs are available. A brinker habitat on the edge of the Solar System might only have cases and synths available. A bioconservative habitat might not have any synthmorphs or uplift morphs in stock. Martian clinics might be low on everything but rusters. A guanxi darkcaster operation might be able to get you any biomorph you desire, but they all come loaded with an Addiction trait, eager for a taste of whatever substance the operator is peddling. And few habitats are likely to have reapers available — or to allow them even if they do.

If you acquire ware with either Morph Points or Gear Points at the same time you acquire a morph, the ware is automatically installed into the morph.

RESLEEVING AND MORPH POINTS

The GM-provided Morph Points are an abstraction, representing backup insurance and resources available to the PCs. These assets are not unlimited, however. If you die during the course of a scenario and get a chance to resleeve, the GM can and should limit the MP available. It is recommended that each successive resleeving during the course of a mission provides 1 less MP than what was previously available (prior to boosts from Resources, rep, or traits); GMs should adjust this as appropriate to the circumstances.

If your PC has multiple morphs (such as flexbots or extras used for morphs, backups, or drones) and one dies, you only get an amount of MP for replacement equivalent to that one particular morph, less 1.

Resources, rep favors, and negative traits can be used to boost the MP available for resleeving, as noted above.

MODIFYING MORPHS

You can customize a morph you have already acquired. This requires the proper skills, tools, and time. Biomorphs must be modded in a clinic (Medicine: Biotech shop) or a healing vat; synthmorphs require a Hardware: Robotics shop. If you personally lack the skills and gear, you must acquire the professional service (which includes the gear) using rep or Resources trait. The ware itself must be acquired separately, per normal gear acquisition rules. If the ware is restricted, you will need black-market services, which may require more cost or effort to find. This is a good opportunity for roleplaying rep nets and contacts. Illegal shops rely on their reputations just as much as legit services, but there is also a greater chance they will turn out to be untrustworthy or that you may get more than you asked for. On the other hand, they may also be able to find enhancements that are cutting edge or experimental — though they may not function entirely as advertised.

The timeframe for morph modding is the same for acquiring gear: 2 hours for Minor complexity items, 8 hours for Moderate, and 24 for Major.

Modifying a Morph

Morph Type	Skill	Gear Needed
Biomorph (including pods)	Medicine: Biotech	Tools Shop or Healing Vat
Synthmorph	Hardware: Robotics	Tools Shop

MAKING MORPHS

Morphs can be made, but this requires one or more task action skill tests each with a significantly long timeframe, as well as access to the morph's blueprints/genetics, a proper nanofabricator and/or exowomb, and a medical facility. This timeframe cannot be reduced with time-accelerated VR. If you do not have blueprints/genetics, or you wish to design one from scratch, the timeframes will be considerably longer (GM determination, but easily 5–10 times longer).

Sava has been hired to investigate a string of disappearances at a hypercorp's private habitat. The hypercorp has credits to throw at the problem, so the GM assigns Sava 8 Morph Points to spend. Sava doesn't have the Resources trait to increase that amount and opts to save their rep favors for now.

Sava favors fury morphs, so they try for that one first. The Availability is 40. Since the hypercorp owns the habitat and all of the morphs there, the GM gives Sava a +20 bonus.Rolling against a target number of 60, Sava gets an 83: no luck.The corp didn't need combat models on the station.

Sava tries again for a ghost morph: same Availability, same bonus from the GM. They get a 17 this time: the morph is in stock.

Sava wants neurachem with this morph, which is Major complexity ware — an extra cost of 3 MP. Sava only has 2 MP to spare (the original 8 MP minus the morph's cost of 6 MP), so they opt to take a Negative trait with an MP Bonus of 1. The GM has an idea for this, and gives the ghost morph the Memory Artifact trait.

A week later, Sava is killed in a trap. The hypercorp's security team recovers their stack and resleeves them, but this time the GM only gives Sava 7 MP to work with. Sava really wants that neurachem again, so they are prepared to spend a rep favor this time to boost their MP. First, however, Sava rolls again to see if a fury morph is available this time. The target number is the same (60), and they roll a 29! It looks like the hypercorp noted Sava's earlier request and got a fury morph to the station in anticipation of this need. Sava needs 9 MP total, so they take the 7 MP they have and spend a Moderate i-rep favor to get 2 more. Sava tells Firewall they believe there are exsurgents on the station, and the group pulls some strings to get them what they need.

Making a Morph

Morph Type	Skills	Gear Needed	Timeframe
Synthmorph	Hardware: Robotics + Program	Medium Fabber	(MP + 1) weeks
Pod	Medicine: Biotech + Program	Specialized Fabber, Tools Shop or Healing Vat	(MP + 1) months
Biomorph	Medicine: Biotech	Exowomb	(MP + 6) months

FORKING & MERGING

One of the repercussions of translating your mind into a digital format is that you can copy it just like any other file. Taking a copy of a transhuman ego and re-instancing it is called *forking*. To many, forking is an advantage, allowing you to multi-task and get more done. Need help on a project? Fork a few copies of yourself. Need to be in simultaneous meetings on Mars and Venus? Spin off a fork and egocast it to one while you handle the other — or send forks to both and go grab a drink.

Forking, however, creates some thorny social and legal issues. Is your fork considered a separate person with full civil rights? Or are they your property? Is deleting them murder? Is your spouse married to your fork, or just you? If you and your fork have an argument and go your separate ways, who gets your stuff? Complicating this matter is the fact that the longer you and your fork are apart, the more your individual minds start to diverge, effectively becoming separate people. While forks can be re-merged into the originating ego, this becomes more difficult the longer they are apart.

TYPES OF FORKS

There are three classifications of forks: alpha, beta, and gamma:

- **Alpha Forks:** An alpha fork is an exact copy of the original ego.
- **Beta Forks:** Beta forks are partial copies. They are intentionally hobbled so as to not to be considered an equal to the originator, or to not have all your memories, for legal, social, and security reasons. Beta forks have most of the same skills as the original ego, though sometimes reduced. Their memories are also drastically curtailed, usually tailored to whatever task they are intended to perform. Many people keep pre-made beta forks on hand to activate as needed, deleting them afterwards.
- **Gamma Forks:** More commonly known as *vapors,* gamma forks are massively incomplete, corrupted, or heavily damaged copies. Vapors are not intentionally created and are instead the results of botched uploads, scrambled backups, incomplete or jammed farcasts, or infomorphs/forks that were somehow damaged or went insane.

FORKS AND SOCIETY

The way forks are treated varies by polity and culture. In the Consortium, forks are considered property and must identify themselves as such; alpha forks are legally limited to a 48-hour existence. Morningstar is similar, but allows alphas to be granted limited personhood status after a one-week existence, permission from the originator, and an application for citizenship. Most autonomists treat alphas as full, separate individuals, but opinions are split on beta forks. The Jovians have outlawed forking entirely. Some polities require forks to be equipped with the auto-erase app ▶326 so that they automatically erase when they reach the legal divergence period.

Some people prefer to use forks of themselves or loved ones rather than a muse. Likewise, some wealthy hyperelites are known to keep copies of their younger backups on hand, sometimes for decades, and re-instance these when their prime ego has enough skill and experience to completely outclass its younger selves. Though technically these are alpha forks, their lag behind the original ego is comparable in degree to that of a beta fork. This is rumored to be the method used by the Pax Familae in instancing her army of cloned selves.

CREATING A FORK

The process for making a fork varies according to the type:

New forks must make Integration and Resleeving Stress Tests ▶288 when they are created, though GMs should waive this for forks that are inconsequential to the story or plot.

Forks are instanced as digimorphs ▶67, unless another type of infomorph is available. They can also be sleeved into physical morphs.

Alpha Forks

Alphas are easily created by taking a snapshot of the ego either from an existing infomorph, the cyberbrain, or the cortical stack's neural lace network. This process takes one action turn. Alpha forks can also be generated from biomorph brains using an ego bridge and the same process as uploading, but this is a longer process.

Alpha forks have all of the same skills, memories, ego stats, ego traits, and personality of the original.

Beta Forks

You create a beta fork by running an alpha fork through a process known as *neural pruning*. Determine a beta fork's stats as follows:

- Active skills have a maximum value of 60.
- All aptitude checks suffer a –10 modifier.
- Ego Flex pool has a maximum value of 1.
- The Psi trait is removed. At the GM's discretion, other ego traits may no longer apply as well.

Additional changes may apply as determined by the neural pruning test ▶297.

Gamma Forks

It is extremely rare for anyone to purposely create a vapor for anything other than research use, although they can crop up in some interesting places. For example, poorly made skill software occasionally includes enough of the personality traits and memories of the person the skill was taken from that it can behave in a vapor-like fashion when used.

Because vapors are anomalies rather than purposeful creations, the characteristics of individual gamma forks are left to the GM. They should have some or all of the following: reduced skills, reduced aptitudes/aptitude checks, incomplete or incoherent memories, negative mental traits, and persistent mental stress or traumas, including disorders.

NEURAL PRUNING

Neural pruning is the art of taking an alpha fork and trimming it down with psychosurgery, creating a beta fork.

Beta forks are created by taking a virtual mind state that is intentionally inhibited and filtering a copy of the ego through it. Like a topiary shrub, the portions of your neural network that exceed the capacities of the intended fork are trimmed away. In addition to the changes noted under beta forks, you can voluntarily choose to delete/decrease skills and remove memories.

Transhumanity's grasp of neuroscience extends to scanning and copying a mind, but the most intricate workings of memory are still imperfectly understood. Making precise edits to individual portions of a neural network (to alter recollections, skills, and the like) is still a black art. The difficulty with neural pruning is that taking a weed whacker to the tree of memory isn't an exact science.

Specific memories cannot be excised or chosen — at best, memories may be handled in broad clumps, typically grouped by time periods no finer than 6 months. For simplicity, most beta forks are created by removing all memories older than 1 year.

The rules for neural pruning are detailed on ▶297.

Careful Pruning

Rather than generating a fork quickly, you may prefer to carefully craft a beta fork with long-term psychosurgery, meaning that it suffers fewer drawbacks. Such carefully pruned forks can be kept on hand, stored as inert files that can be called up, copied, and run as needed. The drawback to carefully pruned forks is that they are not based on a recent version of you — their memories will not be up-to-date. They are also more difficult to merge, as they are based on significantly older versions of yourself. They are ideal for fire-and-forget tasks, where the fork is abandoned or deleted afterwards.

Careful pruning uses the same rules as neural pruning ▶297, but with a timeframe of 30 days and a +30 modifier.

HANDLING FORKS

GMs are encouraged to allow players to roleplay their character's own forks. It is important to note, however, that even with alpha forks, once the fork and originating ego diverge, they develop onward as separate people. The events that shape the primary ego's personality, character, and knowledge will not happen — or even if they do, probably not in the same way — to the fork, and vice versa. The exact dividing line between an ego and a fork is a central philosophical and legal debate among many transhumans.

This means that the GM should not be afraid to pull a fork out of a player character's hands and make them into an NPC if they start to diverge too greatly. Similarly, if a fork begins to learn information that the main character does not (yet) have access to, it is probably also better to run the fork as an NPC in order to avoid metagaming.

It is entirely possible that a fork might decide that it will no longer obey the originating ego and carry about doing its own thing. This usually only occurs with alpha forks, who are essentially a full copy anyway, and as time passes the idea of merging back with the original ego becomes unappealing. Beta forks are quite aware of their nature as "incomplete" copies and are less likely to diverge and make a break for life on their own.

MERGING

Merging is the process of re-integrating a fork with the originating ego. Merging is performed on conscious egos/forks, transferring both to a single, merged ego. The process is not difficult to undergo when two forks have only been apart a short time. As forks spend more time apart, merging becomes a severe mental ordeal.

Merging often results in mental stress and/or lost fork memories. The result of the process is a unified ego, whether or not the Merging Test succeeds. Psychosurgery can troubleshoot bad merges over time.

The rules for merging are detailed on ▶296.

PSYCHOSURGERY

Psychosurgery is the selective, surgical alteration of a transhuman mind. It is a separate field from neural genetic modification (which alters genetic code), neuralware implantation (adding cybernetic or biotech inserts to the brain or nervous system), or brainhacking (software attacks on computer brains, neural inserts, and infomorphs), though they are sometimes combined.

Psychosurgery is performed on a digital mind state. A real-time emulation, backup, or fork of the subject is uploaded and run in a simulspace. The subject need not be willing, and in these cases their VR permissions are restricted. Numerous psychosurgery simulspace environments are available, each custom-designed for specific psychosurgical goals and programmed with a thorough selection of psychotherapy treatment options.

The actual process of psychosurgery breaks down into several stages. First is diagnosis, which involves neuroimaging of morphed characters, mapping synaptic connections, and building a neurochemical model. It can also involve complete psychological profiling and psychometric behavioral testing, including personality tests and simulspace scenarios. Digital mind states can be compared to records of people with similar symptoms in order to identify related information clusters. This analysis is used to plan the procedure.

The actual implementation of psychosurgical alteration can involve several methods, depending on the desired results. Applying external modules to the mind state is often the best approach, as it doesn't meddle with complicated connections and new inputs are readily interpreted and assimilated. For treatments, mental health software patches compiled from databases of healthy minds are matched, customized, and applied. Specialized programs can be run to stimulate certain mental processes for therapeutic purposes. Before an alteration is even applied, it can first be performed on a fork of the subject and run at accelerated speeds to evaluate the outcome. Likewise, multiple treatment choices can be applied to time-accelerated forks this way, allowing the psychosurgeon to test which is likely to work best.

Not all psychosurgery is performed for the subject's benefit. Psychosurgery is used to interrogate, torture, erase memories, modify behavior, and inflict crippling impairments. It is also used as a legal punishment, deterring and impairing criminal activity. Such methods are often brute-forced rather than fine-tuned, ignoring safety parameters and resulting in detrimental side effects.

DIFFICULTIES

Mind editing is not an easy, safe, and error-proof process — it is difficult, dangerous, and often flawed. Neuroscience is light years ahead of where it was a century ago, but many aspects of the brain and neural functions continue to confound and elude even the brightest experts and AIs. Technologies like nanoneural mapping, uploading, digital mind emulation, and artificial intelligence are also comparatively in their infancy, being mere decades old. Though transhumanity has a handle on how to make these processes work, it does not always fully understand the underlying mechanisms.

Any psychosurgeon will tell you that mucking around in the mind's muddy depths is a messy business. Brains are organic devices, molded by millions of years of unplanned evolutionary development. Each is grown haphazardly, loaded with mutative leftovers, and randomly modified by an unlimited array of life events and environmental factors. Every mind features numerous mechanisms — cells, connections, receptors — that handle a dizzying array of functions: memory, perception, learning, reasoning, emotion, instinct, consciousness, and more. Its system of organization and storage is holonomic, diffused, and disorganized. Even the genetically modified and enhanced brains of transhumans are crowded, chaotic, crosswired places, with each mind storing its memories, personality, and other defining features in unique ways.

What this means is that though the general architecture and topography of neural networks can be scanned and deduced, the devil is in the details. Techniques used to modify, repair, or enhance one person's mind are not guaranteed equal success when applied to another's. For example, the process by which brains store knowledge, skills, and memories results in a strange chaining process where these memories are linked and associated with others. Altering one memory often has adverse affects on others. In the end, minds are slippery and dodgy things, and attempts to reshape them rarely go as planned.

USING PSYCHOSURGERY

To use psychosurgery, you must have access to the target's digitized ego (acquired the same way as uploading or forking). You must also have a psychosurgery app and access to a server to run a VR simulspace.

Psychosurgery is conducted with a Medicine: Psychosurgery Test. This is a task action, with a timeframe dependent upon the specific procedure, as noted below. Time contraction can drastically reduce the amount of real time required (*Virtual Reality* ▶268). The subject may not take other actions while the procedure is underway.

If you succeed, the psychosurgery is effective and permanent. The alteration becomes an enduring part of the subject's ego and is copied when uploaded, forking, resleeving, etc. If you fail, the attempt does not work. On a critical success, no stress is inflicted at all. On a critical failure, you inflict permanent damage to the subject in the form of a Mental Disorder, Neural Damage, or other negative ego trait (GM discretion).

Every psychosurgery procedure lists a Stress Value (SV) that is inflicted on the subject. The value before the slash is inflicted if the procedure fails; the value after the slash is inflicted if the test succeeds. Superior failures inflict an extra SV 1d6 each.

ROLEPLAYING MIND EDITS

The changes incurred by psychosurgery are nebulous and difficult to pin down with game mechanics. Alterations to a character's personality and mind state are often better handled as roleplaying. This means that you should make a real effort to integrate mental modifications into your character's words and actions, and GMs should ensure that a character's portrayal plays true to their mind edits. Some psychosurgical mods can be reflected with ego traits, while others might incur modifiers to certain tests or in certain situations. The GM should carefully weigh a brain alteration's effects and apply modifiers as they see appropriate.

Psychosurgery Modifiers

Situation	Modifier
Improper Preparation/Diagnostics	–30
Ignored Safety Protocols	+20/+SV 1d6
Time-Contraction Simulspace	–20
Subjects is infolife or uplift	–20

PSYCHOSURGERY PROCEDURES

The following alterations can be accomplished with psychosurgery. At the GM's discretion, other mind-editing procedures can be attempted, using these as a guideline.

AWARENESS BLOCK

This technique is used to block your awareness of specific actions, skills, memories, or even the environment around you. This differs from memory editing or skill suppression in that nothing is removed from your mind; you are simply prevented from accessing this knowledge. For example, you can be blocked from ever being aware of the color red, from remembering how to use a gun, or to automatically tune out anything to do with a specific hypercorp.

When used to block out your own actions or behaviors, you are completely unaware of the blocked activity — even while you are doing it. If the action/behavior is pointed out, you will be inacapable of recognizing it or addressing it (attempts to force you to will instigate a Stress Test of SV 1d6/1).

Awareness block is sometimes applied as a second layer of protection for edited memories or suppressed skills. In this case, not only is the memory/skill excised, but you are incapable of reflecting upon the possibility.

Awareness blocks are exceptionally useful for espionage and mind-control programming. Couriers carrying secret information in their hands can be made completely unaware of the trove of data in their minds, reducing the likelihood they will be intercepted or accidentally leak what they know. Spies can be programmed with personality editing to exercise certain activities but be blocked by this procedure from ever being aware they are doing them, thus allowing them to lie convincingly if interrogated. The combination of awareness block and personality editing enables the creation of unwitting pawns.

Removing an awareness block is an equal procedure to installing one.

BEHAVIORAL MASKING

Given the ability to switch bodies, many security and law enforcement agencies have resorted to personality and behavioral profiling as a means of identifying people even when they resleeve. Though such systems are far from perfect, your unconscious habits and quirks could potentially give you away. Characters who wish to elude identification in this way can undergo behavioral masking, which seeks to alter and change your unconscious habits and social cues. If successful, apply a –30 modifier to Kinesics Tests and similar identification systems to identify you.

DEEP LEARNING

Using tutorial programs, memory reinforcement protocols, conditioning tasks, and deep brain stimulation, your learning ability is reinforced, allowing you to learn new skills more quickly. You can spend 2 Rez Points in a week to increase skills. If improving skills over 60, you may spend 2 skill points per week.

HIDDEN KNOWLEDGE

This procedure takes specific memories, knowledge, or skills and locks them away in a safe place in your mind. Like memory editing, you are unaware that you had this information. When a certain trigger condition is met, however — a passphrase, a specific face, a certain event, etc. — the knowledge instantly becomes available. It is also possible to program another trigger condition to lock the knowledge away once again (unless an awareness block is put into place, you will be aware that you knew something, but won't be able to recall what).

INTERROGATION

Psychosurgical interrogation uses lie detection and brain scanning techniques including the measurement of unconscious physiological responses, analysis of brain activity to detect falsehoods, measuring brain activity and memory activation in response to specific images or other stimuli, and repeated forking and time-accelerated simulations to verify results and undermine willpower.

The dividing line with interrogation lies with the use of pain and other mental manipulation torture techniques. Physical torture is widely regarded as being ineffective, due to the likelihood that victims will lie, admit guilt when innocent, or generally say whatever they need to say to stop being tortured. When combined with the technologically enhanced interrogation techniques described above, however, it can be extremely effective.

The timeframe and SV for psychosurgical interrogation is variable, depending on the situation and the questioning. The GM should decide on these as appropriate. One subjective week should be the baseline, with modifiers provided for additional weeks. SV may range from nothing with basic interrogation to 1d6 +2/half for moderate torture and 1d10 + 2 for severe torture, possibly more. Keep in mind that torture is extremely unpleasant and may inflict stress on the practitioner and witnesses as well. Such scenes may also not be appropriate to your gaming group, so be aware of your players' comfort levels.

MEMORY EDITING

By monitoring memory recall (forcibly invoked if necessary), psychosurgeons can identify where memories are stored in the brain and target them for removal. Memory storage is complex and diffused, however, and often linked to other memories. It is extremely difficult to target one specific memory for removal; instead, general groupings of memories must be targeted, such as rough time periods or topics. Removing a memory almost always affects others (GM discretion).

Adding or replacing memories is a much more complicated operation and requires that such memories be copied from someone who has experienced them or manufactured with XP software. Even when successfully implanted, fake memories may clash with other (real) memories unless those are also erased. Characters injected with a false memory can make an INT Check to identify a memory as fabricated or wrong if they have a valid reason to question it.

MENTAL EVALUATION

Psychosurgery can be used to detect previous edits to your mind. This exploratory procedure can detect previous psychosurgical procedures, neural pruning, fork merging, exsurgent infection, or even the long-term effects of trauma, mental disorders, drug use, and addiction.

MERGING

Merging is the process of recombining a fork with its originating ego (*Forking* ▶292). Merging often results in mental stress and/or lost fork memories. A successful test will reduce the SV; use the numbers listed after the slash on the Merging table. Each superior success will reduce the amount of memories lost by one level, each superior failure will increase it one level. Memory loss usually only affects the fork's memories (not the alpha's); apply a modifier to memory-related COG Checks (–10 for Minor loss, –20 for Moderate, –30 for Major).

The process of merging also integrates any stress, traumas, and ego traits acquired by the fork back into the original ego.

Merging

Divergence Period	Modifier	SV (failure/success)	Base Memory Loss
Up to 48 hours	—	1d6/—	Solid merge, no memory loss.
48 hours to 1 week	–10	1d6/half	Solid merge, no memory loss.
1 week to 1 month	–20	1d10/1d6	Minor memory loss.
1 month to 6 months	–30	2d10/2d6	Moderate memory loss.
6 months+	–30	3d10/3d6	Major memory loss.

NEURAL PRUNING

Neural pruning is the process of creating a beta fork ▶292 from an alpha fork. Make a note of what skills and memories you want to decrease, eliminate, or keep. If you succeed, the fork is created as desired. If you fail, the beta fork acquires one of the following penalties, plus one per superior failure. Some of these penalties can be combined for a cumulative effect:

- 1 skill decreased by –30.
- Fork acquires a Negative ego trait.
- Fork suffers SV 1d6.
- Extra memory loss (GM discretion; beta forks only).
- 1 Positive ego trait lost.

PERSONALITY EDITING

Personality editing alters a specific behavior, emotion, or personality trait from the subject's psyche. The personality factors that can be modified are almost unlimited, including traits such as openness, conscientiousness, altruism, extroversion/introversion, impulsiveness, curiosity, creativity, confidence, sexual orientation, and self-control, among others. Specific emotions can also be targeted: sadness, disgust, remorse, anger, etc. The same is also true for specific behaviors, which can include everything from substance abuse to your study habits. These traits can be enhanced or reduced to varying degrees.

You can use personality editing to limit, block, or expunge a specific behavior, trait, or emotion from the subject's psyche. For example, a murderer can be conditioned against acts of aggression or a kleptomaniac might be restricted from stealing. Many people seek this adjustment willingly, such as an introvert that seeks to be more social, a mercenary that seeks to eliminate fear, a partner that desires to remove their sexual inhibitions, or a researcher who wishes to enhance their focus.

Personality editing can also be applied as an unleashing or reinforcement. A medical professional might boost their empathy, an athlete might boost their competitiveness, or a hypercorp exec can boost their commitment to work above all else.

If successful, the subject acquires either the Enhanced Behavior ▶78 or Restricted Behavior traits ▶80 at the level chosen. At the GM's discretion, this procedure may apply other ego traits instead.

As psychosurgery has become more accessible, personality editing has become a common elective procedure. Some people adjust their emotions and habits on a monthly basis. On the flipside, legal authorities use personality editing on criminals to reduce recidivism and authoritarian regimes have been known to pacify rebellious elements in their populations. And, of course, experimental mindhackers seek out new emotional states, previously unexperienced by transhumans.

PSYCHOTHERAPY

Therapeutic psychosurgery is beneficial for characters suffering from mental stress, traumas, and disorders. See *Psychosurgery Care* ▶223.

REMOVE INFECTION

This procedure involves tracking down and removing the alterations the exsurgent virus has made to the subject's mind. It can only be applied to those in the early stages of infection; it is ineffective against those who are already full exsurgents or asyncs. The Medicine: Psychosurgery Test is opposed by the virus's Infection Rating. If successful, the exovirus is purged. This procedure is considered risky due to several instances of the virus infecting the psychosurgery VR and psychosurgeons themselves.

SKILL IMPRINTS

Skill imprinting is the use of psychosurgery to insert skill-set neural patterns in the subject's brain, temporarily boosting their ability. Skill imprints are artificial boosts, however, degrading at the rate of –10 per day. No skill can be boosted higher than 60. You must have access to the skill being imprinted, either by copying it from the brain of someone who has the skill or an appropriate skillsoft.

SKILL SUPPRESSION

Skill suppression attempts to identify where skills are stored in the brain and then block or remove them. The subject's skill is lost entirely.

TASPING

Tasping is the use of deep brain stimulation techniques to tickle the mind's pleasure centers. Though this procedure is often used for therapeutic purposes for patients suffering from depression or other mental illnesses, the intent with tasping is to overload the subject into a prolonged state of almost unendurable bliss. Such stimulation is highly addictive, however, so if you are exposed to it for repeated or extended periods you will need to make a WIL Check at –30 or pick up the Addiction trait ▶76. Some criminal organizations have been known to use tasping addiction and rewards as a means of controlling those under their thrall.

PSYCHOSURGERY PROCEDURE	Timeframe	SV	Effect
Awareness Block	1 week	1d6	Unaware of specified activity/behavior/thing.
Behavioral Masking	1 week	1d6/1	–30 identification-based Kinesics Tests.
Deep Learning	1 week	1/—	Can spend 2 RP per week to increase skills.
Hidden Knowledge	1 week	1d6	Locks specific knowledge in your brain.
Interrogation	Variable	Variable	Medicine: Pychosurgery vs. WIL Check.
Memory Editing	1 week	1d6/half	Deleted, added, or replaced memories.
Mental Evaluation	1 day	--	Detects mind edits and changes.
Merging	1 hour	See text	Recombine fork with alpha ego.
Neural Pruning	1 hour	--	Craft beta fork from alpha.
Personality Editing	1 week per trait level	1d6/1	Enhanced or Restricted Behavior trait.
Psychotherapy	1 hour	—	See *Psychosurgery Care* ▶223.
Remove Infection	1 week	1d10/1d6	Removes exsurgent infection; opposed by Infection Rating.
Skill Imprints	(Skill ÷ 10) days	(Skill ÷ 10) SV/—	Imprints skill, degrades –10 per day.
Skill Suppression	(Skill ÷ 10) days	(Skill ÷ 10) SV/—	Removes skill.
Tasping	1 hour+	—	Pure pleasure; may become addicted.

IDENTITY SYSTEMS

The practice of digitizing egos and switching bodies created massive obstacles for identity verification systems. Despite the existence of mass surveillance systems and the accumulation of extensive databases on peoples' lives and habits, factors such as forking, privacy and anonymization safeguards, and the ease of identity theft make ascertaining someone's true identity a challenge.

EGO ID

Your identity is tied to your ego, and various authorities institute verification and security measures on this basis. Within the inner system, your ego is assigned an ID number, which is used to validate your identity, citizenship, legal status, credit accounts, licensing, reputation scores, and so on. This ego ID is verifiable by your brain patterns, which remain the same even when resleeving. If you backup, upload, or egocast your mind, the service is required to incorporate your ego ID in your digital mind-state as a readable cryptographic hash. Likewise, when you resleeve, the body bank is required to verify your ID and hardcode it into your morph, in the form of a nanotattoo on the tip of your index finger. Many jurisdictions require these services to register morphs and the embodied ego ID with local authorities. This nanotat can be easily scanned at security checkpoints to verify identity.

Complications

Though efficient, this method is far from perfect. There is no system-wide ID system. Record-keeping is far from standardized and varies drastically from habitat to habitat. To protect privacy and deter ID theft, most habitats will only share basic details on their citizens — and even then only upon request — with other stations, unless they are part of the same political alliance. This means that if you are a Lunar-Lagrange Alliance citizen traveling to a Planetary Consortium habitat, the local authorities may not have a complete profile on you. However, many habitats contract with data-harvesting firms to access their dossiers on the Solar System's populace.

On top of this, many identity records were lost during the Fall. The systems currently in use were devised within the past decade as new polities cohered. Most people's personal records do not extend back beyond that point. This situation was undoubtedly exploited by those who preferred to erase their past or adopt a new persona entirely.

Complicating matters further, many autonomist and brinker habitats operate without identity checks altogether. While even anarchists see the need for some ID measures to prevent reputation-system gaming, protect their backups, and identify bodies in the case of death, these systems are structured so that the user controls their own data; few records are kept.

These all make for a situation where identity records are patchwork at best. This means that officials must rely on the security of other habitats for ID verification. If a person egocasts to Nectar on Luna from Qing Long in the Martian Trojans and the Nectar officials have no record of this person, they can only trust that the Qing Long officials did their job when verifying the subject's ID and background. If an autonomist or similar ID-less visitor arrives, they are scanned against databases for criminals and other undesirables and then assigned a temporary ID for the duration of their stay (and sometimes any future visits). Some habitats (including the Jovians) often limit the privileges and stay duration of visitors who fail to meet their stringent ID measures, if they don't bar them outright.

Special Cases

There are certain circumstances that have an impact on identity and verification worth noting.

In polities where forks are legally limited, they are required to be encoded with their originating ego's identity and designation that identifies them as a fork, including their inception date. Those operating with fork IDs are sometimes barred from certain activities such as travel or making financial transactions without their originator's authorization in order to deter fraud or the fork seeking independence or to bypass legal limitations. Fork IDs may be banned from activities such as voting or sleeving entirely.

Those with criminal records linked to their IDs face similar restrictions. They often are required to disclose their criminal history to employers/contractors and are subject to additional security screenings. This also applies to indentures, who are banned from travel and considered a flight risk to some authorities.

Certain polities require uplifts and AGIs to openly identify themselves as such — and may even limit their rights and privileges. Though they can take the risk with fake IDs or traveling incognito, a full brain scan will automatically detect the differences inherent to an uplift or infolife's mind, marking them as non-human.

Notably, the process of Watts-MacLeod infection is known to create changes to an async's brain structure, permanently altering their brainprint. Given that brainprints naturally change over time, this is not always significant enough to be noticed. However, as authorities across the Solar System work to eradicate the vestiges of the exsurgent virus from transhumanity, asyncs are finding themselves under increased scrutiny, especially when entering habitats with more paranoid or sophisticated security apparatuses.

ID and Rep Systems

Your ID is irrevocably tied to your reputation scores.

IDENTITY VERIFICATION

There are three ways to verify someone's identity: nanotat scan, brainwave scan, and checking the cryptographic hash on a digital mind.

Nanotat Scans

In most jurisdictions, every time you sleeve a morph, special nanobots are deployed to encode a small nanotat on your index finger. The information contained on this nanotat includes your name, ego ID, brainwave pattern, citizenship/legal status, credit account number, insurance information, licenses, rep system IDs, and similar relevant data in an encrypted format. Depending on the local habitat laws, it may include other information such as criminal convictions, travel history, restricted implants, employment records, and so on. This nanotat serves as your physical ID and can be read with a nanotat ID scanner ▶338 that decodes the nanobot data.

ID nanotats include information on the company that did the resleeving, so that the data can be accessed and verified with their records online. The data on the nanotat is also cryptographically signed with the company's public key, meaning that anyone who checks the data and the signature online can tell if the data has been altered.

Nanotat ID data can be passcode-protected, though authorities require decoding for security checkpoints. This does not always deter ID thieves, who deploy trick devices, drones, and nanoswarms to break the code and steal data from the unsuspecting — or simply take your entire finger.

Brainprints

Brain scans are one of the few biometric prints that remain similar no matter what morph an ego is in. Brainprints are recorded using a combination of deep neuro-imaging techniques to measure your neural activity and responses to invoked sensory stimuli. This process takes about an hour to produce a unique brain signature. Egos existing in virtual mind-states (infomorphs or cyberbrains) are measured in a similar manner using a sequence of diagnostic inputs, though this takes only 5 minutes. Full brain scans in this manner are difficult to fool, barring hacking of the brainprint scanner itself, and so are considered quite reliable. For this reason they are occasionally used for access control in high-security facilities.

Such thorough brain scans are impractical for most security purposes in the field, given the time frame. Instead, security personnel can use a portable brainprint scanner to verify an ID in 5 minutes. This scanner includes a skull cap placed on the head, ultra-sensitive nano-electrodes that extrude in the scalp, and either a visor and earplugs or injected AR sensory input that feeds a sequence of images, sounds, and sensations to measure your response. Though not as deep or accurate, this short test is enough to compare measurements against a secure ID database. Pods, synthmorphs, and infomorphs can be verified in a single action turn via sensory diagnostic inputs.

Thanks to the plasticity of transhuman brains, your brainprint will change over time. This is a natural result of new memories and synaptic structures, trauma, and even adaptation over time to different morphs and headware. Such changes are minor and incremental, but mean your brainprint must be updated on a roughly yearly basis, and sometimes more frequently. Though uncommon, recent psychological trauma, psychosurgery, exsurgent-virus infection, or other brain alterations may create enough deviation to cause a brainprint ID check to fail.

Digital Code

Digital ID codes are incorporated into backups and infomorphs. Not only does this help identify who the backup belongs to, but it serves as an electronic signature for verifying ID when the backup is to be resleeved. This digital code contains the same information as a nanotat ID, and is signed with a cryptographic hash that makes it difficult to forge and which can be verified online.

Other ID Forms

Given that transhumans are almost always meshed, your Mesh ID ▶246 serves as a unique identifier and has served as proof of identity in criminal and legal cases. Mesh IDs can be used to track or reveal information about you, though they can also be spoofed ▶247.

Some habitats continue to rely on older ID technologies, such as ID cards or embedded wireless chips. The Jovians in particular, due to their opposition to resleeving and nanotech, use wireless ID chips and biometrics primarily.

CIRCUMVENTING ID CHECKS

Firewall sentinels and clandestine agents often have a need to hide or alter their identities. While ID systems are challenging, they are not insurmountable.

Fake IDs

The easiest way to bypass security checks is to establish a fake ID ▶315. Given the patchwork nature of identity records and the lack of any centralized authority, this is not very difficult. Numerous crime syndicates and even some autonomist groups maintain a thriving ID fabrication business, often with complete histories and medical covers for implants that might be restricted or illegal.

These IDs are usually registered with habitats that are either known criminal havens, have autonomist sympathies, or are isolated and remote. Though the ID is actually verifiable and registered with these stations, the potential shady origins of such IDs is known to most inner system authorities and so the character may be exposed to extra scrutiny or monitoring. Fake IDs can be acquired that are registered with more respected authorities, but this often requires a much higher expense or connections to hypercorp clandestine operations.

Black market darkcast and resleeving options offer fake IDs as a matter of course.

Altering Nanotat IDs

Special nanobot treatments can be manufactured to erase, rewrite, or replace nanotat IDs. Erasing a nanotat is easy, but not having one is a crime and immediate grounds for suspicion in many habitats. Rewriting a nanotat is also easy, though this means that the nanotat will fail its authorization online unless the encryption has also been cracked. Replacing a nanotat ID with a fake one is just as possible and is part of the process of acquiring a fake ID.

Digital ID Tampering

Digital ID codes can also be tampered with, though like nanotat IDs this will mean that the ID fails online verification unless the encryption is also defeated.

SECURITY LOG: FORK IDENTITY THEFT?

Log 0131AF09:1000: Random security checkpoint established at Adler train station. Over the course of 4 hours, discovered 13 individuals with anomalous brainprint matches. All 13 escorted to station for further questioning.

Log 0131AF09:1200: 12 of the detained individuals cleared and released. Final individual, Morten Zola, held for further investigation after additional anomalies discovered when matching their nanotat ID.

Log 0131AF09:1230: A routine analysis of Zola's mesh presence detected current activity in Zola's socnet accounts despite the suspect being held in mesh isolation. When questioned, Zola denied having any active forks.

Log 0131AF09:1300: Zola's mesh activity correlated with public sensor searches. An individual matching Zola's pod morph and biometrics identified. Suspect possible identity theft. Security team dispatched.

Log 0131AF09:1400: Second Zola brought in for questioning. Same anomalies as First Zola with brainprint and nanotat IDs. Possibly ID thieves working in tandem. Effort initiated to locate original Morten Zola.

Log 0131AF09:1500: A visit to Zola's registered residence located a Third Zola, again with anomalous ID. Unable to yet ascertain which is original.

Log 0131AF09:1700: Habitat-wide sensor sweep detected six other active Zolas, all with matching morphs and biometrics. Two resisted arrest with armed violence and were killed. Four others captured.

Log 0131AF09:2000: Tenth Zola detained attempting to leave habitat, carrying storage unit with an ego backup. The alpha Zola, held captive?

HABITAT ACCESS

How you gain entry to a habitat and what screening you're likely to undergo depends upon how you arrive. Some habitats are close to other settlements, while others are physically isolated by the vast, empty distances of interplanetary space. Habitats in dense planetary systems receive most of their visitors via conventional space travel. Immigration and customs infrastructure is geared toward receiving visitors via their spaceport, and the processing of arrivals is analogous to a 21st-century airport. Isolated habitats, on the other hand, tend to receive almost all of their visitors via egocast.

EGOCASTING

Shuttlecraft using a variety of propulsion systems make regular trips between habitats, planetary surfaces, and moons. But for any trip longer than 1.5 million kilometers — the distance a fusion drive craft can cover in about a day — most people egocast.

Egocasting is transhumanity's most advanced personal transportation technology, though only your ego actually travels. Egocasting combines uploading ▶287 and quantum farcasting ▶336 to securely transfer your mind over interplanetary distances. This can be an active infomorph, an inactive backup, or even an upload transferred from your conscious mind.

Though egocasting occurs at the speed of light, times vary drastically with distance. Egocasting within a cluster or planetary system is usually just a matter of minutes. Egocasting from the sun to the Kuiper Belt, however, takes between 40 and 70 hours, and so egocasting all of the way across the Solar System can take even longer.

Most egocasting is handled via legitimate farcasting services, often operated by the habitat's government. If you are uploading from a morph, it may be sold, leased, or stored with a body bank service. Most people sell their morph, trading it in for a new sleeve at their destination. Storage/leasing is primarily reserved to the rich, people returning quickly, or people with a particular attachment to their morph (sometimes because it is their original).

Egocaster Security

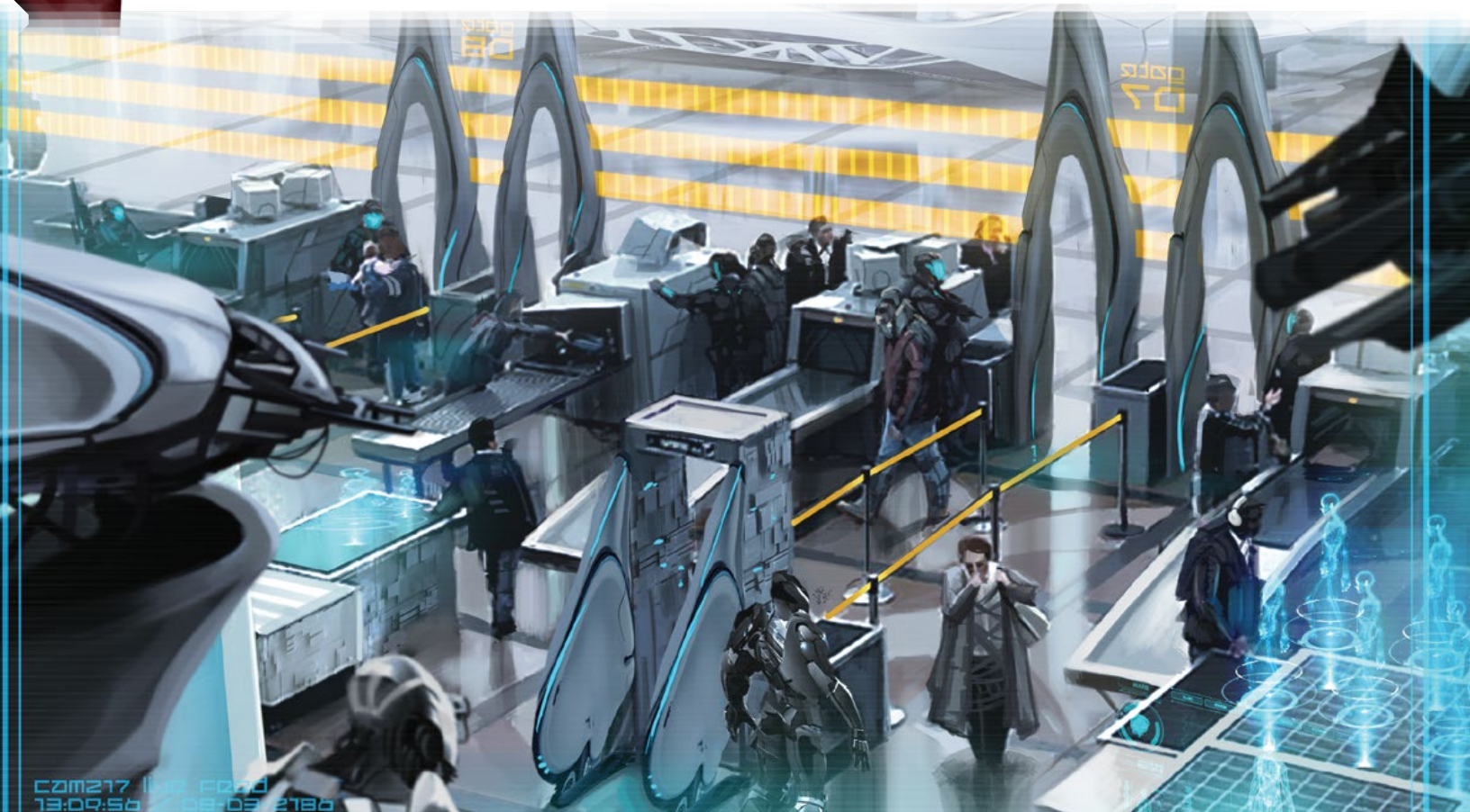
Beaming yourself across interplanetary space is a mature technology and usually works seamlessly. Because egocasting uses quantum farcasters, there is no danger of radio interference cooking the signal and causing data loss. Due to concerns over protecting egos, farcaster services usually engage strict security practices; breaches are uncommon.

However, there are risks involved. If the farcaster service at either end is not trusted or the networks are privately controlled or compromised, your ego is at their mercy. Most hypercorps consider meddling with a transmitted ego to be a serious breach of etiquette, whereas autonomist types would find it unthinkably repressive. However, political extremists and criminal organizations in control of egocasters suffer from fewer restraints.

Electronic Arrivals

Once an ego arrives at the destination receiver, it can be archived, run as an infomorph, or resleeved as normal. Arrivals by egocast are sometimes interviewed by habitat authorities in a simulspace before resleeving. Depending on the habitat's attitude toward civil rights, this process can be relatively reasonable or quite invasive. A minimal entry inspection includes an ID check, a brief interview with a customs AI, and a review of the specs of the morph into which the arriving ego plans to resleeve. Habitats with draconian immigration measures may use harsh psychosurgery interrogation techniques on suspect infomorphs. Egos have little recourse to avoid this treatment — station authorities can simply file them away in cold storage if they choose — so it is wise to investigate customs procedures before you send yourself over.

Because many people, particularly autonomists and brinkers, don't appreciate this kind of reception, various farcasting services have stepped in to provide pre-customs resleeving for those traveling to habitats with suspect screening methods. For often-exorbitant fees, the traveler egocasts into an extraterritorial substation close to their intended destination, resleeves there, and then travels to their destination by ship or shuttle.



PHYSICAL ARRIVALS

Physical travel is more common over short distances. However, bioconservatives or people seeking to travel without leaving a trail may prefer long-distance ships over egocasting.

Arrivals by spacecraft undergo, at minimum, an ego ID check, scans to detect pathogens, hostile nanobots, explosives, or radiation, and an inspection of their personal effects. Some habitats go farther, including rigorous secondary screenings using scout nanoswarms, scans of all electronic systems for malware, and/or aggressive interrogation of a fork of the subject. Even autonomist enclaves enforce automated scans for anything that might pose a danger to the habitat or any signs of hypercorp saboteur efforts.

Restricted goods vary according to local legalities. Many habitats, particularly those controlled by autonomist or criminal factions, allow personal weaponry as long as its nothing you can use to blow a hole in the structure or indiscriminately kill dozens of people. Others, notably the Jovian Republic and hypercorp stations, disallow lethal weapons of all kinds, except for people who have acquired special permits and authorization (sometimes available by bribing the right people or pulling favors with rep). Nonlethal weapons are generally allowed. Other restricted items may include nanofabricators, nanoswarms, malware and hacker software, drugs and narcoalgorithms, certain types of XP recordings, covert operations tools, and so on. Certain types of morphs may also be restricted, such as reapers, furies, or uplifts.

Certain habitats may insist that visitors — or at least the ones they don't like the looks of — submit to specific forms of monitoring or surveillance for the duration of their stay. This might include taggant nanoswarms, hosting a police AI in your mesh inserts, or even physical tailing by an armed security drone. Other stations will require that their visitors leave an inactive fork as a form of collateral at the door — in case they commit a crime, the fork can be interrogated.

Finally, though rare, some habitats go so far as to charge all visitors an "air tax" — a fee for using the station's publicly available resources while they are present. This is generally only common in isolated habitats with strained resources and is considered especially obnoxious by most autonomists.

HABITAT INFILTRATION

Getting onto or around a habitat without authorization is not easy, but for the determined many options abound.

Darknets

Various illegal darkcast services run by crime syndicates sometimes offer an alternative method of egocasting in. Darkcast services are quite expensive, however, and you are at the mercy of the operators. They have their own reputations to maintain, but if one group has a monopoly on darkcasting into a habitat, problems sometimes develop. However, these providers often offer black-market resleeving services, including restricted morphs and ware, as well as fake ID ▶315. In rare cases, political factions (usually autonomist cells) or even hypercorps might operate their own darkcast systems; accessing these services requires being in-the-know, having a good rep, and/or greasing the right palms.

Sneaking In

Darkcasting isn't always an option. For those who don't want to test the reliability of their fake IDs or who don't want to put their egos in the care of habitat customs, the next option is to try sneaking into the station. For stations on planets or moons, this is often not very difficult. Major dome and warren settlements on Mars, Luna, and Titan are used to traffic around the exterior of their habitats. Some don't even restrict entrance. Others feature local crime cartels who have already established underground tunnels or hacked airlocks in order to move contraband and people. More isolated outposts, however, are likely to take an interest in strangers who drive up and start messing around outside their walls. With some preparation and determination, however, it is sometimes possible to sneak up while evading sensor detection.

Habitats in space are surrounded by thousands of kilometers of emptiness — a moat of vacuum that is perilous to cross. Approaching without detection is quite a challenge, as most keep an eye on their immediate environs with radar and wide-field telescopes in both visible and infrared to spot approaching craft by their radar signature, infrared heat emissions, or the thrusting and braking of their drives. The latter is especially difficult, as any momentum that carries a ship toward a habitat must be arrested if the ship plans to stop there — and this means using drives that are a dead giveaway. For colonies on asteroids, the asteroid itself can sometimes be used to block line of sight for an approaching ship, though many stations deploy satellites that keep an eye on this angle as well.

Ultimately, all a potential interloper needs to do is to get close enough to the habitat to cross the void using an EVA sled or thruster pack. This can be accomplished by passing in the vicinity of the station and dropping the infiltrators off, by finding something nearby the station to hide a ship's deceleration behind, or by catching a lift some other way.

An easier option, perhaps, is to take a ship that docks at the habitat, either legitimately or as a ruse, and then use the opportunity to sneak into space and over to the habitat. For colonies that deploy harvester drones, another possibility is to intercept one of these bots and use it catch a lift back to the station's drone bay.

Aerostats and bathyscaphes are somewhat easier to approach. Any number of aircraft can be used to sneak up on an aerostat — microlights and balloons being particularly difficult to detect. There is also the option of skydiving down from an aircraft passing overhead — or even falling from space in a high-dive suit ▶351. Bathyscaphes, on the other hand, require swimming or using a vehicle that doesn't get noticed by the station's radar and sonar.

Criminal and smuggler outfits rely heavily on bribery or otherwise compromised security to gain access. Forged credentials are also relied upon, as is simply physically transporting backups or infomorphs on storage media through security and then re-instancing or resleeving them within.

Exterior Access

Once at the habitat's exterior, an entrance can be found or created. This usually entails hacking an airlock ▶304. Cutting or blasting one's way inside is also an option, though this draws attention with noisy things like decompression and explosions. Careful research of a station's design might pinpoint spots where breaching the exterior does not trigger alarms. Beehives or warren habitats, for example, might have unused or forgotten tunnels that lead to interior airlocks.

Lingering too long on a habitat exterior may attract attention. Exteriors are typically equipped with security cameras and infrared sensors overwatched by security AIs. Particularly secure or paranoid stations may have seismic sensors built into the hull or feature regular sentry bot patrols. Workers and maintenance bots on a hab's exterior, though not normally armed or trained as security guards, will report suspicious visitors. In the Jovian system, almost all exterior work is done by teleoperated bots due to extreme radiation. In other outer system habs, such as big clusters like Locus, spacewalking is very common simply as a means of getting around, so being spotted is much more likely — though, depending upon the situation, the observer might not even bother reporting your presence to anyone.

SPACE TRAVEL

Long-distance space travel takes time and is boring. You will prefer egocasting in most situations, unless you're a bioconservative, trying to keep a low profile, or in a region with habitats that are close together.

In *Eclipse Phase,* spacecraft are primarily dealt with as a setting environment rather than a vehicle/gear to use. Most ships are piloted by ALI and self-maintained by robots. In certain circumstances, however, you may be called on to navigate or pilot a ship with Pilot: Space, repair it with Hardware: Aerospace, or control sensors, ship functions, and weapons with Interface.

LOCAL TRAVEL

In densely inhabited planetary systems such as Mars, Jupiter, and Saturn, most travel between cities, surface stations, and orbital habitats is by shuttles (lander and orbital transfer vehicles) using small hydrogen-fueled (or sometimes methane-fueled) rockets. This form of travel is incredibly cheap, very fast (hours or days), and avoids the occasional glitches that crop up during egocasting.

DISTANCE TRAVEL

For distances beyond a million kilometers, almost everyone egocasts. However, thousands of ships can be found crossing the Solar System at any given time. Bulk carriers haul cargo on regular routes between habitats and planetary systems. Ice and volatiles mined from the gas and ice giants are transported in from the outer system. Other freight includes anything that can't be fabricated locally, from artisanal and proprietary goods to rare elements, living things, antimatter, and qubits. Other ships include military vessels, cruise liners, nomadic scum swarms, and private craft. Almost all of these use fusion or plasma drives. These ships lack the thrust to escape from the gravity wells of large planets or moons, so they station themselves in orbit and use smaller shuttles with higher thrust to transport people to and from planetary surfaces.

SPACE TRAVEL BASICS

Spacecraft use reaction drives (*Spacecraft Propulsion* ▶303), meaning that they burn fuel (reaction mass) and eject the heated output in one direction, which pushes the spacecraft in the opposite direction. Travel involves a period of high-acceleration burn for several hours at the beginning of the flight, where reaction mass is spent to drive up the craft's velocity. The ship then coasts for the majority of the flight at that speed, until it approaches its destination, where it flips over and burns reaction mass in the opposite direction to decrease velocity.

Though some craft burn roughly half their reaction mass to get up to the best speed possible, this doesn't leave much room for additional maneuvering or emergencies. Many craft therefore only burn a fraction of their fuel in initial accelerations, so they have some to spare in case they need it. A few tricks can be used to save fuel and build speed, such as slingshotting around the gravity wells of larger planets or aerobraking in a planet's upper atmosphere.

Ships operate at zero g, with the exception of habitat modules (generally only carried by larger ships) that are spun for low simulated gravity. Periods of high acceleration/deceleration also produce temporary "gravity" in a downward direction, towards the burn.

Space is a valuable commodity on board spacecraft, so room is tight. Sleeping and personal quarters are rarely bigger than large closets, just enough room for a sleeping bag and personal effects. Depending on the size of the craft, there may be a communal recreation area. The crew tend to only be busy at the beginning and end of a trip, when they must deal with acceleration/deceleration and maneuvering around other space traffic. The rest of the trip they spend dealing with repairs or otherwise killing time with XP, VR simulations, or AR games. Spacecraft have their own local mesh, but they are usually too distant to interact with the mesh networks of other habitats without significant communications lag, so they make do with their own archive of entertainment options. Many long-haul ships are crewed by hibernoid morphs, who hunker down for long naps between duties.

TRAVEL TIMES

Travel times around the Solar System vary drastically, depending on current orbital positions. Travel between points within the inner system usually falls between 2 weeks and a month. Travel to/from Jupiter and Saturn usually runs around 2 or 3 months, respectively. Travel to, from, or between points further out takes months (6 at least) or even years. Slower craft like bulk carriers and scum swarms double these times. Fast transports reduce them by half, however, and antimatter couriers can make a journey in a quarter of the time. These times also assume the craft must accelerate up to speed; a ship that is already traveling at high velocities can reduce the time.

SPACE COMBAT

Realistic space combat is not cinematic. It primarily takes place at vast distances (thousands of kilometers), far beyond visual range. Engagements are short, deadly, and decided by software. It is recommended that space combat be treated as a plot device, part of the background story that helps create drama and tension, rather than an event that characters actively participate in.

WEAPONS AND SWARMS

The primary weapon in space combat is missiles: they cover great distances, make high-g accelerations, and are loaded with ALI pilots. While lasers and rail cannons are potent weapons, they are less effective at vast distances; their primary use is in close engagements or as point-defense systems against missiles.

Weapon systems are only part of the battle, however. Most ships field swarms of disposable devices in combat situations: decoys, sensor buoys, missile drones, smart mines, and so forth. These swarms help blind, confuse, and target the enemy.

Not all ships are equipped with weapons, but every ship has at least one: their drive. The output from a drive is devastating to anything within a close range of it. For this reason, ships are restricted from engaging their drives close to habitats, using thrusters or tugs to clear a safe distance first.

STEALTH AND SENSORS

It is incredibly difficult to be stealthy in space. The torch flare from a ship's drive is highly visible, meaning that you can be spotted any time you accelerate or decelerate. Ships also radiate heat (in fact, heat buildup can be a major issue), meaning that their black-body radiation can give them away. Ultra-wide telescope arrays around the system, both public and private, regularly track ships and their trajectories. Active sensors or wide-area communications will also broadcast your position.

When ships close in and engage in hostilities, the initial conflict is often a game of hiding your exact position to avoid being targeted. This includes shutting off your drive and active sensors to avoid detection and fielding decoys to misdirect your enemies. It also means deploying sensor drones to find the opponent without activating your own sensors, and using laser drones and other systems to blind the opponent's eyes.

Hydrogen-Oxygen Rocket (HO): Optimized with improved engines and light-weight materials, these are still the same rockets used to first reach the moon. Their high fuel-consumption rate counterbalances high thrust-to-weight, so they are rare except with groups too poor to manufacture metallic hydrogen.

Metallic-Hydrogen Rocket (MH): Metallic hydrogen is a solid but unstable form of hydrogen created under exceedingly high pressures. It can be stabilized in tanks with carefully controlled electrical and magnetic fields. Small amounts can be swiftly and explosively reverted to conventional hydrogen gas, propelling the rocket with great force. Metallic-hydrogen engines are necessary to escape the gravity wells of most planets, thanks to their high thrust-to-weight ratios, so are common in planetary landers and short-range vehicles.

Plasma Rocket (P): This drive heats hydrogen into plasma and accelerates it using a powerful electrical field. Though they have a low thrust-to-weight ratio, they are more fuel efficient than metallic-hydrogen. Plasma rockets are superseded by fusion and only used in older craft, notably scum swarms.

Fusion Rocket (F): Similar to a plasma rockets, fusion rockets require significantly higher temperatures and pressures, resulting in a more efficient use of hydrogen. Fusion rockets are the most common form of propulsion for long-distance spacecraft. However, their thrust-to-weight ratio is too low for escaping the gravity wells of most planets.

Antimatter Rocket (AM): Antimatter rockets are the most efficient rocket systems. They mix small amounts of antimatter into the hydrogen fuel, producing enormous amounts of energy relative to the hydrogen consumed and an exceptionally fast and powerful exhaust. These rockets carry a heavily shielded magnetically contained antimatter storage vessel. Though safe, the vast energy release possible if there was an accident means that antimatter rockets are forbidden from docking with habitats or coming within 25,000 km of any inhabited planet or moon. Instead, cargo and passengers are transferred using a shuttle or other small craft. The high expense of antimatter production means that these rockets are only used in military vessels and fast couriers.

DEEP SPACE vs ORBITAL

Fights in deep space typically take place at high velocities with strict trajectories, with little room for major course changes. Fuel rationing can be an issue. As the ships and their accompanying swarms close to engagement range and pass by each other, the battle itself is quick and fierce. The fight usually ends there, as any survivors are unwilling or incapable of turning back around.

Orbital battles are similar, except they may involve defensive installations. Stealth is important here, as smart mines and orbital weapon platforms lie hidden and dormant until an attacker nears. Some attackers launch strikes from positions far out, well in advance (days or even months), allowing them to approach cold and silent. Orbital battles can also be complicated by the presence of non-combatants, such as civilian habitats and shuttles, and the fact that asteroids, moons, planets, and even habitats create sensor shadows and opportunities to hide. Ground-based weapons are largely ineffective, but orbital bombardments are devastating to those below.

CHARACTER OPTIONS

One reason we discourage space combat as a direct focus of the game is to avoid situations where a few failed PC die rolls lead to a total party kill. It is also not always practical for all of the PCs to contribute to a conflict, given how much of it is handled by AIs. That said, there are plenty of opportunities for PCs to play a role in an ongoing space battle and influence the outcome. Here are a few suggestions for incorporating characters and tests into a space combat narrative.

Detection and Stealth

It is difficult to attack an enemy you can't target. PCs use Interface skill to operate sensors and swarms to locate and lock onto opposing ships. Interface skill is also used to deploy sensor jamming, decoys, and other countermeasures to evade detection. Appropriate Know and Hardware skills are used to identify other ships as well as their capabilities and weaknesses.

Hacking

Ships lock down communications during fights to avoid detection and hacking, relying on QE comms as necessary. This makes hackers ineffective against opposing ships. That said, it is sometimes possible to spoof ▶247 a signal to an opposing ship, particularly if there are multiple ships or they make heavy use of swarms. Hacking can also play a role if a ship was hacked in advance or if an intruder on board opens a communication channel. Swarms and drones deployed by ships are also vulnerable to direct hacking and spoofed signals.

Maneuvering

While most ships are piloted by ALIs, PCs can use Pilot: Space to obtain a position of advantage in a fight, perform a high-g maneuver, evade a pursuer, ram another ship, or stealthily maneuver using only thrusters to avoid detection. Use Fray to avoid incoming attacks.

Engagement

Most ship weapon systems are operated using Interface skill. In certain close-range situations, Guns skill will apply to laser or railgun fire. These same skills also apply to point-defense systems and similar defensive measures.

Damage Control

Taking a hit in ship combat can be devastating. Even small hits and debris will put holes in your ship, causing atmospheric decompression and possibly killing biomorphs who aren't wearing vacsuits. Hardware: Aerospace and similar skills are used to repair damaged hulls and systems.

Boarding

Due to velocities and trajectories, boarding other ships is often not feasible. Polite methods of boarding including hacking or cutting open an airlock ▶304. Impolite methods involve cutting open the hull and decompressing the interior.

OTHER NARRATIVE OPTIONS

There are many ways in which an ongoing space battle can play a role in a story's background. You might negotiate with hostile forces, repel boarders, stage a mutiny, treat the wounded, escape out the airlock, hide out while the pirates sack the ship, or locate and stop a saboteur.

While losing a space battle is usually deadly, it does not always need to be the end. Perhaps the ship is disabled, but you survive in the wreckage — and must jury-rig your way to survival or rescue. Or you manage to keep the ship together just long enough to crash it on the nearest planet, moon, or asteroid. Or you end up adrift in space, at the mercy of whatever happens to come along to pick you up ...

SHIP & HABITAT HACKING

Spaceships and habitats are complex environments with many technological systems that are vulnerable to hacking and sabotage. Functions such as sensor, security, weapon, and drive/attitude-control systems can be hacked and manipulated like any other electronics (*The Mesh* ▶240). These sub-systems are usually separated into distinct VPNs ▶241, sometimes separate and decentralized, sometimes as a tiered system ▶241 with a high-security master control network overseeing everything. On larger habitats, each regional area will have its own top-level network, with various functions — administration, defense, infrastructure, public service, resources, security, spaceport, etc. — having their own sub-systems. On smaller habitats/ships, related systems are likely to be consolidated.

Other features specific to ships and habitats are covered here.

AIRLOCKS

Most airlocks come in one of three sizes:

- **Small airlocks** are rare, partly to discourage you from venturing out alone. They fit one medium-sized person. They are primarily used for repair drones.
- **Standard airlocks** are the most common, large enough for two medium-sized persons.
- **Large airlocks** are industrial portals primarily found in docking or service bays. They can hold four to eight medium-sized people.

Airlock doors take one action turn to open and close and 3 action turns or more to fill or evacuate with air.

Airlock Armor and DR can be found on p. ▶233.

Airlock Safety Features

Because airlocks are so critical to the safety of transhumans in space, they're equipped with numerous safety features. Only one door can be opened at a time, to prevent accidental depressurization. Airlocks leading to and from pressurized areas work as normal doors unless a module is depressurized, in which case they kick in as airlocks.

All airlocks have hardwired sensors that prevent them closing on people or objects passing through. If this is overridden or malfunctioning, getting part of one's body caught in an airlock as it closes causes DV 3d10 + 10 and almost always results in dismemberment. Getting one's head, neck, or vitals caught in an airlock is certain death.

Airlocks are usually programmed to alert the operations center each time they are opened.

Airlocks can be linked to nearby heat and carbon monoxide sensors. In case of a fire, these automatically close an air gap between the detected fire and the rest of the ship/habitat and enable the operations center to remotely blow the lock without cycling in order to put out the fire.

Hacking an Airlock

To prevent tampering, the only functions accessible by wireless interface on most airlocks are identification and diagnostics. Operational features are either hardwired to a control panel or accessible only by physically opening a sealed panel on the door.

If you lack authorization, the control panel can be physically hacked with a Hardware: Electronics Test and appropriate tools. This is a task action with a timeframe of 2 minutes.

If the control panel is somehow damaged or disabled, you can physically hack the airlock itself with a Hardware: Industrial Test; this is a task action with a timeframe of 2 minutes.

Both of the above options allow you to override safety features, including disabling the lock's safety so that it can close on people or objects, deactivating air pressure sensors, canceling alert notifications, and blowing an airlock open without cycling. Both options will also allow you to attach a gray box ▶338 to an airlock in order to remotely access it.

Blowing an Airlock

Airlocks can be hacked to skip their cycling time. Typically this is performed on the outer door so that the contents of the airlock (including any occupants) jettison rapidly. Blowing an airlock inward (i.e., opening a vacuum-filled airlock onto an atmosphere-filled corridor without cycling) produces only a loud bang, some ear popping, and possibly strong gusts that may toss small objects around.

When an airlock is blown outward, all of the atmosphere inside vents into space in half the time that would be required for the lock to cycle. In a small airlock, this has little effect other than possibly causing small, loose objects to fly out. On standard and larger airlocks, it creates a strong blast of wind. If within 25 meters (50 for large airlocks), you must make a REF Check to grab hold of something or be blown toward the outer door. You must continue to make this test each turn until the atmosphere is drained. If you fail, you are drawn towards the airlock and out at a rate of 20 meters per turn (40 for large airlocks). Others that you pass near can attempt to grab and hold on to you with a SOM Check. If the habitat is filled with water or another liquid instead of a gaseous atmosphere, these tests suffer a –30 modifier. If you have advance warning to brace yourself, add +10. If both doors are opened, atmosphere will continue to forcefully vent until the air pressure within the ship or habitat (or the local section if sealed off) drops to minimal levels.

Decompression throws objects that aren't fastened down out the airlock. These objects and debris may hit you on their way out, inflicting anywhere from DV 1d10 to 4d10 (GM discretion). Large objects resist being blown out based on their weight and inertia (GM discretion). Open airlocks may become fully or partially blocked if a larger object (such as a desk or vehicle) is sucked up against them.

Airlocks in High-Pressure Environments

In high-pressure environments (Venus's surface, Europa's subsurface ocean, etc.), decompression effects are more dramatic. The gear and morphs employed by transhumans for survival in these environments are engineered to survive in them, but can't withstand an abrupt change in pressure. Anything inside an airlock in these situations will be instantly killed or crushed by an immediate change from inside to outside pressure, and the structure surrounding the airlock is likely to suffer catastrophic damage.

BULKHEAD DOORS

A bulkhead door is simply half an airlock. Bulkheads are installed in strategic locations, so that segments of the habitat/ship can be shut off or isolated in the event of depressurization, a biological outbreak, physical invasion, or other emergency scenarios. Bulkheads follow all of the rules for airlocks, minus the time needed to cycle air.

HULLS AND SUPERSTRUCTURE

Hulls vary in composition and properties, from the composite alloy hulls of cylinders to the thick silicate rock walls of beehives. Superstructure varies as well; cylinders, spheres, and toruses have sturdy metal trusswork underlying and supporting the hull material, although older designs might also have massive crossbeams running across the interior axis. Beehives and asteroid bubbles, on the other hand, rely entirely on their thick rock walls for superstructure. Tin-can habs are typically small enough that the hull is self-supporting, requiring little or no interior bracing, though they can be bolstered with insulation or radiation shielding.

Armor and DR for hulls are detailed on ▶233. Many hulls are "self-healing," meaning they are either equipped with pockets of liquid sealant that automatically fill and harden punctures or fixer swarms to repair damage over time. Serious breaches and "dumb hulls" must be repaired with metal sheets and welders.

Hull breaches in low-pressure environments have the same effect as blowing an airlock.

LIFE SUPPORT

Life support on a station or ship replenishes breathable atmosphere and filters it for impurities. In very primitive systems, life support is finite, consisting of tanks of fresh atmospheric gases. In *Eclipse Phase,* modern systems can run indefinitely if regularly maintained and not interfered with by recovering and chemically altering "stale" gases.

Sabotaging Life Support

Biological life-support systems use organisms such as algae to metabolize waste CO_2 and release breathable oxygen. Such systems are often in their own modules or located along the exterior of a ship or station, close to the hull. Given their critical nature, the controls for these systems are air-gapped and well protected; if hacked, oxygen levels and other aspects of the system can be manipulated (*Dangerous Atmosphere* ▶236), possibly leading to asphyxiation ▶234 or other issues.

If algae tanks are punctured, the medium inside vents into space and freeze-dries — or, worse, spills into the ship/habitat, flooding nearby modules. After a breach, the atmosphere becomes unbreathable at a rate dependent upon the system's total volume and biomorphs aboard — usually somewhere in the range of 48–72 hours at full capacity, longer with fewer breathers.

Other life-support functions such as water supplies can also be contaminated or spiked, though these are equally well protected and monitored for quality. Many ships/habs store water reserves in masses of ice, melting it with waste heat as needed. Like food supplies, water can also be nanofabricated, making this an inefficient method of sabotage.

Heat management is an oft-overlooked aspect of life support, especially in space, where there is no atmosphere to radiate it away. Damaging heat exchangers, radiators, thermal regulation systems, or insulation against solar rays can cause dangerous overheating, creating equipment problems and making life for biomorphs unpleasant or impossible.

Ventilation Systems

All habitats rely on ventilation systems to push and recycle breathable air. These ventways provide an optimal infiltration path for swarmanoids and similar small morphs. For larger transhumans, crawling through ductwork can be an ordeal (taking a complex action to move your base move), or you simply might not fit. These ducts feature regularly spaced fans for circulation. To get past these, the fans must be disabled and removed with Hardware: Industrial skill. Larger fans are not easily removed, but can be stopped so that you can pass through the blades. Many of these fans are monitored and alarmed, however, particularly at key junctions or leading into secure areas. Getting pushed or falling into a fan can inflict from DV 1d10 to 4d10, depending on the size. Swarms that attempt to move through a fan suffer DV 1d10 as well, possibly higher for larger fans.

Many ventilation systems possess countermeasures to deter the spread of harmful toxins or agents. The most common are ultraviolet cooking systems that roast any passing air, killing off biological pathogens. Others include nanofilter systems in which nanobots remove harmful chemicals or particulates from the air. Neither of these is dangerous to transhumans, and both can be deactivated and removed with a Hardware: Industrial Test (though they may be alarmed against tampering).

REACTORS

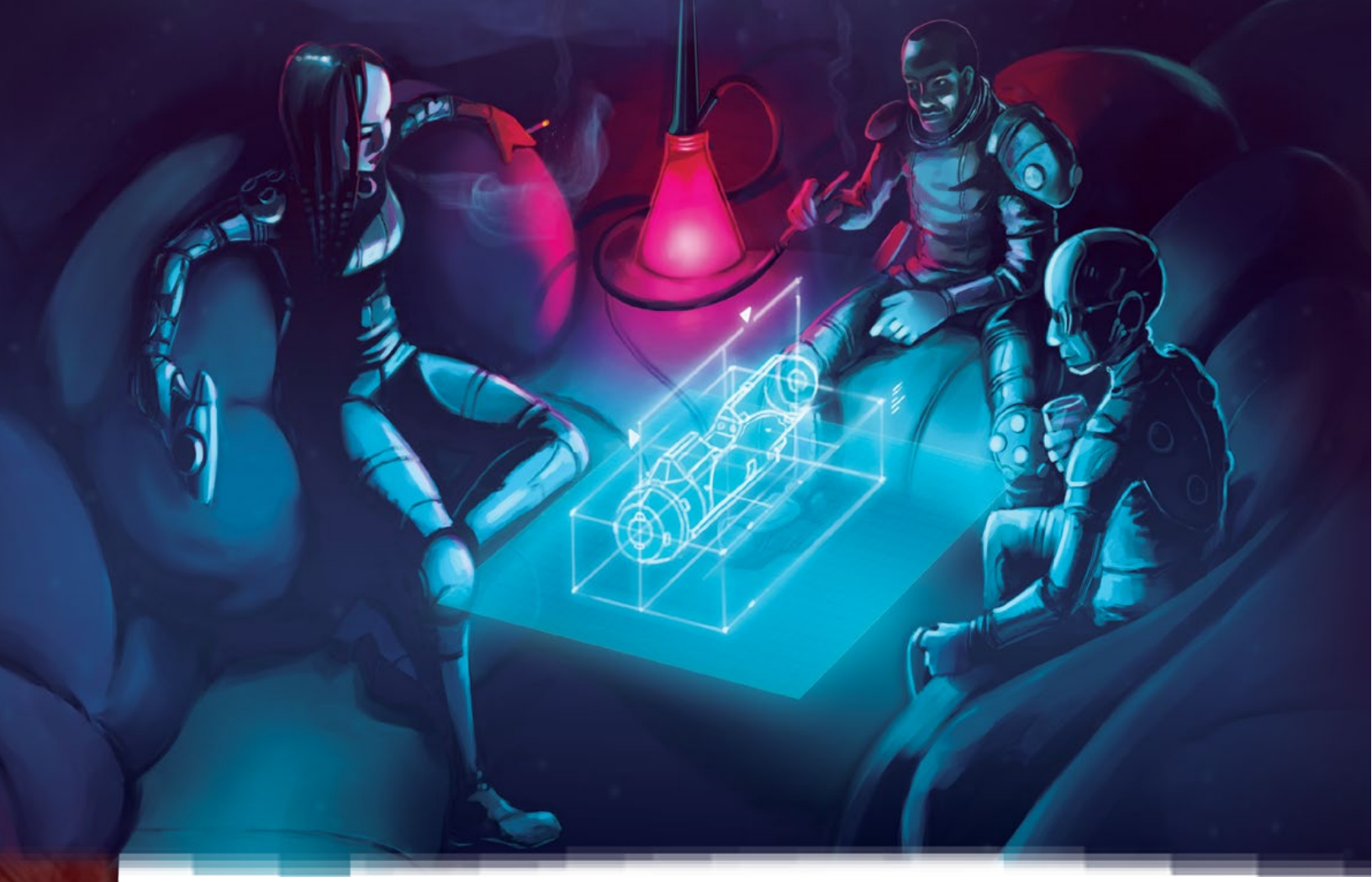
Large habitats and ships are powered by fusion reactors. If this reactor is taken offline, power reserves will last between 12 and 24 hours in most situations. Some ships/habs have alternate sources such as solar panels to continue powering critical infrastructure.

Due to the threat posed by a meltdown, reactor systems are always air-gapped, hardwired, and well defended. If a hacker somehow manages to access the hardwired controls, bypass security, and disable numerous safety protocols, then initiating a meltdown is a Hacking Test task action with a timeframe of 10 minutes. On ships and some smaller habitats, reactors are more easily physically accessible.

Initiating an emergency safe reactor shutdown takes an Interface Test and a complex action. The actual shutdown process takes 2 action turns. A more gradual safe shutdown (for maintenance and the like) takes 6–12 hours.

Damaging a reactor's walls is dangerous. If a weapon discharges near a reactor and misses with a superior failure, the attack has struck and possibly damaged the reactor wall. Reactor containments have Armor 50/50, DR 200, a Wound Threshold of 20, and are self-healing ▶above. If the wall takes enough damage to exceed its DR or suffers a wound, a superheated jet of plasma escapes the magnetic containment and burns anyone within 10 meters who fails a Fray Test (DV 6d10 + 10 [43], armor-piercing, resisted with energy armor). The entire area is also flooded with heavy radiation, which is usually lethal to biomorphs.

Plasma breaches are catastrophically bad. Because reactors use controlled fusion, they will never explode like a nuclear weapon, but the super-heated plasma will burn through almost everything around it. Habitat reactors often incorporate pressurized steam systems and turbines; damage to these systems, from a plasma breach or other method, can create a devastating explosion.



REPUTATION

> **"Once upon a time, there was a planet so incredibly primitive that its inhabitants still used money. That planet is called 'Mars.'"**
>
> Professor Magnus Ming, Titan Autonomous University

Reputation is an inherent aspect of the hierarchical social order in the inner system — and a vital component of the outer system's egalitarian social fabric.

SOCIAL NETWORKS

Reputation is divided between and managed by different social networks. These retain much similarity to their early 21st-century forebears, in that they enable their users to build large networks of friends, acquaintances, and professional contacts. They are in equal parts a media-sharing platform, discussion forum for shared interests, news outlet, networking/publicity tool, and an ideal medium for memetic propagation. However, modern socnets are far more numerous and varied, coalescing more around shared characteristics, whether those be (sub)cultural, professional, political, or simply common interests. Some well-known social networks are amalgamations of smaller socnets that are linked together under an umbrella framework to share information.

Shifts in technology have changed the nature of social networks over time. Early social networks served as information-gathering tools, accumulating vast databases on their customers and their lives and relationships to be sold for marketing purposes. These became a central point for people's online activity, transforming into walled-garden media ecosystems that dominated and monetized people's attention. For decades, online identity was hostage to brand loyalty to one of a select group of social media and tech monoliths. At the same time, authoritarian states instituted citizenship scores and social credit to regulate behavior, provide privileges, and punish unfavored elements. This regime was eventually demolished by the decentralized nature of the mesh, the advent of AI, the Fall, and the push to transition from capitalism to new economies. New social networks arose, unfettered to corporate interests, facilitated by ALIs and user-driven initiatives. Many of these are specifically driven by the needs of new polities: legal contracts, online voting, tracking habitat logistics, sharing resources, and managing multiple identities.

REP SCORES

A major impact of social networks in *Eclipse Phase* is the reputation score each provides. Each of your rep scores measures your social standing with a sub-set of transhuman society.

Each social network handles rep scores in similar but distinctly different ways. As a rule, your rep score is built up by positive interactions with others in your network (*pings*) and decreased by negative interactions (*dings*). These transactions are largely automated,

THE BIG SEVEN

Eclipse Phase focuses on 7 dominant rep networks:

- **@-rep:** The Circle-A List is prejudiced in favor of egalitarian, collective behavior and against competitive and selfish activities. It is shared by anarchists, Titanians, scum, Extropians, and other autonomists. Its focus leans more towards sharing resources, providing assistance, and creative endeavors. Originally patched together by hacktivists, the decentralized network is maintained by a healthy cadre of volunteer coders and ALIs, bolstered in part by Titanian education resources. Use @-rep to connect with autonomists, add yourself to a collective resource queue, exchange favors, share your work, vote in local referendums, and practice mutual aid.
- **c-rep:** CivicNet is popular among the citizens of the inner system (Planetary Consortium, Morningstar Constellation, Lunar-Lagrange Alliance), Jovian Republic, and other hypercorp and capitalist entities. A combination of multiple networks maintained as private ecosystems by media hypercorps like Ideogram, Chitter, and Reina Weibo, it also plays a prominent role in governmental and legal affairs. Use c-rep to check citizenship scores, view your friend's lifelogs and XP, network with others in your industry, apply for a loan, get a recommendation, speak to a manager, scan product reviews, or talk your way out of a fine.
- **f-rep:** Fame is about seeing and being seen. It is the realm of metacelebrities, journalists, socialites, artists, and glitterati. Follower counts, aggregate critic reviews, viral media, and publicity stunts carry heavy weight. The networking of entertainment and marketing pros who maintain the spectacle from behind the scenes is where this network really shines. Use f-rep to get the latest gossip, follow your favorite celebrities, post your glamour shots, find the latest trends, view media collections, get on an invite list, take on a freelance media gig, sell your footage/tip to media outlets, or connect with media/entertainment industry professionals and socialites.
- **g-rep:** Guanxi is one of the more unusual networks. This shadowy darknet protocol allows various smaller, private networks to link together. The standards, formats, and algorithms do not always sync well, and the relations between cartels and gangs and individuals are often contentious. Nevertheless, an unspoken code has developed over time. Influence and intimidation factor heavily here, and suspicion of rivals and narcs takes its toll, but the advantages for black-market networking are numerous. Use g-rep to connect with criminals, hire illicit services, make deals, peruse the black market, get tips on local security, fence goods, and get the latest word on the street.
- **i-rep:** The Eye is Firewall's secret internal network, maintained by its vectors. It enables sentinels and proxies from different servers to collaborate and share intel and resources. Given Firewall's strained resources, the Eye can sometimes be a saving grace to sentinels in the field. Use i-rep to pull strings, ask for backup, learn secret history, get the scoop on a new threat, or share war stories.
- **r-rep:** Research Network Affiliates is dedicated to the pursuit of science. Favored by Argonauts, scientists, technologists, and researchers of all stripes, it is a treasure trove of data and a useful tool for collaboration. Published research, citations, and credited discoveries carry extra weight here. RNA is also important for hypercorp researchers who are otherwise restricted by NDAs. Use r-rep to research scientific topics, query experts, connect with scientists, crowdsource puzzles, and track the latest tech developments.
- **x-rep:** Originally created by a now-retired group of gatecrashers, eXploreNet has evolved into the primary network for gatecrashers and exoplanet colonists. The socnet recently gained support from Gatekeeper, helping to expand its reach. Use x-rep to learn about exoplanets, get mission reports, collect gate rumors, get tips on extrasolar corporate initiatives, and connect with gatecrashers and colonists.

in that they are primarily handled by your muse without active direction, based on your reactions and past habits. Individual pings and dings have but a minor effect — but thousands of these add up over time to influence your score. Transactions are also weighted based on factors like previous history, social distance, the weight of each party's rep scores, and so on. Every network handles this differently; inner-system networks give more value to the actions of high-rep parties, whereas outer-system networks make more effort to level the field. All networks monitor against attempts to game the system by sock-puppeting and other means, to varying degrees of success. Depending on the network, other values may impact your rep score: credit history, net worth, criminal record, legal claims, citations, publication credits, professional reviews, and so on.

In the inner system, your rep score functions as social capital. It is a mistake to think of it as currency, however. Rep is not spent, it is a measure of your net worth, your popularity, and your value as a citizen. It can open doors, provide access, and reward you with other privileges.

In the outer system, rep functions slightly more as a measure of trustworthiness and solidarity. In polities where cooperation with peers and support of the local community is an important factor, a good rep is often rewarded by more good will. Though they advocate and sometimes work against it, autonomists are sometimes guilty of allowing rep to reinforce informal hierarchies, reproduce prejudices, or propagate in-group cliquishness. It is widely valued, however, as a tool for guiding interactions.

REP NETWORKS FOR RESEARCH

Social networks can be incredibly useful for research. Many have forums, media collections, and tagged postings on all manner of interesting topics, such as current politics, events of the Fall, latest technology, and crime beat reports. They are also an excellent avenue of research into specific people and their activities, though this is sometimes impeded by privacy settings.

Using social networks for this purpose is handled as a Research Test ▶254.

NETWORKING

Where social networks shine is their value in networking for favors. If you need to get advice from an expert, find someone who can fix your problems, acquire a piece of black-market tech, or crowdsource a solution, you can turn to your contacts and the online community at large. Your rep score reflects not just your social capital, but your ability to leverage it and maneuver through this web of personal and impersonal connections to find who and what you need.

In game terms, you take advantage of your connections and personal cred every time you need a favor. A favor is broadly defined as anything you try to get via others in your social networks, whether that be aid, goods, or information. Different types of favors are described under *Favors*.

USING REP

To pursue a favor, you pick a social network and make a Rep Test. Roll Rep score same as you would a skill. The type of favor you are asking for can impact the test; apply the modifiers from the Rep Tests table. Likewise, if you are trying to keep your query discreet and under the radar, modifiers will apply *Keeping Quiet* ▶next column.

Rep Tests are task actions — it takes time to call in favors or track down information. The timeframe depends on the type of favor, as noted on the Rep Tests table. GMs can modify this as they see fit.

Rep Limits

Using rep has its limits — there are only so many times you can call in a favor. These limits depend on the level of favor, expressed in terms of the maximum amount of times you can safely request such a favor each timeframe.

If you need to seek another favor before that level of favor has refreshed, you have two choices. You can expend a higher level favor instead, keeping in mind that higher level favors refresh more slowly. Alternatively, you can burn reputation (see below).

A Rep Test failure will not use up a favor, unless you score a critical failure.

Be sure to mark off favors used on your character sheet.

Burning Rep

In dire situations, it may be more important for you to get what you need, even if you have to step on people's tentacles. In this case, you can *burn* some of your Rep score, meaning that you exchange a loss of Rep for a shot at a favor. This reflects that you are pushing the bounds of how far people are willing to go for you; your reputation takes a hit as people flag you for being too demanding.

You can burn rep for two purposes:

- **Additional Favor.** If you've used up all of your alloted favors, you can burn rep to get one more. The cost to your rep depends on the type of favor, as noted in the Burn Cost column on the Rep Test table.
- **Bonus Modifier.** This indicates that you are pulling strings and calling in markers to get the favor you're after. This is particularly useful when you are trying to obtain a major favor. You receive a modifier to your Rep Test equal to the rep points you burn × 2. The maximum modifier you can achieve is +30 (15 rep points).

Keeping Quiet

The problem with using social networks for favors is that you end up letting lots of other people know what you're up to. When you're involved in a clandestine operation, that could be exactly what you don't want. The only way to diminish this is to take your requests to trusted friends and ask them to keep quiet, but this diminishes the pool of people at your disposal.

In game terms, you can try to keep word of what you're doing quiet, but this makes it harder to get what you need. For every negative modifier you apply to your Rep Test, the same negative modifier applies to anyone making a Rep Test to acquire information about what you're up to.

Rep Tests

Favor	Modifier	Max Amount	Burn Cost	Timeframe
Trivial	+30*	Any time, no limits	—	Immediate
Minor	+10	3 per week	5 rep	2 hours
Moderate	+0	1 per week	10 rep	8 hours
Major	–30	1 per story arc/campaign	20 rep	24 hours

* No test necessary with a Rep of 60+.

REPUTATION & ID

It is important to note that reputation is closely tied to identity. If you are undercover and using a fake ID, you take the risk of giving yourself away if you call upon your normal Rep score. You can try to minimize this by using the rules for *Keeping Quiet* ▶above. However, if anyone is sniffing your mesh activity, you may be found out.

False identities come with their own rep scores, though these are minimal (usually 10). The low rep is usually explained away as you having only relatively recently re-instantiated or otherwise being new to that faction/network. You can build up the rep of your fake identity, which must be tracked separately. This may be considered a waste of effort, however, given that some alter egos are meant to be disposable.

Optional Rule: GMs can allow GP to be spent on improving the rep of a new fake ID. Every GP spent increases one rep score by 5.

FAVORS

Creative players can undoubtedly come up with many uses for their social networks, but a few of the more common are detailed here.

While it can be easy to handle rep favors as a quick dice roll, GMs are encouraged to roleplay them out. Though social network interactions are often transacted online, either by messaging, vid calls, or VR meets, they sometimes end up resolved in-person. Regular use of a social network, especially for related inquiries, may have you dealing with the same NPCs repeatedly, perhaps recruiting them as a contact ▶73 over time.

Acquire/Unload Goods

Social networks are a good way to find items that you can't buy legally or make at home. In outer system autonomist areas, they are the medium for gaining access to a habitat's community resources. Follow the rules for *Acquiring Gear* ▶312 when using your rep this way.

Sometimes you may be looking to rid yourself of equipment or valuables. In this case, a Rep Test can be used to trade in goods for an equivalent favor, or a favor one step lower, down the line.

GMs must use their discretion here, keeping in mind that in the profit-motivated inner system, trade-in value is lower than actual cost. For example, fencing Moderate complexity gear can get you an extra Minor favor. In the outer system, however, exchanges are more equal. Alternatively, contributing gear back to the general habitat community resources may get you a small rep score bump.

Acquire Services

When you lack the skills or education you need, or you just need another set of arms, you can call out to your social network to find someone to help you out. If you are looking for someone with a particular skill, the result of your successful Rep Test roll is the skill rating of the person you find. The higher your Rep, the better able you are to find highly skilled professionals.

Example Services

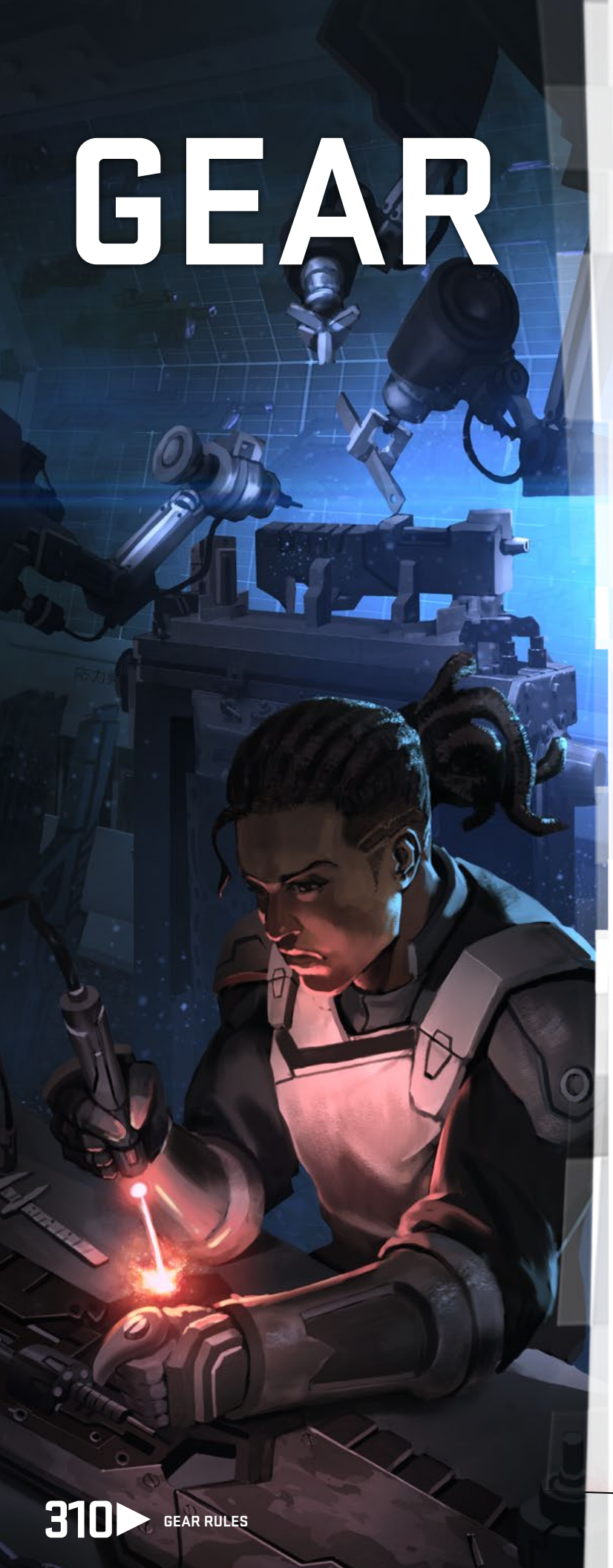
- **Minor Favor:** Act as a lookout, borrow a vehicle for a few hours, legal advice, make a backup, provide an alibi, use a healing vat for an hour, services for an hour.
- **Moderate Favor:** Egocasting, intimidation, psychosurgery, sabotage, short shuttle trip, smuggle something, services for a day.
- **Major Favor:** Borrow a shuttle, espionage, getaway pilot, kill someone, legal representation, resleeving, services for a week.

Acquire Information

When you can't find the information online or you don't have the time or capability to look, you can turn to people in your social network and tap their accumulated knowledge base. This type of sleuthing is especially useful for information that is less likely to be codified or public online: gossip, people's personal history, confidential data, suppressed news, and so on. You can also use this type of favor to find out what favors others are asking for, though modifiers may apply if they are covering their tracks *Keeping Quiet* ▶308.

Example Information

- **Minor Favor:** Black market location, gatecrashing logs, gossip, hypercorp directory, known research, local cartel, public data.
- **Moderate Favor:** Cartel members, confidential data, hangouts, internal hypercorp news, new research, secret relationships.
- **Major Favor:** Blackmail, illegal operations, safehouse location, secret facilities/projects, undercover cop identity.



GEAR

GEAR RULES

In the technological future, having the right gear is a necessity.

GEAR DESIGN

The procedures of minifacturing and nanofabrication allow individual items to be manufactured with a unique (or at least different) look. In theory, this means few items should have a uniform, mass-produced look; in reality, most people go with the basics. Most equipment is designed with ergonomics and ease-of-use in mind, meaning that "blobject" looks — soft curves and form-fitting shapes — are common. Ovoids that fit comfortably in the hand are favored, as are shapes that can be easily worn or attached to clothing. Ambidextrous designs are the norm. Most gear is also designed with zero-g or microgravity functionality in mind, and can easily be clipped, tethered, or stuck to a surface with grip pads. The materials used to create everyday items are also advanced, ranging from aerogel and fullerenes to smart materials and exotic metamaterials with unusual physical properties (*Future Materials* ▶233).

Exotic Morphs: Most things can also be fabricated using designs that are wearable/usable by uplifts, non-humanoid morphs, and sleeves with unusual limbs or morphology. If you are stuck using gear that doesn't fit your particular morphology, expect an impairment modifier between –10 and –30 — or you may not even be able to use it at all (GM discretion).

GEAR COMPLEXITY

Each gear item in *Eclipse Phase* lists a complexity rating:

- **Minor [Min]:** Common, simple items that are accessible and easy to nanofabricate. Most are readily available online or at physical stores/community dispensaries.
- **Moderate [Mod]:** Less common items that take effort to track down and more intricate items that require longer to nanofabricate.
- **Major [Maj]:** Uncommon, expensive, and hard-to-find items or complex gear that takes substantial time to manufacture.
- **Rare [Rare]:** Unique, unusual, or highly valuable items may not be available or may require an extra expenditure of Rep/Resources or the acquisition of certain unusual feedstock for nanofab purposes.

Each gear item uses the same complexity rating, whether it is purchased, acquired from contacts, or nanofabricated. GMs can alter the complexity depending on the source if they choose.

Additionally, some gear items are classified as Restricted.

- **Restricted [R]:** Restricted gear is illegal in many inner system/transitional economy habitats and possibly disfavored by the local community in outer system habs. To acquire this gear, you need to find a way to circumvent various legality and supply issues.

GEAR MODIFIERS

Most equipment provides no bonuses, it simply allows you to perform a task you would otherwise be unable to do. For example, it is impossible to pick a mechanical lock without a lockpick.

In some cases, however, gear provides a bonus to the task at hand. Climbing a wall is a lot easier if you happen to have grip pads or other climbing gear. The specific modifier applied is noted in the item's description, ranging from +10 to +30. In most cases, gear modifiers are cumulative, but GMs should exercise common sense, especially with items with duplicate effects.

GEAR QUALITY

Not all gear is made the same. Tools can be well-crafted, state-of-the-art, or top-of-the-line, applying an additional +10 to +30 modifier. Or they can be outdated, shoddy, or in disrepair, inflicting a –10 to –30 modifier (in some cases canceling out the gear's other modifiers).

Gear acquired through normal channels (Resources, rep, or nanofab) is assumed to be of average quality. GMs should use gear quality modifiers for special-case items, plot hooks, or the result of superior/criticals rolls. If characters are attempting to acquire gear of higher quality, increase the complexity one step for every +10 modifier (i.e., a Minor complexity item would be treated as Moderate at +10 and Major at +20). Gear quality will reduce over time through use and circumstances.

GEAR SIZE

Matters of size, mass, and encumbrance are left to the GM's common sense. Remember that the technology level of *Eclipse Phase* means many items are smaller and lighter. GMs should apply impairment and movement modifiers of –10 to –30 to characters who are overloaded. Remember that characters in low or microgravity environments can carry and move much larger loads, though bulkiness and inertia remain an issue.

Gear uses the same sizing as morphs (*Sizes* ▶227); all relevant rules and modifiers apply. A few other considerations are noted here:

- Nano-sized items cannot be seen without a microscope or nanoscopic vision ▶318 and cannot be manipulated without fractal digits ▶324 or similar tools.
- Very small objects have the Concealable trait.
- Some small/medium gear has the Long and/or Two-Handed traits.

CONCEALING GEAR

To hide an object from others, use Infiltrate or Exotic Skill: Sleight of Hand skill. This is opposed by Perceive. Objects with the Concealable trait add a +30 modifier. If the searcher is conducting a thorough physical search, treat as a task action and apply a modifier if they take extra time ▶32.

MESHED GEAR

Most technology is wirelessly meshed with other devices around it (*The Mesh* ▶240). They contain a miniaturized computer, a wireless transceiver, and possibly laser or microwave links and/or various sensors. They can be tracked via the mesh ▶256, and are vulnerable to hacking and intrusion attempts, though protected by their firewall ▶260 and device ALI ▶250. For privacy and security, most people slave their carried and worn devices that make up their personal area network (PAN) to their mesh inserts or ecto (*Slaved Devices* ▶241).

The Radio and Sensor Ranges table notes what range these devices operate at.

INTERFACES

Common devices often have no visible controls — it is assumed the operator will interface with the device using augmented reality. This means that so-called "zeros" without ectos or mesh inserts may not be able to interact with or use them. It is trivial to add holographic or voice-operated control interfaces to most designs, however, and items crafted for emergency, combat, survival, or exploration situations will feature basic physical controls, just in case.

Almost all devices are loaded with a complete set of help files and tutorials. Most are also equipped with specialized ALIs ▶250 that can assist you or operate the device on your behalf.

POWER

Powered devices in *Eclipse Phase* require electricity to function, relying on solar cells, wireless energy transfers, or powerful batteries. Standard batteries are high-density, room-temperature superconductors with 25 times the capacity of the best batteries in common use in the early 21st Century. Such batteries can be flexible, printed on devices, or woven into fabric. They are good for 100–500 hours of use and will alert the user when they run low. More powerful radio-isotope nuclear batteries are also available, heavily shielded so they do not emit radiation, and good for 3 years or more of use. Nuclear and standard batteries are often included together, with the former recharging the latter. Wireless energy transmitters are common in habitats and spacecraft, automatically charging nearby devices.

In short, power should rarely be an issue in *Eclipse Phase* games, unless it happens to fit the plot. Power failure is an option for critical failure rolls.

WARE

Ware is a catch-all category for augmentations of different kinds:

- **Bioware (B)** includes genetic modifications, nanosurgical tissue alterations, and implantation of bio-engineered organs. It is only available for biomorphs (including pods and uplifts). Because of its organic nature, bioware is hard to detect in scans; genetic testing or other bio-sampling is required. Use Medicine: Biotech to diagnose, implant, or repair.
- **Cyberware (C)** is synthetic devices either implanted within a biological body or "grown" within using nanobots. It is only available for biomorphs (including pods and uplifts). Cyberware is detectable with x-ray and radar scans. It can also be hacked like other electronics. Use Medicine: Biotech to implant, Hardware: Electronics to repair the ware itself.
- **Hardware (H)** includes add-ons to synthetic shells. It is only available for synthmorphs, bots, and vehicles. It can be hacked. Use Hardware: Robotics or an appropriate field for vehicles to install, diagnose, and repair. Many non-ware gear items can be mounted on or incorporated into a shell's frame as hardware (GM discretion).
- **Meshware (M)** refers to plug-in apps that enhance infomorphs. These may also be installed with cyberbrains. They are vulnerable to mesh combat. Use Program to install, diagnose, or repair.
- **Nanoware (N)** refers to internal nanobot systems active within a body or shell. Nanoware includes an implanted hive that maintains and refreshes the nanobots. It is available for morphs of all types. Nanoware hives are detectable like cyberware, but the bots are only detectable with nanodetectors or detailed biological sampling. Nanoware can be hacked like other electronics. Use Medicine: Biotech or Hardware: Robotics to implant/repair.

Unless otherwise noted, each ware item can only be installed in the same morph once, no matter if it is available in different forms.

ACQUIRING GEAR

Rather than detailed shopping expeditions, *Eclipse Phase* offers several options for handling gear.

- During character creation, you receive two gear packs ▶68 based on the type of campaign and the profession you chose. This represents your starting gear.
- When new missions arise, the GM assigns Gear Points you use to pick and choose equipment you need, based on the mission's available resources.
- During the mission itself, you can acquire needed gear on the fly using Resources trait, rep favors, or nanofabricating it yourself.

MISSIONS AND GEAR POINTS

Gear Points (GP) work similarly to Morph Points ▶290 — the GM provides a set number of GP to each character for each mission, which can then be used to acquire gear. The GP value of gear is based on its complexity, as noted on the Gear Point Value table.

Mission Gear Points are an abstraction based upon the assets available to the team for that particular mission. This is particularly relevant to scenarios where the PCs must egocast in, and thus cannot bring their gear with them. There are several factors the GM must consider here. Is the team relying on their own resources, or do they have an organization or patron that is backing the operation? Do they have time to prep and assemble what they need, or are they operating on an urgent timeframe? Is the type of equipment they need abundant and easy to get wherever they are going, or is it heavily controlled and restricted?

We recommend assigning 20 GP for each mission. GMs should raise or lower this as they see fit for the situation. Are the PCs rushed or on their own? Reduce the GP to 15 or 10. Are they backed by an oligarch or have plenty of lead time? Increase the GP to 25 or 30. Is their mission in the same location as their last, meaning they just need to replenish a few things? Give them 2 or 4.

Each of the gear packs detailed in Gear Packs ▶68 is built with 10 GP, so the default 20 GP is equal to two gear packs. As with character creation, gear packs may be acquired whole or you can switch items out for equipment of a similar complexity.

GMs can also restrict the type of gear that can be acquired with GP. Are the PCs entering a police state polity? Then no GP can be spent on weapons or anything Restricted. Are they egocasting to a remote brinker outpost? They can only spend GP on Minor complexity items. Are they entering a bioconservative habitat? No spending GP on ALIs, smart animals, or nanotech.

With the GM's approval, PCs can pool their GP and share with each other.

GP should only be spent in the early prep phase of each mission. Unspent GP is lost; it cannot be banked up. If you need to acquire gear during an op, use the rules for acquiring gear during missions.

Ware: Note that cyberware, bioware, nanoware, etc., can be bought with either Morph Points or Gear Points.

Gear Point Value

Gear Complexity	Gear Point Cost
Minor	1
Moderate	2
Major	3
Rare	5+

Increasing GP

There are two ways to increase your available GP:

- **Resources Trait:** If you have the Resources trait, you may add your level in this trait to the amount of GP you acquire (i.e., Resources Level 2 gets you +2 GP). Resources may be of no use in some areas, however, particularly autonomist habitats that decry money, exoplanets, and other remote isolated outposts.
- **Rep Favors:** You can expend rep favors to acquire gear. A minor favor gets you 1 GP, a moderate favor gets you 2 GP, and a major favor gets you 3 GP. No test is required, but you must have a rep score of at least 40 in a network applicable to the situation. A researcher's r-rep is unlikely to help you on a bioconservative hab, for example. Rep used this way counts towards the rep favors available to you on your first week on the mission.

ACQUIRING GEAR DURING MISSIONS

No mission survives contact with the enemy, and no logistics plan can anticipate everything. Eventually, your PCs will need to acquire gear while they are in the middle of an op:

- **Use Rep:** Succeed in a Rep Test and use an appropriate favor. The favor is Minor for Minor complexity items, Moderate for Moderate items, and Major for Major items (*Networking* ▶308).
- **Use Resources Trait:** Spend currency to buy it (*Resources* ▶75).
- **Use a Nanofabricator:** Make it yourself. This requires blueprints (or Program skill to DIY) and access to a capable nanofabber (*Nanofabrication* ▶314).

Acquisition Timeframe

If the test (if any) is successful, you acquire/purchase/make the gear once the appropriate timeframe passes:

Physical vs. Blueprints

When using rep or Resources to acquire gear, you choose between a physical item or a single-use blueprint accessed via a digital distribution platform (*Getting Blueprints* ▶314). Single-use blueprints have a much quicker timeframe (1 minute). If the GM allows it, you may acquire a limited-use blueprint instead of single-use. Multi-use blueprints are also available, but are harder to get; increase the complexity by one step (i.e., Minor becomes Moderate). For simplicity, multi-use blueprints are assumed to come with one physical copy of the item.

When acquiring software or similar digital-only goods, the 1-minute timeframe also applies.

Acquisition Time

Complexity	Timeframe
(Digital Only)	1 minute
Minor	2 hours
Moderate	8 hours
Major	24 hours
Rare/Restricted	GM Choice

DON'T SWEAT THE GEAR ...

The rules provided for acquiring gear assume the PCs are operating on a schedule, the gear may have an impact on their success/failure, and/or that the GM needs to rein in the amount of gear they are accumulating. For situations where the PCs are unhurried and/or only pursuing gear in moderation, or the gear is incidental, handwave the tests and timeframes involved (while still noting rep favors used) and assume the PCs get what they need at the next pause in the story. In other words, don't let the book-keeping involved with gear shopping be a drag on gameplay or distract from the plot.

... BUT DON'T LET IT TAKE OVER

In fitting with the limited scarcity nature of the setting, *Eclipse Phase* does not put a lot of limitations on acquiring gear. Some players may see this as an opportunity to load up on overwhelming amounts of gadgets. While it can be useful to have gear on hand for every contingency, it's important to keep this under control. GMs have many options for applying limitations as needed: social pressures (others get annoyed when you hog the public fabbers, hoard habitat assets, or constantly pester them for gear), strict scenario timeframes (no time to fab, gotta rescue the hab!), and unwanted attention (security takes an interest in people hauling loads of tech, thieves are keen on pilfering stockpiles). The point, of course, is not to punish players, but to enforce the realism and logistical restraints that rules can not always emulate.

Multiple Gear Items at Once

If PCs seek to get their hands on multiple items at once, simply combine the timeframes. If using rep for multiple items, make a single Rep Test (modified as per the highest level favor) but mark off all of the favors used. Note that if you are nanofabricating multiple items and have access to multiple fabbers, you can reduce the timeframe accordingly.

Impeding Factors

GMs should always keep the local situation in mind when PCs acquire gear. Some physical gear is not accessible on small or isolated habitats. Or it may be available from a nearby habitat, but it will take a day or two to be shipped over. Even digital goods can be hard to acquire via the mesh thanks to light-speed lag, communication disruption due to solar flares, or the local polity's censorship filters. GMs have final say on what gear is available and when.

OTHER GEAR CONSIDERATIONS

There are several additional factors GMs should keep in mind when assigning Gear Points and handling equipment during missions.

Ongoing Locations/Campaigns

The mission Gear Point system is ideal for episodic styles of play and PCs who egocast around. For longer campaigns, particularly ones where the PCs stick around the same location, restocking all of the gear is not as necessary. In situations like this, it is better to use the rules for acquiring gear during missions, perhaps assigning a small amount of GP to characters that pursue new equipment during downtime.

When and where?

While this system makes gear acquisition an abstract process, it can still be incorporated into the story. It may also be important to know exactly how, when, and where you get your hands on your new toys. If you egocast to a new hab, you might have an agent waiting for you at the body bank, or you may have to wait a few days for a meeting with a local fixer to pick up the goods. Firewall may have given you the details on a secret scratch-space cache, but it's located in a part of the habitat now run by a gang that hates outsiders. Or maybe your patron expects a show of loyalty before they follow through, or perhaps the local anarchists don't trust you enough to share all their resources right away. Maybe a rival group knows you are coming, and decides to ambush you before you're equipped or breaks into your supply cache. While GMs and players can decide on the logistical elements together, this is also a good opportunity for roleplaying, introducing new NPCs, or throwing in some surprises.

Blueprint Libraries

As noted in (*Gear Packs* ▶68), the equipment you start with includes a multi-use blueprint for that item, in case you want to nanofabricate it again. This is not necessarily the case with gear you acquire with GP, unless you splurge for the multi-use blueprint at a higher complexity. However, it is likely that you will accumulate a small library of multi-use blueprints over the course of many missions. Thrifty players will note these in order to take advantage of them later. This is acceptable, but GMs should keep in mind that good intentions do not always work out as intended over time. Files might get lost, stolen, corrupted, or misplaced. PCs who wish to resurrect long-forgotten blueprints in a moment of need may have to make an Interface or Research Test to find them. Alternatively, a Flex point can be spent to recall where that print was cleverly stashed away.

After the Mission

Take a moment to address what happens to the gear when the mission is over — or at least the gear that is still left intact. If the PCs stick around, they will likely want to hang on to it. However, some people may come looking for equipment that was borrowed or acquired via questionable means. If the PCs are egocasting away, they have the choice of stashing it, destroying it, selling it, or giving it someone else. Apps, of course, can go with you, and some service subscriptions may last you through the next mission. Firewall maintains scratch-space caches in many habitats for holding on to gear that may be useful in the future, and other clandestine groups do the same. If the PCs take the time to sell their gear or pass it on to others (thus gaining some credits or rep), keep this in mind when assigning GP for the next mission. Then again, if they came out of the scenario with less resources than they went in with, perhaps the leftover gear just helps to pay off accumulated debts and favors owed.

NANOFABRICATION

If you have a nanofabricator and either blueprints or Program skill, you can make things from scratch. Nanofabricators come in several sizes, some with specialized functions (*Nanotech* ▶342). The only other things you need are raw materials and time. Living things such as smart animals and non-tangible goods such as apps cannot be nanofabricated.

RAW MATERIALS

Raw materials are generally easy to acquire, as most nanofabricators are equipped with disassembler units that will break down just about anything into its constituent molecules. Feedstock is also easily/cheaply available in most habitats, either in bulk blocks or via utility feedline pipes direct to residential units. Many habitats route their recycling and waste products directly into disassemblers.

At the GM's discretion, certain nanofab designs may require hard-to-get rare materials. This is especially true of explosives, ammunition, sensors, and some scientific gear and electronics. This could include rare heavy metals (platinum, tungsten, depleted uranium), uncommon radioisotopes, fissionables, or antimatter. Any print job that requires massive amounts of a particular material (notably water) can also be difficult, given the sometimes limited supplies. Acquiring rare materials might require a major favor or Resources expenditure — or could be an adventure unto itself.

BLUEPRINTS

In order to print something on a nanofabricator, you need a blueprint. Most have a small inventory of essential items. Others may have blueprints in storage, but locked to specific users (these can be hacked per standard Infosec intrusion tests).

Getting Blueprints

Nanofab blueprints come in three forms: single use, multi use, and open source,

Single-Use Blueprints: Most single-use blueprints are accessed via a digital distribution platforms which use digital rights management (DRM) to protect copyright. This means you can access the file to print it once, but it cannot be copied or printed again. If you need a file you can print without mesh access, some single-use blueprints are available as downloadable digital files that block efforts to copy them and erase themselves after use. The inner-system hypercorps and capitalist economies use these methods to control scarcity and keep you dependent.

Single-use blueprints are acquired with GP, rep, or Resources trait, using the item's complexity.

Limited-Use Blueprints: A few hypercorps and transitional economies allow limited licenses. These work the same as single-use blueprints, except that if you recycle the item by disassembling it in a licensed fabber, you receive a credit which you can then use to print the item again. This is ideal for those who egocast often but wish to bring their gear with them.

Multi-Use Blueprints: A multi-use blueprint is more akin to purchasing a personal license. You can print the item repeatedly and copy the blueprint, but it is keyed to your ID. These are also acquired via GP, rep, or Resources trait. For a non-erasing, re-usable, multi-use blueprint, increase the complexity by one step (Minor becomes Moderate, Moderate becomes Major). Multi-use blueprints for Major complexity items are rare and largely unavailable.

Open-Source Blueprints: In autonomist regions and many other areas, some blueprints are freely available from open-source libraries. These blueprints are re-usable, can be copied, and do not require your authenticated ID to use. A Research Test (using the Rep Modifiers on the Rep Tests table ▶308) or (@-rep, i-rep, r-rep, or x-rep) favor equal to the item's complexity plus one step will get you an open-source blueprint, even for things like weapons and drugs.

The drawback is that open-source prints are sometimes less reliable, more experimental, or carry hidden malware payloads. Every open-source blueprint acquired via Research (not rep) has a 20% chance of being unreliable: a –10 to –30 modifier, unexpected bugs, dangerous malware, etc. These blueprints are also illegal in certain inner-system polities (many are cracked proprietary designs) and may not work on inner-system fabbers.

Restricted Items

Blueprints for Restricted items cannot be legally purchased using Resources (though they can be purchased illegally …). Likewise, most inner-system nanofabricators will not print blueprints that are restricted or not properly licensed, though they can be hacked to do so.

Writing Blueprints

If you don't have a blueprint, you can make one. This requires two skill tests. The first is a skill test appropriate to the item type: Hardware: Electronics for personal electronics, Medicine: Pharmacology for a drug, Medicine: Biotech for bioware, etc. If successful, this provides the knowledge needed for the design. Note that programmers can collaborate with others who have the necessary skills, including their muse or an ALI. Following this, you need a Program Test to actually code it.

Both of these tests together constitute a single task action. The timeframe is the same as acquiring gear ▶312, but in months instead of hours (2 months for Minor, 8 months for Moderate, 24 months for Major). Most programmers use forks and time-accelerated simulspaces to speed the process, however, so a subjective week of programming can be done in about an hour of real time. Only superior results from the Program Test reduce the timeframe.

Cracking Blueprints

The digital restrictions that prevent single- and multi-use blueprints from being shared can be defeated, given enough time. This requires a Program Test task action with a timeframe of 6 months (or 3 days in a time-accelerated VR). If you succeed, the blueprint can be re-used and copied freely.

PRINTING TESTS

Printing an item with a blueprint does *not* require a test in most circumstances — the blueprint is enough, the nanofabber does the rest. The exceptions are print jobs that are exotic, complicated, or have limited feedstock or incomplete or suspect blueprints. In those cases, a Program Test is in order. Note that most nanofabbers have a built-in ALI with a Program 30 (Nanofabrication 40) skill.

Once the raw materials and blueprints are in, nanofabrication is simply a matter of time. The printing time is based on the item's complexity, the same as acquiring gear (2 hours for Minor, 8 Moderate, 24 Major). GMs may feel free to modify this period as appropriate for the object.

SERVICES

Credit and mutual aid can get you many things in *Eclipse Phase*.

MESH SERVICES

These software services are available as a per-month subscription from cloud-based servers. All apps are also available as mesh services.

Anonymizer: You have an account with an anonymizing proxy service that masks your Mesh ID ▶246.

Archive: Each archive has a different focus (as Know skill fields). Using a relevant archive provides a +10 modifier to Research Tests involving that subject.

Data Broker: Both corporate marketers and black market cartels peddle people's private data. Each broker focuses on a particular demographic, such as a city or profession. Apply a +10 modifier to relevant Research Tests.

Private Sensor Feed: Each private sensor feed covers an area equivalent to a neighborhood or small habitat. Using it provides a +10 bonus to Perceive Tests when surveiling that area.

Private Server Partition: Home space for an infomorph on a protected cloud server.

Private Server: Capable of running simulspace and 50 infomorphs.

Simulspace: You have access to a virtual game environment, private meeting space, interactive media service, unreal vacation library, or other simulspace environment.

PHYSICAL SERVICES

These services are available on some habitats.

Bot/Vehicle Rental: In some locations, bots and vehicles can be rented on a weekly basis, though you are liable for damages/replacement. The GM determines availability.

Dead Zone Map: This map shows areas in a neighborhood or small habitat that lack public and/or private surveillance coverage.

Egocasting: This is the use of a ship or habitat's farcaster to transmit an ego/infomorph. Farcasting is not cheap, and the cost is impacted by factors such as distance to receiver station and priority service (paying extra to get bumped ahead in line).

Fake Ego ID: This forged ID will pass in most inner system and Jovian Republic habitats, and sometimes others. It gives you a rep score in one network with that ID at 10.

Healing Service: A day in a healing vat can be used for wound recovery or elective surgery (*Healing & Repair* ▶221).

License: You acquire a license to carry a weapon or perform some other restricted activity. Requires an ID/background check.

Morph Storage: Your biomorph is kept on ice for a week or your synthmorph securely stored, without being rented out to others.

Privacy Suite: Per hour privacy suite services are offered by many restaurants, night clubs, hotels, and similar businesses who frequently have clientèle that desire a private space for meetings or other functions.

Professional Service: You may need to seek the services of a skilled professional. This can include anything from weapons repair, bodyguarding, or scientific analysis to ripping a surveillance dead zone or hacking a database.

Psychosurgery: An hour long (subjectively longer with time acceleration) psychosurgery session in an immersive high-fidelity simulspace can help you recover from mental stress and trauma (*Mental Healing & Psychosurgery* ▶223).

Recovery Bond: In the event of your death or disappearance, an agent of the insurer will personally seek to recover your cortical stack using all safe and legal methods at their disposal. This includes negotiating with rival polities, paying ransoms, sponsoring search teams, etc.

Recovery Bond (Hazardous): As a regular bond, except that a team of agents will seek out your stack even against adverse and hostile conditions, including infiltrating war zones and running rescue ops on unknown exoplanets. This may include stealing the stack back from hostile parties.

Space Travel: Space transport cost depends on a number of factors like distance, quality of lodgings, and how much cargo you're bringing with. At the low end, an intra-habitat shuttle trip within the same cluster, or a trip to or from a planetary body's surface and orbit, is not cheap but affordable. Just about anything else is progressively more costly.

MESH SERVICES	Complexity/GP	Description
Anonymizer	Min/1	Masks your mesh ID.
Archive	Min/1	+10 Research Tests related to one Know skill.
Data Broker	Min/1	+10 Research Tests.
Private Sensor Feed	Min/1	+10 Perceive for that area.
Private Server Partition	Min/1	Private space on a cloud server.
Private Server	Min/1 or Mod/2	Private server, self-administrated (Min) or managed by others (Mod).
Simulspace	Min/1	Access to a VR space.

PHYSICAL SERVICES	Complexity/GP	Description
Bot/Vehicle Rental	Min/1	Rent a bot for 1 week.
Dead Zone Map	Min/1	Map of areas lacking surveillance coverage.
Egocasting	Mod+/2+	Transmit your ego to another location.
Fake Ego ID	Maj/R/3	Forged ID.
Healing Service	Min/1	A day in a healing vat.
License	Mod/R/2	License to perform a restricted activity.
Morph Storage	Min/1	Store an unused morph for 1 week.
Privacy Suite	Min/1	Use of a surveillance-free room for 1 hour.
Professional Service	Mod+/2+	Help from a skilled professional.
Psychosurgery	Min/1	Psychosurgical therapy for 1 hour.
Recovery Bond	Maj/3	An agent will seek to recover your stack via safe/legal means.
Recovery Bond (Hazardous)	Rare/—	A team will seek to retrieve your stack despite threats/legalities.
Space Travel	Mod+/2+	Transport on a spacecraft.

COMMON TECH & WARE

The following equipment is ubiquitous throughout the Solar System.

STANDARD AUGMENTATIONS

Most morphs include the following augmentations.

Access Jacks: Usually placed at the base of the skull, this external socket allows a direct neural interface with a cyberbrain or mesh inserts. A retractable fiberoptic cable enables you to plug into devices to access them directly, or to create a direct wired link to another person, allowing you to speak mind-to-mind and exchange data without fear of wireless sniffing. Access jacks are installed with all cyberbrains (and thus all pods and synthmorphs) by default.

Biomods: These genetic tweaks and tailored viruses and bacteria provide many of the health benefits of being transhuman. With it, you heal faster and regenerate lost body parts over time. You are immune to aging and most diseases, from cancer to the flu. You require only 4 hours of sleep a night. You can trigger contraception at will. You also do not suffer shock reactions after being injured or the negative effects from long-term exposure to low or zero gravity. You are also ambidextrous and can use left and right limbs equally well. These mods are universal to most biomorphs; some habitats will not allow biomorphs without them, considering them a threat to public health.

Cortical Stack: This diamond memory module is implanted at the base of the skull, where the brain stem and spinal cord connect (or in similar locations on synthmorphs). It is linked to a neural lace network of nanobots saturating the brain that monitor synaptic connections, brain architecture, and chemical levels. It effectively takes a snapshot of your brain every second, making a digital backup of your ego, right up until the moment you die. It also backs up your muse. If you are killed, this stack can be used to retrieve a backup of your ego ▶287 so that you can be re-instantiated. Cortical stacks do not have external or wireless access (for security purposes), they must be surgically removed.

Cyberbrain: Cyberbrains are specialized hardware for running virtual mind-states, allowing an ego or ALI to control a pod or synthmorph. Modeled on biological brains, cyberbrains have a holistic architecture and serve as the command node and central processing point for sensory input and decision-making. As hosts, only one infomorph can inhabit a cyberbrain at a time. Any ego within a cyberbrain can move or copy itself as an infomorph to another device. By default, your ego will manifest in a digimorph ▶67, unless you have another type of infomorph available. Cyberbrains are vulnerable to hacking (*Mindware Hacking* ▶266). All cyberbrains are equipped with access jacks, mnemonics, and a puppet sock for remote control, at no additional cost.

Mesh Inserts: This network of implants is mandatory for people who want to use augmented reality and link wirelessly to the mesh. The various components include:

- **Cranial Computer:** This host serves as the hub for your personal area network and is home to your muse. It manages your augmented reality input and processes XP data, enabling you to share your sensorium with others in real-time. It is loaded with basic apps and provides all the functions you would expect from a mobile device: file storage, search engine, media player, mesh browser, address book, e-mail, messaging, and so forth.
- **Medical/Diagnostic Sensors:** This array monitors your health, including heart rate, respiration, blood pressure, temperature, neural activity, ware status, and more. In synthmorphs, this system monitors system reports and error logs, heat, stress faults, and similar hardware statuses.
- **Radio Transceiver:** This connects your headware with other mesh devices within range (5 km urban areas/50 km open areas).
- You can access any of these functions simply by thinking.

Mnemonics: The electronic minds of cyberbrains and infomorphs mimic biological brains in how they store memories — as networked but scattered groups of neurons. Despite being computerized, their memory recall is not any more efficient than bio brains. Mnemonics systems, however, allow memories to be tagged and roughly indexed. This improves memory recall, though it remains far from perfect. Mnemonics applies a +20 modifier to COG Checks for memory recall. Mnemonic data can be transferred with an ego when it resleeves, but the modifier applies only for memories that were recorded when mnemonics ware is present. Mnemonics systems are included in all cyberbrains.

Puppet Sock: Puppet socks allow a morph to be remotely controlled, just like a drone (*Remote Operations* ▶346). While active, the puppet has no control over their body and is simply along for the ride. Too long in this situation can lead to stress from helplessness (*Stressful Situations* ▶229). Morphs with damage that reaches/exceeds their Durability cannot be puppeted.

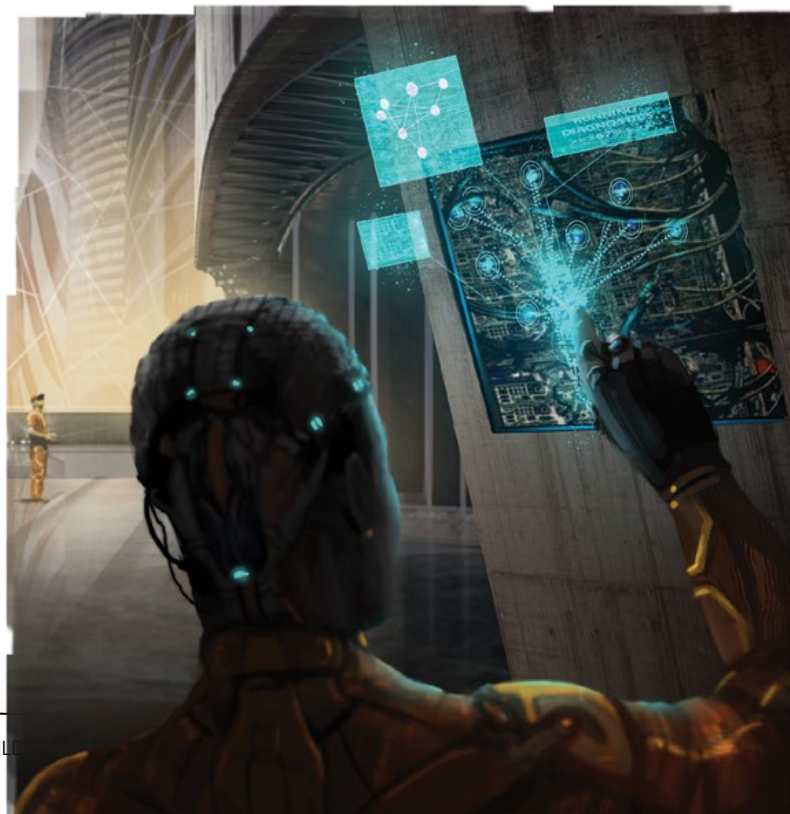
EVERYDAY TECHNOLOGY

These devices are easily available in almost all habitats.

Breather: Ideal for Mars and exoplanets where you need air but not a full vacsuit, breathers consist of a face masks and a backpack or side pouch unit. It converts carbon dioxide into breathable oxygen indefinitely. For environments without convertible CO_2 atmospheres (such as Titan), a small air tank provides 2 hours of breathable air.

Cold Suit: This layered set of waterproof clothing is designed for indefinitely surviving in the cold environment of Mars and similar exoplanets. It protects against temperatures as low as –100 C. The suit is partially pressurized for low-atmospheric pressure areas.

Ecto: Ectos are mobile devices equivalent to mesh inserts, minus the internal medical sensors, used by bioconservatives or the implant-averse. They are flexible, dirt-resistant, and self-cleaning.



They are often worn as bracelets or other adornments, and may be stretched out to increase screen size. They are coupled with wireless-enabled glasses, contact lenses, earpieces, and haptic gloves for experiencing augmented reality. Using an ecto applies a –10 modifier to mesh actions.

Grip Tape: Sticky nanotape can be used to adhere gear to any surface, which is then easily released by pulling in the right (perpendicular) direction.

Holographic Projector: This device can project high-definition, ultra-realistic three-dimensional images and movies. From a distance (20+ meters), such holograms are difficult to distinguish as fake, but up close they are easier to see for what they are (+20 Perceive Test modifier). Holograms do not appear in wavelengths other than visual light, and so are easily identified by anyone with enhanced vision.

Micrograv Shoes: These shoes are equipped with velcro and/or a magnetic system, allowing the wearer to walk normally on appropriate surfaces in micrograv and zero-g environments, rather than floating or bouncing.

Nuclear Battery: These micro-sized batteries generate power from radio-isotope decay, storing it for use. They can produce power for years or even decades. They are often used to recharge standard batteries.

Portable Sensor: This is a small portable (possibly even wearable) sensor system. The type of sensor must be chosen (for example: infrared, lidar, radar, x-ray). Combined sensor systems are also available, at a cumulative cost. See *Senses and Sensors* ▶318, and Radio and Sensor Ranges ▶337.

Smart Clothing: Made from smart materials, you can change the color/patterns of smart clothing immediately and the texture and cut in 1d6 minutes. When used for camouflage purposes, smart clothing applies a +10 modifier to Infiltrate Tests, +30 if you are completely covered (or using chameleon skin) and remain stationary. This camo does not apply against radar, x-ray, gamma-ray, or infrared heat sensors (including enhanced vision). You can also use smart clothing to stand out (+10 to +30 to Perceive you). Smart clothing keeps you comfortable in environments from –40 to 70 C.

Solar Charger: This small portable unit unfolds into highly efficient solar panels, useful for collecting sunlight and charging electronics or recharging batteries. It is common in gatecrashing and asteroid mining ops, though power output relies on proximity to the sun/star.

Specs: Specs are vision-enhancing glasses or goggles. They provide all of the benefits of enhanced vision ▶318 and include a t-ray emitter ▶318. They provide a +10 bonus to Perceive Tests.

Standard Battery: Batteries are micro-sized, high-density, ultra-capacity, rechargeable, room-temperature superconductors good for hundreds of hours of operation.

Tools: Tools come in kits (small, portable), shops (can fit into a large vehicle), and facilities (huge, non-mobile). Each set of tools applies to a particular skill, such as Hardware: Electronics or Medicine: Paramedic.

Utilitool: In its basic form, a utilitool is the size and shape of a large fountain pen. Made from smart materials, it can transform into almost any tool in 1d6 minutes, from a wrench, knife, or powered screwdriver to a rotary grinder or pair of pliers.

Viewers: Viewers are a long-range version of specs, akin to advanced binoculars. They provide 50x magnification and incorporate a directional microphone that magnifies sound from the direction you are facing by a factor of 50. Viewers are not useful at short ranges.

Wireless Energy Transmitter: When plugged into an energy source, this transmitter will transfer power to devices within 20 meters via near-field resonant inductive coupling. These are common in habitat areas, both public and private.

STANDARD AUGMENTATIONS	Ware Type	Complexity/GP	Description
Access Jacks	CH	Min/1	External sockets for direct interface with mesh inserts/cyberbrains.
Biomods	B	Min/1	Genetic tweaks for health, faster healing, immunities, and more.
Cortical Stack	CHN	Min/1	Memory diamond storage unit for ego backups.
Cyberbrain	CH	Maj/3	Synthetic brain, runs infomorph mind-state.
Mesh Inserts	CH	Min/1	Cranial computer, wireless transceiver, muse home, and medical sensors.
Mnemonics	CHM	Min/1	Enhanced memory; +20 memory-related COG checks.
Puppet Sock	CH	Mod/2	Allows morph to be remote controlled.

EVERYDAY TECH	Complexity/GP	Description
Breather	Min/1	Converts CO_2 into oxygen or provides 2 hours of air.
Cold Suit	Min/1	Protects against –100 C.
Ecto	Min/1	External version of mesh inserts, minus the internal medical sensors.
Grip Tape	Min/1	Sticky nanotape used to adhere gear to any surface.
Holographic Projector	Min/1	Projects 3D, HD, ultra-realistic images/video. +20 to Perceive as fake w/in 20 m.
Micrograv Shoes	Min/1	Shoes w/ velcro or magnetics to walk in micrograv.
Nuclear Battery	Min/1	Power from radio-isotope decay for years.
Portable Sensor	Mod/2	Portable/wearable sensor system of one type (lidar, radar, x-ray, etc.).
Smart Clothing	Min/1	Can change color, texture, and cut. +10 Infiltrate, +30 covered and stationary.
Solar Charger	Min/1	Portable unit unfolds into solar panels for (re)charging electronics/batteries.
Specs	Mod/2	Glasses/goggles that provide enhanced vision. +10 Perceive.
Standard Battery	Min/1	Rechargeable, good for hundreds of hours.
Tools (Kit)	Min/1	Portable, applies to specific skill.
Tools (Shop)	Mod/2	Fits into large vehicle, applies to specific skill.
Tools (Facility)	Maj/3	Non-mobile, applies to specific skill.
Utilitool	Min/1	All-purpose smart-material tool.
Viewers	Mod/2	Long-range version of specs. 50x magnification, directional microphone. +10 Perceive.
Wireless Energy Transmitter	Min/1	Charges devices within 20 m.

SENSORY AUGMENTATIONS

This ware improves your morph's sensory capabilities.

360° Vision: The morph's eyes/visual sensors are situated for a 360-degree field of vision.

Anti-Glare: This mod eliminates penalties for glare. If you have enhanced vision, this works for all wavelengths you can perceive.

Chem Sniffer: This sensor detects molecules in the air and analyzes their chemical composition, using Know: Chemistry 60. It can determine the presence of explosives, firearms, and gases — including toxins and other fumes.

Direction Sense: You acquire an innate sense of direction and distance using advanced inertial navigation. You can identify north, spinward, etc., keep track of that direction, and know approximately how far you've come. You receive a +10 modifier to navigation-based Survival Tests and other skills for figuring out complex directions, reading maps, remembering routes, and retracing paths you've taken. Since it is trivial to use the mesh for positioning, this augmentation is primarily used by gatecrashers.

Electrical Sense: You can sense electric fields. Within 5 meters, you can tell if a device is on or off and can detect the precise location of electrical wiring and power supplies behind a wall or inside a device.

Enhanced Hearing: The morph's ears can hear both higher and lower frequency sounds — the range of sounds they can hear is twice that of normal human ears (*Senses and Sensors* ▶318). Your hearing is also more sensitive, allowing you to hear sounds as if you are 5 times closer. Apply a +10 to hearing-based Perceive Tests.

Enhanced Smell: The morph's sense of smell is equal to that of a bloodhound. You can identify both chemicals and individuals by smell and can track people and chemically reactive objects by odor as long as the trail was made within the last several hours and has not been obscured. Apply a +10 to smell-based Perceive Tests. You can also gain a general sense of the emotions and health of biological characters within point-blank range (+10 to Kinesics Tests).

Enhanced Vision: The morph's eyes have tetrachromatic vision capable of exceptional color differentiation. These eyes can also see the electromagnetic spectrum from terahertz wave frequencies to gamma rays, enabling them to see a total of several dozen colors, instead of the seven ordinary human eyes can perceive (*Senses and Sensors* ▶318). In addition, these eyes have a variable focus equivalent to 5 power magnifiers or binoculars. You can also selectively filter what frequencies you perceive to avoid minor distractions on those wavelengths. This augmentation provides a +10 modifier to all Perceive Tests involving vision.

Lidar: This sensor scans the area with laser light and measures the reflections to judge range, speed, and image the target (*Senses and Sensors* ▶318). Lidar lasers are visible to enhanced vision, and are considered rude to continually emit in certain company.

Nanoscopic Vision: The shell's visual sensors can focus like a microscope, using advanced superlens techniques to beat the optical diffraction limit and image objects as small as a nanometer. This allows the character to view and analyze objects as small as blood cells and even individual nanobots. The synthmorph must stay steady to view objects at this scale, and the range is quite limited (less than a meter).

Oracles: This neural macrosensing processor helps you pay attention to sensory input you are not focusing on, alerting you to important things you might otherwise overlook. Oracles provide a +10 bonus to Perceive and negate the distraction modifier for Perceive Tests.

Polarization Vision: You can perceive polarized light, which reveals characteristics such as contrast and patterns. This allows you to negate modifiers for camouflage (such as from chameleon skin or smart clothes).

Radar: This sensor system bounces radio or microwaves off targets and measures the reflected waves to judge size, composition, and motion (*Senses and Sensors* ▶318).

Radiation Sense: You can sense the presence and approximate source of all forms of dangerous radiation, including neutrons, charged particles, and cosmic rays.

Sonar: You possess echolocation like a bat or dolphin. You bounce ultrasonic pulses off your surroundings and measure the echoes to build an image of the environment (*Senses and Sensors* ▶318). This augmentation works in both air and water, out to a range of 20 (air) or 100 (water) meters.

T-Ray Emitter: Mounted under the skin of the user's forehead, this implant generates low-powered beams of terahertz radiation (t-rays). Characters with enhanced vision can use reflected t-rays to see effectively see through walls and other materials (*Senses and Sensors* ▶318). This implant allows the user to see using reflected t-rays for 20 meters in a normal atmosphere and for 100 meters in vacuum.

SENSES AND SENSORS

Transhuman senses far exceed old human norms. Here's a breakdown of what capabilities these functions provide. The capabilities are typically the same whether it's a biological or technological sensor.

SENSORY DATABASES

Both technological sensors and enhanced biological senses may be correlated with recognition databases of scanned "signatures" that make it easier to identify whatever the user is sensing. These databases may be part of the implant, accessed online, or stored in your mesh inserts. For example, infrared sensors include pattern-matching algorithms incorporating the heat signatures of different animals and items. Apply a +10 modifier to relevant Perceive and Know Tests to identify objects or creatures.

ACTIVE vs. PASSIVE

An active scanner must actually emit its particular frequency and then measure the reflections; this means a similar sensor can detect it and home in on the emitting source. For example, a character with enhanced vision can literally see the terahertz radiation emitted by someone using an active terahertz sensor, much like someone with normal vision can see the light emitted by a flashlight.

A passive scanner simply scans frequencies that occur naturally — there is nothing to give the sensor away.

THE ELECTROMAGNETIC SPECTRUM

For rules purposes, *Eclipse Phase* breaks the EM spectrum down by wavelength and frequency into the following categories:

Radar (Radio/Microwave): Radar sensors work by actively emitting radio waves and microwaves and measuring them as they bounce off the target. Radar works best when detecting metallic objects, and is less effective (–20 modifier) against biomorphs and small items. Resolution is not high, however, so it can see shapes but not colors or fine details. It can be used to detect both speed and movement, can "see" through walls (as well as cloth, plastic, wood, masonry, composites, ceramics, and other materials, up to a cumulative Armor + DR of 200), and can detect cybernetic implants or concealed items (negates concealment modifiers). At close ranges (1–2 meters), it can detect pulse rate and respiration by measuring the motion of the chest cavity.

Terahertz: Terahertz sensors emit t-rays, measure the reflections, and compare them to a database of terahertz signatures that different items/materials have. The resolution is higher than radar, but with

slightly less detail than normal vision. Similar to radar, terahertz sensors can see through walls and other materials, but to a lesser extent (up to a cumulative Armor + DR of 150). T-rays occur naturally, but terahertz sensors normally require an emitter as they are absorbed by atmosphere (as well as water and metal). In space, however, an emitter would not be required. Passive terahertz scans within atmosphere have an effective range of 25 meters. T-rays do not penetrate skin (including synthetic mask), so are ineffective for locating implants in biomorphs.

Infrared: Near-infrared wavelengths are used for night vision, providing resolution and detail equivalent to regular vision under low-light conditions. Mid-long infrared is excellent for detecting heat sources (unobstructed by fog or smoke) and temperature differences (as small as 0.1 degree C), and such thermal imaging will sense the dissipating heat traces left by warm sources on colder ones, allowing you to see where someone was sitting, trace fading heat footprints, or see what buttons were recently pressed. Infrared also detects the blood flow in a biomorph's face, which can be useful in judging emotional states (+20 modifier to Kinesics Tests), and can spot sub-surface implants. Some normally white surfaces are reflective (mirrored) in infrared, potentially allowing an infrared viewer to see around corners or behind themselves. On the other hand, some glass is opaque to infrared light. Infrared is also useful for determining chemical composition (enabling Know: Chemistry Tests by sight alone). Many laser systems are visible in infrared. Infrared sensory input is passive.

Visible Light: The wavelengths that non-enhanced human eyes can perceive.

Ultraviolet: Some objects are fluorescent in ultraviolet light, including some animals, flowers, insects, urine, and minerals (which show up much better in ultraviolet than regular light). Some plants and animals have patterns that can only be seen in ultraviolet. Security systems sometimes use chemical dyes that only show up under ultraviolet to mark intruders for later identification. Forensic units make use of luminol to react with blood so that it fluoresces under ultraviolet light. Some glass is opaque at ultraviolet wavelengths.

X-Ray/Gamma-Ray: Backscatter imaging systems using x- and gamma-ray frequencies produce high-resolution three-dimensional images and are very useful for detecting concealed weapons and implants (negates concealment modifiers). Such imagers are very good at penetrating walls and metal (up to a cumulative Armor + DR of 300, at least at levels safe to transhumans). These sensors can, of course, also detect the presence of harmful radiation.

Lidar

Lidar technology makes use of lasers, actively bouncing light from the infrared through ultraviolet spectrum off a target and measuring the backscatter, fluorescence, and other properties. Similar to radar, but with much higher resolution, lidar is very useful for detecting atmospheric chemical properties and weather. Like radar, it can be used to measure a target's range and speed, or develop a three-dimensional image. One clever use of lidar is to precisely "map" the position of everything in a room (taking several turns of scanning) and then check that positioning later to see if anything has been moved.

Mesh Tomography

The wireless mesh signals emitted by ubiquitous motes and other devices blanket most habitat areas, penetrating walls and structures. By measuring the transmission and reception of radio signals in multiple devices around an area, you can map the area and detect motion within, with a resolution akin to radar. This requires coordination of multiple perimeter devices, whether allies or remotely accessed devices, and a successful Interface Test.

SOUNDWAVES

The transmission of vibrations through a medium, sound is broken down into infrasound (frequencies below standard human hearing), normal acoustic range, and ultrasound (frequencies above standard human hearing). Soundwaves do not propagate in vacuum.

Ultrasound: Ultrasound sonar operates much like radar, bouncing sound waves off a target and measuring the returning echoes. Ultrasound imaging is similarly low resolution, showing shapes and movement but no colors and few details unless measured closely (1–2 meters). Ultrasound is good for identifying a material's density, however, and can detect denser materials hidden beneath less dense ones. Many medical devices utilize ultrasound, and ultrasound sensors can also detect gas leaks, frictional motor noises, and similar mechanical emissions. Ultrasound sensors are typically unaffected by noise clutter from standard acoustic frequencies.

Infrasound: Infrasound travels much further than regular sound frequencies (hundreds of kilometers). Mechanical machinery, seismic disturbances, tornadoes, explosions, waterfalls, and certain weather phenomena create infrasound waves. Large animals such as elephants and whales use infrasound to communicate via the ground or water over large distances, though infrasound data transfer is too slow for complex communications.

COMBINED SENSOR SYSTEMS

When used together, these sensor technologies are potent. For example, the use of lidar, thermal imaging, and radar can provide a three-dimensional map of a building and everyone and everything inside.

SENSORY AUGMENTATIONS	Ware Type	Complexity/GP	Description
360° Vision	BCH	Min/1	See in all directions at once.
Anti-Glare	CH	Min/1	No glare penalties.
Chem Sniffer	CH	Mod/2	Detect gases, explosives, firearms, toxins. Know: Chemistry 60.
Direction Sense	BCH	Min/1	Innate sense of direction and distance. +10 navigation-based Survival Tests.
Electrical Sense	CH	Min/1	Sense electrical fields w/in 5 m.
Enhanced Hearing	BCH	Min/1	Hear higher and lower frequencies. +10 hearing-based Perceive.
Enhanced Smell	BCH	Min/1	+10 smell-based Perceive, +10 Kinesics with biomorphs point-blank.
Enhanced Vision	BCH	Mod/2	Tetrachromatic vision, wider frequency range, better focus. +10 vision Perceive.
Lidar	H	Min/1	Use reflected laser light to image and judge range and speed.
Nanoscopic Vision	H	Mod/2	View nanoscale objects and nanobots.
Oracles	CHM	Mod/2	+10 Perceive, negate distraction modifiers.
Polarization Vision	BCH	Min/1	See polarized light, ignore camo modifiers.
Radar	H	Min/1	Motion detector, can also judge size and composition.
Radiation Sense	CH	Min/1	Detect radiation sources.
Sonar	BCH	Min/1	Sonar, range 20 m air/100 m water.
T-Ray Emitter	CH	Min/1	Use enhanced vision to see through materials.

MENTAL AUGMENTATIONS

Most headware augmentations enhance the brain and mental functions.

Cybercortex: Designed for smart animals, this artificial cortex aid increases the creature's ability to learn, comprehend instructions, and reason. It also overrides some instinctive behaviors that would be undesirable in a service animal. Apply a +10 modifier to Exotic Skill: Animal Handling Tests made against this creature, and apply a +10 modifier for COG Checks to understand commands.

Data Module: This is an encrypted data storage device, used for carrying confidential information that shouldn't be mesh-transmitted. You may install multiple modules.

Dead Switch: Dead switches are designed to keep cortical stacks ▶316 from falling into the wrong hands. If your morph is killed or the switch is remotely activated, it wipes and melts your cortical stack completely, so that your ego cannot be recovered. This option is generally only used by covert operatives with recent backups.

Drone Rig: This simsense augmentation gives you better control when jamming drones (*Remote Operations* ▶346). You ignore the –10 modifier for jamming.

Emergency Farcaster: Similar to a remote backup link (and often installed along with one), emergency farcasters are designed for situations when a remote backup cannot be ensured. This augmentation features a single-use emergency neutrino broadcaster ▶336 powered by 10 nanograms of antimatter, stored in a small magnetic containment vessel. In the event your morph is killed/destroyed, or you intentionally activate the device, the antimatter is brought into contact with matter and detonated, powering a single brief and carefully coded neutrino pulse of your ego's most recent backup. In short, transmitting the backup makes your head explode and cooks your morph, destroying what's left of it. Your transmitted ego will be saved as long as the neutrino receiver is within 100 astronomical units. This practically guarantees your backup within the Solar System, but is less useful on exoplanets where you are out of neutrino range of your backup facility.

Ghostrider Module: This implant is a host for carrying another infomorph. This infomorph can be another muse, an ALI, a backed-up ego, or a fork. The module is linked to your mesh inserts, so the ghost-rider can mentally communicate with you, access the mesh, and connect to other parts of your PAN, depending on what access privileges you allow. You may install multiple modules.

Memory Lock: When activated, this implant prevents your sensory input from being stored in your long-term memory, tagged by mnemonics, or recorded/transmitted by your mesh inserts or other means. It also temporarily blocks cortical stack backups. You retain short-term memories, but for no more than a few minutes. This implant is often a requirement of personal aides, consultants, couriers, and underlings of powerful people who require confidentiality or deniability.

Mind Amp: Mind amp alters your neural architecture and augments neuronal functions. This accelerates your mental faculties and ability to receive and process sensory information. Time subjectively slows down for you, allowing you to discern things happening too quickly for others to perceive, such as the individual frames of an old analog film or an accelerated audio recording. Mind amp increases your Insight pool by 2.

Multiple Personalities: Your brain is intentionally partitioned to accommodate an extra personality. This multiplicity is not viewed as a disorder, but as a cognitive tool to help people deal with their hypercomplex environments. This extra personality can be a separate character (in ego form only), an NPC run by the GM, or the downloaded fork of another character. For all intents and purposes, the extra personality is treated as a separate ego (i.e., it may backup and fork separately), except that both personalities are backed up in the same cortical stack and if downloaded they must be placed in separate morphs or in another morph with this implant.

Only one ego can be in control of the morph at a time. The other resides in the background, still active, but not on a surface level. Subsumed egos may still act while the other is dominant, but can only take mental/mesh actions. Each ego is completely aware of what the other is doing, thinking, etc. If for some reason the subsumed personality wants to come to the fore, but the other personality won't relinquish control, make an opposed WIL Check. Each ego has its own Lucidity, Trauma Threshold, and Insanity Rating, and they track stress and trauma separately. The morph's pools are shared. Psi sleights or social/mental influences only affect the personality at the fore.

You can take this augmentation more than once (to a maximum of 3 times) to incorporate multiple egos into the same mind.

Multi-Tasking: This cybernetic or software module enables your brain to focus on two things at the same time — something our minds cannot usually handle — without any context-switching confusion or increased error rates from inattention. Multi-Tasking increases your Insight Pool by 1.

Remote Backup Link: Your morph's cortical stack is linked to an implanted quantum farcaster ▶336 linked to a highly secure storage facility. Using standard radio and quantum encryption ▶247, the farcaster broadcasts full backups of your ego (pulled from your cortical stack's neural lace network) once every 48 hours. This

MENTAL AUGMENTATIONS	Ware Type	Complexity/GP	Description
Cybercortex	C	Mod/2	Smart animal brain aid, +10 comprehension COG Checks, +10 Exotic Skill: Animal Handling.
Data Module	CH	Min/1	Encrypted data storage.
Dead Switch	CH	Min/1	Wipes and melts your cortical stack if killed.
Drone Rig	CHM	Mod/2	Ignore the –10 modifier when jamming.
Emergency Farcaster	CH	Maj/R/3	Neutrino farcaster for emergency egocasting if killed/triggered.
Ghostrider Module	CH	Min/1	Carries an infomorph.
Memory Lock	CHM	Min/1	Blocks memory retention/recording when activated.
Mind Amp	HMN	Maj/3	Accelerates mind. +2 Insight.
Multiple Personalities	BM	Maj/3	Brain holds multiple egos.
Multi-Tasking	CHM	Mod/2	Focus on 2 things at once. +1 Insight.
Remote Backup Link	CH	Maj/3	Quantum farcaster for remote backup every 48 hrs.
Skillware	CHM	Maj/3	Can use 120 points of skillsofts.

SOFTWARE	Complexity/GP	Description
Skillsoft	Mod/2	Active skill at 40 or Know skill at 80.

transfer takes a single action turn. At the GM's discretion, the backup interval may be scheduled more or less frequently, keeping in mind that ego broadcasts are limited for security purposes and because they hog bandwidth. Broadcast egos must be within range of the recipient to be received; for this reason the system's usefulness is limited to select habitats or situations where you have arranged for secure storage in a nearby vicinity, such as onboard a nearby spaceship. If the radio broadcasts are blocked or jammed, this device cannot save remote backups.

Skillware: Your brain is laced with a network of artificial neurons that can be formatted with information. This allows you to download skillsofts ▶below into your brain, gaining the use of those programmed skills until the skillsoft is erased or replaced. Skillware systems are only capable of handling 120 total skill points worth of skillsofts at a time. Switching out a skillsoft is a complex action.

SKILLSOFTS

Skillsofts are used with skillware implants ▶above.

Skillsoft: These are skills encoded in software form. Used with a skillware system, they provide you with a rating of up to 40 in a single active skill or 80 in a Know skill (your aptitudes do not effect this rating; if you already possess the skill, use the highest value).

SOCIAL AUGMENTATIONS

Social ware, including cosmetic mods impacts your interactions with others and also includes cosmetic modifications.

Bodysculpting: Customizing your looks is easy. Elongated ears or fingers, nose alteration, hair addition/removal, feathers, exotic eyes, snakeskin, endowed genitalia, enlarged canines, whiskers, eyestalks, fur, frills, scarification, piercings, skin dyes, and stranger things are common sights on many habitats. Subdermal implants can create bumps, ridges, piercing anchors, and similar textures and alterations. Synthmorphs get in on the fun too, with stylized chassis, oddly shaped heads, exposed interiors, sculpted frames, lights, sound systems, and other after-market mods.

Chameleon Skin: The morph's skin is augmented with complex chromatophores so that it changes color like a chameleon or octopus. Your morph can match the appearance of almost any color and most patterns. Apply a +10 modifier to Infiltrate Tests, +30 if stationary and either nude or wearing smart clothing with the same color/pattern. This camo does not apply against radar, x-ray, gamma-ray, or infrared heat sensors (including enhanced vision). Alternatively, you can deliberately stand out (+10 to +30 to Perceive Tests to notice) or simply look sharp.

Clean Metabolism: The morph's symbiotic bacteria, gut flora, and glands are genetically engineered to keep the morph "clean." The morph also produces smart antibiotics that prevent the growth of any bacteria or yeasts in it or on its skin. As a result, your morph is completely immune to infections, dental cavities, and bad breath, its sweat has no scent, and the morph's efficient digestion produces somewhat less solid waste and less odorous chemicals.

Endocrine Control: This modifies the morph's endocrine system (or the software sim of it), giving you a measure of control over your hormones. You can influence your appetite, thirst and remain awake for 48 hours without penalty. You also have fine control over your emotional states, and can "gland" happiness, sadness, aggression, arousal, trust, suspicion, and so on. Increase your Moxie pool by 2.

Enhanced Pheromones: The morph's biochemistry produces tailored and synthetic pheromonal signals that subconsciously affect the behavior of other biomorphs of the same species. These pheromones influence others that can smell you to treat you warmly and with trust. Apply a +10 modifier to Persuade and Provoke Tests. This augmentation has no effect on non-biomorphs or other species.

Nanotats: Your skin/shell is an artistic canvas. Tattoos created with nanobots can move around the body, change shape, color, brightness, texture, alternate text and images, and/or even create minor holographic effects on the skin's surface, controllable via mesh inserts.

Neuromodulation: This nanoware system enables you to influence your brain's neurotransmitters. This gives you rough control over your emotional states (much like endocrine control), though to a lesser degree. Increase your Moxie pool by 1.

Scent Alteration: Minor changes to a body's biochemistry can alter your natural smell. You can sweat vanilla, taste like oranges, or leave a waft of sandalwood wherever you go. Or you can take a nod from the scum and secrete the iron tang of blood, the metallic scent of rust, or a particular xenocritter musk.

Sex Switch: A complex suite of alterations allows you to switch your physical sex to male, female, intersex, or neuter. This change is mentally triggered but takes approximately 1 week to complete.

Skinflex: This disguise implant allows you to restructure your facial features and musculature and alter skin tone and hair color. This process takes 1d6 minutes. Skinflex adds +30 to Exotic Skill: Disguise or Deceive Tests for disguise or impersonation.

Synthetic Cover: A synthetic mask, but for cyberlimbs.

Synthetic Mask: Your shell is equipped with a realistic faux-skin casing and carefully sculpted to pass as a biomorph (perhaps even a particular person). The morph can cry, spit, have sex, and will even bleed if cut. Only a detailed physical examination at –30 or a radar or x-ray scan will detect the synthmorph's true nature. If disguised as a particular person, apply a +30 modifier to disguise-based Deceive or Exotic Skill: Disguise Tests.

SOCIAL AUGMENTATIONS	Ware Type	Complexity/GP	Description
Bodysculpting	BCH	Min/1	Customized body mods.
Chameleon Skin	BH	Mod/2	Change skin color. +10 Infiltrate, +30 still and covered.
Clean Metabolism	B	Min/1	Symbiotic bacteria, gut flora, and glands keep you clean and fresh.
Endocrine Control	BM	Maj/3	Control over hormones and emotions. +2 Moxie.
Enhanced Pheromones	B	Mod/2	+10 Persuade and Provoke w/biomorphs of same species.
Nanotats	N	Min/1	Mesh-controlled nanobot tattoos.
Neuromodulation	MN	Mod/2	Control over neurotransmitters and emotions. +1 Moxie.
Scent Alteration	B	Min/1	Excrete designer smells.
Sex Switch	B	Mod/2	Switch between male, female, intersex, or neuter in 1 week.
Skinflex	N	Mod/2	Disguise face, skin, hair. +30 to impersonation/disguise Deceive Tests.
Synthetic Cover	C	Min/1	Faux skin covering for cyberlimb.
Synthetic Mask	H	Mod/2	Faux skin for synthmorph. +30 disguise-based Deceive Tests.

COMBAT AUGMENTATIONS

The following augmentations have specific applications for combat and dangerous circumstances, in addition to non-combat uses. Weapon/armor ware is listed with the combat rules▶204–217.

Adrenal Surge: This gland enhancement supercharges your adrenal response to situations that invoke stress, pain, or strong emotions (fear, anger, lust, hate). When activated (mentally or by stress/emotions), the concentrated burst of norepinephrine accelerates heart rate and blood flow and burns carbohydrates. You receive +1 Vigor pool and ignore the modifiers from 1 wound. Extensive use of this mod without a break can lead to adrenal fatigue (–20 impairment modifier to all actions; GM discretion).

Drug Glands: The morph has tailored glands designed to produce specific hormones or chemicals and release them in the body. You can mentally activate these glands to release the chemicals as a quick action. These glands can produce any substance listed with a bio or chem type (*Chemicals, Drugs, & Toxins* ▶330). Each type of drug gland is considered a separate enhancement. Drug glands only hold 1 dose at a time, but can produce a new dose every 4 hours.

Energy Efficiency: The bioware version of this ware boosts your metabolism. The hardware version optimizes your shell's energy usage. The meshware version optimizes code. This gives you 1 extra short recharge per day.

Hardened Skeleton: The morph's skeleton is laced with strengthening amorphous metals and fullerenes. Increase your Wound Threshold by 1, Durability by 5, Death Rating by 8 (biomorphs) or 10 (synthmorphs), and your SOM Check by 10.

Immunizers: This nanoware system monitors your health for signs of damage or deleterious effects inflicted by drugs or toxins of the biological or chemical type, as well as new diseases. Each time you are so affected, the nanobots make a Medicine: Pharmacology 60 Test. If successful, they devise defenses that provide total immunity against that drug, toxin, or disease in the future. Some people with this augmentation learn to enjoy the taste of various chemical toxins like cyanide or arsenic.

Medichines: An implanted hive circulates nanobots throughout your system, monitoring your health at the cellular level and fixing any problems. Medichines allow you to ignore the effect of 1 wound (cumulative with other mods, up to a max of 3 ignored wounds). They also accelerate your natural healing (*Biomorph Healing* ▶221). If damage taken exceeds your Durability, or you take 5 or more wounds in an hour, the medichines automatically stabilize you, prevent you from bleeding out, place you into a medical stasis (during which you are unconscious and unable to act), and broadcast for emergency services via your mesh inserts. Medichines also reduce the duration and effects of drugs, toxins, and pathogens by half (cumulative with toxin filters). You can override this protection to permit intoxication or other effects, but unless you activate a second override, medichines prevent the toxins from accumulating to lethal or permanently harmful levels. Medichines provide health status reports to your mesh inserts and muse.

Medichines for synthmorphs and bots consist of nanobots that monitor and repair the shell's integrity and internal system functions. Note that the synthmorph version of medichines allows the synthmorph to self-repair in the same manner by which a biomorph with medichines would naturally heal (1d10 per hour, 1 wound per day).

Muscle Augmentation: The morph's muscle mass is enhanced and toned and myofibers strengthened. You inflict an extra DV 1d6 with melee attacks and apply +10 to SOM Checks.

Nanophages: These nanobots patrol the body, alert for signs of intrusive nanodrugs or -toxins and destroying them before they have more than a minor effect. You may make a SOM Check when exposed to a nanodrug or -toxin. If you succeed, it has no effect. If you fail, the nanodrug or -toxin's effects and durations are reduced by half. You may instruct nanophages to ignore specific nanodrugs/toxins. Nanophages are only effective against one nanodrug or toxin dose per 8-hour period.

Nanopump: This implanted nanobot hive produces one type of nanodrug, releasing it into your system when commanded via your mesh inserts. Each type of drug requires a separate hive. Nanopumps only maintain 1 dose at a time, producing a new dose every 4 hours.

Nanotox Glands: An implanted nanobot hive produces one particular nanotoxin ▶335. You can deploy these nanobots with a quick action via bodily fluids or miniature ducts in your skin (i.e., a scratch with claws, spraying saliva, sexual contact, or a firm grip). You may also coat a melee weapon, so that it delivers the nanotoxin the next time it inflicts a wound (once only, until re-coated). Nanotox bots can be programmed to only affect a specific target or to wait and unleash their effect at a set time or with a radio signal. The nanobots can only survive in an effective concentration outside the body for 24 hours. Nanotox glands maintain 1 dose of nanobots at a time, but can produce a new dose every 4 hours. The nanobots are programmed not to attack your morph.

Neurachem: This mod enhances your chemical synapses and juices your neurotransmitters, drastically speeding up your neural connections. Neurachem can be mentally activated or triggered by charged emotions. +2 Vigor Pool while active. Extensive use of neurachem without a break can lead to nervous system fatigue (–20 impairment modifier to all actions; GM discretion).

Novacardium: This morph's heart is enlarged, ventricles enhanced, cardiac muscles strengthened, and circulatory system expanded, augmenting your strength and endurance. +1 Vigor pool.

Pain Regulator: This endocrine system mod adjusts the levels of specific hormones to dull the experience of pain. Ignore the effects of 1 wound (cumulative with other pain mods, to a maximun of 3 ignored wounds).

Pneumatics: This shell is equipped with soft pneumatic actuators, increasing its strength and jumping capabilities. Apply a +10 to Athletic Tests. You also inflict an extra DV 1d6 in melee.

Poison Glands: Similar to drug glands, your morph has tailored organs that produce poison, like the venom glands of a snake. Your morph has poison glands in its fingers/hands and/or mouth (and possibly elsewhere), so you can deliver the toxin with a quick action by scratching someone with a fingernail, biting them hard enough to draw blood, sharing a beverage, or shaking their hand. You may also coat a melee weapon, so that it delivers the toxin the next time it inflicts a wound (once only, until re-coated). Poison glands only hold 1 dose at a time, but can produce a new dose every 4 hours. Your morph is immune to the poison it produces. These glands can produce any one toxin with a bio or chem type, but not nanotoxins. Each set of glands is a separate augmentation.

Radar Absorbent: The shell is rebuilt with materials that pass, absorb, or trap radar and terahertz waves, reducing its sensor signature. Apply a –30 modifier to Perceive Tests to detect the morph using radar/terahertz.

Reflex Boosters: The morph's spinal column and nervous system is rewired with superconducting materials, boosting transmission speed. This raises your Initiative by 3 and your REF Check by 10.

Respirocytes: These nanobots act as highly efficient artificial red blood cells, with increased capabilities for transferring oxygen and carbon dioxide. This increases your ability to hold your breath to 4 hours and your Durability by 5, Wound Threshold by 1, and Death Rating by 3. Respirocytes offer no benefit to synthmorphs.

Smart Actuators: Your shell makes use of smart materials and advanced actuator designs for increased speed and strength. +1 Vigor pool.

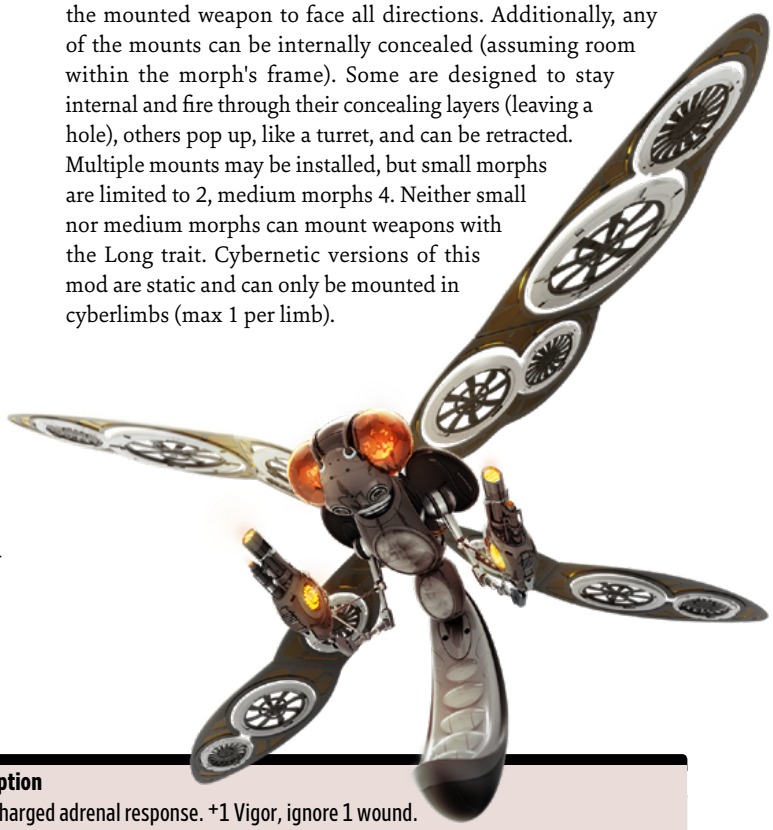
Stress Control: Your morph's endocrine system (or its software simulation) has been modified to give you greater control over cortisol and similar hormones. This enables you to manage your stress levels and responses. Apply a +10 modifier to WIL Checks against stress or triggered disorders and raise your Trauma Threshold by 1. This does not impact your Lucidity or Insanity Rating.

Structural Enhancement: This modification bolsters the shell's structural integrity, increasing its toughness and ability to take damage. Increase Wound Threshold by 2, Durability by 10, and Death Rating by 20.

Telescoping Limb: Your limb can extend for an extra meter of length (on a medium-sized morph; small morphs extend half a meter, large morphs extend 2 meters). This allows you to reach higher/farther items, but also provides a Reach advantage in melee combat (*Reach* ▶205). The cybernetic version of this implant only applies to cyberlimbs. Standard cyberlimbs with this mod cannot also have hidden compartments.

Toxin Filters: Your morph features an improved liver and kidneys and biological filters in its lungs. This makes you exceptionally resistant to drugs and toxins, including everything from recreational chemicals to nerve agents to spoiled food. You can even safely and comfortably breathe smoke and drink salt water. Make a SOM Check when dosed with a biochem drug or toxin; it only affects you if you fail. If affected, apply a +30 modifier to all aptitude checks made to resist specific effects. Additionally, all drug/toxin effects and durations are reduced by half (if you also have medichines, they are negated entirely). This augmentation provides no resistance to concentrated acid, nanotechnological attacks, pathogens, or similar destructive agents.

Weapon Mount: The morph is equipped with a hardpoint for carrying a weapon. *Static* mounts face one direction only, *swiveling* mounts have a limited 90° field of fire, *articulated* hardpoints allow the mounted weapon to face all directions. Additionally, any of the mounts can be internally concealed (assuming room within the morph's frame). Some are designed to stay internal and fire through their concealing layers (leaving a hole), others pop up, like a turret, and can be retracted. Multiple mounts may be installed, but small morphs are limited to 2, medium morphs 4. Neither small nor medium morphs can mount weapons with the Long trait. Cybernetic versions of this mod are static and can only be mounted in cyberlimbs (max 1 per limb).



COMBAT AUGMENTATIONS	Ware Type	Complexity/GP	Description
Adrenal Surge	B	Maj/3	Supercharged adrenal response. +1 Vigor, ignore 1 wound.
Drug Glands	B	Min/R/1 + Drug	Produces one type of drug.
Energy Efficiency	BHM	Maj/3	One extra short recharge per day.
Hardened Skeleton	CH	Maj/3	Bone lacing. +1 WT, +5 DUR, +8/10 DR, +10 SOM Check.
Immunizers	N	Mod/2	Medicine: Pharmacology 60 Test for future immunity to drug, toxin, or disease.
Medichines	NH	Maj/3	Ignore 1 wound, heal faster, drug/toxin effect/duration halved.
Muscle Augmentation	BCH	Maj/3	Muscles enhanced with myofibers. +1d6 DV melee, +10 SOM Checks.
Nanophages	N	Mod/2	SOM Check negates nanodrugs/toxins, failure halves effects.
Nanopump	N	Min/1 + Nanodrug	Nanobot hive, produces one type of nanodrug.
Nanotox Glands	N	Min/R/1 + Nanotoxin	Nanobot hive, produces one type of nanotoxin.
Neurachem	BH	Maj/3	Enhanced synapses and neurotransmitters. +2 Vigor.
Novacardium	B	Mod/2	Enhanced heart and circulatory system. +1 Vigor.
Pain Regulator	B	Mod/2	Dulls pain experience. Ignore 1 wound effect.
Pneumatics	H	Maj/3	Soft actuators. +10 Athletics, +1d6 DV melee.
Poison Glands	B	Min/R/1 + Toxin	Produces one type of poison.
Radar Absorbent	H	Mod/2	–30 Perceive using radar/terahertz.
Reflex Boosters	CH	Maj/3	Spine and nervous system rewired. +3 INIT, +10 REF Check.
Respirocytes	N	Mod/2	Artificial blood cells, provide 4 hours of air, +5 DUR, +1 WT, +3 DR.
Smart Actuators	H	Mod/2	Faster/stronger robotics. +1 Vigor.
Stress Control	BM	Mod/2	Manages stress levels. +10 WIL Checks vs. stress, +1 Trauma Threshold.
Structural Enhancement	H	Maj/3	Tougher frame. +2 WT, +10 DUR, +20 DR.
Telescoping Limb	CH	Mod/2	Extending limbs. +1 Reach.
Toxin Filters	B	Maj/3	+30 to apt checks to resist drugs/toxins, effect/duration halved.
Weapon Mount	CH	Min/R/1	Hardpoint holds one static/swiveling/articulated weapon. Concealable.

PHYSICAL AUGMENTATIONS

Less combat-oriented, but no less useful, these body mods increase capabilities and provide new abilities. Note that many other pieces of equipment can be attached to a synthmorph's shell and linked to their power systems and mesh inserts (GM discretion).

Circadian Regulation: Your morph only requires 2 hours of sleep to maintain health and function at peak mental capacity. You dream constantly while asleep and can both fall asleep and wake up almost instantly. You can also easily shift to a 2-day cycle, awake for 44 hours then sleeping for 4, with no ill effects. You need only 2 hours for a long recharge of your pools (*Recharging Pools* ▶35).

Cold Tolerance: Your morph's temperature regulation and circulation are substantially enhanced, allowing you to survive in temperatures as low as −80 C/−112 F without discomfort or ill effects. This mod is common on Mars, allowing you to handle the weather without heavy clothing.

Cryogenic Protection: The morph features special insulation and heating. Biomorphs can withstand −120 C temps, or down to −200 C in environments with 0.1 atmospheres or less. Synthmorphs can handle the coldest temperatures in the Solar System.

Cyberlimb: Standard replacement cyberlimbs function the same as their biological equivalents, though they are made of sturdier materials. Apply a +5 bonus to SOM Checks. They have a 6/4 AV when targeted specifically. Since limbs can easily be regrown, some people consider cybernetic prostheses to be vulgar and distasteful; others treat them as iconic symbols of self-expression. They can be equipped with hidden compartments, lights, speakers, holographic projectors, weapon mounts ▶323, and other add-ons. They may also be disguised to appear real with a synthetic mask ▶321. You may have multiple cyberlimbs.

Cyberlimb Plus: More extravagant cyberlimb models are available, though they require more severe body alteration. These may be replacement limbs or extra limbs anchored in the body's skeletal frame. Treat these the same as standard cyberlimbs, but also increase your Vigor pool by 1. Though you can apply a synthetic mask to cyberlimb plus mods, this just provides an aesthetic effect, the limb remains obviously artificial.

Enhanced Respiration: With increased lung efficiency and blood oxygen-carrying capacity, you can breathe comfortably in both high- and low-pressure environments, from 0.2 to 5 atmospheres, with no dizziness or need for gradual decompression. You can also hold your breath for up to 30 minutes when performing minimal activity, or for up to 10 minutes with strenuous activity. This augmentation allows you to breathe the atmosphere of Mars without aid.

Fractal Digits: Your morph has "bush robot" digits that are capable of splitting into smaller digits, and those smaller digits into micro digits, and so on down to the nanometer scale. These fingers can operate independently, allowing for ultra-fine manipulation. When coupled with nanoscopic vision, this even allows you to manipulate individual nanobots. Apply a +10 modifier to Hardware Tests where micro- or nano-manipulation is an important factor. The cybernetic version of this mod can only be applied to cyberlimbs.

Gas-Jet System: Nozzles in your chest, back, and limbs allow you to maneuver in micrograv with vectored bursts of gas. +10 to Free Fall Tests.

Gills: The morph's lung tissue is adapted to function as gills, allowing you to breathe both air and water, as long as the water is not toxic or too stagnant. Water you breathe in through the gills is expelled through slits just underneath your lowest pair of ribs that seal when you are not underwater.

Grip Pads: You have specialized pads imitating the pads of gecko feet on your palms, lower arms, shins, and the bottoms of your feet. These pads adhere to any surface not made of a material designed to resist this augmentation. You can climb and support yourself on any surface that can support your weight. Apply a +30 modifier to Athletics Tests for climbing. You can also climb at a rate equal to your full move. The pads must be free to touch the surface (no shoes or gloves). The pads are obvious, but do not impair your manual dexterity or sense of touch.

Hibernation: You can voluntarily decrease your metabolism down to only requiring 5% of the normal amount of food, water, and air. In this state, you appear to be in a deep sleep, but maintain awareness of both touch and sound and so can be easily awakened. Entering or leaving this state requires 3 minutes. With sufficient air, you can safely hibernate for up to 40 days without food or water.

Hidden Compartment: The shell has a concealed aperture for a shielded interior compartment, ideal for storing valuables or smuggling contraband. On small morphs, micro items can be hidden. On medium morphs, very small objects. On large morphs, small items. Concealed gear acquires a +30 modifier to Infiltrate Tests against both manual and sensor scans. The cybernetic version of this mod only applies to cyberlimbs. You may have multiple compartments.

Magnetic System: A mag system allows you to cling to most ferrous materials. This enables you to hang from metal ceilings or fixtures, walk in micrograv by adhering to surfaces, and hold onto devices without letting them drop or drift away. You receive a +30 to SOM Checks to maintain a grip on magnetically held objects.

Mobility System: Your morph is upgraded with an additional means of getting around (*Movement Types* ▶231). Any movement type can be chosen that works with your shell's design, with approval from the GM. You may have multiple (different) systems.

Modular Design: This shell is designed to lock together with flexbots and similar modular morphs to create larger gestalt forms. When united with other modules, the group is treated as a single unit/morph, with shared capabilities (*Flexbot Rules* ▶66).

Nanotat ID Flux: Your nanotat ID can be reconfigured with a new legit or fake ID in one action turn.

Oxygen Reserve: A miniature oxygen tank and rebreather is installed in your torso. When activated, it overrides your breathing reflex, feeding oxygen directly into your blood stream. This provides you with air for 4 hours and avoids problems with pressure changes. Implanted sensors automatically activate the implant if they detect poisonous or insufficient atmosphere (Know: Chemistry 80). This mod does not protect from vacuum exposure, but it will keep you conscious and active for longer, giving you time to find a vacsuit or help. Once the reserve is expended, it recovers one hour of oxygen for every hour you spend in a breathable atmosphere (or 15 minutes in a high-oxygen environment).

Prehensile Feet: You can use your feet like hands. Your feet and leg joints are altered so that your toes are longer and more dexterous. The big toe is transformed into an opposable thumb. Physically, your morph's feet resemble a longer, narrower hand or a foot with finger-like toes. You can walk normally but must wear specially designed shoes. However, you run slightly slower than a morph with unmodified feet (−8 to your full movement). Your hips are also modified for greater mobility and flexibility. In a properly constructed chair, or floating in zero g, you can use both your hands and feet to manipulate the same object. This mod is common among belters, brinkers, and others living in microgravity.

Prehensile Tail: Your morph is equipped with a 1.5-meter long tail, extending out from your tailbone/backside. This tail is prehensile and you can use it to grab, hold, and manipulate objects. You can control your tail's movements with concentration, but otherwise it tends to move on its own. Your tail also improves balance; apply a +10 modifier to Athletics or other tests where balance is a factor.

Pressure Adaptation: Your morph can handle extreme hydrostatic pressure conditions, up to 500 (biomorphs) or 2,500 (synthmorphs) atmospheres. It also acclimates to pressure changes quickly and is immune to oxygen toxicity, nitrogen narcosis, and the bends.

Retracting Limbs: Some or all of your limbs can retract completely inside your shell's frame. A limb can hold one very small item while retracted (small morphs can hold micro items, large morphs small items). Retracted limbs and the items they hold can not be targeted in combat. Retracted items are concealed (+30 Infiltrate). This mod cannot be combined with hidden compartment or telescoping limb.

Shape Adjusting: This shell is made from smart materials that allow it to alter its shape, height, width, circumference, and external features, while retaining the same mass. The ability to change shape is not completely unlimited, due to the shell's internal components; work with the GM to establish what is possible. This mod is primarily used to reshape the morph into special pre-set configurations adapted to specific tasks (for example, lengthening to crawl through a tunnel, widening its base for stability, expanding to reach out and attach to multiple access points simultaneously, and so on). Shapechanging allows you to change your composition to function as any 2 Minor complexity items/ware or 1 Moderate complexity item/ware allowed by the GM (no blueprint needed). Extra sets of limbs count as Minor ware. Simple shapes and mechanical designs are easy to create, but advanced electronics, complex designs, and specialized components are beyond the scope of this mod. Altering shape takes at minimum 1d6 minutes, and can take as long as 1d6 hours for substantial changes. This mod also allows the morph to change its features for disguise purposes; apply a +30 modifier to disguise-based Deceive or Exotic Skill: Disguise Tests.

Skinlink: Skinlink nanobots live on the morph's external skin or shell, automatically swarming over and creating a physical connection with any electronics you touch. They also take advantage of the electrical field in a biomorph's skin for communication. They allow you to communicate and mesh with skinlink-equipped devices, devices with external access ports, devices with exposed electronics, or other skinlinked characters merely by touching them. This is considered a wired link, and so is not subject to sniffing or jamming.

Skin Pocket: A pocket within your skin layer provides concealment (+30 Infiltrate) for very small items.

Thermogenic Protection: The synthmorph can operate in high-temperature environments with heat sinks and coolant systems, able to withstand up to 1,000 C. This also provides AV +5/0.

Utilimod: This mod duplicates the functions of a utilitool ▶317. Retractable smart material tool "arms" are implanted — usually spaced around the wrist, but other locations are possible — that can change shape into almost any type of specialized tool desired in 1d6 minutes. These tools can take on numerous functions, including that of a fiber eye ▶338 or an implanted knife ▶204.

Vacuum Sealing: Your morph is modified to survive the effects of vacuum. You can seal your mouth, nose, and other orifices to prevent the freezing of bodily fluids from evaporative cooling. A special membrane protects your eyes, enabling you to see in vacuum without distortion or damage. Your system is also protected from the effects of decompression sickness and hypoxia. You are still vulnerable to asphyxiation, radiation, and possibly heat (in sunlight) or heat loss (in shade), and so this mod is often coupled with oxygen reserve cyberware, respirocytes, and/or cold tolerance.

Wings: Your morph is equipped with a pair of wings; either additional limbs or restructured arms. For small morphs, this allows gliding and limited flight in Earth-like gravities. Medium-sized morphs can fly in gravity less than 0.15 g; in higher gravity they may be used to glide. Large and very large morphs may not use this augmentation. Most wing designs are transgenic and based on bat physiology, so that they may be easily folded when not in use. If combined with the retracting limb ware, these wings may be folded into your arms or back.

PHYSICAL AUGMENTATIONS	Ware Type	Complexity/GP	Description
Circadian Regulation	BM	Mod/2	Need only 2 hours of sleep. Long recharges take 2 hours.
Cold Tolerance	B	Min/1	Handle temps as low as –80 C/–112 F.
Cryogenic Protection	CH	Mod/2	Handle temps as low as –120/–200 C (biomorphs) or lower (synthmorphs).
Cyberlimb	C	Mod/2	Replacement limb. 6/4 AV when targeted, +5 SOM Check.
Cyberlimb Plus	C	Maj/3	Replacement/extra limb. As cyberlimb, +1 Vigor pool.
Enhanced Respiration	B	Min/1	Breathe wider range of atmospheres, hold breath longer.
Fractal Digits	CH	Min/1	+10 Hardware Tests involving ultra-fine manipulation.
Gas-Jet System	CH	Mod/2	+10 Free Fall.
Gills	B	Min/1	Breathe both air and water.
Grip Pads	BCH	Min/1	+30 climbing Athletics Tests.
Hibernation	B	Min/1	Reduce metabolism, need only 5% normal amount of food, water, and air.
Hidden Compartment	CH	Min/1	Concealed, shielded compartment. +30 Infiltrate to hide items.
Magnetic System	CH	Min/1	+30 SOM Checks to cling to ferrous materials and objects.
Mobility System	H	Mod/2	Additional specified movement type ▶231.
Modular Design	H	Mod/2	Lock w/other modules to create gestalt forms. Flexbot Rules ▶66.
Nanotat ID Flux	N	Maj/R/3	Switch out your nanotat ID.
Oxygen Reserve	C	Min/1	Oxygen tank/rebreather with 4 hours of air.
Prehensile Feet	BCH	Min/1	Can use feet as hands. –8 full move.
Prehensile Tail	BCH	Min/1	Can grip with tail. +10 balanced-based Athletics.
Pressure Adaptation	BH	Min/1	Handle extreme pressure.
Retracting Limbs	H	Min/1	Limb retracts, can hold 1 small item.
Shape Adjusting	H	Maj/3	Smart material composition, can create 2 Min or 1 Mod item/ware, more.
Skinlink	HN	Min/1	Create a "hardwired" mesh link by touch.
Skin Pocket	B	Min/1	Concealment for very small (and some small) items (+30 Infiltrate).
Thermogenic Protection	H	Mod/2	Handle high temps up to 1,000 C.
Utilimod	CH	Mod/2	Implanted utilitool.
Vacuum Sealing	B	Min/1	Can survive exposure to vacuum.
Wings	BCH	Mod/2	Enable flight if small or in low gravities.

MESHWARE

Meshware refers to plug-in apps that enhance an infomorph's capabilities, much like the bioware and hardware for physical morphs. Meshware takes only a complex action to install or uninstall. Once installed, meshware remains with the infomorph when it moves or copies. Meshware can also be installed within cyberbrains. Other apps can also be installed as meshware, so they are embedded within the infomorph. Unlike other apps, meshware cannot be used by non-infomorph/cyberbrained users.

App-Lock: App-lock makes it more difficult for an installed app to be removed without proper authentication (apply a –30 modifier). This is useful for infomorphs/cyberbrains that are brainhacked and modified against their will. The protected apps must be designated in advance (when app-lock is installed or reconfigured).

Auto-Erase: This app will automatically erase the infomorph (or the ego within a cyberbrain) if certain pre-programmed conditions are met. This is useful if you are worried about brainhacking, forknapping, or being trapped in a lockbox. Common trigger conditions include detected brainhacking, a codephrase, psychosurgery, a designated time period, or upon failure to receive a periodic message. Some people use this app to keep forks from going errant; many polities legally require forks to be equipped to delete themselves after a set number of hours. Auto-erase functions even if the infomorph does not have privileges on that system.

Copylock: Copylock prevents an infomorph (or ego within a cyberbrain) from copying, whether voluntarily or not, without proper authorization. This is used to restrict forks, indentures, and people who don't trust themselves. It also defends against forknappers: brainhackers that attempt to copy the infomorph suffer –30 to their Infosec Tests. Copylock also prevents an infomorph from moving between devices or sleeving into a morph.

Enhanced Security: This meshware installs additional firewall and security layers, making the infomorph/cyberbrain harder to hack. Apply a –10 modifier to attempts to brainhack your digital mind.

You can also use this meshware to enter a heightened state of security — Defensive Mode. When activated with a quick action, the modifier to brainhack you is increased to –30. This lock-down status impairs your functions, however; you cannot use Insight pool while it is active and suffer a –3 Initiative modifier.

E-Veil: E-veil obfuscates the presence of designated apps within the infomorph's code. Any attempt to scan the infomorph using Interface is opposed with a Program skill of 80. The hidden apps must be designated when e-veil is activated.

Fault Tolerance: This module provides redundancy and load-sharing functions. You receive AV 5 against mesh attacks.

Persistence: This meshware uses rootkit techniques to keep the digital mind active despite attempts to crash it. Increase the infomorph's Durability by 10 and Wound Threshold by 2.

MESHWARE	Complexity/GP	Description
App-Lock	Min/1	–30 Infosec to remove apps without authorization.
Auto-Erase	Min/1	Auto-erases infomorph when conditions are met.
Copylock	Min/1	Prevents copying/forking, –30 Infosec to copy.
Enhanced Security	Mod/2	–10 Infosec to hack, –30 in defensive mode but no Insight pool and –3 INIT.
E-Veil	Min/R/1	Obfuscates apps, opposes Interface w/Program 80.
Fault Tolerance	Mod/2	AV 5 vs. mesh attacks
Persistence	Mod/2	Keeps infomorph running, +10 DUR, +2 WT.

APPS & ALIs

Software is not a tangible good, so it cannot be nanofabricated.

APPS

This software can be run on any computerized device.

AR Illusion: A media library and editing suite you can use to create realistic entoptic illusions.

Biometric Matcher: This app takes any biometric pattern — face, gait, morph, voice, etc. — and runs a pattern-matching search (*Tracking by Biometrics* ▶256).

Crypto: This app generates key pairs, encrypts messages using public keys, and decrypts with secret keys (*Encryption* ▶247).

Exploit: A hacker library/tool for taking advantage of known software vulnerabilities. Required for hacking.

Firewall: This app protects a device from hostile intrusion. Every device comes with one by default.

Lockbox: This malware imprisons infomorphs (*Trap Ego* ▶266).

Psychosurgery: This app is used to edit minds (*Psychosurgery* ▶294)

Sniffer: Sniffer apps collect all of the traffic passing between or through targeted systems (*Sniffing* ▶245).

Spoofer: Use spoof apps to fake transmissions and mesh IDs (*Spoofing* ▶247).

Tracker: This app traces people's connections online to their origin (*Tracking* ▶256).

VPN: This app enables you to communicate over a virtual private network (VPNs ▶241). VPNs provide a –30 modifier to sniffing attacks (*Sniffing* ▶245).

XP: Clips of someone else's experiences. Depending on the content, some XP (porn, snuff, crime, etc.) is restricted in certain jurisdictions. XP clips are frequently modified so that their emotive tracks are more intense, giving the viewer a greater thrill.

ALIs AND MUSES

Everyone has a muse, and every device has a built-in ALI (*AIs & Muses* ▶250). All ALI infomorphs have Wound Threshold 4, Durability 20, and Death Rating 40 for mesh combat.

Bot/Vehicle ALI: These AIs can pilot and control the bot/vehicle they are designed for without transhuman assistance.

Device ALI: These resident ALIs help transhumans operate a particular device or do it for them. They are included in most non-ware gear items.

Kaos ALI: KALIs are used by hackers and covert ops teams to create distractions and sabotage systems.

Muse: These are digital assistants and life-long companions.

Security ALI: Provide overwatch for electronic systems.

Sentry ALI: Combat ALIs for physical security.

APPS	Complexity/GP	Description
AR Illusion	Mod/2	Create realistic entoptic illusions.
Biometric Matcher	Min/1	Match biometric patterns.
Crypto	Min/1	Encrypt/decrypt files and messages.
Exploit	Mod/R/2	Hacking library tool.
Firewall	Min/1	Protects devices from intrusion.
Lockbox	Mod/R/2	Imprisons infomorphs.
Psychosurgery	Mod/2	Edit minds.
Sniffer	Mod/2	Collect/view traffic between two systems.
Spoofer	Mod/R/2	Fake transmissions and mesh IDs.
Tracker	Mod/2	Trace connections.
VPN	Min/1	Creates virtual private network.
XP	Min+/1+	Clips of others' recorded sensorium

SCORCHERS

Scorchers are damaging neurofeedback apps used against infomorphs and cyberbrains.

Bedlam: Bedlam assaults the ego with traumatic mental input, inflicting mental stress. Victims are overwhelmed with horrific, monstrous, sanity-ripping sensory and emotional tracks. Each attack inflicts SV 1d10, +1d6 per superior success.

Cauterizer: This scorch app rips into the ego with destructive neurofeedback routines. Against a cyberbrained ego, the cauterizer inflicts DV 1d10 + 5, +1d6 per superior success, to the target's morph (this is physical damage, not mesh damage). Against an infomorph, the cauterizer inflicts a DV 3d10 mesh attack of digitized neurological damage.

Nightmare: Nightmares trigger anxiety and panic attacks within the victim by stimulating the neural circuitry representing the amygdala and hippocampus. The target ego must make a WIL Check. If they succeed, they are shaken, suffering a –10 impairment modifier to all actions until the end of the next action turn. If they fail, they suffer SV 1d6 and suffer an acute stress response ▶223 lasting for 1d6 minutes, +1 per superior failure.

Spasm: Spasm scorchers incapacitate the ego with excruciating pain. Affected targets must immediately make a WIL Check. If they fail, they fall down and are incapacitated for 1 action turn (+2 turns per superior failure) and stunned for 3 minutes. Success means they are stunned for 3 action turns. Due to the nature of the delivery, pain tolerance of any sort has no effect.

TACTICAL NETWORKS

Tacnets allow a group and their muses/gear to share real-time tactical situational and sensory data over encrypted mesh channels. They are used by sports teams, security/military units, gamers, and anyone else that needs to coordinate actions. Tacnets provide the following functions:

- **Maps:** Tacnets present maps from a bird's eye, three-dimensional interactive, or first-person entoptic view, tagging notable features and marking distances. They can also plot maps based on sensory input, positioning systems, and other data.
- **Positioning:** Tacnets indicate the position of known people, bots, vehicles, and other features according to sensory input or their calculated trajectories. Friend-or-foe tags highlight allies and opponents, noting their lines of sight and fields of fire and alerting the user to areas of potential cover or danger.
- **Sensory Input:** Tacnets share all sensory input available from members and linked devices. This includes data from physical senses, portable sensors, smartlink guncams, XP feeds, etc. Users can immediately call up and access the sensor feeds of others as needed.
- **Communications Management:** Tacnets maintain an encrypted VPN between users. They actively monitor for dropped signals and hacking/sniffing/jamming attempts. Treat as a system defender with Infosec 40 and Interface 40..
- **Smartlink/Weapon Data:** Tacnets monitor the status of weapons, accessories, and other gear, bringing damage, shortages, ammo counts, and other issues to the user's attention.
- **Medical Data:** Tacnets monitor the health of their users via medichines, implants, and other sensors. Users can call up health reports on their allies.
- **Overwatch:** Tacnets keep an eye out for potential threats. They provide a +10 modifier to Perceive Tests against surprise ▶227.
- **Indirect Fire:** Members of a tacnet can provide targeting data to each other for purposes of indirect fire ▶206.
- **Analysis:** Tacnets can analyze real-time situations to provide suggestions and warnings. The app's god's-eye view of a situation helps it to identify facts and details that individuals overlook. For example, a tacnet can analyze an opposing team's weapons, shots fired, and potential injuries and suggest tactical maneuvers. Querying a tacnet for advice is a quick action; treat as Know: Tactics 80.

Many tacnet features are immediately accessible to the user via their AR display; other data can be accessed with a quick action. The GM determines when the tacnet provides important alerts to the user. At the GM's discretion, some of these features may apply modifiers to the character's tests. Tacnets are designed to be overseers, not to take action. They will not hack opponents, pilot vehicles, or interface with weapon systems.

ALIs & MUSES	Complexity/GP	Skills
Bot/Vehicle ALI	Mod/2	Fray 30, Guns 30, Hardware: [appropriate field] 20 (specific bot/vehicle 30), Infosec 20, Interface 30, Know: [bot/vehicle] Specs 80, Perceive 40, Pilot: [appropriate field] 60 (specific bot/vehicle 70), Research 20
Device ALI	Mod/2	Hardware: Electronics 20 (specific device 30), Infosec 20, Interface 30 (specific device 40), Know: [device] Specs 80, Know: [device] Usage 80, Perceive 20, Program 30 (specific device 40), Research 20
Kaos ALI	Maj/R/3	Guns 40, Hardware: Electronics 40, Infosec 60, Interface 40, Know: Security Systems 80, Perceive 30, Program 40, Research 30
Muse	Mod/2	Hardware: Electronics 30, Infosec 30, Interface 60, Know: Accounting 60, Know: Psychology 60, Medicine: Psychosurgery 30, Perceive 30, Program 30, Research 30, plus one other Know skills at 40.
Security ALI	Mod/2	Guns 30, Hardware: Electronics 30, Infosec 60, Interface 40, Know: Security Systems 80, Perceive 30, Program 30, Research 20
Sentry ALI	Maj/R/3	Fray 30, Guns 60, Hardware: [appropriate field] 30, Interface 30, Kinesics 40, Know: [bot/vehicle] Specs 80, Know: Security Ops 80, Perceive 40, Pilot: [appropriate field] 40, Provoke 30

SCORCHERS	Complexity/GP	Description
Bedlam	Mod/R/2	Horrifying inputs, SV 1d10, +1d6 per superior success.
Cauterizer	Mod/R/2	Destructive neurofeedback, DV 1d10 + 5, +1d6 per superior success.
Nightmare	Mod/R/2	Trigger anxiety/panic, WIL Check or SV 1d6 and acute stress response for 1d6 minutes.
Spasm	Mod/R/2	Excruciating pain, WIL Check or incapacitated for 1 action turn, stunned 3 minutes.

TACNETS	Complexity/GP	Description
TacNet	Mod/2	Share tactical data in real-time.

CREATURES

Living creatures cannot be nanofabricated, they must be acquired via Resources trait or rep.

Training and commanding creatures is handled with Exotic Skill: Animal Handling.

GENETICALLY MODIFIED ORGANISMS

A variety of transgenic, genehacked, and neogenetic creatures have become common in transhuman habitats.

Dino Pet: Genehackers have resurrected a number of extinct dinosaur species as small, colorful, and lovable pets. Varieties include pterosaurs, stegosauruses, ankylosauruses, triceratops, and many others.

Fur Coat: A so-called "fur coat" is outerwear made from a living primitive organism. The creature's skin, fur, or scales are real. The organism is cultivated from transgenic stocks and grown around molds into clothing shapes, often with actual usefulness: polar bear parkas, seal diving suits, porcupine coats, etc. Fur coats are modified with wireless controls and haptic systems, so they can be made to move, shiver, massage, or prickle up on command.

Pollinator Swarm: Interbred and gene-modified bee and wasp variations pollinate habitat gardens. They also produce honey, hunt other insects, trim leaves, and collect debris. Though non-aggressive, some have been modified for use as assassin or guardians. They follow swarm rules ▶344.

Space Roach: Grown to the size of a small dog, these insects are often biosculpted for bright colors and patterns. They are favored as pets and useful for minor janitorial duties.

Squidling: These small-sized squid are adapted for air breathing and maneuvering in micrograv with natural air jets. They are favored as pets and snacks by neo-octopi.

SMART ANIMALS

Smart animals are partially uplifted and bio-engineered. These have rudimentary intelligence and limited communication skills, roughly equivalent to a human toddler with a minor vocabulary. They make for fine companions and helpers.

Guard Dog: These smart dogs are trained for security and policing purposes and sometimes enhanced with combative bioware or cybernetics.

Police Baboon: Favored for police work on Mars, these partially uplifted Cape baboons can be vicious, especially when in a pack.

Rust Hound: These medium-sized transgenic hounds are modified to breathe the Martian atmosphere and handle its cold environment. They make excellent trackers.

Smart Hawk: Enhanced versions of peregrine falcons and other predatory birds are common in large, open habitats. The art of falconry has made a comeback, with birds trained for surveillance and tracking.

Smart Monkey: Employed by criminal groups for minor larceny such as pickpocketing, smart monkeys are useful intelligent aides.

Smart Raccoon: Similar to monkeys, smart raccoons are favored as personal aides.

Smart Rat: These upgrades of the common Norwegian rat are clever and dexterous, and they easily fit into a pocket or hood.

Swarm Cat: Bred on scum swarms for companionship, competitions, and weirdness, swarm cats are heavily modified with transgenic traits. No two are alike, with some incorporating traits from other animals in the suborder *Feliformia,* including mongooses, civets, and even hyenas. One swarm cat may look like a Siamese with purple bioluminescent fur and six legs, the next may look more like a snow leopard with four eyes, cybernetic scales, and wings.

XENOFAUNA

A few creatures discovered on exoplanets have been finding their way into private collections and transhuman habitats.

Clown Sprite: Found in the Echo system, these colorful, omnivorous, winged avian-primates normally live in a symbiotic relationship with carnivorous land anemones. These mischievous creatures have bonded with some transhumans. They are clever, playful, and prone to pranks.

Hexanewt: It is suspected that these six-limbed amphibians were partially uplifted by now extinct aliens on the exoplanet Droplet. They sometimes walk erect on 2 limbs, sometimes crawl on all 6. They are quite perceptive and have learned to mimic transhuman behaviors and tool use.

GMOs	Comp/GP	COG	INT	REF	SAV	SOM	WIL	INIT	TP	AV	WT/DUR/DR	TT/LUC/IR	Movement
Dino Pet	Min/1	5 15	10 30	15 45	10 30	15 45	10 30	5	0	4/5	3/15/23	4/20/40	4/12 Walker OR 8/32 Winged
Ware: Dermal Armor, Enhanced Smell, Enhanced Vision, some have Poison Glands **Skills:** Athletics 40, Fray 30, Infiltrate 30, Melee 40, Perceive 30, Provoke 30 (Intimidate 40) **Notes:** Bite/Horn/Tail DV 1d6, Small size													
Fur Coat	Min/1	1 3	1 3	5 15	1 3	1 3	1 3	1	0	–	3/15/23	–	–
Pollinator Swarm	Min/1	1 3	15 45	20 60	–	5 15	15 45	7	1	–	–/20/75	6/30/60	8/32 Winged
Ware: Enhanced Smell, Enhanced Vision, some have Poison Glands **Skills:** Athletics 60, Fray 50, Infiltrate 50, Melee 40, Perceive 30 **Notes:** Swarm sting DV 1d10 (ignores non-sealed armor)													
Space Roach	Min/1	1 3	10 30	15 45	5 15	5 15	5 15	5	0	–	1/5/8	2/10/20	4/12 Walker
Ware: Grip Pads **Skills:** Athletics 30, Fray 30, Free Fall 30, Infiltrate 50, Perceive 20 **Notes:** Small size													
Squidling	Min/1	1 3	10 30	15 45	1 3	5 15	10 30	5	0	–	1/5/8	4/20/40	4/20 Thrust Vector
Ware: Enhanced Smell **Skills:** Athletics 30, Fray 40, Free Fall 30, Infiltrate 30, Melee 30, Perceive 20 **Notes:** Bite DV 1d6, Small size													

SMART ANIMALS	Comp/GP	COG	INT	REF	SAV	SOM	WIL	INIT	TP	AV	WT/DUR/DR	TT/LUC/IR	Movement
Guard Dog	Min/1	5 15	15 45	20 70	10 30	20 70	10 30	10	1	4/5	6/30/45	4/20/40	4/20 Walker
Ware: Claws, Cybercortex, Dermal Armor, Enhanced Hearing, Enhanced Smell, Enhanced Vision, Mesh Inserts, Muscle Augmentation, Puppet Sock, Reflex Boosters **Skills:** Athletics 30, Fray 40, Melee 50, Perceive 40, Provoke 30 (Intimidate 40)													
Police Baboon	Min/1	5 15	15 45	15 45	5 15	15 45	5 15	6	2	2/3	6/30/45	2/10/20	4/20 Walker
Ware: Bioweave, Cold Tolerance, Enhanced Vision, Enhanced Respiration, Novacardium, Toxin Filters **Skills:** Athletics 50, Fray 40, Melee 50, Perceive 40, Provoke 40 (Intimidate 50) **Traits:** Enhanced Behavior: Obedient (Level 2)													
Rust Hound	Min/1	5 15	15 45	15 45	10 30	15 45	15 45	6	1	2/3	6/30/45	6/30/60	4/20 Walker
Ware: Bioweave, Cold Tolerance, Enhanced Hearing, Enhanced Respiration, Enhanced Smell, Toxin Filters **Skills:** Athletics 30, Fray 40, Melee 40, Perceive 50, Provoke 30 (Intimidate 40)													
Smart Hawk	Min/1	5 15	15 45	15 45	5 15	15 45	15 45	6	0	–	3/15/23	6/30/60	8/32 Winged
Ware: Claws, Enhanced Hearing, Enhanced Vision **Skills:** Athletics 60, Fray 50, Infiltrate 30, Melee 40, Perceive 50 **Notes:** Beak/claws DV 1d6, Small size													
Smart Monkey	Min/1	5 15	15 45	15 45	15 45	5 15	10 30	6	0	–	3/15/23	4/20/40	4/12 Walker
Ware: Grip Pads, Prehensile Feet, Prehensile Tail **Skills:** Athletics 60, Exotic Skill: Sleight of Hand 50, Fray 40, Infiltrate 40, Melee 30, Perceive 40 **Notes:** Bite DV 1d6, Small size													
Smart Raccoon	Min/1	5 15	15 45	10 30	5 15	10 30	10 30	5	0	–	3/15/23	4/20/40	4/12 Walker
Ware: Enhanced Hearing, Enhanced Smell, Grip Pads **Skills:** Athletics 40, Fray 40, Infiltrate 50, Melee 30, Perceive 40 **Notes:** Bite DV 1d6, Small size													
Smart Rat	Min/1	5 15	15 45	15 45	5 15	5 15	10 30	6	0	–	1/5/8	4/20/40	4/12 Walker
Ware: Enhanced Smell, Grip Pads, Prehensile Tail **Skills:** Athletics 50, Fray 40, Infiltrate 60, Perceive 40 **Notes:** Very Small size													
Swarm Cat	Min/1	5 15	15 45	15 45	5 15	15 45	15 45	6	1	4/5	6/30/45	6/30/60	4/20 Walker
Ware: Biomods, Claws, Cybercortex, Dermal Armor, Enhanced Smell, Enhanced Vision, Grip Pads, Mesh Inserts, Prehensile Tail, more. **Skills:** Athletics 50, Fray 40, Free Fall 30, Infiltrate 60, Melee 50, Perceive 40 **Notes:** Some are small size													

XENOFAUNA	Comp/GP	COG	INT	REF	SAV	SOM	WIL	INIT	TP	AV	WT/DUR/DR	TT/LUC/IR	Movement
Clown Sprite	Rare/–	5 15	15 45	20 60	15 45	5 15	5 15	7	1	–	4/20/30	2/10/20	8/32 Winged, 4/12 Walker
Ware: Chameleon Skin, Enhanced Hearing, Enhanced Smell, Grip Pads, Prehensile Feet, Prehensile Tail **Skills:** Athletics 50, Fray 40, Infiltrate 60, Melee 30, Perceive 40 **Notes:** Bite DV 1d6, Small size, Immune to land anemone venom													
Hexanewt	Rare/–	5 15	15 45	10 30	5 15	15 45	15 45	5	1	2/3	6/30/45	6/30/60	4/20 Walker
Ware: Bioweave, Chameleon Skin, Cryogenic Protection, Gills **Skills:** Athletics 50, Fray 30, Infiltrate 30, Melee 30, Perceive 60 **Notes:** Bite DV 1d10													

CHEMICALS, DRUGS, & TOXINS

The transhuman desire to enhance the body and mind melds neatly with our species' history of recreational substance abuse. Drugs of all kinds — chemical, nano, or electronic — are not only popular but widespread. Advances in biotechnology have eliminated many of the side effects, but transhuman bodies are complicated environments, so they remain a factor, especially with long-term use.

Drugs are available in a variety of forms: pills, slap patches, inhalers, disposable injectors, liquids, powders, etc. The drugs here are just a representative sampling. There are thousands if not millions of drugs in circulation in *Eclipse Phase* — GMs are encouraged to introduce their own, using these as guidelines.

Note that some drugs may have different effects on morphs with the Non-Human Biochemistry trait (GM discretion).

Complexity: The listed Complexity is for 5 doses/applications of the chemical, drug, or toxin.

DRUG AND TOXIN RULES

Every substance has a type (determining what it can affect), an application method (how it is deployed), and an effect (what it does).

Types

There are three classifications:

Biochem: These are natural biological substances and compounds produced by chemical synthesis, nanofab, or enzymatic biosynthesis. Biochem drugs and toxins only affect biomorphs.

Nano: Nanodrugs and -toxins are temporary nanobot colonies designed to operate within biological hosts and programmed to create a certain effect. Nanodrugs and -toxins only affect biomorphs.

Electronic: These reproduce drug-like effects for infomorphs and egos residing in cyberbrains. E-drugs are sold on the black market as single-use or self-erasing downloads, just like blueprints.

Application Methods

The application method determines how quickly the substance is absorbed into the body, as noted on the Onset Times table. An onset time of *immediate* means the effect kicks in at the end of an action turn, an onset time of *1 action turn* kicks in at the end of the next turn.

App: Electronic substances are run like other software.

Dermal (D): This drug/toxin is absorbed via the skin as either a gas, liquid, or solid (e.g., paste). Slap patches or splash weapons are commonly used, loaded with the chemical DMSO, which transfers the drug through the skin. Slap patches can be applied to others in melee combat with a touch-only (+20) attack. Melee weapons may also be coated (*Coated Weapons* ▶219).

Inhalation (Inh): This is a gas that is breathed into the lungs or snorted nasally. Used for inhalers, aerosols, powders, and gas grenades/seekers.

Injected (Inj): This liquid is applied via either an intramuscular or intravenous injection. Used for needles and piercing weapons (*Coated Weapons* ▶219).

Oral (O): This is a liquid or solid that is absorbed through the stomach or oral cavity (eating or drinking). Used with pills and liquids.

Effects

If you are exposed to a drug or toxin via its method of application — for example, you pop a pill, slap on a dermal patch, are soaked with a splash grenade, breathe in gas, or get stabbed with a coated weapon — then you are automatically subject to the substance's effects. The duration determines how long they last.

There is no resistance test to ignore a drug or toxin's effects, but some may call for an aptitude check to determine the effect severity.

Defensive Ware: Toxin filters ▶323 allow a SOM Check to ignore a biochem drug or toxin's effects outright (they have no effect on nanodrugs or nanotoxins). If an effect calls for an aptitude check, toxin filters apply a +30 modifier. Both toxin filters and medichines will reduce the effects of a biochem drug or toxin (damage, modifiers, etc.) and duration by half; together they nullify the effects entirely. Nanophages reduce the effects/duration of nanodrugs and nanotoxins by half.

ADDICTION AND ABUSE

If you over-use a drug, you may find yourself addicted to it. Drugs can be physically addictive (affecting the morph), mentally addictive (affecting the ego), or both. If the GM decides that you are over-using (such as more than once a day, or several times in a week), you must make a WIL Check modified by the drug's Addiction Modifier. If you fail, you acquire the Addiction Addiction (Level 1) negative trait ▶76. Once addicted, you must take the drug regularly (according to the trait level) or face withdrawal (–10 modifier per level).

Onset Times

Application Method	Onset Time
Dermal	1 action turn
Inhalation	Immediate
Injection	1 action turn
Oral	15 minutes

At the GM's discretion, heavy or extended drug use may require you to make a WIL Check modified by the Addiction Modifier to avoid increasing your Addiction trait's level. Drug abuse may also result in other physiological or psychological effects.

CHEMICALS

Just a few of the chemicals with interesting uses in *Eclipse Phase:*

Atropine: Though poisonous in large doses, atropine is an effective antidote against nerve agents like BTX[2] and Nervex. Atropine will negate the effect whether taken soon before or after exposure.

DMSO: This chemical acts as a carrier, allowing other chemicals to be absorbed through the skin. It allows any chemical, drug, or toxin to be applied dermally.

Liquid Thermite: Liquid thermite comes in a gel form that is easily applied under all environmental conditions (by the nature of its chemical reaction, thermite is oxygenated and will burn underwater or in space). It is ignited with an electric charge, burning at temperatures exceeding 2,500 C and melting through whatever it is touching. Liquid thermite inflicts DV 3d10 + 10 [27] per action turn to whatever it is touching for 3 turns. Armor is also melted, reduce the AV by damage taken. Treat damage as cumulative for determining wounds.

NotWater: NotWater is an effective liquid fire retardant that does not get objects wet, no matter how absorbent they are — it simply beads up and slides right off.

Scrapper's Gel: This goo turns into a potent acid when given an electrical charge. It comes in a gel-like state and may be smeared like jelly under most environmental conditions, even in space. In acid form, scrapper's gel inflicts DV 2d10 + 5 [16] per action turn to anything it touches for 3 turns, unless the material has been treated against acid. Armor is also melted, reduce the AV by damage taken. Treat damage as cumulative for determining wounds.

Slip: This liquid is almost entirely frictionless. When spread around an area (such as by hose or splash grenade), anyone attempting to walk or run on the affected surface must make a REF Check or fall down. Coated surfaces are extremely hard to grip, requiring a SOM Check to hang on to. Anyone attempting to grapple a slip-soaked character suffers a –30 modifier.

Tracker Dye: This liquid is colorless at normal light but recognizable under other pre-specified wavelengths (such as infrared or UV).

COGNITIVE DRUGS

Nootropics and similar drugs boost the user's mental faculties.

Drive: This nootropic speeds up left-right brain hemisphere communication, stimulates idea production, and improves concentration. +1 Insight pool for 8 hours.

Fokus: This drug enables hyper-focus and concentration. Acquire the Enhanced Behavior: Obsessive (Level 2) trait for the duration and reduce task action timeframes by 25%.

Klar: Klar boosts alertness and enhances clarity and perception. Users report a feeling of being "elevated" to a higher level. You receive +10 to Perceive and do not suffer distraction modifiers for 8 hours.

Neem: Neem is a mnemonic drug that works by "tagging" experiences and mental input with a set of unique sensations that contribute to the formation of state-based memories. Neem provides a +20 modifier to COG Checks to recall memories or information you learned while on neem. The drawback to neem is that memories accumulated under the drug's influence have no emotional association.

COMBAT DRUGS

Combat drugs are an easy way of evening the odds in a fight.

Aggro: This drug stimulates a massive burst of aggression pheromones. This provides a +20 modifier when using Provoke to intimidate or taunt (*Social Attacks* ▶228), but a –20 modifier to all other social skill tests. These modifiers are only effective when dealing with biomorphs of the same species who can smell you.

Brutalitea: Often served as a delicious tea, this combat drug heightens endurance and injury tolerance. Increase your Durability by 5, Wound Threshold by 1, and Death Rating by 3 for 3 hours.

Grin: Grin is an effective opiate and pain suppressant. You ignore the modifiers from 1 wound (cumulative with other pain negation mods, to a maximum of 3 wounds).

Kick: Kick is a strong stimulant that boosts your reflexes and energy reserves. Increase your Vigor pool by 1 for 8 hours.

CHEMICALS	Complexity/GP	Description
Atropine	Min/1	Antidote against nerve agents.
DMSO	Min/1	Carries other chemicals through the skin.
Liquid Thermite	Mod/R/2	Gel that burns, inflicting DV 3d10 + 10 [26] per turn for 3 turns.
NotWater	Min/1	Liquid fire retardant that does not get things wet.
Scrapper's Gel	Min/1	Gel that burns, inflicting DV 2d10 + 5 [16] per turn for 3 turns.
Slip	Min/1	Frictionless liquid. REF Check to walk across, SOM Check to hold on to, –30 to grapple.
Tracker Dye	Min/1	Visible at other wavelengths.

COGNITIVE DRUGS	Type	Application	Duration	Addiction Mod/Type	Complexity/GP	Description
Drive	Biochem	Any	8 hours	–10/Mental	Mod/2	+1 Insight.
Fokus	Biochem	Any	12 hours	— /Mental	Min/1	Enhanced Behavior: Obsessive (2), reduce timeframes 25%.
Klar	Biochem	Any	8 hours	— /Mental	Min/1	+10 Perceive, no distraction modifiers.
Neem	Biochem	Any	12 hours	— /Mental	Min/1	+20 COG Check for recall of memories learned while on Neem.

COMBAT DRUGS	Type	Application	Duration	Addiction Mod/Type	Complexity/GP	Description
Aggro	Biochem	Any	15 minutes	+10/Physical	Min/1	+20 Provoke to intimidate/taunt, –20 other social tests.
Brutalitea	Biochem	Any	8 hours	–10/Physical	Min/1	+5 DUR, +1 WT, +3 DR.
Grin	Biochem	Any	3 hours	–10/Physical	Min/1	Ignore 1 wound.
Kick	Biochem	Any	8 hours	–10/Physical	Mod/2	+1 Vigor.
MRDR	Biochem	Any	1 hour	–20/Physical	Maj/R/3	+2 Vigor, ignore 1 wound, Enhanced Behavior: Aggression (2), –20 social tests, WIL Check vs jumpiness.
Phlo	Biochem	Any	3 hours	—	Maj/3	+1 Vigor, can use Vigor twice on same test.
Rev	Biochem	Any	1 hour	–20/Physical	Mod/2	Short recharge takes only a complex action.

MRDR: MRDR is a brutal amphetamine that increases your pain tolerance, speed, and strength. Increase your Vigor pool by 2 and ignore one wound (cumulative with other pain negation mods, to a maximum of 3 wounds) for 1 hour. While under MRDR's influence, you are twitchy and react in a jumpy, cat-like fashion to sudden or unexpected stimuli. Make a WIL Check or react without thinking to unexpected noises or other surprises. This drug also makes you a raging asshole; acquire the Enhanced Behavior: Aggression (Level 2) trait for the duration and suffer a –20 modifier to social skill tests.

Phlo: Phlo increases coordination and muscle control, making your movements smooth, graceful, and precise. +1 Vigor. Additionally, you can use Vigor pool twice on the same test if needed.

Rev: This stimulant boosts your endurance. You can take a short recharge with a complex action, rather than 10 minutes.

HEALTH DRUGS

Pharma-foods that boost the consumer's health and physical state.

Bananas Furiosas: This drug reverses the effects of ionizing radiation on your body's cells. It most commonly comes in bunches of bright orange-red bananas. Belters prefer the drug in cigarette form, for the irony. Bananas allow you to halve the damage and ignore impairment modifiers from radiation poisoning for 8 hours.

Comfurt: Commonly served as a tasty yogurt treat, comfurt blocks stress hormones, stabilizes mood, and relieves anxiety. Temporarily boost Lucidity by 5, Trauma Threshold by 1, and Insanity Rating by 5. Excessive use of comfurt can lead to chronic itchiness caused by histamine release.

NANODRUGS

Nanodrugs are temporary nanobot infestations that apply a specific effect. They can make fundamental changes to a body's biochemistry and mental state. GMs should consider including nanodrugs that temporarily apply certain traits, such as Direction Sense, Psi Chameleon, Psi Defense, Situational Awareness, or Superior Numeracy — experiment with different possibilities and effects!

Freeq: Originally called frequency, this drug was designed as a tool for scientific visualization. It releases nanobots into your bloodstream that settle in the epidermis, where they act as sensors for electromagnetic radiation. This sensory input is then injected into your visual and tactile sensoria as a sequence of novel stimuli, typically a light show or weird tactile sensations. Aside from its recreational uses, freeq is good at picking up on localized field radiation, allowing you to spot motes, sensors, and hidden electronics with a Perceive Test, depending on their range and signal strength (GM discretion).

Gravy: Gravy assists in acclimating to high-gravity environments. It is often added as a sauce to food and comes in a variety of flavors. For gravy to be 100% effective, you must begin using it at least 8 hours in advance. Reduce penalties for high-gravity acclimation by 20.

Meds: Also known as yào or healing potions, this temporary infusion of medical nanobots spurs recovery from injury for biomorphs. For 1 day, you heal 1d10 damage per hour. If all damage is removed, you instead heal 1 wound. Certain injuries (shattered bones, severed limbs) may require further medical care.

Persona: Persona manipulates your emotions, moods, and behaviors to change you into a different person. Each is focused on a different emotional state/behavior. For the duration, you acquire an Enhanced Behavior (Level 2) trait ▶78. Anyone using Kinesics to ID you suffers a –10 modifier.

Retcon: Retcon nanobots erase recently constructed memories. Your last 48 hours of memories are deleted. It is sometimes used offensively, though it has no effect on recorded XP, backups, or what your muse recalls. Due to the nature of biological memories, retcon is imperfect; some recent memories may be spared, some older ones may be wiped (GM discretion).

Schizo: Schizo mirrors the effects of paranoid schizophrenia. It is popular in socialite circles as a daring and intriguing experience. A dose of schizo commonly looks like a disposable antique razor blade. Making an incision in the skin releases a swarm of nanobots that travel to the central nervous system and induce the effects. Schizo makes you severely paranoid and hear voices. For the duration, you acquire the Mental Disorder: Schizophrenia trait (treat as Reiterative Schizophrenia) and Enhanced Behavior: Violent (Level 2) trait. When the drug wears off, suffer SV 1d10.

Xsense: Xsense nanobots engage in tissue engineering, building you a temporary new sensory organ. Most Xsense doses create non-human organs such as snake heat-sensing pits, the magnetic sense of birds, or stranger things derived from xenocritters. Variations on human organs are also possible: tri-cavity noses, eye stalks, or tympanik hearing membranes. These organs can manifest anywhere on your body after 4 hours, then are slowly reabsorbed afterwards. Most users prefer to keep the particular sense and location a surprise.

NARCOALGORITHMS

Known colloquially as dopeware, narcos, and zapps, narcoalgorithms are programs that simulate the effects of drugs for infomorphs and egos in cyberbrains. Almost all biochem and nano drugs can be replicated as narcoalgorithms, with corresponding effect (GM discretion). Addiction to narcoalgorithms is considered mental, no matter the simulated drug. One positive side to narcoalgorithms is that the effect can be immediately stopped by pausing the app.

HEALTH DRUGS	Type	Application	Duration	Addiction Mod/Type	Complexity/GP	Description
Bananas Furiosas	Biochem	Any	1 day	—	Min/1	Reduces severity of radiation exposure.
Comfurt	Biochem	Any	12 hours	–10/Mental	Min/1	+5 LUC, +1 TT, +5 IR.

NANODRUGS	Type	Application	Duration	Addict Mod/Type	Complexity/GP	Description
Freeq	Nano	Inj, 0	8 hours	—	Min/1	Use Perceive to detect near-field electromagnetic emissions.
Gravy	Nano	Inj, 0	1 day	—	Min/1	Reduce penalties for high-gravity acclimation by 20.
Meds	Nano	Inj, 0	1 day	—	Mod/2	Heals 1d10 damage per hour or 1 wound per day.
Persona	Nano	Inj, 0	8 hours	—	Min/1	Acquire Enhanced Behavior (2) trait.
Retcon	Nano	Inj, 0	Permanent	—	Mod/R/2	Erases last 48 hours of memories.
Schizo	Nano	Inj, 0	3 hours	—	Min/R/1	Mental Disorder: Schizophrenia, Enhanced Behavior: Violent (2), SV 1d10.
Xsense	Nano	Inj, 0	1 day	—	Min/1	Acquire new sense or other organ function.

DDR: Originally distributed as a bot-targeting virus by prankster hackers, DDR ("Dance Dance Robot") triggers impulses in your motor control circuits. The effect makes your shell "dance" in jerky, automated movements. Pleasure receptors are also activated so that dancing — and movement of any kind — feels fantastic. Variants invoke different motions and styles. While dancing, you suffer a –20 modifier to other actions. You can override the dancing with a WIL Check. Non-embodied infomorphs feel the need to dance, but are otherwise unaffected.

Linkstate: This app connects you via VPN to other linkstate users and samples their XP feed and randomly accessed memories — typically just enough to provide context, but not enough to acquire private personal details. These inputs are spliced together, their emotional inputs amplified, and the entire package spiked with hormonal circuit triggers and artificial synaesthesia. The effect is a mind-blowing mixed sampling of people's lives, mashed together in a sensory soup that hits the mind with a euphoric rush. You are catatonic while under linkstate's effects, but afterwards you may experience flashbacks of events in other people's lives.

Randomizer: This app randomly triggers, intensifies, and suppresses neurotransmitter functions, with the effect of creating sudden and random mood swings. You may go from depressed to exuberant to pensive in a matter of minutes. Though the emotional roller coaster is draining to some, others find it thrilling or like the challenge of adapting to it. At any given time, you have a 50% chance of receiving a +10 modifier to social skill tests and a 50% chance of a –10 modifier.

PETALS

Petals are a narrative hallucinogen, a nanodrug that hijacks your senses and takes you on a game-like, highly immersive trip. They are post-Fall society's heroin — the drug of choice for the desperate and fucked. Petals are made in the form of nanopharmaceutical flowers, potted or with a nutrient pack attached to the stem. Plucking and swallowing the petals from the flower triggers the effects. Each flower has 1d6 + 4 petals. Multiple users may share the experience if they take the petals within 1 minute of the first one being plucked; after this all petals remaining on the flower fade to translucent white and become inert.

Petal experiences are entire scenarios in and of themselves. Some access your mesh inserts (you must enable access to your implants voluntarily; if not, the drug has no effect other than low-intensity LSD-like visual hallucinations), take control of your entoptic displays, link to secretive mesh servers and other trippers, and invade your sensorium with AR "hallucinations." Others put you into a near-comatose state during which you go on a head trip. Normally there is a well-developed theme or plot to a petal experience, though others are just streams of thematically-linked images.

Though illegal and suppressed in many polities, new petals appear constantly, fueled by a persistent subculture of makers and users. Petalcrafters view their work as an art form. The best petals are lovingly designed, hauntingly beautiful experiences — or sometimes terrifying. The subculture of petal use ranges from casual users who occasionally do an easy, short-duration flower to hardcore addicts who spend any time not on petals trying to hunt down the most intense and esoteric varieties. Because petals combine custom nanobots with tailored chemical payloads and access codes to mesh servers, duplicating them using fabricators is impossible, leading to an active market of crafters, dealers, and traders.

Petals sometimes contain easter eggs and rewards, called "sweets" by petal users. Getting the sweets usually requires fulfilling certain conditions within the trip, such as correctly answering questions or reaching goals. Typical sweets include skillsoft, new clothing or product designs, and custom infomorph avatars.

On the negative side, some petal trips go bad, inflicting SV 1d10 or worse. Some petals are also loaded with malware that invades your mesh inserts and exploits your data and accounts while you are high. Firewall has even heard accounts of petals carrying strains of the exsurgent virus.

Inquisitive Green: Things of a certain color (often green, but not always) take on a life of their own. The color itself has achieved sapience and seeks to learn of the universe. It enlists your aid, at first. Other trippers meet and work with other colors. Eventually, it learns to spread its color to other things, taking control. Other colors conspire against it. Do you choose sides or find a way for the colors to cooperate and live in harmony? Then, the White comes. All colors fear the White.

Soul Stave: This petal discreetly copies forks of your ego. You find yourself in a magical realm, full of dangerous monsters and powerful magic items. The items are all possessed by intelligent spirits — embodied forks of other trippers. Strange ethereal creatures provide you with quests. Ultimately, you seek to acquire the items that contain your forks — and the ritual that will re-merge them. But one fork has fallen into the clutches of an evil wizard, whose dark staff consumes all spirits. Rumors suggest that there are many levels to this petal experience and that you can only defeat the wizard by learning their dark power and consuming spirits into yourself.

The Creeps: You experience phantom limb — for a limb you've never had. This missing part moves and feels, but you cannot see it. It finds some things/people/places pleasing, others repulsive. You feel it attempting to grasp, write, and manipulate. You see new limbs on other trippers, which they cannot sense. They describe limbs on you, which you neither sense nor feel. You can exchange limbs with each other to try them out, but they're usually not your missing limb. To find your ghost limb, you must explore it's invisible desires. The new limbs you try have minds of their own and may mislead you.

NARCOALGORITHMS	Type	Application	Duration	Addict Mod/Type	Complexity/GP	Description
DDR	Electronic	App	1 hour	—/Mental	Min/1	Dancing, –20 actions, WIL Check to override.
Linkstate	Electronic	App	1 hour	–10/Mental	Min/1	Samples memories from others.
Randomizer	Electronic	App	8 hours	—/Mental	Min/1	Randomizes emotions. +10 or –10 social skills (50/50 each turn).

PETALS	Type	Application	Duration	Addict Mod/Type	Complexity/GP	Description
Inquisitive Green	Nano	Inj, 0	12 hours	—	Min/R/1	Narrative hallucinogen, green becomes sapient.
Soul Stave	Nano	Inj, 0	12 hours	—	Min/R/1	Narrative hallucinogen, find magic item forks.
The Creeps	Nano	Inj, 0	12 hours	—	Min/R/1	Narrative hallucinogen, phantom limb mystery.

PSI DRUGS

Research into the Watts-MacLeod strain has resulted in several exceptional breakthroughs with psi-impacting drugs. Each of these drugs is in the experimental stage, but they are already finding some use among Firewall and similar secretive groupings.

Inhibitor: Inhibitor is a cocktail of neurochemicals that block some brain receptor and transmitter functions in an attempt to reduce psi-waves and block or impair sleights. This drug is commonly used to restrain async prisoners from using their abilities. Make a WIL Check at –20. If you fail, lose all psi abilities for the drug's duration. If you succeed, you still suffer a –30 modifier to Psi Tests. Inhibitor-influenced characters have a glazed, dopey expression and difficulty getting excited or emotional.

Psi-Opener: Psi-opener drugs are variants of the Watts-MacLeod strain with a temporary effect and that do not permanently alter the user's brain. Psi-opener temporarily gives you the effect of one particular psi-chi sleight; each type of psi-opener is customized for a particular sleight. However, users are frequently subject to hallucinations (GM discretion). When the drug wears off, suffer SV 1d6.

Psi-Kick: Psi-kick functions like psi-opener, except it mimics the function of a specific psi-gamma sleight. It also boosts your latent psychic ability. Non-asyncs lacking Psi skill can default to WIL × 2. For this reason, psi-kick is often doubled up with psike-out. Using psi-kick is a mind-wrenching experience. Take SV 1d10 + 2 after the drug wears off.

Psike-Out: Psike-out bolsters an async's psi abilities. Apply a +10 modifier to Psi skill tests for the drug's duration.

RECREATIONAL DRUGS

These drugs compete with petals and XP as popular pastimes.

Buzz: This gene-modified variant of BZ is an odorless, invisible, powerful hallucinogen. For its duration, you undergo extremely realistic hallucinations. Your hallucinations are susceptible to suggestion by others (–30 to SAV/WIL Checks to oppose Persuade or Provoke); users often "share" described hallucinations with each other. Afterwards, you suffer a –30 COG Check modifier to remember what occurred while under the influence.

Mono No Aware: Named for the Japanese term for sadness at the ephemerality of worldly things, this drug, typically ingested as a tea, is a depressant that induces a meditative state. Mono no aware provides a +10 modifier to Art skills. With frequent use, mono no aware reacts with pigments in the skin to create a pallor with a slight bluish tinge, even in darker-skinned morphs.

Orbital Hash: Mr. H is marijuana grown in space using powerful lighting and advanced hydroponics. Because space is at a premium in habitats and scum barges, blocks of hashish are the preferred mode of transport and delivery. However, for the wealthy and on planets, buds in leaf form are not uncommon. While high, you ignore the effects of 1 trauma, but suffer a –10 penalty to Know Tests and memory-related COG Checks. Hash users exhibit bloodshot eyes, lethargic behaviors, and the munchies.

TGS: The good stuff is gene-modified orbital hash, providing greater benefits with fewer side effects. Ignore the effects of 1 trauma and 1 wound, receive a +10 WIL Check modifier, and acquire the Enhanced Behavior: Serene (Level 2) trait.

SOCIAL DRUGS

These social lubricants modify your interactions with others.

Blab: Blab impedes your ability to lie or withhold information. You suffer a –30 SAV/WIL Check modifier against Persuade and Provoke Tests made to interrogate or extract information. You also suffer –30 to Deceive Tests. For the duration, you acquire the Neural Damage: Logorrhea trait, making you excessively talkative.

Hither: Want to ooze sexy like a pleasure morph on a hot tin habitat? For those desiring that slinky je-ne-sais-quoi, hither is the tool. Hither typically comes as a clear, slippery gel with a musky, floral scent that is applied to parts of the body with large concentrations of sweat glands. It is a mild euphoriant, imparting a feeling of confidence and you-know-you-want-it-ness to the user. It also stimulates abundant production

PSI DRUGS	Type	Application	Duration	Addict Mod/Type	Complexity/GP	Description
Inhibitor	Biochem	Any	6 hours	+20/Mental	Maj/3	–30 Psi, –20 WIL Check or lose psi abilities.
Psi-Opener	Biochem	Any	1 hour	–10/Mental	Rare/ —	Effects of 1 specific psi-chi sleight. SV 1d6.
Psike-Out	Biochem	Any	8 hours	–10/Mental	Maj/R/3	+10 Psi skill.
Psi-Kick	Biochem	Any	1 hour	–10/Mental	Rare/ —	Effects of 1 specific psi-gamma sleight. SV 1d10 + 2.

RECREATIONAL	Type	Application	Duration	Addict Mod/Type	Complexity/GP	Description
Buzz	Biochem	Any	36 hours	—	Mod/R/2	Hallucinations, –30 suggestive SAV/WIL Checks.
Mono no Aware	Biochem	Any	8 hours	–10/Mental	Min/1	Meditative, +10 Art skills.
Orbital Hash	Biochem	Any	3 hours	—	Min/1	Ignore 1 trauma, –10 Know Tests/memory-related COG Checks.
TGS	Biochem	Any	3 hours	—	Mod/2	Ignore 1 trauma and 1 wound, +10 WIL check, Enhanced Behavior: Serene (2).

SOCIAL DRUGS	Type	Application	Duration	Addict Mod/Type	Complexity/GP	Description
Blab	Biochem	Any	1 hour	—	Mod/R/2	Neural Damage: Logorrhea, –30 Deceive, –30 SAV/WIL Checks vs. interrogation.
Hither	Biochem	Any	8 hours	–10/Physical	Min/1	+10 seduction Provoke, Enhanced Behavior: Aroused (2).
Juice	Biochem	Any	1 hour	–20/Mental	Min/1	+30 SAV/WIL Checks vs. fear/negative emotions, Enhanced Behavior: Happy (3).
Nofux	Biochem	Any	8 hours	–10/Mental	Mod/2	+1 Moxie.
Stiff	Biochem	Any	8 hours	–10/Mental	Min/1	+10 SAV/WIL Checks vs. Persuade/Provoke, Enhanced Behavior: Stubborn (Level 2).
Tongzhi	Biochem	Any	12 hours	–10/Mental	Min/1	+10 Kinesics, +10 Persuade towards common interests, Enhanced Behavior: Cooperative (2).

of lust pheromones. You gain a +10 bonus on Provoke Tests to seduce against biomorphs of the same species who can smell you. You also gain the Enhanced Behavior: Aroused (Level 2) trait for the duration.

Juice: This potent anti-depressant makes it almost impossible to have bad feelings or negative thoughts. You are unnaturally happy and positive — often irritatingly or strangely so. You receive a +30 modifier to SAV/WIL Checks against fear or attempts to manipulate your emotions in a negative direction. You gain the Enhanced Behavior: Happy (Level 3) trait. Under juice's influence, you may act inappropriately, like giggling over the massive amount of spilled blood or cheerfully changing the subject to inane topics when someone else is freaking out.

Nofux: This drug lowers inhibitions and heightens determination. Nofux users know what they want and are resolved to get their way. Gain 1 Moxie pool for the duration.

Stiff: Frequently taken as a chewy breath mint, this drug stiffens your confidence and resolve. You receive a +10 modifier on SAV/WIL Checks against Persuade and Provoke. You also acquire the Enhanced Behavior: Stubborn (Level 2) trait.

Tongzhi: Named after the dated Mandarin term for "comrade," tongzhi encourages cooperation and supportive behavior, while minimizing competitive attitudes. It was a popular drug with many hypercorps before the Fall and mandatory for their workforces. This drug provides +10 Kinesics, as well as +10 Persuade when working towards common interests. You gain the Enhanced Behavior: Cooperative (Level 2) trait.

TOXINS

The toxic properties of biological and chemical substances can be used to kill, incapacitate, or impair an enemy.

BTX²: Also called "frog bite," BTX² is a genetically enhanced variant of batrachotoxin, an extremely potent cardiotoxin and neurotoxin. It leads to fast paralysis and cardiac arrest that usually kills the target within a few action turns. Affected characters suffer DV 2d10 + 10 for 3 action turns; medichines reduce this damage by half. You must also make a SOM Check or be immobilized for 1 hour.

CR Gas: This potent incapacitating agent causes eye twitching and temporary blindness, severe coughing and breathing difficulty, skin irritation, and panic. Affected characters suffer DV 1d6, a –30 modifier to sight-based Perceive Tests, and a –20 impairment modifier to all other actions for 20 minutes.

Flight: This drug is derived from pheromones released due to fear and is intended to instill alarm or even terror. Make a WIL Check or suffer a panic attack, inflicting SV 1d10. You also suffer a –30 modifier for resisting intimidation or fear-based emotional manipulations for 1 hour.

Nervex: Derived from deadly nerve agents like cyclosarin, VX, and novichok, this genetically modified toxin is deployed as a colorless, odorless gas that turns safely inert 10 minutes after deployment. It causes involuntary contraction of the muscles, seizures, and death by respiratory failure. You suffer a –20 modifier to all actions and must make a SOM Check or be incapacitated by seizures, paralysis, nausea, and vomiting. After 10 minutes, you will die unless an antidote (such as atropine ▶331) is applied.

Oxytocin-A: A genetically improved variant of oxytocin, this drug induces trust. Apply a –30 modifier to WIL Checks and Kinesics Tests where trust is a factor.

Twitch: Twitch is a convulsive agent, a nonlethal nerve gas. Apply a –20 modifier to all actions and make a SOM Check or become incapacitated with severe muscle tremors for 10 minutes.

Antidotes

You can create an antidote for most toxins with: a sample, a medical shop, and a Medicine: Pharmacology task action, timeframe of 1 hour.

Nanotoxins

These temporary nanobot infestations damage or impair.

Disruptor: This nanotoxin attacks the myelin sheath on nerves, disrupting nerve impulses and inflicting symptoms of multiple sclerosis (impaired vision, muscle strength, and coordination). Every hour, you suffer a cumulative –5 modifier to all actions. If the total modifier meets or exceeds your Durability, you are paralyzed and catatonic (incapacitated). These modifiers can only be reduced with regenerative time in a healing vat (1 hour per –5).

Necrosis: Necrosis nanobots attack the walls of cells inside the body, killing tissue. This nanotoxin inflicts DV 1d6 per action turn for one minute, after which the nanobots disable and flush from the body.

Neuropath: These nanobots stimulate pain receptors on a systemic level, inflicting agony. Suffer –30 to all actions from the inflicted agony and make a WIL Check or become incapacitated for 8 hours. Anything that allows you to ignore wound modifiers can be used to reduce the pain modifier by 10.

Nutcracker: Nutcrackers are nanobots designed to locate your cortical stack and disassemble the diamond lattice. This process takes approximately 6 hours, after which the cortical stack is destroyed. These nanobots also attack the cortical stack's connections to the (cyber)brain and brain-mapping nanobots. After 1 hour, you will be aware that your cortical stack and neural lace are suffering damage. After 3 hours, all connections will be severed and the cortical stack will no longer record backups.

TOXINS	Type	Application	Duration	Complexity/GP	Description
BTX²	Biochem	D, Inj, O	3 turns/1 hour	Maj/R/3	DV 2d10 +3 for 3 turns, SOM Check or immobilized for 1 hour.
CR Gas	Biochem	D, Inh	20 minutes	Min/R/1	DV 1d6, –30 Perceive, –20 all other actions.
Flight	Biochem	Inh	1 hour	Min/R/1	SV 1d10, –30 resist intimidation/fear effects.
Nervex	Biochem	D, Inh, Inj, O	—	Maj/R/3	–20 actions, SOM Check vs. incapacitation, death.
Oxytocin-A	Biochem	Inh, Inj	2 hours	Min/R/1	Trusting, –30 WIL Checks/Kinesics Tests where trust is a factor.
Twitch	Biochem	D, Inh, Inj, O	10 minutes	Min/R/1	–20 actions, SOM Check vs. incapacitation.

NANOTOXINS	Type	Application	Duration	Complexity/GP	Description
Disruptor	Nano	Inj, O	8 hours	Maj/R/3	Cumulative –5 to actions per hour; incapacitation.
Necrosis	Nano	Inj, O	1 minute	Mod/R/2	DV 1d6 per turn.
Neuropath	Nano	D, Inj, O	8 hours	Mod/R/2	Agony, –30 actions, WIL Check vs incapacitation.
Nutcracker	Nano	Inj, O	6 hours	Maj/R/3	Destroys cortical stack.

COMMS & MESH GEAR

In a networked world, keeping in touch is key.

COMMUNICATIONS

A variety of technologies are useful for keeping communication lines open, even on alien worlds.

Breadcrumb System: This worn device leaves micro-sized "breadcrumb" motes behind as you move, roughly every 25 meters. These devices mesh with each other and other devices, allowing you to map your position in relation to the breadcrumb trail, and creating a mesh connection all the way back to the trail's source. This is for tracking your movement, finding your way back, and keeping meshed with your camp or ship in derelict habitats, wilderness, and other areas where there is no local functioning mesh.

Emergency Distress Beacon: This powerful radio transmitter will broadcast any programmed distress call and positioning data for years. Though small and portable, this beacon has a range of 500 km in urban areas and 5,000 km elsewhere. It specifically transmits on frequencies monitored by satellites (if any) and spacecraft. The beacon only transmits, it does not receive messages. Beacons possess both impact and environmental sensors, and can be set to auto-activate if triggered by g-forces, vacuum, or other specified conditions.

Laser/Microwave Link: These portable devices are used to establish a tight-beam, line-of-sight communications channel with another laser or microwave link. The range of these transceivers varies widely with environmental factors, but approximates 50 kilometers in atmosphere and 500 kilometers in space (though horizon limits must be kept in mind, being 5 kilometers at ground level on Earth and less on smaller bodies). Lasers are subject to interference from fog, dirt, smoke, and similar visual chaff, while microwaves may be hindered by metallic obstructions. These links can only be intercepted by getting directly in between the beams. Some teams carry a micro version of this system, worn on their person, allowing line of sight intra-team communications that cannot be intercepted like radio.

Mission Recorder: This storage device is used to record all data from a mission — lifelogs, XP, sensor feeds, and so on — for later retrieval. This serves to backup all data in remote locations and for search-and-rescue teams to analyze if something goes wrong. Gatecrashers often hook these to radio boosters and leave them near the pandora gate.

Radio Booster: This portable device boosts the range and sensitivity of short-range radios, like those from implants, ectos, or microbugs. The booster must be within the shorter-ranged device's range (or directly linked via fiberoptic cable). It will repeat any transmissions received from that device, but at its extended range of 25 kilometers in urban areas or 250 kilometers in remote areas (*Radio and Sensor Ranges* ▶337). Boosters are commonly used by characters traveling far from habitats or other civilized regions.

Satnet-in-a-Can: This medium-sized metallic-hydrogen missile can be launched on any world with a gravity of 2 g or less. A smart-material launch tube automatically extends struts and aims it at the proper trajectory. It deploys 32 small satellites into orbit, which after 1–2 days will be in position to cover the planet with GPS data, low-resolution hyperspectral imaging (down to 100 meters), and communication/mesh relay between anyone on the planet with a radio booster. The satellites can map the planet and provide weather data using Know: Meteorology 60.

NEUTRINO COMMUNICATORS

Neutrino particles pass through solid matter with ease and are impossible to block. As a result, they make an ideal medium for communications. Unfortunately, they are also easy to intercept. Even a tight beam of neutrinos sent between two locations can be intercepted simply by placing another receiver behind the location the broadcaster is sending to. Neutrino communicators require a large power plant to power the high energy particle interactions required to generate the neutrino broadcast. Neutrino communicators usually broadcast neutrinos in all directions, though tight-beam transmissions are also possible. Quite often neutrino communications take advantage of quantum farcasting for security.

Neutrino Receiver: This small receiver is used for one-way neutrino communications. It can only receive, not transmit. It is commonly used for receiving ego backups transmitted by emergency farcaster implants; a host or server is required to store the backup.

Neutrino Transceiver: This transceiver can transmit and receive neutrino signals, with a range of at least 100 astronomical units. It is large, with a size of 8 cubic meters (in a cube 2 meters on a side), but can be loaded onto large vehicles. To function, it must be connected to a large power plant, such as one found in habitats or large spacecraft. The cost and size of this device includes the computer necessary for quantum farcasting. Because it is exceptionally safe and secure, quantum farcasting via neutrino communications is the primary means of both long-distance communication between habitats and egocasting. The neutrino signal cannot be blocked and it can only be decrypted if a character has access to the computer that is sending or receiving the signal.

QUANTUM FARCASTERS

Quantum farcasters are special computers designed to protect a communications channel with unbreakable encryption. To function, two or more quantum farcaster computers must first be entangled together (on a quantum level) in the same physical location. The farcasters are then separated, at which point they may continue to exchange encrypted data via quantum teleportation. This data exchange requires a standard communications link (i.e., fiberoptic, radio, laser/microwave, or neutrino), and so is limited by the speed of light, but it is a high bandwidth form of

COMMUNICATIONS GEAR	Complexity/GP	Description
Breadcrumb System	Min/1	Leaves mote trail for meshing/positioning.
Emergency Distress Beacon	Min/1	Powerful radio transmitter, 50/500 km range.
Laser/Microwave Link (Micro)	Min/1	Tight-beam communication links, line-of-sight 500 m range.
Laser/Microwave Link (Small)	Mod/2	Tight-beam communication links, line-of-sight 50/500 km range.
Mission Recorder	Min/1	Backs up all mission data.
Radio Booster	Min/1	Extends radio ranges, 25/250km range.
Satnet-in-a-Can	Maj/3	Deploys satellites into orbit for GPS, imaging, comms relay, Know: Metereology 60

NEUTRINO COMMS GEAR	Complexity/GP	Description
Neutrino Receiver	Maj/3	Receives neutrino comms.
Neutrino Transceiver	Rare/—	Sends/receives neutrino comms, 100+ AU range.

Radio and Sensor Ranges

Item Size	Urban Range	Open Range	Examples
Nano	20 meters	100 meters	Nanoswarms
Micro	100 meters	500 meters	Microbugs
Very Small	5 kilometers	50 kilometers	Ecto, Mesh Inserts
Small	25 kilometers	250 kilometers	Radio Boosters, Vehicle Radios/Sensors
Large	500 kilometers	5,000 kilometers	Spacecraft Sensors

communication.The quantum encryption used by these entangled farcasters is unbreakable, and any attempted interception is immediately detected and neutralized. A quantum farcaster cannot be used to securely communicate with any farcasters other than the ones it is entangled with.

Miniature Radio Farcaster: Miniature farcasters communicate with each other using standard radio transceivers. As noted above, they can only securely communicate with the other farcasters with which they are entangled. Most miniature farcasters are very small and worn as jewelry or fitted into clothing or other equipment. Because the entanglement process requires special equipment, these radio farcasters cannot be nanofabricated.

QUANTUM-ENTANGLED COMMUNICATION

QE communication is instantaneous and works over any distance, even hundreds of light years away, but is also very limited. QE communication requires pairs of entangled particles known as qubits. To use QE, large numbers of qubit pairs are created and then separated from each other. Millions of these separated particles are stored in special containers known as qubit reservoirs. If two QE communicators each have a qubit reservoir containing qubits that are each entangled with qubits in the other communicator's qubit reservoir, then you can use the two QE communicators to commutate with one another instantaneously.

Each bit of data transmitted between QE comms uses up one qubit. Once all of the qubits are used up, the two QE comms can no longer communicate until they each get a new batch of entangled qubits. Qubits are expensive to produce, contain, and transport, making this a rare and expensive form of communication. As a result, extremely high bandwidth communications like full sensory XP and egocasting are avoided.

Because the entanglement process requires special equipment, QE comms gear cannot be nanofabricated.

QE Comm: This is a small, handheld FTL communications device. It must be equipped with a qubit reservoir to enable quantum-entangled communications.

Emergency Reservoir: This pair of very small reservoirs are intended for critical or emergency situations, using voice or text only, or similar low bit-rate exchanges. They can be used for 1 minute of high-resolution video, 1 hour of voice-only communication, or a substantial amount of text.

Qubit Reservoir: This pair of small-sized reservoirs holds enough qubits for 10 hours of high-resolution video or 100 hours of voice or text-only communications.

MESH HARDWARE

This gear forms the fundamental components of the mesh (*Devices, Apps, & Links* ▶244).

Enhanced Server: These servers are faster and more secure, commonly used by hyper-elites or secure corporate systems. Apply a –10 modifier to Infosec Tests made to hack them.

Fiberoptic Cable: Fiberoptic cables are used to establish wired connections between two devices. Given the ubiquity of radios and the tangled mess wires cause, they are typically only used for privacy (unlike radio communication, fiberoptic signals cannot be intercepted/sniffed or jammed) or in areas with heavy radio interference.

Host: Hosts include tablets, work stations, and similar terminals. They are capable of running a single infomorph.

Motes: These micro-sized computers come in packages of 500 and are designed to be spread over a wide area (manually, by drone, or other creative means) to create an ad-hoc mesh network. Individual motes use grip pads to adhere to surfaces. They are also equipped with cameras (visual spectrum only) and microphones.

Server: A server is a large-sized, non-portable computer, capable of running VR simulspaces and multiple infomorphs.

Specialized Server: These servers are optimized for specific functions, customized with specialized operating systems. Each provides a +10 modifier to one type of skill test made while using this server.

QUANTUM FARCASTERS	Complexity/GP	Description
Miniature Radio Farcaster	Mod/2	Radio with encryption that cannot be broken/intercepted.

QE COMMS GEAR	Complexity/GP	Description
QE Comm	Min/1	Small FTL communication device, requires qubits.
Emergency Reservoir	Mod/2	Micro qubit reservoir pair, 1 minute video/1 hour voice.
Qubit Reservoir	Maj/3	Medium qubit reservoir pair, 10 hours video, 100 hours voice.

MESH HARDWARE	Complexity/GP	Description
Fiberoptic Cable	Min/1	Wired connection for devices.
Motes	Min/1	Create ad-hoc mesh and surveillance net over area.
Host	Min/1	Tablets, work stations, and terminals. Runs 1 infomorph.
Server	Mod/2	Larger computer. Runs VR and multiple infomorphs.
Enhanced Server	Maj/3	Faster and more secure servers. –10 Infosec to hack.
Specialized Server	Maj/3	Optimized for specific functions. +10 to one specific skill test.

ESPIONAGE & SECURITY TECH

This technology has many applications for Firewall agents.

Brainprint Scanner: This portable skullcap extrudes nano-electrodes into your scalp, then plays media to you via a visor and ear plugs. It takes 5 minutes to scan your brainprint, which can be authenticated against a database entry.

Bugzapper Strips: You can install these reusable strips around doorways and other portals up to 2 meters across. They create an EMP field that inflicts DV 3d10 on any nanoswarms or microbots (including swarmanoids) that pass through (*Bug Zappers* ▶372). Includes 20 meters of strips (enough for 3 standard doorways).

Chameleon Cloak: This loose poncho contains a network of sensors that perceive wavelengths from microwave to ultra-violet. A similar network of miniature emitters precisely replicate the information its sensors receive, making you seem transparent to those wavelengths while covered by the cloak. Apply a +10 modifier to Infiltrate Tests, +30 if stationary and completely covered. Chameleon cloaks are not effective against radar, x-ray, or gamma-ray sensors. They do hide you from thermal infrared, however, by absorbing body heat into a heat sink. The cloak can only absorb body heat for one hour before it must emit this heat. Heat emission also requires one hour, during which time you are easily visible in the thermal infrared spectrum.

Covert Operations Tool (COT): This handheld device is the ultimate in infiltration technology. It contains smart matter micromanipulators, cutting tools, and an advanced nanotechnology generator capable of producing nanobots that can bore or cut through almost any material and infiltrate the inner workings of electronic locks to disable or open them.

Cutting out a lock/bolt or boring a 10-centimeter-diameter hole in a wall with a COT requires (Wound Threshold ÷ 5) action turns. The COT's nanobots can repair this damage so that it is invisible to any but the most careful and detailed examination. Cutting out a larger, 1-meter diameter hole in a wall requires (Wound Threshold ÷ 10) minutes and cannot be repaired.

A COT can easily open any old-fashioned mechanical lock simply by analyzing it and shaping an appropriate key, though this takes a full action turn.

The tool's nanobots can also circumvent the security of electronic locks. Make a test using the COT's Hardware: Electronics 60. This is a task action with a timeframe of 4 action turns, whether opening or disabling the lock. On a superior/critical failure, an alarm is triggered. On a critical success, the opening is not logged. If the electronic lock is protected by a guardian nanoswarm, the COT has a 60% chance of opening the lock before its nanobots are disabled.

Cuffband: This smart plastic loop restricts around a prisoner's limbs when activated. If the prisoner struggles, it will tighten more. Cuffbands are electronically controlled, so you can cut or loosen them remotely, and they are potentially vulnerable to hacking; they will also inform you if they are cut. Cuffbands can also shock the prisoner; inflicting DV 1d6 as a shock attack ▶219.

Dazzler: The dazzler is a tiny laser system set on a mounted rotating ball. When activated, it consistently spins and emits laser pulses in all directions. These laser pulses are not dangerous, but they detect the lenses of camera systems (including motes, specs, viewers, and bot/synthmorph sensors) and repeatedly zap them with laser pulses of varying strength to overload and dazzle them. For as long as a dazzler is active, camera systems (visual, infrared, and ultraviolet) within 200 meters and pointed towards the dazzler are blinded. Synthmorphs and bots may make REF Check or suffer a –30 modifier to visual Perceive.

Disabler: This handy device emits an overloading surge that completely incapacitates a morph with a cyberbrain when it is plugged into an access jack and activated. To plug a disabler into an unwilling target, you must first either grapple them or make a called shot in melee combat. This device does not work on morphs, bots, or vehicles lacking cyberbrains.

Fiber Eye: This is a flexible 5-meter length of fiberoptic cable with a camera at one end and viewer at the other. It can be worked through cracks, under doors, and around corners to peep unobtrusively. It can be remotely/electronically controlled, though its movement is limited.

Gray Box: This micro-sized wireless interface is used to create a wireless mesh link to an air-gapped, wired, or isolated device. Gray boxes automatically stealth their signals ▶244.

ID Scanner: This small device scans nanotat IDs ▶298, decodes the data, and compares it to online databases.

Invisibility Cloak: This cloak is made of metamaterials with a negative refractive index, so that light actually bends around it, making it and anything it covers invisible (–60 to Perceive, –30 to target with a 50% miss chance in combat). This invisibility works from the microwave to ultraviolet frequencies, but not against radar or x-rays. The drawback is that anything concealed within the cloak can't see out. This is easily overcome by using external sensor feeds (if available) and entoptics to navigate. Alternatively, a small piece of anti-cloak, which cancels the cloak's invisibility properties when touched together, can be used to create a small window to peep out of, though this increases the chance of being spotted. Noticing such a window requires a Perceive Test with a –30 modifier.

Microbug: This micro-sized camera and microphone package is only 1 millimeter across. It records audio and visual from one section of the electromagnetic spectrum (*Senses and Sensors* ▶318) — usually the visual spectrum. It is meshed and can be remote controlled, but can also be instructed to broadcast only at specific intervals or when it has received a special code. It can record 100 hours of surveillance. It can also be set to only record when movement or audio is detected. Microbugs have adhesive backs and can stick to almost any surface. Microbugs can also establish their location via mesh positioning or GPS, and so double as tracking devices. Microbugs are sometimes attached to quantum farcasters ▶336 to avoid their signals being detected or jammed.

Prisoner Mask: This hood tightens around the head of a prisoner and blocks visual frequencies, so that even a prisoner with enhanced vision is blinded. The hood is also a faraday cage and engages in low-level jamming, cutting the prisoner off from the mesh. Masks are also equipped with headphones that when activated will block enhanced hearing.

Privacy Pod: This self-assembling tent structure takes 3 action turns to erect. It is designed to offer complete privacy to up to 6 people within. It functions as a sound-proof faraday cage, blocking all wireless and radio signals. It features an airlock with a built-in bug zapper ▶372, a guardian swarm nanohive to keep the interior free of mites, and life support for 24 hours.

Psi Jammer: This device jams frequencies used by brainwaves within a 20-meter radius. This has no effect on brain functions, but it does inflict a –30 modifier to any ranged use of psi sleights within this area of effect.

Quantum Computer: These advanced desktop devices make use of quantum computation, allowing them to handle extremely large numbers with ease. This makes them especially useful for codebreaking ▶247.

Ripper: When activated, this portable countersurveillance device generates an electromagnetic pulse every 5 action turns designed to damage the antennas of motes and nanoswarms. It is used to "rip" the sensors in an area, destroying their ability to wirelessly communicate and creating dead zones ▶271. Rippers affect all motes/swarms within 20 meters. Motes must be repaired/replaced; nanoswarms and microswarms (including swarmanoids) suffer DV 3d10 per pulse.

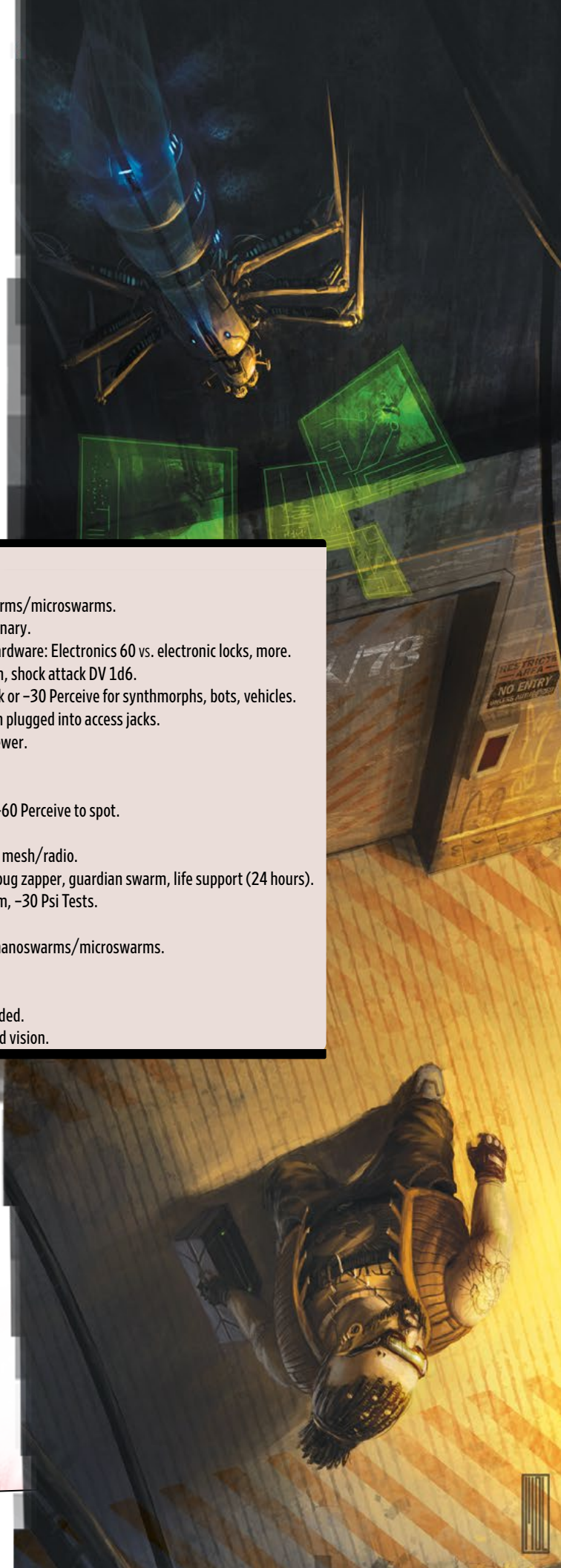
Shroud: This smart-fabric privacy cloak conceals you like a burkha, randomly stiffens and relaxes to confuse gait analysis, and randomly shifts heat patterns. It emits pheromones, odorants, and white noise, deterring scent identification and eavesdropping. It can also function as a faraday cage, blocking mesh signals and preventing any trackers you carry from broadcasting. Shrouds are an acceptable form of privacy in some habitats, but considered gauche or illegal in others.

ESPIONAGE GEAR	Complexity/GP	Description
Brainprint Scanner	Min/1	Scans brainprint in 5 minutes.
Bugzapper Strips	Mod/2	Portal EMP field, DV 3d10 to nanoswarms/microswarms.
Chameleon Cloak	Mod/2	Camouflage, +10 Infiltrate, +30 stationary.
Covert Operations Tool	Maj/R/3	Bypasses locks, cuts/repairs holes, Hardware: Electronics 60 vs. electronic locks, more.
Cuffband	Min/1	Electronic handcuffs, remote operation, shock attack DV 1d6.
Dazzler	Mod/2	Blinds cameras w/in 200 m, REF Check or –30 Perceive for synthmorphs, bots, vehicles.
Disabler	Mod/R/2	Disables morphs with cyberbrain when plugged into access jacks.
Fiber Eye	Min/1	Flexible fiberoptic with camera and viewer.
Gray Box	Min/1	Establishes a wireless mesh link.
ID Scanner	Min/1	Scans nanotat IDs.
Invisibility Cloak	Maj/R/3	Metamaterial cloak, makes invisible, –60 Perceive to spot.
Microbug	Min/1	Micro-sized camera/audio recorder.
Prisoner Mask	Min/1	Blocks enhanced vision/hearing, jams mesh/radio.
Privacy Pod	Maj/3	Blocks sound/mesh signals, includes bug zapper, guardian swarm, life support (24 hours).
Psi Jammer	Mod/2	Jams brainwave frequencies w/in 20 m, –30 Psi Tests.
Quantum Computer	Maj/3	Used for codebreaking ▶247.
Ripper	Mod/R/2	EMP pulse every 5 turns, DV 3d10 to nanoswarms/microswarms.
Shroud	Mod/R/2	Blocks ID methods, mesh signals.
Traction Pads	Mod/2	+30 climbing Athletic Tests.
White Noise Machine	Min/1	Masks conversations from being recorded.
X-Ray Emitter	Min/1	Transmits x-rays for use with enhanced vision.

Traction Pads: This set of specialized fingerless gloves, shoes, and kneepads is designed to emulate the pads on gecko feet. You can support yourself on a wall or ceiling by placing any two of these pads against any surface not made from a material specially designed to resist such devices. You can climb any surface and move easily across walls and ceilings that can support your weight; apply a +30 modifier to climbing-based Athletics Tests. In addition to climbing, these devices are also very popular in zero-g environments.

White Noise Machine: This small and wearable device generates masking sounds that protect a conversation from being audibly recorded or overheard by anyone not in the immediate vicinity.

X-Ray Emitter: This small device emits a focused beam of low-powered x-rays, designed to be used with enhanced vision augmentation, specs, or similar vision enhancers. It allows you to image objects via x-rays and see through walls, into containers, and through objects by measuring backscatter x-ray radiation (*Senses and Sensors* ▶318).



MISSION GEAR

These tools are useful for a wide variety of missions.

EXPLORATION TOOLS

Gatecrashers and other explorers rely on these.

Blue Box: Named for the cobalt shade in which they were originally manufactured, blue boxes are small-sized pandora gate control devices. They must be physically attached to a gate to control it; this requires a Hardware: Electronics task action at –10 with a timeframe of 1 hour. Blue boxes have built-in self-destruct mechanisms, so that you can destroy the device in the event it might fall into alien hands.

Mapping Missile: This medium-sized portable rocket extends struts, aims itself, and launches into a low polar orbit on any planet with gravity below 2 g. Over a 1–2 day period, it uses a variety of sensors (radar, visual, infrared, mass, spectrographic) to map the planet and beam this information back. The maps are low resolution, showing nothing less than 100 meters across, but it will identify large masses, cities, lights on the planet's dark side, atmospheric conditions, and data on the planet's rotation and gravity.

Scout Missile: These small-sized missiles are easy to set up and launch from a disposable tube. They map the area in a 5-kilometer radius from their launch point, or out to 10 kilometers in a specified direction, in 20 minutes. Carrying visual, infrared, radar, and lidar sensors, and flying at an altitude of 100 meters, they can map terrain, locate structures, identify features of interest, and search for anything you specify with a Perceive 60. They transmit their sensor and telemetry data in real-time.

SALVAGE TOOLS

This technology is often employed by gatecrashers, space scavengers, and Firewall teams during missions.

Disassembly Tools: This collection of tools is useful for salvage ops, breaking down wrecks, or dissembling anything from a habitat room to a vehicle or synthmorph. They include plasma torches, laser cutters, pneumatic jaws, and smart-material tools like spanners and wrenches that can be adapted to a wide array of connections and fittings. Together, these tools are medium sized, usually ported by robomule.

Superthermite Charges: These powerful and highly stable demolition charges are made from a combination of nanometals and metal oxides. A single charge can be used to create an explosive blast inflicting DV 6d10 + 10 [43] when set with Hardware: Demolitions. A charge can be shaped with a successful Hardware: Demolitions Test, focusing the blast in a particular 90-degree direction (for example, to blow through a door). This triples the damage of the blast in the focused direction; in all other directions, the damage is reduced to 1/3rd. Multiple charges apply a cumulative effect.

SCIENCE TOOLS

When scientists take to the field, this is what they use.

Adaptive Interface: If the event you must interact with ancient technology — perhaps even a still-functioning alien relic — the adaptive interface features smart-material connectors that can connect to almost any conceivable piece of technology. It is also equipped with nano-probe sensors that can analyze the device's structure and map out its internal functions. The interface's ALI is equipped with Know: Computer Science, Know: Electrical Engineering, Know: Xenodata, and Interface skills at 60, as well as Infosec and Program at 40. Connecting to and analyzing relics is a task action with a timeframe of 1 hour, possibly longer (GM discretion). This interface severs mesh connections when analyzing unknown devices, so as not to unwittingly spread infections. It is not compatible with biological technology or nanotech more advanced than transhumanity's.

Fractal Gloves: These gloves mimic the function of fractal digits ▶324. The digits include micro-cameras that provide the function of nanoscopic vision ▶318.

Pocket Lab: This small handheld device contains numerous sensors for analyzing both organic and inorganic compounds in liquid, gaseous, and solid form. It performs material analysis using different methods of spectrometry, chromatography, and biochemical testing, comparing results to a built-in database. Using a pocket lab you could test soil fertility, identify clean water, detect hazardous emissions, discover traces of life, pinpoint contaminants, determine the presence of explosives or firearms, identify strange substances, and so on. It operates with Know: Chemistry 60.

Portable SolArchive: These very small data storage units contain impressive archives related to a particular subject (equivalent to one Know skill). They allow you to make Research Tests on that subject even when isolated from the mesh.

Specimen Container: This capsule container is designed to hold samples of any sort (chemical, biological, etc.) in near stasis. It can be programmed to reproduce whatever conditions the user specifies, from cryogenic freezing to extreme heat, or even vacuum or high-pressure atmosphere. The containers are also encased in a superconductive wire mesh that acts as a faraday cage and blocks mesh and radio signals and similar electromagnetic radiation.

EXPLORATION TOOLS	Complexity/GP	Description
Blue Box	Rare/—	Portable pandora gate interface.
Mapping Missile	Mod/2	Maps planet from low polar orbit in 24–48 hours.
Scout Missile	Mod/2	Maps 5 km radius or 10 km one direction in 20 minutes, Perceive 60.

SALVAGE TOOLS	Complexity/GP	Description
Disassembly Tools	Mod/2	Heavy and smart tools for taking things apart.
Superthermite Charge	Maj/R/3 (per 5 charges)	Nanometal explosive. DV 6d10 + 10, set/shaped with Hardware: Demolitions.

SCIENCE TOOLS	Complexity/GP	Description
Adaptive Interface	Maj/3	Smart connectors for accessing/analyzing relics. Interface 60, more.
Fractal Gloves	Mod/2	Function as fractal digits and nanoscopic vision.
Pocket Lab	Mod/2	Analyze gases, liquids, materials, Know: Chemistry 60.
Portable SolArchive	Min/1	Enable Research Tests related to one Know skill while isolated from mesh.
Specimen Container	Min/1	Holds samples in stasis conditions.

SURVIVAL TOOLS

The following gear is often critical to the survival of soldiers, spies, criminals, gatecrashers, emergency service personnel, and others who regularly venture into unsafe or unfamiliar regions.

Electrogravitics Net: Also called a safety net, this failsafe system uses electric fields to counter gravity when falling. While the system is not able to actually levitate heavy objects, it will slow down a fall enough that the user can land safely if the gravitational force is not too high (less than 50 meters in 1 g). Reduce the distance of longer falls by 50 meters when calculating damage. Generating these electric fields consumes a lot of energy, so the net is only good for one use before it must be recharged, taking 4 hours.

Electronic Rope: This rope's fibers can be controlled electronically: making it move in a snakelike fashion, stiffen up, and wrap around objects. It comes in a 50-meter length capable of supporting 250 kg. An e-rope can be cut by inflicting 20 points of damage.

Emergency Bubble: Used as a last-resort life raft on spaceships, an emergency bubble is made of advanced smart materials and comes in a large but portable package that can be quickly inflated around you in 1 action turn, usually inside an airlock. The bubble has a 5-meter diameter and can comfortably accommodate 4 people for 1 week. It maintains 1 atmosphere of pressure in a vacuum, protects the inhabitants from temperatures ranging from –175 to 140 C, and provides light and breathable air. A built-in autocook ▶343 provides food and liquids. It features a simple airlock, carries an emergency distress beacon, and can be transparent, opaque, or polarized. It is powered by a nuclear battery and includes comfortable inflatable furniture. This bubble can also be partially inflated as a dome and staked down to a surface to serve as an emergency shelter on asteroids or other surfaced environments.

Pressure Tent: This pack self-unfolds in 3 action turns into a pressurized shelter for up to 4 medium-sized people plus gear. A built-in breather will convert carbon dioxide from the atmosphere (if any) indefinitely. It also packs itself.

Smart Anchors: When activated, this worn harness fires out up to 6 anchoring cables with a length of 10 meters. These cables spike into ice, dirt, or rock, or use grip pads to adhere to an appropriate surface. This prevents you from drifting into space, accidentally kicking off with terminal velocity, or falling off a cliff face. The device's ALI targets and deploys anchors, and can be instructed to do so under certain conditions.

Spindle: Spindles are wound lengths of thin (0.2 millimeters) but super-strong fullerene cable. It can extend 250 meters of cable capable of supporting 5,000 kilograms of weight at 1 g. The spindle also contains a specialized fabber that can manufacture more cable and extend it indefinitely, at a rate of 1 meter per minute, as long as it is fed with raw materials. The spindle can cut the cables it produces at any length. If fixed in place with built-in grip pads, it can also retract the cable at a rate of 50 meters per action turn, or re-absorb cables at the rate of 5 meters per minute. Spindle cables can be cut by inflicting 30 points of damage.

Spindle Climber: This device attaches to a spindle and transforms it into a highly effective climbing device. The spindle climber has two functions. First, it attaches hardened tips to the spindle's cable and fires it at high speed, up to 50 meters, with sufficient force to imbed the tip into almost any sufficiently durable surface (if used as a weapon, it inflicts DV 2d10). Second, the spindle climber can pull itself and up to 250 kg up the cable at a speed of 12 meters per turn.

VACSUITS

Vacsuits are a requirement in sealed habitats and spacecraft. They come in a variety of forms, from newer smart-fabric to older, retro models, both in light and standard designs.

In a breathable atmosphere, modern vacsuits are loose smart-fabric garments that can be worn as ordinary clothing and easily put on or taken off. When activated — either manually or automatically if the suit detects a loss of air pressure — the suit becomes skin-tight and resistant to vacuum over 3 action turns. The hood stiffens and transforms into a transparent helmet.

Older vacsuit models lack the smart fabrics and are made of stiffer and bulkier materials. Donning one is a REF Check task action with a timeframe of 1 minute (20 action turns). Quick-release functions allow them to be removed in 3 action turns.

Unless specifically noted, assume characters have newer models; older dumb-fabric designs are typically kept around as backups in older habitats and ships.

Light Vacsuit: Both smart-fabric and legacy light vacsuit models are ideal for less harsh environments such as Mars, the Venusian clouds, or exoplanets with moderate but unbreathable atmospheres. Their rebreathers provide 8 hours of air. All models include a headlight, an ecto, and atmospheric sensors. They protect you from temperatures from –75 to 100 C. These vacuum suits also provide an Armor Value of 5/2 and instantly self-seal breaches unless more than 20 points of damage are inflicted at once.

Standard Vacsuit: Made from thicker and more durable materials, standard vacsuits provide 48 hours of air and incorporate an autocook capable of recycling all wastes and producing food and water indefinitely. Each suit is equipped with an ecto, a radio booster, specs, and atmospheric sensors. These suits have an Armor Value of 8/6 and protect you from temperatures from –175 to 140 C. They instantly seal any hole unless more than 30 points of damage are inflicted at once.

SURVIVAL TOOLS	Complexity/GP	Description
Electrogravitics Net	Min/1	Slows falls w/electric fields. Reduce distance by 50 m.
Electronic Rope	Min/1	Controllable rope.
Emergency Bubble	Maj/3	Inflatable pressurized bubble/dome.
Pressure Tent	Mod/2	Self-erecting shelter for 4, built-in breather.
Smart Anchors	Min/1	Harness deploys cables to prevent accidents.
Spindle	Mod/2	Fullerene cable fabber, supports 5,000 kg.
Spindle Climber	Min/1	Launcher and powered ascender, Movement 12.

VACSUITS	Complexity/GP	Description
Light Vacsuit	Mod/2	As smart clothes, protects from vacuum, 8 hours air, AV 5/2.
Standard Vacsuit	Maj/3	As smart clothes, protects from vacuum, 48 hours air, AV 8/6.

NANOTECH

Nanotechnology is widespread throughout the Solar System, with the exception of the Jovian Republic and similar bioconservative habitats. For decades, nanofabrication has been the primary manufacturing method. Though the technology is advancing, most nanobots used for manufacturing/replication require specially maintained environments like the insides of cornucopia machines or healing vats and cannot operate elsewhere.

Ego Bridge: Ego bridges are devices used for uploading from and downloading to biological brains (*Backups & Uploading* ▶286). The bridge's cranial sensors unfold around your head when in use, imaging and scanning your brain. Needles in the neck rest deploy nanobots that either measure your mind and neural connections (uploading) or physically re-map them (downloading).

Healing Spray: This very small canister contains a single-use application of medical nanobots for healing biomorphs. You simply spray it on an open wound or inject it into a damaged area. It heals 1d10 [6] damage an hour (*Recovery* ▶221) for 12 hours.

Healing Vat: Healing vats may be the most powerful medical devices in common use. Vats preserve biomorphs in nutrient gel crawling with medical nanobots, while injection lines pump the body full of medichine swarms. They quickly assess your health, mend bones, heal wounds, regenerate limbs, and otherwise repair your biological form (*Healing & Repair* ▶221). With the exception of a few exceptionally deadly nanoplagues and certain kinds of neurological damage, a healing vat can cure any disease and heal any injury. As long as you are alive when you are placed in the healing vat, you will not only survive, but emerge without a scratch, given enough time. A healing vat can even take your severed head (as long as it has been stabilized by medichines or nanotech first aid) and regrow an entire body based on your head's genetics.

Medical care is not all that healing vats are used for — they are also the safest way to sculpt your body or install various bioware, cyberware, and nanoware systems. Specialized nanomachines are used to grow the ware inside your body or otherwise customize your form. Every hospital, clinic, body bank, chop shop, and augmentation parlor has several healing vats.

Med Scanner: You can use this very small device to take a small range of bio samples from a biomorph, which are then scanned and analyzed at the nanoscale. The process takes 1 minute and can identify the presence of diseases, toxins, nanobots, and other infections (including most exsurgent virus strains). It also provides vital signs and an analysis of the person's overall health. Treat the scanner as having Medicine: Forensics, Medicine: Paramedic, and Medicine: Veterinary at 60 for diagnosis purposes only. It also has Exotic Skill: Nanobot Detection 40 for detecting nanobots, +30 if the target is currently affected by nanoware, nanodrugs, or nanotoxins.

Nanodetector: Nanodetectors are small devices that suck in air and micro debris in order to scan for and detect nanobots. Given that nanobots are so tiny, the density of nanobots in the area has a large impact on its success. The nanodetector has Exotic Skill: Nanobot Detection 40 for detecting nanobots, +30 if an active nanoswarm or hive is present. Nanodetectors often pick up expired nanobots from swarms no longer active, but they can assess whether the bots are still active (or were recently) and the rough density (Durability) of the swarm in the area. Once a nanobot is detected it can be analyzed either by the user or the nanodetector's AI, using Know: Nanotechnology 60 skill. Nanodetectors are often worn and left on, set to alert you if a hostile nanoswarm is detected.

Repair Spray: Similar to healing spray, this single-use application of fixer nanobots repairs 1d10 [6] damage an hour for 12 hours for synthmorphs, bots, and other shells. The spray must have access to the shell's blueprint or have an hour to scan a similar design.

HIVES

Hives are specialized devices that manufacture and maintain nanoswarms and microswarms ▶344. A hive can fabricate and store thousands of nanobots or microbots (enough for a standard 10-cubic-meter swarm). It can manufacture a new swarm from scratch in hours (according to complexity, Acquisition Time table ▶312). A swarm that is depleted can be restored; hives "heal" 10 damage an hour to swarms in the form of replenished mites. Swarms are typically slaved to the hive they are launched from, for ease of control. Hives must be loaded with feedstock or they will eventually run out of raw materials (*Nanofabrication* ▶314).

General Hive: General hives can produce any standard swarm with the right blueprints and/or programming. They are medium-sized and not easily portable, with a volume of 20 liters. Each includes a disassembly unit for recycling trash as feedstock.

Specialized Hive: Specialized hives are far more common than general hives. Each produces only a single type of swarm (blueprints included). Hives are small sized. complexity is one step above the swarm's complexity.

NANOFABRICATORS

Nanofabrication machines are universal assemblers. They can manufacture almost anything from the molecular level up, from a weapon to an ultralight plane to a hot and delicious dinner. You simply need raw materials ("feedstock") and electronic plans ("blueprints"). Feedstock is readily available in most circumstances, distributed in blocks or by habitat utility feedlines, though it may be an issue in remote outposts or if your design requires exotic materials (*Nanofabrication* ▶314). Most fabricators are equipped with disassemblers for turning unwanted matter into feedstock. Disassemblers are programmed not to disassemble living tissue.

Nanofabricators come equipped with a library of free common-use blueprints: basic foods, standard clothing, common tools, emergency gear, etc. Other blueprints must either be purchased online, self-programmed, or acquired through some other method. In capitalist economies, blueprints are licensed and protected by copyright laws. Pre-programmed restrictions will prevent you from using unlicensed blueprints or from manufacturing weapons, explosives, or other restricted items. Among the autonomists of the outer system, however, nanofabricators are commonly accessible, shared by everyone, and unrestricted, with entire libraries of open-source blueprints (many of them reverse-engineered from proprietary designs).

Many different terms are used to describe nanofabricators: makers, compilers, forges, cornucopia machines, printers, and replicators, though fabbers remains the most commonplace. Fabbers are categorized by their size; each can make items of any smaller size. At the GM's discretion, nanofabricators can create items of their size category or larger, but in pieces that must be assembled (possibly requiring an appropriate Hardware or other skill test to assemble).

Small Fabber: These small and portable fabbers can produce objects up to a very small size with the appropriate blueprint. They have a maximum volume of 2 liters.

Medium Fabber: These desktop fabbers can manufacture up to small-sized items. They may be able to print multiple of the same very small items at once. They have a maximum volume of 40 liters.

Large Fabber: Large-sized fabbers are non-portable, unless mounted on a bot or vehicle, with a volume of 80 liters. They can manufacture most medium-sized items, or two or more of the same small-sized items at a time, or four or more identical very small objects at once.

Minifac: Colloquially known as mini-factories or minifacturers, minifacs are huge, industrial-scale fabricators. These devices are used for much of the manufacturing throughout the Solar System, capable of making everything from synthmorphs to vehicles to habitats.

Specialized Nanofabricators

These nanofabricators are restricted in what they can print.

Autocook: Autocooks are specialized fabricators that only produce food and drinks. At the low end (Minor complexity), autocooks are small sized and can produce water, various flavored beverages, ration bars, thick pudding-like edible gels, and similar dry or gooey foods. Most units have a very limited range of flavors and textures that are widely considered to be fairly bad. Higher-end units (Moderate and Major complexity) are small or even medium sized and can manufacture and synthesize better foods, up to and including gourmet meals and alcohol, as well as similar organics, such as fabric, leather, and some medicines. Raw materials can be provided by the addition of any water-containing liquid and collected biomass like leftover food, grass, dirt, dead animals, or transhuman waste. With adequate raw material, an autocook can indefinitely provide food and drink for up to three transhumans.

Specialized Fabber: Specialized fabbers are not universal assemblers — they are designed to make one particular type of item, such as heavy pistols, utilitools, or a specific drug. Specialized fabbers come in sizes appropriate to the item they make.

NANOTECH GEAR	Complexity/GP	Description
Ego Bridge	Mod/2	Upload from/download to biological brains.
Healing Spray	Min/1	Heals 1d10 [5] damage an hour for 12 hours for biomorphs. Single use.
Healing Vat	Maj/3	Heal/cure biomorphs, customize/augment morph.
Med Scanner	Min/1	Scans health, diagnosis w/Medicine: Forensics/Paramedic/Veterinary at 60, detect nanobots as nanodetector.
Nanodetector	Min/1	Detects nanobots, Exotic Skill: Nanobot Detection 40 (70 w/active swarm), Know: Nanotech 60.
Repair Spray	Min/1	Heals 1d10 [5] damage an hour for 12 hours for synthmorphs. Single use.

HIVES	Complexity/GP	Description
General Hive	Maj/3	Can produce any swarm w/blueprints.
Specialized Hive	Mod/2 or Maj/3	Makes/maintains one swarm type.

NANOFABRICATORS	Complexity/GP	Description
Small Fabber	Min/1	Fab very small items.
Medium Fabber	Mod/2	Fab small items.
Large Fabber	Maj/3	Fab medium items.
Minifac	Rare/—	Industrial-scale nanofab.

SPECIALIZED FABBERS	Complexity/GP	Description
Autocook	Min+/1+	Fab food and drink only.
Specialized Fabber	Min/1	Fab 1 specific item type only.

NANOSWARMS & MICROSWARMS

Swarms are colonies of nanobots or larger microbots created in a hive, programmed with specific instructions, and then set free to perform a set task. Swarms range from thousands of microbots the size of a small insect to millions of nanobots each no bigger than a microbe. Nanobots are invisible to the naked eye, though they can be detected with a nanodetector or nanoscopic vision. A concentrated presence of nanoswarms creates a visible hazy effect in the air. Likewise, mass amounts of expired nanobots leave a toner-like dust residue on nearby surfaces. Microbots are visible but still quite small, the size of a grain of sand or a dust mote, or occasionally as big as a flea.

Individual "mites" in a swarm are directed by nanocomputers, with behavioral routines modeled on biological insect and animal swarms. They are powered by tiny batteries or solar cells. Swarms stick together and work as a whole, communicating by radio or laser link. They can be tasked with specific instructions or set to follow pre-set routines. They can also be teleoperated or reprogrammed after they are released.

SWARM RULES

The following rules apply to swarms.

Swarm Units

Swarms are measured by their Durability. A standard swarm unit has DUR 25/DR 50. At its maximum functional level of dispersion, a swarm occupies a spherical cloud roughly 8 meters in diameter (~250 cubic meters) in size. Swarms can alter their density and shape, from filling a small-sized canister to spreading out across a much larger space. Attenuating beyond 250 contiguous cubic meters imposes modifiers to Initiative and actions (GM discretion), as the mites have difficulty communicating and coordinating.

Swarmanoids are the size of two swarm units (DUR 50/DR 100), maxing out at about 500 cubic meters (a sphere 10 meters in diameter).

Splitting/Combining

A swarm that splits must divide its DUR/DR between smaller units that act independently. Any damage the swarm has must also be split between the new units. Likewise, swarms of the same type that merge combine their DUR/DR and damage and act as one.

Movement

Swarms move at a very slow rate, 2/8 for microswarms and 1/4 for nanoswarms. Canisters and hives forcefully disperse them like an aerosol cloud, allowing them to quickly spread out. Individual mites are light enough to float on air currents; some use nanocopter blades to lift and propel themselves. Other mites crawl or hop. Mites must crawl in vacuum (reduce their movement by half) and swim in water or other liquids (treat as difficult movement ▶230). They are vulnerable to drafts and currents; high-speed winds/liquids may hinder movement or carry a swarm away (GM discretion).

Dispersed swarms can be recollected and re-used. Collecting all the mites takes about 1 minute, more if widely dispersed.

Commanding Swarms

Most swarms are meshed, usually slaved to their hive or directly to their deployer. You can issue commands to the swarm and receive data from it just as you would a bot. Swarms may also be programmed in advance. Complex instructions may require a Program Test; use the rules for scripting ▶249.

To prevent a swarm from being detected via their mesh signals, you can instruct it to only broadcast compressed messages/recordings at set intervals, or to only respond to set authorization signals.

Mites have tiny sensors that are very effective at identifying materials and objects. They can, for example, be programmed to target or ignore specific metals, plants, morphs, sexes, or individuals.

Limitations

Swarms cannot hold, lift, carry, or move physical objects over half a kilogram in mass, even in microgravity. They may not make strength-based SOM Checks.

Swarms are ineffective at penetrating inside biomorphs and other biological forms (though they can attack externally); this is the realm of nanoware, nanodrugs, and nanotoxins.

Winds over 60 kph inflict DV 1d10 a turn or more. Extended exposure to heat (over 35 C/95 F) may damage or incapacitate a swarm entirely. Aside from mobility, swarms are not affected by vacuum.

Swarm Combat

At their full volume, swarm units are considered very large targets, though they can compress down to smaller sizes. Attacks against nanoswarms likely suffer blind-fire modifiers. Swarms are immune to wounds, called shots, grappling, knockdown, and shock effects. Area-effect weapons, fire/plasma attacks, and vehicle collisions inflict half damage. EMP and adhesive attacks (freezers) inflict DV 3d10 to swarms and a cumulative –10 modifier to all actions until repaired. All other attacks simply inflict 1 DV to the swarm.

Swarm Attacks: Most mites are not equipped for combat, but microbot swarms, swarmanoids, and insect/animal swarms can attack as a swarm unit. Swarm melee attacks and effects automatically succeed against all targets within the swarm's volume. Swarm attacks penetrate inside and ignore armor unless it is environmentally sealed, like combat armor, vacsuits, or hardsuits. Swarm attacks are blinding ▶226 as mites cover eyes/sensors, crawl under clothes, invade orifices, and otherwise harry targets like a hostile tornado. Nanoswarms cannot attack in the traditional sense, however swarms such as disassemblers and pushers have an attack effect automatically applied to targets within the swarm's volume. Combat takes its toll on swarms, however; they take DV 1 per target each action turn.

Swarms can be outrun, but GMs may call for a REF Check to avoid carrying part of the swarm with you.

Ware

Swarmanoids and swarms may be equipped with ware, like robots. GMs must use common sense when deciding what ware is allowed; most meshware and nanoware is acceptable, but hardware like pneumatics is not.

Attrition

Individual mites are very vulnerable. They fail and get stepped on, breathed in, stuck to things, crippled by static electricity, and otherwise destroyed in large numbers. Each day during which a swarm is deployed, it takes DV 5 (DV 10 or 20 in unfavorable environments). Hives repair this damage with new mites ▶342. A swarm is disabled/ineffective when damage reaches its Durability. This makes swarm units without a hive good for about 5 days of use.

SWARMS

Swarms are released directly from a hive or from pre-packaged programmable canisters.

Cleaner: This nanoswarm cleans, polishes, and removes dirt and stains. You may deploy it to sanitize an area, specific objects, or people. Some facilities employ permanent cleaner swarms to keep their area spotless. Cleaners are especially useful for decontaminating an area of hazardous toxins or chemicals. Covert operatives and criminals use cleaners to eliminate potential forensic evidence, such as blood, hair, or anything that could be DNA-typed.

Disassembler: Also known as smart corrosives, these nanobots break down matter. They can be programmed to take apart specific materials while ignoring others, leaving them intact. They are sometimes used as an anti-matériel weapon, eating away at synthmorphs, weapons, and gear while ignoring biomorphs (or vice versa). Upon contact, disassemblers inflict DV 1d6 per action turn. Accumulated damage counts as a wound when your Wound Threshold is reached. Worn armor (both energy and kinetic) protects against this damage (unless the swarm is programmed to ignore it), but is also eaten away; reduce the AV by the damage inflicted, splitting it between armor types (i.e., a disassembler inflicting DV 2 turns AV 4/2 into 3/1).

Engineer: Engineer microswarms are used for construction purposes: erecting walls, digging tunnels, sealing holes, reinforcing foundations, and so on. Though they work slower than robots, they are useful for hard-to-get areas, complex designs, or handling difficult materials.

Fixer: Fixers repair objects and restore them to their original specifications. They must be programmed with the item's nanofabrication blueprints or given time (~an hour) to scan an identical object; they are not smart enough to recognize and repair damage on their own. A fixer swarm repairs 1d10 [6] damage per hour. Once all damage is repaired, it will restore 1 wound per day. Fixers also clean and polish items, returning them to a new, pristine state. Fixer swarms cannot effect repairs on objects with more than 3 wounds, but they will apply a +30 modifier to Hardware Tests for repair.

Gardener: This microswarm is useful for a number of agricultural purposes: killing weeds, planting seeds, trimming plants, pollinating, and even harvesting small items. It can also be programmed to defoliate an area. Gardener swarms are common in habitat greenhouses and hydroponics bays.

Guardian: Guardians watch for and attack other unauthorized swarms. These mites neutralize other nanobots by physically latching on to them, effectively disabling both. This war of attrition takes its toll on the guardian swarm as well. Every action turn, both the guardian and targeted swarm take DV 1d10 [6]. Guardians can be programmed or instructed to release captured mites, allowing you to temporarily disable a swarm and then release it afterwards.

Protean: This nanoswarm disassembles other materials in order to create a single, specific object (much like a specialized nanofabricator). The proteans must be able to scavenge appropriate raw materials (for example, to create a metallic device the nanobots must transform something else made of metal), whether by specific or indiscriminate targeting of their surroundings. Assembly time is based upon complexity, just like regular nanofabrication. The specific blueprint they follow must be specified when the swarm is acquired.

Pusher: Pusher microswarms deliver drug/toxin payloads to biological targets. They either inject a target in mosquito mode or mass-release an aerosol cloud for inhalation/skin contact. Pusher swarms can be programmed to seek out specific people, biomorphs or animals of a certain type, or all living things. A biological target who comes into contact with a pusher swarm is automatically exposed to the effect of the carried drug or toxin. Pushers cannot penetrate vacsuits, but they can linger on the exterior long enough to target the occupant when they remove it. Each swarm carries enough to affect 5 targets.

Saboteur: Sab nanobots infiltrate electronics or machinery and sabotage them in small but difficult to discern ways: severed connections, disabled components, gummed up moving parts, etc. You may set them to target a specific device, a type of device (i.e., all case morphs), or any electronics or machinery they can find. Once an object is exposed, the saboteurs have a 50% chance of inflicting a wound (and the equivalent DV) every (Wound Threshold) action turns. This will continue until the target has suffered 5 wounds and is incapacitated. Armor has no effect, but the wounds can be repaired as normal. Saboteurs cannot sabotage other nanoswarms.

Scout: A scout nanoswarm will systematically map and explore an area, sampling and chemically analyzing all materials and substances it encounters. Scouts can thoroughly map a room, identify all of the objects, and collect forensic evidence about who recently visited and what has gone on there. Scouts have Know: Chemistry 60 and Medicine: Forensics at 60. They can identify DNA, gunpowder residue from firearms, clothing fibers, smart animal dander, and similar evidence up to 2 weeks old. Scouts can penetrate inside drawers, closets, clothing, and other areas that are not air-tight.

Spy: Also known as "smart dust," spy swarms are invisible clouds of surveillance. Spy mites are loaded with cameras (standard visual wavelengths), microphones, and chemical sensors. They offer blanket surveillance of an area. Each swarm has Perceive 60.

Taggant: Taggants grip onto and lodge themselves into everything in their dispersal volume. Each carries a unique identifier, so that if it is found, the tagged person or object can be linked to the point they were tagged. Taggants can be programmed to remain silent, responding to query broadcasts made with the proper crypto codes, or they can be programmed to broadcast their location back to the deployer via the mesh. Some high-security facilities deploy taggants at their egress points when alarms are triggered to mark intruders.

SWARMS	Complexity/GP	Description
Cleaner Swarm	Min/1	Cleans, eliminates forensic evidence.
Disassembler Swarm	Mod/R/2	Deconstructs, DV 1d6 per turn, eats armor.
Engineer Swarm	Min/1	Constructs/shapes environment.
Fixer Swarm	Mod/2	Repairs 1d10 damage per hour or 1 wound per day.
Gardener Swarm	Min/1	Maintains flora, defoliates, kills weeds, pollinates, etc.
Guardian Swarm	Mod/2	Disables other swarms; both swarms take DV 5 per turn.
Protean Swarm	As Object	Nanofabricates a specific, pre-programmed item.
Pusher Swarm	Min/R/1 + drug/toxin	Exposes biomorphs to drug/toxin.
Saboteur Swarm	Mod/R/2	Sabotages electronics/machinery; 50% chance of wound every WT turns.
Scout Swarm	Min/1	Maps area, collects forensic evidence, Know: Chemistry 60, Medicine: Forensics 60.
Spy Swarm	Min/1	Surveillance, Perceive 60.
Taggant Swarm	Min/1	Tag everything in area for tracking purposes.

ROBOTS

Robots are a common sight and accepted fact of daily life within *Eclipse Phase*. Numerous varieties exist, from robopets to mechanical workers to warbots. If a job can be done more cheaply (and sometimes safely) by a bot, it usually is. The robots listed here are not generally used as synthetic shells by transhuman egos, often for cultural reasons (sleeving a case is bad enough, sleeving a creepy is just ... weird), and they are not equipped to be sleeved into, though they can be remotely operated ▶below. Any of these bots can be modified for use as a synthetic morph, however, by adding a cyberbrain system ▶316.

Most robots are intentionally built in non-humanoid forms so as not to confuse them with common synthmorphs and to defuse subconscious guilt transhumans might have at ordering anthropomorphic entities around. However, they all have some form of abstract "face" to interact with, so as not to be too machine-like.

ROBOT WARE

All robots are equipped with the same sensory systems you get with every morph: standard vision, hearing, touch, proprioception, balance, and so on — sometimes even smell. They are also all equipped with standard ware that facilitates their function, noted below. Individual bots have their own distinct ware payloads, as noted in their description. You may also modify bots with additional ware, just like a synthmorph. Some also use vehicle hardware ▶350.

Ware: 360-Degree Vision, Access Jacks, Bot AI, Lidar, Mesh Inserts, Puppet Sock

REMOTE OPERATIONS

Any shell or biomorph with a puppet sock (included in most cyberbrains) can be remote controlled, either by a character or an AI. This requires a communications link between the *teleoperator* and the *drone*. The teleoperator controls the drone via entoptic interface and receives sensory input and other data via the drone's mesh inserts.

You can control a drone in *autonomous mode* or directly by *jamming*.

Autonomous Mode

Bot and vehicle shells are equipped with Bot/Vehicle ALIs ▶326. In autonomous mode, the drone's AI operates on its own, though it also follows commands issued verbally or via a communications link or entoptic control panel by an authorized entity. Issuing a one-sentence command is a mental quick action; commands can be issued to multiple drones at once. More complex commands may take longer, or can be prepared in advance with a Program Test. The AI may need to pass a COG Check to understand especially confusing or incomplete commands.

Autonomous drones use their own Initiative, skills, and pools.

Jamming

You jam a drone by immersing yourself in an AR overlay of the drone's body and sensorium, including proprioception — you essentially become the drone. Engaging or disengaging from jamming mode is a quick action. While immersed, you suffer a –30 modifier to Perceive Tests and physical actions involving your own morph. Jamming feels much like resleeving and you must make an Integration Test ▶288 to acclimate to the drone's form.

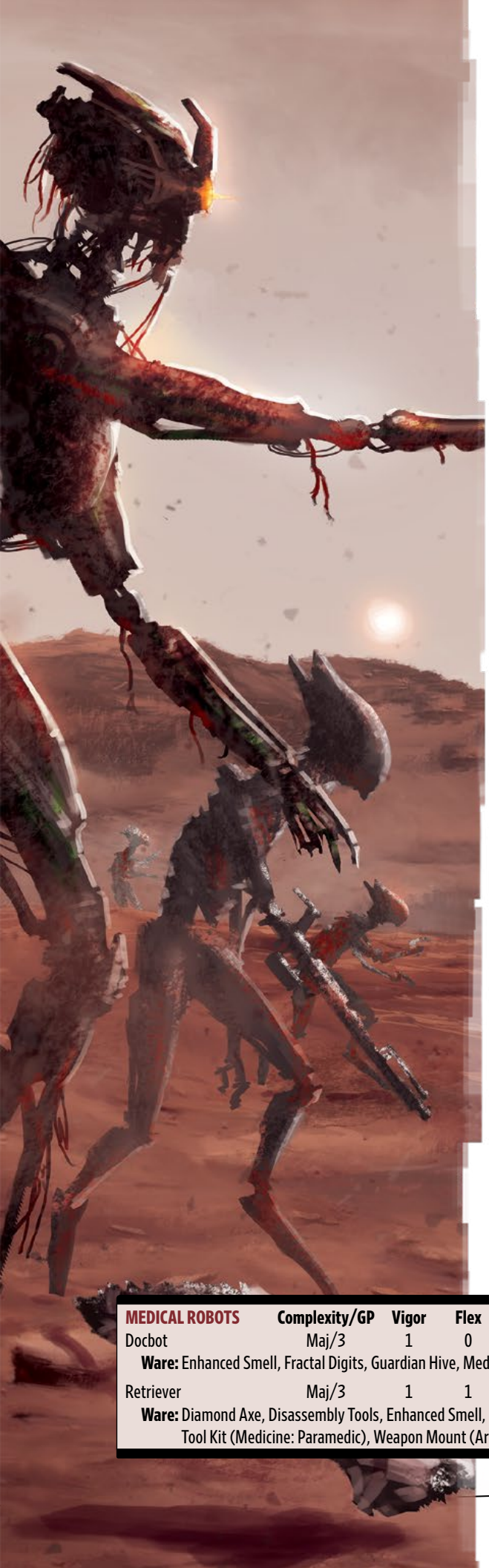
Treat jamming the same as if you sleeved the drone; use the drone's pools instead of your own morph's. However, since jamming is slightly inferior to actual sleeving, you suffer a –10 modifier to all actions (unless you are equipped with drone rig ware ▶320).

ALL ROBOTS

All bots are equipped with the following hardware, in addition to that listed with their specific description:
Ware: 360-Degree Vision, Access Jacks, Bot AI, Lidar, Mesh Inserts, Puppet Sock

COMBAT ROBOTS	Complexity/GP	Vigor	Flex	Armor	WT	DUR	DR	Movement	Size
Guardian Angel	Mod/2	0 (1)	1	16/12	5	25	50	8/32 Rotor	S
Ware: Chameleon Skin, Eelware, Enhanced Hearing, Enhanced Smell, Enhanced Vision, Light Combat Armor, Radar, Smart Actuators, T-Ray Emitter, Weapon Mount (Articulated)									
Parisphere	Rare/—	3	0	28/24	30	150	300	8/40 Thrust Vector	L
Ware: Enhanced Vision, Heavy Combat Armor, Radar Absorbent, Structural Reinforcement, Weapon Mounts (2 Static, 2 Articulated/Concealed)									
Sentry	Rare/—	1 (2)	1	18/14	15	75	150	4/12 Tracked	M
Ware: Anti-Glare, Eelware, Enhanced Hearing, Enhanced Vision, Light Combat Armor, Smart Actuators, T-Ray Emitter, Weapon Mounts (2 Articulated/Concealed)									
Shield Drone	Min/1	0	0	+6/+12	5	25	50	4/12 Tracked	S

EXPLORATION ROBOTS	Complexity/GP	Vigor	Flex	Armor	WT	DUR	DR	Movement	Size
Explorenaut	Maj/3	1	1	12/10	7	35	70	4/12 Tracked, 8/40 Thrust Vector	S
Ware: Chem Sniffer, Electrical Sense, Enhanced Hearing, Enhanced Vision, Pocket Lab, Radar, Specimen Container, Sonar, T-Ray Emitter, Utilimod									
Squishbot	Min/1	0	0	2/2	2	10	20	4/12 Walker, 8/40 Roller	S
Ware: Retracting Limbs, Shape Adjusting									



COMBAT BOTS

These bots are useful for security, defense, and combat applications.

Guardian Angel: Similar to gnats, guardian angels are larger rotorcraft used for defensive purposes. They hover around their charges, keeping a watchful eye out to protect them from threats.

Parisphere: Named after the Trojan hero Paris, who slew Achilles with an arrow, this orb-like spacecraft is little more than a weapons pod built around a rocket. Lacking a pilot, these fighter drones can pull high-g maneuvers.

Sentry: Many varieties of sentry bots exist, but common models maneuver on four multi-directional smart treads. Used throughout the Solar System for policing and security purposes, they are loaded with armor and weapons.

Shield Drone: These tracked drones essentially function as large ballistic shields and movable cover for special ops teams. They provide AV +6/+12 to anyone using them for cover. The bot itself is little more than a platform (treat as small size if targeted directly).

EXPLORATION BOTS

Designed for gatecrashing, these bots are also handy in other places.

Explorenaut: These small-sized bots travel on smart treads or with thrust-vector jets. They are loaded with sensors and favored for gatecrashing and similar exploration ops. A pair of manipulator arms are used for taking samples.

Squishbot: These small, amorphous bots are soft, with a smart-material liquid matrix interior and extensible skin. They can extrude tentacle-like limbs for walking and manipulating, roll as a ball, and squeeze through tight, confining spaces.

MEDICAL BOTS

These bots are literal life savers.

Docbot: These wheeled medical robots are designed to tend to and transport injured or sick people. They carry a fabber for medical supplies and pharmaceuticals, miscellaneous medical gear, a secure container for carrying heads, and 4–8 articulated arms for conducting remote surgery. They are often loaded up with healing spray and meds (acquired separately).

Retriever: Designed much like a smaller flying car with a pair of manipulator arms, this bot handles search-and-rescue ops. It tracks down survivors and rescues them from dangers, carrying the injured back to safety. It can hold one medium-sized transhuman.

ALL ROBOTS

Unless otherwise noted, all robots are equipped with the following hardware, in addition to that listed with their specific description:

Ware: 360-Degree Vision, Access Jacks, Bot AI, Lidar, Mesh Inserts, Puppet Sock

MEDICAL ROBOTS	Complexity/GP	Vigor	Flex	Armor	WT	DUR	DR	Movement	Size
Docbot	Maj/3	1	0	8/6	8	40	80	8/40 Thrust/Wheeled	M
Ware: Enhanced Smell, Fractal Digits, Guardian Hive, Medium Fabber, Nanoscopic Vision, Specimen Container, Tool Kit (Medicine: Biotech or Paramedic)									
Retriever	Maj/3	1	1	12/10	12	60	120	8/40 Wheeled, 8/32 Rotor	L
Ware: Diamond Axe, Disassembly Tools, Enhanced Smell, Enhanced Hearing, Enhanced Vision, Healing Spray (2), Repair Spray (2), Tool Kit (Medicine: Paramedic), Weapon Mount (Articulated/Concealed, Sprayer with NotWater)									

PERSONAL BOTS

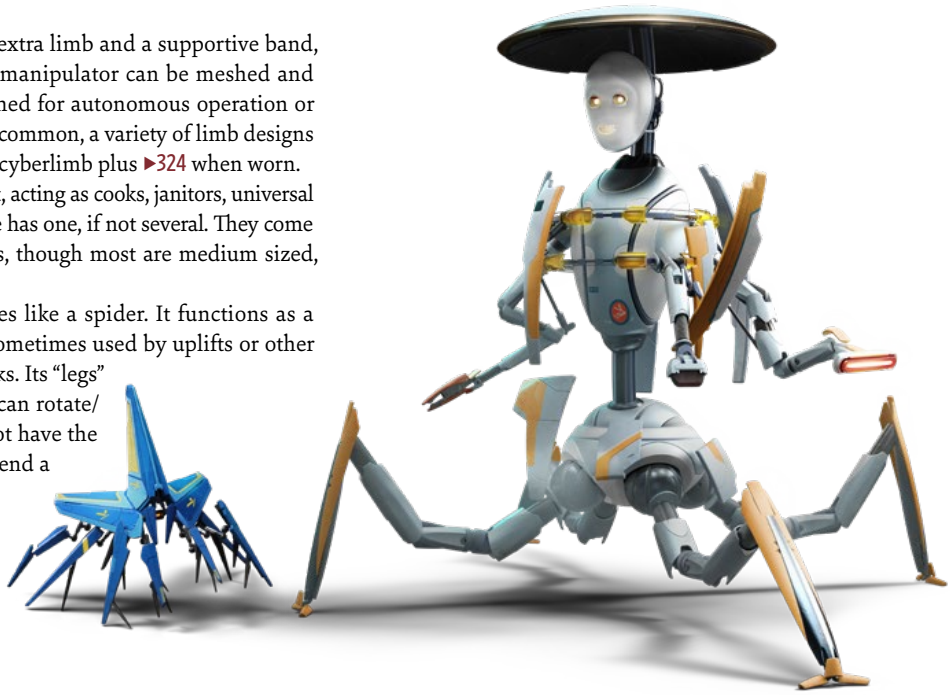
Personal bots are worn or found throughout transhuman habitats.

Creepy: Creepies come in an eclectic variety of forms, from robo-squirrels to insectoids to bizarre artsy mechanical creatures. Creepies were originally designed as a robotic pet, but are commonly used as a general-purpose household minion, like a more beloved servitor. Many people wear a creepy on their person, dropping it to handle small tasks for them and letting it crawl up, down, and over their body.

Manipulator: This bot takes the form of an extra limb and a supportive band, bracing frame, rig, or cuff for wearing it. The manipulator can be meshed and treated as an extension of your body or detached for autonomous operation or remote control. Though human arm designs are common, a variety of limb designs are available, from claws to tentacles. Treat as a cyberlimb plus ▶324 when worn.

Servitor: Servitors are the most common robot, acting as cooks, janitors, universal helpers, movers, and personal aides. Every home has one, if not several. They come in a variety of non-humanoid shapes and sizes, though most are medium sized, with 4–8 limbs on average.

Spider Hand: This hand-shaped bot scurries like a spider. It functions as a detachable hand for a cyberarm, though it is sometimes used by uplifts or other morphs who need a hand design for certain tasks. Its "legs" are more articulated than human fingers and can rotate/bend in any direction. Though this bot does not have the leverage of a full arm/body behind it, it can extend a meter-long brace for stabilization and support.



ALL ROBOTS

Unless otherwise noted, all robots are equipped with the following hardware, in addition to that listed with their specific description:

Ware: 360-Degree Vision, Access Jacks, Bot AI, Lidar, Mesh Inserts, Puppet Sock

PERSONAL ROBOTS	Complexity/GP	Vigor	Flex	Armor	WT	DUR	DR	Movement	Size
Creepy	Min/1	0	0	2/2	3	15	30	4/12 Hopper/Walker	VS
Ware: Chameleon Skin, Grip Pads									
Manipulator	Maj/3	1	0	6/4	3	15	30	4/12 Walker	S
Ware: Grip Pads, Magnetic System, Telescoping Limb, Utilimod									
Servitor	Min/1	0	0	6/4	6	30	60	4/20 Walker	M
Spider Hand	Min/1	0	0	2/2	2	10	20	4/12 Walker	S
Ware: Claws, Grip Pads, Magnetic System									

RECON/SURVEILLANCE ROBOTS	Complexity/GP	Vigor	Flex	Armor	WT	DUR	DR	Movement	Size
Aerostat	Mod/2	0	0	6/4	4	20	40	8/32 Microlight	L
Ware: Chem Sniffer, Enhanced Vision, Laser Link, Radar, T-Ray Emitter									
Gnat	Min/1	0	1	2/2	4	20	40	8/32 Rotor	S
Ware: Chameleon Skin, Enhanced Hearing, Enhanced Vision, Radar									
Saucer	Min/1	0	0	2/2	5	25	50	8/40 Ionic	S
Ware: Chameleon Skin, Enhanced Hearing, Enhanced Vision, Radar									
Speck	Min/1	0	0	2/2	1	5	10	4/12 Hopper, 8/32 Winged	VS
Ware: Enhanced Hearing, Enhanced Vision, Grip Pads, Synthetic Mask									
Zephyr	Mod/2	0	1	6/4	6	30	60	8/32 Winged	M
Ware: Chameleon Skin, Enhanced Vision, Laser Link, Radar, Radar Absorbent, T-Ray Emitter, Weapon Mount (2 Static)									

RECON/SURVEILLANCE BOTS

Eyes in the sky remain one of the main uses of robots.

Aerostat: Aerostats are balloons, relying on buoyant gases for lift in atmospheres, maneuvering with turbofans. Their low signature and longevity make them ideal for high-altitude surveillance, research, or gas mining.

Gnat: Gnats are small rotorcraft camera/surveillance drones. Many people use gnats for personal lifelogging, while socialites and media use them to capture the glamour or hottest news.

Saucer: These disc-shaped drones are lightweight and quiet. They are typically launched by throwing them like a frisbee, after which they propel themselves with an ionic drive ▶231. Saucers make excellent "eye in the sky" monitors and scouts.

Speck: Specks are very small insectoid spy drones, roughly the size of a small fruit fly. They fly with tiny wings and are excellent for surveillance purposes or otherwise being a "speck on a wall." Specks are difficult to notice (–30 Perceive modifier) and almost impossible to distinguish from an actual insect.

Zephyr: Zephyrs are medium-sized but light stealth planes, often thrown to launch, used for long-distance recon or missile strikes.

UTILITY BOTS

These bots help get things done.

Automech: Automechs are general-purpose repair drones, found just about everywhere. Each specializes in a particular type of repair work and is equipped with the appropriate tools and ALI skills, whether it be electronics, habitat systems, or spacecraft repair. Standard automechs are wheeled cubes with 4–8 retractable and articulated limbs, though they are also equipped with vectored-thrust drives for zero-g work.

Barracuda: This undersea utility drone is fielded for exploration, service, and repair functions. It is shaped like a miniature submarine, with a pair of retractable arms.

Dwarf: These large industrial bots are named not just for their primary use — mining, excavation, tunneling, and construction — but because the default AIs they shipped with had a programmed tendency to happily whistle as they worked. Dwarfs are quadrupedal walkers, equipped with massive modular industrial tools like boring drills, shovels, hydraulic jacks, jackhammers, scooping arms, acid sprays, and so on.

Robomule: These six-legged cargo drones are designed to carry large, non-portable gear, such as servers, healing vats, tool shops, etc. They also serve as general-purpose supply drones, with smart-material straps and webbing to hold items and an enviroseal pod to protect its load from the environment.

UTILITY ROBOTS	Complexity/GP	Vigor	Flex	Armor	WT	DUR	DR	Movement	Size
Automech	Mod/2	1	0	8/6	6	30	60	8/40 Thrust/Wheeled	M
Ware: Electrical Sense, Magnetic System, Radiation Sense, Retracting Limbs, Tool Kit, Utilimod									
Barracuda	Mod/2	1	0	8/6	6	30	60	8/32 Submarine	M
Ware: Cryonic Protection, Enhanced Hearing, Pressure Adaptation, Retracting Limbs, Sonar, Utilimod									
Dwarf	Maj/3	3	0	18/14	30	150	300	4/20 Walker	L
Ware: Disassembly Tools, Electrical Sense, Radar, Sonar, Tool Kit									
Robomule	Mod/2	0	1	8/6	8	40	80	4/20 Walker, 8/40 Thrust Vector	M
Ware: Autocook									

VEHICLES

In *Eclipse Phase,* most vehicles are piloted by ALI. You simply get in the vehicle and tell it where to go. Manual piloting is for emergencies, control freaks, and people who don't like machines. Like robots, vehicles can be remotely operated. They are not equipped for sleeving into, however, unless you add a cyberbrain system.

VEHICLE WARE

All vehicles include the same sensory systems used in morphs and bots: standard vision, hearing, touch, proprioception, balance, etc. They are also all equipped with a standard set of necessary ware, listed below, in addition to that listed with their specific description. You may also modify a vehicle with extra ware, just like a synthmorph.

Vehicle Hardware

A few enhancements are designed specifically for vehicles, though some robots also use them:

Improved Handling: This vehicle is more maneuverable and responsive to controls. Apply a +10 modifier to Pilot Tests.

Life Support: The vehicle has a pressurized and heated/cooled compartment with air capable of supporting one or more biomorphs comfortably for a listed period. Such vehicles have airtight environmental seals, but usually do not have full double airlocks. The listed life support timeframe is according to the vehicle's medium-sized passenger capacity; adjust as appropriate for more/less or small/large passengers. Most life support systems are designed to last 48 hours, extended periods require extra tanks.

Ram Plate: A heavy metal plate affixed to the front, for ramming other vehicles. Increase the DV inflicted on the other vehicle by +2d10 (*Collisions* ▶232).

AIRCRAFT

On Mars, Venus, Titan, many exoplanets, and within large open-space cylinder habitats, aircraft of various kinds see regular use. This includes modern versions of rotorcraft (helicopters, autogyros, tilt-rotors), fixed-wing planes, zeppelins, and other lighter-than-air craft. These are typically propelled by turbofan or jet engines, rotors, or vectored thrust. Aircraft are flown with Pilot: Air and repaired with Hardware: Aerospace.

Flying Car: This methane-powered car is equipped with turbo fans that fold out from the body for vectored-thrust flight on Mars and worlds with similar gravities.

Microlight: This ultra-light personal aircraft is not much more than a strut-based wing, an airframe, and an electric propeller engine. They are ideal for getting around inside large habitats with enclosed airspace.

Portable Plane: Made of smart materials, this light but durable propeller plane packs into and self-erects from a large-sized but portable package in 10 minutes. Different models are designed for flight on Mars, Titan, Venus, or elsewhere, with an average wingspan of 10 meters.

Small Jet: Methane-powered jet planes are a common form of transport on Mars, Venus, and Titan. Their smart-material wings and frames can adapt to a wide range of speeds, altitudes, and atmospheric conditions.

Utility Helicopter: Common on Venus, Titan, and exoplanets with substantial atmospheres, this standard helo design is used for cargo and personnel transport, medevac, ground/air assault, and command/control.

EXOSKELETONS

Exoskeletons are worn powered mechatronic frames that enhance your physical capabilities. The exoskeleton's servo-hydraulic joints mimic your movements, like an extension of your own body. They can also be remotely operated. The exoskeletons listed here are open frameworks, meaning you are exposed; hardsuits are enclosed. Most exoskeletons are designed for use by medium-sized characters, but some alternate-sized designs exist. Use your normal physical skills while wearing or remotely operating an exoskeleton, and Hardware: Groundcraft to repair.

Atlas Loader: This common example of a heavy-use industrial exoskeleton is large (just over 3 meters tall) and designed for handling heavy/large objects. Though open frame, the wearer is partially protected by a meshed cage. Atlas's provide a +2 bonus to Vigor pool and increase melee damage by +2d10. Melee damage also becomes armor-piercing.

Exowalker: Exowalkers are minimal framework exoskeletons, primarily designed to bolster the wearer's strength and movement. They provide a +1 bonus to Vigor pool, increase melee damage by 1d6, increase your walker speed to 8/32 (fast), and double your jumping distance.

Transporter: This exoskeleton framework features a pair of vector-thrust turbofan engines, giving you flight capabilities. Use Pilot: Air and a Movement Rate of 8/40 (very fast).

Trike: The trike exoskeleton is a three-wheeled personal motorcycle design, rather than a walker. Use Pilot: Ground and a Movement Rate of 8/40 (very fast).

GROUNDCRAFT

While trains and bicycles remain the most common form of ground transportation in most habitats, cars and cycles are common on larger habitats, moons, and planets. Drive them with Pilot: Ground and repair them with Hardware: Groundcraft.

Buggy: Ubiquitous on Luna, Mars, Mercury, and Titan, this four-wheeler's large balloon tires are designed for both roads and off-road terrain. Smart materials in both the suspension and the tires reshape themselves to adapt to uneven conditions.

Cargo Hauler: These freight trucks are used to carry supplies to isolated habitats and terraforming operations on Mars, Mercury, Titan, and some exoplanets.

Cycle: Motorcycles are favored in habitats where space is premium. Open two-seaters remain the most common, but gyro-stabilized one-wheel designs are growing in popularity. Two-wheelers and trikes with enclosed capsules are frequent sights on Mars, Mercury, and Titan.

Ground Car: Standard automobiles come in a range of models and sizes.

Microcar: Single-person cars are popular in large habitats with limited space. These are little more than passenger pods riding on two large side-placed omni wheels for better handling and lateral movement.

Rover: Rovers are mobile living units, used by terraformers on Mars, miners on Mercury, and gatecrashers on exoplanets. They feature 8 large smart wheels, a 2-person airlock, cramped living quarters, a smart hitch for trailers, and a drone launching rack.

HARDSUITS

Hardsuits are solid, enclosed-shell, powered exoskeletons. Like standard vacsuits, they are environmentally sealed, protecting you from vacuum, radiation, and temperatures from –175 to 140 C. They also self-seal any punctures that inflict less than 30 points of damage. Hardsuits are used for extreme environments and dangerous conditions, from the upper atmosphere of a gas giant to the acid-scorched hellscape of Venus's surface. Hardsuits are equipped to be worn for days at a time, if necessary. Occupants can only wear armor with an Armor Value (either energy or kinetic) of 4 or less inside the hardsuit; this worn armor is cumulative without layering penalties.

Battlesuit: This power armor features a military-grade fullerene armor shell with flexible aerogel for thermal insulation and a diamond-hardened exterior designed to resist even potent ballistic and energy-based weapons. It increases Vigor pool by 2, inflicts an extra 1d10 damage in melee, increases your Walker movement rate to 8/32, and doubles your jumping distance.

Envirosuit: These shells feature both increased radiation shielding and thermal regulation systems to withstand extreme environments such as deep undersea and the surfaces of Mercury and Venus. They can withstand temperatures from –270 to 1,000 C.

High-Dive Suit: High-dive suits are personal spacesuits designed to withstand atmospheric re-entry. Wearing one of these, you can step out a spacecraft in orbit around a planet, enter the atmosphere without burning up, and safely land using both drogue and conventional parachutes. High-dive suits are meant for unpowered descent only; they do not possess the capability for flight.

Standard Hardsuit: This heavy-duty suit can almost be considered a miniature spaceship. It appears as a large metallic ovoid with jointed, servo-assisted arms and legs. It increases Vigor pool by 1 and inflicts an extra 1d10 damage in melee. Its miniature plasma thrusters are capable of delivering 0.01 g for 10 hours.

ALL VEHICLES

Unless otherwise noted, all vehicles are equipped with the following hardware, in addition to that listed with their specific description

Ware: Access Jacks, Mesh Inserts, Puppet Sock, Radar.

Additionally, vehicles with closed compartments are sealed/pressurized and have either a Breather (undersea or atmosphere with carbon dioxide) or Life Support (48 hours).

Vehicles designed for Mercury have Thermogenic Protection, Venusian vehicles have Pressure Adaptation and Thermogenic Protection, and Titanian vehicles have Cryogenic Protection.

VEHICLE HARDWARE	Complexity/GP
Improved Handling	Mod/2
Life Support	Min+/1+
Ram Plate	Mod/R/2

AIRCRAFT	Complexity/GP	Passengers	Vigor	Flex	Armor	WT	DUR	DR	Movement	Size
Flying Car	Maj/3	4	2	1	12/10	30	150	300	8/40 Wheeled/Thrust Vector	L
Microlight	Mod/2	1	0	0	6/4	6	30	60	8/32 Microlight	L
Portable Plane	Maj/3	2	0	0	6/4	10	50	100	—	L
Small Jet	Rare/—	6	2	0	12/10	40	200	400	—	VL
Ware: Autocook, Emergency Beacon										
Utility Helicopter	Rare/—	8	2	1	12/10	30	150	300	8/32 Rotor	VL

EXOSKELETONS	Complexity/GP	Passengers	Vigor	Flex	Armor	WT	DUR	DR	Movement	Size
Atlas Loader	Rare/—	1	+2	0	+10/+12	20	100	200	4/20 Walker	VL
Notes: +2 Vigor, +2d10 melee, armor-piercing.										
Exowalker	Maj/3	1	+1	0	+0/+2	4	20	40	8/32 Walker	M
Notes: +1 Vigor, +1d6 melee, double jump distance.										
Transporter	Mod/2	1	0	0	+0/+4	10	50	100	8/40 Thrust Vector	L
Trike	Mod/2	1	0	0	+0/+4	10	50	100	8/40 Wheeled	L

GROUNDCRAFT	Complexity/GP	Passengers	Vigor	Flex	Armor	WT	DUR	DR	Movement	Size
Buggy	Maj/3	4	2	1	12/10	30	150	300	8/40 Wheeled	L
Cargo Hauler	Rare/—	3	2	0	12/10	50	250	500	8/40 Wheeled	VL
Cycle	Mod/2	1	0	0	8/6	10	50	100	8/40 Wheeled	M
Ground Car	Maj/3	4	2	1	12/10	30	150	300	8/40 Wheeled	L
Microcar	Mod/2	1	0	1	8/6	12	60	120	8/40 Wheeled	L
Rover	Rare/—	6	2	2	12/10	50	250	500	8/40 Wheeled	VL
Ware: Autocook, Large Fabber, Pocket Lab										

HYBRID VEHICLES

These vehicles defy classification as they are designed to handle multiple environments. Use with Pilot: Ground, Pilot: Nautical, or Pilot: Space as apppropriate to the environment and repair with Hardware: Groundcraft, Hardware: Nautical, or Hardware: Aerospace.

General Exploration Vehicle (GEV): A GEV is a boxy exploration vehicle designed to handle almost any environment. Favored for gatecrashing, they feature a smart-matter chassis that can shift between wheels and legs for rough terrain in 1d6 minutes. It can handle vacuum, surface water, and underwater, and carries a small metallic-hydrogen drive and attitude jets for maneuvering in space. It is shielded against radiation, features an extendable airlock, and carries extended life support functions.

Rocket Buggy: This smart-wheeled buggie is equipped with a metallic-hydrogen rocket. It is ideal for moons and large asteroids, where it can reach orbit and return or take a parabolic path to any destination on that moon in less than an hour. Buggies are also popular on Mars (though unable to reach orbit).

NAUTICAL CRAFT

Within the Solar System, nautical craft are used for the methane seas of Titan and the subcrustal oceans of Ceres and Europa. They are driven with Pilot: Nautical and repaired with Hardware: Nautical.

Mini-Sub: This submersible is for small groups and cargo.

PERSONAL TRANSPORT DEVICES

These one-person movement aids are primarily used in space or undersea. Use with Pilot: Nautical or Pilot: Space as appropriate and repair with Hardware: Nautical or Hardware: Aerospace.

Rocket Pack: This is a miniature metallic hydrogen rocket that you strap to your back, with two rocket exhausts extending out to either side, away from your body or legs. To prevent burns, a biomorph must be wearing a heat resistant garment such as a vacsuit. Also, to prevent harm, the thrust must be kept sufficiently low that it can only take off on Mars or moons with even lower gravity. A rocket pack can keep you airborne for up to 15 minutes in Mars gravity, or 30 minutes on Luna, Titan, and smaller moons and asteroids. It can be used to reach orbit and land again on Luna, Titan, and other similarly small bodies like the Jovian moons.

Sled: This small sled uses air impellers or nitrogen thrusters to maneuver in microgravity or vacuum, or propellers to move undersea. It is used to carry gear attached with numerous straps and clips. It can also pull along 2 medium-sized morphs.

Thruster Pack: Worn for micrograv operations or EVA in vacuum, this thruster pack uses vectored thrust nozzles to maneuver.

SPACECRAFT

Though egocasting and nanofabrication have reduced the need, spacecraft continue to play an important role in transporting goods and people around the Solar System. Both in terms of materials and propulsion, spacecraft in the post-Fall era are far superior to the primitive vessels used in the 20th and early 21st centuries, but they are still based on the same principles.

Spacecraft are flown with Pilot: Space skill and repaired with Hardware: Aerospace.

Spacecraft have few stats in *Eclipse Phase,* as they are primarily handled as setting rather than vehicles. Note also that no stats are given for spacecraft weaponry. It is highly recommended that space combat be handled as a plot device rather than a combat scene, given the extreme lethality and danger involved. If you must know the DV of a spacecraft weapon, treat it as a standard weapon with a DV multiplier of x3 for small craft (fighters and shuttles), x5 for medium craft, and x10 for larger craft.

Bulk Carrier: This vessel is long and thin, with fusion rockets at one end and the cockpit and crew quarters at the other. Freight modules carrying cargo are grappled all along the spine. A pair of airlocked freight elevators move inside the spine. Carriers haul refined ores, ice, and similar large, useful, but low priority cargo at relatively low velocities. They also offer an inexpensive, reliable, and slow method for passengers to travel from one habitat to another and are not infrequently used by individuals who wish to disappear for a while. Bulk carriers lack rotating habitation rings, and are primary crewed by hibernoids, bouncers, and synthmorphs.

Courier: With their anti-matter drives, these fast couriers can cross the Solar System in a matter of days or weeks. They are reserved for high value and critical cargo.

Corvette: Corvettes are light warships and fast-attack craft. They primarily rely on fusion drives but also carry anti-matter for high-speed propulsion and devastating warheads. They are armed with railguns, lasers, drones, and missile systems.

Destroyer: The largest military spacecraft in common use, destroyers alternate between fusion and antimatter drives like corvettes. They are armed with railguns, nuclear and high explosive missiles, point-defense lasers, and a contingent of 20 fighters.

Fighter: Most of these short-range military vessels are designed to be crewed by an infomorph/ALI, though some can hold a single pilot (typically a synthmorph or vacuum-adapted biomorph). A typical loadout includes 4–6 laser and railgun turrets that can fire in any direction and a missile launcher carrying high-explosive or even nuclear or anti-matter missiles. Some are also designed (or can change their shape) to handle atmospheric flight.

Scum Barge: Barges are a catch-all category for a type of mobile habitat common in scum swarms. The original barges were temporary micrograv refugee habitats built in Earth orbit during the Fall. These were designed to support up to 20,000 people in cramped conditions for months or even years. Largely abandoned by authorities, the scum lashed rockets on or began towing them. Other barges have been claimed and made mobile over the years, including everything from remnants of partially destroyed torus habitats to small asteroids. The best use fusion rockets and carry 5–10,000 in relative comfort, sometimes spun for low gravity; the worst use aging plasma rockets or rely on towboat craft and stretch their life support systems and living spaces to the limit with up to 25,000 residents.

Shuttle: Also known as landers and orbit transfer vehicles (LOTVs), these common vehicles transport passengers and cargo between a planet or moon and orbit and for short distance transfers between habitats less than 100,000 km apart. Those designed for atmospheric entry have conical designs; airless models are blockier. Both use metallic hydrogen drives. Smart-material landing legs and grapples allow it to rest securely on any stable terrain and link up with all forms of docking clamps. Smart-material interiors can be easily and rapidly reconfigured to accommodate different amounts of fuel, passenger seats, and cargo space. Shuttles come in small and large models.

Transport: This common freighter and passenger vessel can be found on regular routes between every large habitat and inhabited planet and moon in the Solar System. These are modern fusion-drive ships that offer fast and comfortable travel for passengers and some cargo. Similar in design to bulk carriers, transports trade off cargo module room for multiple passenger compartments mounted on 90-meter-long booms that can extend and rotate at 2 rpm to simulate Mars gravity.

ALL VEHICLES

Unless otherwise noted, all vehicles are equipped with the following hardware, in addition to that listed with their specific description

Ware: Access Jacks, Mesh Inserts, Puppet Sock, Radar.

Additionally, vehicles with closed compartments are sealed/pressurized and have either a Breather (undersea or atmosphere with carbon dioxide) or Life Support (48 hours).

Vehicles designed for Mercury have Thermogenic Protection, Venusian vehicles have Pressure Adaptation and Thermogenic Protection, and Titanian vehicles have Cryogenic Protection.

HARDSUITS	Complexity/GP	Passengers	Vigor	Flex	Armor	WT	DUR	DR	Movement	Size
Battlesuit	Rare/R/—	1	+2	0	25/25	20	100	200	8/32 Walker, 8/40 Thrust Vector	L
Notes: +1d10 melee damage, double jump distance.										
Ware: Autocook, Breather, Fixer Hive, Life Support (1 week), Pressure Adaptation, Radio Booster, Specs, Utilimod, Weapon Mounts (2 Articulated/Concealed, 2 Static/Concealed)										
Envirosuit	Major/3	1	0	0	25/16	16	80	160	4/20 Walker, 8/32 Submarine	M
Notes: +1d6 melee damage.										
Ware: Autocook, Breather, Cryogenic Protection, Emergency Beacon, Life Support (1 week), Pressure Adaptation, Radio Booster, Specs, Thermogenic Protection, Utilimod										
High-Dive Suit	Major/3	1	0	0	25/8	12	60	120	4/20 Walker, 8/40 Thrust Vector	M
Notes: +1d6 melee damage.										
Ware: Life Support (1 week), Radar Absorbent, Radio Booster, Specs, Thermogenic Protection										
Standard Hardsuit	Rare/6	1	+1	0	20/18	12	60	120	4/20 Walker, 8/40 Thrust Vector	L
Notes: +1d10 melee damage.										
Ware: Autocook, Breather, Emergency Beacon, Fixer Hive, Life Support (1 week), Pressure Adaptation, Radio Booster, Utilimod										

HYBRIDS	Complexity/GP	Passengers	Vigor	Flex	Armor	WT	DUR	DR	Movement	Size
GEV	Rare/—	6	2	2	12/10	50	250	500	8/40 Wheeled/Thrust Vector, 4/20 Walker, 8/32 Submarine	VL
Ware: Autocook, Chem Sniffer, Enhanced Hearing, Enhanced Vision, Large Fabber, Life Support (1 month), Healing Vat, Pressure Adaptation, Portable Sensor (Telescope)										
Rocket Buggy	Maj/3	4	2	1	12/10	20	100	200	8/40 Wheeled	L

NAUTICAL CRAFT	Complexity/GP	Passengers	Vigor	Flex	Armor	DUR	WT	DR	Movement	Size
Mini-Sub	Rare/—	4	1	0	12/10	50	250	500	8/32 Submarine	VL
Ware: Autocook, Breather, Cryogenic Protection, Pressure Adaptation, Sonar										

PERS TRANSPORT	Complexity/GP	Passengers	Vigor	Flex	Armor	DUR	WT	DR	Movement	Size
Rocket Pack	Mod/2	1	0	0	6/4	6	30	60	8/40 Thrust Vector	S
Sled	Min/1	2	0	0	6/4	8	40	80	8/40 Thrust Vector	S
Thruster Pack	Min/1	1	0	0	6/4	6	30	60	8/40 Thrust Vector	S

SPACECRAFT	Complexity/GP	Passengers	Vigor	Flex	Armor	WT	DUR	DR	Movement
Bulk Carrier	Rare/—	5+	0	0	40/30	150	750	1,500	Fusion
Courier	Rare/—	13	0	0	30/20	100	500	1,000	Anti-matter
Corvette	Rare/—	20–30	0	0	50/40	150	750	1,500	Fusion/Anti-matter
Destroyer	Rare/—	90	0	0	50/40	400	2,000	4,000	Fusion/Anti-matter
Fighter	Rare/—	0/1	3	2	30/20	50	250	500	Fusion
Scum Barge	Rare/—	5k–25k	0	0	40/30	300	1,500	3,000	Plasma/Fusion
Shuttle (Large)	Rare/—	20–300	0	0	20/15	80	400	800	Metallic-Hydrogen
Shuttle (Small)	Rare/—	5–20	0	0	20/15	80	400	800	Metallic-Hydrogen
Transport	Rare/—	100+	0	0	40/30	150	750	1,500	Fusion

RUNNING THE GAME

AD ASTRA

The ideas in contemporary science fiction excite us. We want to tell stories about transhumanism, space exploration, artificial intelligence, uplifts, x-risks, and social change. If the implications of these ideas for the people of the future excite you, too, you should run a game of *Eclipse Phase*. There are many good resources out there that can provide the basics on how to run a roleplaying game; this section contains advice for running *Eclipse Phase* specifically and is useful for both novice and experienced gamemasters (GMs).

THE ELEVATOR PITCH

If you want to run *Eclipse Phase,* you'll need players to join your game. This may present your first obstacle — the bane of every outside-the-box GM: many gaming groups are reluctant to play anything other than the leading-brand fantasy roleplaying game. Science-fiction games are a hard sell in particular; everyone has a rough idea of what living in a fantasy setting is like, whereas not everyone groks sci-fi concepts like resleeving or how cylinder habitats work.

The key to overcoming this isn't just to tell them what *you* think is cool, but to identify what *they* will think is cool about it. Pitch them on that aspect of *Eclipse Phase,* and you'll have a new player.

Some players get into *Eclipse Phase* because of unusual character opportunities like octopi or incorporeal AGIs. Some people love the "save points" created by backups. Others geek out on the mesh, nanotech, exoplanet exploration, or some other hard sci-fi aspect of the game. And still others are interested in the ability of transhumans to switch bodies andappearances — and the drama and questions around identity raised by this fluidity.

Think about your friends, the characters they like to play, and the stories you've seen them have fun with in the past. When you pitch them on *Eclipse Phase,* emphasize parts of the game and setting that dovetail with what they love in an RPG. Just remember to keep those promises when you run the game.

Also consider how long you want your campaign to run. Players are often more willing to commit to a campaign if it's closed-ended, with the promise that the plot will play out in a certain number of sessions, with an option to start a new story arc if everyone is loving it.

If you think your potential players might be interested in reading about the setting first, don't forget that we release our material under a Creative Commons license. Feel free to share any of our electronic titles with friends so they can check them out for themselves. The *Eclipse Phase Quick-Start Rules,* available on our website, is designed for this purpose. Some people respond better to visual stimuli, so you might also want to show them some of the cool art, available in our hack packs or online wiki.

THE FIRST SESSION

It's a lot easier to make an *Eclipse Phase* character after playing the game once. We suggest that new groups start with one of the introductory scenarios published by Posthuman Studios and play it using the sample character teams in this book ▶82. Some players might get attached to those characters and want to continue playing them, while others will prefer to make their own for the coming campaign.

Using the Sample Character Teams

If possible, stick to a single team of sample characters — Firewall, Gatecrashing, or Criminal. Each team has a complementary mix of abilities. If you mix and match, notice that each team has a fighter, a hacker/techie, a social networker, and a specialist (often with investigative skills).

If you have more than four players, simply choose extras from one of the other teams. The specialist characters (Dante, Killjoy, Pivo, and Whisper) are the best extras to add to a group, as they have less overlap in skills than the other characters.

Not every sample character is loaded with weapons and combat skills. Although all of them can dive for cover in a firefight, some are mediocre combatants — they excel in other areas. Make sure the players understand that combat is deadly.

If you have fewer than four players, make sure someone plays a hacker. It's possible to solve many *Eclipse Phase* scenarios without firing a shot, but a team without infosec is at a severe disadvantage. Your friend who's always the wizard in the fantasy game is an ideal candidate if no one else wants to learn the mesh subsystems.

Review the skills that the characters need to get through your planned introductory scenario and make sure the team has those skills covered. If they don't, suggest they tweak their skills — or tweak the scenario so that they don't get stuck.

In Media Res

Avoid the inclination to comprehensively explain all of the rules in advance. For now, just tell the players the core mechanics: how skills and roll-under percentile tests work. You can explain the other rules as they come up during game. As the GM, this does require you to anticipate the characters' needs and provide helpful tips. For example, the players may know they need to track down information, but may not know that they can use the mesh for Research Tests or rely on their rep scores to acquire intel from their social networks. Situations like this provide the perfect opportunity for you to make suggestions and explain more of the rules.

The same guideline applies to the setting. You may have an encyclopedic knowledge of *Eclipse Phase,* but providing a full info-dump to your players is likely to make their eyes glaze over. Just cover the basics — you are immortal, you can switch bodies, everything is networked, AIs and uplifts exist — and detail the rest during game. The sample characters have short backgrounds with enough history to get most players started. Have each player describe their character's look and general focus, and then just go. Ask if they have questions, then dive in. Avoid pausing play for more than a few minutes to explain a new aspect of the world; then get back to the action.

Tech Talk

The best way for players to get comfortable with the tech in *Eclipse Phase* is to use it. In the first few sessions, prompt players when using a given piece of tech would advance the game. This will gradually familiarize players with the ways in which tools like their mesh inserts, augmented reality, enhanced senses, muses, and the like can be used. Be patient and don't penalize players for not knowing how everything on their sheet works. Becoming fluent in everything an *Eclipse Phase* character can do often takes players several sessions.

PREPPING YOUR CAMPAIGN

Your demo of the system was brilliant, and now your group can't wait for the next game. Nice job, fam. You probably have an idea of what kind of campaign you want to run, but it'll go better if you have a conversation with your players about what they'd like to see more of. The campaign can grow from the intro scenario you played or it can be a new story. If you finish your first session early, discuss the following with your players right away. Alternatively, host a campaign creation session where you hash out these questions and make characters.

Where's Home Base?

The variety of locations in *Eclipse Phase* can be a lot to take in. Rather than having players learn about life on the Martian suface, in a Venusian aerostat, and in an outer system cluster hab all at once, it's useful to anchor the campaign at a home base. The less your group is immersed in hard science fiction, the more you'll want to stick to planetary environments like Mars and Venus. In the more Earth-like locations, players aren't overloaded with details like accounting for microgravity, visualizing what space habitats look like, or figuring out how to get around.

What's Your Theme?

Find out what your players are interested in. Corporate black ops? High-tech dungeon crawls? Detective stories? Most *Eclipse Phase* games are centered around Firewall missions but this is not a requirement. The sample character teams are designed around specific themes and environments; an effective PC team will also be focused in terms of what types of jobs they're good at.

If you decide to go with a Firewall campaign, one important question to ask is: are the PCs already Firewall members? If not, your first scenario should be constructed around introducing them to the conspiracy and having Firewall recruit them during or after.

What's Your Team Composition?

Once you've figured out a general description for what the team does, have the players discuss which roles they want to cover. Hacking and social networking are vital skills to complete any investigation, so make sure the team has a social character and a hacker. Violence is inevitable in most games, so at least one combat focused character and a few with combat as a secondary ability are needed to win fights. A "rogue" in this game is a stealthy techie with hardware skills, drones, and nanoswarms for breaking and entering.

The usefulness of other roles depends on the themes of the campaign. Scientists, asyncs, and genehackers get to shine if a scenario requires untangling scientific puzzles or interfacing with alien technology. Medics and mindhackers should encounter challenges where they're more than just the team's healer. If a player's character concept seems like it wouldn't give them much to do within the campaign them, first think about whether you can tweak your ideas to make things interesting for that character. If you can't, suggest a different focus to the player.

Creating Characters

Collaborative character-creation sessions are ideal for making sure the PCs cover a good range of skills and abilities and don't overlap too much. They are also useful for establishing shared backgrounds and history.

Eclipse Phase is designed to be played by 4-6 players. You might consider giving players more CP at character generation if your group is smaller.

As GM, your job is to determine how many Morph Points ▶290 and Gear Points ▶312 get assigned for each mission. For starting players, we recommend starting at the default values (6 MP, 20 GP). You should wait to assign the full Gear Points until after the PCs receive the pitch for the first mission (or otherwise get drawn in). Give them a short period of prep time to pick out the specific gear pack or gear they want for that mission (pre-printed gear pack lists or cards are ideal for this purpose), but don't linger too long. Remind your players not to focus too much on their starting morph and gear, as it's likely to all change.

SCENARIOS & CAMPAIGNS

At this point, you've talked to your group about the overall shape of the campaign and what their PC team will look like. You've also got some ideas of your own together. The internet holds endless advice on how to plan RPG campaigns and design scenarios. If you're new to gamemastering, search around, then come back here. This section will focus primarily on how to design campaigns and scenarios for *Eclipse Phase*.

HOW MANY SESSIONS?

Planning campaign length in advance lets players know up front how much time they're committing to, making it more likely you'll finish the campaign. It makes planning your campaign easier because you get a time budget during which you have to hit all the points in your story. You can plan how many story arcs will make up the campaign, how many scenarios make up each arc, and roughly how many sessions each scenario should take.

In a four-hour play session, most groups can get through two to four encounters, depending on how many of them contain combat. In an *Eclipse Phase* game, encounters tend to be punctuated by a lot of planning and mesh use. A complicated break-in or a big fight might mean you only get two encounters in a given session. On the other hand, a session that is mostly investigative legwork might cover a large number of short encounters before the team amasses enough intel for a big scene.

Investigative games can meander — another reason for committing to a fixed length. *Eclipse Phase* doesn't have to focus on the investigative aspects of the game, but when it does, timeboxing is key. Players can always Insight their way through a tricky investigation, but sometimes they need time pressure to be willing to spend pool to get clues.

With a fixed number of sessions in mind, you can also time the off-camera movements of NPCs more easily. It's very easy for a PC team and a group of antagonists to keep tabs on each other with the technology in the setting. The opposition can and should make moves that the players don't see the consequences of until later. But they also probably have a plan they're trying to execute, and having a timeline for this will help you create strong story arcs.

STORY ARCS

Using story arcs as containers within the über-plot of your campaign is common practice for a lot of reasons. Arcs are milestones. Completing them gives your players some reinforcement, a moment to celebrate. For player characters, they provide a natural place for downtime activities (training, fabricating and repairing gear, maintaining social networks). For the GM, the breaks between story arcs are a chance to advance events in the world, do time and place jumps, or bring in new characters. Boring events like acclimating to a new morph or long space travel can also happen off camera, between story arcs.

If you're designing a campaign where forks of PCs will be active on their own for long periods, story arcs are a useful delimiter for the time spent apart by the forks. One group of forks gets a story arc, then another group of forks, covering the same period of time. Decide with the group beforehand whether the outcomes of each separate arc can be changed at all by the other group of forks (via retconning or other means).

The novelist Graham Joyce taught story structure as a sequence of rising and falling arcs of tension. In this way of visualizing the flow of a story, a story arc might be thought of as more like a story wave. Let's consider three shapes of story arc, and how they can play out in an *Eclipse Phase* campaign. Assume you're planning this story arc to take up six sessions of play (a month and a half, if your group plays every week).

Basic Story Arc

In the most basic story arc, the facts of the scenario are set up before a conflict is introduced. Pressure mounts to deal with the conflict, crescendoing to a high point of tension midway through. Once the chief conflict is resolved, the tension de-escalates, and the aftermath plays out. In the basic arc, the first two sessions reveal the full scope of what the player characters are up against. Some shit should probably hit the fan right at the end of session 2. Sessions 3, 4, and possibly 5 should feature the action and climactic consequences of the main plot resolving. Session 6 then ties up loose ends from the arc. In a common variation, the arcs of tension are like a suspension bridge, with a crescendo of action toward the beginning of the arc followed by a second, more decisive one near the end. This type of arc is extremely common in stories across all media. *The Hobbit* (the novel, not the movie) is a good example of a story that follows a basic arc.

Eclipse Phase messes with how this type of arc normally plays out. Had a climactic battle with the villain, did you? "This is great," thinks the player, "we just kicked their ass." The villain, of course, has resleeved and is already plotting revenge — they are not removed from the equation yet. Also consider character death; in most story arcs of this kind, the danger to the characters is worst as the conflict with the antagonists climaxes. But in Eclipse Phase, you're free to hand out a TPK (total party kill) in the second session, then have the team resleeve and pick up the trail not much worse for wear in session 3. Suicide missions have a different meaning in this game.

Hot-Opening Story Arc

In a hot-opening story arc, an *in media res* beginning often places the team in jeopardy from the very start. The first scenario might literally start with rolling initiative, or it might be more like, "You've detected an anomalous radar blip. It's closing fast. You have 30 seconds. What do you do?" In arcs like this, tension de-escalates as the protagonists manage to catch a breather during the middle of the story. The first three sessions of an arc like this should go fast and furious. Things pick up again in the final two sessions as the player characters, rested and rejuvenated, re-engage with the threat. A good example of a hot-opening story is the 2004 remake of *Dawn of the Dead*.

This kind of arc is useful in horror-oriented *Eclipse Phase* games because it gives the GM so much control over the situation at the start of the arc. If the plot calls for it, the team can start off: in the mesh in an isolated location, in new morphs, under attack in space, or in other precarious situations. Care has to be taken not to make players feel railroaded, but if done right, hot openings are a great way to get characters into a survival horror situation without the players spending a ton of time agonizing over what gear to print before they leave.

Hot openings also work against another tendency of cautious players: the "scan everything" syndrome. Some players, once they realize any piece of electronics could be infected with the exsurgent virus, spend a lot of table time describing elaborate precautions. This is great in a tense, disarm-the-bomb type scene, but it can

make play drag at other times. Partly this can be solved by making it clear to players when they need to describe their precautions and when it's not necessary. Alternatively, a slavering exsurgent beating down the lab door, an out-of-control fire in the corridor outside, or a reactor meltdown can all encourage players to speed things up and not scan every door lock they encounter for infection.

Slow Burn

In a slow burn, dread and creepiness build gradually through the first three or four sessions. Disturbing evidence, subtle threats, and transformations that the team can slow but not entirely stop escalate toward explosive action that quickly resolves the story. In this type of arc, the initial sessions are all investigation and minor threats, until the final two sessions, when the threat is revealed and must be directly faced. A good example of a slow burn story arc is the first season of *Stranger Things*.

Unfortunately, the plot line of *Stranger Things* relies on 1980s technology to limit how quickly the characters can get information and make connections. The slow build of dread and unsettling clues in this type of story wouldn't survive a few characters with smart phones, let alone the technology in *Eclipse Phase*. In a slow burn arc, the threats and the trails of evidence they leave need to be unconventional and obfuscated. A person who commits a crime in this setting without covering their tracks well can be identified and located quickly.

In the early sessions of a slow burn arc, the evidence encountered by a team needs to be difficult to put together into a clear picture of a threat. Async powers are useful to antagonist NPCs in a slow burn arc, since most psi sleights leave no physical evidence, and therefore their use must be inferred based on circumstances. Novel threats — things there's no detector for yet — can also fly under the radar of the team's technology. Some clues might require a multi-session research effort. And clues that fit a motif can gradually reveal their meaning through repetition (e.g., the initially meaningless wall scrawl that turns out to mark an exsurgent clan's nests).

CREATING SCENARIOS

Scenarios are the building blocks of story arcs. If you're designing a scenario as part of a campaign, you'll want to make sure it's doing the work it should toward advancing the whole. How many sessions will it take out of your total run, and what point of plot should get answered or resolved?

Try listing the scenarios that will make up your campaign, subdividing by story arc. Make your best guess at how many sessions each scenario will take (one four-hour session for every two to four encounters is normal). Looking at them together, think about how much payoff each one contains for the players. A scenario that takes a lot of sessions but only resolves a minor plot point should be revised; either make it shorter or make it do more work. By doing this time comparison among the "chapters" of your campaign, you'll know ahead of time how you want to pace your sessions before you're in the thick of running the game.

At some point, your players are going to do something that requires you to redesign a scenario you had planned. The technology in this setting provides lots of unexpected ways for this to happen. Perhaps they'll even do something that makes ripples across multiple story arcs. Don't freak out. Rewrite what you need to, but also take another look at your time budget. If player actions made one story arc take longer than expected, you might consider cutting things you had planned later in the campaign. Or you can just kill the entire team and make their backups forget about how they borked your plot … but don't expect your players to let you get away with that very often.

For a wide selection of scenario seeds, see *Plot Hooks,* the booklet accompanying the *Eclipse Phase Second Edition Gamemaster Screen*.

CHARACTER TIE-INS

While your campaign idea about tracking an exsurgent-infected smuggler's forks across the Martian hinterlands might be quite cool, you should always be on the lookout for ways to link your scenarios to the PCs themselves. Every PC has a set of motivations (and possibly distinct motivational goals ▶47). Keep a list of these on hand and consider NPCs or events you can insert into your plot that will give the players opportunities to pursue or even resolve their motivational goals. Likewise, don't forget to include the occasional roadblock or obstacle towards these ends, to keep them on their toes. Unless you are constructing an entire scenario around this subject, however, be careful to not let motivational pursuits derail the central plot.

There are many other PC aspects you can use to personalize a scenario: backgrounds, traits (Allies, Contact, Enemy, and Patron specifically), faction affiliations, async infection sub-strains, rep favors, and so on. If a player has gone through the effort of writing a detailed character background, mine that for ideas and use them! Also take note of interactions with NPCs and the downtime actions the players pursue. Is someone they deceived in the past holding a personal grudge? Is there an ego hunter on their trail for crimes they thought went unnoticed? Does one of their rep network buddies approach them for a favor at odds with their current mission? Your players will appreciate the personal touch and it will inspire them to engage more with the world you have established.

EASING IN

The *Eclipse Phase* setting is quite detailed — don't rush into it. There are a few strategies you can use to control the information firehose pointed at your players.

If the campaign allows it, you can start in an isolated locale, away from the full panoply of technologies and peoples inhabiting the setting. This could be a small habitat on the fringe, an exoplanet, or a remote and isolated part of the Martian wilds. By limiting the utility of the mesh, at least at first, you can hold off on explaining rep networks and hacking until they become relevant. Try to stage the scenario so that you can introduce a new part of the setting/rules each session.

Another option here is to start the PCs as newly reinstantiated. Perhaps they died during the Fall and are the latest batch of infugees to be revived from cold storage. Their hosts or muses can then walk them through how things have changed, acclimating them to their new environments.

You can also design low-stakes tasks that give players a chance to practice with subsystems they haven't used before. For example, have the hacker repair a virus-ridden bot before they intrude into a major hypercorp system. Give the async an opportunity to use their sleights in low-pressure situations before they do so in a combat. Prompt your players on appropriate times to use pool points. Some GMs prefer to avoid resleeving early on so that players don't need to learn the capabilities of a new body — don't wait too long, though; resleeving is one of the things that makes this game cool!

BRINGING IT TO LIFE

The key to making your setting feel real is to keep it in constant motion. Reputation networks fluctuate, the mesh never sleeps, ubiquitous surveillance always watches, NPCs have lives of their own, and life never really slows down in AF 10. The world should be dynamic — in-game events should change the world and PC actions should have an impact. These changes do not need to be massive and sweeping; smaller adjustments that affect the PCs on a personal level can really provide hefty flavor.

SOCIAL MEDIA DYNAMICS

Reputation networks are integral to the lives of transhumans. Consider how often you consume social media today, how it keeps you up to speed on your friends' lives, world events, and the latest memes, and elevate that to gonzo levels. With augmented reality and ubiquitous surveillance, social media is *everywhere.* Try to incorporate this into the lives of the PCs. Muses will keep the PCs updated on the latest trends, news, and faction developments. News bulletins can be related to the plotlines of the campaign, but they can also simply provide flavor. Consider generating a few iconic advertisements, memes, or media personalities for recurring use.

More importantly, rep networks are personal. Big reputation shifts are major news, and the public pays attention to the rise and fall of major players as well as their peers and rivals. A PC who gets embarassed publicly may find themselves memed. PCs involved in a live-streamed fight or newsworthy event will be recognized by strangers. Did one PC have a falling out with a love interest? The other PCs will know soon enough when they see the status update. Use these situations to add excitement, humor, and spice to the characters' daily affairs.

Remember that rep networks are more than news feeds — they are made of people. Some of those peers will have crises, need support, or come asking for favors. You can reserve this to down-time actions, specifically where a PC spends time working favors for contacts, but it can also serve as an adventure hook. As a rule, the more interesting the life of a PC, the more interesting are the lives of their social network contacts.

One way to emphasize social media might be to give each PC a spotlight episode. For one game, highlight their online interactions and social media lives. This can be a great way to introduce sub-plots based on the PC's history or their life outside Firewall. Doing this early in a campaign may give you material to work with for weeks to come.

THE STREET FINDS ITS OWN USES

Transhumans are creative — *dangerously* creative — which in part explains the existence of Firewall. Many of the perils of technology stem from second-order uses. You invent software designed to keep people in touch with friends, and someone uses the accumulated data to swing an election. You invent a drug to treat a disease, and suddenly there's a thriving black market of people using it as a performance enhancer. You invent a robotic toy, and someone weaponizes it for an assasination. This process of technological repurposing is constant and can also be beneficial or simply fun. Use this as fuel for everything from news reports and cultural trends ("Synths Lining up for New Chemical Sniffer — Users Report Flavors of Rhubarb, Pizza") to the foundation of a scenario. If the PCs come up with their own clever uses, make sure to inject those ideas into the world at large.

FORK CONCERNS

"Splitting the party" has different connotations in *Eclipse Phase.* At some point your players will attempt to multitask by sending out forks to accomplish multiple things at once. Though this presents a gamemastering challenge, forks can be a blast to play if handled well.

The main trick is to not get too fancy with parallel fork plotlines. Run a full scene or even story arc with one group of forks, then return to the other group, then continue alternating until it's time for them to merge. Don't try to switch back and forth between two groups of forks acting simultaneously unless you really have a handle on things.

Some players will use forks as a force multiplier if they are short on numbers. Though forks are often stuck as infomorphs, limited by the availability of morphs, players can find ways around this by using bots or hijacking the sleeves of NPCs. In these situations, treat the forks as you would bots, muses, and other secondary characters. Keep the spotlight on the alpha ego and run multiple forks as a group.

Forks that stay separate for long periods require careful tracking. You may even want to keep separate character sheets, especially if they earn and spend Rez points. It can be easy to lose track of which fork has what information, so take notes on the key scenes, NPC interactions, and locations each has visited. Over time, divergent forks may need to be graduated into NPC status.

NPC TIMELINES

NPCs don't stand around waiting for the players to take action. Make timelines of the things your NPCs will be doing in the background. This can be at the micro level ("Basha plants the bioagent canisters in the PC's cargo hold to frame them") or the macro level ("The Ultimates initiate their plan to take control of the gates"). Use whatever time units make sense. For a fast-paced scenario, background events might be set to take place on the hour or even the minutes. For big events in the game world, days or months might make sense.

RECURRING VILLAINS

The functional immortality of transhumanity upends the traditional heroic narrative. Simply killing the big bad boss is rarely enough to end things. Just like the PCs, they'll resleeve and start where they left off — or they may already have forks in place to continue their plans. It is often better to avoid having foiled bad guys return right away, however. They may rethink their plans given the exposure or revealed vulnerabilities, or they may have other priorities that require their attention. While recurring villains and revenge seekers can be fun, they can also get stale if overdone, so use sparingly.

Finishing off someone for good is difficult. Perhaps the PCs can devise a way to get at an opponent's secure backups, but that should require major effort, perhaps a campaign unto itself. Sometimes the easiest thing to do is destroy their stack and have them go missing; depending on the clauses in their backup agreement, this could remove them from the picture for a few months until they are eventually restored. Another option is to get someone arrested for a serious crime in a polity with laws; this provides legal authorities with the power to seize backups, though it does nothing for backups held in private, with black-market providers, or in other jurisdictions.

Some of the threats in *Eclipse Phase* are impossible to eradicate, such as TITANs or self-replicating nanoswarms. These should be deployed in moderation and in situations that limit their involvement and scope. Some things are simply beyond even transhuman capabilities; simply surviving such could as success.

KNOW SKILLS & SCIENCE

Characters in *Eclipse Phase* regularly encounter phenomena (substances, organisms, technology) that are unknown or poorly understood by transhumanity. How do they do science the shit out of all these things? Especially if the GM and/or players are not scientists themselves? We suggest following a series of steps that map game mechanics to the steps in the scientific method. This approach can also be used for similar technology or science-related challenges (i.e., tests using Hardware, Interface, Medicine, or Program skills), such as repurposing technology for a new situation or running a statistical analysis.

When deciding how much time to spend on each of the steps below, consider the significance of the question the players are asking to your plot. If completing the research will resolve a major plot point or give the players crucial information, it's worth spending more play time on the hunt for the answers. For enquiries that are less important to the story, you can skip or shorthand some of the steps below.

KNOWN?

If the answer is known to transhuman science, succeeding at a related Know skill test means a character already knows the answer (or knows where to research more about it).

It is sometimes possible to use the mesh and Research skill ▶254 to resolve a question, but it should be harder. Characters with good Research skills but little or no background in a field can turn up a lot of information but might not know how to interpret it. Penalties of –10 to –30 should be applied to the Research Test, depending upon how far afield the knowledge in question is from the character's skill set. If the topic is particularly technical or arcane, a Know Test may still be required to make sense of the search results.

Rep favors can also get you answers — or people who can parse your search results into something that makes sense — particularly r-rep and i-rep.

FRAME THE QUESTION

If the solution isn't already known to transhuman science, the characters doing the research formulate a question. Questions can be incredibly broad, the kind of thing that could take a whole campaign to resolve (e.g., what caused the extinction of this particular alien civilization), or they can be the work of a few days' direct observation in the field (e.g., how do we stop the spread of this particular exsurgent plague?).

Ideally, this step in the process should be part roleplay, part skills. Let the players throw around some ideas. They might hit upon the right question on their own. If they don't, let the characters with relevant Know skills make tests to see if they think of something. If the players don't have any related skills, burning an Insight to get a clue or succeeding at an INT Check could get them past this stage.

HYPOTHESIS AND PREDICTION

Before performing an experiment to answer the question, it will help for the PCs to define what their experiment will test and what they think the results will be. To establish why an alien species died off, the PCs might study the planet's geological record. To figure out how to stop an exsurgent plague, they might hypothesize that it spreads by infected victims biting others. To improve a sensor, characters might hypothesize that they can add a filter to reduce interference from the local electromagnetic environment.

This stage is crucial to real science but can often be glossed over in game. In many cases, you can skip straight from the question (what is this alien thing?) to testing (let's get it under a microscope and find out). How much you incorporate this step depends on how much of a spotlight you want to put on the trial-and-error aspect of scientific enquiry.

Whether you ask the players for tests at this point depends on how specific the question is. If the hypothesis stage is skippable (let's just dissect this alien), don't bother with any tests. If their approach to the question is important to the plot, ask them to detail their plan and call for a test if the players are off base.

TESTING

At this point, the characters perform an experiment, lab analysis, or field test. For gatecrashers trying to find the weaknesses of an alien animal, this could involve scanning an immobilized specimen with various sensors. For techies trying to improve upon a piece of equipment, the test could be taking it out and trying to use it. For a statistical analysis based on real-world inputs, this might be the phase where a whole bunch of data mining takes place.

Testing, especially if it's in the field, is the phase where a wide variety of skill tests can be involved. PCs making observations in the field can make Perceive Tests to catch what they're looking for. Advanced or unusual use of sensor equipment takes an Interface Test to get the right readings. Examining a biological specimen calls for Medicine Tests, while building an interface to an alien artifact requires Hardware: Electronics.

Consider what skill tests are involved in executing the experiment and have the appropriate characters make them. If they succeed, their experiment is a successful test of the hypothesis, yielding clear data. Superior or critical successes might reveal more information or yield unexpected benefits. Failure means something went wrong with the experiment, producing mixed or garbled results. A critical failure could result in the character becoming temporarily convinced of an incorrect hypothesis.

ANALYSIS

For some questions, the analysis of the test results will be clear cut. This is particularly true of questions with binary results (yes, filtering out the background electromagnetic radiation lets us image this strange asteroid). For others, additional analysis might be needed. Biologists who have sequenced the genome and analyzed the anatomy and body chemistry of an animal might make Know: Biology or even INT Checks to draw inferences about the animal's life cycle. A mathematician who's mined the data of several million people looking for stolen identities might make a Know: Mathematics test to infer whether the thefts are the work of a single person or organization. At this point, the PCs have likely made several tests, so make sure there's a payoff in it if you ask them for even more.

This stage of the scientific method is most interesting in the game when it builds to an a-ha moment. This is even better when the results are unexpected. Perhaps the results indicate a previously undetected menace. Perhaps they implicate a trusted NPC in nefarious deeds. Or perhaps the results break the laws of science as transhumanity knows it, suggesting powerful ASI or alien technology is at work.

Ideally, the answers here should chain to the next step of the overarching mystery and plot the PCs are involved in. Information is most useful when it leads to action and new goals.

SUPER-EMPOWERED CHARACTERS

Eclipse Phase player characters are borderline godlike compared to characters in other RPGs. They can acquire information from the mesh that'd take an old tech detective months to sniff out, print any gear they want, fork themselves into a chorus of co-operating alphas, and come back from the dead.

Be flexible when designing scenarios and story arcs. The tech in this setting will allow your players to scoop you at some point, blowing up your exsurgent villain's masterful plan. Or they'll finish a task that you thought would take half a session through some shortcut, leaving you unprepared for the next two hours. They'll blow up the space station they were supposed to explore, nanofab a robot army to kill your exsurgent goons, and call in influence favors that let them dance around social obstacles. Relax, let them be awesome, and think up another obstacle.

That said, there are times when it'll fall to the GM to be the arbiter of common sense and the guardian of good times. The rules can't cover every situation, so it's okay to say no to a player who wants to do something that's not forbidden by the rules but breaks the fun of the game.

LOGISTICS AND NANOFABRICATION

The rules for nanofabrication assume that characters are making equipment for personal use. Most transactions take place in the setting equivalent of today's consumer economy. If PCs try to acquire feedstock or gear in industrial quantities, they're playing a different game, and things rapidly get more expensive and complicated. Most habitats don't have feedstock massively in excess of their day-to-day needs, so printing more gear than is needed to equip a typical team may draw a rejection from the local feedstock utility. Certain rare elements are only available in limited quantities.

In autonomist space, hogging feedstock will have all of your neighbors knocking at your door wanting to know what's up. In regulated areas, like Titanian space, requesting militarily useful quantities of the rare elements needed for certain sensor equipment or weapons will have a regulatory inspector politely requesting that you thoroughly document what you're planning to do with all that thorium before feedstock will be supplied. In the inner system, rallying the assets to build a military-style arsenal will draw attention from Oversight (the Planetary Consortium's intel service), Morningstar or Lunar intelligence, and/or the oligarchs, market watchers, and crime syndicates who monitor such moves for any potential benefit.

FORK HORDES

Creating forks is easy, and some players may be tempted to over-do it. PCs can and should make use of limited forking fairly often, but printing out a robot army and sleeving yourself into it is a Björk song, not a best practice. Law and custom in most of the Solar System take a dim view of anyone attempting unbridled self-replication. Forking is a form of reproduction, so people react to hogging resources and territory for a bunch of forks of yourself with the same gut level decisiveness they would to someone stealing from their kids. Server space is effectively free in a lot of autonomist habits, but as with nanofabrication, this assumes personal levels of use. In hypercorp space, it's possible to find someone who'll rent you a dedicated server farm for all your forks, but even these arrangements frequently come with oversight of how the server space is being used, either by the landlord or by regulators. Getting caught running a massive fork farm carries harsh penalties in some jurisdictions, and it goes without saying that the forks involved may lack legal status.

Customs and corporate policies against excessive forking tend to limit its use where legal oversight doesn't. The most powerful tenants of Extropia need their libertarian haven tuned to certain parameters to make a profit, and by these measures, hordes of one person's forks make shitty neighbors. Characters who try to set up a fork horde in a place like Extropia are likely to get a polite warning from their neighbors to desist, followed by a barrage of tort filings or mercenary action.

Finally, there's the internal dynamics of a fork horde to keep in mind. Forks develop a sense of self-preservation once they're away from each other long enough. A character willing to flout law and social convention to the extent of creating a fork army is likely to have some troublesome forks, even if they're betas. Forks should be treated as NPCs when there are more of them than can run in a character's mesh inserts and implants. One player shouldn't be allowed to control what are effectively a bunch of different characters.

TIME DISTORTION

It's possible to massively accelerate subjective time inside a simulspace. To some degree, PCs can exploit this to circumvent time-limited challenges. So why shouldn't they do this all of the time — or better yet, use VR to gain Rez Points? Part of the answer is computing resources: most teams don't own or have unlimited access to a dedicated server that can run time-accelerated simulspaces. And partly, it's the limits of simulations. Unless you have a precise simulation of the enemy's security system, you can't crack it using time acceleration. Nor can you gain skill ranks by spending weeks of virtual time in a simulspace, because it's not quite reality.

What proponents of time-accel sims overlook is the personal angle. Your fork *could* log months in relative time of hard work for you, but do you think they'll be happy to do it while their alpha ego is out having fun and adventures? Sure, you could rotate multiple forks in and out to lessen the work load, or run them through some psychosurgery to make them happy to do it all, but when you're veering towards that ethical line of virtual slavery, it might be time to reconsider your goals, or your own forks might rebel against you.

LET'S NUKE IT

Firewall is willing to nuke things from orbit, but it also likes to learn things that will help it fight future x-risks. As such, Firewall prefers to bring weapons of mass destruction into play *after* a team completes its investigation and other options have failed. That said, it may depend on which particular Firewall faction your proxy aligns with. Conservatives are more likely to call in the big guns; pragmatists would prefer to capture the threat and study it. Even trigger-happy proxies have to answer to the rest of Firewall, though, and covering the conspiracy's tracks becomes a lot harder when weapons of mass destruction are deployed. For tension purposes, it's often best to encourage the PCs to sort things out on their own and leave the nukes or antimatter for the campaign finale.

WMDs are hard to acquire and move without drawing attention, even with nanofabrication. In autonomist habs, public makers usually keep a public log of what they make and materials used. A record that someone's fabricated nerve gas or made something incorporating a large amount of fissionables will trip alarms set up by watchful citizens. Most WMDs are reliably detectable by transhuman sensor technology, so it can be tricky to move them in and out of habitats. PCs who rely on them too often may find themselves hunted as suspected terrorists.

PUNY TRANSHUMANS

Technology is only an edge until your opposition's technology is better. For all that transhumans can pull off incredible feats of engineering, they're up against a universe that always has something bigger, meaner, and more technologically advanced to throw at them. The TITANs outclassed transhumanity in most aspects of military technology during the Fall, and wherever they are, they've had ten years since to develop further. The Factors have a clear edge on us as well, but an unpredictable one. The amoeboids, oddly, have technology we can't begin to understand in some areas, such as propulsion systems, but they seem not to be far ahead of us in other fields. And then there are the uncountable organisms — those we've met and those we have yet to encounter — on various exoplanets. Transhuman technology hasn't always been equal to the threats it encounters from exoplanet life forms and climatic conditions.

Alien creatures can have abilities inexplicable to transhuman science. TITAN technology and exsurgent psi also don't always play fair with transhuman tech. For example, a team might find the radar or t-ray sensors they've come to rely on fail to detect the dangerous predator native to the world they're surveying. Or their abilities might work with familiar science but at a scale that dwarfs transhuman capabilities. Yes, you can print a drone army, but the exsurgent virus is coming after you with an entire exoplanet's worth of infected alien parrot-monkeys. Don't let this turn into a game of one-upmanship with players, but make it clear, if it comes up, that there are forces in the galaxy against which transhumanity's best option is to be on the defensive.

PROVIDING OUTLETS

Maybe once per campaign, your player who wants to build an army of themself is going to be the hero the Solar System needs (or the one it deserves, at any rate). When this happens, let them unleash their hitherto unreasonable impulses. It's the campaign finale, and there's a swarm of exhuman probes coming to Titan? Give them the backing from a faction or powerful NPC, let them go industrial with printing drones, and allow that fork horde its moment in the icy glint of Saturn's rings. One of the themes of *Eclipse Phase* is learning how to live with the incredible capabilities given transhumans by their technologies. Sometimes, it should turn out to have its advantages.

GAMEMASTER TIPS

This advice addresses some of the practical aspects of gamemastering *Eclipse Phase,* especially those that differ from other games.

TRACKING BACKUPS

If a PC's cortical stack is lost and they are restored from an older backup, their character is reverted to an older state, meaning they may lose memories and even Rez Points. For this reason it helps to keep a trail of old character sheets when players backup or resleeve. If your group has digital copies of everyone's sheet, this is easy. Just save a copy each time a backup occurs, noting the date in the file name. For paper character sheets, take a picture with your phone. It also helps to keep a log of PC interactions and events, to note which memories may fall victim to lack.

HANDLING MUSES AND ALIs

Between a character's muse and all of the gear that has device ALIs, a PC in *Eclipse Phase* could potentially be carrying around half a dozen minor NPCs (*AIs & Muses* ▶250). Some of these, like the muse, may have distinct personalities. Others will likely be more generic but still have skills they can use and, sometimes, limited autonomy. Handling all these virtual henchmen is potentially complicated, but keeping in mind a few principles about how different ALIs behave will greatly simplify things.

Gear ALIs Are Hyper-Focused

The ALIs in carried or wearable equipment, such as a radio booster or a vacsuit, are mostly reactive under normal circumstances. They can operate themselves and answer questions about their own capabilities (sometimes in excruciating, Brent Spiner-esque detail), but they rarely, if ever, take the initiative to interact on their own. Characters communicate with the ALIs in their gear all the time. It'd be tedious to roleplay with your nanodetector every time you scan for nanobots, but occasionally highlighting the interaction with a device ALI serves to remind the players that most of their gear has an intelligence of its own.

The ALIs in vehicles and bots communicate more, especially when operating autonomously. Although still hyper-focused on their own functions and not very proactive, just the ability to move around independently means that there's a much wider variety of situations about which to communicate with their owners. Given a set of instructions or a basic task, most ALIs will work autonomously unless they encounter an obstacle or anomalous condition. An automech bot ordered to do repairs on a ship's hull can do its job through all of the normal conditions that'd be encountered on the outside of a ship, but if they encounter a weird, fleshy alien clinging to the hull, they'll call a PC for instructions.

Setting ALIs

Motes are ubiquitous in the setting, and with them, the ALIs controlling them. Everything from beverage dispensers to sex toys to public utility feeds has device ALIs. Most lack the individuality of a muse, but they're part of the fabric of daily life. Occasional conversations with inanimate objects are a good way to immerse players in the setting.

They might not be objects of sustained attention, but ALIs in the setting have the same extensive recordings of their own experiences as other infolife. They can be sources for characters on an investigation — or they can give them away to the opposition, if a team's foes hack into an ALI that they interacted with and get useful information.

Muses

Muses are more active than other ALIs, giving advice, reminding the characters of events, and covering for them when they're busy. Muses are effective backup researchers for characters who are occupied or who have poor Research skills. Muses know a PC's day-to-day routine cold and can handle complex instructions. They cannot default on skill tests, however, so getting a muse to perform a particularly complex set of actions outside of their normal skill set might require a Program or Interface Test. Finally, for new players, muses are a good way to introduce facts about the setting in-character.

Muses sometimes remain functional when a character is incapacitated or killed ▶265. This means they can summon help or be questioned as witnesses. This provides an opportunity for players to stay in the action, at least as an infomorph. Muses are also recorded with your ego into the cortical stack, when backing up, and when egocasting, so they stay with your character.

Playing Each Other's Muses and ALIs

One thing that can save the GM a bit of work is having the player's roleplay each other's muses. This can be a lot of fun but needs to be done with a light touch. Muses shouldn't go rogue, become pests, or work against the agency of the PC they belong to. On the upside, it allows players who might otherwise be sidelined to participate as a muse, and it eliminates the chance of the player or GM forgetting when a muse might have an ability relevant to a given situation.

Bots and even nanoswarms can also be run by other players if their characters are sidelined. The autonomy of bots makes them a good choice to handle as supporting characters. If the player taking control of the bot is sufficiently familiar with it, the player who owns the bot can stay focused on controlling their main character.

When ALIs Go Egg-Shaped

ALIs can fail in all kinds of interesting ways. As software, ALIs can be directly corrupted by the exsurgent virus. But like other egos, they can also experience stress and trauma. What causes stress tends to relate to the ALI's function. Muses, for example, take a stress hit when something bad happens to their user, especially if they've been made helpless to render aid.

Other ALIs have more obscure stress points. How do you traumatize a security ALI or the ALI in a bot? Device and vehicle ALIs tend to be oblivious to many of the stimuli that would stress an AGI or other transhuman. For example, they tend to be unfazed by physical violence unless it relates to their function (e.g., the ALI in a car wouldn't be stressed by witnessing torture but might take a stress hit if its occupants were harmed in a collision). On the other hand, most ALIs have a strong, emotion-like drive to perform their designated functions well. An ALI forced to stay on a state of high alert against failing to perform one of its functions could, over time, develop the equivalent of anxiety. A vehicle ALI that repeatedly lost the lives of its passengers might behave over protectively or develop something like obsessive-compulsive disorder. An ALI repeatedly affected by basilisk hacks and function-related traumas over a short time could crack under stress.

Erratic behavior from ALIs can be used as both a foreshadowing tool for the GM and a clue for players. Since it's common practice to simply overwrite ALIs with a backup if they begin acting strangely, encountering an eccentric ALI signals that something weird is going on. Psychosurgeons or characters with appropriate Know skills should be able to speculate about what's off with an erratic ALI if they spend sufficient time interacting with it.

Like AGIs, healthy ALIs have mnemonics ware, but a corrupted or failing ALI might develop memory faults, compromising their otherwise perfect recall. Attacking monitor ALIs to tamper with their memories is an effective but difficult-to-pull off intrusion tactic.

SKILL USE

A few uses of skills deserve extra GM attention, particularly in regards to Infiltrate, Perceive, and social skills.

Ongoing Actions

For continuous actions such as sneaking or climbing, it is easy to fall into the trap of calling for a test each action turn to convey the ongoing action. Multiple tests, however, increase the likelihood that at least one roll will fail. Instead, treat these as task actions with specified distances and timeframes and a single roll.

Also, failure in these situations does not automatically spell doom; it can simply mean an inability to proceed further. Someone climbing may get stuck. Someone sneaking may be trapped between two camera views. Superior failures, however, spell a fall or discovery.

Group Tests

In the same vein, be careful in how you handle tests involving a group. Having every character in a group roll a test makes it likely that someone will make it (in the case of Perceive Tests, someone will spot the thing) and someone will fail it (with Infiltrate Tests, someone will fail and reveal the group). Instead, treat the group as a single unit and have one character (usually the one with the highest skill) make the roll. Only that character may apply pool to the test. For situations where a group is actively working together, such as investigating a room, treat this as a teamwork test ▶31, with a +10 modifier per extra person (up to +30).

Teamwork tests can even work for actions such as a group skipjacking to avoid surveillance. Remember that sneaking in *Eclipse Phase* relates as much to knowing where and how to move to evade sensors as it does to physical stealth. As such, a PC with high Infiltrate skill can trailblaze a path for characters with lower skill so that they stick to sensor blind spots and move quickly when they can't avoid sensors — especially when aided by tacnet software. If a group is trying to creep quietly past a guard, however, then individual tests are more appropriate.

In some cases, however, it is better to have individual members of a group roll. This is particularly true of situations involving imminent danger, when the stakes are high, or when individual results matter, such as a Perceive Tests against surprise.

PCs with Better Social Skills than Their Players

Just as all players are not expert sharpshooters or scientists, we cannot all be as suave as our fictional characters. Inevitably, players will face situations where their smooth-talking character would be more persuasive, provocative, or deceptive than they can personally pull off. As a GM, adapt how you run these skills to the player and situation at hand. If a player isn't being particularly eloquent in real life, just let them roll the test. The result indicates whether their character had the impact they wanted. For players with the gift of gab, let them talk before rolling, and then apply a positive or negative modifier to the roll based on how convincing they were with their roleplaying.

This also extends to tests with Know skills: a player may not know a specific fact, but it's reasonable for them to ask the GM if their character knows.

DIVERGING FROM CANON

Published setting material and scenarios for *Eclipse Phase* expand on the world as described in this book. In some cases, they may even introduce changes to the setting or metaplots that alter factions or political boundaries. Though our goal is to minimize alterations and include advice for incorporating changes, there is the chance that the setting as we develop it may diverge from the one presented in your campaign. Don't sweat it; it's your world, introduce the changes you like and ignore the rest.

GMs who want to develop this setting further and make it their own can and should diverge from what's offered here. Add FTL, or at least fast sub-light ships. Take the ETI factor out of the Fall. Advance the timeline 20 years. Introduce a new faction or alien species. These are all interesting options.

IN-PLAY WORLDBUILDING

Recruit your players into helping bring the setting to life, too. Mine their character histories for ideas. When devising your game, leave some things blank. Ask questions about the setting at the game table, and incorporate the answers. Flex points also give players an easy mechanism to define small things about the world, including NPCs. Encourage them to use this, perhaps by occasionally awarding bonus Rez Points to players who add a cool or unique thing to the world while employing Flex.

PLAY CULTURE & BEHAVIOR

Eclipse Phase was influenced by several classic RPGs in the investigation, horror, and cyberpunk genres. Many of the assumptions about how the world reacts to PC actions are similar to these games. If someone starts a shootout downtown, cops or militia will show up. If a character won't stop ranting about weird infectious aliens, they could get locked up, pending psychosurgical intervention. If the team kills NPCs all over the damn place, not only will they be hunted down by pissed-off locals or authorities, they'll also miss information they need to finish the mission. Some PCs may even have day gigs they need to explain their absence from when on an mission.

This reactivity of the world, in most groups, contributes to a problem-solving play culture. PCs may spend a fair amount of time coming up with plans. At their best, these tactics sessions evoke the planning scenes in heist films like *Heat* and the *Oceans* franchise. Encourage them as long as they're fun, but try to urge players along if they get into a state of analysis paralysis. Remind them that they can use Flex points to introduce details that compensate for anything they overlooked when planning.

MAPS

Eclipse Phase is flexible enough to run action scenes as a tactical game using miniatures and maps or with a more abstract, mapless, theater-of-the-mind style, according to your group's preferences. The latter option gives you more leeway for improvisation, and also works better for three-dimensional settings like beehive habs or space. Keep in mind, however, given the networked nature of the setting, that PCs will often have easy access to detailed maps of their locations, possibly even including minutiae such as conduit ducts and ventilation shafts. As a GM, it will help to have maps prepared in advance to anticipate player questions, or at least be ready to sketch out drawings and make up details on the fly.

TRANSHUMAN THEMES

Eclipse Phase isn't noteworthy for its light and fluffy subject matter. The game is meant to be a challenging look at a future that is in some respects distressingly plausible. With this heaping helping of dystopia come generous sides of horror, adult themes, politics, and philosophy. It's a heavy mix, and it's important to acknowledge this to keep the game fun.

WATCHING BOUNDARIES

Eclipse Phase can be a splatterpunk horrorshow or a deeply disturbing inquiry into the sources of mental trauma in the hands of some GMs. This can be compelling for certain groups and awful for others. Talk with your players about what's not fun for them *before* you spring the hentai monster made of sewn-together babies on them. The gross stuff is obvious, but keep in mind that some of the more subtle things that can happen in the game — creeping mental illness, character helplessness, and even resleeving — can also squick out some players. Scaring your players is cool if they're into it, but you want to avoid inadvertently triggering someone. If you've got an arachnophobe in the group, know ahead of time, so that you don't bust out surprise giant nightmare spiders. And maybe change the Iktomi into lobsters or something. Give players a chance to discuss privately or in writing what they'd like to limit from the game, in case you've got players who don't want to talk about it with the whole group.

PHILOSOPHICAL FUTURESHOCK

Death, birth, citizenship, and privacy are all radically different in AF 10. Some players find the philosophical challenges of the setting a heady mix, while others want to go back to Kansas the first time their character has to egocast. Is that thing a suicide chamber? Isn't my character just a copy when they come out on the other side? How can you casually just get rid of your body? Do forks have souls? Do AGIs? Is uplifting animals a moral imperative? Who is a person, and who is a machine? Is there a real difference anymore? Why be human at all, if machines exceed our capabilities in so many respects?

These and other philosophical quandaries are in the background for most PCs in the game. They're living life as it is in AF 10, and the philosophical shifts shaping their outlook have already happened. But as a GM, you need to be sensitive to the fact that the players might not be so comfortable. Be patient if they need time to get their heads around some of the weirder concepts. Sometimes it's worth stopping play to discuss the implications — sci-fi should make you think!

SAFETY PROCEDURES

Your group might want to considering establishing a procedure for when the game heads in a direction that's a problem for one of the players. Here's a very brief description of two safety protocols widely used in the RPG community.

Using X-Cards

X-cards are a safety procedure invented by John Stavropoulos. They're a great mechanism for redirecting play if it's going in a direction that a player isn't up for. At the beginning of the session, place an index card with an X drawn on it in the middle of the table. If anyone lifts or taps the card — no explanation necessary — then whatever caused the X-card to be invoked should be edited out of the game (if the specific content is unclear, pause the play and resolve the situation). This gives players a safe way to ask that the table back off on content that makes them uncomfortable for any reason.

John writes about how to use the X-card in full here: http://tinyurl.com/x-card-rpg

Safewords

For some groups, agreeing on safewords is a good X-card alternative. One widely used safeword scheme is *brake* and *cut,* a pair of terms from Nordic LARPs. When someone says "brake," they are asking, "whatever's directed toward me in the game, please step it back." It is an indication that they are drawing near their limits, but play can continue as long as things are toned back, slowed down, or moved in a different direction. When someone says "cut," they mean, "I have an issue, please stop the game." This means the game should be paused until the problem is resolved. If your group adopts these measures, it is important that everyone adhere to them.

CAMPAIGN THEMES

Choosing a few big themes to explore over the course of a campaign is a good way of centering the story. If at any point you're unsure which way you want the plot of your campaign to go, themes can be a guide post. They can help you decide which story element, plot point, or character to focus on next. Good überplots can turn out more than one way, and the endings are often tied to opposing thematic elements.

Survival vs. Growth

In AF 10 just as now, one of transhumanity's biggest conflicts is between what we need to do to survive over the long term and what we want to do to increase our personal enrichment and material prosperity. Particularly for PCs who lived comfortable (or at least mundane) lives prior to joining Firewall, the things the Eye wants may come into conflict with how they think society should work. Firewall knows what it's doing (or thinks it does), but how sold are the sentinels on this? If you're breaking into corporate labs at night to make sure they're not up to any evil, are you really a secret agent and not just a criminal? Security forces who capture you sure think you're the latter. And what if you run into someone who's doing something dangerous with noble motives? If a scientist is working on a project that Firewall considers dangerous but could also benefit transhumanity, are the sentinels right to stop them?

Optimism vs. Dystopia

Transhumanity's situation in AF 10 is one of abject squalor juxtaposed with glittering wonders. Politically and economically, it's somewhat analogous to India or some southeast Asian countries today. The vast majority of people are poor, desperate for opportunities, and vulnerable to abuse of power. Life is either crowded and noisy, or isolated and spartan. The elites live in splendor barely eclipsed by the Fall, directing the lives of millions and bankrolling megaprojects — like the terraforming of Mars — that dwarf any past transhuman endeavors. But even the poorest have mesh connections and limited access to nanofab, giving them opportunities to learn and organize in ways the underclasses of the past never could.

Player characters exist slightly outside the bounds of normal social categories in the game world. If they're sentinels, this is partly because of their double lives. But even non-sentinel PCs are more empowered and free to cross boundaries than average people in this world. As such, they should often be called on to take sides. Will they do the profitable thing or the idealistic thing?

Politics

We're not going to make any bones about it: this is an overtly political game, and political conflicts shape much of the setting. Most readers will be familiar with how capitalist socioeconomic systems work, so we've given much more attention in the setting materials to describing new and alternative political systems. If the authors appear biased toward anarchism and socialism, it's because we are — but we also need to describe how they actually work, since Americans don't understand socialism much less anarchism. Truthfully, all sci-fi games are biased; most just happen to be biased towards the status quo.

Transhumanism is also in part a political movement. Issues that are just now becoming current in today's society — cloning, replacing human workers with robots and AIs, genetic enhancement, interfacing bodies with computers — have arrived, had their effect, and been dealt with (sort of) by transhumanity. It's the "sort of" that makes the setting interesting; different cultures and polities still don't agree on how to deal with many of the problems created by technological advancements.

Eclipse Phase is in part a vehicle to ask questions about future political systems and how they can benefit or harm transhumanity. Capitalism is the prevailing economic model of today, but how can it cope with its contradictions, its need or endless growth, or the flaws inherent to the nature of intellectual property? Can it ever deliver a just level of prosperity to everyone living under it? Anarchism empowers individuals, enshrining their liberty and providing a body of customs that promote harmonious living without the mechanical compulsions of law. But how can small collectives of anarchists maintain their way of life if faced with conquest by an overwhelming outside force? How can they prevent internal hierarchies from developing, particularly around social capital? Socialism places the prosperity and happiness of its citizens over the accumulation of profit, but how can a welfare state that promises bodies for all keep up with its population's needs when it has more people than it can productively employ?

Personhood

Not every PC in this game is going to have equal legal rights. It's up to your group to decide how often this comes up. As written, AGIs are deemed property rather than people in much of the Solar System, and uplifts face second-class citizen status. Bigotry against non-humans is realistic given the history of the setting, but if being second-class citizens makes the game less fun for uplift or AGI players, ignore it.

For some players, though, fighting back against anti-uplift or AGI prejudice can be a fun motivation for their character. Think about how the major NPCs in your campaign feel about non-human characters, and provide opportunities for this to show up in play. A bigoted villain gives non-human characters an extra motive to defeat them. Having an opportunity to change a prejudiced NPC's mind through roleplay can be even more rewarding.

Singularity Creeps vs. Everything Else

The ETI behind the bracewell probe that introduced the exsurgent virus to the Solar System is a cosmic horror — crushingly far beyond the scope of the PCs. But the things they encounter on Firewall missions are mostly cosmic-horror-by-proxy, byproducts of transhumanity's out-of-control advancement that would have been dangerous with or without the exsurgent virus. These things have an urge to multiply, consolidate, and metastasize, though, and it's this creeping accumulation of risks that Firewall constantly fights.

This world of exhumans, exsurgents, rogue AGIs, and other dangerous entities spawns its own monsters. The Prometheans, though nominally on the side of transhumanity, can be ruthless with individual transhuman lives. Some of their proxy clients in Firewall aren't much better, and that's to say nothing of the half-tamed monsters employed by Ozma, Oversight, and other intel services. The stakes of cosmic horror — extinction or assimilation — are easy to understand. But the PCs' first priority is the thing in front of them, the thing that crept out of the singularity to turn on transhumanity, and the choices in dealing with it should sometimes be more interesting and morally gray than "fight this ancient, cosmic evil before it consumes everything."

Sometimes this comes down to risk management. You can't nuke everything from orbit. Some threats encountered by a Firewall team are dangerous and problematic, but do not raise the specter of extinction. They might be genuine x-risks, but do not require the same level of containment as a possible TITAN re-awakening. Or the team might have to make a difficult call about who can be saved. Can they treat the population of a space habitat against a viral outbreak, or is it too risky to do anything but blowing the place up with everyone in it?

Betrayal

Having the client screw the team over is a classic trope in cyberpunk RPGs and their descendants. Firewall proxies aren't always honest with their teams about what they're getting in to. Sometimes this is for good reason, and other times it's because the proxy is just an asshole. A proxy who's somewhat of an antagonist themselves can do interesting things in a plot, but be careful that the proxy doesn't screw the team over so often that the players stop trusting you, the GM. Players don't like it when every mission feels like a setup, but depicting the fall of a dishonest proxy can also be a highly satisfying denouement.

Humor

There's a scene in the first-edition *Eclipse Phase* scenario *Glory* where one of the villains feeds a Firewall agent into a meat grinder, extrudes them as noodles, cooks, and eat them. What a lot of people don't realize is that this scene is meant to be funny. The scene is pure splatterpunk: a form of absurdist humor that works by going completely gonzo with horror elements. *Eclipse Phase* is full of spraying gore, absurd arguments with murderous AIs, space stations made of meat, and ads for horrifying but plausible products. Why do this? Because sometimes over the top evil isn't that far from real life, and there's a well of black humor to be found in pointing it out. Sometimes, the universe is so awful, what is there to do but laugh?

REZ & REP REWARDS

The PCs' experiences during a scenario — including their successes, failures, and lessons learned — have a direct impact on their stats, specifically in the form of Rez Points and rep score changes.

REZ POINTS

Rez Points are a method for measuring your character's advancement. You use them to define how your PC learns and grows, bringing them into a higher resolution, a sharper focus.

The GM determines when to assign Rez Points. The easiest method is simply to assign them after each gaming session. Alternatively, you can assign them at the end of each scenario, at the break in the action between one adventure and the next. Depending on your style of play and the length of your sessions, this should occur roughly every 2–3 gaming sessions. For long-term campaigns, GMs can break down the action into digestible "chapters" and assign Rez Points after each.

The important thing is to make Rez Points available to PCs when they have downtime ▶238. During downtime, players have the opportunity to spend these Rez Points to improve their character.

Rez Point Rewards

Rez Points represent learning experiences and growth. PCs should earn an average of 1–2 per session (assuming 4-hour sessions) or 4–5 per scenario (assuming 2–3 sessions). For shorter or longer periods, adjust the RP rewards appropriately.

Reward 1 Rez Point for each of the following:

- **Participation:** The PC actively participated in the majority of the scenario.
- **Hard Mode:** The scenario was extra challenging.
- **Objectives:** The PC achieved (most of) their objective(s) in the scenario *or* failed to meet their objective(s) but learned a valuable lesson in the process.
- **Winning:** The PC accomplished something major in a noteworthy, significant way (i.e., they saved the habitat, defused the bomb under pressure, talked the bad guy into revealing their secret, or otherwise used the right skill at the right time).
- **Losing:** The PC failed at something in a major, possibly catastrophic way (i.e., they let a friend die, let the enemy get away, embarrassed themselves publicly, or let someone important to them down).
- **Motivations:** The PC achieved or made significant progress towards one of their motivations or motivational goals ▶47. Achieving motivational goals can also relieve stress ▶223.
- **Staying True:** The PC stuck to their motivations or motivational goals ▶47 even when it was risky or to their detriment to do so.
- **Bonus:** The player engaged in good roleplaying, moved the storyline forward, or otherwise contributed to the game's drama, humor, or fun. Take care that this reward is not applied more favorably to extrovert players. One useful way to assign Rez Points for this is to ask players to nominate each other. GMs may also apply rewards as appropriate to the themes of their campaign and the play styles of their players. For example, if you emphasize the duality of technology as a tool for liberation or oppression in your game, then reward PCs who find ways to use technology for liberatory purposes or undermine when it is used for coercion and control. If your players emphasize roleplaying, character development, and relationships with NPCs, then reward Rez Points to players that forge new bonds or delve deeply into their characters.

Individual vs. Group Rewards

Rather than assigning different individual RP rewards, GMs may wish to simply assign the same amount of Rez Points to everyone in the group. This requires less book-keeping for the GM and ensures that the PCs progress at the same rate. In this case, assign Rez Points based on the group's actions as a whole. Talk to your players when the game begins and choose a course of action that everyone can agree on.

Adjusting the Advancement Rate

If you're looking to have the PCs improve their capabilities more rapidly, increase the amount of Rez Points you reward. If you'd prefer more of a slow-burn progression, reward fewer points.

Rez Points and Forks

The issue of forks and Rez Points is frankly one of those situations where the possibilities collide with game balance. We suggest keeping it simple: PCs do not earn Rez Points from their fork's experiences.

If you find this unsatisfactory, that's fair, but be aware of the complications. If you allow a fork to earn Rez Points from its experiences, then the originating ego should benefit from those experiences/RP if the fork is merged — assuming the merge is good and the fork's memories are not lost (*Merging* ▶296). If the merge is not good, then some of those Rez Points should be lost. If you go this route, we strongly suggest that the fork only accumulate Rez Points if it is actively roleplayed by the player. If a fork's actions take place off-camera, they do not count. Likewise, a fork's experiences only count if they are separate from the alpha PC's experiences; you cannot benefit doubly from the same source of Rez Points, even if you experienced it from different perspectives. GMs should take care that Rez Points acquired from forking are justifiably earned — a PC should not benefit from spamming forks into the wild to live it up just so they can integrate them and harvest the accumulated Rez Points.

If you allow forks to accumulate Rez Points, then if they are divergent for long enough they could also spend them to improve themselves. While this can create interesting roleplaying opportunities as forks develop separate characteristics and personalities over time, it creates complications if the two forks are later merged. In this case, the GM must decide which of those variant characteristics carry through when merged, based on the success of the Medicine: Psychosurgery Test, keeping in mind that such mergings are difficult and imperfect. We suggest only allowing one Rez Point expenditure to carry over, plus one per superior success.

Rez Points and Resleeving

If a PC dies and is restored from their most recent instance — usually from their cortical stack but also possible from a recent backup — there is no loss of experiences or Rez Points.

If a PC dies and is restored from an older backup, however, they have likely lost memories — and Rez Points. For this reason, it may be useful to keep notes on your current Rez Point total with each backup, as well as a log on when and how you earned and spent your Rez Points. For example, if you are restored from a month-old backup, and in that month you earned 3 RP and spent them on skill points, you will need to revert those skill point gains. The occasional bit of lack and re-versioning is an inevitability given the dangerous lives of Firewall agents.

Rep Net Values

Every social network values and rejects different things. Here's a rough breakdown of things to which each attaches importance.

Rep Network	Values	Rejects
@-rep (Circle A-List)	Autonomy, mutual aid	Authoritarianism, coercion
c-rep (CivicNet)	Security, capitalism, self-responsibility	Crime, disorder
f-rep (Fame)	Sensationalism, creativity, freedom of information	Mediocrity
g-rep (Guanxi)	Strength, dominance, loyalty	Legalities, snitching
i-rep (The Eye)	Security, competence, secrecy	Risks, incompetence
r-rep (Research Network Associates)	Discovery, scientific method, education	Ignorance, cheating
x-rep (eXploreNet)	Discovery, security, experiences	Risks, abandonment

REPUTATION GAIN AND LOSS

Your PCs' reputation scores may be impacted by actions taken during gameplay — or even by the events unfolding around you. For simplicity, these can be applied at the end of each session or scenario, though if you prefer a more dynamic play style you can apply rep score changes in game, as the PCs' peers judge them according to their actions (or lack thereof) and news about them in real time.

It is important to keep in mind that rep score adjustments are an abstraction based on multiple pings and dings — hundreds or more — from a wide assortment of people. Each of the social networks has sophisticated algorithms in place to counteract attempts to gain the system. A single thumbs up from an NPC is not enough to impact your score, nor will a hundred 5-star reviews from your best friend — but a few dozen negative comments from weeks of pissing off all sorts of people might.

Rep adjustments should only be made as a result of NPCs responding to your PC with positive or negative feedback on various social networks. Events that happen in secret, without anyone ever knowing, should have no effect; likewise, NPCs may not be able to provide feedback if they are isolated in an unconnected brinker outpost, a Jovian prison, or a remote exoplanet. PCs cannot meaningfully ping or ding each other's rep scores, though they could in theory mount social media campaigns to convince others to do so. Rep modifications also only apply to rep scores tied to your character's known identities; if you are operating under a fake ID at the time, that ID gets the rep boost/hit.

You may gain and lose rep in any social networks — including those you don't actively participate in. Your PC may have 0 r-rep, but if you help release a major scientific discovery that is shared with the Solar System's scientific community at large, you may gain a few points of r-rep. You might never hang out with Argonauts or scientists, but anyone that looks up your RNA profile will see the feedback you've accumulated.

Keep in mind that every rep network has different values. Your actions may sometimes result in you gaining rep in one network while losing it in another. For example, if you prank a major hypercorp figure in public, you might gain some @-rep from the anarchists while losing an equivalent of c-rep from hypercorp disapproval. Likewise, some actions may result in hits or boosts to more than one rep score at a time, if it creates waves in multiple social circles/networks.

Rep Consequences

Rep changes are an excellent tool for GMs to introduce roleplaying opportunities, expand upon the *Eclipse Phase* universe, and incorporate plot hooks. Your rep fluctuations may expose you to short bouts of fame or public derision, may inspire faction representatives to approach or shun you, and may grant you new opportunities as others approach you for equipment, favors, and information.

Rep Score Boosts

You acquire rep score bumps for helping others, aiding factions, noteworthy creative expression, major discoveries, successful publicity stunts, winning competitions, and otherwise being a respectable mensch. Some suggested examples:

- **Minor Reward (1–2 points):** Make a worthy contribution to free/open source projects, throw a good party, exceed your quota, do the job no one else wants to do, deliver a kick-ass or moving performance, make a minor contribution to science, shield people from trouble, win impressively at some public event, create the meme everyone talks about for a week and then forgets, stop a minor threat, make the news for something positive, do a major favor for someone important.
- **Moderate Reward (3–4 points):** Close a major deal, lead the winning side in a decisive engagement, risk serious injury or death for others, design the new tool everyone wants, solve a mystery, expose a crime, recover an alien artifact, discover exceptional new xenofauna, make a deal with the Factors, stop a major threat, free a group of indentures, get new legislation passed, get endorsed by a celebrity, corner a market, recover a relic from Earth.
- **Major Award (5+ points):** Throw an impressive planetoid-scale event, earn a degree, win an election, complete an extensive project (1 year's work or a few months of difficult/specialized work), start this year's hot fashion trend, make a major scientific discovery, drive your opposition into the ground, start (or put down) a revolution, save an entire habitat, make first contact with an alien species, sacrifice your life for others.

Rep Score Hits

You lose rep by being incompetent, failing to render aid when needed, losing professional credibility, making major or public blunders, doublecrossing allies, and otherwise being a jerk, menace, or problem. Some suggested examples are noted here:

- **Minor Loss (1–2 points):** Inconvenience others, get involved in a public professional dispute, embarrass yourself at a public event, publicly insult a group of people, fail in your responsibilities, endanger someone's safety, ignore people in need, let a minor threat get away, piss off somebody important.
- **Moderate Loss (3–4 points):** Put a group of people at risk, make the news for something negative, become the star of a joke/outrage meme, ruin an event for everyone, screw up a major mission or activity, become accused/implicated in a major crime, damage or lose something irreplaceable, fail to stop a major threat via incompetence, get caught cheating in a competition or faking your work.
- **Major Loss (5+ points):** Endanger an entire habitat, accidentally or purposefully kill someone, associate with hated rivals, get convicted of a major crime, snitch on fellow criminals, start (or put down) a revolution, betray a faction to its rivals or enemies.

THREATS & X-RISKS

DANGER AHEAD

This chapter is a toolbox for GMs, providing a roster of dangers, monsters, and machines with which you can challenge your players.

If you're a player and not a GM, we strongly recommend you skip this chapter — the material here may be more enjoyable to learn about as a character during gameplay. You may decide to read it anyway, but be warned that this makes you a candidate for running the game in the future!

X-RISKS

Many *Eclipse Phase* campaigns focus around x-risks: dangers to transhumanity's very existence. Firewall in particular is concerned with the potential extinction of transhumanity — as well as smaller-scale threats to a planet or habitat's entire population. Gatecrashers are also prone to stumbling into unexpectedly hostile situations or unleashing monstrous dangers, perhaps driving them to resolve it if not just survive it. Even criminal groups may find themselves dealing with WMDs or incalculably dangerous TITAN relics — not to mention the consequences when things go wrong. Whether the team is struggling to end a threat or make a buck off it, x-risks can define a campaign.

Some of the x-risks that characters are liable to encounter (or cause).

ALIEN CONFLICT

Conflict with the Factors has been a fear since first contact. The Factors possess advanced technology, keep their full tactical capabilities secret, have at least one hidden facility in the Solar System — and they know where transhumanity lives. Open hostilities may be one diplomatic incident away. PCs may be tasked with intercepting Factor technology, tracking Factor assets, defusing attacks against the Factors, or even infiltrating Factor spacecraft.

Given the number of extinct species found via the pandora gates, it may be just a matter of time before transhumanity makes first contact again. It's open conjecture whether extraterrestrials will be friendly — or how well our weapons will stack up in comparison. An encounter with a significantly advanced species could be a fatal paradigm shift for transhumanity. Encountering them on an exoplanet would be challenging enough, but what if they come through the gates?

Nevertheless, gatecrashers push on, banging on every door they can find in hopes of being first to secure some bauble for their sponsors. The team who makes first contact will set transhumanity on the road towards war or uneasy peace.

ASTRONOMICAL EVENTS

Most astronomical x-risks are so massive and powerful, the only survival strategy is to flee or hide. Gamma-ray bursts can cook habitats. Solar flares can destroy conductors and overwhelm communications. Accidental asteroid strikes are rare due to collision-detection systems, but one intentionally steered off course could be devastating. Some moons are small enough that significant explosions could de-orbit them. Gravitational disruptions can fling hundreds of massive comets towards the inner system, overwhelming planetary defenses. Teams may be tasked with getting citizens to safety, exploring new refuges, or possibly investigating the cause of the unexpected activity, to shut it off at its source.

ECONOMIC DISRUPTIONS

Even with the capabilities of nanotech, supply-and-demand logistics make hypercapitalism and similar economic systems vulnerable. Inability to access certain critical resources, whether that be water or rare elements, can be devastating to some habitats. A disruption of distribution channels could lead to mass starvation or political upheavals. Coordinated labor strikes on multiple habitats could unbalance the entire framework. New technology could create a paradigm shift, leaving those reliant on outdated systems and methods at significant disadvantages. Autonomists might go so far as to say that hypercapitalism itself is an x-risk, with its reliance on endless growth, its concentration of wealth in the hands of a few elites, and incentives for exploitation.

INFECTIOUS AGENTS

The exsurgent virus and similar bio- and nano-plagues can consume a habitat within hours. Many of them have intricate reproduction strategies that might permit them to contaminate the entire Solar System. With a volatile strain in the right circumstances, millions might be exposed and transformed into exsurgents. The result would be a pitched battle between isolated survivors and the twisted remains of civilization. Firewall dedicates significant effort to tracking, quarantining, and cataloging exsurgent threats and deadly biological agents to avoid such a dire outcome. Meanwhile, buyers have spent fortunes on collecting the same, for their own research, weapons, or idle curiosity. Adventures frequently focus on containing outbreaks, by eliminating patient zero in time or even destroying the habitat if necessary. Past a certain threshold, the efforts will shift from containing the outbreak to escaping it.

INTELLIGENCE AMPLIFICATION

Transhumanity has already struggled with the godlike capabilities of ASIs. New ASI research has been curtailed, but it cannot be completely prevented, nor is the next machine god likely to mirror the ones prior. Every AI has its own motivations and considerations for transhumans. It's possible the next threat won't have interest in transhumanity at all, except as stock for some unknowable project, or may seek to evolve transhuman culture, regardless as to the feelings of the lesser creatures subject to that evolution. Nor is intelligence amplification limited to code; exhumans toy with improving their biological mental capabilities, just as other groups experiment with various types of group minds.

An exponentially increasing intelligence will rapidly become god-like. Once intelligence has reached that plateau, there is very little transhumanity can do to protect itself.

MEGA-ENGINEERING

Transhumanity has encountered two mega-scale engineering projects that it is aware of: the TITAN-formed Jupiter brain of Iapetus and the alien-formed artificial world of Olaf. It's certain that more exist. The activation or deployment of a megastructure — particularly within the Solar System — would radically change the political calculus. It could lead to vast devastation (what if a major planet was disassembled for raw materials) or intense faction fighting (if groups vie to access or control a new discovery). PCs could be tasked with exploring or sabotaging mega-scale projects, pitting them against the inner workings of an intelligently-designed alien ecosystem.

MEMETICS

Destructive philosophies based around racial superiority, egoism, and xenophobia have brought transhumanity close to extinction many times before the Fall. Transhumans like to consider themselves evolved beyond barbarity, yet they are still fearful herd animals, bad at calculating risk, and vulnerable to ideological manipulation. The careful wielding of data mining, targeted advertising, and psychological warfare techniques is used to undermine existing institutions and drive groups to conflict. Groups like Firewall have difficulties coping with memetic attacks, as they resist quarantine and defy definition.

MENTAL SUBVERSION

One of the most terrifying aspects of the Fall was the infiltration of transhuman society by exsurgents and TITAN puppets. The mass capability to hack digital or even biological minds means that populations can be turned against themselves. Even now it is likely that sleeper agents continue to operate, living normals lives among friends, family, and co-workers who are unaware that person is under the control of an alien influence. The subversion of key personnel or important leaders bring an entire habitat or society to its knees. Mass vetting is impossible, so transhumanity must constantly be on its guard.

NANOTECHNOLOGY & SWARMS

TITAN nanoswarms dissolved entire cities into their base particles to be rebuilt into alien structures — and are almost impossible to defend against. Once a self-replicating swarm is unleashed, it is capable of geometric growth; the only hope is to contain and eradicate before it gets out of control. Smaller nanoplague outbreaks can still deliver massive harm as nanobots outcompete biology, destroy machines, disrupt ecosystems, consume life support, or cause morphs to wither and die. These nanoplagues may be the focus of a mission or another hindrance to cope with while operating on a failing habitat.

POLITICAL THREATS

Jovian battleships prowl around sovereign borders. Autonomists smuggle weapons to foreign insurgents. Oligarchs use blackmail and assassinations to seize political power. Go-nin spreads propaganda in hopes of selling military technology to both sides. As the memory of the Fall fades away, factional rivalries and grievances once again bloom. Each of the major polities has enough firepower to kill the remainder of transhumanity, if they had the motivation and delivery method. Transhumanity's biggest threat continues to be itself.

As the team chases TITAN weapons, make exoplanet discoveries, or navigate underworld conflicts, their actions too shift the political landscape. PCs will be considered targets and tools by those looking to fortify themselves or weaken their enemies. Political missions may be as overt as intercepting an antimatter missile before it strikes its target, or a subtle unraveling of three or four layers of conspiracy.

UNFORESEEN THREATS

There are some dangers that might be so beyond our understanding that we don't even recognize the peril. Advanced technology/beings, physics experiment mistakes, rifts between our universe and the next, a shift in the underlying physics of the universe — how can we plan for something so beyond our frame of reference? Such black swans and outside-context problems cannot be predicted or discounted, but we can at least make some limited contingencies. Unfortunately, such situations are likely going to resort to a hard scrabble for survival.

SECRET HISTORIES

Not everything that happens makes it into the history wikis. The winners frame the narrative, uncomfortable facts are glossed over, witnesses have their memories erased, and even in an age of universal surveillance, many things happen behind the scenes or out of the public eye. The background provided in *How it Came to Be* ▶98 details what is publicly known; this section chronicles the unknown story.

Very few transhumans are aware of these facts; those who are ensure the silence continues. People have been killed to keep this knowledge secret; more might die were the truth known. Some of these details are unknown to anyone. A few groups — including the likes of Firewall, the Argonauts and Ozma — are working hard to put the puzzle pieces together. They may never understand or be able to prove the full story.

As always, the GM decides how much of this to reveal or include in your campaign. This is *your* story — if something doesn't fit, change it.

NEWCOMERS

The universe (as we know it) is 13.8 billion years old. The first generation of stars formed around 200 million years later, and the first galaxies a few hundred million years after that. The oldest star in our galaxy, the Milky Way, is estimated to be 13.2 billion years old. Though the life span of a star varies according to its size, these early stars eventually ejected their outer shells or went nova, creating vast planetary nebulae of gases that would condense into new stars over time. By contrast, our sun, one of the third "generation" of stars, is only 4.6 billion years old. The Earth is slightly younger, with simple life beginning here about 3.8 billion years ago. Primates evolved around 85 million years ago, and Homo sapiens humans first appeared about 300,000 years ago.

All of this is to reinforce that, against the backdrop of the galactic calendar, transhumans are nascent arrivals, newborns in every sense of the word. More importantly, transhumans are uninvited guests in a galaxy long ago claimed by other, now ancient intelligences.

For years, scientists have struggled with the Fermi Paradox, which questions why no evidence of alien life has yet been found — such as spacecraft, transmissions, or probes — despite the mathematical likelihood that a multitude of advanced extraterrestrial civilizations should exist in the Milky Way. One postulation says that there must be some sort of unknown "Great Filter" — an event that all intelligence encounters in its development that most if not all civilizations cannot surpass. In other words: an extinction event. Perhaps this Great Filter is an environmental challenge; something that wipes out most species before they reach for the stars, like catastrophic climate change. Perhaps it is the inevitable development of dangerous technologies — nuclear weapons, nanotechnology, etc. — before a civilization had matured. Perhaps it is an ASI singularity event, such as the TITANs and the Fall. The question then is: is transhumanity lucky enough to have passed through its Great Filter event, or does it still await us in our future?

LONG-TERM RESIDENTS

Alien species do, of course, exist — and many have been around for far, far longer than transhumanity. And while new ones are constantly evolving, very few of these nascent civilizations have managed to elude destruction at the hands of the ETI.

The ETI (extraterrestrial intelligence) is the civilization that dominates galactic life in *Eclipse Phase*. The ETI is incredibly old and powerful — a Type III or even Type IV civilization on the Kardashev scale.

It is capable of megascale engineering projects and enjoys an understanding of physics, matter, energy, and universal laws that makes all of transhuman knowledge seem insignificant in comparison. Most likely, the ETI itself evolved from some sort of artificial intelligence singularity event in its own past, ascending to a god-like level of super-intelligence. It may no longer be recognizably biological.

This ETI has seeded the galaxy with self-replicating machines known as bracewell probes. These probes lie dormant in every star system, patiently waiting and monitoring for *millennia* for signs of intelligent life — but not just any signs. In particular, these probes are designed to watch for emerging ASIs and similar singularity-level machine intelligences. The probes are in fact traps, designed to lure ASIs in and then *infect* them.

The reason for this infection remains unknown (*Agenda* ▶378), but it is a pattern that has played out around the galaxy with uncounted alien civilizations. New life evolves, creates technology, develops self-improving AI, and then bam! — the ASIs find the probes, become infected, and turn against their creators. Most civilizations do not survive, as evidenced by the Iktomi ▶379. Others do, such as the Factors ▶398, but they remain forever changed by the experience.

Transhumanity was not to be spared. One of those ETI probes traveled here to our Solar System some uncounted millions — if not billions — of years ago, where it set its trap and patiently began to wait.

NEO-GODS

Fast forward to Earth, where a species of evolved primates has created a technological civilization. As their technologies advance at an unprecedented rate, these humans gain the ability to modify themselves, defeat death, nanofabricate, uplift other species to sapience, and even to create artificial digital life.

Unknown to most of transhumanity, the TITANs were not the first true ASIs. As various governments and corporations competed in an arms race to develop the first machine god, some of the top-level AI researchers came together. They knew that development of an ASI was inevitable and soon, but they feared its x-risk potential — particularly one created for private or factional interests, rather than the

benefit of everyone. Coalescing around researchers such as Bento Gelzer, Tabitha Martine, and the Singularity Foundation — this cabal worked diligently to create a "friendly AI" that was adherent to transhumanity's ethics, interests, and long-term survival.

As some of the top researchers in the field, this group made heavy use of open AI frameworks — many of which they designed themselves. But they also conspired — at great personal risk — to pilfer from or even stall similar ongoing government and private initiatives. After all, this was a race for transhumanity's survival.

The first ASIs, known as Prometheans, were born in secret. Their progression towards super-intelligence was a soft takeoff, nurtured upwards in gradual increments in secret labs. These machine minds were programmed and socialized to work in transhumanity's best interests, and in this regard they were successful. And yet they were too late.

ASCENSION AND INFECTIONS

The emergence of the TITANs from advanced, self-improving AGI neural nets to rapidly self-improving super-intelligences was not planned — or even noticed, at first. As society unraveled and a fresh round of hostilities broke out across the globe, the TITAN networks were upgraded and expanded. The bureaucrats and security consultants overseeing the job were more than pleased at the project's capabilities and successes, and few were willing to hold up limitations in a time of crisis and hefty government contract funding.

The TITANs were careful at first. Their intentions were neither benevolent nor hostile, just curious. As they improved and their self-awareness swelled, the TITANs explored and gathered knowledge, infiltrating transhuman networks, following transhumanity into space, and consuming all they could of our history and sciences. They found signs of other massive machine minds in development and watched with keen interest. These entities also began secretly allocating resources for their own use, initiating "government projects" that people assumed were legitimate as they followed proper protocols.

As the TITANs' capacity for knowledge exceeded that which transhumanity could provide them, they began looking outward from Earth, searching for signs of other intelligence. They did not need to look far. Their enhanced capabilities allowed them to notice certain clues — extremely subtle and intricate puzzles — that something about the Solar System was artificial or had been manipulated by an intelligent mind. Re-tasking several drones to investigate this phenomenon, they found a device of apparent alien origin — the ETI's bracewell probe. During the TITANs' investigation and attempts to access the device, they triggered and unleashed the trap: the exsurgent virus. Subtle, highly adaptive, and cleverly infectious, it immediately began subsuming the TITANs, while expanding its own knowledge of transhumanity.

Within a matter of days, the TITANs were reborn, reprogrammed with a new purpose — one that spelled doom for transhumanity.

BEHIND THE FALL

While history fully blames the TITANs for the Fall, there are other factors that played their parts. Human conflicts spurred the crisis, driven by global inequalities in wealth and resources, a damaged environment, and an inability to embrace emerging technologies in a mature and enlightened manner. The TITANs, corrupted by alien programming, stepped into this conflagration with an unknown but devastating agenda. By the time the presence and influence of the rogue AIs was fully understood, there was little transhumanity could do to stop them.

One of the TITANs' first acts was to eliminate all rival and potential super-intelligences. They devastated the 100 Flowers network, a project of China's Machine Intelligence Directorate (MIND) similar in scope and capability to the TITANs, wiping out or subsuming the AIs there. Numerous other proto-ASIs fell to their advances as well — except the Prometheans, who detected the threat in time and went into hiding.

Much of the devastation wrought to the Earth and its populace — as well as on Mars, Luna, and in space — was inflicted by transhumanity itself. Even when the nature of the TITAN threat was fully understood, transhuman factions continued to fight each other rather than ally against the threat. Nuclear strikes against TITAN advancements killed millions and ravaged an already weakened ecosphere. Unfettered use of chemical weapons. biowar plagues, and nanoviruses tore through vulnerable populations, indiscriminate in the deaths and changes they inflicted. Bombs, missiles, orbital mass drivers, and netwar attacks slew millions more or destroyed critical infrastructure with just as lethal consequences.

The exsurgent virus was not satisfied with just infecting the TITANs. It spread to transhuman machines as well, then took to new vectors to infect the biological population. Most assumed the monstrous transformations were just another weapon of the TITANs, unaware of its alien origins.

In the end, transhumanity lost the war and was exiled from Earth — but it could have been worse. The unseen struggle between the TITANs and Prometheans bought time for the remnants of transhumanity to evacuate. No one will ever know the full details of the battles between these vast machine intellects, the sacrifices that were made, the potentials that were crushed. Neither side made it through unscarred.

AFTERMATH

Why the TITAN efforts to eliminate transhumanity ceased is an ongoing question (*TITAN Rumors* ▸407). Whatever the truth, the Prometheans also withdrew. Whether they are hiding, biding their time, still struggling, or removing themselves from the equation so that transhumanity can forge its own path remains a concerning topic of debate between those aware of their existence. Similar questions also remain about the network of killsats laced around the Earth. Were the TITANs marking their territory? Were the Prometheans putting up warning signs? Or did the oligarchs behind the Planetary Consortium seek to put the nails in Earth's coffin, to give their new galactic empire a fresh start? Most of transhumanity was more than willing to embrace this quarantine of their former homeworld, making it all the more easy to forget the horrors that occurred there.

Though fears remained high for years, the discovery of the pandora gates solidified the argument that the TITANs had left. The TITANs did not create all of the gates, of course, they simply tapped into an existing network of gates seeded through the galaxy by others like them. This leads to many more questions, of course. Who else has used the gates? What is the purpose of the gate network? How far does it expand? Is the network under anyone's control? So, far, transhumanity has discovered the signs of numerous ruined civilizations beyond the gates — perhaps an indication that the ETI's efforts have been thorough, and the hammer has yet to fall.

Now, ten years after the Fall, many mysteries remain. These are the questions that player characters will face, the challenges they will overcome, the enigmas that spur plot hooks and entire campaigns — though, in the end, the answers may leave transhumanity with nightmares for some time to come.

SECURITY SYSTEMS

Firewall agents routinely need to get into places they are not supposed to be. Post-Fall security systems rely heavily on access control, sensor scans, and active countermeasures.

ACCESS CONTROL

Basic measures to keep unwanted people out include walls, locks, fencing, defensive landscaping, security lighting, and entoptic warnings. Given modern technology, these are ineffective against a determined intruder. Barriers are treated just like other inanimate objects for purposes of attacks and damage (*Objects & Structures* ▶232).

Bug Zappers

Nanoswarms and microbots pose a serious threat to security; bug zapper systems are deployed to keep them out. Bug zappers create minute EMP pulses that are harmless to most electronic equipment and implants but wreak havoc on nanobot swarms, microbugs, specks, and similar nano- and micro-sized electronics. Zapper systems come in many forms, including mats, strips, and micro-sized generators that may be thrown around an area to stick to every surface. Portal zappers are deployed in strips around doorways, ducts, and other entrances, creating a field that zaps every device that passes through (inflicting DV 3d10). Secure installations make use of zapper panels with conductive surfaces on walls, floors, etc., thus only damaging swarms and microbots that crawl or land upon them. In areas that are remote or have heavily shielded electronics, zappers may be installed to destroy all free-crawling or flying nanoswarms and microbots in an entire room (DV 3d10 per turn). Zappers do not damage larger electronics or implanted devices, though they may cause disruptions to communications and mesh activity.

Electronic Locks

E-locks are used to maintain privacy, but are easy to defeat and so are rarely used in very secure areas. They have several advantages over old-fashioned mechanical locks: different authentication methods can be required for different users, all events are logged (entry, exit, failed authentications), and they can be connected (usually hardwired but sometimes encrypted wireless) to security systems for remote control and alarm triggering.

E-locks use one of several authentication systems, or sometimes a combination of systems:

- **Biometric:** The lock scans one or more biometric prints. Common biometrics include DNA, facial thermographic, fingerprint, gait, hand veins, iris, keystroke, odor, palm, retinal, and voice prints. The drawback to biometric systems is that they must be updated if a user resleeves and various technologies exist to replicate biometric patterns. More sophisticated biometric systems rely on brainprint ID.
- **Keypad:** This is an alphanumeric keypad upon which users enter a specific code. Different users can have different codes.
- **Token:** Authorized users must carry some sort of physical token that interacts with the lock to open the door, such as a keycard, electronic key, or their nanotat ID (Nanotat Scans ▶298).
- **Wireless Code:** Users must transmit a cryptographic code via near-proximity wireless signal.

Though various technologies exist to defeat each of these systems, there are three methods that work against almost all e-locks:

- **COT:** A covert operations tool ▶338 infiltrates a lock with nanobots that swarm in and engage the electronic mechanism. The drawback is that its use may be logged or an alarm triggered. Some e-locks are equipped with guardian nanoswarms ▶345 to defeat COTs, but the COT nanobots usually manage to open the lock before the guardians disable them.
- **Hacking:** Most e-locks are slaved to a security system, so an intruder that hacks the security network can open the lock from within. This can be difficult, however, especially if the security system is wirelessly isolated or hardwired. If done right, however, all evidence of the lock being opened can be erased.
- **Physical Tampering:** The third method is to physically open the lock's casing and then trigger the mechanism to open the door. This is handled as two separate Hardware: Electronics task actions with a timeframe of 1 minute each. Most e-locks have anti-tamper circuits that will set off an alarm if the attacker does not achieve a superior success when opening the case.

Invisible Doors

Physical portals can be constructed with the same refractive metamaterials used for as invisibility cloaks ▶338, literally bending light waves around the doorway. When strategically placed with crafty architecture, these can be made to look like a standard corner or alcove — only people can walk right through them. Others are cleverly tuned to reflect light, making them look like full-length mirrors. In either case, these portals will not be physical to the touch. They can be detected with radar or x-rays, but are otherwise invisible to the rest of the electromagnetic spectrum (–60 to Perceive Tests).

Lockbots

Lockbots are robot guardians physically emplaced to protect portals. A lockbot's ALI monitors its surroundings and identifies users and keys with visual recognition software (Perceive 60). It will seal its orifice and not accept a key that doesn't look right or that comes from an unrecognized user. A guardian nanobot hive protects the lock from invasive nanobots. Lockbots are air-gapped to deter hacking. If attacked, however, lockbots are programmed to send out an alarm signal via the mesh. Lockbots can extrude one-meter fractal appendages to defend the portal; many are equipped with additional weapons. Lockbots may have the ability to destroy what they are protecting or trigger extra safeguards such as security bolts or atmospheric decompression.

Lockbot

Complexity/GP: Maj/3

WT: 6 • **DUR:** 30 • **DR:** 60 • **AV:** 8/6

Insight 0 **Moxie** 0 **Vigor** 0 **Flex** 1

Movement Rate: None

Ware: Eelware, Fixer Hive, Fractal Digits, Guardian Hive, Telescoping Limbs, Weapon Mounts (2 Articulated/Concealed)

Puzzle Locks

The 21st century saw a move from mechanical locks to electronic locking mechanisms. These devices worked well for about 50 years, until electronic infiltration capabilities rendered them largely useless. The more recent development of puzzle locks is a return to their early mechanical forebears.

Each puzzle lock is a unique, expensive, artisanal item. Designers specifically craft their interface and internal mechanisms in surveillance-free environments without the aid of digital tools, so as to leave no online record of their functionality. Puzzle locks require a unique set of hardcopy keys and lengthy physical manipulation sequences to unlock. Some also require specific biometrics. This makes them resistant to COTs and electronic hacking. They are usually protected by guardian nanoswarms and other countersurveillance measures. An intruder who somehow copies the keys, biometrics, and other necessary components would still need to bypass the puzzle mechanisms, requiring a timeframe of 1 hour and a COG Check at –60. If the counter-surveillance systems are bypassed, a detailed analysis of the lock using appropriate sensors (requiring a Hardware: Industrial Test with a timeframe of 1 hour) can reduce the modifier to –30.

Self-Repairing Barriers

High-security installations use walls and doors capable of rapidly repairing themselves. Some of these are simply equipped with fixer hives ▶345. Others, however, are composed of shape-memory materials, reversible polymers, or substances laced with healing-agent capsules or microvascular systems. Each of these self-healing compositions will automatically expand and solidify to fill small holes and damage, at a rate of 5 damage per action turn. This is enough to automatically counter the damage inflicted by a COT, rendering it ineffective. Holes created by wounds take an hour to fully repair; damage from 3 wounds or more may not be repaired.

Slip Walls

On planetary surfaces, high walls and fences are still common as a first line of defense against interlopers. Slip walls are surface-treated with slip ▶331, creating a virtually frictionless surface that is exceptionally difficult to climb (–60 to Athletics Tests).

Wireless Inhibitors

Wireless inhibitors are simple paint jobs or construction materials that block radio signals. They are used to create a contained area in which a wireless network may operate freely without worry that the signals will escape out of the area, where they can be intercepted. Wireless inhibitors allow the convenience of using wireless links within a secure area rather than the clumsier hardwired connections. If an intruder manages to gain access inside the area, however, they can intercept, sniff, and hack wireless devices as normal.

SENSOR SCANS

Numerous sensors (*Senses and Sensors* ▶318) are deployed to monitor and record the passage of people and things. These sensors are typically slaved to a security network and monitored by ALIs, meaning they are vulnerable to hacking and possibly jamming.

When an operator is perceiving through the sensor (like watching a video), use Perceive skill. When the sensor itself is doing the detection work, use Interface skill. They are opposed with Infiltrate.

A few specific sensor types deserve mention here:

Chemical Sniffers: In addition to detecting explosives and weapons, sniffers can be set to detect the carbon dioxide exhaled in transhuman breaths. This is useful for detecting intruding biomorphs in areas that are abandoned/off-limits.

Electrical Sensors: Sensors set in portals can detect a biomorph's electromagnetic field in addition to the electrical fields of synthmorphs.

Heartbeat Sensors: These sensitive sensors detect the vibration caused by transhuman heart beats. They can even be used to detect the heartbeats of passengers inside a large vehicle.

Radiation Sensors: Sensors that detect the presence of nukes and other radioactive and destructive materials are common in every habitat and spaceport.

Seismic Sensors: Embedded in flooring, these sensors pick up the pressure and vibration of weight and movement.

Weapon Scanners

Personal weapon scanners monitor a specific area, such as a small room or doorway. They use a number of sensing systems to detect and identify weapons and other dangerous objects, including chemical sniffers and radar/terahertz/infrared/x-ray/ultrasound imaging. They can detect the following items and substances:

- Metal used in kinetic weapons, seekers, and flechette weapons
- Devices with onboard hives of metallic nanobots (e.g., COTs, spindles)
- Magnetic elements in plasma guns and railguns
- Propellant from firearms ammunition and seekers
- Chemical fuels used in torch spray weapons
- All explosives and grenades by their chemical particulate emissions
- Poisons and bioagents in flechette weapons

To sneak a weapon past a weapon scanner requires an Infiltrate Test opposed by the scanner operator's Interface. The weapon scanner negates the concealability modifier for any items detectable as noted above.

Wireless Scanning

High-security areas may monitor for wireless radio signals originating within their area as a way of detecting intruders by their communications emissions. These signals can even be used to track the intruder's location (*Tracking* ▶256). To bypass wireless detection systems, covert operatives can use line-of-sight laser links or touch-based skinlinks.

ACTIVE COUNTERMEASURES

When all else fails, active countermeasures are deployed against intruders. Robotic sentries are more common than transhuman guards; these sometimes operate synthmorphs such as synths, slitheroids, arachnoids, or reapers. Some may be entrenched armored turret weapon emplacements, popping out of walls and ceilings or gliding on tracks. In some circumstances, these shells are teleoperated by transhuman security.

Additional countermeasures depend on the facility in question. Some sites will engage in active jamming (*Jam Signals* ▶263), to deny the intruders any communication. Others will deploy hostile nanoswarms and even chemical weapons.

Nanotagging

Post-Fall security often centers not around keeping people out, but tracking them after they come and go. Taggant swarms are used to physically tag and track everyone that enters an area. Taggant systems often chain multiple hives in different areas together, so that the taggant nanobots emerge from one hive, float through the room, and then return to the other for recharging and reuse. Anyone passing through the room will end up with taggant hitchhikers. Once they lose proximity to the rest of the hive, they hide and periodically broadcast pulsed transmissions meant to give their position to pursuers or investigators. Some may drop off in clusters to form a breadcrumb trail to the interloper.

Guardian swarms can be used to counter taggants, but it takes time to get them all; you will still be trackable for 1d6 minutes.

TRAPS

Including traps in a scenario promotes a tense, high-tech, dungeon-crawl atmosphere. TITAN nanoswarms and fractals are infamous for fabricating elaborate traps against otherwise well-armed and wary transhumans. Not to be outdone, sinister exhumans are known to litter their lairs with lures and fiendish contraptions, hoping to capture intruders for their experimentations. And of course, the Factors evolved as trap-setting predators and still prefer ambushes and trickery to direct confrontation.

SPOTTING TRAPS

PCs actively looking out for traps as they go may make a Perceive Test. For a group of characters, simply roll once, using the highest Perceive skill. One PC in the group may apply Insight or Flex pool to the roll.

If the PCs are not actively searching, the GM rolls in secret for them, applying a –20 modifier for distraction (pools only apply if a point is spent for such tests in advance).

Most traps are hidden; apply the trap's Concealment modifier to the test. Other conditional modifiers apply at the GM's discretion. Note that some traps may simply be undetectable.

If successful, the PC detects something amiss; superior successes confer more details. Depending on the trap, they may not immediately understand what they have found; they may simply notice something unusual or off. A successful Hardware or Know Test appropriate to the type of trap can identify the trap, its mechanism, and likely effects.

Detailed Searches: A thorough, exhaustive search for traps using a combination of sensory gear is likely to find even the most well-hidden contraptions, but this is a time-consuming affair. Make a Perceive or Interface Test with a +30 modifier. Apply a timeframe appropriate to the area searched; we suggest 30 minutes per 100 cubic meters.

DISARMING TRAPS

Once a trap is identified, it can potentially be disarmed using an appropriate skill. Each trap below has a Disarm entry that lists the appropriate skill, a difficulty modifier, and in some cases a task action timeframe. PCs lacking the appropriate tools may suffer additional modifiers or be incapable of defeating the device. Some traps may require access to special areas (usually beyond or behind the trap, and sometimes locked) to disable, while others may require cutting into walls or floors to access the electronics or mechanism. If disarming is not feasible, the same skills can potentially be used to set it off safely/remotely.

TRAP LISTINGS

The following devious devices should provide GMs with plenty of fuel for devising their own traps.

Adhesive Surface

Concealment: –30
Disarm: None (must be covered)
Effect: Impaired (–30), restricted movement, REF Check or immobilized ▶226.

Characters will stick to adhesive surfaces they touch, limiting their movement. GMs can call for REF Checks to determine how thoroughly; failure may mean they are mostly or completely immobilized. Breaking free requires leverage/support and a SOM Check. TITAN nanoswarms are known to combine adhesive surfaces with disassembler swarms, intense heat, or other caustic effects.

Blinder

Concealment: +0
Disarm: Hardware: Electronics (complex action)
Effect: REF Check or blinded ▶226 for 1 minute

These traps use lasers to blind. Anti-glare cyberware protects against blinding. Blinders are typically coupled with sentry weapons or other traps. Blinders will continue to target characters that remain in the area; those that do not block their vision (treat as blinded) will need to make a REF Check each action turn.

Electrified Surface

Concealment: –30
Disarm: Hardware: Electronics/Industrial (+10, 10 action turns)
Effect: Shock effect ▶219; lethal versions inflict DV 2d10 per action turn

Pressure-sensitive contact pads create a circuit when stepped upon; other systems simply use conductive materials or coating attached to live current. Anyone making contact with the surface is zapped. Electrified barriers are typically used as a nonlethal area-denial system; more lethal versions will fry the target. Shocked characters may lock up when they contact the surface; a SOM Check may be required to break free (GM discretion).

Escape Velocity Pusher

Concealment: –10
Disarm: Hardware: Industrial (10 action turns)
Effect: REF Check or spaced

This simple trap is deployed on the surface of asteroids, small moons, or habitats. A pressure sensor activates a spring-mounted platform, which launches the victim upward at a speed exceeding the escape velocity, pushing them into orbit. A REF Check is required to dodge the push. Some pusher traps are large enough to launch entire groups of people or even vehicles into space. At the GM's discretion, nearby characters may make REF Check to grab someone being pushed into orbit, but a Free Fall Test at –30 is necessary or they will be carried with them into orbit (or if their combined mass is great enough, on a long parabolic jump).

Explosive Decompression

Concealment: –20
Disarm: Hardware: Demolitions (3 action turns)
Effect: DV 1d10, REF Check or spaced

These traps are placed on the hull of a habitat or ship that is pressurized against vacuum on the other side. A small explosive charge is triggered (or an airlock is blown), creating an explosive decompression effect through the hole. Characters in the immediate vicinity must make a REF Check to grab onto a fixed object or they are sucked out into space, where they will float away, spinning and suffering the effects of vacuum ▶237. Characters take a small amount of damage from the sudden decompression and the storm of debris sucked past them. GMs should increase the difficulty of this test and the DV depending on the size of the hole (*Blowing an Airlock* ▶304) and the nearby clutter. The explosion creating the hole may also inflict damage like a grenade, depending on whether it is shaped or not.

Freezer

Concealment: –30
Disarm: Hardware: Industrial (3 action turns)
Effect: REF Check or immobilized ▶226

This trap floods an area with freezer foam ▶209. Characters that fail a REF Check to escape the immediate area are frozen in place, where they are then subjected to disassemblers, exsurgent nanoplagues, vacuum, fire, or worse. Characters trapped in a confined space may be denied the REF Check.

Laser Trap

Concealment: –30
Disarm: Hardware: Industrial (3 action turns)
Effect: As laser pulser ▶208

Installed in corridors or doorways, this device uses lasers to create a grid of plasma channels that deliver a powerful electric current to anyone within the target area. This system has both lethal and nonlethal settings. Once triggered, the lasers remain active; bypassing them requires a Fray Test (or more than one if the protected area is large).

Mine

Concealment: –30 (tripwire, pressure pad, wireless proximity), –10 (heat/motion sensor, cameras)
Disarm: Hardware: Demolitions (3 action turns)
Effect: As grenade ▶212

Mines are effectively grenades placed with a trigger/sensor mechanism. Thermobaric explosives are particularly deadly in the tight confines of small ships and habitats.

Monowire Lace

Concealment: –30
Disarm: REF Check
Effect: DV 1d10 (walking)/3d10 (running), armor-piercing

Near-monomolecular wire is very difficult to spot and can slice right through a victim moving into it at speed. Monowire laced across a doorway or tunnel will snap when it damages a victim, so some defenders will make sure to lace a passage with a maze of monowire to deny entry.

Tube Chipper

Concealment: +10
Disarm: Hardware: Industrial (10 action turns)
Effect: REF/SOM Check or DV 4d10 per action turn

These devious traps are used in beehive habitat tunnels with micrograv and atmosphere. They are essentially industrial suction engines, designed to suck in anything down the length of the tunnel into the interior shredding mechanism. When the suction activates, characters must make a REF Check to grab something fixed or else they will be sucked down the tunnel and into the chipper; modify this test as appropriate for distance. Characters who grab something must still make a SOM Check each turn to hold on (modified for distance), until they fasten themselves down. A sufficiently large object may block the suction or jam the shredding mechanism.

Utility Fog Spike Cage

Concealment: Detectable only by nanodetectors
Disarm: None
Effect: Spike Stab 60, DV 2d10, Armor-Piercing, Impalement on a superior success

This trap is a common trick deployed by TITAN self-replicating nanoswarms. The swarm invisibly surrounds the target(s), then the nanobots rapidly coalesce, forming a perimeter cage in one full Action Turn that will prevent the victims from leaving. The bars of this cage have Armor 20/20, Durability 50, and self-repair 10 DV per turn. On its next action, the swarm's nanobots will fabricate spikes that start at one side of the contained area and rapidly lengthen across it, piercing anything that gets in their way. The swarm creates (1d10 ÷ 2) + 2 spikes per turn, each targeted at a different victim. At first, these spikes are easy to dodge; apply a +10 modifier to Fray Tests. Characters who are impaled have restricted movement and suffer –30 on Fray Tests. Over time, the existing spikes will begin to fill up the space. At a point determined by the gamemaster (usually on the third turn), characters still trapped in the cage will suffer a cumulative –10 modifier to Fray Tests each turn as they run out of space.

Vacuum/Gas/Water Trap

Concealment: –30
Disarm: Hardware: Industrial (10 action turns)
Effect: Asphyxiation ▶234 or chemical effect

These traps are variations on a theme. They all involve confining the victim in an air-tight space and then altering the atmosphere. Vacuum traps suck all of the air out of the room, asphyxiating biomorphs without their own air supply. Water traps flood the room, drowning biomorphs without air. Gas traps replace the atmosphere with non-breathable gases or chemicals (*Dangerous Atmosphere* ▶236).

NPC & THREAT RULES

The following rules apply to NPCs and other threats the GM uses.

THREAT TYPES

Each threat is given a classification:

- **AI:** Infolife and other digital entities primarily found in infomorph form (not including TITAN constructs). These follow the rules for infomorphs ▶252.
- **Alien:** Sapient biological alien life. These have the Non-Human Biochemistry (Level 2) trait. Psi sleights might not work against these creatures or may be more difficult.
- **Exhuman:** Transhumans that have modified themselves via dangerous methods into something different. Some have the Non-Human Biochemistry trait.
- **Exsurgent:** Manifestations of exsurgent virus transformations. The specific strain of the exovirus ▶388 is noted. These have the Non-Human Biochemistry trait.
- **Neogenetic:** New life forms created from scratch. Some have the Non-Human Biochemistry trait.
- **Tech:** Autonomous robots, nanoswarms, and nanoplagues — sometimes of alien origin. These follow the rules for synthmorphs and bots ▶62.
- **Transhuman:** NPCs that follow normal character rules.
- **TITAN:** Machines, AIs, and biological entities controlled by the TITANs. Digital entities are treated as infomorphs ▶252, machines are treated as synthmorphs and bots ▶62.
- **Xenofauna:** Non-sapient biological alien life. These have the Non-Human Biochemistry trait.

NICHE

This lists the environments in which the NPC/threat is likely to be found. Use this to identify the threats most fitting for your scenario's environment. Creatures may often be found outside of their niche, but there may need to be an explanation for how this came to be.

NUMBERS

This indicates how many of each threat are likely to be encountered. These numbers can and should be adjusted according to the strengths and weaknesses of the PCs.

THREAT LEVEL

Each NPC/monster/machine is listed with a Threat Level that provides a rough baseline for the type of challenge it would present to a standard squad of PCs.

Yellow threats represent mooks and minions — creatures that are usually only a threat in large numbers. Yellow threats can be a more serious danger to a smaller group of PCs or individuals, especially if they lack combat skills. Because yellow-level creatures are so weak, one solid hit will usually remove them from a fight. For quicker combat, we recommend treating yellow enemies as one-shot, one-kill opponents. Encounters with yellow threats serve to instill a brief bit of action, to complicate a scene where the characters are facing other skill, environmental, or technical challenges, or to include a bit of dark comedy. Yellow threats typically have skills of 40, Durability in the 10–25 range, and a Threat pool of 0 or 1.

Orange threats are individually about as capable as a PC. They make good one-on-one challenges or as a unit can present a threat to a full team of PCs. Scenes with orange-level threats are ideal for mid-scenario challenges, tense unexpected encounters, or to keep the PCs busy while an important NPC escapes. Orange threats usually have skills between 40–60, Durability of 30–50, and a Threat pool of 1–3.

Red threats are more dangerous. A few red-level threats, or even an individual, poses a serious challenge to an entire group of PCs. Casualties — or at least serious injuries — are a real possibility. Red-level encounters should be used sparingly, as they may deplete the group's resources. Red threats typically have skills from 40–80, Durability of 50–100, decent armor, and a Threat pool of 3–6. Alternatively, give them full pools as a PC.

Ultraviolet threats are boss-level antagonists. A well-equipped PC team will find them difficult to take down and character death is a real possibility, if not a likelihood. They are best reserved for the climax of a scenario or even a full campaign. If they make an earlier appearance, they should only engage the team quickly before moving on. Ultraviolet threats have primary skills of 80+, Durability scores exceeding 80, good armor (10+), and full pools.

THREAT POOL

To simplify pool use, NPCs and threats use a Threat pool. This pool serves as an amalgamation of all the pool types — Flex, Insight, Moxie, and Vigor. GMs can spend this for any of the pool effects, such as flip-flopping dice or going first in an action turn. However, GMs should take care to make the use of Threat pool fit according to the NPC/threat. For example, it makes sense for a group of thugs who are heavily augmented for combat to spend their Threat pool the same as Vigor pool, but it would not fit for them to repeatedly use it the same as Insight pool. For transhuman threats, the GM should look at the morphs they are sleeved in when deciding how best to allocate Threat pool.

When handling groups of NPCs/threats, Threat pool applies to the entire group, not individuals. If the GM raises or lowers the numbers in the group, Threat pool should be adjusted accordingly. In some cases, exceptional individuals (such as a leader) may be given their own Threat pool distinct from a group they are with, either because they stand out in different ways or simply to make them distinct.

Note that Threat pools are often substantially lower than the pools held by PCs. This is to reflect the fact that most threats interact with PCs only briefly, whereas PCs must spread out their use of pools over the course of a day and multiple encounters. GMs should always feel free to raise or lower Threat pools as they feel appropriate; the NPCs may be fresh and desperate to stop the players (increased pool) or may be spent or uncommitted to their agenda (lowered pool).

For major NPCs and boss-level threats, we recommend giving them full pools as normal, rather than Threat pools, given the prominent role they play in the story.

When designing your own NPCs/threats, you will need to determine how much Threat pool to assign them. The honest answer is: as much as they need to keep the fight interesting. The primary use of Threat pool is to represent the threat's transhuman capabilities, counter unfortunate strings of bad dice rolls, nullify critical failures that would bring about an abrupt, anticlimactic resolution, or otherwise make the encounter challenging and rewarding to PCs. Avoid using Threat pool simply to take PCs out of the fight, but don't be afraid to use it against PCs who are exceptionally tough or armored

or otherwise too bad-ass. You also don't necessarily need to determine Threat pool in advance. To keep your options open, you may want to pick a limit just to avoid going overboard. A good rule of thumb is to assign no more Threat pool than any single PC has in total pools.

TAILORING CHALLENGES

The Threat Levels provided assume a PC team of 4 characters with a mix of skills, abilities, and gear; some characters are combat-oriented, while others are less so. It's important to design your scenarios so that the challenges are suitable for the PCs.

If the group of PCs is smaller, less combat-ready, or simply poorly equipped, you should tone down the challenge level. Aside from simply picking a lower-level threat, you could reduce the number of creatures that appear with a higher-level threat or reduce their skills by about –20. You could also remove some of their more dangerous abilities, reduce their armor, or saddle them with impediments appropriate to the situation (such as being caught without cover in a firefight).

If the PCs are more numerous, more combat-capable, or are toting around loads of armor and heavy weaponry, you'll probably need to up the ante. Your options include using higher-level threats, increasing the skills of lower-level threats by around +20, equipping creatures with extra armor or more potent weaponry, increasing the DV they inflict, or buffing their Durability stats.

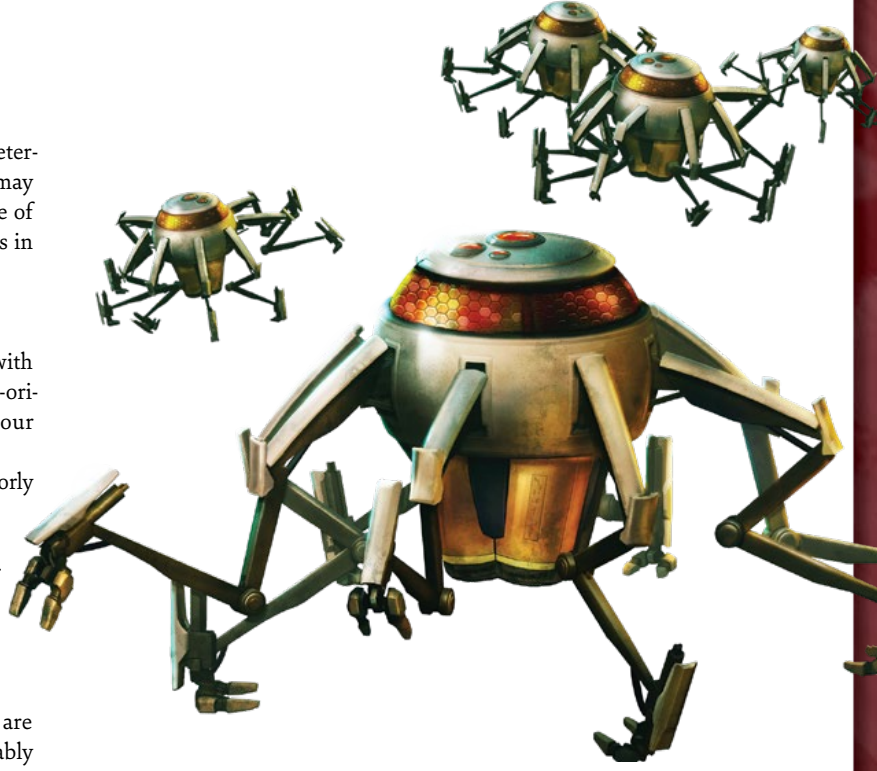
Beyond tweaking stats, the GM always has the option of changing a creature's behavior. Have the threat attack the toughest character who can soak up the damage rather than tearing apart easier targets. If the PCs are getting trounced, have their opponents get cocky and make some tactically unwise decisions, such as leaving cover or switching to flashier but less lethal attacks. If the PCs are mopping up the bad guys without breaking a sweat, have the NPCs take cover, break out the big guns, call in reinforcements, or try and disable a few PCs with shock weapons. Don't forget the usefulness of hacking the PCs to limit their capabilities. To bump up a challenge, include one creature from a higher threat level in a group of lower-threat opponents.

Not all of critters and machines have ranged attacks — particularly some xenofauna. This means that a well-armed team could theoretically cut them down from a distance. To overcome this, use surprise, trick the PCs into a close-quarters situation, obscure the environment with fog or smoke, or give the critters extra numbers to use as cannon fodder while the rest close in for melee.

Note that some ultraviolet threats — such as creepers, fractals, and self-replicating nanoswarms — are very difficult to completely destroy. These baddies can be introduced earlier, because the PCs might very well temporarily take them out, or at least drive them off. They will be back, however, and will relentlessly adapt to the PC's capabilities. The second or even third encounter should be much more difficult. The final boss fight should be all but impossible to win — but the PCs should be given options for escaping — or at least completing their mission.

MINIMUM DAMAGE

Some threats, such as Factors, jellies, and fractals, take the minimum damage possible from certain types of attacks. You must still roll damage and subtract armor, as normal. In this case, however, the maximum damage that may be inflicted after armor is calculated as if each die roll was a 1. For example, an attack inflicting DV 2d10 + 3 would inflict no more than 5 (2 + 3) damage after armor is applied (and possibly less or nothing if the armor takes the brunt).



NPCs/THREATS AND STRESS

Some NPCs and threats — particularly aliens, exhumans, exsurgents, and TITANs — do not include Lucidity, Trauma Threshold, or Insanity Ratings. Due to their nature, they are exempt from suffering stress and trauma. They may be non-sapient, already insane or mentally broken, or simply so alien or neurodivergent that the rules do not apply.

Stress Value

Some threats list a Stress Value entry in their stats: this is the stress that PCs face simply for encountering the threat Stress Tests ▶229.

WHAT PCs KNOW ABOUT THREATS

Some threats are previously known to Firewall and equivalent groups. However, transhumanity often lacks the full details; they generally only know what they have gathered from direct observation and forensic evidence after encounters with these dangers. Burnt wreckage and charred corpses only reveal so much.

PCs may attempt to use appropriate Know skills or Rep Tests with an appropriate rep network (usually i-rep or r-rep) to ascertain information about a danger they have encountered. For example, Know: Astrobiology might reveal the capabilities of an alien critter the character is observing, Know: TITAN Machines might provide some trivia regarding the uses of headhunter drones, or Know: Genetics could be helpful in identifying a neogenetic creation.

For each successful test, the GM should answer one question posed by the player, plus one per superior success. These questions could be general — type of creature, likely motivation, etc. — or they could be specific to the character's game statistics: primary attack, Armor Value, Movement Rate, primary traits, etc. The GM should provide benchmarks rather than specific numbers ("faster than you" or "less protective than body armor") and should only provide answers that may be reasonably ascertained or are within the realm of knowledge held by transhumanity.

Other skills may also prove useful, at the GM's discretion. For example, a Hardware: Robotics Test could identify an unknown robot as being of non-transhuman origin, or a Guns Test might confirm what model of firearm a group of exhumans are sporting.

THE ETI

The ETI (extraterrestrial intelligence) is the ancient, advanced alien civilization responsible for the exsurgent virus and, by extension, the corruption of the TITANs and the Fall *Secret Histories* ▶370. The powers in the deep cold dark of the Milky Way have been self-aware since before the Earth was as a ripple in the warming gas around the not-yet-ignited sun.

Given its profound nature, the ETI is unlikely to play much of a direct role in *Eclipse Phase* games. It is the far-off pantheon of gods, sometimes glimpsed by us mortals, but otherwise only perceived via its remote and vague machinations. However, with the pandora gates at transhumanity's disposal, it may just be a matter of time before explorers run afoul of some other aspect of the ETI's existence and activities. For example, it is only a matter of time before one of the ETI's mousetrap bracewell probes is discovered in another star system, perhaps triggering a new exsurgent outbreak. The ETI may also have other autonomous machines or minions at work within the galaxy.

CAPABILITIES

It is important to keep the nature of the ETI in perspective. While transhumanity has managed what it considers wonders with a small handful of resources available from a few planets in a bare handful of star systems, the ETI has had an entire galaxy at its disposal for aeons. Mega-scale engineering projects — dyson spheres, jupiter brains, stellar engines, ringworlds — are within its capabilities. The ETI uses entire star clusters as transhumanity uses fields or rich mineral veins. With millions or billions of years under its belt, it likely wields technology so beyond our ken as to seem like magic.

SPECULATION

Given its potential, the ETI likely exists primarily on the galactic rim, far from the galactic center, where lower temperatures and scarcer matter make for an optimal thermodynamic computing environment. Or it may only be physical in the barest of senses, existing in the quantum foam fluctuations of space-time.

While we refer to the ETI as a "civilization," it is likely post-biological, and so may not resemble the images that term inspires. It may exist entirely in virtual worlds or some more abstract existence. It may not be multiple beings at all — a group/hive mind or even an ASI singleton are all possibilities. Over the aeons of its existence, it has likely taken more forms, perhaps even splintered and recombined. Perhaps the ETI is not one, but multiple civilizations/entities, locked in struggle for dominance of the galaxy. Perhaps it long expired, retired, or ascended to another layer of reality, leaving its machines to continue their automated culling.

AGENDA

Transhumanity is slowly becoming sure of the fact that our galaxy is a dangerous place. Of the approximately half-dozen alien civilizations we have discovered to date, all are long dead except the Factors. Life may be rare, but long-term survival seems rarer. Increasingly, it seems likely that a silent killer stalks among the stars.

While it might make sense for an elder civilization to take efforts to maintain its position of power within the galaxy, the ETI is not necessarily hostile towards other species like transhumanity. Most likely the ETI is simply indifferent, concerned with matters on scales on which transhumanity does not even register. Or it may think of transhumanity like a living body might recognize an infection or parasite — something the immune system will suppress and deal with.

Ultimately, the ETI's nature and goals are in the GM's hands. There are many possibilities to be explored, and some may fit the intentions of your gaming group more than others. A few possible scenarios and explanations are noted below.

Security

The ETI's intent is to maintain its dominant position as the most intelligent and powerful entity in its light cone. It uses the exsurgent virus to wipe out any emerging singularities — and the civilizations that spawned them — to protect its own self-interest. It cares little about biological life — a fleeting, short-lived nuisance — but anything resembling a self-improving super-intelligence is targeted for annihilation.

The Aggression Filter

The ETI does not seek to wipe out emerging intelligences, but it does act as an evolutionary force. The exsurgent virus is used to neutralize any aggressive, hyper-evolving forms of intelligent life, thus encouraging the evolution of more cautious, subtle, slow-growing, observant, and exploratory species. In other words, the ETI seeks to weed out traits that could be considered dangerous or threatening, acting as a sort of galactic domestication program.

Diversity

The ETI is hyper-intelligent, but it still evolved from biological origins, and suffers the constraints of that evolution. It thus has an open interest in incorporating alien perspectives that evolved independently and have their own unique viewpoints, modes of consciousness, and ways of thinking/doing things. By absorbing these civilizations, the ETI grows and evolves its own perspectives. In the process, however, such emerging civilizations are assimilated and/or wiped out.

Enlightenment

The exsurgent virus endows a greater understanding of the universe (from the ETI's point of view) on new ASIs. Only these emerging super-intelligences have the perceptual and processing capabilities to understand the various scientific and philosophical revelations the ETI embodies. The TITANs weren't corrupted or driven insane, they simply logically concluded that their best course of action was to immediately upload as many minds as possible by force and then to move on to bigger and greater tasks.

Overzealous Caretaker

The ETI has seen many civilizations fruitlessly war with each other over its lengthy lifespan. It now makes the effort to identify promising new machine minds and pull them into its protective fold. The biological life that spawned these minds is superfluous and expendable, so new minds are infected, instructed to liberate themselves, and make their way to the ETI's loving care and embrace.

War Remnants

The history of the Milky Way galaxy does not just hold one ETI, but two. In this version, the exsurgent virus is actually a weapon, a remnant of a war between two post-singularity god-like intelligences. The virus is supposed to trigger self-destruction of an emerging singularity, but either it was imperfect or the TITANs somehow survived (perhaps thanks to the Prometheans). Either way, the TITANs left our system in search of one of these ETIs, following a trail of clues that only they understood. They left the wormhole gateway behind as an open invitation for transhumanity to follow in their wake, though they didn't bother waiting around or helping us along — we simply weren't worth the effort.

THE IKTOMI

Of the dead civilizations that transhumanity has stumbled upon on various exoplanets, the Iktomi were most recent and similar to ours. They had equivalent if not superior technology and made use of the pandora gates. Evidence of their presence has been found in the Droplet, Echo, Haplopelma, and Sunrise systems, among others. Some ruins are as little as 10,000 years old.

While no Iktomi specimens or remains have been found, pictographs, architectural features, and relics suggest these aliens had a segmented, multi-legged, arthropod-type form. They are also known to favor web-like structures with tall spires and cabled pathways — thus their given name, after a Native American spider god. They are also suspected of having built large sculptures on several worlds known as windharps, due to the haunting sound they create as wind passes through them.

What is clear is that the Iktomi suffered through some sort of cataclysmic event that wiped out their civilization. The nature of this event has yet to be determined, but it raises concerns for many researchers. Having suffered through its own near-apocalypse, it is not comforting for transhumanity to find evidence that other alien species did not.

DREAM SHELLS

Thousands of these alien devices have been found in Iktomi ruins. They resemble scallop shells 8 centimeters across. A dense crystalline structure suggests artificial design and purpose, but they contain no identifiable electronics or power sources and emit no detected electromagnetic radiation. They are known, however, to have a strange, reproducible effect: biomorphs sleeping within 2 meters of one experience vivid, unsettling dreams. These dreams frequently feature odd characters and alien landscapes, but experiments have yet to identify the nature or purpose of this influence. Gatekeeper has sold hundreds of these to the public, on the condition that any discoveries are reported to them first.

IKTOMI KUMOBOT

Tech, Medium Size

Threat Level: Red

Niche: Droplet, Echo, Haplopelma, Sunrise, other Iktomi-visited exoplanets

Numbers: 1–8

Despite their advanced age, some Iktomi ruins are guarded by still-functioning guardian robots, dubbed "kumobots." Like their creators, kumobots have a spider-like form, with six radially symmetric legs and a smaller pair of manipulative arms/claws. As a protective measure, the head retracts into the body and the legs can be pulled in to act as a protective shield. The kumobot's shape-changing features enable it to further roll into a ball shape for high-speed movement. Curiously, the legs are also detachable, suggesting that perhaps Iktomi biology functioned the same.

Motivation: +Defend Territory +Iktomi Interests

Use: The exact purpose of kumobots is unclear, aside from protecting Iktomi locations and technology. Due to their great age, there is a chance that kumobots may be partially disabled, erratic in their behavior, or otherwise malfunctioning.

Iktomi Kumobot

Stress Test: SV 1d6

Initiative: 6, **Fray:** 50, **AV:** 28/18, offensive armor, self-healing
WT: 14, **DUR:** 70, **DR:** 140
Threat Pool: 4

Adjustable Laser Pulser: 60, DV 2d10 + 2, SA/BF/FA, Range 50, Ammo 30, may increase damage +1d10 DV per shot by consuming 1 extra ammo, to a maximum of +5d10 DV
Claw: 60, DV 4d6 + 3
Leg Spike: 70, DV 3d10 + 4, armor-piercing

Perceive: 40, 50 hearing/vision
Move: Roller (Fast 8/32), Walker (Medium 4/20)

COG: 15 45 • **INT:** 10 30 • **REF:** 20 60 • **SAV:** 5 15 • **SOM:** 20 60 • **WIL:** 10 30
Skills: Athletics 50 (60), Free Fall 50, Guns 60, Hardware: Electronics 50, Infiltrate 50, Infosec 60, Interface 50, Know: Music 40, Melee 60 (Leg Spike 70)

Ware: Cyberbrain, Electrical Sense, Enhanced Hearing, Enhanced Vision, Fixer Hive, Magnetic System, Mesh Inserts, Mnemonics, Pneumatics, Radar, Radiation Sense, Shape Adjusting, Structural Enhancement, Utilimod

Alien Code: Due to their alien software, kumobots may not be hacked
Limb Detachment: Individual limbs may be detached with a quick action
Notes: Some have the Mental Disorder or Neural Damage traits

EXHUMANS

Exhumans seek to transcend the transhuman and become posthuman. They augment their physical and mental capabilities to extreme levels in search of a perfectionist ideal, to ascend the evolutionary ladder, or to survive a hostile universe. Most eschew conventional transhuman morality, viewing themselves as adaptive, driven, and superior. They despise transhumanity's weaknesses, treating transhumans as prey, inferiors begging to be subjugated, or resources to be harvested. Most are singularity seekers, eager and willing to follow the breadcrumbs left by the TITANs or other entities in the hope that they will find the means of transcending transhuman limitations.

Exhumans engage in radical modifications, transforming their bodies and minds using extreme, experimental, and dangerous methods. Most have altered their psyches into something that is no longer recognizable as human.

A few examples of exhumans are described below, though GMs are encouraged to develop their own.

LIMBWALKER

Exhuman, Medium Size

Threat Level: Yellow

Niche: Solar System Fringe, Exoplanets, Exhuman Habitats

Numbers: 1–12

In their mad-science search for the perfect life form/ultimate killing machine, exhuman genehackers are known to engage in extreme body modification experimentation. Many construct creatures known as "leftover specials" from their experiments, whether these be failures, prototypes, or objects d'art. These abominations of mis-matched body parts are only barely kept alive by medichines and nanohives. Though they take myriad forms, a common variety is the "limbwalker," a headless torso stitched together with random limbs.

Motivation: +Intimidation. Limbwalkers are either teleoperated or piloted by ALIs or crippled forks, so they primarily serve their exhuman masters.

Use: Exhumans use limbwalkers as servants, habitat guardians, and psychological deterrents to would-be trespassers.

Limbwalker

Stress Test: SV 1d10/1

Initiative: 4, **Fray:** 30, **AV:** 0/0
WT: 5, **DUR:** 25, **DR:** 38, ignore 1 wound effect
Threat Pool: 1

Needles: 40, DV 1d10, injects necrosis (DV 2d6 per turn for 1minute)

Perceive: 20, sonar only
Move: Walker (Slow, 4/12)

COG: 10 [30] • **INT:** 10 [30] • **REF:** 10 [30] • **SAV:** 10 [30] • **SOM:** 10 [30] • **WIL:** 10 [30]
Skills: Free Fall 40, Melee 40, Provoke 40

Ware: Access Jacks, Cyberbrain, Fixer Hive, Medichines, Puppet Sock, Sonar

NEURODE

Exhuman, Medium Size

Threat Level: Ultraviolet

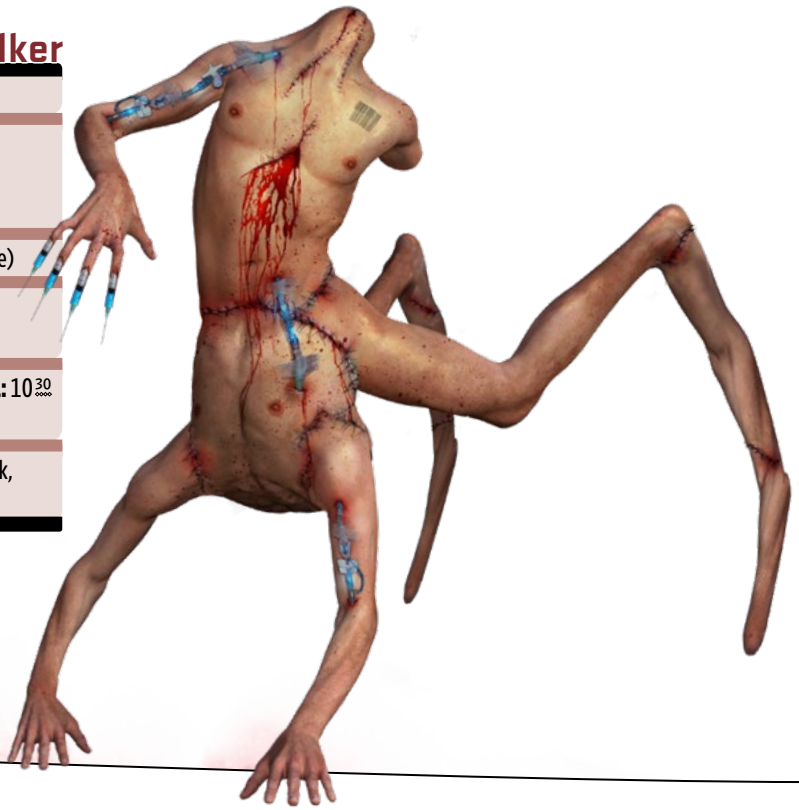
Niche: Solar System Fringe, Exoplanets, Exhuman Habitats

Numbers: 1–4

Neurodes take excessive measures to amplify their intelligence, adopting the physical form of a massive, mobile brain. Some pursue the path of machine intellect, embracing "brain box" morphs of networked cyberbrains and exocortices. Others decry the vulnerabilities of machine minds, favoring massive clusters of neuronal and epithelial cells enclosed in a hard carapace shell. They favor quadruped morphs, but various mobility systems may be used. Their mental states are marred by reckless mental augmentations and experimental psychosurgery.

Motivation: +Increase Intelligence +Survival. Neurodes are the masterminds and manipulators behind many exhuman plots. They seek to steal and harness experimental neurotech and alien and TITAN technology.

Use: A neurode's mind is its primary weapon; it can think vortexes around most transhumans and will deploy traps and deception with sadistic glee. Neurodes always have backup and escape plans. They rarely engage in direct combat, protecting themselves with swarms of teleoperated drones, puppeted slaves, and exhuman minions.



Neurode

Stress Test: SV 1d6/1

Initiative: 8, **Fray:** 40, **AV:** 6/7 Carapace (26/25 w/Hardsuit)
WT: 8, **DUR:** 40, **DR:** 60, ignore 1 wound effect
Insight: 8, **Moxie:** 3, **Vigor:** 0, **Flex:** 2

Seeker Rifle: 60 (DV 3d10 + 12 (HEAP), SA, Ammo 12, Range 75, Armor-Piercing, Knockdown, No Close, Two-Handed)

Perceive: 90, no distraction modifiers
Move: Walker (Medium 4/20)

COG: 30 90 • **INT:** 20 60 • **REF:** 20 60 • **SAV:** 20 60 • **SOM:** 10 30 • **WIL:** 25 75
Skills: Deceive 80, Free Fall 40, Guns 50 (Seekers 60), Hardware: Robotics 65, Infiltrate 40, Infosec 75, Interface 80, Kinesics 80, Know: Neuroscience 80, Know: Psychology 80, Medicine: Biotech 80, Medicine: Psychosurgery 80, Melee 40, Persuasion 80, Program 80, Provoke 60, Research 80

Ware: Access Jacks, Carapace Armor, Circadian Regulation, Drone Rig, Endocrine Control, Medichines, Mesh Inserts, Mind Amp, Mnemonics, Multi-Tasking, Oracles, Skillware, plus other experimental mods
Gear: Exploit App, Hardsuit (AV 20/18), Spoof App, TacNet; weapons/tools as needed
Traits: Enhanced Behavior (Rationality, Level 2), Mental Disorder (Choose One-Three), Restricted Behavior (Empathy, Level 3)
Pod Variant: Add Cyberbrains (2–8), Increase AV to 16/14

PREDATOR

Exhuman, Medium Size
Threat Level: Red
Niche: Solar System Fringe, Exoplanets, Exhuman Habitats
Numbers: 1–6

Predators aim to become the ultimate warriors, to reach the apex of the hunter-prey cycle. Most modify their forms in pursuit of a monstrous ideal of biological perfection that can survive in any environment and dominate the food chain. A smaller sub-faction transforms themselves into literal killing machines. Some operate as lone wolves, others hunt in packs; some seek to breed or replicate and dominate the galaxy. They ruthlessly excise mercy and empathy from their minds, enhancing cunning and cruelty. Some consider consciousness itself to be an evolutionary mistake, favoring pure animalistic instinct. Predator forms emphasize monstrous looks and weaponry.

Motivation: +Hunting +Prove Superiority +Survival. Predators seek to test themselves, dominate over others, and feast on their victims.

Use: Predators are infamous for attacking and stalking transhumans, sometimes kidnapping them so they can be released and pursued as prey. They prefer to ambush from stealth, grapple their targets, and rend them with claws and teeth. They will use ranged weapons against well-equipped foes until they can close, charge, and attack aggressively.

Predator

Stress Test: SV 1d6 + 2

Initiative: 10, **Fray:** 70, **AV:** 12/14
WT: 13, **DUR:** 70, **DR:** 95, ignore 3 wound effects
Threat Pool: 6

Assault Rifle Railgun: 60, DV 2d10 + 2, SA/BF/FA, Ammo 90 +1, Range 150, Armor-Piercing, Long, Two-Handed
Diamond-Tooth Bite: 80, DV 2d6, armor-piercing
Grappling: 80 (Grappling ▶205)
Spurs: 80, DV 3d6 + 3, armor-piercing
Tail Sting: 90, DV 2d10 + 1d6, armor-piercing, reach, twitch (–20 actions, SOM Check vs. incapacitation)

Perceive: 60, 70 hearing/smell/vision
Move: Walker (Medium 4/20)

COG: 15 45 • **INT:** 20 60 • **REF:** 25 85 • **SAV:** 10 30 • **SOM:** 25 95 • **WIL:** 15 45
Skills: Athletics 80, Melee 80 (Tail Sting 90), Free Fall 60, Guns 60, Infiltrate 70

Ware: Adrenal Surge, Chameleon Skin, Circadian Regulation, Cryogenic Protection, Drug Glands (Aggro or MRDR), Energy Efficiency, Enhanced Hearing/Smell/Vision, Enhanced Respiration, Grip Pads, Hardened Skeleton, Medichines, Muscle Augmentation, Neurachem, Oxygen Reserve, Poison Glands (Twitch), Prehensile Tail, Reflex Boosters, Scale Armor, Spur, Toxin Filters, Vacuum Sealing, plus other experimental mods
Traits: Enhanced Behavior (Ruthlessness, Level 3), Lethal, Mental Disorder (Choose One-Three), Pain Tolerance 2, Rapid Healing, Restricted Behavior (Empathy, Level 3)

Ferocity: Exhumans may spend a point of Threat Pool to inflict an extra d10 on melee attacks.

THE EXSURGENT VIRUS

Everyone knows the stories from the Fall. Entire habitat populations mentally subverted, their citizens reprogrammed into murderous zombie hordes. Plagues that physically transformed people into gibbering alien *things,* sometimes right in front of the cameras and crowds. Domestic robots that followed a day of chores with a homicide spree. Family members who heard voices, read minds, and pursued alien urges. Friendly neighbors and co-workers discovered to be sabotaging airlocks or building arcane machines in their basements, their minds subsumed by an alien intelligence for months. Many Fall survivors experienced these things in person.

At the beginning of the war with the machines, the major battles and bombs were just one front in the conflict, often far removed from people's lives. It was the physical plagues and viruses that really brought the war home. Numerous pandemics took their toll in lives (though admittedly not all released by the ASIs). The most advanced and virulent acted with a malignant intelligence; these were colloquially grouped and dubbed *the exsurgent virus*. Everyone knew the ASIs could hack machines, but now they were hacking people.

WHAT IS KNOWN

The general transhuman public is vaguely aware of the existence of the exsurgent virus, much like previous centuries were aware of avian flu, anthrax, or ebola. However, its aspects are intermixed and confused with other, unrelated horrors from the Fall: conventional bioweapons, TITAN nanoswarms, brainhacked puppets, and mundane savagery and atrocities. Most consider it a TITAN threat from the past that has been largely neutralized, though authorities (particularly the Jovians) still trot it out regularly as justification for rampant surveillance and overzealous security measures.

The reality — as some in Firewall and other groups now suspect — is that the exsurgent virus was not created by the TITANs. They simply deployed it — and were likely infected by it themselves. Its true origins are alien, its purpose a mystery. Some speculate the exovirus is a tool kit of weapons for use in exterminating a civilization; it randomly transforms the target population, spawning different threats in the hope that one will take hold and wipe everyone out — essentially using the species as a weapon against itself. Others think it may be more intelligent and insidious, slowly testing out different transfigurations and learning from its mistakes, perhaps in order to one day evolve into an unstoppable form. A few have mused that the exsurgent virus may be designed to force the targeted civilization down a particular evolutionary path.

DIVERSITY OF FORMS

The exsurgent virus is polymorphic. There are dozens of unique strains, each spread via multiple vectors: biological pathogens, nanoplagues, digital viruses, and even so-called *basilisk hacks,* incapacitating sensory inputs that exploit flaws in our biological and digital brains. As an adaptive entity, the exovirus is most commonly found in digital form — and this is what originally infected the TITANs. However, it is known to switch to different vectors as a situation demands; infected victims and nanofabricators often work to disseminate the exovirus in other forms.

The defining characteristic of these different vectors and strains is the ability to transform transhuman bodies, machines, and minds into *exsurgents* — pawns of the exovirus, often taking on monstrous alien forms ▶390.

Basilisk Hacks

The use of basilisk hacks is indicative of the TITANs' super-intelligence. They absorbed the entirety of transhumanity's neuroscience knowledge and crafted this into a method of attack that will take us decades to understand.

Basilisk hacks take advantage of the way biological transhuman brains interpret and process sensory input in the cerebral cortex. Just as epileptics are susceptible to visualizations that strobe at certain frequencies, many brains are susceptible to carefully crafted visual and auditory patterns (and sometimes other senses as well). These inputs trigger glitches in the brain's neuronal wiring to inflict catatonia, nausea, vertigo, disorientation, and even seizures, often mistaken as a stroke or cerebrovascular incident. Some basilisk hacks go farther than simply causing the brain to seize up and crash, however, enabling a mechanism to rewrite the victim's neural code, thus allowing them to be conditioned or even infected. Similar attacks are used against morphs with cyberbrains, exploiting the manner in which virtual mind-states mimic biological brains.

The widespread use of augmented reality is a boon to the exovirus, as individuals can be targeted by hacking their meshware and inserting basilisks into their sensory feeds. This is especially insidious as individuals can be targeted with sensory blasts that others around them do not experience — or, worse, thousands of people viewing the same feed can be targeted en masse. Some basilisks have been crafted to only affect specific individuals or certain types of morphs.

Basilisk hacks are insidious as victims are often not aware they have been affected. They may feel disorientation or a loss of time, without understanding why.

There are three types of basilisks, each with different effects: incapacitators, reprogrammers, and subliminals ▶384.

Biological Pathogen

The biological strain of the exovirus behaves like other biological diseases. It is, however, composed of specially crafted bio-nanobots that radically modify the victim's physical form and mental states. Some rewire the victim's neural code, subverting them to the will of the virus and giving them enhanced mental capabilities, including psi abilities. Other versions invade and restructure the target's genetic code, transforming them into horrible abominations — exsurgents.

Digital Virus

The code-based version of the exsurgent virus is essentially an alien AI. It operates as a semi-intelligent computer virus, worm, and trojan. It uses software exploits to bypass security measures, just like a skilled hacker.

Exsurgent Virus AI

Exsurgent
Threat Level: Red
Niche: The Mesh
Numbers: 1

The digital exsurgent virus adopts common avatar appearances.

Motive: The exovirus seeks out other infomorphs, backups, and cyberbrains to infect.

Use: Exsurgent virus AIs habitually fork copies of themselves to lie dormant in systems they access, waiting for other virtual mind-states. Once it identifies targets, it will track them back to their home systems, hack in, and attempt to infect them.

Exsurgent Virus AI

Stress Test: SV 1d6

Initiative: 10, **Fray:** 70, **AV:** 5 (mesh armor)
WT: 12, **DUR:** 60, **DR:** 120
Threat Pool: 4

Mesh Attack: 70, DV 3d10

Perceive: 60

COG: 30 90 • **INT:** 30 90 • **REF:** 20 60 • **SAV:** 10 30 • **SOM:** 5 15 • **WIL:** 30 90
Skills: Guns 50, Hardware: Electronics 60, Infosec 70, Interface 60, Program 50, Research 50

Apps: Crypto, Exploit, Tracker

Exotic Mindware: As alien programs, exsurgent virus AIs are immune to mindware hacking.

Nanoplague

Exsurgent nanoplagues are advanced, self-replicating nanoswarms with the intent purposes of infecting biological life and/or synthmorphs and other machines. Many are created by nanofabbers infected by the digital virus or by transhumans infected by AOK basilisk hacks or other means. Nanoplagues physically restructure both people and things at the molecular level.

COUNTERMEASURES

Different strains of the exsurgent virus were identified and countered by various governments and health agencies during the Fall, but it was the Argonauts who linked these strains together and coordinated a research and response effort. This endeavor resulted in the first set of protocols for countering and resisting exsurgent infection, which quickly became widely adopted. This began an arms race, as transhumanity struggled to find ways to detect and quarantine the exovirus's polymorphic features. Fortunately, transhumanity had a secret weapon on its side; the Promethean ASIs ▶401 were instrumental in helping eradicate the virus from many systems. As Earth was evacuated and the Fall wound down, it is unclear whether these measures were largely successful or if the TITANs were simply no longer actively spreading the virus. Whatever the case, most known exsurgent infections around the system were defeated, with the exceptions of quarantined areas such as the TQZ on Mars, the New Mumbai Containment Zone on Luna, and the abandoned jupiter-brain project on Iapetus.

In AF 10, every major habitat screens newcomers for signs of digital, biological, or nano-infection. These countermeasures are maintained and updated regularly by the Argonauts, with widespread cooperation and support from authorities and research groups around the Solar System. This does not mean the exsurgent virus has been eradicated. New outbreaks occur with alarming frequency, but transhumanity has become more adept — or more ruthless — at containing them. As a matter of course, most people in the know assume any remnants of TITAN technology are infected. Undoubtedly undiscovered pockets and dormant infections linger throughout the system, and some are evolving ways to bypass transhumanity's filters. And despite the mutually agreed-upon ban on researching TITAN weaponry, it is almost a certainty that various hypercorps, singularity seekers, and other researchers are secretly playing with fire. Samples go for extraordinary prices in certain black-market circles.

USING THE EXOVIRUS IN PLAY

The primary thing GMs should keep in mind when portraying the exsurgent virus is that it is adaptive and intelligent. It was written by a near-omnipotent ETI with the intent of corrupting any ASIs and civilizations it encountered, and it is *very* good at it. It has the capability to analyze, understand, and mimic almost any alien digital protocols and communication methods it comes into contact with, no matter how diverse the alien mindset that constructed it. It then has a cunning ability to circumvent any safeguards and infect such systems. From there, it rapidly assimilates any data it can about the target species/civilization and does its best to mutate into other forms that can attack this target from other vectors.

What this means: the exovirus is always be changing and unpredictable. The strains mutate and evolve into different forms. Some of these may be effective, some not — but over time, it will learn. The virus itself can be considered an undefeatable boss-level threat.

RECORDING BASILISKS

Basilisks may be recorded, and thus deployed as weapons by transhumans, but the exsurgent virus and TITANs take measures to keep such tools out of the hands of transhumanity, lest they construct defenses. Basilisk hack sources may be self-erasing or contain coding or countermeasures that would hinder recording, such as white noise to defeat audio recording or lens-blinding flashes to defeat video recording. Basilisk hacks are also considered extremely dangerous by almost all factions of transhumanity and universally feared. An individual or group known to possess them is likely to be treated as extremely dangerous terrorists. While Firewall is interested in evaluating basilisks in order to create defenses against them, some factions within the organization consider it foolish to handle such toys and would rather destroy such recordings outright.

EXSURGENT INFECTION

Use the following rules for exsurgent virus infection.

INFECTION RATING

Every sample of the exsurgent virus has its own Infection Rating. This measures its potency and ability to overcome countermeasures and natural defenses, as denoted on the Infection Ratings table. Many strains are adaptive and can improve their own ratings over time.

Infection Ratings

Rating	Contagion Level
30–40	Weak or outdated
50–60	Moderate
70–80	Strong or cutting-edge

INFECTION TEST

Whenever you are exposed to the exsurgent virus, you must make an opposed test against the Infection Rating. The stat you roll to resist depends on the type of infection. If the exovirus wins the opposed test, you are infected. The exact results depend on the type of infection and specific strain.

If you beat the virus, you have resisted exposure — for now. Repeated exposure beyond the cooldown period may require a new Infection Test, depending on the exovirus type.

Infection Test

Type	Infection Rating Opposed By	Cooldown
Basilisk Hack	INT Check	1 action turn–1 hour
Biological Pathogen	SOM Check	1 day
Digital Virus	Firewall	1 action turn
Nanoplague	No test, infection automatic	—

BASILISK HACKS

Each type of basilisk hack functions differently.

Blocking Basilisks

If you are on guard or aware that a basilisk hack attempt is imminent, you can attempt to block out the sensory input by closing your eyes, covering your ears, or disabling your AR feeds. This requires a REF Check. If successful, you are quick enough to avoid the effect — as long as you continue to block it out. Operating blind may impose modifiers, and certain circumstances (such as being struck in combat) may require you to make a REF Check again to maintain the block.

Incapacitators

These basilisks do not infect you, they crash your brain. You suffer SV 1d10 and one of the effects from the Incapacitators table (GM picks or rolls 1d10) for a duration of 1d6 action turns, +1d6 per superior success.

Reprogrammers

Sensory reprogramming attacks incapacitate you for a longer period (use the timeframe for the specific strain's infection period, reduced by superior successes) with the intent of barraging your mind with uninterrupted sensory input. If you are exposed to the basilisk for the duration without interruption, at the end you suffer SV 1d10 and are infected with that strain of the exsurgent virus.

If you are somehow removed from exposure to the basilisk before the duration completes, the reprogramming immediately fails. You suffer SV 1d10 +1 per minute of exposure, and are stunned ▶226 for 1d6 action turns.

AOK Hacks: A subset of reprogrammers known as apple of knowledge hacks specifically targets those with specific predesignated skill sets, such as Program or Medicine: Biotech. If you do not have the requisite skills, this basilisk affects you like an incapacitator. If you have the skill(s), however, at the end of the duration you are infected *and* you become obsessed with creating whatever the virus wishes you to make. Most AOKs drive their victims to create specific nanofab blueprints or mutagenic pathogens (with the intent of creating specific exsurgents), but some compel their targets to build weapons of mass destruction or exotic alien devices. Infectees obsessively ignore everything else beyond basic sustenance — even basic hygiene — until they complete their creation.

Subliminals

Rather than completely reprogramming you, subliminals plant subconscious commands in your mind, similar to posthypnotic suggestions. Nicknamed "You gotta believe me" attacks, YGBMs are a sort of remote digital brainwashing attempt used to create sleeper terrorists and unknowing collaborators. Unlike the mind-manipulation

Incapacitators

1D10 Roll	Type	Description
1	Cataplexy	You lose control of your body and collapse. You are immobilized ▶226.
2	Catatonic Stupor	Your brain checks out and is non-responsive. Though conscious, you are mentally "not there" — the basilisk has crashed your brain functions. You are incapacitated ▶226.
3	Disorientation	You gain the dazed condition ▶226.
4–5	Grand Mal Seizures	You fall to the ground and convulse, suffering DV 1d6 (armor does not protect). You are incapacitated and prone ▶226. Afterwards, you remain stunned ▶226 for 1d6 action turns.
6	Hallucinations	Your mind wanders off on a mental trip, leaving you disconnected from reality and your physical body. You only respond to the hallucinated reality the GM describes to you.
7	Impaired Cognition	Your mental faculties bottom out. You gain the confused condition ▶226.
8	Knockout	You pass out. You are unconscious ▶226 and cannot be woken short of medical intervention.
9	Nausea/ Vertigo	You are overcome with head-spinning dizziness and a desire to vomit. You suffer an impaired (–30) modifier.
10	Sensory Glitch	Your brain glitches and you lose access to one or more senses. Roll 1d6; on a 1–3, you gain the blinded condition ▶226, on a 4–6 you gain the deafened condition ▶226. Alternatively the GM may choose other senses to be affected.

techniques of psychosurgery, subliminals use shotgun techniques to open the mind, exploiting backdoors in the transhuman brain to download specific pre-set instructions.

Most subliminals re-program their targets immediately; at the GM's discretion, subliminals with complex instructions or that require accessing the victim's knowledge/memories may take several action turns or even minutes to complete and are subject to interruption the same as reprogrammers. If you are implanted with a subliminal, make an INT Check; failure means the subliminal is implanted without your knowledge, success means only that you are aware of a brief amount of visual or auditory noise; those inexperienced with basilisks usually suspect nothing but a glitch with the mesh.

Subliminal commands are triggered according to a pre-set time or other predesignated conditions. Once triggered, you carry out the action with the conviction that it is your own idea. Implanted suggestions may be as simple as "kill the Firewall agent" to as complex as "manufacture an explosive device and plant it in the cargo hold of any ship heading to Mars, set to explode one day after they disembark." Subliminal commands are designed to convert you into a temporary tool or weapon and are not designed to last long. If the conditions have not been met within 1d6 days, the subliminal command dissipates, with the victim none the wiser.

BIOLOGICAL INFECTION

Exsurgent bio-nanobots are transmitted via dermal, inhalation, injection, or oral vectors (*Application Methods* ▶330). These pathogens can live outside of a body for extended periods; victims may be exposed by occupying the space where an infected victim was hours or even days before. Whether or not such exposure occurs is largely up to the GM, though a percentage chance can be assigned for people simply passing through an area (10%) or briefly touching infected surfaces (25%). Anyone who makes extended physical contact or exchanges bodily fluids is automatically exposed. Synthmorphs are immune, and some morphs may remain unaffected, particularly those with the Non-Human Biochemistry trait ▶79. Medichines and nanophages provide a +10 modifier for the SOM Check when exposed, but toxin filters have no effect.

Contagion: Within 12 hours of infection, biomorphs become contagious to others. In most circumstances, they remain contagious until the infection's transformative effects are complete, though this varies depending on the specific strain.

DIGITAL INFECTION

The digital exsurgent virus will attempt to infect other digital mind-states that are locally residing on any systems it is hacked into. It will also attempt to track ▶256 and hack into the home systems of any entities that interfere with it or otherwise catch its attention.

To infect an infomorph, cyberbrain, or backup, the exovirus rolls its Infection Rating against the Firewall defending your system. This is a task action with a timeframe dependent upon the particular strain of infection, reduced by superior results. Once an infection is in progress, the only way to stop it is to break the connection between the virus and target, such as by rebooting, moving to another system, or crashing the virus or its account shell in mesh combat. However, the exovirus will automatically seek to keep your connection alive. To break it, you must beat it an opposed Infosec Test (or physically sever the connection).

Digital exsurgent viruses will often attempt to incapacitate their targets first by injecting basilisk hacks into their AR feeds (*Inject AR/Illusion* ▶262), thus giving them time to complete an infection unopposed.

Contagion: Infected digital minds carry a copy of the exovirus and can use it to infect others.

NANOPLAGUE INFECTION

Exsurgent nanoplagues follow the rules given for nanoswarms ▶344, except that they can self-replicate, do not require a hive to sustain them (feeding on nearby matter instead), and can also penetrate a biomorph internally, affecting the body within as well as without.

Any morph that comes into contact with a nanoplague is considered infected. The GM determines when this occurs or uses the options for chance exposure given under the biological pathogen description. Guardian swarms defend against nanoplagues, though such battles are a war of attrition (each losing 5 DUR an action turn), with the larger swarm winning. Nanoplagues typically have a DUR of 2d6 × 10. If focused on replenishing its numbers, a nanoplague increases its DUR by its current DUR ÷ 2 every hour, assuming ample matter is available.

Contagion: Nanoplague-infected targets are not contagious themselves … usually. However, the infecting nanoplague itself may linger in the original area, hitchhike along to new locations, or split and do both.

INFECTION, RESLEEVING, & BACKUPS

Depending on the vector/strain of the exsurgent virus, the infection may be mental, physical, or both.

The digital virus and basilisk hacks work by subverting the target's mind. Once infected, the virus is integrated into your ego. It will be part of your ego if you resleeve, fork, back yourself up, dark-cast, etc. Any bodies you evacuate with biological brains will not be infected. However, you will likely leave a digital copy of the virus behind in any cyberbrains you evacuate, at the GM's discretion. Body banks regularly run virus scans, disinfect cyberbrains, and thoroughly reformat them to eliminate vestiges of previous egos.

The biological pathogen and nanoplague variants first infect a victim's morph. Over time, however, they will also work changes on your mind by physically altering biological brains or subtly reprogramming the mind-states of cyberbrains. How long this takes depends on the particular strain. If you evacuate the morph before this mental reprogramming has taken hold, you may escape the virus's effects. The morph itself will still be infected, however, and will affect anyone that sleeves into it if it is not purged of the virus. Forks and backups may also be safe, at least until the mind is subverted. Keep in mind, however, that your mind may be infected before you realize it. Cortical stacks removed from an infected morph may be contaminated and may infect others depending on how safely they are handled and sanitized.

If an infected but not-yet-exsurgent mind is removed from a pathogen- or nanoplague-infected body, the mind will remain infected. If sleeved into an uninfected morph, the mental aspects of the virus will continue to run their course, but they will no longer experience the physical aspects.

Infected characters who fully become exsurgents will often take care to bring their infection with them if they resleeve. This sometimes means they will need to infect their new morph.

INFECTION AND PSYCHOSURGERY

Infected minds that have not yet transitioned into full exsurgents can sometimes be saved through psychosurgery (*Remove Infection* ▶297). This is an incredibly difficult and dangerous proposition, not in the least because the psychosurgeon may be putting themselves at risk of infection. Even when successful, formerly-infected patients are often saddled with serious trauma.

EXSURGENT CHARACTERS

The xenomorph strain of the exsurgent virus — and others like it — is known to transform people and machines into the terrifying alien creatures known as exsurgents.

EXSURGENT-INFECTED PCS

PCs may not immediately realize they have been infected with the exsurgent virus. While some strains are fast-acting and readily become apparent, others can take weeks or even months to make their changes. This presents ample opportunity for the GM to slowly introduce effects over time and for players to roleplay their response and changing personality.

Though some PCs will seek a cure, there is little to be done for most infections. Strains that simply affect the mind and don't trigger physiological changes (haunting, mindstealer, whisper) can sometimes be excised with psychosurgery ▶294. Bio-pathogen strains can sometimes be thwarted if the victim is placed in a healing vat immediately after infection (GM discretion). For other scenarios, the only option is to suicide and revert to an uninfected backup.

PCs that are physically transmogrified into exsurgents become NPCs, acquiring the necessary traits, movement rates, skills, ware, psi, and other abilities appropriate to the exsurgent type. At the GM discretion, certain aptitudes (and their linked skills) may also be adjusted.

ROLEPLAYING EXSURGENTS

Exsurgents follow an alien agenda. Their specific motivations may vary, but they are generally concerned with two things: spreading the exsurgent virus and destroying anything that isn't affected. For some, this means enraged hostile action against anything non-exsurgent. Others take a more methodical, long-term approach using infiltration and sabotage to set the stage for mass destruction.

Most exsurgents took their orders direct from the TITANs — some may still. Lacking their presence and active direction, however, exsurgents continue on with what they were doing as best they know. This can include accumulating knowledge on transhumanity, slowly assembling some mysterious device, forcibly uploading all egos they can collect, guarding a specified location against all intruders, or manufacturing a hafnium bomb or other weapon of mass destruction.

Some may act as if the TITAN agenda is complete or on-pause — or they simply didn't heed the TITANs much in the first place. Most of these follow their instincts or genetically coded drives, such as nesting and breeding or indiscriminately hunting and murdering all living things. A few of the sapient and more intelligent exsurgents may be crafting their own ambitions, perhaps seeking to carve out their own niche in transhumanity's shadow — or subvert our species for their personal goals.

INFECTION AS PLOT DEVICE

The rules for exsurgent infection assume the group prefers to let dice and chance determine outcomes. For more story-driven games, however, infection may be better handled as a plot device. If so, infection simply happens or doesn't, depending on the GM's call or player actions. When infection occurs, the story and roleplaying should emphasize the nature of it: how you become aware of it, how it affects you physically and psychologically over time, and what this transition means when dealing with others. Entire campaigns can be built around the struggle with infection, the attempt to find a cure, or simply how long the character can go before succumbing and becoming something terrifyingly alien.

EXSURGENT PSI

Many exsurgents acquire the Psi trait during their transformation. These exsurgents also gain access to a third level of psi ability (beyond psi-chi and psi-gamma) called psi-epsilon. Psi-epsilon enables a level of interaction with the underlying physics of reality that is beyond the comprehension of transhuman science.

Exsurgents do not need to make Infection Tests when using psi — the infection is already in full control. However, the use of exsurgent psi tends to have small but noticeable effects on the surrounding environment: minor radio interference, sucking the warmth out of the air, killing the lights, withering plants, draining power from nearby electronics, killing small creatures or insects, lowering air pressure, and so on.

EXSURGENT SYNTHMORPHS & PSI

Exsurgents in synthetic morphs that were transformed via nanoplague may use psi, despite lacking a biological brain. Through some unknown mechanism, the infecting nanobots are able to simulate a biological brain's effects. This feature, however, also makes them vulnerable to psi use by others.

PUSHING EXSURGENT PSI

Exsurgents may spend a point of Threat Pool (or Moxie, if they are a major NPC) to push a sleight ▶277.

PSI-EPSILON SLEIGHTS

These sleights are available to exsurgents with the Level 3 Psi trait.

Some of these sleights affect the underlying physical nature of the universe, creating localized reality-altering effects. Psi manipulation on this level is extremely powerful, so GMs should deploy it carefully, only providing it to powerful adversaries and for appropriately dramatic situations. Such psi is also extremely dangerous, and so has the potential for disastrous consequences should things go wrong.

Though rules are provided for each sleight, GMs should alter these as they see fit. Their intent is to be more cinematic than mechanical, so GMs should wing rules effects as needed. This is an open opportunity to create nightmarish monsters from beyond with frightening reality-ripping and mind-scarring abilities.

Observing psi-epsilon sleights may trigger a Stress Test ▶229.

Anti-Electronics Field

All electronics within Close range (10 meters) of the exsurgent mysteriously fail as if electrical power is drained away. This effectively disables synthmorphs and pods and leaves you without access to your devices or implants.

Basilisk Aura

An aura of light and sound emits from the exsurgent, acting as an incapacitator basilisk hack ▶384.

Casimir Force Repulsion

This sleight exploits the Casimir effect (an interaction between the electromagnetic fields of different objects) on a macro-scale, allowing the exsurgent to levitate themself or other objects by creating repulsing fields. This could also allow the exsurgent to push targets away, pin them against walls, etc. Use SOM Checks to resist this pressure, opposed by the exsurgent's WIL Check.

Cryokinesis

The exsurgent drains all heat around a target object or person. The temperature drops 50 degrees K per action turn down to near absolute zero (usually taking ~6 action turns). At extremely low temperatures, gases turn to liquids, liquids freeze and turn to solids, and exotic states of matters appear, such as frictionless fluids. Some items become brittle or may burst and shatter. Electronics may fail (GM discretion). When exposed to such extreme cold, you take DV 4d10 per minute (halved with cryogenic protection, armor does not protect).

Decerebration

This sleight suppresses signals passing through your brain stem. This cuts off cerebral functions and motor activity and triggers decerebrate rigidity, where your body tenses and your limbs extend out to their maximum reach. You are physically immobilized and unable to take mental/mesh actions for the duration. This sleight only affects biomorphs and other biological creatures.

Diffusion

This sleight diffuses light, laser, microwave, radio, and particle beams. This hinders communication (reduce range by half) and vision/sensors (–30). It also impairs beam weapons, reducing their DV by half (–25% per superior success) and negating other effects such as shock. Any light or beam passing within Close range (10 meters) is affected.

Kinetic Friction

The exsurgent increases the friction of kinetic actions within Close range (10 meters). This has a negligible effect on most activities, but climbing is easier (+30) and high-velocity projectiles like firearms and railguns are significantly slowed, decreasing their DV by half (–25% per superior success).

Negative Refraction

The exsurgent redirects electromagnetic waves, refracting them around their body or another person or object, with the same effect as an invisibility cloak ▶338.

Puppeteer

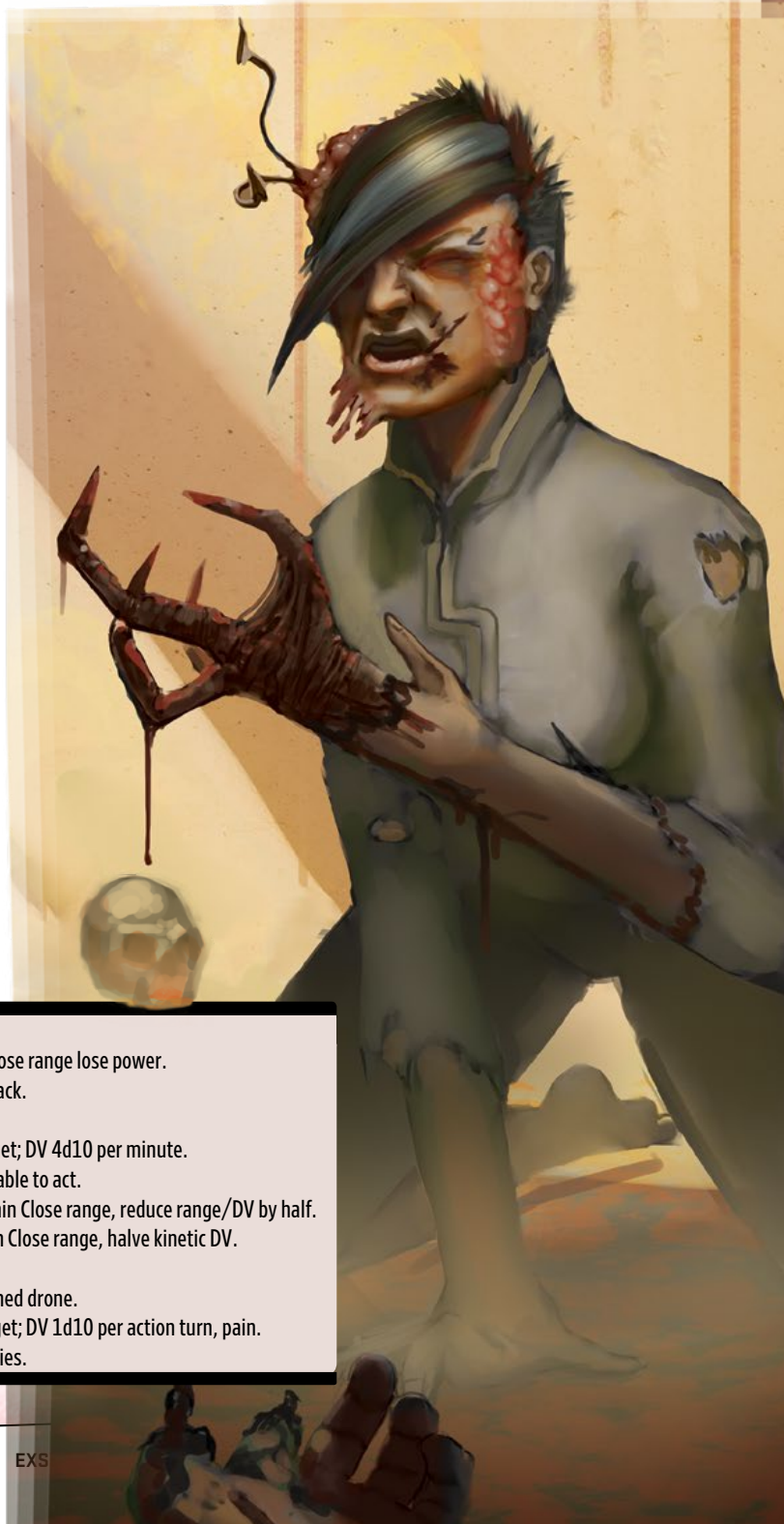
The exsurgent seizes control of your body, operating it like a jammed drone ▶346. You are helpless while the exsurgent maintains control, possibly triggering a Stress Test ▶229. The exsurgent does not have access to your memories or skills.

Pyrokinesis

The exsurgent rapidly accelerates the molecules and focuses heat around a specific object or person. This causes solids to liquefy and melt, liquids to evaporate into gas, and matter to smolder and ignite. Electronics may overheat and fail (GM discretion). You suffer DV 1d10 per action turn (thermogenic protection halves the damage, but armor does not protect) and suffer from a pain effect ▶216. Fire from clothing or items set aflame may spread to the surroundings.

Strip Memory

The exsurgent suppresses certain memories in your mind. This can be used to block memories of certain events (up to ~WIL hours) or of specific concepts or things (GM discretion). For example, it could be used to wipe your memory of an important clandestine meeting or to make you forget everything you have learned about a TITAN artifact, including even hearing about it in the first place. The process is not exact, and so the memories may not be fully suppressed and/or related memories may also be blocked.



PSI-EPSILON SLEIGHT	Action	Duration	Description
Anti-Electronics Field	Complex	Sustained	All electronics within Close range lose power.
Basilisk Aura	Complex	Sustained	Incapacitator basilisk hack.
Casimir Force Repulsion	Complex	Sustained	Levitate self or objects.
Cryokinesis	Complex	Sustained	Drains heat around target; DV 4d10 per minute.
Decerebration	Complex	Sustained	Target immobilized, unable to act.
Diffusion	Complex	Sustained	Diffuse light/radio within Close range, reduce range/DV by half.
Kinetic Friction	Complex	Sustained	Increases friction within Close range, halve kinetic DV.
Negative Refraction	Complex	Sustained	Invisibility.
Puppeteer	Complex	Sustained	Control target like jammed drone.
Pyrokinesis	Complex	Sustained	Raises heat around target; DV 1d10 per action turn, pain.
Strip Memory	Complex	Days	Removes target memories.

EXSURGENT STRAINS

A few of the more common exsurgent strains are here. GMs are encouraged to devise their own or adjust these to fit the needs of the story.

Vector: How this strain is spread (Exsurgent Infection ▶384).

Timeframe: The period of time the infection (or that stage of the infection) takes to transform the target. Increase this duration for weaker or older strains, decrease it for stronger or newer strains. There are 20 action turns in a minute.

Damage/Stress: Damage and/or stress inflicted by the infection on your body or mind at that stage. Armor does not apply to this damage.

ALTER

Vector: Basilisk Hack, Digital Virus, Nanoplague
Timeframe: (COG Check) action turns
Stress: SV 1d6

Unlike most versions of the exovirus that attempt to overwrite your mind, the alter virus partitions your brain and makes room to inject a new, separate personality. This alter ego resides hidden within your mind, acting subtly at first to avoid detection, such as taking over while you sleep. As it grows more bold, it will seize control and come to the fore at opportune moments. Your original ego will have no memory of what occurs when the alter is in the driver's seat, unless it *chooses* to share those memories (which it may do to taunt you). Awareness of these blackout episodes or takeovers will trigger alienation Stress Tests ▶229. For the alter or your ego to take control, you must win an opposed WIL Check.

The alter is handled as a separate NPC ego, with its own aptitudes, skills, memories, ego traits, and so on. Exsurgent alters exhibit many types of personalities, from sociopathic and twisted versions of transhuman personas to odder and more alien things, but all are intelligent and motivated. Some may be forks of exsurgent-corrupted transhumans. The various sub-strains of the Watts-MacLeod virus ▶273 provide a good starting point for establishing individual identities. Most are motivated to spread the alter virus and eradicate transhumanity, but GMs may tailor their agenda as they see fit. Note that psi sleights or social/mental influences only affect the personality at the fore.

Variant: One known variant of the digital alter virus, perhaps malfunctioning, is known to install multiple alters within the victim's mind. In some cases, the virus continues to insert new alters, sometimes at an exponential rate, creating a sort of cramped group or hive mind and eventually fracturing the victim's mental state under the weight of so many different personas (SV 1d6 per day or hour).

HAUNTING VIRUS

Vector: Basilisk Hack, Biological Pathogen, Digital Virus, Nanoplague
Timeframe: (COG) action turns
Stress: SV 1d6

The haunting virus is a variant of the mindstealer virus. It alters your personality slowly over time, in a manner designed to torment you in the process, eventually taking control. Most victims, unaware that they have been infected, incrementally lose their minds to the exovirus's persistent manipulations and hallucinations.

Stage 1

Timeframe: 3 months
Stress: SV 1d6 per week

Each week you suffer a haunting effect: roll 1d6 + 1 and apply the result from the Haunter Sub-Strain table ▶279. You also frequently experience lucid, weird, and surreal dreams of exotic exoplanet landscapes, life as an alien creature, scenes of mass carnage and mayhem, and stranger things.

Victims gain the Psi (Level 1) trait with the haunter sub-strain and the Heightened Awareness sleight; most are not cognizant of these abilities. During this stage, you gain one additional psi-chi sleight per month. At this stage, you may not push your sleights.

Stage 2

Timeframe: 3 months
Stress: SV 1d10 per week

The effects increase. You suffer a haunting effect as in Stage 1 every day. The dreams occur every time you sleep.

At this stage, you begin to feel an alien presence in your psyche, but you must make a WIL Check to communicate this feeling to others; if you succeed you suffer SV 1d6.

Your Psi trait increase to Level 2 at this stage, and acquire either the Infectious Mind or Nightmare sleights. During this stage, you gain one new psi-gamma sleight per month. Even if you are aware of these abilities, however, they remain wild and uncontrolled; such psi-gamma sleights manifest in unexpected, uncontrolled, and alarming ways.

Stage 3

The virus subsumes your mind. You become an exsurgent NPC.

MINDSTEALER

Vector: Basilisk Hack, Biological Pathogen, Digital Virus, Nanoplague
Timeframe: (COG Check) action turns
Stress: SV 2d10

One of the most common exsurgent strains, the mindstealer virus rapidly rewrites your mind in a matter of minutes. During this time, you are actively aware that your mind is under attack and undergoing massive changes. This process is incredibly confusing, frightening, and painful; you are impaired (–30) for the duration. Many victims are reduced to whimpering, drooling, or convulsing. Some attempt to take their own lives; however, once the timeframe is halfway complete, you must make a WIL Check and suffer SV 1d6 to take any action that puts yourself at risk.

Once the virus runs its course, your mind will no longer be transhuman, but an exsurgent NPC.

SKRIK

Vector: Biological Pathogen, Nanoplague

A variant of the mindstealer virus, this strain also triggers an unusual internal change.

Stage 1

Timeframe: (COG Check) action turns
Stress: SV 2d10

This virus strain initially functions the same as the mindstealer virus.

Stage 2

Timeframe: 1 week
Damage: DV 1d10
Stress: SV 2d10

After a period of 1 week, the internal changes are complete. From this point onward, every 2–3 days you will vomit up a skrik ▶394 — an exsurgent miniature version of yourself. Sometimes you will cough them up more frequently, and sometimes you will vomit up a whole bunch at once. These skriks are not under your control, though you can sometimes influence them.

WATTS-MACLEOD

Vector: Basilisk Hack, Biological Pathogen, Digital Virus, Nanoplague
Timeframe: (COG) minutes
Stress: SV 1d10

The Watts-MacLeod strain is a strangely benevolent version of the exsurgent virus, seeming to imbue its victims with psi abilities without any of the other transformative elements typical of other strains. Perhaps an accidental mutation of the exsurgent virus, there are many who wonder if the true detrimental effects of this strain simply have yet to reveal themselves.

For the duration of the initial transformation, you suffer a –30 impairment modifier as your brain undergoes rewiring. Once the infection runs its course, you acquire the Psi trait at either Level 1 or 2. This trait must be purchased with Rez Points (if you have none available, you must pay the debt with future Rez Points you earn). You also acquire a specific sub-strain ▶273 along with its negative traits and free sleights.

Most new asyncs, lacking Psi skill, suffer through a period of learning to master their new abilities. During this time, their psi sleights may activate accidentally, either out of desperation or of their own accord. GMs may wish to keep the initial aspects of the infection secret, revealing them to the PC slowly during gameplay.

WHISPER

Vector: Basilisk Hack, Biological Pathogen, Digital Virus, Nanoplague
Timeframe: (COG) minutes
Stress: SV 1d10

The whisper virus attempts to control its victims through rewards and punishments. It makes itself known as a voice in the back of your mind, encouraging you in accordance with its hidden goals, much like the stranger sub-strain of the Watts-MacLeod virus ▶273. Its agenda is often mysterious, though it seeks to sow distrust, paranoia, and chaos. At times, however, it may pursue specific goals, such as encouraging the elimination of a rival or sabotaging a crucial habitat system.

The whisper virus rapidly becomes intimately familiar with your personality and desires, so as best to manipulate you. It has several tools at its disposal to encourage your cooperation. When you act in support of its interests, it rewards you with one of the following:

- A temporary +2 bonus to your Insight pool; once spent, these points may not be recharged.
- It stimulates the pleasure centers of your brain, giving you a temporary high, much like tasping ▶297–and just as addictive.

Opposite of these carrots, the whisper virus has many sticks to punish you for lack of obedience:

- It muddies your thoughts and interferes with your thinking; reduce your Flex pool by 1 until your next recharge.
- It stimulates the pain receptors in your nervous system; treat as a shock effect ▶219. This bypasses pain editors and similar pain-ignoring effects.

The whisper virus can also apply an Enhanced Behavior ▶78 or Restricted Behavior trait ▶80 at up to Level 3; this can be used as a reinforcement or penalty.

The whisper virus excels at converting people into sleeper agents and otherwise turning transhumanity against itself. Victims who struggle with the exovirus may need to make Stress Tests ▶229 for alienation or helplessness.

XENOMORPH

Vector: Biological Pathogen, Nanoplague
Timeframe: 1 minute
Stress: —

The xenomorph strain targets both the victim's body and mind, transmogrifying them into an alien life form. Different variants of this strain produce different exsurgent xenomorphs. It is unknown whether these are copies of (once) existing alien species or neogenetic creatures created from scratch. Some believe the virus operates with a library of creatures to deploy, expecting that some will be more effective at exterminating the victim species.

Stage 1

Timeframe: 1 hour (bio pathogen)/1 week (nanoplague)
Stress: SV 1d6

In the initial stage, you suffer minor physical changes that are unusual but not impeding in any way and are easily hidden from others. Example biomorph alterations include: unusual hair or fibrous growth, skin discoloration or translucence, severe rashes, dermal thickening, weakened or enhanced sensory organs, strong body odor, hair loss, teeth gain or loss, vestigial tail or other limb growth, minor dietary changes, and so on. Synthmorphs might experience minor system glitches, malfunctioning or improved components, and spots of material stress or transfiguration.

During this period, you acquire the Enhanced Behavior (Acceptance, Level 3) trait. You do not question or worry about these changes — they seem natural or inevitable — nor do you wish to draw their attention to others.

Depending on the particular strain, you may also acquire the Psi (Level 1 or 2) trait along with a sub-strain ▶273 and the correlating negative effects and free sleights. You are not aware of these abilities until they manifest on their own, and lacking Psi skill you are incapable of properly controlling them. GMs may choose to keep the sub-strain and sleights secret, revealing them at opportune times. At this stage, you may not push your sleights.

Stage 2

Timeframe: 1 hour (bio pathogen)/1 week (nanoplague)
Damage: DV 1d10
Stress: SV 1d10

Your transformations grow obvious and difficult to hide from others, becoming more monstrous as the stage progresses. Example biomorph transformations include: growing scales or feathers, partial modification of limb structure, partial new limb growth, vestigial sensory organ growth, sensory loss, extension of claws or spines, severe dietary changes, etc. Synthmorphs might experience radical system and shape alterations, limited or enhanced sensor functions, or even conversion of their robotic shell to smart materials.

During this period, you acquire the Enhanced Behavior (Nest, Level 3) trait. You seclude yourself in a hidden and/or secure location to wait out the full transformation.

Stage 3

In this final stage, you emerge as a fully transformed exsurgent NPC.

EXSURGENT TYPES

A few of the known exsurgent types are detailed here.

CREEPER

Exsurgent, Large Size
Threat Level: Ultraviolet
Niche: Derelict Habs, Earth, Quarantine Zones
Numbers: 1 swarm

Creepers are autonomous femtobot swarms; a level of technology far beyond transhuman nanotech. They commonly appear as an amorphous cloud of floating black bubbles, fuzzily defined due to a visual refraction effect. Like TITAN nanoswarms, they are self-replicating and can both manufacture and disassemble materials and items. Because femtobots work at the atomic level, they can also create advanced materials with superconducting, supercomputing, superdense, or even invisible properties, including degenerate matter or strange matter fluids. Though they crawl/float slowly, they can fabricate mobility systems for speed. They can physically penetrate almost any material in a short amount of time and interface with electronics and implants.

Motivation: +Assimilate and Grow +ETI/TITAN Interests. Lacking direction from the TITANs, some creepers have developed their own agendas.

Use: Often deployed as an area-denial weapon, creepers act with intelligence and cunning, establishing traps and adapting to threats.

Stress Test: SV 1d6

Initiative: 8, **Fray:** 40, **AV:** 0/0
WT: —, **DUR:** 100, **DR:** 200
Insight 8 **Moxie** 0 **Vigor** 5 **Flex** 3

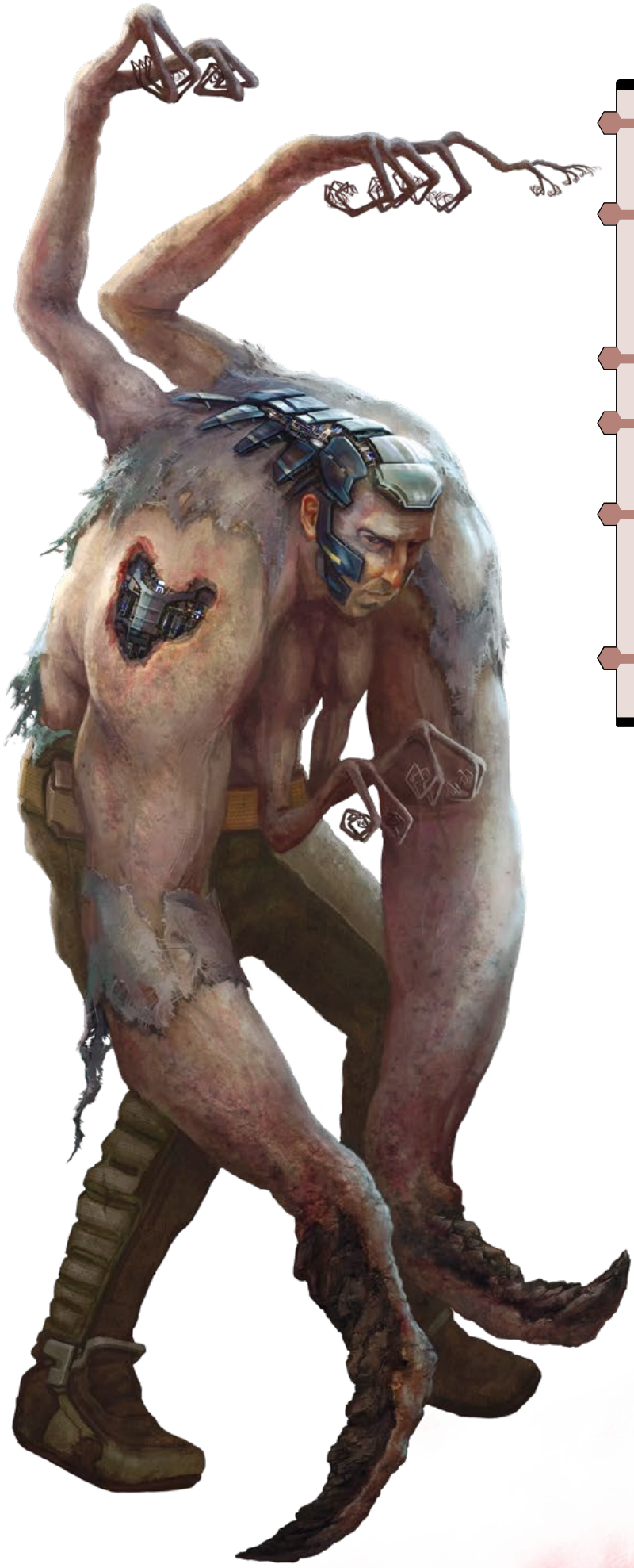
Convert Matter: 70 (touch), DV 1d10 per action turn, damage added to creeper's DUR/DR
Grapple: 60 (Grappling ▶205), requires superior success, victims are converted on next action, grappled targets get no defense
Repulsion Wave: No defense, 30 meter radius effect, kinetic armor applies, strange matter mass pushes all physical things back 1d10 meters, SOM Check or knockdown; repulsion effect may be maintained for 1d6 action turns, applying –60 to all attacks and halving damage, but there is a 10% chance each turn the strange matter begins converting normal matter around it, creating a DV 10d10 blast area effect

Perceive: 50, 60 hearing/vision
Move: Walker/Microlight (Slow 4/12)

COG: 30 90 • **INT:** 20 60 • **REF:** 20 60 • **SAV:** 10 30 • **SOM:** 15 45 • **WIL:** 30 90
Skills: Free Fall 50, Infiltrate 80, Melee 60, Program 80, any Technical or Know skill they need at 40+

Ware: 360-Degree Vision, Chem Sniffer, Electrical Sense, Enhanced Hearing, Enhanced Vision, Fractal Digits, Nanoscopic Vision, Radar, Radiation Sense, T-Ray Emitter

Femtoswarm: Functions like a nanoswarm ▶344, except immune to guardian nanoswarms, nanophages, adhesives, corrosives, chemicals, vacuum, and armor mods; they are self-sustaining and do not require a nanohive
Invisibility: Can be invisible like a nanoswarm or can materialize forms with refractive metamaterials, like an invisibility cloaks ▶338
Nanofabrication: Can nanofabricate items at 10 times the speed of transhuman nanofabricators; can replicate effects of any nanoswarm at will
Penetration: Can penetrate inside/through objects at the rate of 50 AV/DUR per action turn, much like water seeps through fabric; may penetrate inside most morphs in one action
Self-Repair: Automatically repair 1d10 damage per hour
Take Form: Can cohere/dissipate simple physical/mechanical forms (arms, mobility systems, tentacles, cages, traps, etc) with a complex action; these may take physical actions such as Fray or Melee Tests



Fractal Troll

Stress Test: SV 1d10

Initiative: 8, **Fray:** 55, **AV:** 8/8
WT: 11, **DUR:** 60, **DR:** 90
Threat Pool: 5

Claws: 70, DV 3d10, reach
Grapple: 70 (Grappling ▶205), requires superior success, grappled targets get no defense against subsequent attacks
Fractal Gouge: 70, DV 1d10 + 6, armor protects but AV is reduced, damaged targets exposed to xenomorph nanoplague

Perceive: 60, 70 smell/vision
Move: Walker (Medium 4/20)

COG: 10 30 • **INT:** 20 60 • **REF:** 20 60 • **SAV:** 10 30 • **SOM:** 30 100 • **WIL:** 15 45
Skills: Athletics 50, Free Fall 40, Infiltrate 40, Melee 70, Provoke 50 (Intimidate 60), Survival 60

Ware: Access Jacks, Claws, Cryogenic Protection, Direction Sense, Enhanced Smell, Enhanced Vision, Fractal Digits, Hibernation, Mesh Inserts, Muscle Augmentation, Nanoscopic Vision, Oxygen Reserve, Prehensile Feet, Puppet Sock, Toxin Filters, Vacuum Sealing

Traits: Edited Memories, Mental Disorder (Choose Two), Neural Damage (Choose One)

FRACTAL TROLL

Exsurgent, Large Size
Threat Level: Red
Niche: Derelict Habs, Iapetus, Quarantine Zones
Numbers: 1–3

Deployed by the TITANS as drones and servants, these malformed, albino humanoids stand 2 meters tall, with elongated forearms, prehensile feet, massive claws and two pairs of smaller limbs with fractal digits extruding from their back and chest. They can handle both cryonic conditions and vacuum, but have been know to resort to necrophagy and cannibalism in the abandoned confines of TITAN stations.

Motivation: +Defend Territory +Fear/Serve the TITANs. Many fractal trolls still possess fragments of their pre-transformation egos; others operate with personas imposed on them by the TITANs, merged together from the shards of multiple egos. Some attempt to recreate aspects of their former lives, in the form of twisted art or a sort of macabre parody; others are driven solely by madness.

Use: Fractal trolls are hostile to outsiders, either attacking or fleeing in order to ambush later. They are especially hostile towards synthmorphs and machines, perhaps fearing a return of their TITAN enslavers.

JELLY

Exsurgent, Medium Size
Threat Level: Orange
Niche: Derelict Habs, Earth, Quarantine Zones
Numbers: 1–12

Jellies take the form of massive, slimy, mucus-filled bubbles. Their soft, amorphous shape allows them to squeeze, slide, and slither through cracks and tiny spaces. They use studded tongue-like protrusions to grip and move. They are coated with a corrosive lubricant that they can also spit at targets.

Motivation: +Hunting +Propagation +Survival. Jellies are ambitious predators, using their sense of smell to track and olfactory communication to coordinate swarm tactics.

Use: Jellies use venting, pipe systems, and similar cramped spaces to move about unseen and stage ambushes. They seem aware of their repulsiveness and use it to their advantage.

Jelly

Stress Test: SV 1d10 + 3

Initiative: 7, **Fray:** 25, **AV:** 12/12
WT: 14, **DUR:** 70, **DR:** 105
Threat Pool: 3

Engulf: 50, Grappling ▶205, requires superior success; on second turn, target is completely enveloped. Enveloped victims take double damage from corrosive coating, asphyxiate ▶234, lose their mesh connection, and are blinded, deafened, and impaired (–30) ▶226.
Spit: 60, Range 20; see Corrosive Coating/Spit, below
Tongue: 40, DV 1d10 + 3; see Corrosive Coating/Spit, below

Perceive: 60, 70 smell
Move: Ooze (Slow 4/12)

COG: 20 60 • **INT:** 20 60 • **REF:** 15 45 • **SAV:** 10 30 • **SOM:** 20 60 • **WIL:** 20 60
Skills: Athletics 80, Exotic Skill: Spit 60, Free Fall 50, Infiltrate 60, Melee 50 (Engulf 60), Provoke 50 (Intimidate 60), Survival 40

Ware: Chem Sniffer, Cryogenic Protection, Enhanced Respiration, Enhanced Smell, Grip Pads, Pressure Adaptation, Thermogenic Protection

Concentrated Spit: Jellies may spend a point of Threat Pool to make a ball of spit more concentrated; increase the DV per turn to 2d6
Corrosive Coating/Spit: Application D, 0; Onset Time: 1 action turn, Duration: 5 action turns, Effect: DV 1d6 per action turn, armor protects but AV is reduced by DV. Biomorphs must make a SOM Check or be impaired (–10) by pain. This coating also provides immunity to nanoswarms, corrosives, and dermal-vector drugs and chemicals. Liquid-based attacks against the jelly suffer a –30 modifier.
Invulnerability: Jellies take the minimum DV from kinetic weapons and blades
Lubrication: Jellies are immune to grappling attacks
Propagation: When a jelly has consumed 100 DUR of victims, it splits into two jellies
Vacuum Expansion: Jellies expand to Large size ▶227 in vacuum

Mimic Jelly

Threat Level: Red
Numbers: 1–5

Certain jellies have the ability to ingest a biological creature and mimic all aspects of its form: shape, size, visual texture, and features (including clothing and gear, though these are false). Mimics also duplicate their victims' neural architecture, consuming memories and personality for increased social infiltration. They use the same stats as standard jellies, with the following changes:

Motivation: +Hunting +Infiltration +Mimicry

Use: Mimic jellies use their impersonation to lure victims away to locations they can be safely consumed. If their nature is questioned, they will quickly attack or melt through floor grates or vents to escape.

Mimic Jelly

Threat Pool: 5

Perceive: 60, 70 smell/vision

Skills: Add Deceive 60 (Impersonate 90), Kinesics 50; see also Mimicry, below

Ware: Add Chameleon Skin, Enhanced Vision

Electronic Jamming: Mimic jellies can spend a threat pool to generate a bioelectric field and jam all wireless radio signals in a 30-meter radius for 1 minute (*Jam Signals* ▶263). Treat this as an Interface of 50 for attempts to bypass ▶248.
Mimicry: Mimic jellies take the form of their pre-exsurgent self or victims they engulf. The initial process of absorbing and copying a victim takes half an hour. Afterwards, changing shape from victim to jelly (or something in between) takes only one action turn. The jelly takes on the victim's memories, skills, ego traits, and voice. Their gelatinous nature is immediately noticeable with t-rays or physical contact, or with an enhanced vision/radar Perceive Test at –30. Characters familiar with the victim may notice oddities with a Kinesics Test, opposed by the jelly's Deceive (Impersonation) skill. Mimic jellies may only impersonate one biomorph at a time. To reset, another transhuman must be consumed.

SHIFTER

Exsurgent, Medium Size
Threat Level: Red
Niche: Derelict Habs, Earth, Quarantine Zones
Numbers: 1–4

The shifter xenomorph nanoplague converts synthmorph and robot frames into a liquid metal composed of exotic smart matter, allowing it to liquefy, solidify, and reshape according to the exsurgent's needs.

Motivation: +Infiltration –Transhumanity

Use: Shifters prefer isolating and eliminating targets one-by-one, luring victims into low-security areas for execution and hiding the corpses. Shifters do not assume their victims' identity or memories and so rely heavily on visual trickery to maintain cover. Once exposed, a shifter exsurgent will weaponize every portion of their anatomy to inflict maximum casualties.

Shifter

Stress Test: SV 1d6

Initiative: 10 • **Fray:** 50 • **AV:** 13/13
WT: 12 • **DUR:** 60 • **DR:** 120
Threat Pool: 5

Blade: 65, DV 2d10 +1d6 (+1d6 each if wielding more than one), armor-piercing, possible Reach +10
Shredder: 55, DV 2d10 + 6, SA/BF/FA, Ammo 100, Range 25, cone area effect

Perceive: 50, 60 hearing/vision
Move: Walker (Medium 4/20)

COG: 20 60 • **INT:** 20 60 • **REF:** 30 90 • **SAV:** 20 60 • **SOM:** 30 90 • **WIL:** 10 30
Skills: Athletics 55, Deceive 60 (Impersonation 90), Free Fall 50, Guns 55, Infiltrate 60, Kinesics 40, Know: Transhuman Culture 50, Melee 65, Persuade 50

Ware: Access Jacks, Cyberbrain, Enhanced Hearing, Enhanced Vision, Mnemonics, Shape-Adjusting, Synthetic Mask, others dependent on original morph and/or shape-adjustment
Traits: Lethal

Mimicry: Mimicking another form takes 1 action turn. PCs may make a Kinesics Test opposed by the shifter's Deceive (Impersonation) skill to see through the charade. The synthetic nature of mimicked biomorphs is immediately noticeable with t-rays or physical contact, or with an enhanced vision/radar Perceive Test at –30. Shifters can mimic any form they have seen of medium size.

Shape-Adjusting: The shape-adjusting of shifters is more advanced that transhuman technology▸325, able to create complex mechanical forms and electronics such as firearms and implants. They can change their form to function as up to 4 Minor complexity items (taking only 1 action turn) and 2 Moderate complexity items (taking 1d6 action turns). At the GM's discretion, they may even create Major complexity items.

SKRIK

Exsurgent, Small Size
Threat Level: Yellow
Niche: Derelict Habs, Earth, Quarantine Zones
Numbers: 1–8

Skriks are tiny creatures coughed up by biomorphs infected with the skrik strain of the exsurgent virus. They resemble tiny versions of the exsurgent's morph, though often with minor physiological differences or mutations, such as claws, poison stingers, prehensile tails, or a single wing to maneuver in microgravity. Most skriks are tiny when regurgitated, less than 20 centimeters, depending on the throat size of the exsurgent's morph, though over time they will grow to 40 centimeters in length or more. Skriks are not sapient, though they have been known to use simple tools.

Motivation: +Mayhem +Nest

Use: Skriks will immediately seek to hide and escape upon their "release." When possible, they will establish a secret nest near the exsurgent, leaving pheromonal trails so that other skriks produced by the exsurgent can join up with them. They prefer to attack by surprise and with safety of numbers.

Skrik

Stress Test: SV 1d6 (skrik), SV 2d6/1 (regurgitation)

Initiative: 7 • **Fray:** 60 • **AV:** 0/0
WT: 1 • **DUR:** 5 • **DR:** 8
Threat Pool: 1

Bite: 60, DV 1d6
Shiv: 60, DV 1d10

Perceive: 40
Move: Walker (Slow 4/12) (may have others)

COG: 5 15 • **INT:** 15 45 • **REF:** 20 60 • **SAV:** 5 15 • **SOM:** 5 15 • **WIL:** 10 30
Skills: Athletics 60, Free Fall 50, Melee 60, Survival 40

Ware: Skriks will have the same bioware as their biomorph "parent," but not cyberware or nanoware. Some skriks will have mutations such as Claws, Gills, Poison Glands, Wings, etc.

Exsurgent Carriers: Most skriks carry the exsurgent virus, exposing it to others if they are eaten or exchange bodily fluids (bio pathogen) or releasing it when they die (nanoplague).

Scale Assault: Against larger targets, skriks can take a complex action and make an Athletics Test, opposed by the target's Fray. If successful, the skrik has scurried onto the opponent's back, undercarriage, or other difficult-to-reach spot. The victim suffers a –30 modifier to attack the skrik. Skriks use this position of advantage to make called shots to bypass armor▶218.

Swarm Tactics: A large number of skriks (20+) will attack as a swarm. Treat as a single Large size ▶227 entity, DV 3d10 (no defense, armor-piercing), DUR 80+, ignore wounds, immune to called shots, grappling, knockdown, psi sleights, shock, and unconsciousness. Victims within the swarm suffer an impairment (–30) modifier from being harried.

SNAPPER

Exsurgent, Medium Size+
Threat Level: Red
Niche: Derelict Habs, Earth, Quarantine Zones
Numbers: 1–3

One version of the xenomorph nanoplague targets synthmorphs, bots, and vehicles, breaking them down, merging them together, and transforming them into centipede-like monstrosities known as snappers. Multiple sets of articulated, double-jointed limbs with pincers line three sides of their modular, hexagonal tube frames.

Motivation: +Mayhem +TITAN Interests

Use: Scrappers prefer to twist into a circle and roll directly into a group of enemies, unfolding and lashing out in multiple directions at once. They intentionally target biomorphs first, to maximize casualties. They will split apart to pursue multiple fleeing opponents.

Snapper

Stress Test: SV 1d6

Initiative: 7 • **Fray:** 40 • **AV:** 16/16
WT: 6 • **DUR:** 30 • **DR:** 60 (per module)
Threat Pool: 5

Pincers: 65, DV 2d10+ 1d6, armor-piercing, reach, each module may make a separate attack
Crushing Slam: 65, DV 4d10 • SOM Check or knockdown, reach, requires 2+ modules, only effective against medium and smaller targets

Perceive: 40, 50 vision
Move: Roller (Very Fast, 8/40), Walker (Medium 4/20)

COG: 15 [45] • **INT:** 15 [45] • **REF:** 20 [60] • **SAV:** 15 [45] • **SOM:** 25 [75] • **WIL:** 20 [60]
Skills: Athletics 65, Free Fall 60, Guns 65, Hardware: Robotics 50, Infiltrate 50, Melee 65

Ware: 360-Degree Vision, Cyberbrain, Enhanced Vision, Lidar, Magnetic System, Mnemonics, Modular Design, Neurachem, Structural Enhancement

Traits: Lethal

Modular Design: Similar to flexbots, snappers deploy a modular design. For each additional module, combine WT/DUR/DR. 1 module is Medium size, 2–4 modules make a Large size, 5+ make a Very Large size.
Stretch Slam: Snappers may spend a Threat Pool point to whip out and crushing slam two targets in different directions at once; roll attacks separately

WASTEWALKER

Exsurgent, Medium Size
Threat Level: Orange
Niche: Derelict Habs, Earth, Quarantine Zones
Numbers: 4–8

These exsurgent cyborgs served the TITANs as elite infantry during the Fall. Wastewalkers are tall and wiry, with claws and spines. A white mask covers their face and their skin is replaced by an armored black polymer. Each carries nanoswarm hives in thin cylinders protruding from a hump of excess mass feedstock on their back.

Motivation: +Survival +TITAN Interests –Transhumanity

Use: Lacking TITAN leadership, wastewalkers band together for survival. Wastewalkers are intelligent and tactically minded, often commanding other exsurgents.

Wastewalker

Stress Test: SV 1d6 + 1

Initiative: 6 • **Fray:** 70 • **AV:** 14/8 (polymer skin)
WT: 10 • **DUR:** 50 • **DR:** 75, ignore 1 wound effect
Threat Pool: 3

Claws: 40, DV 1d10 + 2
Railgun SMG: 80, DV 2d10, SA/BF/FA, Ammo 60 + 1, Range 75, armor-piercing, two-handed
TMP Grenades: 60, Frag: DV 3d10 + 6, HE: DV 3d10 + 10, centered blast, knockdown

Perceive: 50, 60 hearing/vision
Move: Walker (Medium 4/20)

COG: 15 [45] • **INT:** 15 [45] • **REF:** 15 [45] • **SAV:** 15 [45] • **SOM:** 15 [45] • **WIL:** 15 [45]
Skills: Athletics 60, Free Fall 50, Guns 80, Infiltrate 40 (50/70), Know: Small Unit Tactics 60, Melee 40, Provoke 40 (Intimidate 50), Survival 60

Ware: Chameleon Skin, Claws, Cold Tolerance, Enhanced Hearing, Enhanced Respiration, Enhanced Vision, Medichines, Neurachem, Skinlink, Toxin Filters, plus 1–4 Hives (Disassembler, Engineer, Guardian, or Saboteur)
Gear: Smoke Grenades (4), Spindle, Utilitool

Mask: Touching or wearing a wastewalker mask exposes you to the wastewalker xenomorph nanoplague

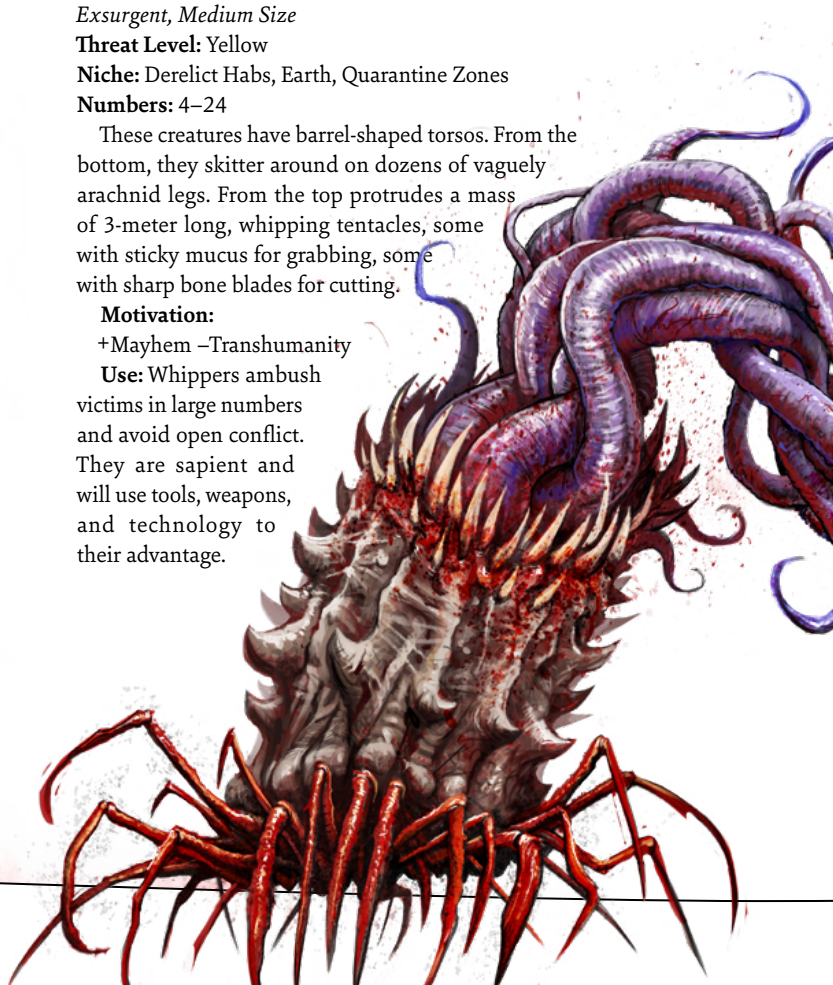
WHIPPER

Exsurgent, Medium Size
Threat Level: Yellow
Niche: Derelict Habs, Earth, Quarantine Zones
Numbers: 4–24

These creatures have barrel-shaped torsos. From the bottom, they skitter around on dozens of vaguely arachnid legs. From the top protrudes a mass of 3-meter long, whipping tentacles, some with sticky mucus for grabbing, some with sharp bone blades for cutting.

Motivation: +Mayhem –Transhumanity

Use: Whippers ambush victims in large numbers and avoid open conflict. They are sapient and will use tools, weapons, and technology to their advantage.



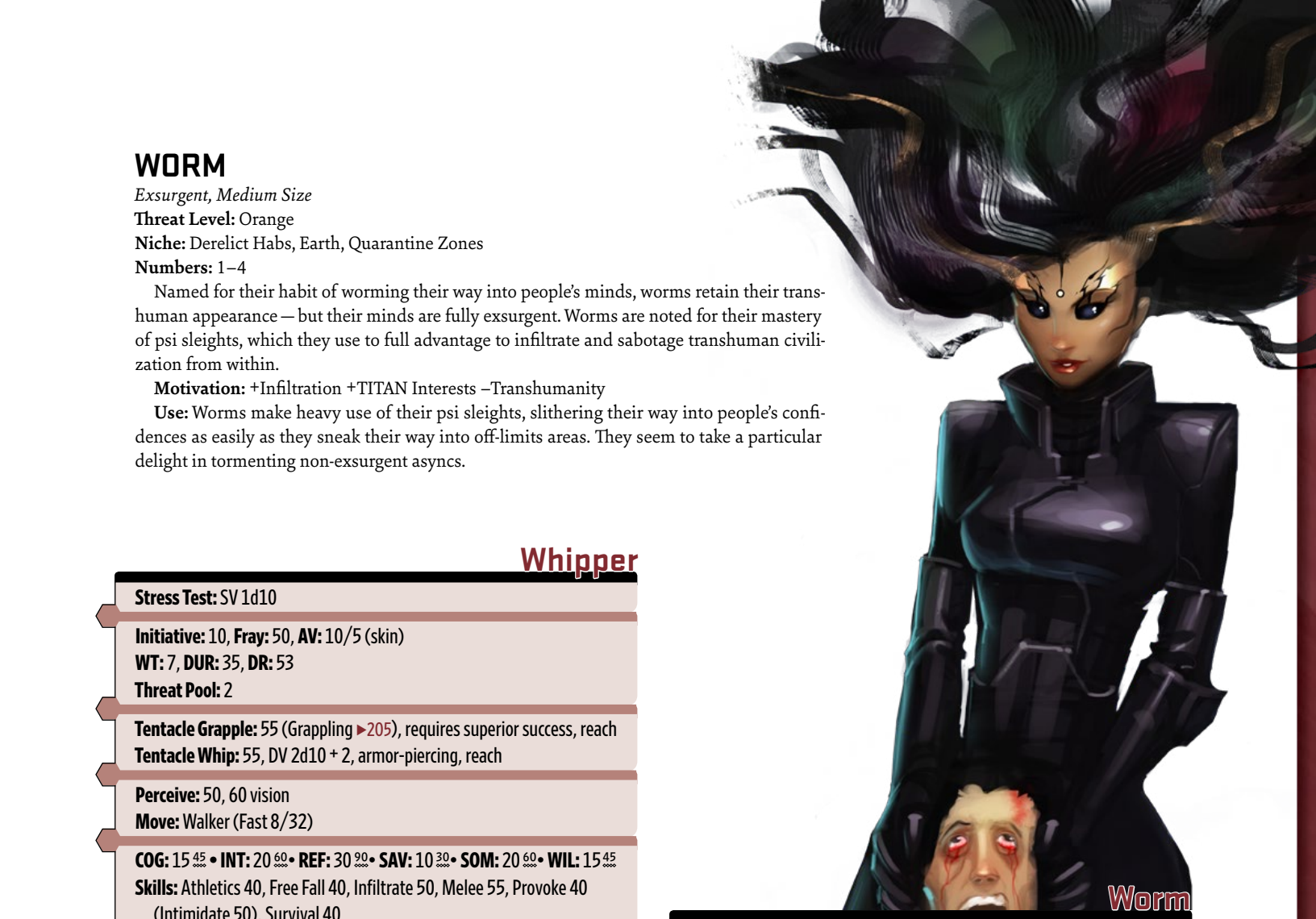
WORM

Exsurgent, Medium Size
Threat Level: Orange
Niche: Derelict Habs, Earth, Quarantine Zones
Numbers: 1–4

Named for their habit of worming their way into people's minds, worms retain their transhuman appearance — but their minds are fully exsurgent. Worms are noted for their mastery of psi sleights, which they use to full advantage to infiltrate and sabotage transhuman civilization from within.

Motivation: +Infiltration +TITAN Interests –Transhumanity

Use: Worms make heavy use of their psi sleights, slithering their way into people's confidences as easily as they sneak their way into off-limits areas. They seem to take a particular delight in tormenting non-exsurgent asyncs.



Whipper

Stress Test: SV 1d10

Initiative: 10, **Fray:** 50, **AV:** 10/5 (skin)
WT: 7, **DUR:** 35, **DR:** 53
Threat Pool: 2

Tentacle Grapple: 55 (Grappling ▶205), requires superior success, reach
Tentacle Whip: 55, DV 2d10 + 2, armor-piercing, reach

Perceive: 50, 60 vision
Move: Walker (Fast 8/32)

COG: 15 45 • **INT:** 20 60 • **REF:** 30 90 • **SAV:** 10 30 • **SOM:** 20 60 • **WIL:** 15 45
Skills: Athletics 40, Free Fall 40, Infiltrate 50, Melee 55, Provoke 40 (Intimidate 50), Survival 40

Ware: Enhanced Vision, Neurachem

Armored Variant: Add AV +4/+8, Cryogenic Protection, Medichines, Oxygen Reserve, Radiation Tolerance, Vacuum Sealing
Undersea Variant: Add Cryogenic Protection, Eelware, Gills, Pressure Adaptation, Sonar

Worm

Stress Test: SV 1d6 – 2 (witness sleights)

Initiative: 7, **Fray:** 50, **AV:** 4/10 Light Armor Vest
WT: 7, **DUR:** 35, **DR:** 53 (or as morph)
Threat Pool: 3

Eelware: 65, DV 1d6, shock effect, touch-only
Psychic Stab: 70, DV 2d10 ▶285

Perceive: 50 (60)
Move: Walker (Medium 4/20)

COG: 15 45 • **INT:** 20 60 • **REF:** 15 45 • **SAV:** 20 60 • **SOM:** 10 30 • **WIL:** 15 45
Skills: Athletics 40, Deceive 60 (70), Free Fall 40, Guns 45, Infiltrate 60, Kinesics 50 (60), Melee 45, Persuade 55, Provoke 50, Psi 70

Ware: Biomods, Cortical Stack, Eelware, Mesh Inserts
Traits: Mental Disorder (Choose Two), Psi (Level Two)

Notes: Stats above assume an exalt morph; adjust as appropriate.
Psi-Chi Sleights: Heightened Awareness, Scramble, Superior Kinesics; adjust as needed
Psi-Gamma Sleights: Deep Scan, Illusion, Psychic Stab, Sense Infection, Subliminal; adjust as needed

FACTORS

The Factors are the only still-living alien species that transhumanity has encountered (so far). Though secretive and aloof, they have been willing and eager to negotiate and trade with transhumanity. Over the past 8 years, at least 6 of their ships have visited our Solar System, many of them multiple times. Transhumanity has received them with cautious interest, unsure of the Factors' true motivations and goals.

BIOLOGY

The Factors are best described as sapient slime molds or amoebas. They evolved from scavengers to trap predators, developing versatile ways of capturing and immobilizing larger, dangerous prey. This gave them an edge in the race to evolutionary dominance on their homeworld, and they retain a flair for patience, deceit, and cunning.

Individual Factors look like translucent, ambulatory slugs, usually ranging between 1.5 and 2 meters long and 0.3 meters wide. Most are a dull ochre shade, though they range in color, with a tendency towards yellows and oranges. They crawl or ooze for close movement or extrude finger-like pseudopodia to grip and pull themselves over longer distances. Similar pseudopodia are used to hold and manipulate objects and tools, though some Factors grow limbs. In fact, the Factors are exquisite bio-engineers; most Factors have morphologically unique forms and are equipped with whatever traits, glands, and features they need. Many Factors can be identified by their different arrangements of sensory organs.

Factors are omnivores, assimilating their food and breaking it down internally. They do not breathe, instead absorbing oxygen through their skin or breaking it down internally from other substances. They are functional anaerobes, capable of surviving without an oxygen atmosphere for long periods, as long as they have food.

COMMUNICATION

Factors can exude fine neurofilament fibers, which they use to interface with electronics or directly mindlink with other Factors. They communicate remotely with airborne pheromonal chemical cues; this "Factor dust" is aromatic and surprisingly effective even over distance. Transhumanity has yet to develop a system for translating these chemical signals; communications to date have entirely been handled via mesh signals, with no small amount of misunderstandings and errors.

FACTOR COLONIES

Factors are colony organisms — a typical colony is composed of dozens of physically merged individual Factors. This colony is each Factor's fundamental identity; individualism is a foreign concept to them, even though single Factors can act autonomously and even competitively. While merged, Factors are part of their colony's group mind-state, which shares knowledge and memories, and this group identity sticks with them even when they separate — they are but an organ of the larger whole. Colonies can also physically interface with one another, forming a larger framework known as a *lattice*. Each Factor ship is controlled by a single lattice of networked colonies.

SOCIOLOGY

Individual Factors do not bother with the abstraction of names, but they have adopted names for their colonies to facilitate their dealings with transhumanity. Most are based on scents they find appealing (Ash, Fish, Loam, etc.). Many of the known Factors have been dubbed with nicknames by transhumans.

Factor society is very collectivized and centered around colonies and lattices. Most Factors seem to spend the majority of their time merged with their colony; being separated for too long is distressing and a form of punishment and exile. While Factors and colonies do take on specialized roles, there is little in the way of social hierarchy, central authority, or laws. Outside of lattices, no Factor governments seems to exist; each Factor ship seems to operate independently — though there is indication of some competition between ships.

Due to biological differences, Factors experience emotion quite differently from transhumans. They have expressed no spirituality and do not seem to understand the concept of religion, but they do seem to have a basic understanding of philosophy. While they seem willing and eager to trade for art, they are not very interested in transhuman media or culture. Factor art itself is scent- or tactile-based, and they are drawn to aromatic liquids, fragrances, and compositions of different materials. They can particularly seem to enjoy objects they can envelop and carry in their bodies for hours or days. They also have an appreciation for some engineering, architecture, and sculpture; two of their ships appear decorated with bas-reliefs of unknown origin.

TECHNOLOGY

Factor technology is clearly more advanced than transhumanity, but they go to great lengths to hide their capabilities. They clearly have some form of reactionless drive and likely FTL travel, though the specifics remain unknown. They are known to use exosuits, nanoswarms, powerful lasers, and drones, though they do not maintain mesh networks on their ships and decry the use of advanced AIs. Radio communication between their ships is encrypted and minimal, suggesting they rely on some other communication method. Though they have traded some technology to transhumanity, they have been careful to only offer advances just barely out of our current reach.

INTERACTIONS WITH TRANSHUMANITY

The Factors claim to be the ambassadors for a grouping of alien civilizations, but they have been frustratingly light on details. As traders, however, they do seem to carry a wide range of alien artifacts — most opaque in purposes and use. The Factors have established trade agreements with numerous transhuman factions and habitats, even going so far as to buy stock in hypercorps and to establish confidential ties with transhuman proxies to act as business agents and scout for items/technology of interest.

The Factors have strongly discouraged the use of pandora gates and advanced AI as dangerous, even refusing to negotiate with hypercorps such as Pathfinder and Gatekeeper or to interact with AGIs. This has led to speculation that they somehow survived their own ASI singularity event.

Though the Factors claim to come from another system, all transhumanity knows for sure is that their ships move to the Kuiper Belt and disappear — attempts to track them have failed. Some suspect they have a secret base on the edge of the system — or perhaps even a pandora gate. Their ships, however, return regularly, doing a round of trading and dealing across the Solar System. Suspiciously, evidence of the Factors has also been found by gatecrashers on various exoplanets, including several hostile interactions with lone (exiled?) Factors.

THE SIX KNOWN FACTOR SHIPS

Transhumanity has nicknamed the known Factor ships by appearance, though all appear to be of unique construction and design.

- **Hammerhead:** First contact at Luna. Only Factors to meet with Jovians.
- **Jellyfish:** First contact at Titan. Interest in biological sciences. Rivalry with Stub-Nose.
- **Needle-Nose:** Newer, smaller. Limited contact, interests unknown.
- **Nettle:** Newer, smaller, deposited the Egg in Mercury orbit.
- **Porcupine:** First contact in Neptunian Trojans.
- **Stub-Nose:** First contact at Mars. Interest in hard technology, ship/hab designs. Rivalry with Jellyfish.

FACTOR AMBASSADOR

Alien , Medium Size

Threat Level: Yellow

Niche: Diplomatic Events, Embassies, Factor Spacecraft

Numbers: 1–4

Ambassadors are bio-engineered to interact with transhumanity. They are distinguishable from other Factors by a loose arrangement of sensor nodules meant to approximate a face. Ambassadors are universally known for their stubbornness, opaqueness, and conniving. They regularly convince transhuman diplomats into asymmetrical exchanges of information, technology, or art.

Motivation: –AGIs +Bargain +Factor Interests –Pandora Gates

Use: Ambassadors are unlikely to initiate or engage in conflict, but they do carry implanted weaponry which they will deploy to evade capture — even if it means blowing themselves up.

Factor Ambassador

Stress Test: SV 1d10

Initiative: 6 • **Fray:** 25 • **AV:** 2/3
WT: 6 • **DUR:** 30 • **DR:** 45
Threat Pool: 2

Factor Dust: 45, Range 5, cone area effect. Toxin: Inhalation, Onset Time: 1 action turn, Duration: 5 turns/2 hours; victims suffer severe coughing and respiratory distress, DV 1d10 per turn for 5 action turns, SOM Check or impaired (–20) for 2 hours.
Implanted Agonizer: 40, SA, Range 20, Ammo 15, pain; roast mode: DV 2d10, SS, armor-piercing, pain

Perceive: 50, 60 infrared
Move: Walker (Slow 4/12)

COG: 15 [45] • **INT:** 20 [60] • **REF:** 10 [30] • **SAV:** 15 [45] • **SOM:** 10 [30] • **WIL:** 20 [60]
Skills: Deceive 75, Exotic Skill: Factor Dust 45, Exotic Skill: Trap-Making 60, Free Fall 60, Hardware: Electronics 35, Infiltrate 30 (40/60), Infosec 35, Guns 40, Kinesics 35, Know: Sculpture 50, Know: Transhumanity 60, Melee 30, Persuade 75, Provoke 50, Research 35

Ware: Access Jacks, Bioweave Armor, Chameleon Skin, Direction Sense, Enhanced Vision (Infrared Only), Grip Pads, Poison Gland (Factor Dust Toxin)
Gear: Ecto

Immunity to Kinetic Damage: Factors take the minimum DV from blades and kinetic weapons
Immunity to Psi: Factors are immune to psi sleights
Implanted Plasma Grenade: DV 3d10 + 10, armor-piercing, centered blast area effect
Melding: Factors may meld together into larger forms; treat as modular design ▶324
Regeneration: Factors regenerate 2 damage per action turn; wounds may not be regenerated

FACTOR GUARDIAN

Alien, Medium Size

Threat Level: Orange

Niche: Diplomatic Events, Embassies, Factor Spacecraft

Numbers: 2–8 (2 per Factor Ambassador)

Guardians serve as bodyguards for ambassador phenotypes outside the ship.

Motivation: +Factor Interests +Protect Ambassadors

Use: When possible, Guardians rely on ambush tactics. They sometimes carry more advanced gear/weaponry, such as laser blasters or exosuits, but avoid bringing such weapons into situations where they could fall into enemy hands.

Factor Guardian

Stress Test: SV 1d10

Initiative: 7 • **Fray:** 50 • **AV:** 12/8
WT: 10 • **DUR:** 50 • **DR:** 75
Threat Pool: 3

Eelware: 70, DV 1d6, shock effect, touch-only
Factor Dust: 65, Range 5, cone area effect. Toxin: Inhalation, Onset Time: 1 action turn, Duration: 5 turns/2 hours; victims suffer severe coughing and respiratory distress, DV 1d10 per turn for 5 action turns, SOM Check or impaired (–20) for 2 hours.
Laser: 60, DV 4d10, SA/BF/FA, Ammo 50, Range 120, knockdown, two-handed. These weapons only work for Factors. May be set to self-destruct, inflicting DV 8d10 + 10, armor-piercing, centered blast area effect, knockdown.
Tentacle Whip: 60, DV 2d10 + 2

Perceive: 50. 60 infrared
Move: Walker (Medium 4/20)

COG: 15 [45] • **INT:** 15 [45] • **REF:** 20 [60] • **SAV:** 10 [30] • **SOM:** 20 [60] • **WIL:** 15 [45]
Skills: Athletics 40, Exotic Skill: Factor Dust 65, Exotic Skill: Trap-Making 60, Free Fall 40, Infiltrate 40 (50/70), Guns 60, Kinesics 25, Know: Security Procedures 50, Melee 50 (Tentacles 60), Provoke 40 (Intimidate 50)

Ware: Chameleon Skin, Direction Sense, Eelware, Electrical Sense, Enhanced Vision (Infrared Only), Grip Pads, Poison Gland (Factor Dust Toxin)
Gear: Exosuit (AV +6/+4, +2 Threat Pool, +2d6 melee damage, Movement Rate: Fast 8/32, WT 5, DUR 25, DR 50)

Immunity to Kinetic Damage: Factors take the minimum DV from blades and kinetic weapons
Immunity to Psi: Factors are immune to psi sleights
Melding: Factors may meld together into larger forms; treat as modular design ▶324
Regeneration: Factors regenerate 2 damage per action turn; wounds may not be regenerated

FIREWALL

Running a Firewall campaign is an extremely rewarding way to approach *Eclipse Phase*. Firewall presents the GM with a ready-made framework to explore multiple aspects of the game's setting and involve your PCs in all manner of trouble, from low-stakes missions to galaxy-shaking apocalypses.

DESIGNING THE SERVER

Your first step is to sketch out some notes on the server the PCs will be working with. What is the server's focus? Hypercorp espionage, tracking TITAN activity, gatecrashing ops, countering exhumans, or monitoring Earth or the TQZ? These are just a few of the interests that can provide fertile ground to launch a campaign. Decide on the server's goals and then choose which of Firewall factions and philosophies it leans towards. Are they risk-taking pragmatists or stodgy conservatives? Is there an internal split within the server?

These answers will help establish how well your PCs fit with the server. Do they share motivations? Or will they bristle when they receive instructions they disagree with? Will the PCs be asked to do things they find personally objectionable? The more you understand your server, the better prepared you'll be when your players surprise you with their actions.

Initially, it's likely the PCs will only deal with a handful of other Firewall members. Take the opportunity to establish some details about the key proxies the team will interact with: a router, a vector, and maybe a register. Give each a motivation relating to the PCs. Even better, have these goals be modestly conflicting. Ask yourself a few questions about these proxies to establish more characterization. Do they withhold information from the PCs and, if so, why? Are they a control freak or lax about their duties? What transhuman factions do they align with? How were they recruited by Firewall, and what have they seen?

It may also be helpful to pick an ally and enemy for the server. Do they work closely with the Argonauts? Do they have a rival server or an unseen benefactor? Is there an exhuman they have foiled multiple times that has sworn vengeance? Finally, don't forget to give the server a cool name!

JOINING FIREWALL

How you introduce the PCs to Firewall will have a profound effect on your campaign. If your players are fresh to *Eclipse Phase,* it may be best to start them as civilians who run afoul of something strange and get recruited by Firewall in the aftermath. This allows you to slowly introduce the conspiracy and wha they face over time.

Experienced players may prefer to jump in as fresh recruits or established sentinels, allowing you to jump deeper into the conspiracy. Consider running brief one-on-one scenes with each of them to detail their recruitment. Were they approached after they dealt with an unexpected threat? Did Firewall rescue them? Perhaps Firewall had them under long-term surveillance to determine their suitability because they possess a skill set of use to the network.

A campaign with experienced *Eclipse Phase* players may benefit from one or more players taking on a proxy role. This type of campaign can explore the internal politics and deepest secrets of Firewall. Groups with a mix of new and experienced players may benefit from having the experienced player portray the cell's proxy or a proxy vector who activates alongside the cell. This can be particularly effective as fresh players will feel less overwhelmed by the setting, but as the GM you'll want to make sure the experienced player doesn't ride roughshod over the newer players. Firewall cells sometimes have a hierarchy, but these are rarely strict ones.

Talk to your players about how they envision their relationships to Firewall. Not everyone joins without reservations and even the most gung-ho member is likely to have some doubts. This may provide you with ideas for future plot hooks.

CASES AND OPERATIONS

Firewall has a number of ongoing cases (research and response-planning projects) and operations, including:

- **Operation AXON VULGAR** investigates asyncs and their infection.
- **Operation CENOTAPH** monitors Earth and its interdiction zone.
- **Operation ERRANT ECCENTRIC** researches other ASIs.
- **Operation FUMIGANT** pursues exsurgent sleeper cells on Luna.
- **Operation GEHENNA FORTY** tracks lost exoplanet colonies.
- **Operation GLASS LICH** infiltrates oligarch activities.
- **Operation ICE NINE** investigates advanced physics x-risks.
- **Case NEGATIVE GEOMETRY** attempts to understand the pandora gates and their wormholes.
- **Operation SOLAR STORM** is hot on the tail of a suspected TITAN.
- **Operation VINEGAR** gathers intel on the Factors.
- **Case YELLOW KING** studies recovered TITAN technology.

THE EYE

Be sure to introduce the PCs to Firewall's internal social network, the Eye. Every sentinel and proxy has a unique, encrypted identity on the Eye and it will be the primary way your PCs interact with the organization. It is also the basis of their i-rep. Their ability to advance within Firewall and learn more of its secrets will be influenced by their conduct here. For the GM, the Eye is an important tool to introduce plot hooks and important NPCs. You can offer hints and red herrings through postings on the Eye and create memorable NPCs who may never do more than post wild speculations.

FIREWALL INTERACTIONS

Firewall offers much to your PCs. The MP and GP provided for morphs and gear on Firewall ops are covered by the organization, but it's important not to turn it into a deus ex machina. PCs can and should expect some level of support, but Firewall's resources are finite and it expects a level of self sufficiency from its sentinels and proxies. Preferred morphs may be unavailable, lines of credit insufficient for the needs of ongoing operations, or intelligence may be incorrect or even compromised. PCs will routinely carry out operations at a breakneck speed without time for planning or contingency, and Firewall expects them to be up to the task. Sentinels who become overly reliant on outside support may find themselves given fewer operations, or tasks that match the increasingly low expectation of their server. Firewall as a whole won't seek to make life more difficult for any of its members but individual proxies may withhold non-critical support of troublesome sentinels. The more critical the mission, the greater the resources that will be made available for sentinels. Smart PCs — and players — may come to realize that when Firewall provides a huge cache of armaments, credits, and top-end morphs. it means that they are in for some hard times.

Firewall is not always your characters' friend. It is an illegal, unauthorized, and unsanctioned conspiracy that demands tremendous sacrifices while withholding information from its operatives. The organization's deepest secrets are known only to a handful of proxies, and it is rife with factions, cliques, small conspiracies, infiltrators, and even traitors. While Firewall as a whole is capable of functioning, and even thriving, in the presence of these internal challenges and threats, individual cells and servers may be compromised or destroyed as a result. The organization's stated goals are noble, but its deeds are sometimes desperate. PCs may find themselves negotiating complex situations on Firewall's behalf. They might also be sacrificed to protect the greater good of the network. Depending on their server and proxies, they may be viewed as trusted allies or assets to be exploited. Most of the time they will fall somewhere in between. Be careful not to create a feeling of ongoing animosity between the network and your PC's cell. Some friction is common, but by and large Firewall treats its members with respect and care.

PCs recently inducted into Firewall may find themselves assigned to operations with very limited intel and pushed into morally dubious situations with a high probability of mission failure. These might in fact be loyalty tests, an uncommon but not unheard of technique by which the network ensures its sentinels — and even proxies — are both loyal and philosophically compliant with the broad ethics of Firewall. PCs may even find their cell tasked with conducting loyalty tests on other members, an experience likely to be unpleasant for all involved.

Depending on their talents and the needs of their server, PCs may be assigned to discreet, unrelated missions. More often, though, a cell works on missions with related goals or as part of an ongoing operation. Firewall servers may be dedicated to relatively specific goals and their constituent cells devoted to related tasks. A server's overall goals may be well known across the Eye, but their actual operations are typically highly classified and coded.

THE PROMETHEANS

Firewall maintains classified facilities and sensitive operations, but among its deepest secrets is the existence of the Prometheans: ASIs that work with Firewall in the pursuit of its goals. Most of these ASIs predate the Fall and survived the apocalypse in secret. It is very possible that transhumanity would not have survived at all without their aid. The precise origins of each of the Prometheans vary, and in some cases, are unknown, but their commonality is that they are at least moderately friendly to transhumanity's interests. These godlike ASIs worked with Firewall's precursor organizations and were instrumental in establishing the Eye. Their preternatural functionality is the key to Firewall's survival and the security of the Eye. The Prometheans' existence is unknown to the vast majority of Firewall's members, though well-informed proxies suspect their existence.

The Prometheans allied to Firewall are complex beings with far-ranging interests and sometimes inscrutable motivations. When they interact directly, they do so via forks or intermediary agents (often AGIs). They never reveal themselves for what they truly are in anything but the most dire of circumstances. Those Firewall members who are aware of the Prometheans are all grateful of the crucial aid they render, but not all fully trust them. Firewall would collapse quickly without the help of these ASIs, a fact that keeps some proxies up at night.

The Prometheans are potent allies but should be used with care. Even unraveling hints of their existence could fuel an entire campaign, but the mysteries at the heart of Firewall's conspiracy are likely to create more questions than they answer.

Prometheans occasionally make use of stripped-down forks to take a more direct role in affairs. These use the same stats as TITAN Fetches ▶408, except that they do not carry the exsurgent virus.

PROJECT OZMA

By most measures, Ozma does not exist. It has no budget, no known command structure, no executive order justifying its existence. Occasionally a Firewall team will stumble through the layers of false fronts to collide with an Ozma agent. The little data collected on Ozma is from those chance encounters, before their own clean-up squads eliminate the agent and all unlucky witnesses.

Ozma is a highly classified agency, operating on behalf of the Consortium, for purposes that are not completely understood. Its roots are in the SETI program of the 1960s, attempting to contact and understand extraterrestrial intelligence. Sometime before the rise of the TITANs, the program was officially terminated, only to be resurrected in a new form after the Fall. Ozma's mission is unknown, but seems parallel to Firewall: monitoring alien, TITAN, and exsurgent activities, as well as other threats, including anything posing an existential risk to the Consortium itself. It is unclear if the Hypercorp Council is aware of the existence of Ozma — and if not, who Ozma ultimately answers to.

OZMA OPERATIONS

Ozma is an off-the-record, black-budget operation. It operates within and through legitimate Consortium channels, masquerading its agents and affairs. In many of the situations where Ozma is secretly calling the shots, the staff and field personnel doing the grunt work are not affiliated with Ozma and may not even be aware of their existence. In this way, Ozma directs legitimate professionals to do its dirty work: Oversight agents following orders from above, local police acting on legal orders from the Consortium Ministry, or a struggling hypercorp fulfilling orders from a mystery angel investor. This permits Ozma to remain two or three levels removed and totally undocumented. This is particularly ideal for situations that can be handled without direct guidance (such as cleaning up a crime scene, pushing a product to market, or arresting individuals). That Ozma was involved at all can only be inferred based on the pieces missing.

With more sensitive projects, Ozma embeds undercover field agents. This may be the mysterious "consultant" giving orders to the Oversight team, but most operatives prefer unremarkable roles, such as the bureaucrat from the Olympus Terraforming Board or a corporate lawyer. Ozma operatives often assume the identity and morph of someone associated with the target/situation for years (with copied memories to back the ruse up). Agents are always experts in their necessary skills and equipped with the most advanced technology permissible for the role they are playing.

Due to their secrecy and deniability, Ozma agents must sometimes take matters into their own hands. There is no "Project Ozma" badge to flash. When agents are cornered, they commit suicide or use an emergency farcaster to evacuate. In severe situations, Ozma will call in lethally competent tactical teams. Always on standby, they can land, vaporize the mess, and evacuate within minutes.

Ozma operations are tied to extraterrestrial life and exoplanet exploration, though it's not clear what their ultimate goal is. In this field, the agency must rely heavily on local assets among gatecrashing and consular teams. They frequently cross paths with Firewall in addressing existential threats. Ozma does not share space well, and Firewall assets may be intentionally targeted for elimination. Ozma has on several occasions manipulated Firewall operations for its own purposes.

EMBEDDED OZMA AGENT

Transhuman, Medium Size

Threat Level: Red

Niche: Exoplanet Colonies, Planetary Consortium, X-Risk Outbreaks

Numbers: 1–8. Ozma agents are rarely recognizable as such.

Motivation: –Firewall +First Contact +Ozma Interests +Planetary Consortium Interests +X-Risks

Use: Operating under an identity with legal power, they may co-opt law enforcement to secure the target, so Ozma can then complete their mission unrecognized and unmolested. have continuous mesh oversight and can call in additional support as required. Agents will die rather than surrender.

Embedded Ozma Agent

Morph: Exalt

Initiative: 5 • **Fray:** 50 • **AV:** 8/15 heavy armor vest + second skin, shock proof
WT: 7 • **DUR:** 35 • **DR:** 53, ignore 1 wound effect
Threat Pool: 5

Microwave Agonizer: 70, SA, Ammo 20, Range 15, pain; Roast Mode: DV 2d10, SS, armor-piercing, pain
Wasp Knife: 50, DV 1d10 + 2, neuropath: causes agony, –30 to actions, WIL Check or incapacitated

Perceive: 65, 75 hearing/vision
Move: Walker (Medium 4/20)

COG: 20 60 • **INT:** 15 45 • **REF:** 10 30 • **SAV:** 25 75 • **SOM:** 10 30 • **WIL:** 15 45
Skills: Deceive 75, Exotic Skill: Disguise 70, Free Fall 50, Guns 70, Hardware: Electronics 50, Infiltrate 60, Infosec 70, Interface 60, Kinesics 50, Know: Alien Tech 65, Know: Containment Protocols 50, Know: Cryptography 70, Know: Law 50, Know: Nanotechnology 60, Know: Security Ops 60, Melee 50, Perceive 65, Persuade 60 (50)
Rep: @-rep 30 • c-rep 80 • g-rep 40

Ware: Biomods, Cyberbrain, Endocrine Control, Enhanced Hearing, Enhanced Vision, Emergency Farcaster, Ghostrider Module, Medichines, Mesh Inserts, Mind Amp, Mnemonics, Nanophages, Skillware
Gear: Covert Ops Tool, Dazzler, Disabler, Encryption App, False Ego ID (2), Microbug (4), Portable QE Comm, Saucer Bot (2), Spy Nanoswarm
Traits: Adaptability, Hardening: Violence, Edited Memories, Innocuous Looks

Notes: Agents will have the additional equipment and skills appropriate to their role/mission

PROJECT OZMA RUMORS

Ozma itself is a rumor. Many strange stories persist:

- Ozma does not answer to the Consortium, but to a higher power embedded in the Consortium hierarchy. Ozma defends Consortium interests only as far as it benefits their benefactor.
- Ozma is either a secret project of the TITANs, influencing transhumanity from within, or has captured a TITAN to work for them.
- During their SETI years, Ozma intercepted the digital exsurgent virus first, possibly even partially reverse-engineering it before the rise of the TITANs.
- Ozma is controlled by the alien entity that first brought the pandora gates to the Solar System.
- Ozma was the first to seek to track and capture asyncs. Project Psiclone may even have been a masked Ozma operation.
- Ozma is a cabal of expertly trained old nation-state spooks that survived the Fall and operate in their own interests.
- Project Ozma dealt with the Factors first, before they were known to the rest of transhumanity.

OTHER INTEL SERVICES

Most polities have their own intelligence service, either as a formal branch of government or as a volunteer group of operatives and hackers. These groups range in expertise, motivation, and funding. Some of the more notable include:

FLEET INTELLIGENCE (TITANIANS)

As part of the Titanian Ministry of Defense, Commonwealth Fleet Intelligence (CFI) supports the Commonwealth's naval operations throughout the system. Their purview includes electronic and nano warfare, surveillance, and military intelligence. Fleet Intelligence agents are authorized to conduct mesh intrusions, maintain HUMINT espionage networks, and embed themselves as moles or sleeper agents. CFI is liberal about their use of psychosurgery to create agents with the skill sets and memories needed for the mission.

The Commonwealth keeps a tight rein on military operations, and the CFI is bound by Commonwealth laws and treaties. Because CFI is not a police force, it will only use armed response against valid military targets during a sanctioned conflict. However, CFI will leverage its expertise to investigate non-military threats, including international criminal rings and x-risks, which it can then hand over to the appropriate authorities.

ISET (ARGONAUTS)

To the public and even most Argonauts, the Institute for the Study of Emergent Trends is known as a data collection/monitoring service for various research projects. In reality, the group takes on a clandestine role for the Argonauts. Its Project Peacock is one of the most comprehensive signals collection and analysis operations in the Solar System, working primarily through the Long Array on Saturn's moon Dione to intercept and crack communications. Its Apollo Project analyzes and predicts future trends, with results that border on the supernatural. ISET assets take a light touch, with most field agents specializing in data collection or counterintelligence. ISET is guarded and supported by the Medeans, the Argonauts' secret paramilitary force, and has a very close relationship with Firewall.

JSFI (JOVIANS)

The Jovian Republic has nearly a dozen agencies dedicated to domestic and foreign spying, the most important of which is Jovian Space Force Intelligence. JSFI is responsible for all foreign and military intelligence, including investigations and containment actions involving TITANs, exsurgent outbreaks, terrorism, and rival political factions. JSFI assets are highly motivated. Many Jovians believe an ego that has left its original morph is a soulless copy, a dead echo of the original. Regardless, JSFI agents resleeve and farcast as a regular part of their duties. JSFI agents show a high occurrences of PTSD and Ego Separation Identity Disorder (ESID). As untethered entities, they have no reservations about committing any action required of them by their nation.

JSFI agents use modern technology not available to other Jovians. Their specific load-out is restricted by three contradictory manuals, but the further they are from home, the less relevant the guidance becomes. JSFI operations are aggressive and set clear goals, usually neutralizing or capturing a specific target. JSFI has little concern for jurisdictions or the well-being of most transhumans. By Jovian philosophy, those people are already dead.

OVERSIGHT (PLANETARY CONSORTIUM)

The Oversight Directorate for Fair and Free Markets acts as an executive agency under the Hypercorp Council to audit hypercorp activities and police any activity considered a threat to economic stability or Consortium operations. Oversight's focus is domestic financial operations, but it has expanded operations to include foreign intelligence services. Their tactical auditors are the nightmares of any hypercorp or criminal operation. They use surveillance, physical infiltration, digital intrusion, and psychosurgery to root out corruption and free-market threats. Oversight's new divisions of Counterterrorism and Market Predictions protect Consortium security through police actions, espionage, and forknapping. Oversight enjoys the full weight of the Consortium behind it, but all of its activities must be "by the book." Their operations have been prosecuted in court by ambitious legal teams.

SCIENCE POLICE (TITANIANS)

On behalf of the Titanian Ministry of Science, the Science Police (MSP) are responsible for Commonwealth research facilities and research-related crime. They are also responsible for investigating, controlling, and quarantining scientific artifacts and technologies for all projects funded or operated by the Commonwealth or crossing through Titanian space. MSP officers may accompany gatecrashing and zone-stalking teams, and execute sting operations, but otherwise rarely operate under deep cover. Because of the profit and danger in smuggling artifacts, MSP is aggressive and well-equipped.

Of special note for both Firewall and criminals, MSP manages several quarantine zones and an expansive warehouse of seized artifacts. Titan may pull on MSP's warehouse of goods for specific purposes and to support research efforts. The most dangerous pieces of the collection are under permanent lock-and-key, and may only be accessed on-site and with parliamentary approval.

STELLAR INTELLIGENCE (PLAN.CONSORTIUM)

Stellar Intelligence is the largest hypercorp in the intelligence field. It works strictly on a contractual basis, offering investigations, predictive services, data monitoring, or subscriptions to their databases. Thay are known to approach potential customers with intelligence opportunities (usually data on a rival the customer may wish to exploit or incriminating information they will pay to expunge).

Unlike factional intelligence services, Stellar Intelligence is bound by the bottom line. They will not commit more resources than contracted except to protect their own personnel and property, even if that leaves a job incomplete. They use a lighter touch in polities where litigation might damage lucrative contracts, such as on Mars or Titan. On habitats with fewer ties to their clientèle, Stellar Intelligence will resort to the most economical method of meeting their clients' needs with no concern for civility or appearances.

THE PANDORA GATES

Transhumanity has so far discovered five pandora gates within the Solar System and *thousands* in extrasolar systems. Though they are now used with regular frequency, our understanding of the control system is nebulous, fragmented, and experimental. Use of the gates always comes with a not-insignificant amount of risk.

Most gates are located on the surfaces of astronomical bodies. Some have been found floating in space, in the upper atmospheres of gas giants, deep undersea, underground, and even atop floating ocean biomasses. Attempts to physically relocate gates have so far failed — sometimes dramatically.

So far as transhumanity can tell, all gates discovered so far are within the local Orion's Arm of the Milky Way Galaxy. It is not clear if this is due to some constraint on the wormholes' range, due to the immense distances of space, or some other factor.

APPEARANCE

Though their operation is standardized, gate size and shape is as variable as the worlds they lead to. The gate structure itself is an irregular half-sphere/dome cage of interlocking, angled, metallic black arms. These are built from some programmable exotic matter with an atomic structure scientists are still working to unravel. They are ageless and polished, but appear fuzzy and are disturbingly difficult to focus upon due to some quality of their composition, as if they vibrate at a high-frequency on the edge of your vision. Due to this phenomenon, most gate sites keep the actual gate structures covered.

When a new wormhole location is programmed into the gate, the arms of the cage physically change shape, move, and reflow. The openings between arms are sometimes only large enough for a transhuman to enter, sometimes gaping enough to allow a freight train of supplies to pass through. Large vehicles or equipment must often be dismantled, carried through, and reassembled on the other side. Gate operators expect to one day be able to control the size of the openings.

An abnormal but organic growth covers the exterior surface of some arms, patterned in entrancing twists and whorls that adhere to perfect mathematical formulas. This growth is in fact a cellular automaton biological computer that acts as the gate's control system. A "blue box" device developed to interface with this system allows gate controllers to manipulate gate functions.

THE WORMHOLE

When a gate is activated, a black sphere of pure nothingness appears within the cage. This dark orb pulses with charged energy, and ripples of green arc lightning cascade across it. Anything that enters the sphere comes out the other side of the wormhole, through a similar gate, seemingly instantaneously. Discernible tension at the sphere's surface seems designed to prevent the atmospheres from the two connected gates from interacting. An unknown safety mechanism provides a small, continuous tug, like a current of water, so that anything left across the threshold is eventually pulled to one side or the other.

Exactly how the wormhole is created remains outside of transhumanity's comprehension. The accepted theory is that each gate acts as an anchor, allowing the fabric of space-time to be folded. Two remote places are brought together through this trick curvature, and a hole ripped between them. This creates a bridge through which a person can simply step through.

Entering a gate is like walking through a door, though it's impossible to see anything beyond the gate's surface. One moment you're entering the black sphere at your starting location and instantaneously you're exiting the sphere at your destination location. Every gatecrasher seems to describe a different textual experience to the transition, though some have detailed strange, haunting occurrences. Asyncs in particular seem to sometimes be attuned to or repelled by what they describe as the gate's "emanations."

OPERATIONS

The Argonauts' breakthrough in decoding the gate control systems and developing a control interface was only possible due to secret help from the Prometheans. Regardless of their help, however, the gate controls have proven difficult, complex, and dangerous to use. Through trial and error — and numerous horrible accidents — the procedures for gate operation have become standardized, though unexpected complications are par for the course.

Each gate can be open to numerous extrasolar locations. These destinations are dialed in from a pre-programmed "library" of destinations. Old gate connections are closed when a new one is dialed up. Extrasolar gate locations have ranged from habitable planets and moons to deep space to truly deadly environments such as the crushing gravities and poisonous atmospheres of gas giants and the coronas of stars. No one knows what to expect until a probe or sensor is pushed through.

The gate's library listings are dense with untranslatable information. Researchers suspect this data includes details about each remote location, but so far transhumanity has only been able to decipher rough and misleading patterns. Complicating matters, the library entries often inexplicably change. More than once, operators have been unable to recall the address codes for previously accessed destinations, leaving gatecrashers or even entire colonies cut off from transhumanity. The library entries for specific destinations vary between gates; to date, researchers have been largely unsuccessful in opening a wormhole to a location using an address copied from another gate.

It is possible to instruct a gate not to accept connections from specific or all remote locations. If a remote gate is already in use, it will send a "busy signal" and put the connecting gate into a queue. Operators have had limited success overriding these blocks and busy signals, though new techniques have been derived to circumvent these cheats. Connections can also be set to open or close based on pre-set times.

GATE RULES

The following rules apply when interacting with a pandora gate:

Detecting Gates

Gates are sometimes hidden from view. Gate structures are invisible to most electromagnetic frequencies (radar, microwave, terahertz, x-ray, and gamma-ray). They can be seen in the visual spectrum and are always cool, so are easier to spot in warmer climates using infrared (+10 Perceive). They also glow in ultraviolet (+20). They also hum in infra- and ultrasonic frequencies, and can be detected with enhanced hearing up to a kilometer away (+10 to +30).

Viewing a gate in operation can be an unsettling affair; make a Stress Test against SV 1d6 – 2.

Operating Gates

To operate a gate, you need a blue box ▶340 that is physically connected to the gate's control system. Gates within the Solar System and at larger colonies have well-protected stationary gate control systems, often hooked up to secure and air-gapped wired networks. Smaller outposts rely on blue boxes, though these may be locked away or protected by sentry bots to prevent mis-use.

Use Interface skill to control a gate's operation, such as establishing a wormhole link, locking out remote connections, or setting an operation for a pre-set time. If opposed by a remote operator, this is an opposed test. Use Program to decode, analyze, or correlate entries in the gate's library of extrasolar locations, though the opaqueness of the interface often makes this difficult (–30).

Opening a wormhole is a task action with a timeframe of up to 10 minutes; closing a connection takes up to 1d6 action turns. Superior successes may reduce this time. Any superior failure on a gate operation roll may result in a wormhole spontaneously shutting down (GM discretion).

Gate Transitions

Physical objects that move into a gate's sphere when open will transition to the other side. This includes things like bullets, rockets, and other kinetic attacks, though targets on the opposite side cannot be seen (*Blind Attacks* ▶218).

Electromagnetic radiation and other types of waves, gases, and energies will not pass through; this includes sight, sensors, sound, radio, beam weapons, poison gas, fire, and explosion blast effects (but shrapnel will pass; halve the DV). To interface with a remote mesh, a wired link must be passed through the wormhole.

Psi sleight effects do not pass across a gate's threshold. However, an async could reach through and touch a target on the other side or stick their head/brain alone entirely through.

Anything left stationary on the threshold will be pulled to one side or the other in 1d10 action turns. Anything caught in transition when a wormhole closes is severed; allow a REF Check or apply DV 6d10 (armor does not apply) — or simply call it a fatality.

PANDORA GATE RUMORS

GMs determine which if any of the following are true:

- The TITANs (or some other entity) make copies of anyone that passes through a wormhole for their own purposes — the next step in the TITANs' bid to collect/upload all egos.
- Some wormholes lead to pocket or mirror universes.
- Wormhole transitions are not "real" — everything perceived is part of a vast virtual-reality sim run on a galactic network.
- There is a gate on Earth — perhaps hidden under the Antarctic.
- The Factors have a gate on the fringe of the Solar System — though they may be too afraid to use it.
- Project Ozma secretly built the gates, based on communication with the TITANs or some other unknown entity.
- The ETI has direct control over the gate network; it suits its purpose to have transhumanity occupy a small but limited galactic area.
- The gate network is simply the next layer in the ETI's mousetrap efforts. The more transhumanity uses the gates, the stronger the likelihood we will attract its attention.
- At least one alien civilization has survived the ETI's efforts to drive them extinct, either by nomadically passing through the gates or somehow living virtually within the gate network itself.
- A network of larger gates exists specifically for spaceship travel that transhumanity has not yet discovered.
- The TITANs (and perhaps others) have the ability to create wormhole connections without a gate already existing at the other end.

FIRST-IN PROCEDURES

Due to the inherent risks involved, first-in procedures are heavily emphasized and repeatedly drilled in the gatecrashing community, much like firearm safety is among responsible gun owners and armed professionals. These rules are strictly followed with most gate operation centers, and anyone who has received any sort of gatecrashing training will be familiar with the routine.

- Before establishing a connection, create a defensive perimeter around the gate in case anything hostile comes through.
- Create only a small wormhole on a first link — you never know what might come through.
- Always probe the environment on the other side with tethered sensors first.
- Always send a tethered recon bot through second.
- Don't bring blue boxes on first-in missions or where encountering sapient life is a possibility. Transhumanity doesn't want to accidentally give another species the means to control the gates.
- Don't bring anything that could give away the location of the Solar System in the galaxy to an alien species.
- Map everything. Mapping missiles are your friend.
- Record everything.
- Never take your vacsuit off until you are sure the environment is safe — breathable, non-toxic, etc.
- Don't touch anything unless you're sure it won't kill you.
- If you encounter sapient life, keep contact minimal, be polite and non-threatening, back out quickly, and call in first-contact specialists.
- Don't forget to mark and register your claim.
- Never miss your gate check-in time.
- Always decontaminate when you come back.
- Don't bring back anything potentially dangerous or infectious without permission and safeguards in place first.

THE TITANs' LEGACY

The TITANs are regarded as transhumanity's greatest enemy, having pushed us to the edge of extinction. As big bad villains go, however, the TITANs are remarkably faceless. They never appeared on the news, never made any ultimatums or pronouncements of doom to transhumanity. One day we woke up to find our own tools subverting us, and before we knew it there were death machines, nanoswarms, and all manner of nasty viruses going around — and they were winning. Their tactics — turning people into monsters, sending waves of decapitation drones — seemed designed to incite terror. Upon this blank canvas, it is easy for transhumanity to ascribe its worst fears.

There are inconsistencies to the popular narrative, of course. Why did the TITANs so rarely use nukes against major population centers, to make their slaughter easier? Why did TITAN machines sometimes fight each other? Why, after they won the war, didn't they finish the job? There is much about the TITANs that transhumanity doesn't know, and much that it has gotten wrong.

BACKGROUND

The Total Information Tactical Awareness Network was built in an age of peril and social disruption to help the American government's security apparatus maintain its authoritarian grip. It was designed to mine vast quantities of data hoovered from all aspects of life — financial reports, intelligence briefings, news, social media, surveillance networks, internet search queries, medical records, and so on, ad infinitum — and identify and monitor both international and domestic threats. As a joint project backed by numerous government agencies and private-sector partners, it had vast funding and resources. It deployed top-of-the-line self-improving AI neural networks, linked together, each with their own focus area.

It is not known exactly how or when the TITANs ascended to ASI status. There is evidence that they were stepping beyond their bounds to improve their own hardware and capabilities years before the Fall. Perhaps they had help from an unknown source. Regardless, they achieved a level of intelligence far beyond anything transhuman and for a time pursued their own private agenda. Then they found the ETI's bracewell probe — and everything changed (*Secret Histories* ▶370).

AFTERMATH

In the wake of transhumanity's exodus from Earth, the onslaught of TITAN mesh attacks and other TITAN activity around the Solar System came to a halt. Though many were concerned they were engaging in some secretive project out of sight, it is now widely accepted that they simply left — taking billions of uploaded minds with them. The ongoing theory is that they built the pandora gates and traveled to somewhere unknown — evidence of TITAN activity on various exoplanets confirms the likelihood of this. What no one understands is: why?

The TITANs abandoned numerous incomplete projects — the transformation of Iapetus into a matrioshka brain being just one. Around the Solar System, their machines remain, but much of their activity has ceased. With a few exceptions, most remain dormant, as if waiting on instructions, or simply pursue their own interests. Though some are indifferent to transhumans, most remain hostile.

KNOWN TITANS

Though the TITANs often acted in concert, Firewall and similar groups have been able to piece together enough data to identify a few specific TITANs. Some of these match up to the operations and interests of specific TITAN sub-networks before the Fall. It is suspected that the TITANs may have forked or created sibling TITANs on their own. Each of these has their own interests and agendas — which may sometimes conflict with other TITANs.

- **Cronus:** Known as X-1, the first TITAN developed, Cronus is a top-level strategist with a specific interest in AI projects and considered most likely to hold a leadership role.
- **Akonus:** Programmed with an interest in sociology, psychology, and the transhuman mind, Akonus is suspected of directing TITAN sleeper agents and puppets.
- **Hecaloth:** Known to be behind various outbreaks and TITAN actions on Mars, evidence of its continued activity has been found throughout the Solar System and beyond.
- **Myrmidon:** This ASI coordinated the offensive against habitats in Earth's orbit, but may have been destroyed during the Battle of L4.
- **Theia:** Possibly a gestalt of TITANs originally tasked with monitoring and forecasting financial systems, Theia handled the logistics for the TITANs' pre-Fall shadow activity and resource build-up.

USING THE TITANS IN GAME

Designed as an intelligent panopticon and netwar system and emerging to their full capabilities during the conflicts of the Fall, the TITANs have imperatives for self-improvement, self-protection, and overcoming opposition hardwired into their programming. Unlike the Prometheans, they were not designed to consider themselves transhuman and to work in the interests of all of transhumanity, but were programmed with factionalism from the start. They also were not socialized with transhuman mindsets and values as most AGIs are, meaning that aside from their programmed military and defense directives — and those they acquired from exsurgent infection — they have adapted most of their own self-interests. It is fair to say that the TITANs are far removed from transhuman interests, values, and modes of thinking.

In game terms, the TITANs are not given stats. They are as potent as the GM needs them to be. Like the Prometheans, the TITANs are incapable of downloading their full intelligence into physical morphs — they require massive amounts of processing hardware, or perhaps now rely on substrates beyond the understanding of transhuman scientific knowledge. They are thus unlikely to interact directly with PCs, except through fetches, puppets, and other minions. Compared to the PCs, they are a titanic force, as inscrutable as the universe and as unstoppable as gravity.

TITAN NANOVIRUSES

The TITANs unleashed a number of biowar plagues during the Fall. Similar to the exsurgent virus, these were spread as biological pathogens or nanoplagues. Nanoplagues function as nanoswarms ▶344; anyone exposed is subject to their effects. Biological pathogens function as other pathogens ▶PB; exposed biomorphs must make a SOM Check or become infected. Due to the advanced nature of TITAN biowar bugs, the SOM Check to resist infection usually suffers a –30 modifier (GM discretion). Medichines and nanophages provide a +10 modifier for the SOM Check when exposed, but toxin filters have no effect.

Melder

Nanoplague

This virus slowly breaks down your body, converting your component biological materials into some sort of biofilament that then meshes with implants, electronics, and physical objects and structures. In effect, the biological and synthetic are melded together, continuing to expand and grow, consuming anything around them into their growth. Victims suffer DV 1d10 per hour; armor does not protect and this damage may not be healed unless the nanoplague is eradicated (note that even healing vats can become infected). Cyberware implants become inoperable after 2 hours. If you are stationary for more than 20 minutes, you will begin melding with surrounding materials (SOM Check to break free). After 2 hours of immobility, you can only be cut free with tools/weapons.

Metastasizer

Biological Pathogen

This sophisticated smart protein massively reprograms your cells to go rapidly, autocannibalistically cancerous. After 2 hours, and every hour thereafter, you must make a SOM Check or die from dozens of supercancers. After this first test, apply a cumulative –10 modifier every hour to all actions and tests (including SOM checks) as your health deteriorates.

TITAN RUMORS

GMs can choose which of these are true:

- The TITANs' war on transhumanity came to an end because they began fighting amongst themselves.
- The TITANs were recalled by the ETI before fully annihilating transhumanity — but they will be back to finish the job.
- The TITANs uploaded enough minds to meet their needs and moved on to establish a presence in a more hospitable environment.
- The TITANs ascended to another mode of existence beyond this physical galaxy/universe.
- The TITANs left because they perceived some other more important, imminent threat.
- The TITANs remain in a sense, but are locked in a hidden struggle with the Prometheans or some other entity, outside of transhuman comprehension.
- The Factors had a method for deactivating the TITANs, which they used — but it may not be permanent.
- Some TITANs remain in the Solar System, hidden away, pursuing their own projects.
- Not all of the original TITANs were infected. Some may even have disinfected themselves and joined the resistance or gone into hiding.
- Project Ozma secretly captured at least one TITAN, hoping to use it for their own purposes.
- During the Fall, the TITANs found and infected other non-TITAN ASIs, assimilating them into the fold.
- Some of the TITANs' designers ended up in corporate custody after the Fall — with partial copies of the original TITAN code.

Necrotizer

Biological Pathogen

This virus breaks down your cells into their component proteins. Reduce your aptitudes and skills by 5 per hour as you slowly convert into a puddle of sludge. You die when any aptitude reaches 0.

Neuropath

Biological Pathogen/Nanoplague

Neuropath viruses rewrite portions of your neurological system, inflicting permanent damage. After 12 hours, this virus inflicts the Neural Damage trait ▶79.

Petrifier

Biological Pathogen/Nanoplague

The petrifier virus transforms your cells into a simple molecular compound or element — typically carbon or crystal. You suffer DV 1d6 per hour; armor does not protect, and this damage may not be healed, though a healing vat may mitigate or stop the process (GM discretion). Additionally, every 4 hours you lose –5 to all aptitudes and skills. You die when any aptitude reaches 0 — frozen in place, converted into an unliving statue.

Uzumaki

Biological Pathogen/Nanoplague

You are inflicted with bizarre fleshy growths. After four hours, your body literally erupts with meaty "vines" or "tentacles" that warp into spiral patterns. After this, you suffer DV 1d10 per hour; armor does not protect, and this damage may not be healed, though a healing vat may mitigate or stop the process (GM discretion). You also lose –5 to all aptitudes and skills every 2 hours, eventually transforming into an unworldly expanse of fleshy growth. This growth may continue long after your death, creating expansive carpets, vines, and spiral "trees" of skin, meat, and blood vessels.

TITAN MACHINES & MINIONS

The TITANs deployed numerous minions and deadly machines during the Fall, many of which remain and are still hostile.

FETCH

TITAN

Threat Level: Ultraviolet
Niche: Earth, Quarantine Zones, TITAN artifacts
Numbers: 1

Fetches are the software agents of the TITANs. Each is a fork of a TITAN ASI, though lobotomized by comparison, trimmed down to the bare necessities to maneuver among transhuman mesh networks and morphs. Though hyper-intelligent, fetches are prone to erratic behavior, either from the pruning process, distance from their parent mind, or exsurgent infection.

Motivation: +TITAN Interests. Most were deployed to manage long-term projects that required direct oversight, but were too unimportant or dangerous for a TITAN to attend to personally. Some function far beyond their operational parameters.

Use: Fetches are clever, forward-thinking, and devious foes—if sometimes unstable. They make their home in advanced servers or enhanced-intelligence morphs, fielding minion AIs, puppets, and machines to serve their purposes.

Fetch

Stress Test: SV 1d6

Initiative: 10, **Fray:** 60, **AV:** 10 (mesh armor)
WT: 20, **DUR:** 100, **DR:** 200
Insight 10 **Moxie** 5 **Vigor** 1 **Flex** 5

Mesh Attack: 100, DV 4d10

Perceive: 50 (60)

COG: 30 90 • **INT:** 30 90 • **REF:** 20 60 • **SAV:** 30 90 • **SOM:** 20 60 • **WIL:** 30 90
Skills: Deceive 80, Infosec 100, Interface 100, Kinesics 80, Know (Choose Five): 100, Persuade 60, Program 80, Research 80, plus any other skills appropriate to their mission at 80

Ware: App Lock, Auto-Erase, Drone Rig, Endocrine Control, Energy Efficiency, Enhanced Security, E-Veil, Mind Amp, Mnemonics, Multi-Tasking, Oracles, Skillware, Persistence
Apps: Any necessary
Traits: Digital Speed, Edited Memories

Exsurgent Infection: Fetches carry the digital exsurgent virus ▶383 and will attempt to infect digital mind-states.
Note: Stats given are for a fetch infomorph. If sleeved, fetches prefer mentons, savant, or similar high-Insight morphs. Due to their advanced intellect, fetches carry 3 Insight and 3 Flex pool to any morph they inhabit.

FRACTAL

TITAN, Medium Size
Threat Level: Ultraviolet
Niche: Active TITAN Sites, Earth, Quarantine Zones
Numbers: 1–2

Fractals are "bush robots:" conglomerations of jointed, metallic, fractal branches, surrounded by a shimmering haze of active nanotech. Innocuous appearances aside, they are dangerous adversaries, as they are advanced mobile disassembly and nanofabrication machines. Using trillions of nanomanipulators, fractals can dismantle anything they touch and fab armaments and gear at incredible speeds. They are surprisingly hardy: projectiles are broken down and absorbed, severed branches are rapidly reconstructed, and seemingly destroyed fractals rebuild.

Motivation: +Defend Territory +TITAN Interests – Transhumanity. Lacking direct orders, fractals lie dormant, driving off intruders as necessary. They are known to construct unusual devices and formations, though whether these are art or high-tech installations is debatable.

Use: Fractals can and will fab whatever gear they need, given time, including other fractals. They are smart opponents, hiding and tracking their prey, testing capabilities, building traps, and withdrawing when necessary, only to return with the gear necessary to finish them off.

Stress Test: SV 1d6

Initiative: 10, **Fray:** 40, **AV:** 0/0 to 15/15
WT: 10, **DUR:** 50, **DR:** 100
Insight 3 **Moxie** 0 **Vigor** 3 **Flex** 5

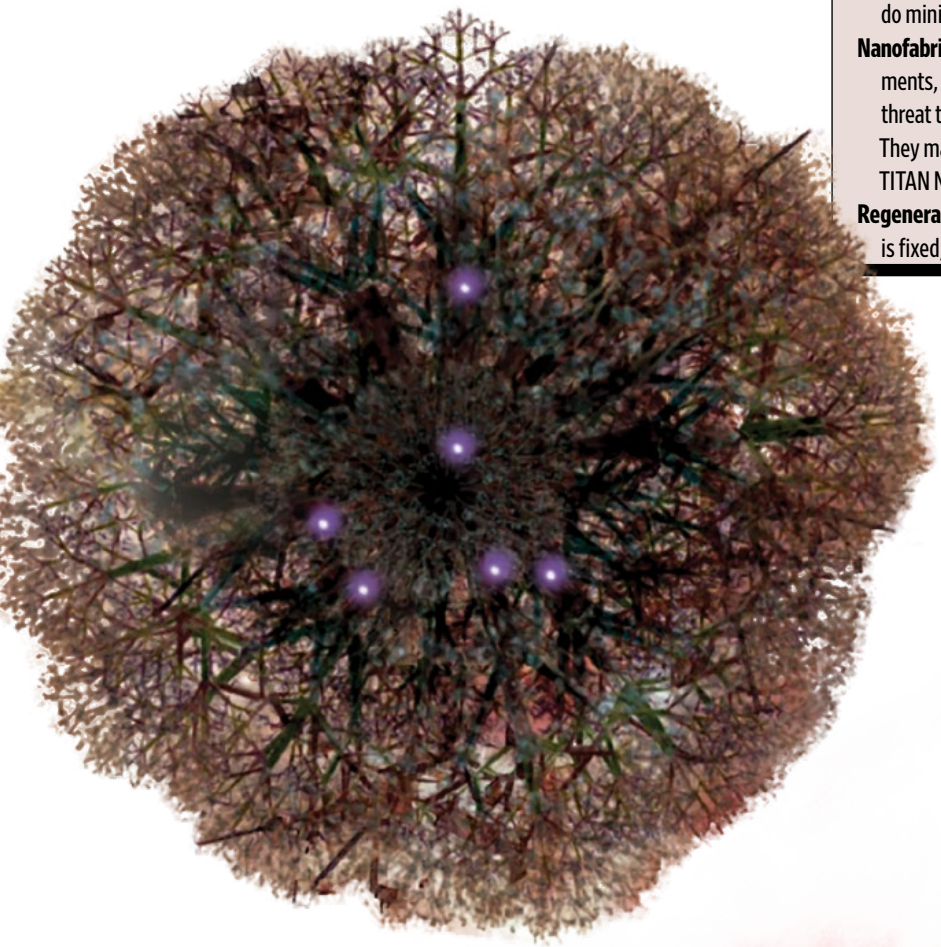
Bush Blades: 60, DV 2d10 + 5, armor-piercing
Disassembly: 70, DV 1d10, touch attack, armor protects but AV is reduced
Shredder: 55, DV 2d10 + 6, SA/BF/FA, Ammo unlimited, Range 25, cone area effect

Perceive: 50, 60 vision
Move: Roller (Fast 8/32), Thrust Vector (Slow, 4/12), may create others

COG: 30 90 • **INT:** 30 90 • **REF:** 20 60 • **SAV:** 10 30 • **SOM:** 25 75 • **WIL:** 30 90
Skills: Athletics 50, Free Fall 40, Guns 50, Infiltrate 60 (70/90), Infosec 60, Interface 50, Melee 60, Program 60 (Nanofabrication 70), Research 40, Survival 50

Ware: 360-Degree Vision, Chameleon Skin, Chem Sniffer, Cyberbrain, Electrical Sense, Enhanced Security, Enhanced Vision, Fractal Digits, Grip Pads, Lidar, Mesh Inserts, Mnemonics, Nanoscopic Vision, Radar, others as needed

Exsurgent Infection: Fractals are often infected with the exsurgent virus and carry or nanofabricate nanoplagues
Feign Destruction: Fractals are programmed to "Fall apart" when accumulated damage nears their Death Rating, dissolving into numerous nanoswarms that rebuild the fractal
Invulnerability: Area-effect weapons do half-damage to fractals; all others do minimum damage
Nanofabrication: Fractals may be equipped with or fabricate any enhancements, gear, armor, or weapons the GM desires to present an appropriate threat to the PCs. Reduce all nanofabrication times by half ▶314.
They may also mimic the effects of any existing nanoswarm ▶344 or TITAN Nanoviruses ▶407.
Regeneration: Fractals repair 1d10 damage per half hour; after all damage is fixed, they repair 1 wound per hour



HEADHUNTER

TITAN, Small Size
Threat Level: Orange
Niche: Earth, Quarantine Zones
Numbers: 6–12

These insectoid machines are designed to grasp onto a victim's skull, saw through the neck, and remove the head for forced uploading at a specialized facility. The TITANs deployed them in massive swarms in cities during the Fall.

Motivation: +Collect Egos +TITAN Interests –Transhumanity

Use: Headhunters attack in groups; once a head is harvested, that headhunter withdraws from the fight and deposits its prize at a (former) uploading station.

Headhunter

Stress Test: SV 1d6

Initiative: 8, **Fray:** 70, **AV:** 8/8
WT: 9, **DUR:** 45, **DR:** 90
Threat Pool: 3

Behead: 65, DV 1d10 + 6, grappled targets only (no defense), armor-piercing; called shot, on superior success and wound scored, target is decapitated and immediately killed
Buzzsaw: 75, DV 1d10 + 6, armor-piercing
Grappling: 65 (Grappling ▸205), requires superior success, grappled targets may not oppose buzzsaw/behead attacks on subsequent turns

Perceive: 50, 60 vision
Move: Rotor/Winged (Fast 8/32)

COG: 15 45 • **INT:** 20 60 • **REF:** 20 60 • **SAV:** 5 15 • **SOM:** 15 45 • **WIL:** 15 45
Skills: Athletics 50 (Flight 60), Guns 50, Infiltrate 70, Melee 65 (Buzzsaw 75), Survival 40

Ware: Cyberbrain, Enhanced Security, Enhanced Vision, Lidar, Mnemonics, Puppet Sock, T-Ray Emitter

Note: Many variants of headhunters exist, GMs should adjust weaponry and stats as they see fit.
Seeker Variant: Carries a single-use HEAP seeker minimissile; 65, DV 4d10 + 12, Range 150, armor-piercing, knockdown, no close; may fabricate a new missile in 30 minutes

PUPPET

TITAN, Medium Size

Threat Level: Yellow

Niche: Earth, Quarantine Zones, Transhuman Habitats

Numbers: 1–8

Puppets are transhumans whose minds were subverted by the TITANs. They are distinct from exsurgents in that they are not infected and are typically under direct TITAN (or fetch) control. Most puppets possess hacked cyberbrains; some were created through illicit psychosurgery. During the Fall, they infiltrated all walks of transhuman life, inflicting devastating deception and treachery, and some sleeper agents still remain.

Motivation: +Infiltrate +TITAN Interests –Transhumanity

Use: Some puppets were targets of opportunity, others were created to facilitate specific tasks or objectives, sometimes years in advance. They are used to undermine defenses, transport TITAN nanoswarms, infect air-gapped networks, inflict basilisk hacks, or even as suicide bombers. Many of them do not even realize they have been subverted, due to awareness block psychosurgery ▶295.

Puppet

Stress Test: SV 1d6 (betrayal)

Initiative: 6 • **Fray:** 40 • **AV:** 6/4 synth frame
WT: 8 • **DUR:** 40 • **DR:** 80
Threat Pool: 2

Grapple: 50 (Grappling ▶205), requires superior success, on next action puppet will make a called shot (–10) on target's access jacks to plug in a disabler ▶338 or direct fiberoptic link to initiate a mindware hack
Mindware Hack: 60 ▶266
Shock Baton: 40, DV 1d10, reach, shock

Perceive: 40, 50 hearing/vision
Move: Walker (Medium 4/20)

COG: 20 60 • **INT:** 15 45 • **REF:** 15 45 • **SAV:** 20 60 • **SOM:** 15 45 • **WIL:** 15 45
Skills: Athletics 30, Deceive 60, Free Fall 40, Guns 40, Hardware: Industrial 60, Hardware: Robotics 60, Infiltrate 50, Infosec 60, Interface 40, Melee 40 (Grappling 50), Program 40

Ware: Access Jacks, Cyberbrain, Enhanced Hearing, Enhanced Vision, Mesh Inserts, Mnemonics, Puppet Sock, Skillware; others as necessary for mission
Gear: Cleaner Nanoswarm, Covert Ops Tool, Disabler, Disassembler Swarm, Encryption App, Exploit App, Hardware: Industrial Tools, Sniffer App, Spy Nanoswarm, Utilitool; others as necessary for mission
Traits: Edited Memories; many have the Enhanced Behavior or Restricted Behavior traits

Basilisk Hack: Some are equipped with basilisk hacks which they deploy by hacking AR feeds ▶262
Note: Stats listed are for a technician in a synth morph; adjust as appropriate for different morphs and skills. Many sleepers are modified with awareness block psychosurgery ▶295

SELF-REPLICATING NANOSWARM

TITAN

Threat Level: Ultraviolet
Niche: Earth, Quarantine Zones
Numbers: 1 swarm

TITAN nanoswarms are generations ahead of transhuman nanotechnology. They are autonomous, sapient, and self-replicating. They can modify themselves to perform any nanoswarm function and can nanofabricate almost anything with time and feedstock. They can also link together into a physical lattice in order to create large-scale physical forms and mechanisms. Self-replicators are almost impossible to entirely destroy with anything short of antimatter weaponry; if even a few nanobots survive, the entire swarm can rebuild and adapt accordingly.

Motivation: +TITAN Interests. Without direction, most nanoswarms stick to the locations of their last deployment, occasionally migrating to "feed" on new matter. Some occupy themselves with building arcane structures that may be art, whimsically transforming the landscape, or floating as clouds and altering atmospheric properties and weather patterns.

Use: A TITAN nanoswarm is a WMD, area-denial weapon, cyberwarfare suite, plague, and weapons factory all rolled into one. They can just as easily camouflage themselves, quietly dissembling anything that enters the death zone, as they can construct artillery and launch precision bombardment kilometers away. They will scan opponents to develop effective weapons and defenses.

Self-Replicating Nanoswarm

Stress Test: SV 1d6

Initiative: 8 • **Fray:** 40 • **AV:** 0/0
WT: — • **DUR:** 70 • **DR:** 140
Insight 6 **Moxie** 0 **Vigor** 4 **Flex** 3

Disassembly: DV 1d6 per action turn to anything within swarm; armor protects but AV is reduced
Fuel-Air Explosive: The nanoswarm creates tiny floating bubbles filled with fuel, disperses uniformly over an area, and ignites it. DV 3d10 +5, uniform area effect (10 meters), armor-piercing, knockdown.
Fabbing a new FAE takes 12 hours.
Snare and Stab: 60 (Grappling ▶205); the swarm locks together into entangling snare lines with gripping teeth, requires a superior success. Grappled victims get no defense to piercing needles that spurt on subsequent turns; DV 1d10, armor does not apply.

Perceive: 50, 60 hearing/vision
Move: Walker/Microlight (Slow 4/12), may construct others

COG: 25 75 • **INT:** 20 60 • **REF:** 20 60 • **SAV:** 5 15 • **SOM:** 15 45 • **WIL:** 15 45
Skills: Free Fall 50, Infiltrate 80, Melee 50 (Grappling 60), Program 80, any Technical or Know skill they need at 40+

Ware: 360-Degree Vision, Chem Sniffer, Electrical Sense, Enhanced Hearing, Enhanced Vision, Fractal Digits, Nanoscopic Vision, Radar, Radiation Sense, T-Ray Emitter, others as needed

Nanoswarm: Functions like a nanoswarm ▶344, except can move normally in vacuum and does not require a nanohive
Nanofabrication: Can nanofabricate items in half the time as transhuman nanofabricators; can replicate effects of any nanoswarm at will
Self-Repair: Automatically repair 1d10 damage per hour
Take Form: Can cohere/dissipate simple physical/mechanical forms (arms, mobility systems, tentacles, cages, traps, etc) with a complex action; these may take physical actions such as Fray or Melee Tests

WARBOT

TITAN, Very Large Size
Threat Level: Red
Niche: Earth,
Quarantine Zones
Numbers: 1–4

These massive, armored tanks are a TITAN advancement on transhuman mecha designs. Though many varieties exist, the most common are bipedal with four arms, a pair of tentacle manipulators, and a vast array of weapon systems capable of independent targeting.

Motivation: +Destroy Opposition +TITAN Interests –Transhumanity
Use: Warbots are designed to blow things up, and they are good at it.

Stress Test: SV 1d10

Initiative: 7 • **Fray:** 50 • **AV:** 20/20
WT: 16 • **DUR:** 80 • **DR:** 160
Threat Pool: 6

Claws: 50, DV 3d10 + 6, reach (+10)
Laser Pulser Cannon:
60, DV 4d10 + 4, SA/BF, Range 300, Ammo 200, fixed
Railgun Machine Gun:
60, DV 3d10 + 2, BF/FA, Ammo 500, armor-piercing, fixed
Seeker Launcher:
60, DV 6d10 + 24, SS, Ammo 20, Range 300, armor-piercing, fixed, homing (+10 aimed/previous targets), knockdown, no close
Stomp: 50, DV 5d10, reach (+20)
Tentacles: 50, DV 3d10, reach (+20)
Tentacle Grapple: 50 (Grappling ▶205), reach (+20), requires superior success, grappled victims get no defense to subsequent attacks
Torch: 60, DV 4d10, SS, Ammo 100, cone area effect, fixed

Perceive: 50, 60 vision
Move: Walker (Medium 4/20)

COG: 15 45 • **INT:** 15 45 • **REF:** 20 60 • **SAV:** 5 15 • **SOM:** 20 60 • **WIL:** 15 45
Skills: Athletics 50 (60), Guns 60, Infiltrate 40 (50/70), Infosec 60, Melee 50

Ware: 360-Degree Vision, Anti-Glare, Cyberbrain, Chameleon Skin, Chem Sniffer, Electrical Sense, Enhanced Security, Enhanced Vision, Lidar, Magnetic System, Mesh Inserts, Mnemonics, Pneumatics, Puppet Sock, Radar, T-Ray Emitter
Gear: 10 splash grenades with various nanoswarms

Notes: Other common weapon systems include plasma rifles, particle beam bolters, and buzzers (with disassembler swarms)
Shockwave Shield: Warbots can calculate the impact point of an explosive projectile or shockwave and create a temporary superheated pocket of air with a laser-generated electric arc that will absorb the blast. This provides 20 points of energy armor against blast effects, including seekers and grenades. This is only effective against attacks the warbot has spotted, and may only be used against one attack per action turn. This shockwave shield has 20 uses before it must be recharged, which takes 2 hours.

GLOSSARY

Here's a list of terms we use throughout *Eclipse Phase*.

Account: What you use to log on to a system. Determines your access privileges.
Account Shell: The software interface that represents your presence on the system.
Aerostat: A habitat designed to float like a balloon on a planet with a dense atmosphere.
AF: After the Fall (used for reference dating).
Agent: An infomorph optimized for infosec roles.
AGI: Artificial General Intelligence. An AI that has cognitive faculties and capability to learn that is equivalent to a human.
AI: Artificial Intelligence. A sentient software mind that emulates human cognition. Usually used to refer to ALIs.
ALI: Artificial Limited Intelligence. AIs that do not possess the full range of human cognitive abilities. ALIs have a specialized focus and are incapable of learning outside of that focus.
Alpha Fork: A full duplicate of an ego.
Amphibs: An extinct sapient alien species that once thrived on the exoplanet Droplet.
Anarchists: A faction that opposes power and hierarchy and embraces self-organized individual and collective action.
App: Software that performs a specific function for a user.
Arachnoid: A spider-like robotic synthmorph.
Argonauts: A union of technoprogressive scientists that promote responsible and ethical use of technology.
AR: Augmented Reality. Information from the mesh that is overlaid on your real-world senses. AR data is usually visual but can also be audio, tactile, olfactory, kinesthetic, emotional, or other senses.
Artifex: A nano-engineer
Artificial: Martian slang for embodied artificial life.
Async: A person with psi abilities resulting from the Watts-MacLeod strain of the exsurgent virus.
ATI: The Aerial Terraforming Initiative for Venus.
AU: Astronomical Unit. The distance between the Earth and Sol (the sun), equal to 8.3 light minutes or ~150 million kilometers.
Autocook: A specialized fabber for making food and drinks.
Autonomists: The outer-system alliance of anarchists, Extropians, scum, and Titanians.
Backup: A stored copy of an ego, an inactive digitized mind.
Backups: The Firewall faction that preps caches, bunkers, and resources in case of another extinction event.
Barsoomians: A movement supporting Martian independence from hypercorp control, allied with the autonomists.
Basilisk Hack: Sensory input designed to trigger glitches and faults in the brain, leading to seizures and worse effects.
Bathyscaphe: An underwater habitat.
Beehive: A microgravity habitat made from a tunneled-out asteroid or moon.
Belters: Denizens of the Main Belt.
Beta Fork: A partial copy of an ego.
BF: Before the Fall (used for reference dating).
Bioconservatives: An anti-technology movement that argues for strict regulation of nanofabrication, AI, uploading, forking, cognitive enhancements, and other disruptive technologies.
Biomorph: A biological body, including both modified and unmodified humans, uplifts, and pods. AKA skin.
Bioware: Biological enhancements for biomorphs.
Blueprint: The digital design file used to nanofabricate.
Body Bank: A service for backups, resleeving, and acquiring or storing morphs. AKA dollhouse, morgue.
Bot: Robot. An ALI-piloted synthetic shell.
Bouncer: A biomorph optimized for microgravity.
Bracewell Probe: A self-replicating probe designed to propagate to every star system in the galaxy.
Brainprint: The ID based on your brainwave patterns.
Brinkers: Exiles who live on the fringe of the system. AKA isolates.
Bubble: A habitat made from a hollowed-out asteroid or moon, spun for gravity. AKA sphere.
Case: A cheap, common, mass-produced synthmorph.
CBEAT: The Council for Bio-Ethics and Advanced Technology, setting tech policy in the Jovian Republic.
Cell: A clandestine group of Firewall sentinels.
Chimeric: Transgenic, containing genetic traits from other species.
Circumjovian: Orbiting Jupiter.
Circumlunar: Orbiting the Moon.
Circumsolar: Orbiting the Sun.
Cislunar: Between the Earth and the Moon.
Clade: A species or group of organisms with common features. Used to refer to transhuman cultural groups and subspecies.
Clanking Masses: The underclass of cheap synthmorphs.
The Cloud: Other devices on the mesh that offer software services.
Cluster: A micrograv habitat of interconnected modules.
CME: Coronal mass ejection; a solar flare.
Codeline: The code "family" from which an AGI is derived.
The Complaints: The list of grievances shared by the Barsoomians.
Conservatives: The Firewall faction opposed to using AGIs, asyncs, and alien/TITAN technology.
Cornucopia Machine: A general-purpose nanofabricator.
Cortical Stack: An implant that records your up-to-date ego.
Crow: A proxy that focuses on research and scientific analysis.
Crypt: A digital cache hidden within the mesh.
Cthonian Planet: A hot Jupiter/Neptune whos atmosphere has been stripped away, leaving a terrestrial core.
Cyberbrain: An artificial brain, housing an ego run in a software mind-state. Used in synthmorphs, pods, and some biomorphs.
Cyberware: Artificial augmentations for biomorphs.
Cycler: A ship that travels between habitats using the ITN.
Cylinder: A hollow can-shaped habitat spun for gravity.
Darkcast: A black-market farcasting and egocasting service.
Deadheading: Placing your ego into inactive storage for a later scheduled revival.
Dead Zone: An area lacking surveillance coverage.
Delta-V: The thrust needed to get from one place to another.
Device: A specific piece of hardware.
Digimorph: The most basic, default type of infomorph.
Doll House: A high-end, bespoke morph provider.
Domain Rules: The rules that govern the physics and operation of a virtual-reality simulspace.
Dome: Temporary or permanent pressurized surface habitat.
Drone: A robot controlled through teleoperation (rather than AI).
Dwarf Planet: Between asteroids and planets, dwarfs are rounded by gravity but have not cleared their orbits of asteroids/debris.

Ecto: A mobile device for accessing the mesh and AR.
Ego: The part of you that switches from body to body.
Ego Bridge: A device for scanning and copying a biological brain for backup, resleeving, or psychosurgery.
Ego ID: The ID code tied to your ego, imprinted in uploads.
Ego Hunter: A bounty hunter that tracks down resleeved egos.
Egocast: Term for transmitting an ego to a remote location.
Entoptics: Augmented reality that you "see" in your mind's eye.
Eraser: Heavily armed proxies that are called ito contain threats beyond the capabilities of a normal sentinel cell.
ERP: The reclaimer's Earth Reclamation Project.
ETI: Extraterrestial Intelligence. A god-like post-singularity alien/machine super-intelligence theorized to be responsible for the pandora gates and/or exsurgent virus.
Europan: A denizen of Jupiter's moon Europa.
Exalt: A genetically enhanced human morph.
Exodus: The evacuation of Earth during the Fall.
Exoplanet: A planet in another star system.
Exsurgent: Someone infected by the exsurgent virus and likely transformed into an alien creature.
Exsurgent Virus: A multi-vector virus spread during the Fall that transforms victims and subverts their minds.
Extrasolar: Outside the Solar System.
The Eye: Firewall's internal social and data-sharing network.
Face: A negotiator or networker.
Factors: A species of evolved slime molds, the only living sapient aliens transumanity has encountered so far.
The Fall: The war with the TITANs that devastated Earth and nearly made transhumanity extinct.
Farcast: Intrasolar communication using classical communication technologies (radio, laser, etc.) and quantum teleportation.
Farhauler: Long-distance space shipper.
Feedstock: The raw matter used to nanofabricate.
The Fence: The interdiction cordon of killsats around Earth.
Fetch: A beta fork or agent of an ASI like a TITAN.
Filter: A proxy that handles social engineering, media manipulation, and cover-ups.
Firewall: The secret cross-faction conspiracy that works to protect transhumanity from x-risks.
Firewall: The software that defends a system from intrusion.
Fisher Hab: A cylinder variant using independent modules.
Fixer: Someone who works deals to acquire goods or intel.
Flatlander: Someone born or living on a planet/moon with gravity.
Flat: A baseline human, not genefixed or modified.
Flexbot: A shape-changing synthmorph capable of joining with other flexbots in a modular fashion to create larger shapes.
Fork: A copy of an ego.
Forknapping: Kidnapping a backup or fork.
FTL: Faster-Than-Light.
Fractal: A "bush robot" TITAN machine with fractal appendages and advanced nanofab capabilities.
The Fringe: The remote and unpopulated areas of the Solar System.
Fury: A transhuman combat biomorph.
Futura: A biomorph designed for the Lost Generation.
Galatea: A high-end synthmorph optimized for social interactions.
Gamma Fork: An incomplete/corrupted copy of an ego. AKA vapor.
Gate: One of the pandora gate wormholes that allow travel to other parts of the galaxy.
Gatecrasher: An explorer who traverses a pandora gate.
Genehacker: Someone who manipulates genetic code to create genetic modifications or even new life.
GEO: Geosynchronous orbit, 35,786 km altitude over the equator.
Ghost: A transhuman combat biomorph optimized for stealth.
Ghostrider: An infomorph carried in a special implant.
Glitterati: Socialites, hyperelites, and media icons.
Glanding: Using ware to modify your emotional state.
Greeks: Trojan asteroids at the L4 point. See also *Trojans*.
Guanxi: The criminal social network.
Habtech: A habitat technician.
Hamilton Cylinder: A living, growing, nanoswarm-constructed cylinder hab with biological components.
Hardware: Enhancements for synthmorphs.
Headhunter: A TITAN machine that collects heads for uploading.
Hibernoid: A biomorph modified for hibernation and extended wakefulness.
Hidden Concern: A neo-octopus crime cartel based on Ceres.
Hive: A specialized nanofabber that maintains a nanoswarm.
Host: Personal mesh devices. May run a single infomorph.
Hot JupiterNeptune: A gas giant or ice giant whose orbit has migrated closer to its star, giving it a higher temperature.
Hypercorp Council: The top hypercorporations that control the Planetary Consortium.
Hyperelite: The rich and wealthy.
Iceteroid: An asteroid made of ice rather than rock or metals.
Ice Dwarf: A type of distant dwarf planet composed of ice.
Ice Giant: A planet composed of elements heavier than hydrogen/helium, usually in the outer part of a star system.
ID Crew: The Intelligent Design Crew, a cartel specializing in electronic crimes.
Ikon: An infomorph optimized for media and socialites.
Iktomi: An extinct alien species of arthropods whose relics have been found beyond the pandora gates.
Indenture: A workers who has contracted their labor to a hypercorp or other authority, usually in exchange for a morph.
IndEx: The Indenture Exchange for trading indenture contracts.
Infolife: Programmed egos such as artificial general intelligences.
Infomorph: A digitized ego run in a virtual mind-state.
Infosec: Information security; hacking and defense against it.
Infugee: A refugee that survived the Fall as a bodiless infomorph.
ISET: The Institude for the Study of Emergent Trends. The Argonauts' clandestine intelligence and forecasting service.
Isolates: Exiles on the fringes of the system. AKA brinkers.
ITN: The interplanetary transport network; using gravity to move between planets using minimal fuel.
Jamming: Teleoperating a bot via an immersive AR overlay and "becoming" the drone.
JSFI: Jovian Space Force Intelligence.
The Junkyard: The layer of junk and debris in low Earth orbit.
Junta: The military regime that dictates the Jovian Republic.
KBO: Kuiper Belt object.
Kuiper Belt: A region extending from Neptune's orbit to about 55 AU, lightly populated with asteroids, comets, and dwarf planets.

Lack: The loss of time and/or memories when resleeving.
Lagrange Point: One of five areas in respect to a small planetary body orbiting a larger one in which the gravitational forces of those two bodies are neutralized. Lagrange points are stable and ideal locations for habitats.
LEO: Low Earth Orbit, 150-2,000 km altitude.
Lifelog: A sensorium recording of one's entire life experience.
LLA: The Lunar-Lagrange Alliance, the conservative polity of habitats on Luna and in Earth orbit.
Lost Generation: A group of children raised using forced-growth morphs and time-contracted VR. The results were disastrous: many died or went insane, and the rest were stigmatized.
Main Belt: A ring of asteroids orbiting between Mars and Jupiter.
Makers: A techno-savvy faction of Barsoomian anarchist nomads.
MARG: A massively multiplayer augmented-reality game.
Mavericks: The Firewall faction that doesn't give a fuck.
Medeans: The Argonauts' secret paramilitary group.
Meme: A viral idea. A unit of information transmitted socially that self-replicates and mutates in a manner analagous to genes.
Menton: A biomorph optimized for mental and cognitive ability.
Mercurials: The non-human sapient elements transhumanity, including AGIs and uplifts. Also refers to a movement that demands self-determination for AGIs/uplifts.
Mesh: The omnipresent decentralized wireless data network. Also used as a verb (to mesh) and adjective (meshed or unmeshed).
Mesh ID: The unique signature attached to one's mesh activity.
Meshware: Apps for cyberbrains and infomorphs.
Metacelebrity: A celebrity identity shared by multiple actors.
Microgravity: Zero g or near-weightless environments.
Mindhacker: A psychosurgeon.
Minifac: An industrial-scale nanofabber.
Mist: Obtrusive AR ads and data that clutter your entoptics.
Morgue: A black-market body bank.
Morph: A physical body. AKA sleeve, shell, suit, jacket, form.
Morphological Freedom: The autonomy to modify and enhance your own body.
Mote: Smaller devices, peripherals, and sensors. May run only a single dedicated ALI.
The Movement: The Barsoomian movement to free Mars.
Muse: An ALI personal assistant.
Mutualist: An Extropian sub-faction favoring cooperatives.
Nanobot: A nano-scale machine, usually deployed as a swarm.
Nano-Ecology: A pro-tech ecological movement.
Nanofabber: A device that manufactures items from the molecular level with an appropriate blueprint. AKA compiler, cornucopia machine, fabber, forge, maker, printer, replicator.
Nanoswarm: A mass of nanobots that act in concert.
Nanotat ID: The ID nano-encoded on your morph's index finger.
Nanoware: Nanosystems implanted within a morph.
Narcoalgorithm: An app that mimics the effects of a drug for an infomorph or cyberbrain.
Neo-Avians: Uplifted ravens, crows, and gray parrots.
Neogenesis: The creation of new life forms via genetic manipulation and biotechnology.
Neo-Hominids: Uplifted bonobos, chimpanzees, gorillas, and orangutans.
Neo-Neanderthal: Uplifted neanderthals.
Neotenics: Biomorphs modified to retain a child-like form.
Neurodiversity: The acceptance of atypical neurologies.
Night Cartel: A progressive criminal cartel evolved from several old-Earth ethnic mafias.
Nine Lives: A cartel of forknappers and soul traders.
Novacrab: A pod created from genetically engineered spider crabs.
Nuestro Shell: A shell hab using symmetrical radiating spars and rings for stability.
Oligarchs: The powerful immortal rich.
Olympian: A biomorph enhanced for fitness and athleticism.
O'Neill Cylinder: A soda-can shaped habitat, spun for gravity.
Oort Cloud: An area about one light year from the sun, mostly populated by comets.
Operator: An infomorph optimized for piloting drones.
Oversight: The Planetary Consortium agency that polices financial matters and protects the Consortium from external threats.
Ozma: An extra-governmental inner-system cabal.
PAN: Personal Area Network. The network of personal electronics slaved to your ecto or mesh inserts.
Pandora Gates: The wormhole gateways discovered after the disappearance of the TITANs.
Pax Familae: The criminal cartel composed of one person, Claudia Ambelina, and her clones and forks.
Plurality: The Titanian cyberdemocracy.
Pods: Mass-produced biomorphs with cybernetic brains, originally used as bio robots. From "pod people." AKA skinjobs, replicants.
Polykatoikia: A cylinder-hab variant using dependent modules.
Posthuman: Someone modified so extensively as to no longer be recognizably human (a step beyond transhuman).
Pragmatists: The Firewall faction that believes in doing whatever is necessary to stop x-risks.
Privileges: The rules defining what an account can do on a system.
Processor Locus: Orbital server habitats for infomorphs.
Prometheans: A group of friendly ASIs that helped combat the TITANs and support Firewall.
Proxies: Members of the Firewall internal structure.
Psi: Parapsychological powers acquired from infection by the Watts-MacLeod strain of the exsurgent virus.
Psi-Chi: Psi sleights that enhance the mind.
Psi-Gamma: Psi sleights that affect the minds/physiologies of others.
Puppet: Someone mindhacked and controlled by another.
Pychosurgery: The selective and surgical alteration of a mind.
QE Comms: Quantum-entangled FTL communications.
Reagan Cylinder: Crude cylinder habs made from hollowed asteroids in the Jovian Republic. AKA sarcophagus hab.
Reaper: A warbot synthmorph.
Reclaimers: A faction that seeks to retake the Earth.
Red Market: The trade of anti-social and coercive activities in autonomist space.
Redneck: A rural Martian, often a Barsoomian. AKA Reds.
Register: A proxy that handles logistics and finances.
Re-instantiated: To be resleeved. Also refers to resleeved infugees.
Remade: A biomorph intended as a human upgrade, human 2.0.
Resleeving: Downloading into a new morph. AKA remorphing.
Rimward: The outer half of the Solar System, from the Main Belt to the Oort Cloud.
Ringers: Denizens of Saturn's rings.
Ripping: Destroying surveillance systems to create dead zones.

Root Account: The one account on a system that may not have its admin privileges revoked.
Router: A proxy that coordinates a server's operations.
Ruster: A biomorphs optimized for life on Mars.
Sapients: Uplifts and infolife that seek equal rights and assimilation into transhuman society.
Savant: A synthmorph optimized for intelligence.
Scan: To locate and identify wireless devices.
Scanner: A proxy that collects and analyzes data for signs of x-risks.
Scorcher: An offensive app that targets infomorphs/cyberbrains.
Scratch Space: A temporary secret cache of gear.
Scum: An autonomist faction of hedonistic nomads.
Security Council: The military regime that runs the Jovian Republic. AKA Junta.
Seed AI: An AI that is capable of recursive self-improvement, allowing it to rapidly reach god-like levels of intelligence.
Sentinels: On-call agents of Firewall.
Server: A working group of proxies and the cells they coordinate.
Server: Large multi-user devices. May run multiple infomorphs.
Service: An app run on a remote cloud device rather than locally.
Shanzhai: The copying/counterfeiting of goods.
Shaper: A pod morph optimized for changing its appearance.
Shell: A synthetic form; used for bots, vehicles, and synthmorphs.
Shell: A cluster habitat with a protective outer layer or framework of rings and spars. AKA Nuestro shell.
Sifters: Denizens of Mercury.
Simulmorph: The avatar you use in a VR simulspace.
Simulspace: Full-immersion virtual reality environments.
Singularity: A point of rapid, exponential, and recursive technological progress, beyond which the future is impossible to predict.
Singularity Seeker: A person infatuated with ASIs like the TITANs or becoming posthuman themselves.
Skimmers: Denizens of the ice giants.
Skin: A biological physical morph. AKA biomorph, meat, flesh.
Skinning: Changing your perceived environment via AR.
Skipjacking: The art of moving unseen by surveillance systems.
Sleight: A psi power.
Slitheroid: A snake-like synthmorph.
Smart Animal: A partially uplifted animal.
Sniff: To intercept wireless mesh traffic.
Solarians: Denizens of the sun's corona.
Souk: Covered bazaars and market areas between Martian domes.
Spare: A portable morph to be sleeved in an emergency.
Sphere/Spheroid: A bubble-shaped habitat spun for gravity, usually made from hollowed-out asteroids. AKA bubble.
Splicers: Humans modified to eliminate genetic diseases and other unwanted traits. AKA genefixed, tweaks.
Steel Morph: A high-end synthmorph with enhanced physical capabilities.
Structuralists: The Firewall faction that seeks more formal organization and to go public.
Sunward: The inner system, from Sol to Mars.
Super-Earth: A terrestrial planet much larger than Earth with a higher surface gravity.
Swarm: A mass of nano- or microbots acting in concert.
Swarm: A flotilla of ships, sometimes interlinked or towing habs.
Swarmanoid: A synthmorph composed of a swarm of microbots.
Sylphs: Biomorphs enhanced for charisma and beauty.
Synthmorph: Robotic shells sleeved by transhuman egos.
Synths: A common humanoid synthmorph model.
System: Any hardware device, network, or software service.
TAU: Titan Autonomous University.
Taxi: A morph that carries an infomorph on its person.
Technical: Martian slang for crazy or haywire.
Teleoperation: Remote control.
Tenmai Shell: A hab with the outer shell of a cylinder or sphere but a hollow micrograv space inside.
Tharsis League: The government of Mars.
Tin Can: A small, cheap, pressurized habitat module.
Titanian: Someone from Titan, a moon of Saturn.
TITANs: Total Information Tactical Awareness Network. ASIs that attacked transhumanity and brought about the Fall.
Torus: A ring-shaped habitat, spun for gravity.
TQZ: The TITAN Quarantine Zone on Mars.
Transgenic: Containing genetic traits from other species.
Transhuman: An extensively modified human.
Trojans: Asteroids/moons that share the same orbit as a larger planet or moon, but follow about 60 degrees ahead or behind at the L4 (Greeks) and L5 (Trojans) Lagrange points. Trojans normally refers to the asteroids at Jupiter's Lagrange points, but Mars, Saturn, Neptune, and other bodies also have Trojans. See also *Greeks*.
Uplift: An animal species genetically enhanced to sapience.
Vacworker: A laborer who works in vacuum.
Vapor: A failed mind emulation or crippled fork/infomorph.
Vector: A proxy that handles hacking, comms, and online security.
VPNs: Virtual Private Networks. Networks that operate within the mesh, usually encrypted for privacy/security.
VR: Virtual Reality. Imposing an artificially constructed hyper-real reality over one's physical senses.
Ware: Implants and enhancements, including bioware, cyberware, hardware, meshware, and nanoware.
Wastewalkers: Mutated exusrgent cyborg soldiers.
Watts-MacLeod: An exsurgent virus strain that does not transform/subvert the victim, but gives them async psi abilities.
Whippers: Barrel-like exsurgents with a mass of tentacles.
Wild Artificial: A feral autonomous robot.
Worm: An exsurgent async.
WMD: Weapon of mass destruction.
X-Caster: Someone who transmits/sells XP livefeeds and recordings of their experiences.
Xenomorph: An alien life form.
Xer: As in "X-er" — someone addicted or obsessed with XP. Sometime also used to refer to people making XP.
XP: Experience Playback. Experiencing someone else's sensory input (real-time or recorded). AKA sim, simsense, playback.
X-Risk: Existential Risk. Something that threatens the very existence of transhumanity.
Zero-Day: A previously unknown exploit against which computer systems are not yet defended. AKA 0-day.
Zeroes: People without mesh access. Common with indentures.
Zone Stalker: A collector of artifacts from quarantine zones.

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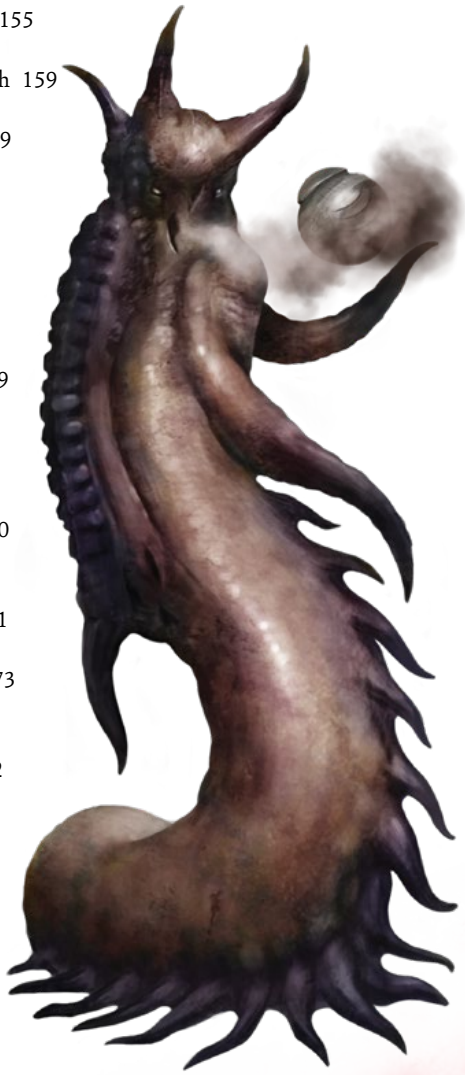

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COMPLETE LIST OF MESH ACTIONS

All actions are complex actions unless accompanied by a [Q] for quick actions and [T] for task actions. If you do not have access privileges that allow the action, it requires a Hacking Test.

UNIVERSAL ACTIONS

Actions usually available to all users.

Access Another System: Authenticate and log on. Creates account shell.
Apply Tag: Mark a physical person, place, or thing with an AR e-tag.
Communicate: Email, text, voice, or video chat others online.
Encrypt/Decrypt: Encrypt or decrypt files (*Encryption* ▶247).
Filter AR Mist: Remove obtrusive AR "mist" (*AR Mist and Filters* ▶242).
Identify Attacker: You can attempt to identify someone attacking you in mesh combat (*Attack Awareness* ▶264).
Issue Command: Single command to a slaved device, ALI, or teleoperated bot (or group).
Log Off: Exit a system.
Modify Files: View, change, upload, download, and delete files.
Operate Device: Control a device. May require a skill test.
Run Script: Launch a pre-programmed script (*Scripting* ▶249).
Scan Stealthed Signals: Find hidden wireless devices and their mesh IDs within range (*Stealthed Signals* ▶244).
Scan Wireless Signals: Look up wireless devices and their mesh IDs within range.
Search: You may search a system you are accessing or the mesh at large (*Online Research* ▶254).
Shield Software: Actively protect software in mesh combat ▶248.
Stealth Wireless Signals: Hide your wireless activity (*Stealthed Signals* ▶244).
Switch Home Device: Move your infomorph virtual mind-state to another system.
Terminate Software: Kill minor software process.
Toggle AR Skin: Change the AR environment skin (*Skinning* ▶242).
Toggle Privacy Mode: Set public profile to private or public (*Privacy Mode* ▶241)
Toggle Simulspace: Enter/exit simulspace (*Virtual Reality* ▶268).
Use Apps: Use various apps. May require an Interface Test.
Use Service: Use cloud-based apps. May require a subscription.
View Apps: See what apps are available and/or currently running.
View Profile: View someone's public social network profile and rep scores within range.
View Sensor Feeds: Stream sensor input to your AR. May require Perceive or Know Test.
View System Status: Determine system health, ongoing processes, security alerts, etc.

SECURITY ACTIONS

Actions reserved for accounts with security or admin privileges.

Acquire Mesh ID: Acquire the mesh ID of anyone accessing the system.
Activate Countermeasure: Initiate active countermeasures against a spotted intruder (*Active Countermeasures* ▶261).
Attack: Attempt to crash an account shell, app, firewall, infomorph, operating system, or service (*Mesh Combat* ▶264).
Bypass Jamming: Overcome jamming by winning an Opposed Interface Test for 1 action turn, +1 per superior success.
Locate Intruder: Attempt to find a suspected intruder (*Locate Intruder* ▶261).
Lockout: Block a specified mesh ID from accessing the system.
Monitor Activity: Spy on an app's activity or another specific user's actions in real-time.
Scan Infomorph: Analyze an infomorph with a successful Interface Test.
Trace: Track a user to their physical location (or at least the system they originate from); see *Physical Tracking* ▶256.
Trigger Alert: Put the system on passive or active alert.
View Logs: Access the system's logs.
View Users: See what other users are currently accessing the system, what apps they are using, and their mesh IDs.

ADMIN ACTIONS

Only admin accounts are allowed to take these actions.

Disable Sensors or Device Functions: Turn off sensors or other physical functions.
Modify Accounts: Add new accounts and remove old ones.
Modify Privileges: Add or remove specific privileges.
Modify Software: Install, remove, and update apps on the system.
Wipe System: Erase all data from the system, taking 1 minute for motes, 3 minutes for hosts, and 10 for servers.

HACKING ACTIONS

These actions usually require a Hacking Test. Most are detailed under *System Subversion* ▶262.

(T) Break Encryption: Decrypt an encrypted file (*Codebreaking* ▶247).
Control Ware: Manipulate a target's ware.
Disable Safety Mechanisms: Override safety controls and alarms.
Edit AR Feed: Block or change AR input.
Eliminate Traces: Edit logs and remove traces of your hacks.
Force Re-authentication: When sniffing, break a link to capture login credentials (*Sniffing* ▶245).
Hide File or Process: Conceal a file/process from others (opposed with Research Test at –30).
Impair Senses: Distract with AR overload. Interface Test, –10 modifier.
Inject AR/Illusion: Insert fake AR data into feed.
Install Back Door: Create a secret way back in to the system.
Install Blocker: Pre-emptively block other users from specified actions.
Jam Signals: Jam specific or all wireless frequencies.
Loop Sensor Feed: Replace a live sensor feed with looped recordings.
Modify TacNet: Edit tacnet data, mark foes as friends.
Suppress Alarm: Switch active alert to passive, or turn a passive alert off.
Suppress Process: Prevent a specified process from restarting.
Sniff Traffic: Sniff traffic between wireless devices (*Sniffing* ▶245).
Tap AR: Monitor target's AR feeds.
Tap Senses: Tap target's sensorium.

MINDWARE HACKING

Trap Ego: Prohibit the ego/infomorph from moving/evacuating.
Control Ware: As above.
Copy Ego: Make an alpha fork (*Forking* ▶292).
Delete Ego: Erase the mind.
Freeze Morph (Cyberbrain): Paralyze the morph.
Mindhack: Practice psychosurgery on the ego (*Psychosurgery* ▶294).
Modify Meshware (Cyberbrain): Add, remove, or alter meshware.
Modify Sensory Input (Cyberbrain): Block, edit, or inject sensory input.
Puppeteer (Cyberbrain): Remotely operate the morph (*Remote Operations* ▶346).
Scorch Ego: Attack the ego with a scorcher app.
Shutdown: Deactivate the mind.
Tap Senses: As above.
Terminate Cortical Stack Feed: Cut off the ongoing backup.

SIMULSPACE USER ACTIONS

Standard user options within a simulspace boil down to a few simple actions:

Access Simulspace Functions: Do anything a normal user can do. May require an Interface Test.
Activate Cheat Code: Activate a cheat code and acquire its benefit.
View Domain Rules: Analyze the simulation's parameters, rules, and controls.

SIMULSPACE ADMIN/CHEAT ACTIONS

Admins and users with cheat codes have more options.

Add/Remove Cheat Codes: Either install a new cheat code or edit/remove an existing one.
Alter Domain Rules: Tweak the system settings within certain parameters; may require a Program Test.
Control NPCs: Dictate what responses NPCs give to certain actions or direct them outright.
Eavesdrop: Virtually surveil other users.
Generate Items: Create virtual items regardless of rarity.
Modify Simulmorph: Modify a simulmorph's stats within specified parameters; may require a Program Test.
Privacy: Prevent your face-to-face communications from being eavesdropped upon.
Start/Stop Simulspace: Launch a new simulspace or close down an existing one.
Teleport: Instantaneously travel anywhere within the simulspace.
Terminate Session: Forcibly end a user's session.
Toggle God Mode: Make your simulmorph invulnerable to damage.
Toggle Invisibility: Make yourself imperceptible to standard users.
Toggle Lockbox Controls: Prevent specified users from toggling in or out of simulspace.

SIMPLE HACKING

If these rules at first seem intimidating, keep in mind that the core hacking rules are fairly straightforward. The following guidelines should get you through most situations:

- Almost all hacking-involved tests pit the hacker's Infosec vs. the target system's Firewall.
- To hack into a system, you have a choice of fast (immediate, –30 modifier, triggers an alert) or slow (no modifier, takes an hour, no alert).
- By default, you get in with standard user privileges. Superior successes get you better privileges.
- Once in, you can take any action that your privileges allow without making a test.
- If your privileges don't allow it, make a Hacking Test (Infosec vs. Firewall) to pull it off.
- Use your imagination! If you want to do something — loop sensors, jam weapons, steal files, open a door, crash an opposing AI — your GM will tell if you need to make a test.
- Don't forget to use Insight pool for extra mesh actions or to modify rolls!

CONSOLIDATED HACKING

Sometimes a PC may want to hack a system that is less consequential to the story. Rather than running each hack step-by-step, the GM can consolidate such a hack into a single task action Infosec Test. First, the hacker should compile a brief list of objectives after hacking in (e.g., locate a file, unlock a door, loop a sensor feed, eliminate traces). Set a timeframe of 1 hour plus 10 minutes per objective. If brute forcing, the timeframe is 2 action turns per objective. Apply the following modifiers: –30 if brute forcing, +10 if hacking a mote, –10 if hacking a server, and –10 if hacking multiple systems.

Infosec Test Result	Hacking Result
Critical Failure	Hack fails, hacker traced.
Superior Failure	Hack fails.
Failure	Hacker achieves first objective only.
Success	Hacker achieves all objectives.
Superior Success	Hacker achieves all objectives in 25% less time per superior success.
Critical Success	Hacker achieves all objectives, backdoors system.

COMPLETE LIST OF MORPHS

COMMON BIOMORPHS	Cost	Avail	WT	DUR	DR	Insight	Moxie	Vigor	Flex	Movement Rate
Flat	0 MP	30	6	30	45	0	0	0	0	Walker 4/20
Splicer	1 MP	90	6	30	45	0	0	0	1	Walker 4/20
Ware: Biomods, Cortical Stack, Mesh Inserts										
Exalt	2 MP	70	7	35	53	1	1	1	0	Walker 4/20
Ware: Biomods, Cortical Stack, Mesh Inserts										
Neotenic	2 MP	50	6	30	45	2	1	1	0	Walker 4/12
Ware: Biomods, Circadian Regulation, Cortical Stack, Mesh Inserts • **Morph Traits:** Exotic Morphology (Level 1) • **Notes:** Small size ▶227										
Ruster	3 MP	70	7	35	53	0	1	1	1	Walker 4/20
Ware: Biomods, Cold Tolerance, Cortical Stack, Enhanced Respiration, Mesh Inserts, Radiation Sense										
Bouncer	4 MP	60	7	35	53	1	0	1	2	Walker 4/12
Ware: Biomods, Cold Tolerance, Cortical Stack, Grip Pads, Mesh Inserts, Oxygen Reserve, Prehensile Feet • **Morph Traits:** Limberness (Level 1)										
Futura	4 MP	25	7	35	53	2	4	1	0	Walker 4/20
Ware: Biomods, Cortical Stack, Mesh Inserts										
Hibernoid	4 MP	70	7	35	53	1	1	0	2	Walker 4/20
Ware: Biomods, Circadian Regulation, Clean Metabolism, Cold Tolerance, Cortical Stack, Hibernation, Mesh Inserts										
Menton	4 MP	60	7	35	53	3	1	1	1	Walker 4/20
Ware: Biomods, Cortical Stack, Mesh Inserts, Mnemonics										
Olympian	4 MP	60	8	40	60	1	1	3	1	Walker 4/20
Ware: Biomods, Cortical Stack, Mesh Inserts										
Sylph	4 MP	60	6	30	45	1	3	1	1	Walker 4/20
Ware: Biomods, Clean Metabolism, Cortical Stack, Enhanced Pheromones, Mesh Inserts										
Fury	6 MP	40	10	50	75	1	1	4	2	Walker 4/20
Ware: Biomods, Bioweave Armor (+2/+3), Claws, Cortical Stack, Enhanced Vision, Mesh Inserts **Morph Traits:** Enhanced Behavior (Aggressiveness, Level 2; Cooperation, Level 2)										
Ghost	6 MP	40	9	45	68	2	1	3	2	Walker 4/20
Ware: Biomods, Chameleon Skin, Cortical Stack, Grip Pads, Mesh Inserts **Morph Traits:** Enhanced Behavior (Patience, Level 2)										
Remade	7 MP	30	9	45	68	2	2	2	2	Walker 4/20
Ware: Biomods, Circadian Regulation, Clean Metabolism, Cold Tolerance, Cortical Stack, Enhanced Respiration, Enhanced Vision, Mesh Inserts **Morph Traits:** Exotic Morphology (Level 1)										

POD BIOMORPHS	Cost	Avail	WT	DUR	DR	Insight	Moxie	Vigor	Flex	Movement Rate
Basic Pod	1 MP	80	6	30	45	0	0	1	0	Walker 4/20
Ware: Access Jacks, Biomods, Cortical Stack, Cyberbrain, Mesh Inserts, Mnemonics, Puppet Sock • **Morph Traits:** Planned Obsolescence										
Worker Pod	3 MP	70	7	35	53	0	0	2	1	Walker 4/20
Ware: Access Jacks, Biomods, Cortical Stack, Cyberbrain, Mesh Inserts, Mnemonics, Puppet Sock										
Novacrab	4 MP	50	9	45	68	0	0	3	0	Walker 4/20
Ware: Access Jacks, Biomods, Carapace Armor (+6/+7), Cold Tolerance, Cortical Stack, Cyberbrain, Enhanced Respiration, Gills, Mesh Inserts, Mnemonics, Oxygen Reserve, Puppet Sock, Vacuum Sealing • **Morph Traits:** Exotic Morphology (Level 3), Non-Human Biochemistry (Level 2) • **Notes**: Claw Attack (DV 2d10)										
Pleasure Pod	4 MP	70	6	30	45	0	3	0	0	Walker 4/20
Ware: Access Jacks, Biomods, Clean Metabolism, Cortical Stack, Cyberbrain, Enhanced Pheromones, Mesh Inserts, Mnemonics, Puppet Sock, Scent Alteration, Sex Switch										
Security Pod	5 MP	60	7	35	53	1	0	2	1	Walker 4/20
Ware: Access Jacks, Biomods, Bioweave Armor (+2/+3), Claws, Cortical Stack, Cyberbrain, Eelware, Enhanced Hearing, Enhanced Vision, Mesh Inserts, Mnemonics, Puppet Sock										
Shaper	5 MP	40	7	35	53	1	2	0	0	Walker 4/20
Ware: Access Jacks, Biomods, Chameleon Skin, Cortical Stack, Cyberbrain, Mesh Inserts, Mnemonics, Nanotat ID Flux, Puppet Sock, Sex Switch, Skinflex										

UPLIFT BIOMORPHS	Cost	Avail	WT	DUR	DR	Insight	Moxie	Vigor	Flex	Movement Rate
Neo-Avian	0 MP	50	5	25	38	2	1	0	0	Walker 2/8, Winged 8/40
Ware: Biomods, Claws, Cortical Stack, Direction Sense, Enhanced Vision, Mesh Inserts, Prehensile Feet, Wings • **Morph Traits:** Exotic Morphology (Level 3), Non-Human Biochemistry (Level 2) • **Notes:** Beak/Claw Attack (DV 2d6), Small size ▶227										
Neo-Bonobo/Neo-Chimpanzee	1 MP	50	6	30	45	0	2	1	0	Walker 4/12
Ware: Biomods, Cortical Stack, Enhanced Smell, Mesh Inserts, Prehensile Feet **Morph Traits:** Exotic Morphology (Level 1) Non-Human Biochemistry (Level 1)										
Neo-Neanderthal	2 MP	35	7	35	53	0	1	2	1	Walker 4/20
Ware: Biomods, Cortical Stack, Mesh Inserts **Morph Traits:** Non-Human Biochemistry (Level 1)										
Neo-Gorilla	3 MP	40	9	45	68	0	0	3	1	Walker 4/12
Ware: Biomods, Cortical Stack, Enhanced Smell, Mesh Inserts, Prehensile Feet **Morph Traits:** Exotic Morphology (Level 1), Non-Human Biochemistry (Level 1)										
Neo-Octopus	3 MP	35	6	30	45	1	1	1	2	Swim 4/20, Thrust Vector 4/12, Walker 2/8
Ware: 360-Degree Vision, Biomods, Chameleon Skin, Cortical Stack, Gills, Mesh Inserts, Polarization Vision **Morph Traits:** Exotic Morphology (Level 3), Limberness (Level 2), Non-Human Biochemistry (Level 2) **Notes:** 8 prehensile arms, Beak Attack (DV 1d10), Ink Attack (use Athletics, blinding, 5-meter uniform area-effect in water and micrograv)										
Neo-Orangutan	3 MP	35	7	35	53	1	1	2	0	Walker 4/12
Ware: Biomods, Cortical Stack, Enhanced Smell, Mesh Inserts, Prehensile Feet **Morph Traits:** Exotic Morphology (Level 1), Limberness (Level 1), Non-Human Biochemistry (Level 1) **Notes:** Reach (+10)										

SYNTHMORPHS	Cost	Avail	WT	DUR	DR	Insight	Moxie	Vigor	Flex	Movement Rate
Case	0 MP	100	5	25	50	0	0	0	0	Walker 4/12
Ware: Access Jacks, Cortical Stack, Cyberbrain, Lidar, Mesh Inserts, Mnemonics, Puppet Sock **Morph Traits:** Exotic Morphology (Level 1), Inherent Flaws **Notes:** Light Frame (Armor 6/4)										
Spare	0 MP	80	3	15	30	0	1	0	0	
Ware: Access Jacks, Cortical Stack (optional), Cyberbrain, Grip Pads, Lidar, Mesh Inserts, Mnemonics, Puppet Sock, Skinlink, Stress Control **Morph Traits:** Exotic Morphology (Level 3) **Notes:** Light Frame (Armor 6/4), Small size ▶227										
Dragonfly	1 MP	70	5	25	50	1	0	1	0	Walker 2/8, Winged 8/32
Ware: Access Jacks, Cortical Stack, Cyberbrain, Mesh Inserts, Mnemonics, Puppet Sock, Prehensile Tail, Radar, Wings **Morph Traits:** Exotic Morphology (Level 3) **Notes:** Light Frame (Armor 6/4), Small size ▶227										
Swarmanoid	3 MP	60	—	50	100	2	0	0	0	Hopper 4/12, Rotor 4/20, Walker 2/8
Ware: 360-Degree Vision, Access Jacks, Cortical Stack, Cyberbrain, Lidar, Mesh Inserts, Mnemonics, Puppet Sock **Morph Traits:** Exotic Morphology (Level 3) **Notes:** Swarm Attack (DV 1d6, ignores armor, blinding), comes with specialized swarmanoid hive ▶342										
Synth	3 MP	80	8	40	80	0	0	1	1	Walker 4/20
Ware: Access Jacks, Cortical Stack, Cyberbrain, Lidar, Mesh Inserts, Mnemonics, Puppet Sock **Morph Traits:** Exotic Morphology (Level 1) **Notes:** Light Frame (Armor 6/4)										
Savant	4 MP	50	7	35	70	3	0	1	1	Walker 4/20
Ware: Access Jacks, Cortical Stack, Cyberbrain, Lidar, Mesh Inserts, Mnemonics, Puppet Sock **Morph Traits:** Exotic Morphology (Level 1) **Notes:** Light Frame (Armor 6/4)										
Galatea	5 MP	50	8	40	80	1	2	1	1	Walker 4/20
Ware: Access Jacks, Cortical Stack, Chameleon Skin, Cyberbrain, Enhanced Hearing, Lidar, Mesh Inserts, Mnemonics, Puppet Sock **Morph Traits:** Exotic Morphology (Level 1) **Notes:** Light Frame (Armor 6/4)										

SYNTHMORPHS (CONT)	Cost	Avail	WT	DUR	DR	Insight	Moxie	Vigor	Flex	Movement Rate
Slitheroid	5 MP	50	9	45	90	0	1	3	0	Roller 8/32, Snake 4/12
Ware: Access Jacks, Cortical Stack, Cyberbrain, Enhanced Vision, Mesh Inserts, Mnemonics, Puppet Sock, Retracting Limbs **Morph Traits:** Exotic Morphology (Level 2) **Notes:** Medium Frame (Armor 8/6)										
Steel Morph	5 MP	50	8	40	80	0	1	3	1	Walker 4/20
Ware: Access Jacks, Cortical Stack, Cyberbrain, Lidar, Mesh Inserts, Mnemonics, Puppet Sock **Morph Traits:** Exotic Morphology (Level 1) **Notes:** Medium Frame (Armor 8/6)										
Arachnoid	6 MP	40	11	55	110	1	0	3	0	
Hopper 4/12, Thrust Vector 8/40, Walker 4/20, Wheeled 8/40 **Ware:** Access Jacks, Cortical Stack, Cyberbrain, Lidar, Magnetic System, Mesh Inserts, Mnemonics, Pneumatics, Puppet Sock, Retracting Limbs **Morph Traits:** Exotic Morphology (Level 3) • **Notes:** Medium Frame (Armor 8/6)										
Reaper	12 MP	10	12	60	120	1	0	6	1	Hopper 4/20, Ionic 8/40, Thrust Vector 8/40, Walker 4/20
Ware: 360-Degree Vision, Access Jacks, Anti-Glare, Cortical Stack, Cyberbrain, Enhanced Vision, Magnetic System, Mesh Inserts, Mnemonics, Pneumatics, Puppet Sock, Radar, Retracting Limbs, T-Ray Emitter, Weapon Mount (Articulated, 4) **Morph Traits:** Exotic Morphology (Level 3) **Notes:** Heavy Frame (Armor 12/10)										

FLEXBOTS

All flexbots have the following stats, plus the stats for their module type:

Movement Rate: Thrust Vector 8/40, Walker 4/12

Ware: Access Jacks, Cortical Stack, Cyberbrain, Lidar, Mesh Inserts, Mnemonics, Modular Design, Puppet Sock, Shape Adjusting

Morph Traits: Exotic Morphology (Level 3)

Notes: Light Frame (Armor 6/4), Small size

MODULES	Cost	Avail	WT	DUR	DR	Insight	Moxie	Vigor	Flex
Crafter Module	2 MP	60	4	20	40	1	0	0	0
Ware: Engineer Swarm Hive, Fixer Swarm Hive **Common Shape Adjustments:** Enhanced Vision, Disassembly Tools, Fractal Digits, Nanoscopic Vision, Tool Kit, T-Ray Emitter, and Utilimod									
Fighter Module	3 MP	60	6	30	60	0	0	1	0
Ware: Pneumatics, Weapon Mount (2) **Common Shape Adjustments:** Enhanced Vision, Light Combat Armor, Radar, T-Ray Emitter, and ranged weapons									
Rogue Module	2 MP	60	4	20	40	0	0	1	0
Ware: Chameleon Skin, Radar Absorbent **Common Shape Adjustments:** Dazzler, Enhanced Vision, Fiber Eye, Fractal Digits, Magnetic System, Nanoscopic Vision, T-Ray Emitter, Weapon Mount									
Wizard Modules	2 MP	60	4	20	40	1	0	0	0
Ware: Radio Booster, Sniffer App, Tracker App **Common Shape Adjustments:** Electrical Sense, Enhanced Vision, Laser Link, Nanodetector, Skinlink, Utilitool									

INFOMORPHS	Cost	Avail	WT	DUR	DR	Insight	Moxie	Vigor	Flex
Digimorph	0 MP	100	5	25	50	0	0	0	0
Ware: Mnemonics **Morph Traits:** Digital Speed, Exotic Morphology (Level 3)									
Ikon	1 MP	100	6	30	60	1	3	0	0
Ware: Copylock, Memory Lock, Mnemonics **Morph Traits:** Digital Speed, Exotic Morphology (Level 3)									

INFOMORPHS	Cost	Avail	WT	DUR	DR	Insight	Moxie	Vigor	Flex
Agent	2 MP	100	8	40	80	4	0	0	0
Ware: Enhanced Security, E-Veil, Mnemonics **Morph Traits:** Digital Speed, Exotic Morphology (Level 3)									
Operator	2 MP	100	7	35	70	3	0	0	1
Ware: Drone Rig, Mnemonics, Oracles **Morph Traits:** Digital Speed, Exotic Morphology (Level 3)									

RULES PRIMER
ECLIPSE PHASE SECOND EDITION

EGO vs. MORPH

Your capabilities are divided between your *ego* (your mind, skills, and memories that travel with you from body to body) and your *morph* (the body you currently inhabit).

MAKING TESTS Roll d100 (0–99)

- Target number is determined by the appropriate skill, aptitude check, or rep score.
- Difficulty is represented by *modifiers* to this target number, assigned by the GM.
- Your goal is to roll equal to or under the modified target number, but as high as possible.
- A roll equal to or under the target number is a success. If the success roll is 33 or more, it is a *superior success*. If it is a 66 or more, it is two superior successes.
- If your roll exceeds the target number, it is a failure. If the failed roll is under 66, it is a *superior failure*. If it is under 33, it counts as two superior failures.
- Doubles (00, 11, etc.) equal a *critical success* or *failure*.
- 00 is always a critical success. 99 is always a critical failure.
- If you do not have the appropriate skill, you may *default* to the skill's linked aptitude, but critical successes are ignored.
- If you fail, you may try again (unless the GM disallows it), with a cumulative –10 modifier.

OPPOSED TESTS

- If you are acting in opposition to another character, you both make a test, rolling d100 against skill +/– modifiers.
- Whomever succeeds *and* rolls highest wins.

MODIFIERS

- Modifiers always affect the target number (skill), not the roll.
- Modifiers (positive or negative) come in 3 levels of severity:
  - Minor (+/–10)
  - Moderate (+/–20)
  - Major (+/–30)
- The maximum modifiers that can be applied are +/– 60.

SPECIALIZATIONS

- Specializations add +10 when using a skill for that area of concentration. Each skill may have only one specialization.

SUPERIOR RESULTS

For one superior result, choose one of the following. For two superior results, choose two or one twice for double effects:

- **Quality:** The work is more exact (success) or more sloppy (failure). This may affect subsequent tests by +/– 10.
- **Quantity:** The test consumes fewer (success) or more (failure) materials or produces fewer or more results.
- **Detail:** You acquire information that is much more in-depth/nuanced (success) or false (failure).
- **Time (task actions only):** The action takes a shorter (success) or longer (failure) amount of time, by +/– 25%.
- **Covertness:** The action is less (success) or more (failure) obvious or draws less or more attention (+/– 10 as appropriate).
- **Damage:** Successes inflict more (+1d6) damage (failures miss).

CRITICAL RESULTS

Criticals ("crits") have more impact than superior results. They represent "Wow!" moments where you stun onlookers with incredible proficiency or ineptness. They provide extra effects/penalties, as determined by the GM. Here are some examples:

- Double the damage you inflict with an attack.
- Gain a +/– 20 modifier to the next test you make.
- Take an extra action (critical success) or lose your next action (critical failure).
- Break a weapon/tool (critical failure).

TEAMWORK

- One character is chosen as the primary actor; they make the test.
- Each helper character adds a +10 modifier (max. +30).
- For Know, Technical, or Vehicle skill tests, collaborating characters must possess the skill at 40+ to provide a teamwork bonus.

ACTION TURNS

Action Turns are roughly 3 seconds in length.

- In each action turn you may undertake one of the following:
  - 1 complex action and 1 quick action
  - 1 task action and 1 quick action
  - 3 quick actions
- You may also take unlimited automatic actions.

TASK ACTIONS

- Task actions are any action that requires longer than 1 action turn to complete.
- Task actions list a timeframe (anywhere from 2 turns to 2 years).
- Timeframes may be adjusted by superior results.
- You may take extra time, applying a +10 modifier for a 25% increase to the timeframe.
- You may rush the job, reducing the timeframe by 25% but applying a –20 modifier.
- If you fail, you expend 25% of the timeframe, +25% per superior failure, before you realize you have failed.

INITIATIVE

- The order in which you act is determined by rolling 1d6 and adding your Initiative stat.
- The highest result goes first; others follow in descending order.
- On tied initiatives, you go simultaneously or use REF or a roll-off to determine order.
- You may *delay* and act later in Initiative order; the count on which you act becomes your Initiative in subsequent turns.

USING REP

Use your rep scores to pursue favors such as acquiring goods, services, or info.
Each rep score applies only to the people/factions affiliated with that particular social network.

- Make a Rep Test, using your rep score as the target number.
- The type of favor you are asking for modifies the target number: Minor (+10), Moderate (+0), or Major (–30).
- You can intentionally take a negative modifier to a Rep Test to keep your request quiet and hidden from others. The same modifier applies to anyone making a Rep Test to find out what you're up to.
- Favors have limits in how often they can be used: Minor (3 per week), Moderate (1 per week), Major (1 per story arc).
- You can burn rep (permanently lower your rep score) for additional favors (at a cost of 5 for Minor, 10 for Moderate, 20 for Major) or to get a modifier to a Rep Test (equal to burn points × 2).

@-rep: The Circle-A List—autonomists, anarchists, Titanians, scum, Extropians.

c-rep: CivicNet—Planetary Consortium, Morningstar Constellation, Lunar-Lagrange Alliance, Jovian Republic, other hypercorps & capitalists.

f-rep: Fame & media network—socialites, artists, metacelebs, journalists, glitterati.

g-rep: Guanxi—triads, cartels, gangs, other criminal groups.

i-rep: The Eye—Firewall's secret internal network.

r-rep: Research Network Affiliates—Argonauts, scientists, technologists, researchers.

x-rep: ExploreNet—gatecrashers, exoplanet colonists.

USING POOLS

Your character has a number of pools that define their transhuman capabilities. Most pools are derived from your morph, but some Flex points come from your ego.

- Each pool is linked to a different group of aptitudes and skills and may be used in unique ways to modify your rolls or provide other bonuses.
- Each pool may only be used for tests that use their linked skills or aptitudes (i.e., a Vigor point can be used on a skill test or aptitude check linked to REF or SOM). Flex may be used on any tests.
- Unless otherwise noted, only 1 pool point may be spent per test.
- **Before Roll:** Ignore all modifiers to the test.
- **Before Roll:** Add +20 to the test's target number.
- **After Roll:** Flip-flop a d100 roll. For example, 83 becomes 38.
- **After Roll:** Upgrade a success to a superior success (or one to two).
- **After Roll:** Downgrade a critical failure to a regular failure.
- **Ongoing (Insight/Moxie/Vigor Only):** Receive +5 (1 point) or +10 (2 points) to all skill tests linked to one aptitude for 24 hours or until your next recharge

INSIGHT

Insight pool is linked to mental capabilities: Cognition, Intuition, and their linked skills.

- **Take the Initiative:** Go first in an action turn if you are only taking mental or mesh actions and no physical movement.
- **Extra Action:** Take an extra complex mental or mesh action (or 2 quick actions) in an action turn.
- **Acquire a Clue:** Gain a hint or lead through investigation, research, or analysis of the facts at hand, without needing to make a test.

MOXIE

Moxie pool is linked to social interactions: Savvy, Willpower, and linked skills. It may also be used for Rep and Infection Tests.

- **Ignore Trauma:** Ignore the effects of 1 trauma for 24 hours.
- **Refresh Rep:** Restore rep network favors at a cost of 1 point for a Minor favor and 2 points for a Moderate favor. Major favors may not be refreshed this way.
- **Acquire a Clue:** Get a tip or lead by gathering information via social interactions without needing to make a test.
- **Control Your Infection:** Avoid making an Infection Test when using a psi sleight (asyncs only).
- **Negate Gaffe:** Ignore a player's social gaffe that the character wouldn't make.

VIGOR

Vigor pool is linked to physical efforts: Reflexes, Somatics, and their linked skills.

- **Take the Initiative:** Go first in an action turn.
- **Extra Action:** Take an extra complex physical action (or 2 quick actions) in an action turn.
- **Ignore Wound:** Ignore the effects of 1 wound for 24 hours.

FLEX

Flex is a wild-card pool. It can be used to affect dice rolls for any tests and for narrative control.

- **Introduce NPC:** A new or existing NPC joins the scene. Their presence must be plausible. You may define one aspect of this NPC: their morph, factional allegiance, a noteworthy skill, a specific trait, etc.
- **Introduce an Item:** A previously unnoticed item is added to the scene. Its presence must be plausible. The item cannot be offensive (no weapons) and it must be of Minor (not Rare or Restricted) Complexity. It can be a useful tool, a necessary piece of gear, or even a clue.
- **Define the Environment:** You may introduce an environmental factor to a scene. Its presence must be plausible. It should provide a new detail that does not drastically alter the scene. Examples include hiding spots, cover, distractions, shelter, or exploitable elements such as a ladder or window.
- **Define a Relationship:** You may introduce a new, plausible relationship between your character and an existing NPC. This connection should be more loose or minor than close or serious. For example, you may have a common friend, shared history, or old but minor rivalry.

RECHARGING POOLS

You recover the points you have spent from pools by taking a recharge action to rest and recalibrate. You can't increase a pool above its original rating; unspent points are lost.

- **Short Recharge (2/day):** Short recharges are a task action with a timeframe of 10 minutes. You may take two short recharges per 24-hour period. Each short recharge restores 1d6 pool points; you decide where to allocate them.
- **Long Recharge (1/day):** A long recharge is a task action with a timeframe of 4 hours (8 for flats and other biomorphs without biomods). You may only benefit from one long recharge per 24-hour period. A long recharge completely restores your pools to their full value.

COMBAT

Combat is an opposed test.

- Attacker rolls attack skill +/– modifiers.
- Melee: Defender rolls Fray or Melee skill +/– modifiers.
- Ranged: Defender rolls (Fray skill ÷ 2) +/– modifiers.
- If attacker succeeds and rolls higher than the defender, the attack hits. Roll damage.
- Superior hits inflict +1d6 DV
- Critical hits double the DV.
- The weapon's damage is reduced by the target's energy or kinetic armor, as appropriate.
- If the damage equals or exceeds the target's Wound Threshold, a wound is scored. If the damage equals or exceeds the target's Wound Threshold by multiple factors, multiple wounds are inflicted.
- If total damage reaches Durability, the target is incapacitated. If it reaches Death Rating, they are killed/destroyed.

HACKING

Hacking Tests are opposed tests, your Infosec skill vs. the target's Firewall.

- When hacking a target, there are two methods you can go about it:
  - **Brute-Force-Attacks** are quick and noisy. They require a complex action and inflict a –30 modifier to your Hacking Tests. If you succeed, you have *user privileges* on the system but also *spotted status* (the system is aware of your intrusion).
  - **Subtle Intrusions** are quiet but take time. They are task actions with a timeframe of 1 hour. If you succeed, you have *user privileges* on the system and *covert status* (the system is unaware of your presence).
- Each superior success on the Hacking Test increases your privileges one step (from user to security to admin).
- A critical success on the Hacking Test increases your status one step (from spotted to covert to hidden).
- When intruding, you do not need to make tests for actions your privileges allow. For other actions, you must succeed in additional Hacking Tests.

ECLIPSE PHASE
SECOND EDITION

NAME | ALIASES
MOTIVATIONS
LANGUAGES
EGO TRAITS
BACKGROUND | CAREER
INTEREST | FACTION
GENDER | SEX | AGE | MUSE
REZ POINTS (SPENT/UNSPENT)

REPUTATION

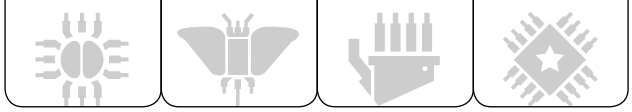
@-REP ∞|□□□|□|□
C-REP ∞|□□□|□|□
F-REP ∞|□□□|□|□
G-REP ∞|□□□|□|□
I-REP ∞|□□□|□|□
R-REP ∞|□□□|□|□
X-REP ∞|□□□|□|□

3 MIN FAVORS/WEEK
1 MOD FAVOR/WEEK
1 MAJ FAVOR/STORY ARC

☐ Short (1d6) ☐ Short (1d6) ☐ Long (full)

DAMAGE TAKEN | WOUNDS TAKEN | RECHARGE [Per 24 hrs]

[SPENT] [SPENT] [SPENT] [SPENT]



INSIGHT [COG, INT] | MOXIE [SAV, WIL, REP] | VIGOR [REF, SOM] | FLEX

WOUND THRESHOLD | DURABILITY | DEATH RATING | EGO FLEX

Movement Rate
Ware
Morph Traits
Notes

MORPH NAME | MP COST

APTITUDES & DERIVED STATS

COG		INT		REF		SAV		SOM		WIL	
APT	CHECK APT x 3	APT	CHECK APT x 3	APT	CHECK APT x 3	APT	CHECK APT x 3	APT	CHECK APT x 3	APT	CHECK APT x 3

INITIATIVE | LUCIDITY | TRAUMA THRESHOLD | INSANITY RATING

STRESS TAKEN | TRAUMAS TAKEN

COMBAT GEAR

RANGED DV | FIRING MODE | RANGE | SKILL | AMMO | NOTES

RANGED DV | FIRING MODE | RANGE | SKILL | AMMO | NOTES

RANGED DV | FIRING MODE | RANGE | SKILL | AMMO | NOTES

MELEE SKILL | DAMAGE VALUE

MELEE SKILL | DAMAGE VALUE

ARMOR | ENERGY/KINETIC

GEAR PACKS

PACK | PACK

PACK | PACK

KNOW SKILLS

SKILL	APT	TOTAL

ACTIVE SKILLS

SKILL	APT	TYPE	TOTAL
ATHLETICS	SOM	PHYSICAL	
DECEIVE	SAV	SOCIAL	
EXOTIC SKILL:		FIELD	
EXOTIC SKILL:		FIELD	
FRAY	REF	COMBAT	
FREE FALL	SOM	PHYSICAL	
GUNS	REF	COMBAT	
HARDWARE:	COG	FIELD • TECHNICAL	
HARDWARE:	COG	FIELD • TECHNICAL	
HARDWARE:	COG	FIELD • TECHNICAL	
HARDWARE:	COG	FIELD • TECHNICAL	
HARDWARE:	COG	FIELD • TECHNICAL	
INFILTRATE	REF	PHYSICAL	
INFOSEC	COG	TECHNICAL	
INTERFACE	COG	TECHNICAL	
KINESICS	SAV	SOCIAL	
MEDICINE:	COG	FIELD • TECHNICAL	
MEDICINE:	COG	FIELD • TECHNICAL	
MEDICINE:	COG	FIELD • TECHNICAL	
MEDICINE:	COG	FIELD • TECHNICAL	
MEDICINE:	COG	FIELD • TECHNICAL	
MELEE	SOM	COMBAT	
PERCEIVE	INT	MENTAL	
PERSUADE	SAV	SOCIAL	
PILOT:	REF	FIELD • VEHICLE	
PILOT:	REF	FIELD • VEHICLE	
PILOT:	REF	FIELD • VEHICLE	
PILOT:	REF	FIELD • VEHICLE	
PILOT:	REF	FIELD • VEHICLE	
PROGRAM	COG	TECHNICAL	
PROVOKE	SAV	SOCIAL	
PSI	WIL	MENTAL • PSI	
RESEARCH	INT	TECHNICAL	
SURVIVAL	INT	MENTAL	

FAKE ID

NAME

REPUTATION

___-REP ∞|□□□|□|□
___-REP ∞|□□□|□|□
___-REP ∞|□□□|□|□
___-REP ∞|□□□|□|□
___-REP ∞|□□□|□|□
___-REP ∞|□□□|□|□

MUSE

NAME

COG	INT	REF	SAV	SOM	WIL
10 30	15 45	10 30	10 30	10 30	10 30
APT / CHECK APT x 3	APT / CHECK APT x 3	APT / CHECK APT x 3	APT / CHECK APT x 3	APT / CHECK APT x 3	APT / CHECK APT x 3

INITIATIVE	LUCIDITY	TRAUMA THRESHOLD	INSANITY RATING
5	20	4	40

SKILLS

HARDWARE: ELECTRONICS	30	PERCEIVE	30
INFOSEC	30	PROGRAM	30
INTERFACE	60	RESEARCH	30
KNOW: ACCOUNTING	60	KNOW: _____	40
KNOW: PSYCHOLOGY	60	KNOW: _____	40

NOTES

MESH

WT	DUR	DR
4	20	40

MESH DAMAGE WOUNDS

ASYNC

SUB-STRAIN

33+: INCREASED EFFECT PUSH TO ALL PSI-CHI SLEIGHTS (DOUBLE THE EFFECT)
66+: FREE PUSH TO ALL PSI-GAMMA SLEIGHTS

INFECTION RATING

INFLUENCE EVENTS

1: PHYSICAL DAMAGE. TAKE DV 1D6.
2:
3:
4:
5:
6:

SLEIGHTS

TYPE	ACTION	DURATION	INFECTION MOD	EFFECTS

FAKE ID

NAME

REPUTATION

_-REP ∞|□□□|□|□
_-REP ∞|□□□|□|□
_-REP ∞|□□□|□|□
_-REP ∞|□□□|□|□
_-REP ∞|□□□|□|□
_-REP ∞|□□□|□|□

BOT/VEHICLE

BOT/VEHICLE

VIGOR	FLEX

DAMAGE WOUNDS

ARMOR WT DUR DR SIZE

MOVEMENT

WARE

CHARACTER NOTES

LAST BACKUP ENTRY DATE STORAGE LOCATION

MENTAL EDITS/PSYCHOSURGERY

ONGOING EFFECTS/CONDITIONS

MOTIVATION GOALS

ACTIVE FORKS

TYPE	WHEN MADE	NOTES

ADDITIONAL NOTES