



# Shadows Over Sol

## Siren's Call

Player's Brief



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Tab Creations





*This book is dedicated to all those who do their  
part to care for the Earth and its ecosystems.*

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## Vids and Games

"Sure, we hold life to be sacred. That's true. But at the same time we also know the foundation of life is essentially a stream of code. Genetics. Bits of data wrapped in a double helix. In a way, a stream of genetic data is not so different from the successive frames of a vid. Why then cannot we cut one code short here and patch it to another there? In the vid world we call that post-production. Does the sacred have no room for improvement?

"Is life so feeble that it cannot withstand tampering? It is a chemical process and nothing more. If you deny yourself a tool simply because it reminds you uncomfortably of your own mortality, you have uselessly and perhaps fatally crippled yourself."

— Steve Scott

# Colony Record Sheet

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# Introduction

## Stillwater, Mars. 2213.

*The cloud from the bomb blast rose in the air, the accompanying thunderclap sounding distant and muted in the thin Martian atmosphere.*

*Josefina looked onward from above, removed from the action by a safe distance. Before her she should see the Utakar troops—her troops—move into position, ready to storm the corridors and secure the facility. The headquarters for ARC Engineering had been breached. There was no turning back now.*

*"This is just business," she assured herself. "If we didn't seize control of the ARC Project now, it would only be a matter of time until Unitech did the same, and bled them dry. In a way, we're saving it."*

*The words didn't convince even her.*

*"Temma is going to be pissed when he realizes that you—that this is your answer to his offer," Trey reminded her again, thinking her words were to him.*

*Josephina looked over at the man, a sanguine look on her face, visible even through her vac suit's helmet. "Let Temma be pissed. In a few minutes I will have control of his headquarters. The ARC Project's other investors will have received their bribes by now. I'll be the one dictating terms."*

*Next to her, Trey shrugged. Josephina looked back at the action below. No troops were visible now. They had already stormed the corridors. This wasn't a military compound. Resistance would be minimal. ARC headquarters would be secured soon.*

*Almost on cue she received the radio response, "Building secure. We have Mr. Temma in our custody. Feel free to come on in!" Josefina could hear the lingering effects of adrenaline and combat stims in the radio man's voice.*

*"And now our work begins," Josephina said, moving down toward the building below and gesturing for Trey to follow.*

## Overview

What you see before you is the player's brief to the first major expansion of ***Shadows Over Sol: Science Fiction Horror Roleplaying***. It is not a complete game—at the very least the GM will need the full ***Siren's Call*** sourcebook and the ***Shadows Over Sol*** core rulebook—but contained in ***Siren's Call*** is more than enough material for hundreds of hours of thrilling science fiction horror gaming.

***Siren's Call*** significantly expands upon the ***Shadows Over Sol*** setting, providing not only further details on the ARC Project—humanity's ambitious first attempt to build an interstellar colony ship—but also an entirely new and unexplored solar system. The ARC Project aims to bring some 10,000 colonists to the planet Siren, orbiting Alpha Centauri A. It will undergo a 400 year journey with its inhabitants in stasis, reaching a maximum velocity of just over a hundredth the speed of light.

In addition to acting as a sourcebook covering the ARC Project and the Alpha Centauri system, ***Siren's Call*** also contains both a complete campaign as well as numerous optional side scenarios (dubbed "side treks"). This campaign is designed to act as a core story arc, consisting of pivotal events and scenarios that drive forward the big story of the colonization effort.

These core scenarios are intended to be interspersed between other adventures. The other adventures can either be written by the GM to suit the players, or the GM can pick one of the many side treks that are included in the book. In this way, the campaign is structured to give GMs the freedom to write and run their own stories in the foreground, focusing on the exploits of the player characters.



Finally, *Siren's Call* includes a new colony building mini-game, which allows players to direct their colony's development as it advances from a desperate fledgling settlement to a full-fledged society of its own.

We hope you enjoy this expanded view into an alien world and interstellar colonization in the dark future of *Shadows Over Sol*.

## Player's Brief

This Player's Brief is broken up into four chapters, each corresponding to the player-facing information in the full *Siren's Call* campaign and sourcebook. In order, the characters are the introduction, the ARC Project, character creation guidelines and the Colony Building mini-game. These four chapters are written to be player-friendly. That is, they contain no significant spoilers for the campaign.

To make the most of this information, the GM should have the full *Siren's Call* book available. The full book contains additional GM-facing tables for the Colony Building mini-game, as well as four additional chapters containing a survey of the Alpha Centauri system, the complete campaign, a variety of optional "side trek" scenarios and information of prominent campaign NPCs.

## Themes

*Siren's Call* builds on the themes already present in *Shadows Over Sol*, but places a renewed emphasis on those that are brought to the foreground by the interstellar colonization effort.

**Discovery** is the most obvious theme. The colonists are going on a journey farther and longer than any in human history. They will be building a new life on an alien world, and no one knows exactly what to expect on the other end of the journey. This is likely thrilling to some and terrifying to others.

A more subtle, but no less important, theme is **finality**. Being a colonist in the ARC Project isn't a career, it's a lifetime commitment. The voyage on the colony ship is one-way. Anyone who undergoes it will never again visit Earth, will never again see those they leave behind and will never regain the life they had before.

Finally, wrapping it all up is the theme of **new societies and old grudges**. The ARC Project presents an opportunity to leave the societal problems of the past behind, and to build something new which improves on what came before. At the same time, the biggest problems that humanity faces on this new world may not be the environment or unknown hostile fauna, but rather the struggles, problems and conflicts that we take with us.

## Siren vs. Sirine

In the few places where it's mentioned in the *Shadows Over Sol* core rulebook, the planet Siren is given the spelling alternate "Sirine." The reason for this is simple, albeit stupid: The author was attempting to name the planet after the creature from Greek myth, but made a spelling mistake based off foggy recollections of the way siren is (mis)spelled in the *Dungeons & Dragons Monster Manual*.

In this book we have corrected the typo, using the proper spelling for Siren, when referring to both the planet and the mythological creature.

## Counting Years

For simplicity's sake, when referring to years in this book, we will always refer to Earth years rather than Siren's solar years. This allows us to remain consistent with the calendar used in the *Shadows Over Sol* core rulebook. It also is likely consistent with the system used by the in-game colonists themselves, as Siren doesn't have a significant axial tilt, and thus there isn't much in the way of seasons to differentiate local years.

In the rare instances where Siren's solar years are discussed, they will always be called out explicitly as Siren years.

## Recommended Media

*Siren's Call* was inspired by a variety of existing science fiction and horror media. These works may further serve as inspiration for potential players and game masters. Below are a few of the books and games we recommend for inspiration.

- **Blue Planet:** This roleplaying game, first published in 1997, takes place on the ocean world, Poseidon, which was colonized by Earth by means of an artificial wormhole linking the two systems. It takes place in a similar timeframe as *Shadows Over Sol* and likewise is a mostly hard sci-fi setting.
- **The Expanse:** *The Expanse* book series has been one of the primary inspirations for *Shadows Over Sol*, and it is likewise relevant to *Siren's Call*. The recent TV series is good, too. In particular, the fourth book, *Cibola Burn*, is worth reading as inspiration (for reasons that would be a spoiler for those that haven't yet read *The Expanse*).
- **Mars Trilogy:** Consisting of the books *Red Mars*, *Green Mars*, and *Blue Mars* by Kim Stanley Robinson, this series has been highly influential to the science fiction genre. The first book is particularly relevant. The trilogy covers the colonization and terraforming of Mars, and takes place over the course of almost two centuries.
- **Sid Meier's Alpha Centauri:** This video game from 1999 is one of the best examples there is of the 4X genre, and was tremendously influential to the development of *Siren's Call*. It likewise tells the story of humanity's colonization of a planet in the Alpha Centauri system. If one can actually find a copy, the associated novella, *Journey to Centauri* by Michael Ely, was serialized on the Firaxis Games website starting in 1998, and is excellent inspiration! The three following novels, *Centauri Dawn*, *Dragon Sun* and *Twilight of the Mind* don't live up to the original, but might still be worth a read. The game also spawned a GURPS supplement, *GURPS Alpha Centauri*, published in 2002.





# Glossary

The following terms are used throughout *Siren's Call*.

- **Advancement:** A scientific, technological, societal or infrastructural breakthrough which benefits a colony in the Colony Building mini-game (see page 50).
- **Alpha Centauri:** The nearest system to Sol, and the solar system targeted as the destination for the ARC Project. Consists of three stars: Alpha Centauri A, B and C (Proxima Centauri).
- **ARC Engineering:** The corp which founded the ARC Project and directed the project before its takeover by USD.
- **ARC Project:** An ambitious project to build and launch humanity's first interstellar colony ship, targeting the planet Siren, orbiting Alpha Centauri A.
- **Colonist:** One of the select people chosen by the ARC Project to undergo the long voyage from Sol to Alpha Centauri and begin a new human colony there.
- **Colony Turn:** A one-year unit of time used in the Colony Building mini-game. Each colony turn the players get to choose their colony's actions (see page 47).
- **Drop Module:** A modular capsule, making up part of the ARC colony ship, designed to be safely dropped down Siren's gravity well to supply resources for the new colony.
- **Facility:** A specific piece of infrastructure which benefits a colony in the Colony Building mini-game (see page 49).
- **Faction:** One of the major power blocs within the ARC Project, mostly consisting of one of the project's major investors and associated crew.
- **Player Colony:** The colony on Siren in which the player characters live. The development of this colony is controlled by the players but may or may not be overseen by the player characters.
- **Population:** The Colony Building mini-game uses units of population (consisting of roughly 100 individuals) to assign actions each colony turn (see page 48).
- **Project Osiris:** A rival interstellar colony project started by Unitech in response to USD taking over the ARC Project. Scheduled to launch several years after the ARC colony ship.
- **Red Ends Interplanetary:** An interplanetary mercenary outfit with ties to Unitech, known to specialize in infiltration and sabotage.
- **Resource:** An abstraction used in the Colony Building mini-game, representing necessary materials in the development of

## Earth-like Worlds

"When we speak about Siren, we glibly refer to it as 'Earth-like.' And indeed it is Earth-like in the grand spectrum of planets in the universe—far more so than any other planet in the Sol system. But let me deconstruct for a minute what that means. 'Earth-like' means that Siren has a temperature range that we can survive. It has an atmosphere with nitrogen and oxygen. It has a surface gravity in which we can move around without becoming too encumbered. That's it. Expect everything else—even things we usually take for granted, like the carbon cycle or the planetary magnetosphere—to make sustaining human life there a scientific and engineering challenge. Expect the world to truly be alien."

— Dr. Karina Shapiro

a colony. Resources are nutrients, minerals and energy (see page 48).

- **Scott Productions:** A studio owned and operated by Steve Scott, an influential Techno subcultural demagogue and vid personality. The last major investor to be brought into the ARC Project.
- **Shapiro Lab:** A cross-disciplinary lab based out of Stillwater University and later the University at Medyen Aleqmer. The Shapiro Lab is one of the major investors in the ARC Project.
- **Siren:** A habitable-zone Earth-like planet orbiting Alpha Centauri A. This planet has been chosen as the destination of the ARC colony ship.
- **Sol:** The technical name for both Earth's sun and the solar system. It is the point of origin for the ARC Project, and is located 4.4 light-years from Alpha Centauri.
- **Stillwater Catholic Church:** A religious organization based out of Stillwater colony on Mars, the Stillwater Church was one of the earliest investors in the ARC Project.
- **Unitech:** One of the five biggest megacorps, Unitech specializes in aerospace technology. Passed over for partnership in the ARC Project, Unitech has been antagonistic and has launched its own rival interstellar colonization effort, Project Osiris.
- **Utakar System Dynamics (USD):** Another one of the big five megacorps, USD took control of the ARC Project from ARC Engineering and has since used the project as good PR and a way to show up Unitech.









# ARC Project

**Stillwater, Mars. 2207.**

*"Humanity is basically fucked."*

*Ester takes a sip of her coffee, pondering where Lindiwe is going with this. "I thought you said you had some sort of epiphany—a vision. I would hardly call humanity being fucked a profound insight."*

*"But isn't it?" Lindiwe continues. "Even at the most optimistic, I don't see any way that humanity is any less screwed. As long as we're tied to Earth, we live or die by what happens to that feeble, abused husk of the planet."*

*"Things are getting better," Ester offers. "The energy footprint per person is down. We've obliterated most common genetic diseases. The sea walls have held. We haven't had a major war in 70 years."*

*"Yes, war," Lindiwe continues, "It's been 70 years, so let's try to be optimistic and assume that humanity has, by and large, somehow conquered war—one of the four horsemen of the apocalypse. Unfortunately, we're still beholden to the new horsemen: eating, fucking and shitting ourselves to death."*

*"We're terraforming Mars," Ester counters. "You're helping lead that effort. One day we won't be dependent on Earth."*

*"Too little, too late! By our best estimates it will take at least another two centuries before Mars is even remotely able to sustain an entirely closed life support loop, and several more on top of that before it's able to support a comparable number of people."*

*Ester shrugs her shoulders in defeat. "Okay. You win. Tell me. You say you had a vision. What's the profound insight?"*

*"If humanity is to survive, we need to spread beyond the Sol system. We need to diversify the biospheres upon which we're dependent. We need to find a new Earth—or at least something approximating it."*

*"And so you're going to solve Earth's overpopulation problem with interstellar colonization?"*

*"Bah! Let me put that myth to rest. Interstellar colonization will never be a solution to Earth's exploding population problem. Let's do the numbers: Even at our current rate of population growth, we're looking at 167 million new people every year. So to break even, we need to launch almost half a million colonists into space every day, all year round, forever. And that's just to break even. To actually reduce the population we'd need to launch more." Lindiwe sighs. "It's a lot easier to just use contraception."*

*"Okay, so if this is not going to solve the problem, why is the insight significant?"*

*Lindiwe smiles, a sort of fiendish grin, but his eyes are sad. "We may not be able to save everyone—in the grand scheme of things, only a few. But saving every individual isn't necessary to save a species, a culture."*

*"Ester, put together a report on what sort of resources it would take to make interstellar colonization a reality. I want to know costs, estimated transit times, what technologies are lacking, available infrastructure and potential investors. How many people would it take for a colony to be viable across generations? Oh, and look up the available data on the exoplanet, Siren. I've always fancied it."*

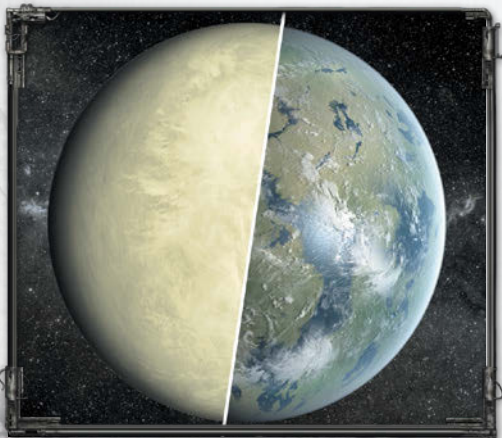


# The Mission

The ARC Project is unbelievably ambitious. Its mission is to transport some 10,000 colonists the 4.4 light years from Sol to Alpha Centauri. There it will deposit the colonists on the planet Siren, orbiting Alpha Centauri A. With some combination of luck, expertise and dogged determination they are to build the first interstellar colony.

Think about that for a moment. In the pursuit of this goal, it will be constructing one of the largest spaceships ever built. Its journey will be roughly 16,652 times farther than the next closest manned spaceflight. Along the way the ship will be traveling faster than any manned mission ever has before. The colonists will be in stasis for longer than the history of stasis technology. And to top it all off, after arrival, the colonists will only have a very narrow window to adapt to their new planetary conditions and construct a new human society. There is no fallback. There is no safety. Anyone who goes on the mission will never see Earth, Sol or any of their loved ones ever again.

There is a very good reason to believe that everyone on the mission is simply going to die in the cold vastness of space. Still, that hasn't deterred some from spending years of their lives preparing for the historic effort.



## Recruiting

Despite the perils of the mission and the large number of personnel required, the ARC Project hasn't had too many difficulties recruiting colonists. The Sol system is home to some 13 billion people, and the mission has years to fill its ranks.

## Desired Qualities

The abundance of applicants has afforded the ARC Project the opportunity to be very selective in those it chooses to accept. Every recruited colonist must undergo a rigorous screening and training process. This includes:

- A psychological screening. The recruiters are looking for general stability and mental health, along with a selection of desired personality traits thought to be beneficial to surviving the harsh conditions of an early-stage colony.
- A fitness screening. Recruits must be fully capable and in good condition. Furthermore, younger adults are preferred due to their safer reproductive capability—after all, part of the mission will be securing the colony with a second generation.
- A variety of skill sets are in particular demand for the mission. These skills include experience with environmental systems, ecological expertise and construction experience. Colonists with the right skills stand the best chance of being chosen, despite their other deficiencies.
- Finally, French has been chosen as the literal *lingua franca* of the mission. Prior knowledge of the language is preferred, although a program has also been put in place to teach it to new recruits as part of their training process.

## Attrition & Understudies

As one might expect, as with any multiple-year commitment—especially one with the finality and profound life-changing nature of the ARC Project—there is going to be some amount of attrition among the recruits. Some are going to have a change of heart and leave the project, some are going to die of accidents or health complications in the interim, others are going to be fired or wash out of the training program. Although the rigorous screening process helps in this regard, it doesn't negate it entirely.

To account for this attrition, the project selects slightly more colonists than it can actually take. The additional colonists are informed of their status and added to a waitlist. Waitlisted colonists still must undergo the necessary training and are still on the project's payroll, but won't have a spot on the colony ship unless a space first opens up.

For a select few positions requiring specific and difficult to replace skills, the position has a designated understudy—a particular waitlisted recruit with the necessary skills, ready to step in and replace the primary colonist if needed.

## Other Staff

Not everyone recruited by the ARC Project will be a colonist going on the mission. The project also requires engineers, electricians and mechanics to construct the colony ship. It requires staff to work its recruiting stations, sysops to upkeep its net nodes, pilots to drive the shuttles, janitors to clean the construction platform and managers to oversee all this.

In practice, many of the employees performing these jobs will be going on the mission—even if not all are. Since the ARC Project requires a year-or-longer training commitment and requires that the colonists are ready to drop everything when the mission launches, the project is forced to keep most of its recruits on the payroll during

the interim. Since it's already paying them, when not otherwise occupied with training, these recruits are put to work.

## Infrastructure

The ARC Project is a sprawling and breathtakingly ambitious endeavor. As such, it requires quite a bit of infrastructure to maintain—from recruiting offices to the ARC construction platform. These are detailed below.

- The ARC colony ship is covered in its own section (see page 24).

## Administration

The original administrative offices for the ARC Project were located in Stillwater on Mars. It was here that ARC Engineering was founded and that Lindiwe Temma made his home. After the USD takeover of the project, however, the administrative offices were moved to Earth. There they occupied a picturesque building in the Taurus Mountains. At its height, these offices employed more than 1,000 people.

## Recruiting Facilities

From 2214 through 2216, the ARC Project opened numerous recruiting offices on Earth and a handful in space, most notably in Stillwater and Medyen Aleqmer. Facilities tended to be located in areas of significant population density, particularly in cities boasting a highly technical population.

Most recruiting facilities were small affairs, consisting of a single office and an AR access point loaded with promotional materials and heartwarming stories favoring interstellar colonization.

The project also maintained a significant net presence, operating a node with a full virtual tour of the colony ship and a digital mockup of a theoretical colony on Siren. This node continued to operate throughout the life of the project, and was the primary point of recruitment after 2220.



## Training Facilities

Training 10,000 selected colonists, plus their potential backups, for a period of at least a year required the project to make a substantial investment in training resources.

Towards this end, a massive training complex was constructed near Lac de Buyo in West Africa. This complex included classrooms, temporary habs, weight and gravity training facilities, a dome with an artificial biosphere and a selection of training equipment matching the gear being sent on the mission.

Colonists were also frequently brought on excursions to the neighboring communities to practice their conversational French in preparation for the mission.

## ARC Construction Platform

Located at the L4 Earth-Moon Lagrange point, this massive construction platform was assembled in order to construct the ARC colony ship. Almost a space station in its own right—albeit one which didn't rotate and thus had no spin gravity—the ARC Construction Platform quickly became the center of commerce at L4.

## Generational Planning

Part of the ARC Project's goal is to create a functioning society on Siren. The colonization process will not only take the rest of the colonists' lives, but they will be setting the stage for the generations to follow. No one knows how many generations the colonists' children will remain isolated from the rest of humanity.

As a consequence, the project needs to make sure that its colonists can produce children, and that the generation to follow remains a viable population. A total population of 10,000 individuals is a very small genetic bottleneck for a species to go through. All of

the factions involved in the project agree that this much is necessary. Unfortunately, beyond that the disagreements begin.

## Genetic Legacy

One point of contention was on the gender balance of the colonists, with the Stillwater Catholics on one hand, advocating a 50/50 split between the sexes, and the Shapiro Lab advocating a split heavily weighted towards female colonists.

The lab's line of thought was that the male genetic legacy could be replaced with a large library of frozen semen samples. For the cost of accelerating and then decelerating the mass of a male body on the ship's 400 year voyage, the mission could instead take with it a sperm bank of similar mass, containing samples from thousands of individuals. This would yield much larger reproductive combinatorics, resulting in less inbreeding in the long run and thus a more viable genetically diverse population.

Eventually, however, the Stillwater Church won this argument and a 50/50 gender ratio among the colonists was decided upon. A similar disagreement was had in regard to phenotypic representation among the project's colonists.

## Nonhuman Colonists

Humans aren't the only species that the ARC Project is transporting to Siren. Seeds for over 200 species of plants are being shipped, along with frozen embryos for over 50 animal species and spores for several species of fungus. The former have been selected for their utility in establishing food security in the colony or their use in maintaining environmental systems. The latter have been selected in an effort to allow the colony to establish something resembling a functional miniature ecosystem.

# Project History

The ARC Project has had a tumultuous history, from Lindiwe Temma's vision of it as the salvation of the human species, to its forceful takeover by USD, from its repeated funding woes, to its eventual launch. Below is a brief history of the project.

## Premonition & Early Days

Lindiwe Temma was a wealthy Neoret business tycoon from Stillwater on Mars, whose family made their fortune investing in the Mars Terraforming Project. In 2207, he claims to have received a premonition that if humanity is to survive, it imminently needs to spread beyond the Sol system, seeding itself elsewhere.

## Stillwater Catholics Invest

Shortly after his vision, Temma began to look for investors in his grand project. He would spend the next three years doing this, being turned away by far more potential funding sources than took him seriously. In pitching his interstellar colony vision he kept running up against the fact that despite centuries of observing exoplanets from a distance, no one knew exactly what would be found at the end of the trip or what the payoff would be. Whoever launched themselves into the void would have to be taking it on faith that they, or their children, would one day reach the promised land.

With the rejections mounting, Temma turned to his faith. He was a lifelong Stillwater Catholic so, after a period of prayer, he approached the church officials about investing in the project. There he found fertile ground for his vision of humanity's place among the stars. The Stillwater Catholic Church soon became the project's biggest investor.

## ARC Engineering Founded

With money from the initial investors in hand, Temma founded the ARC Engineering Corporation to oversee and administer his grand endeavor. The new corp soon commissioned panels of experts to research and render judgment on a variety of topics of interest to the project. These included taking stock of the most promising exoplanets, researching approaches to interstellar colonization, looking into what resources would be needed and simulating the environmental impact of human colonization of a new planet. Soon Siren was selected as the destination for the colonization effort.

Things were going well for the new corp—that is until Unitech began pressuring the board for the exclusive construction rights on the project.

## Corporate Woes

Temma had approached Unitech when he was looking for potential ARC Project investors and had been laughed out of their Lunar headquarters. Their attempts to strong-arm an exclusive construction contract out of project served to further dissuade him from cooperation with the corp. Clearly they didn't believe in interstellar colonization, and his assessment was that they merely sought to drain dry the ARC Project's coffers.

Taking his concerns to ARC Engineering's board of directors, Temma laid out his objections to granting Unitech a contract. He convinced the other investors, most notably the Stillwater Church's leadership, to resist the corp's ongoing effort to apply pressure to the project.

Unitech did not take this lightly. Spacefaring construction and engineering was their area of commercial dominion, and they saw ARC's rejection as a threat. After the Stillwater Catholic Church voted against Unitech's involvement with the project, it even sparked a lasting feud between Unitech and the church's Martian holdings.



## Utakar Takeover

As Unitech continued to up the pressure they were applying to the project, Temma came to the conclusion that he would need the backing of another major corp to resist Unitech's involvement in the long run. He reached out to his Neoret business associates and was soon put into contact with Utakar System Dynamics.

Negotiation with USD did not last long. Having long been a rival of Unitech, and sensing a chance to shut the rival corp out, Utakar took control of the ARC Project's construction and administration through a rapid series of bribes and a short military takeover of ARC Engineering headquarters.

When the metaphorical dust settled, USD had strong-armed enough of the project's investors to take over the leadership. The Stillwater Catholic Church raised an official objection to USD's tactics, but in the end it amounted to little—they were already in the middle of an expanded conflict with Unitech and couldn't afford to alienate a second megacorp. As USD consolidated their power in the project, Lindiwe Temma kept his position on the board of directors, but largely lost his leadership in the project.

## More Investors Needed

As Utakar secured its leadership of the ARC Project and expanded its construction and recruiting efforts, the project's initial investments quickly proved to be inadequate. With several groups within the project about to default on their debts, the board voted to pursue a second round of investors. This was soon followed by a third round, then a fourth. Interstellar colonization was proving to be significantly more expensive than originally estimated.

## Project Osiris

As Utakar System Dynamics moved forward with control of the ARC Project, Unitech was not idle in its opposition. Being shut out of the project's construction was no longer just a thorn in the side of the megacorp, it was a clear threat to Unitech's dominance of the aerospace industry.

In 2215, Unitech agents successfully sabotaged the ARC Construction Platform, creating a sizable setback and massive cost for the project. Meanwhile, they bought up the raw materials necessary for the construction of the ARC colony ship, thereby driving up costs. These efforts compounded the budgetary problems already being experienced by the ARC Project.

Noticing the wave of good publicity that USD gleaned from the project, and already in possession of many of the raw materials necessary for the construction of a colony ship, in 2218 Unitech announced its own competing interstellar colonization effort: Project Osiris. The megacorp hoped to leverage its experience in spaceship construction to beat the ARC Project to launch, thereby stealing USD's thunder.

As with ARC, they underestimated the costs necessary for an interstellar colonization effort. Project Osiris did not beat the ARC Project to launch, although it quickly gained ground and was projected to be not far behind.





## Sleeper Ship or Generation Ship?

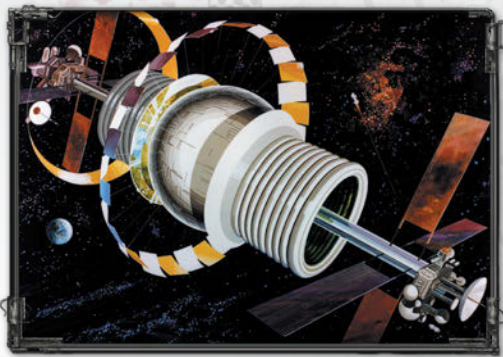
In the early days of the ARC Project it wasn't clear whether the ARC colony ship was going to be a generation ship or a sleeper ship—that is, would generations of colonists live out their lives on the ship, awake and alert, before its arrival at Alpha Centauri, or would the colonists spend the centuries in stasis.

In 2210, when Lindiwe Temma founded the project, he commissioned a panel of experts to look into the viability of both approaches. The conclusions reached by the panel weren't encouraging.

With the best stasis technology at the time, the panel estimated "attrition rates" of 30-50%. That is, due to mechanical issues, cellular deterioration or sheer chance, almost half of the colonists who went into stasis were likely to never wake up again. And even among those who did wake up, the median effective aging of a body in stasis that long was 22 years. That is, every colonist would lose an average of 22 years of her life, a sizable number affecting both health and reproduction.

The generation ship approach likewise had problems. The project's engineers would need to establish a closed life support loop and a functioning mini-ecology an order of magnitude better than the best ones space colonies had to offer. The ship would need to contain habs, agriculture and public spaces. It would need to be much, much larger to contain all this—meaning there was more mass to accelerate, and thus it would require much more power and expense. This is to say nothing of the sociological challenges of holding an isolated society together and focused on its end goal for centuries.

After the panel delivered its report in 2213, the ARC Project waffled back and forth for a time, favoring one method or the other. However, everything would soon change with the publication of Zhang's Stasis Method.



### Shapiro Lab's Expertise

Dr. Karina Shapiro was brought onto the ARC Project in 2216, her lab bringing with it an influx of new grant money and providing much needed in house scientific expertise. One of the first things she did was to review the current state of the project's scientific planning. She found it to be sorely lacking.

Concerned about the interstellar stasis problem, she reached out to a collaborator at the University at Medyen Aleqmer, a Dr. Xishan Zhang. Zhang was one of the foremost researchers in stasis technology, and his lab was in the process of pioneering a new method for putting individuals into stasis and containment thereafter. With Karina Shapiro's urging, the ARC Project allocated resources to Dr. Zhang's research.

### Zhang's Stasis Method

Zhang's new stasis method was a spectacular success. By constructing stasis pods that were designed for a single use, results could be achieved that were easily an order of magnitude better than current stasis technology. Estimated attrition rated dropped to 5%, with a median effective aging of only four years for the entire four century journey!

In 2218, the ARC Project board voted overwhelmingly to endorse Zhang's stasis method, scrapping their existing order of conventional stasis pods. It was settled: the ARC colony ship was going to be a sleeper ship.



## The Long Road to Launch

It was a long road from the beginning of the ARC Project to its final launch. Interviews and the recruitment of colonists began in 2214, starting with managerial positions or with those that would need the most training, and working downward from there. Construction on the colony ship was finished in 2219, with the ship making a single trial voyage following Luna's orbit, before stopping again at the construction platform to begin the process of stocking equipment and supplies.

## Platform Shuttle Disaster

In 2220 a disaster occurred which almost forced the shutdown of the project prematurely. A passenger shuttle transporting the ARC colony ship's selected command crew and understudies collided with a passing freighter, killing all on board.

This suddenly left the mission with critically missing expertise. The command crew had been in training for the last six years. They were knowledgeable with the project inside and out. The mission was scheduled for launch in just over a year. They would not be easily replaced.

Scrambling to fill the vacancies, the project turned to the members of the board that had opted to undertake the voyage on the colony ship. At the very least, the board members each had a long history with the project and were intimately familiar with its workings. Although many of them lacked formal training as a ship's crew—and others in the crew were quick to point this out—they still had a year ahead of them to learn the ropes. For better or worse, the decision had been made.

## Last Minute Crowdfunding

Despite the project's best efforts, the shuttle disaster resulted in another round of budgetary problems and forced the launch to be delayed by almost a year. Positions were reshuffled, safety measures were put in place and the full 10,000 colonists had another unplanned year on the payroll, training for launch. More money was imminently needed or the project would be forced to shut down.

Looking once again for investors, the project received an offer of funds from Steve Scott, a highly controversial Techno media personality and subculture demagogue, in return for a position on the board of directors. The vote to give his company, Scott Productions, a seat on the board was highly contentious, but in the end those in favor won out. Steve Scott accepted his seat and then initiated an immensely successful crowdfunding campaign to save the project.

## The Colony Ship Launches

In 2222, the ARC Project colony ship finally launched. After fifteen years of planning and development, everything was underway.

Wave after wave of colonists were put into stasis, and then all of the systems were double-checked before the ship set out on its long journey. The investors in the project had a field day using the launch for publicity, talking up the ideals of the project and broadcasting what the various colonists did with their final day on Earth.

After a short ceremony to commemorate the effort, the ship did one last circle around the Earth before beginning its long acceleration into the void between stars.

## Timeline

Fifteen years passed between the initial conception of the ARC Project and its eventual launch. During this time the project underwent a number of unforeseen metamorphoses. Below is a timeline of events, focusing on those which affected the ARC Project between its conception in 2207 and its launch in 2222.

- **2031:** A habitable-zone Earth-like planet is discovered orbiting Alpha Centauri A. It is nicknamed Siren by the media (sometimes misspelled Sirine).
- **2207:** Lindiwe Temma, a wealthy Neoret business tycoon and Stillwater Catholic faithful, receives a premonition that humanity will need to spread beyond the Sol system, seeding itself elsewhere, if it is to survive.
- **2210:** After gathering numerous investors, the largest of which is the Stillwater Catholic Church, Temma founds ARC Engineering Corporation (or just ARC for short). It is tasked with organizing and administrating the ARC Project.
- **2211:** Construction on the ARC Project begins, and the decision is reached to launch the colony ship towards the planet Siren. Unitech begins pressuring ARC to grant them exclusive construction rights on the project.
- **2212:** Sensing an impending hostile takeover, Temma convinces the majority of the board—most notably the Stillwater Catholic leadership—to resist Unitech's pressure. This begins a feud between Unitech and the Stillwater Catholic Church.
- **2213:** Facing increasing hostilities, Temma realizes the project needs the backing of a larger corp to resist Unitech's involvement. He selects Utakar System Dynamics (USD). Sensing blood in the water and a chance to shut Unitech out, Utakar instead seizes control of the ARC Project's construction and administration through a series of bribes and the military takeover of ARC headquarters. Temma maintains a position on the ARC Project board, but to





his dismay is largely bereft of the leadership he once held in the project.

- **2214:** Preliminary interviews for ARC Project colonists begin. Some 10,000 colonists will need to be selected before the mission launches. *The present day in the Shadows Over Sol core rulebook.*
- **2215:** Unitech agents sabotage the ARC Construction Platform, damaging numerous raw materials, waldoes and part of the colony ship's hull. This is a setback and major expense for the project.
- **2216:** Facing significant cost overruns, the project seeks new investment. This results in a major grant financing the involvement of the Shapiro Lab at Stillwater University. Training for the first selected ARC colonists begins, including training for the ship's command crew.
- **2217:** The project continues to seek new investment, as material costs skyrocket due to Unitech's pressures. However, as no major new investors are forthcoming and with its reputation on the line, Utakar makes its own sizable investment in the project.
- **2218:** Due to publication of Zhang's Stasis Method, the ARC Project board votes to scrap its current order of conventional stasis pods in favor of starting over with the new design. This becomes another significant cost for the project. Meanwhile, Unitech announces Project Osiris, a competing interstellar colony ship. Construction on it soon begins, aiming for a target launch date in 2225.
- **2219:** Construction on the ARC colony ship is completed, albeit significantly over budget and a year behind schedule. The intended maiden voyage around Earth's solar orbit is canceled due to the threat of sabotage and budgetary concerns. Instead, the ship's maiden voyage is a simple lunar



orbit. The process of outfitting the ship with equipment for the mission then begins. Facing restrictions on its research by the Stillwater authorities, the Shapiro Lab moves to the University at Medyen Aleqmer.

- **2220:** A collision in Earth's orbit between an ARC platform passenger shuttle and a passing freighter kills the majority of the ARC colony ship's command crew. The project scrambles to find and train replacements, looking to those with significant influence on the board. Meanwhile, with expenses and setbacks to the project mounting, Utakar begins to publicly divest itself from the project, although it retains its board position.
- **2221:** Once again facing budgetary problems, this time due to Utakar's divestment, the board makes a highly divisive vote to allow Steve Scott, a Techno media personality and subcultural demagogue, a seat on the project. He initiates a crowdfunding campaign which raises the final funds needed for the colony ship's launch.
- **2222:** With the last of its equipment and life support materials in place, the ARC colony ship is launched from its construction platform at the Earth-Moon L4 Lagrange point, beginning its 395 year journey to Siren.
- **2617:** The ARC colony ship is scheduled to arrive in the Alpha Centauri system.

## Planned Arrival

In the fifteen years the ARC Project has been in development, a lot of thought has been given to the colony ship's arrival at Siren and its initial colonization efforts. The project's planners and engineers want to make sure that the colonists are prepared for the job ahead of them, and so preliminary survey and colonization plans have been put in place.

Naturally, these plans will need to be adjusted to the circumstances of the ship's arrival and the findings of the initial surveys. Even the best laid plans can go horribly awry, but nevertheless, here are the project's plans for after arrival. Some dates are given relative to the colony ship's arrival in Siren's orbit (*A*).

- **2617 (A):** After a long period of deceleration, the ARC colony ship arrives in orbit around Siren. As the ship approaches orbit, the command crew are awoken from stasis, accompanied by a few select engineers and stasis technicians. The rest of the colonists remain in stasis. These select few systematically take stock of all systems on the ship and begin reviewing transmissions from Earth, received and archived in the ship's computer during the long voyage.
- **A+2 Weeks:** With the survey of the ship's systems finished, a selection of scientific experts are awoken from stasis so that they can begin conducting orbital surveys, collecting satellite footage, temperature, orbital and atmospheric data from Siren. The total number of colonists out of stasis is to remain under 100 individuals, so as to minimize life support requirements and impact on the nutrient supplies.
- **A+3 Months:** With the data from the orbital surveys reviewed, the first expedition to the surface is conducted using one of the mission's planetary shuttles (see page 26). This survey can be repeated up to three more times. Each shuttle trip awakens a handful of scouts from stasis. The purpose is to collect data which can be orbit from orbit and to survey potential sites to construct the ARC colony.
- **2618 (A+1 Year):** With a site for the colony chosen, the first drop modules containing colonists and construction supplies are sent to the selected location. Construction begins, with 500 colonists in the initial drop. They are to assemble habs and essential infrastructure, paving the way for subsequent waves of colonists and supplies. Meanwhile, the command crew and several dozen workers will remain in orbit, monitoring the viability of the colony as it develops, providing satellite data and planning future drops. New colonists are dropped down, awoken and integrated into the colony in waves as hab space and labor becomes available.
- **2621 (A+4 Years):** By this point the colony should have the agricultural infrastructure in place to feed itself, without having to further deplete nutrient stores.
- **2622 (A+5 Years):** The last wave of colonists, including the command crew, is dropped down to the colony. By this point, the last of the drop modules should be detached, leaving the colony ship as little more than an orbiting frame and satellite relay. With this final drop, all 10,000 colonists have been awoken from stasis. Authority over the colony passes from the ship's command crew to a colonial council chosen by the ARC Project's board of trustees.



# Colony Ship

Officially, the ARC colony ship is simply named the ARC—a decision championed by the Stillwater Catholic Church in an effort to invoke the obvious biblical allegory to Noah's Ark. Unofficially, its name is usually expanded to “the ARC colony ship” in an effort to differentiate it from the many other affiliated ARCs—both the ARC Project and ARC Engineering. For much of its history it's also been referred to simply as “the colony ship,” as until the launch of Project Osiris in 2218, it's been the system's sole interstellar colony vessel.

Physically, the ARC colony ship is the second largest spaceship ever constructed. It's surpassed in size only by the Anvil, USD's largest battleship. It is a marvel of engineering, employing the most bleeding-edge stasis technology, a design intended for the reuse of most of the ship's raw material and an abundance of redundant systems. This is good, because it will need to carry its payload of 10,000 colonists on a voyage lasting four centuries without maintenance.

## Structure

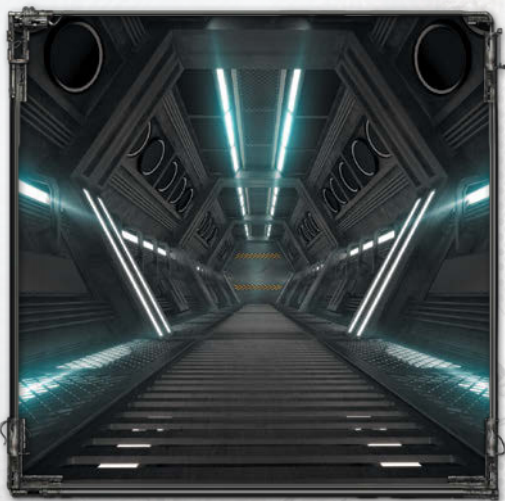
Structurally, the core of the ARC colony ship is a long tube, with engines on both the front and back. This long tube is known as the main deck.

About two thirds of the way down the tube, a trio of three much shorter, perpendicular tubes jut out from the main deck at unilateral angles. These three tubes are known as the ship's cross-decks. Each cross-deck has a reactor on its far end. These serve primarily to distance the reactors from the core of the ship, allowing them to generate tremendous amounts of energy while radiating most of the waste heat into space rather than into the sleeping colonists. No one wants to be boiled alive during transit.

In many ways, these decks are just a bare skeleton. The real payload and bulk of the ship is contained in its many drop modules. These are vaguely capsule-shaped sealed hulls attached to the main deck at numerous hard points along its length. The mechanics constructing the ship have even likened the main deck and the many drop modules to stalk of Brussels sprouts—with the main deck being the stalk and the many drop modules clinging to its length being the sprouts.

Each drop module is designed to be detached from the colony ship and dropped down Siren's gravity well, landing at a safe velocity. Each module is then designed to be disassembled or otherwise repurposed. In this way, the bulk of the ship's raw material can be sent down the gravity well and used in the colony's construction.

Once all of the drop modules have been deployed, only the bare skeleton of the ship and its engines will remain in orbit. During the project's development some thought was given as to how this frame might also be repurposed as a small orbital station once the colony again achieves space flight, but these plans were never finalized or fully implemented due to financial concerns.



## Terra Nullius

The ARC Project's claim to Siren depends on the legal principle of *terra nullius*—that is the idea that uninhabited land can be legally claimed by occupying and settling it. This principle dates back to the ancient Romans and has been used in recent centuries to divvy up the solar system to different corporate mining or colony interests.

After the ARC Project's arrival at Siren, however, this principle may be put to the test. Not only is there a competing claim—Unitech's Project Osiris—but the question arises of how much can be claimed? Does the project claim the whole planet, or just out to a certain radius? As the colony grows, if colonists move away, further into the wilds, do they get their own claims? Is everything in the colony owned by the ARC Project's board of trustees, or do things get further divided into individual ownership? These are all questions that have yet to be answered.

## Engines & Power

The ARC colony ship has engines on both its front and back. The back engines are designated the *acceleration engines*, while the front engines are designated the *deceleration engines*. Each set of engines are powered by their own reactor.

The purpose the back engines are to accelerate the ship from the Sol system, out into interstellar space. They are designed to burn for approximately 15 years, at which point they will have depleted their thorium reserve and cease to function. The front engines are intended to do the opposite of this, kicking in roughly 15 years before the colony ship reaches Alpha Centauri, and slowing the ship down until it is traveling at a velocity that can successfully enter orbit around Siren.

Unlike the back engines, the front engines are not designed to burn until they deplete their fuel reserve. Rather, they have a larger reserve, giving the ship a safety margin as it decelerates on approach to the Alpha Centauri system.

The reactors at the front and back of the ship are joined by three additional reactors located at the end of each cross-deck. These reactors each have a different purpose. Their jobs are to provide power for the stasis pods, provide power to the ship's main systems and to serve as an auxiliary power reserve, respectively.

Since the ship's power grid is interconnected, any of these reactors can channel additional energy to other systems if needed, but this is primarily the job of the auxiliary reactor.

## Drop Modules

The ARC colony ship is comprised of a frame, two engines and 104 drop modules. These modules are designed to detach and drop down Siren's gravity well, thereby delivering their contents safely to the surface.

One of the engineering goals was to provide the mission with maximum flexibility upon reaching Siren and adapting to the conditions there. Dividing the mission's payload into numerous drop modules allows it to either drop these modules all in one location—if the mission finds a singular suitable spot for colonization—or to drop them in several locations around the planet, if one location proves to be untenable. Since the colonists inside the drop modules are kept in stasis, it also allows them to be deployed, one or a few at a time, in waves. This allows for a slow, careful approach to colonization, with room and adapt and learn from any surprises along the way.

In many ways, drop modules are designed to be the seeds of a new colony. The standard



module contains 100 colonists in stasis, a stockpile of preserved nutrients and other resources, construction equipment, independent life support and other gear useful in establishing a fledgling colony. Most modules also contain battery power capable of operating for a year after being detached from the ship's reactors, assuming power usage is kept to a minimum.

Every standard module is designed to drop to the surface, wake its colonists safely after impact and operate as an independent hab. Most modules have two airlocks, allowing access to the outside world. All modules are also designed to be disassembled and their raw material repurposed once they outlive their usefulness to the new colony. In this way, they serve as delivery vessel, habitat and resource.

Mixed in among the standard modules are a few drop modules that contain specialized gear or otherwise singular resources. Most of these drop modules possess all of the same capabilities mentioned above, but instead of the usual supply of construction equipment and raw materials, they contain specialized gear. Examples of specialized drop modules include an advanced medical module, an

armory module, several modules containing construction mechs or exploratory rovers, a module containing a watercraft and aquacultural supplies and four modules containing single-use planetary shuttles (see below).

## Planetary Shuttles

Four of the ship's drop modules have an entirely different design. Instead of the usual payload of colonists in stasis and supplies, these specialty modules each contain a planetary shuttle.

The intent of these shuttle modules is to aid in the early exploration of the planet. Each of these modules is designed to drop to surface with only a small exploratory crew, already awakened from stasis. Upon landing, these select explorers can use the module as a base of operations, taking samples, performing atmospheric analysis, exploring the landing site and radioing all this back up to the colony ship. Each such landing can operate independently for as long as a year.

Once the exploratory mission is complete, these special drop modules are designed to unfold, transforming into a primitive launch platform and exposing the shuttle held inside.

## Out of the Gravity Well

In the future of *Shadows Over Sol*, widespread space travel is only possible because getting materials to orbit has become relatively cheap. This is made possible through a series of space elevators on both Earth and Mars, laser launch on Venus and low gravity everywhere else. Without this infrastructure, sending mass out of a gravity well has all of the same problems it does in the modern day: every kilogram launched into orbit is prohibitively expensive for most purposes.

With the ARC colony ship's arrival at Siren, the new colony will be put into a position much like the early days of space travel. No infrastructure exists for getting material cheaply into orbit, thus every launch will be precious and expensive. Until large scale laser launch facilities can be built—or even better, but more ambitious, a space elevator—the colonists are going to have to rely on old school chemical rockets to reach orbit.

Each shuttle contains launch chairs for the explorers, a small compartment to house gathered samples and a single-use chemical rocket designed to propel the shuttle back out of the gravity well and into orbit, where it can dock with the colony ship.

Since there are only four of these specialized modules, and each module is single-use, the mission has a limited number of exploratory trips it can make before it starts having to send colonists down the gravity well. Every trip counts!

## Command Structure

The original command crew of the ARC colony ship and their understudies died in 2220, when a passing freighter collided with the shuttle ferrying them to the ARC Construction Platform. This accident resulted in a shuffling around of positions within the project and the urgent need for retraining, which delayed the colony ship's launch another year.

The original command crew were replaced with members of the ARC Project's board of directors. The argument in favor of this was that these individuals all had intimate familiarity with the project and all had experience in leadership positions, thus they would require the least training.

At the time, several prominent members of the project objected to this selection. They argued that that out of all the replacements, only Cardinal Sardou had any experience whatsoever in a spaceship command position, and that these positions required a certain degree of experience and discipline not necessarily covered by time on the project's board. In the end, these objections were overruled.

## Command Positions

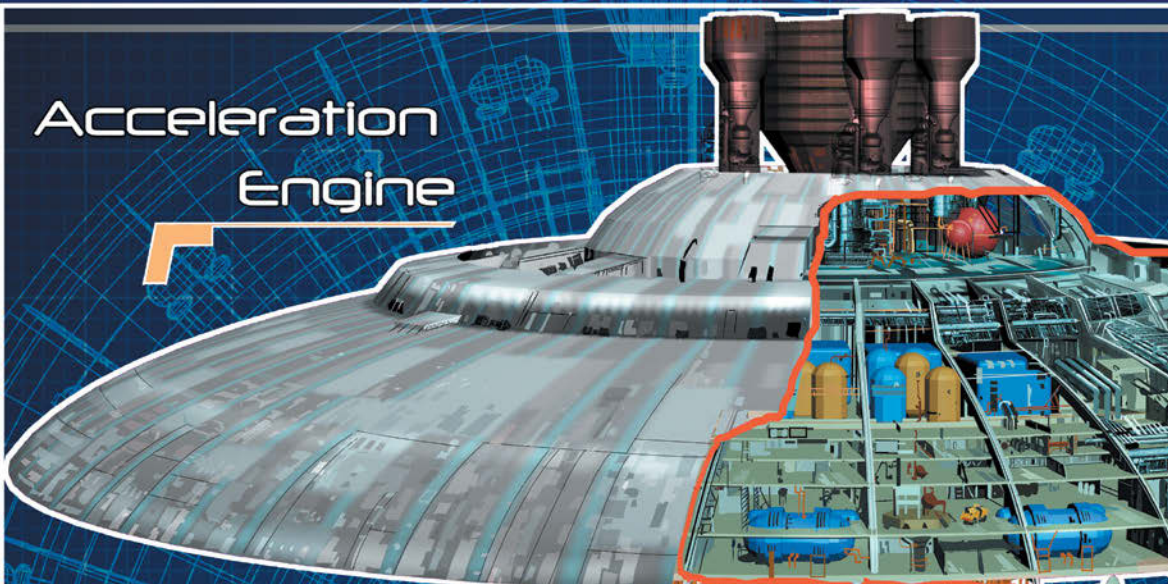
The command hierarchy of the colony ship is intentionally minimalistic. Since only a few colonists are expected to be out of stasis on the ship at any one time, a more extensive hierarchy was deemed to be unnecessary. The command crew of the ship consists of the following:

- **Captain:** Cardinal Milo Sardou. Although he served on the board as the representative from the Stillwater Catholic Church, before his time in the clergy, he served as a spaceship officer, making him the choice for captain.
- **Executive Officer:** Josefina Navarro. The second in command on the ship. Josefina also served as the board's representative from USD.
- **Colonization Officer:** Lindiwe Temma. Technically the third in command on the ship. Once the initial colony is constructed, the Colonization Officer's job is to move to the surface and serve as the head of the colonial administration until such time as power is handed over to a more formal governing body.
- **Science Officer:** Dr. Karina Shapiro. Although she is technically fourth in command, Dr. Shapiro's job is primarily to lead the science teams in gathering samples and performing experiments upon arrival.
- **Module Officers:** Each drop module officially has someone in charge, whose job is to report to the senior officers in order to coordinate efforts.

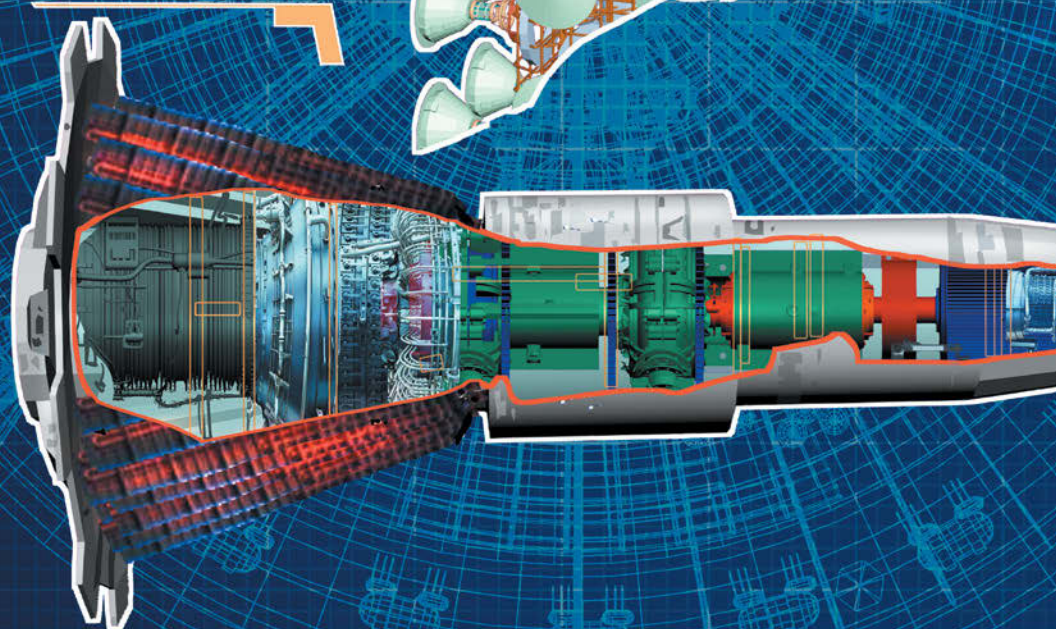




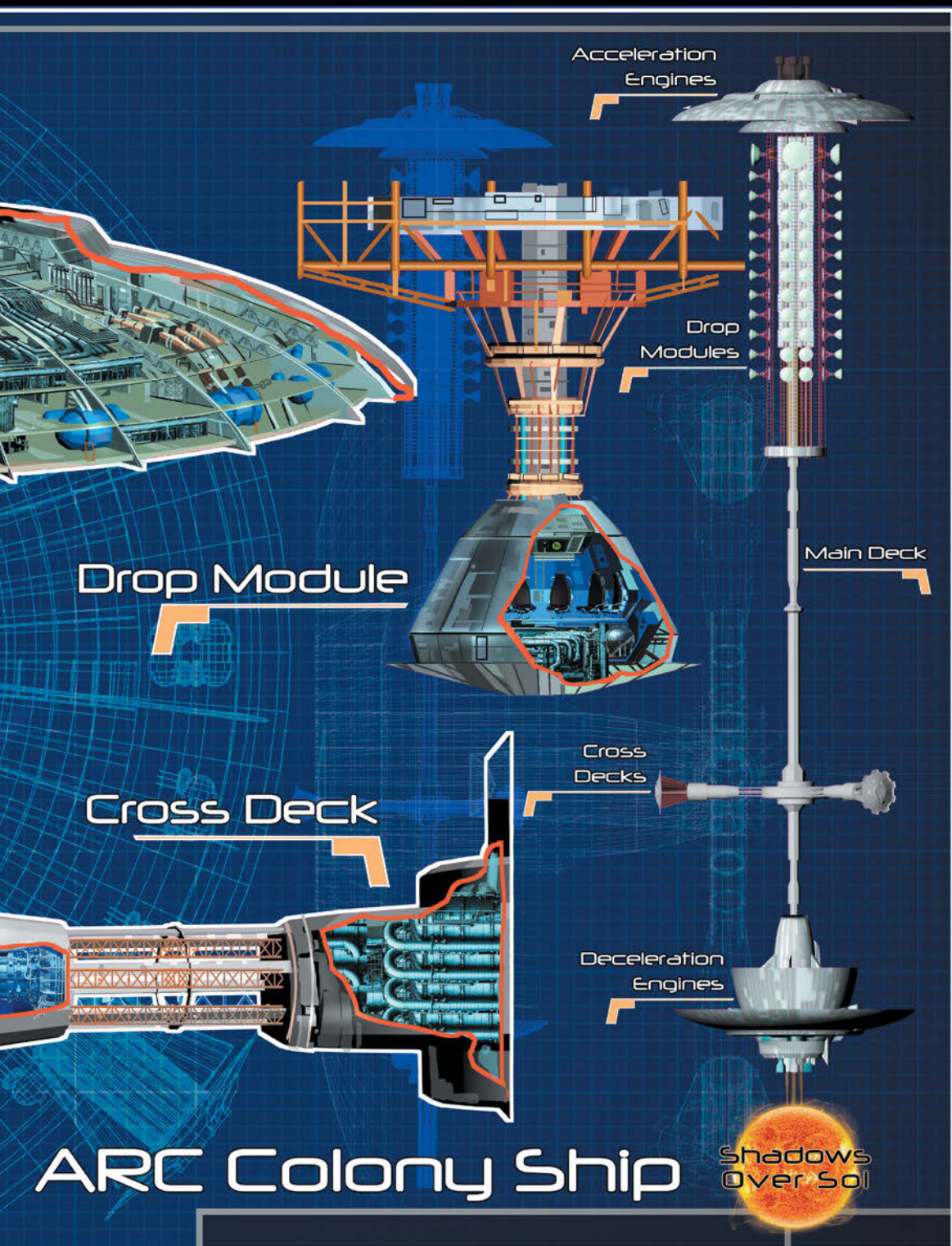
# Acceleration Engine



## Stasis, Systems or Auxiliary Reactor









# Project Factions

The ARC Project has grown factions the way a patient with a damaged oncogene grows tumors. This is the result of a drawn out and tumultuous history, where each subsequent crisis led to the next shift in power within the mission.

On the surface, the goal of the ARC Project remains to construct the very first interstellar colony ship, thus one day establishing humanity's first extrasolar colony on Siren. Below the surface, however, each of the major factions on the project has its own goals and benefits they hope to reap from their involvement with the project.

On the following pages, five of the six project factions are detailed. The sixth faction will be created by the players during the character creation process.

## Faction Information

The five factions are each listed in a standard format, which provides details about the faction and gives some insight into the faction's goals, history and values.

- **Leader:** Each faction lists its representative on the ARC Project's board of directors. This is accompanied by a page reference for the leader's stat block.
- **Subculture:** No faction consists solely of a single subculture, but in most factions a particular subculture is dominant. This subcultural association for each is listed.
- **History:** A bit about the history of each faction as it's been involved with the ARC Project is given.
- **Values:** Finally, the values and goals of the faction are listed in its own section.

## Player Faction

When creating their characters, the players should discuss and come up with their own faction on the ARC Project. Ideally, they should come up with the faction's name, values and a bit of history. The other faction listings can be used as a template or as inspiration when coming up with this faction.

- More on creating the player faction can be found on page 38.



## ARC Engineering

- **Leader:** Lindiwe Temma
- **Subculture:** Neoret

In many ways ARC Engineering is the ARC Project's original faction. The corp was explicitly founded in 2210 to oversee the interstellar colonization effort and to administer its development. Since losing majority control of the project in 2213, however, ARC Engineering has doubled down on its ideals, focusing on "doing things right this time" by colonizing the planet Siren in a way that doesn't harm the planet's environment or any native ecology.



## History

ARC Engineering was officially founded in 2210, along with the ARC Project itself, although it existed for several years beforehand as an unofficial group of Martian visionaries in touch with ARC's founder, Lindiwe Temma.

Most of the early members of the faction, and indeed the early investors in the ARC Project, were some of the same minds behind the Mars Terraforming Project. Temma made his fortune investing in Martian terraforming, and so most of his contacts were among these individuals—people used to investing in large projects and thinking of the long term.

When in 2213 ARC Engineering lost its majority control of the ARC Project, the faction was shaken to its core. Many of the fair-weather members of the faction left, flocking to Utakar System Dynamics or departing the project entirely. What was left were the most dedicated and idealistic members.

Doubling down on the project's original vision, these core faction members worked tirelessly to influence the development of the ARC Project going forward, and in the process attracted a new wave of idealists looking to save humanity or to create a more environmentally-friendly human culture on the new world.

## Values

ARC Engineering is perhaps the most idealistic of all the project's factions. Its stated goal is nothing less than to save the human species through interstellar colonization. Temma, the faction's founder and de facto leader, calls this "diversifying the reach of humanity."

Bereft of full control over the project, ARC's focus throughout much of the mission's development has been on creating a new civilization on Siren that avoids the mistakes of the past, particularly in regards to humanity's impact on the environment and native biosphere. ARC wants to do things better, holding to its high ideals, and finding a way to live in harmony with the planet's native life. "Killing one homeworld might be manslaughter, but killing two is murder," Temma is fond of saying.





## Scott Productions

- **Leader:** Steve Scott
- **Subculture:** Techno

On the surface, Scott Productions is a media studio affiliated with the Techno subculture. It produces the popular ongoing vid-cast *A Word with Steve*, as well as a number of other broadcasts.

Underneath, Scott Productions is something of a cult of personality centered around its founder, Steve Scott, and his vision of a technocratic future. It was the last of the major factions to be brought into the ARC Project.

### History

Scott Productions was founded in 2210, as Steve Scott's personal vid-cast, *A Word with Steve*, rocketed to success. It quickly grew to be a powerhouse of the Techno subculture, attracting a large and cult-like following. Soon the media studio was producing like-minded vid-casts and even simspace games, each expounding upon Scott's vision of society and the future.

In 2221, the ARC Project put out a call for new investors following a lethal and very expensive shuttle accident. Scott Productions approached the project, offering a significant sum of money in return for a seat on the project's board, a number of seats among the colonists and the ability for Scott to take with him a huge cache of embryonic clones. The board initially rejected this offer, but as the project's financial situation got worse, bordering on bankruptcy, they were forced to reconsider. In a highly divisive vote, Scott Productions was officially brought on board.

Although its methods made many of the more stodgy members of the board cringe, Scott Productions proved to be very effective at raising



the last of the funds necessary for launch. The media studio initiated a highly successful crowdfunding effort, paired with a game show for a single contestant to win a seat on the colony ship. Meanwhile, Scott selected a variety of his star-struck disciples to be among the project's colonists.

### Values

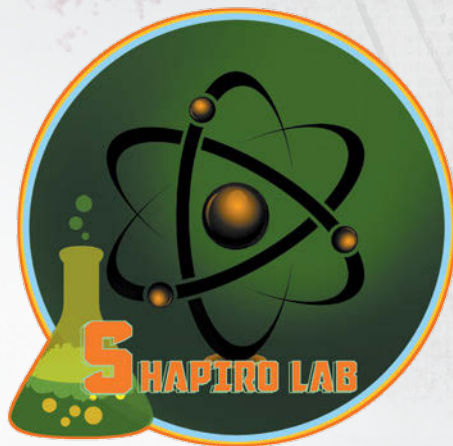
Scott Productions borrows many of its values from the Techno subculture, but all of these are tinged by Steve Scott's own particular views. He wants nothing more than to remake society according to his vision, throwing out what he sees as obsolete values and replacing them with a technocratic future.

As part of the deal Scott reached with the ARC Project when he invested, he was allowed to bring with him a huge cache of embryonic clones of himself. These are in a frozen state, each waiting to be thawed and matured. His clones have all been sterilized. He plans to create "an adoptive caste." His clones will need to be adopted and will need to adopt in turn. This is all in service to a greater vision of centrally organized, generational genetic planning, and a chance to squelch the family unit, replacing it with a colony-wide children's crèche.

## Shapiro Lab

- **Leader:** Dr. Karina Shapiro
- **Subculture:** Expret

The Shapiro Lab is a cross-disciplinary research group based out of the University at Medyen Aleqmer on Luna. Under the direction of Dr. Karina Shapiro, it seeks to understand the chemistry of any potential xenobiome, including how it might be adapted to meet the needs of human exoplanet colonization. Within the project, the lab provides critical in house scientific expertise and advocates for a freer hand in its pursuit of science.



## History

The Shapiro Lab was founded when Dr. Karina Shapiro, having recently published a well-received paper on the topic of European life, was awarded a sizable grant to found a new lab at Stillwater University on Mars. She brought with her an expertise on xenobiology and aspirations of applying her knowledge to the development of human colonies throughout the Sol system. Stillwater at the time was investing in academics, hoping to grow the local scientific expertise that might be applied to the Mars terraforming effort.

Looking to expand her lab's reach and horizons, Dr. Shapiro had it brought onto the ARC Project in 2216. Reviewing the project's scientific efforts thus far, the lab was dismayed at what it found. Dr. Shapiro resolved to improve the state of affairs. Looking for a better method of transporting colonists to Alpha Centauri, Dr. Shapiro reached out to its collaborators in the Zhang Lab, who were in the process of developing Zhang's Stasis Method. This would cement the ARC colony ship as a sleeper vessel.

In 2219, facing increasing pressures from the Stillwater authorities to restrict its research, the Shapiro Lab opted to move from Stillwater University to the University at Medyen Aleqmer.

## Values

In many ways the Shapiro Lab values the pursuit of knowledge above all. It is dedicated to producing open and reproducible science, and thereafter sharing its results with the world. It vehemently opposes restrictions on its research, or likewise restrictions on the publication of its results.

This drive for reproducible science is in large part the motivator for the lab's association with the ARC Project. Many a biologist or ecologist has lamented the fact that Earth's biosphere is an "N of 1"—that is, a singular data point that has no counterpart or control group with which to compare. Even European life is ultimately descended from Earth-based life, as Dr. Shapiro has frequently published. In this sense, the ARC Project represents a once in a lifetime opportunity to study an alien biosphere—or as Dr. Shapiro writes, "a once in 7,500 generations opportunity," that being the estimated number of generations since the emergence of modern *Homo sapiens*.



# Stillwater Catholic Church

- **Leader:** Cardinal Milo Sardou
- **Subculture:** Serv

The Stillwater Catholic Church is one of the earliest and largest investors in the ARC Project, brought on board at the inception of the project. It counts many of its faithful among the colonists. The church aims to aid in the exploration God's creation and to provide moral guidance in the new colony.

## History

The Stillwater Catholic Church broke with the Roman Catholic Church in 2133, amid growing discontent among conservative bishops. The breakaway church rejected Pope Mary I, instead electing the archbishop of Stillwater, Pope Clement XVI, as its new Pontiff. Since then the church has remained headquartered on Mars, with its leader sometimes irreverently referred to as "the Space Pope."

The church was one of the ARC Project's founding organizations, being approached by Lindiwe Temma—himself one of the faithful—in the initial round of investment. With the church's involvement confirmed, Cardinal Milo Sardou was put in charge of working with the project, as he had been of its foremost advocates.

The church joined Temma in opposing Unitech's attempts to force a construction contract early in the project's development. This opposition touched off a larger conflict between Unitech and the Stillwater Catholics; in retaliation, Unitech moved to block the transport of pilgrims to Stillwater.

In 2216, after the USD takeover of the project, the Stillwater Catholics objected to the corp's tactics on moral grounds, although in the end this objection had little effect, as the church couldn't afford to alienate a second megacorp.



Over the course of the project's development, the church has expressed its concerns with the decisions the board has made several times. The church had reservations in bringing the Shapiro Lab on board the project, expressing concerns with a paper Dr. Shapiro published denouncing ethics concerns limiting research. The Stillwater Church likewise voted against the inclusion of Scott Productions, citing the studio's uncouth productions and history of subcultural demagoguery.

## Values

For the Stillwater Catholic Church, the ARC Project is an expression of faith. It represents the very first opportunity to spread the light of God beyond the Sol system. The church believes that any future colonists will need a deep religious strength if they are to survive and flourish on a potentially hostile new world.

The Stillwater Church is by far the most traditional of all the project's factions, a fact that has caused it to butt heads with other factions more than once. It sees itself as the moral compass of the project, shepherding the colonists to a bright new future.

# Utakar System Dynamics

- **Leader:** Josefina Navarro
- **Subculture:** Ghostman

Utakar System Dynamics—also known as USD or simply Utakar, for short—is one of the “Big 5” megacorps. Historically, USD has specialized primarily in arms manufacturing, but its involvement in the ARC Project represents a chance to expand its market influence, and in particular challenge Unitech’s hegemony in spacecraft construction.

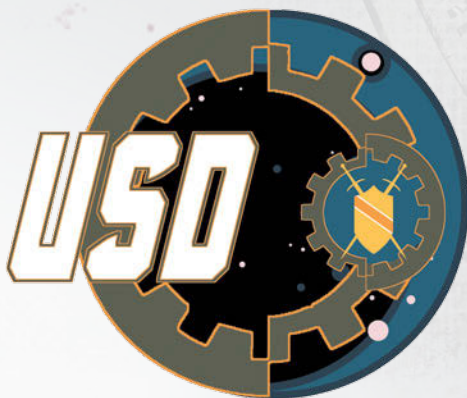
## History

USD was founded as a weapons manufacturing firm shortly before World War IV. It fared well during the war, selling to both sides and reaping a profit. In the aftermath, it expanded its market, buying up refurbished military equipment on the cheap and propelling itself into the ranks of the Big 5 megacorps.

The corp became involved with the ARC Project in 2213, shortly after Lindiwe Temma approached it about possible investment and a construction contract. He intended to use USD’s weight to stave off Unitech’s involvement with the project, as Unitech had been making a series of aggressive moves to force its participation.

Josefina Navarro was appointed by USD to be the corp’s liaison with the ARC Project. After receiving Temma’s proposal, she concluded that if USD had the nerve to take “sudden and decisive measures” they could not only lock Unitech out of the project, but also gain effective control of it, using it as a source of good publicity and rubbing salt into Unitech’s wounds.

She convinced the USD board to accept her strategy, and instead of returning to Temma with a signed contract, she returned to ARC



Engineering with a mercenary squadron and a series of bribes to the project’s other investors.

After taking control, USD oversaw the construction of the ARC colony ship and associated platform. It even went as far as investing its own money in the project in order to stave off a very public failure, although USD later divested itself of much of its earlier investment. Nevertheless, USD saw the project to launch and is responsible for much of the engineering that went into the mission.

## Values

Utakar System Dynamics is first and foremost a large corporation, and as such is beholden primarily to its shareholders. It is perhaps the least idealistic of the project’s factions, instead remaining focused on its specific investment in the project, both as a strategic move to challenge Unitech and as a high profile endeavor intended to glean positive press coverage.

If USD can be said to have any overriding ideal in its involvement in the project, it’s the corp’s dedication to the role that the market provides in creating wealth.





# Colonists

Central to any story about interstellar colonization are the colonists themselves. This chapter contains relevant information for creating a colonist character, either for the *Siren's Call* campaign or for another interstellar colonization scenario.

## Character Creation

For the most part, the standard character creation rules should suffice when creating an interstellar colonist character or, more specifically, a character for the *Siren's Call* campaign. These rules can be found on page 163 of the *Shadows Over Sol* core rulebook. A few points, however, require additional consideration or minor changes to the core rules. They are described below.

## Mode of Horror

Stories of interstellar colonization are intrinsically about exploration, making new discoveries and the process of building a new civilization. This fits best with the Investigative Horror mode of play (see the *Shadows Over Sol* core rulebook, page 164). Colonists, when not just trying to survive, seek to discover the wonders and terrors of the new world they call home.

## Character Concept

The voyage from Sol to Alpha Centauri will mean centuries in stasis. Those who undergo this voyage are never coming back. The massive amount of energy required for the transit means that even if those on the ship

wanted to turn around upon arrival, it would be generations before any potential colony had enough of an industrial base to fuel the ship's return. This also means that anyone on the colony ship, from the command crew to the rank-in-file, will be spending the rest of their lives on the interstellar colonization project. This makes them all colonists.

From a personal perspective, players should think about why their characters want to (or at least are willing to) go on a one-way trip to another star system, leaving behind most everything they've ever known. By the time they wake up again, everyone they know will be long dead and impossibly far away. What would make a person do this?

From a practical perspective, the project needs to be selective about who it brings along. Colonists likely possess some skill that the selection committee believes will be important to the mission—or maybe they just possess the right combination of contacts, money and factional politics. At a minimum, they've been screened both physically and psychologically, and will likely have undergone years of training in preparation for the voyage.

On the other hand, any screening took place when the colonist was selected—likely meaning years before launch. The project has been constantly beset by budgetary shortfalls, various colonists have either died or dropped out and subsequently been replaced, more than once the project has been partially re-envisioned, and the board of directors has been riven by infighting, corporate maneuvering and the shifting alliances of multiple factions. Given all this, some colonist traits and other aspects are bound to slip through the cracks.



Specialties	Specialties	Specialties
Agriculture	Engineering	Medical
Chemist	HVAC	Nutrient Preparation
Clerical	Hydroponics	Recycling
Construction	Janitorial	Ship's Crew
Electrician	Maintenance	Vehicular Operator

## Necessary Specialties

The ARC Project is not only sending a ship to Alpha Centauri, it's assembling its own self-contained society to live there once the ship arrives. All of the skills necessary for that society will need to be represented among the colonists, particularly the ones critical for the colony's survival. Some ideas for character specialties are shown on the table above.

## Player Faction

The player characters will all be a part of the same drop module on the colony ship. This means that when it comes time, they will descend together in their drop module down to Siren's surface. It also means that they are all likely part of (or sponsored by) the same faction on the ARC Project's board.

The players should feel encouraged to make up the details of this faction. It might be a minor corp, ideological group, religious organization, subsidiary of a major corp, eccentric billionaire and cohort, contractor on the project, research group, etc. The players should

discuss it together and settle on a basic premise that works for all the player characters. At the very least, the faction needs a name, basic concept and, ideally, some distinctive flavor.

## Wealth & Lifestyle

Any story involving being loaded on a sleeper ship and launched on a centuries-long voyage to another star system is going to need to rethink how the game handles Wealth and Lifestyle. Both of these systems assume that the character has access to open markets and a developed human industrial base. On the other end of the voyage this is simply not going to be the case—at least not at first.

During the initial character creation, players should pick a Lifestyle and keep track of Wealth like normal. After all, their colonists have not yet been launched across the long void. However, it's only fair that players should be informed from the start that their Wealth and Lifestyle will soon be “reset” as the colony ship undertakes its lengthy voyage and arrives in the Alpha Centauri system.

## Options from Beyond Human

The *Beyond Human* supplement presents a variety of character creation options to accompany those found in the *Shadows Over Sol* core rulebook. Many of these options, however, are unusual and may change the tone of the campaign.

Recommended character creation options from *Beyond Human* are: Point Buy Character Creation (page 9), Example Weaknesses (page 11), Background Generator (page 18), Unusual Genelines (page 34) and Minor Subcultures (page 49). The other options presented in the book are not recommended for this campaign.

## Mission Language

An interstellar mission works better if all of the colonists can effectively communicate. For the ARC Project, French has been chosen as the mission's literal *lingua franca*. This means that everyone on the mission—from the colony ship's captain to basic laborers are expected to have a working knowledge of the language by the time the mission launches.

When creating characters for the *Siren's Call* campaign, it is recommended that GMs simply allow all player characters to know the French language, in addition to any languages they would normally possess.

On the other end, the characters will not have access to the creature comforts that they once possessed in their old Lifestyle, nor will Wealth have quite the same meaning. The colonists are truly isolated, separated from their old lives by four centuries and over four light-years. Wealth will be a matter of possessing the means necessary for survival in the alien wilds. After all, you can't eat microcredits.

After this point, the colonists' Lifestyle will be a function of their colony's development (see the Colony Building rules on page 49). Wealth will be a function of resources (see page 45).

## Gear

A colonist's ability to take gear with her will be limited. After all, the more mass the colony ship is transporting, the more energy it needs to accelerate.

Every player should imagine that her character has a locker on the colony ship. Anything that she purchases at character creation and wishes to have access to later in the campaign will need to fit in this locker.

This means that starting gear should mostly be limited to personal effects, eccentricities and recreation. Colonists should expect that most of the tools they will need to construct and maintain the colony will be provided by the project.





## Colonist Gear

Gear is essential to any interstellar colonization effort. Not only is it necessary to get to other star systems, but without it humanity will have regressed back to a hunter-gatherer society with grand memories of the past.

Numerous pieces of gear are presented in the *Shadows Over Sol* core rulebook (beginning on page 177) and the *Shiny New Toys* supplement (beginning on page 35). In addition, the following gear may be of interest to interstellar colonists.

## Personal Gear

Personal gear makes personal life easier! The following pieces of equipment may be useful to colonists who want to take charge of their personal bodily functions.

### Breather

- **Cost Rating:** 4
- **Properties:** Worn

Do you like breathing? Everyone likes breathing! Now you can breathe easier with this streamlined wearable breather and air filtration system. Just slip the mask over your nose and mouth, flip the switch on and within moments you'll be drawing breath! Battery lasts 72 hours. Some adjustment for atmospheric conditions required.

### Ectogenesis Pod

- **Cost Rating:** 7
- **Properties:** Big 10

Babies! They're small, they're cute, they grow inside you! But now you don't need to carry a developing fetus around in your innards for nine months! Just place a fertilized reproductive culture in this state-of-the-art ectogenesis pod and let this miracle of science do all the work! Power source and nutrient culture required.

## Implants

The following implants may be of interest to a colonist who wishes to have her body cut open and a little machine jammed inside shortly before a 400-year voyage in stasis.

### Breather Implant

- **Cost Rating:** 5
- **Properties:** Implant 1

Are you tired of those ugly facial breathers? Do you want to scratch your nose without a mask being in the way? Well, now you can put the breather inside your chest! This deluxe breather implant filters out harmful aerial contaminants and remixes the atmospheric balance so that you breathe just right! Adjustments for atmospheric conditions required.

### Comm Implant

- **Cost Rating:** 5
- **Properties:** Implant 1

Do have the tendency to lose your hand terminal, radio comm or other communication device? Now you need never worry about losing them again! With this comm implant, you will always have the means to radio for help or for pizza! Works just like a radio comm, but implanted in the throat so that it can pick up quiet subvocalizations. Capable of interfacing with standard hand terminals or other computing devices. Supports a range of up to a thousand kilometers.

### Olfactory Implant

- **Cost Rating:** 5
- **Properties:** Implant 2

Humans have an underwhelming sense of smell, but now you don't have to be a slave to your evolutionary biology! With this olfactory implant you will be capable of picking up subtle chemical or personal odors. Counts as superior tools (+2) for the purpose of detecting scents.

## Wear and Tear

With time, use and misuse, most gear eventually breaks down. This is particularly noteworthy in a situation where it cannot easily be replaced, such as a colony without the necessary industrial base to manufacture the equipment.

GMs looking to evoke this sort of wear and tear can use the following rule: Anytime a joker comes up when using a piece of gear, it gains some damage from simple wear and tear. The gear continues to function, but it is now closer to breaking down for good. If no flip is normally made to use the gear, the player should flip a card and simply check for a joker.

The player should note this damage next to the equipment. It's now considered "Inferior Quality" (see *Shiny New Toys*, page 35). The next time a joker comes up when using the damaged equipment, it finally breaks down beyond all repair.

## Survival Gear

Survival is of critical importance if a colony is ever to flourish on an unexplored alien world. The following gear may be useful for colonists looking to increase their personal survival outlook in the alien wilds.

### Camping Pack

- **Cost Rating:** 5
- **Properties:** Big 3

Don't get caught out in the wilds without appropriate shelter! This camping pack includes a self-inflating tent, water filter, ration heating device, bedding and tent stakes. Be the one to survive the wilderness! Buy a camping pack today!



## H<sub>2</sub>O Electrolysis Machine

- **Cost Rating:** 6
- **Properties:** —

What could be better than oxygen and hydrogen? You breathe oxygen! Hydrogen explodes! It's also a great fuel source! Just turn on this H<sub>2</sub>O Electrolysis Machine and within minutes you'll be "cracking" water, separating it into its oxygen and hydrogen components! Battery lasts 8 hours. Water not included.

## Ration Bars

- **Cost Rating:** 1
- **Properties:** —

Want to minimize your loadout while packing MAXIMUM NUTRITION? With these ration bars, a little food goes a long way! Each of these chemically synthesized bars contain enough vitamins, minerals and calories to keep you going for an entire day. Available in morning dew, crazy berry and alpine musk flavors. Pack of 10 bars.

## Gear from Shiny New Toys

The *Shiny New Toys* supplement presents a variety of additional gear for the *Shadows Over Sol* roleplaying game. Gear of particular note for *Siren's Call* includes the Xenocom "Space Dust" Military Vac Suit (page 43), Lung Implant (page 44), Microtracker (page 49), Fabricators (page 50, too big to fit in a locker, but useful later in the campaign), Scientific Suite (page 53) and Crawlers (page 55).



## Vehicles

Terrestrial vehicles are essential in the construction and development of an interstellar colony—that is, unless the colonists plan to walk everywhere! Although the vehicles below are larger and more expensive than anything most colonists can personally afford, the ARC Project was sent out with all of the following designs in its database.

### General Aerodynamics CB-1 Battle Chopper

- **Cost Rating:** 13
- **Handling** +3, **Defense** 10/18, **DR** 5, **Shock** 16, **Structure** 6, **Cruise** 8p
- **Properties:** Mil, Vehicle
- **Guns:** +5 (♠15M/♥10M/♦5M/♣2M), Range 100

Don't bring a knife to a gunfight! Bring a CB-1 Battle Chopper! This sleek military-spec chopper is designed for use in a wide range of barometric and gravimetric conditions. It includes both forward and backward guns, as well as twin rotary blades keeping the craft aloft.

### General Aerodynamics MT-27 Atmo-Jet

- **Cost Rating:** 11
- **Handling** 0, **Defense** 7/15, **DR** 3, **Shock** 13, **Structure** 5, **Cruise** 8p
- **Properties:** Vehicle

Have you ever wanted to own your own personal jet aircraft? Of course you have! Now this option is both available and affordable with the General Aerodynamics MT-27 Atmo-Jet! Just hop into the cockpit, bringing along a few friends, and fly away! Capable of limited VTOL. Seats the pilot plus eight passengers.

### General Aerodynamics QR-8 Work Rover

- **Cost Rating:** 9
- **Handling** 0, **Defense** 7/15, **DR** 2, **Shock** 11, **Structure** 4, **Cruise** 2p
- **Properties:** Vehicle

Are you tired of work rovers that break down at the most inconvenient moments, leaving you stranded or exposed to danger? Well, never fear! The General Aerodynamics QR-8 Work Rover is now available. Rated the most dependable workhorse rover in its class for three years running! Seats six to eight people, with plenty of room in its rugged frame to haul anything that needs hauling. When you want reliability, you want the QR-8!

## Vehicles from Shiny New Toys

The *Shiny New Toys* supplement introduces the vehicle system used in the stat blocks above. It also includes a variety of potentially relevant terrestrial vehicles. Vehicles of particular note in *Siren's Call* include: General Aerodynamics CX-3 Chopper (page 61), General Aerodynamics MT-17 Air Bus (page 61), Xenocom M2 Motorbike (page 63) and the P&W "Decadence" Luxury Yacht (page 63).

## USD-10K3 "Toil" Construction Mech

- **Cost Rating:** 9
- **Handling** +1, **Defense** 8/16, **DR** 2, **Shock** 10, **Structure** 3, **Cruise** 1p
- **Properties:** Vehicle
- **Lifting Arm:** +3 (♠15L/♥10L/♦5L/♣2L), Improvised

Let the Toil do the heavy lifting! This rugged construction mech consists of three meters of matte steel and powerful pneumatic joints. Capable of lifting crates, boxes, beams and bricks, the Toil has what it takes to get the job done!

## USD-10K44 "Silverfish" Tac-Rover

- **Cost Rating:** 11
- **Handling** +1, **Defense** 8/16, **DR** 5, **Shock** 14, **Structure** 4, **Cruise** 3p
- **Properties:** Mil, Vehicle
- **Turret:** +5 (♠15M/♥10M/♦5M/♣2M), Range 100

The USD-10k44 "Silverfish" is not just a rover. It's war on wheels! Coming fully equipped with a state-of-the-art armored frame, solid core tires, backup treads, a rotating turret and secondary engine, the Silverfish keeps going and keeps your soldiers safe!

## Xenocom H3 Tactical Hydrofoil

- **Cost Rating:** 12
- **Handling** +2, **Defense** 9/17, **DR** 5, **Shock** 15, **Structure** 5, **Cruise** 5p
- **Properties:** Mil, Vehicle
- **Turret:** +5 (♠15M/♥10M/♦5M/♣2M), Range 100

The Xenocom X3 hardly needs an introduction. It is the go-to tactical hydrofoil on the market. No competing military-spec hydrofoil even comes close. It comes standardly equipped with body armor, a full turret and auxiliary jet propulsion. No matter the conditions, no matter the seas, the Xenocom X3 has what it takes to achieve lift!

## Xenocom S6 Personal Stealth Submarine

- **Cost Rating:** 10
- **Handling** 0, **Defense** 7/15, **DR** 3, **Shock** 13, **Structure** 5, **Cruise** 1p
- **Properties:** Vehicle

Do you want to travel undetected to the far reaches of the world? Don't forget that the majority of the planet's surface is covered with water! You, too, can move around undetected with the Xenocom S6 Personal Stealth Submarine! Explore the ocean's depths! Quietly escape your enemies! Spy on your rivals! The S6 allows it all! Requires a crew of two to operate, and holds up to 10 passengers. Don't wait! Order yours today!



# Aging

By default, the *Siren's Call* campaign assumes that the scenario takes place over the course of years, if not decades. This is long enough that, realistically, aging is something that may begin to meaningfully affect the player characters. On the other hand, this is also a game, and not all players appreciate watching their characters grow old and feeble.

Below is an optional system for handling the aging of player characters. It attempts to balance verisimilitude with game play. It's a nod at realism, but one which tries not to spoil the players' fun in the process. The GM should know her players' preferences and use her best judgement on whether to employ this optional system.

## Aging Flips

At age 36, a character must make her first aging flip. To do this the player picks one of her character's stats and attempts a TN10 flip. Edge may not be used on this flip. On a success, she ages, but does so gracefully. There are no game mechanic effects for aging at this time.

On a failure, however, she begins to feel old age creeping up on her. Thereafter, she may not gain any further experiences with this stat. This stat has reached its peak and is said to be "in decline."

If she draws a joker, not only is this a failure (as above), but the character also gains a Weakness trait related to how she is aging. The GM and player should work together to come up with an appropriate trait.

## With Age Comes Wisdom

If a character already has any experiences in a stat which has entered decline, during future sessions she may redistribute these experiences to her skills. This represents that while her body may be in decline with age, she's been alive long enough to have gained the wisdom that comes with that.

# Lifestyle and Aging

A character's Lifestyle has a large effect on how quickly she experiences the ravages of old age. Characters who have lived tough lives eking out an existence in squalid habs and abandoned outposts are going to show their age more quickly than characters with an easy life and who have access to the best medical care that money can buy.

After her first aging flip, a character must make subsequent flips every number of years equal to her Lifestyle. For example, a character with Lifestyle 4 makes her first flip at age 36 and subsequent flips at ages 40, 44, 48, etc. On the other hand, a character with Lifestyle 7 still makes her first flip at age 36, but then makes subsequent flips at ages 43, 50, 57, etc. If a character's lifestyle changes, adjust when the next flip would be accordingly.

## Subsequent Flips

Keep track of which stats a character has used to make aging flips. She may not choose the same stat again until all stats have been chosen in this way once.

At this point—when all stats have been chosen—the TN of all future aging flips increases by +2. So, for example, the ninth aging flip will TN 12.

Repeat this process with future aging flips, however, a character may not choose a stat which is already "in decline." Simply skip this stat. It doesn't count towards the requirement to choose each stat once.

## Dying of Old Age

A character dies of an age-related cause once all of her stats are "in decline." This does not necessarily happen immediately, but the GM and player should work together to bring

the character to a fitting end. She will not live to see her next birthday.

At this point the player should consider her character lucky. It's not many characters in a horror campaign who have the luxury of dying of old age, rather than something significantly more terrible.

# Wealth in the Colony

In the Sol system wealth is a complicated affair of multiple competing currencies backed by corps, subcultural cooperatives and nation-states. Gear is bought and sold on credit, and most wealth exchanges are electronic.

As soon as the colonists arrive at Alpha Centauri, however, wealth is a different matter entirely. Suddenly the organizations that back the various currencies are out of touch. The infrastructure that allows for electronic exchange isn't reachable. The industrial base that manufactures goods is over four light-years away. The colonists are in a different world economically—not just literally.

## Wealth Rating

After arriving at Alpha Centauri, characters will still have a Wealth rating, but what this rating represents will be different. Until the colony develops a fiat currency, the Wealth rating will represent a character's ownership of excess physical goods directly related to survival. Transactions, such as with Income or somehow purchasing new gear, represent the



exchange of these goods through some sort of barter or gift-based economy.

*Note:* Upon arriving at Alpha Centauri, the characters' Wealth ratings will be set to zero. They have left their old wealth behind and will have to rebuild their economic position in their new circumstances.

## Wealth and Encumbrance

Unlike wealth back in the Sol system, the exchange of trade goods might mean transporting a significant amount of mass in the form of foodstuffs, minerals, energy banks, filters, textiles, etc. It is recommended that characters make these trades inside the colony or using a vehicle for transport.

Characters without these options, however, might have to carry the goods themselves. These goods will occupy a number of encumbrance slots, depending on the nature of the goods being transported. The GM is free to come up with a value that makes sense, or she may choose to flip a card on the table below.

Suit	Slots Per Point of Cost/Income
Spades	4
Hearts	3
Diamonds	2
Clubs	1
Joker	Neg





# Colony Building

One of the more interesting aspects of interstellar colonization is that once the colonists arrive, they will not only have to construct the new facilities and infrastructure necessary for survival, but they will have to do this largely isolated from the rest of human civilization. They are, in essence, constructing not only a new colony, but an entirely new and self-sufficient human society.

The Colony Building rules are a mini-game that allows the players to guide their shared colony in its development, from little more than a landing site, to a thriving civilization. This gives the players agency not only over their characters, but over what sort of society they want to build.

A colony's statistics can be tracked using a colony sheet, much like a player character's statistics can be tracked using a character sheet. This can be downloaded from [tabcreations.com](http://tabcreations.com).

## Years & Turns

The Colony Building mini-game is made up of a series of turns, each representing the development of the colony over the course of one Earth year. Start with Turn 1, keeping track of the turn number as the game progresses.

This is plenty of time for the action of multiple game sessions to take place within a single colony turn, or for several colony turns

to pass between the significant events of a single game session. How quickly the turns pass is largely up to the GM, although the *Siren's Call* campaign includes recommendations.

## Colony Turn Phases

A colony turn can be thought of as being made up of the following four phases. The events of each phase as described in their relevant section.

- **Assign Actions:** The players assign actions for each unit of population. Once all actions have been assigned, they are all then resolved in whatever order the players wish.
- **Explore:** The colony may then optionally explore the surrounding world. The GM has a number of tables representing the results of these expeditions. On every turn in which the colony opts to explore, the GM should secretly flip a card and look up the resulting value on the exploration tables.
- **Population Growth:** If population growth happens this turn, it does so in this phase. For new colonies (below Population 25), this growth happens on turn numbers which are multiples of 5.
- **Consume Nutrients:** The colony consumes a number of Nutrients equal to its population. If there are not enough Nutrients available, colonists will starve and the population is reduced by the difference.

## Player vs. Character Decisions

Whether the Colony Building mini-game represents the player characters making the big decisions, or whether it merely represents the players deciding on a meta-game level how their society develops, is left up to each individual gaming group. Depending on the characters created for the campaign, and the individual tastes of the players, one answer or the other might make more sense. What's important, however, is that both the GM and players have the same understanding as to what these decisions represent.



# Population

The inhabitants of a colony are divided up into units of population. Each unit represents roughly 100 people. For brevity, population is referred to by population unit. So, for example, if the text says “Population 4,” that means four units of population, or about 400 people.

Every turn the players will divide their population among different actions. For example, if their colony consists of Population 10, they may decide that on a particular turn, Population 4 will be engaged in farming, Population 2 will be engaged in mining and Population 4 will work toward developing Hydroponics. Colony actions are described in more detail later on.

In this way, as the colony turns (years) pass, the population’s actions will advance the colony as it grows and develops new capabilities and infrastructure.

## Survival & Starvation

At the end of every colony turn, a colony consumes a number of units of nutrients equal to its population. (Nutrients are described in detail later on, under “Resources.”) For example, a colony with Population 12 will consume Nutrients 12 at the end of each turn.

If the colony doesn’t have enough nutrients for this, people will starve to death. The colony loses a number of units of population equal to the number it couldn’t feed. For example, if at the end of a turn a colony has Population 20,

but only Nutrients 13, 7 units of population will starve. Once the turn is over, the colony will now have Population 13, Nutrients 0 and a whole lot of corpses.

## Population Growth

People tend to make more people. Over time a colony’s population will naturally increase. Population growth happens after actions have been assigned and resolved. Unless a specific event, facility or advancement says otherwise, population increases at the following rate:

- Colonies below Population 25 increase their Population by +1 every 5 turns (on turn numbers that are multiples of 5).
- Colonies with Population 25 to 50 increase their Population by +1 every other turn (on even turn numbers).
- Colonies with Population 50+ increase their Population every turn by +1 per 50 full population units. For example, this means that a colony with Population 70 would grow by Population 1 every turn, whereas a colony with Population 300 would grow by Population 6 every turn.

## Resources

In addition to population, each colony has a stockpile of three different resources. Different colony actions will produce these resources, while others will consume them. As with population, for brevity resources are referred to as the resource type followed by the number of

## Starting Values

Unless the GM decides that the events in the campaign so far dictate otherwise, a new colony begins with Population 10, Nutrients 50, Minerals 10 and Energy 5. Additionally, the colony starts with one advancement and two consequences, determined through play. The GM has more details on this.

units—for example: Nutrients 5, Minerals 7 or Energy 3. The three different categories of resources are described below.

- **Nutrients:** This resource represents food-stuffs and other important sources of nutrition. At the end of every colony turn, its inhabitants consume a number of nutrients equal to its population. Without nutrients a colony will starve. Each unit of nutrients therefore represents roughly enough food for one unit of population (100 people) to subsist for one year.
- **Minerals:** This resource represents materials, metals, chemicals and other substances necessary for manufacturing and industry. Minerals are consumed in the construction of many facilities and in research on many advancements.
- **Energy:** This resource represents stockpiled electrical power. Energy is necessary to fuel most advanced facilities and gear.

## Colony Lifestyle

In *Shadows Over Sol* most characters have a Lifestyle rating, which is a measure of the sort of resources they can call upon in day-to-day life (see the *Shadows Over Sol* core rulebook, page 151). In an interstellar colony, this rating is largely dependent on the resources and quality of life that the colony can afford its inhabitants.

Once a new colony has been established, its inhabitants begin at Lifestyle 3. This rating will likely later go up as the colony constructs new facilities and develops new advancements.

A colony's Lifestyle doesn't have a direct effect on the rest of the Colony Building mini-game, but instead sets the player characters' Lifestyles, as well as the Lifestyle of the NPC inhabitants of the colony.

## Facilities

Facilities represent physical structures or significant hardware that benefit a colony. Most facilities provide an action that can be performed when the facility is used. During a colony turn, the players can assign a Population to a facility in order to perform that action. For example, the Farm facility allows the Farming action. A Population can be assigned to the Farm in order to take that action.

Since most facilities can only be used by a single unit of Population at a time, a colony may desire to build multiple instances of the same facility type. In this way, for example, building multiple Farms allows multiple units of Population to engage in Farming.

All facilities require some amount of Work to construct, and many have a resource cost as well. A few require converting existing facilities. This means that the colony will have to assign Population to the Build action to construct a facility, and will have to pay any resource cost at the time Population is first assigned.

Keep track of which facilities a colony has built by writing them down on the colony sheet.

## Basic Facilities

At the beginning of the Colony Building mini-game, three types of facilities may be built: Farms, Mines and Turbines. These are described in the Facility list (see page 62). More facilities will be unlocked as the colony makes advancements (see Advancements on the next page).





# Advancements Colony

Advancements represent some sort of scientific, technological, societal or infrastructural breakthrough which benefits the development of a colony. Each advancement may only be developed once, and each provides a benefit, such as unlocking new facilities or actions, making existing actions more efficient or improving the colony's statistics, such as Lifestyle or Population.

All advancements require some amount of Work to develop, and most have a resource cost as well. This means that the colony will have to assign Population to the Develop action to make the advancement, and will have to pay any resource cost at the time development begins.

Advancements belong to one of four advancement trees. When an advancement on a tree is developed, it unlocks the connected advancements, allowing them to be developed in the future. For example, in the Prosperity tree, when Environmental Transitioning is developed, it unlocks both Centauran Husbandry and Automated Agriculture for future development (see page 55).

Keep track of which advancements a colony has developed by writing them down on the colony sheet.

# Consequences

Consequences can be assigned to colonies the same way they may be assigned to characters or the environment (see the *Shadows Over Sol* core rulebook, page 114). Some consequences on colonies may simply serve as player reminders of an ongoing situation or effect. For example, the GM may decide to assign the colony the Disgruntled Workers (light) consequence after the players take some action which angers the labor force in their colony. This consequence then sticks around until the characters do something to make the workers happier again.

Other consequences will have mechanical teeth, modifying the Colony Building mini-game in some way. For example, if the players' colony has the Centauran Flu (moderate) consequence, this may decrease the number of Population they can assign to actions each turn by -2 (standard for moderate severity), as those individuals are unable to work due to the flu. The GM can decide that this consequence passes after the turn is over, or whether it lingers until the characters discover a cure.

More than anything, colony consequences serve as either a roleplaying prompt, as a prompt for the players to take a colony action or as the result of an action already taken by the player characters.





# Colony Actions

Every turn a colony's population is divided between engaging in different actions. For example, if a colony consists of Population 10, the players may decide that Population 3 will build a farm, Population 2 will gather nutrients and Population 5 will work toward developing Hydroponics.

Many actions will require either the work of multiple units of population in parallel or the work of the same unit over many years. These actions will have a Work requirement to perform. For example, Building a Farm requires Work 3. Think of each unit of population assigned to that action as generating a point of Work toward its completion. For example, assigning Population 3 to building a Farm will result in a farm being completed that turn (a Farm requires Work 3 and Population 3 was assigned).

Work towards the completion of an action carries over from turn to turn. So, for example, if Population 1 can complete a farm after being assigned to Build a Farm for three turns.

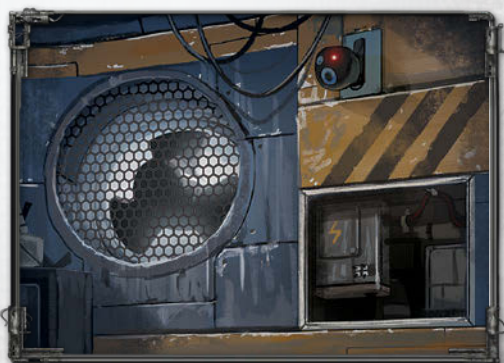
## Deciding Colony Actions

Ideally the players will work together and come to a consensus as to how to assign their colony's actions each turn. If this fails, however, the GM can always divide the Population as evenly as possible between players and each player can make an individual decision for the Population over which she has jurisdiction.

## Basic Actions

At the beginning of the Colony Building mini-game, four basic actions are available. As the colony grows and develops, building new facilities and making advancements, however, more actions will be unlocked. The four basic actions are described below.

- **Build:** This action allows workers to build new facilities. Unless specified otherwise, multiple instances of each facility may be constructed. At the beginning of the game only three facilities are available to build, but more will be unlocked as the colony makes advancements.
- **Develop:** With this action a colony may develop new advancements. Each advancement may only be developed once. At the beginning of the game four advances are available for development, but each will unlock more options.
- **Explore:** A colony may focus on organizing expeditions to explore the surrounding world, discovering new mysteries, resources or meeting disaster. When making flips on the exploration tables this turn, the GM should add +1 per Population assigned to this action.
- **Gather:** This action allows a desperate colony to gather nutrients from the surrounding environment. Every Population assigned to this action gathers one Nutrient. For example, Gather 4 produces Nutrients 4.





# Colony Warfare

Sometimes the disputes between colonies boil over into open warfare. When this happens, one colony or both colonies may launch an attack on the other using the Battle action. This initiates colony warfare.

## Calculating Might

The first step in resolving a battle is to calculate each side's Might. This is a measure of the military force that the colony can bring to bear in a conflict.

Facilities that represent military hardware provide points of Might when they are used with an Attack action. For example, a Tac-Rover provides Might 3. These facilities are said to be "committed." Note that for most facilities, Population needs to be assigned to the Attack action with that facility for it to be committed and provide Might. Facilities that aren't used with the Attack action that turn aren't committed and don't provide Might.

It is also important to note that the Attack action can be taken without a target. In this case, the military facility is simply on alert and being manned in case of an attack. In essence, this is a peacetime standing army.

Once a colony's Might has been calculated, it will be compared to the opposing colony's Might (see Victory Points below). A colony always has a minimum of Might 1.

## Victory Points

Colony battles are won by scoring Victory Points (VP). The ways in which Victory Points can be scored are described below. Each time a battle is fought, the GM should go down the list and total the points for each side.

- **Highest Might:** The colony with the highest Might scores a VP. This increases

to 2 VP if that side has twice the other colony's Might, to 3 VP if they have three times the other colony's might, 4 VP if they have four times its Might, etc.

- **Air Superiority:** The colony with the largest number of committed Choppers gains a VP for air superiority.
- **Mobile Superiority:** The colony with the largest number of committed Rovers gains a VP for mobile superiority.
- **Sea Superiority:** The colony with the largest number of committed Foils gains a VP for sea superiority.
- **Tactical Superiority:** Finally, the military leader of each colony should make an opposed Int/ordnance flip. (Non-player colonies may use the Tactical TN listed on their table instead.) Success scores a VP, while success with Mag 5+ scores 2 VP.

## Resolving the Battle

Count the number of Victory Points scored by each side in the battle. The side with the highest point total wins. If there is a tie, both sides struggled, but neither side achieved an advantage.

Next, find the difference between the two point totals. For example, if the victor has 5 VP and the loser has 2 VP, the difference is 3. This is the Spoil. For every point of Spoil, the victor may choose do one of the following:

- Steal a resource from the target (Nutrient, Mineral or Energy), provided the target has that resource to steal.
- Kill one of the target's Population.
- Destroy one of the target's facilities.
- Players decide which to choose if their colony wins the battle; the GM decides for non-player colony victories. For each Population the players choose to kill or facility they destroy, this will decrease the non-player colony's Growth modifier by one (the GM has more info on this).

## Colony Actions In the Game World

As this is a roleplaying game, it's important to take a moment to think about what colony actions represent in the game world.

When a colony assigns a unit of population to a particular task—for example, farming—this doesn't literally mean that 100 colonists suddenly move to a farm and start growing crops. Rather, what happens depends on the sort of society that the colony has developed. In one colony this might mean that the colonial administration allocated funds to subsidize farming and started offering agricultural job training, thereby incentivizing more colonists to become involved in agriculture. In another colony this might mean that the administration has picked out a number of suitable candidates from a list and assigned them to farm duty, training them on the job as necessary.

It's also important to note that not all 100 colonists in that population unit will be directly involved in the assigned task. Many will be engaged in ancillary activities that make the primary task possible. For example, if a population unit is assigned to farming, some of those colonists will be farmers, while others will be repairmen servicing the farm equipment, vehicular operators transporting goods to and from the farms, administrators overseeing colonial agriculture, teachers and counselors providing childcare for the farmers, etc.

## Alliances & Battle

Multiple colonies may choose to form an alliance, thereby combining their forces to attack or defend. When this happens, simply combine their committed forces for the purposes of determining Might and scoring Victory Points. Unless decided otherwise, in the case of a victory, the Spoil is divided evenly between the sides. In the case of a loss, the other side may impose its Spoil on any participant in the alliance.

## Splitting Forces

Overly ambitious colonies may choose to split their forces, thereby attacking multiple targets at the same time. To do this, the colony must choose which facilities to commit to which attack. This divides the colony's Might and each attack is resolved separately.

## Contact Required

Before colony warfare can take place, both sides first need to have made contact with each other. This is a matter determined through roleplaying, but at the very least the attacker needs to know where the defender's colony is located, otherwise where will they attack?





# Advancement List

The following advancements are available in the Colony Building mini-game. They are divided among four advancement trees: industry, knowledge, might and prosperity.

## Prosperity Advancements

Prosperity advancements are those that focus on agricultural production, population development, culture and quality of life on Siren.

### Automated Agriculture

This advancement allows for the machine automation of otherwise labor-intensive agricultural practices.

- **Requirements:** Cannibalism Protocol or Environmental Transitioning
- **Develop Cost:** Energy 3, Minerals 4, Work 20
- **Benefit:** Allows construction of the Autofarm facility.

### Cannibalism Protocol

The systematic reuse of resources allocated elsewhere as an emergency source of nutrients during times of famine allows for increased robustness against starvation. Depending on the culture being developed, this may or may not involve literal cannibalism.

- **Requirements:** Hydroponics
- **Develop Cost:** Energy 2, Nutrients 1, Work 15
- **Benefit:** Whenever Population would be lost at the end of a turn due to starvation, half the number of Population lost.

### Centaurean Husbandry

The husbandry of specific native Centaurean lifeforms for palatability by the human digestive tract allows for more efficient production of nutrients through agriculture.

- **Requirements:** Environmental Transitioning or Maturation Chambers
- **Develop Cost:** Energy 4, Minerals 1, Nutrients 1, Work 20
- **Benefit:** The Farming action produces Nutrients 4 rather than Nutrients 2 or 3. This affects both the Farm and Autofarm facilities.

### Environmental Transitioning

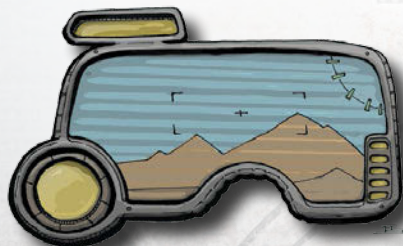
Gradual environmental transitioning between Terran and Centaurean environments allows for increased comfort and quality of life.

- **Requirements:** Hydroponics
- **Develop Cost:** Energy 1, Minerals 3, Work 15
- **Benefit:** The colony's Lifestyle rating improves by +1.

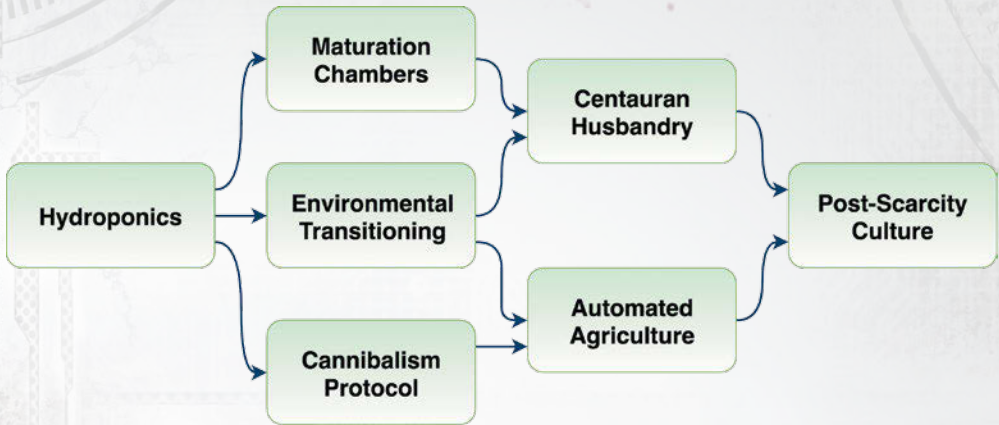
### Hydroponics

This advancement improves the colony's agricultural practices by allowing for more exact control over a crop's initial gestational environment.

- **Requirements:** —
- **Develop Cost:** Minerals 3, Nutrients 2, Work 10
- **Benefit:** The Farming action produces Nutrients 3 rather than Nutrients 2. This affects both the Farm and Autofarm facilities.



# Prosperity Advancement Tree



## Maturation Chambers

Maturation chamber infrastructure allows complete fetal development in vitro. This largely frees the colony's labor force from the impact of many pregnancies.

- **Requirements:** Hydroponics
- **Develop Cost:** Energy 2, Minerals 1, Work 15
- **Benefit:** For the purposes of population growth, treat the colony's Population as being 25 higher if it has Population 25 or less, or as being 50 higher if it has Population 26 or more.

## Post-Scarcity Culture

Automation and an increased abundance of available resources allows for a transition, at least for a lucky few, from a life centered on labor to one centered on leisure.

- **Requirements:** Automated Agriculture or Centauran Husbandry
- **Develop Cost:** Energy 5, Minerals 10, Work 30
- **Benefit:** Allows construction of the Leisure Node facility.





## Might

### Advancements

Might advancements are those that focus on the development of military capabilities, tactics and other traditional hard power.

#### Advanced Armory

This advancement represents a stockpile of advanced weaponry that can be made available to the colony's populace during periods of existential military threat to the colony.

- **Requirements:** Aquatic Port or High-Gravity Transport
- **Develop Cost:** Energy 3, Minerals 4, Work 20
- **Benefit:** In colony warfare, twice the colony's Population now adds as a bonus when calculating Might. This replaces the similar bonus from the Colony Militia advancement. It also allows the colony to manufacture weapons with the Mil property.

#### Aerospace Complex

Although Siren's high gravity presents a challenge for manned aerial flight, with this advancement that capability is regained.

- **Requirements:** Colony Militia
- **Develop Cost:** Energy 2, Minerals 1, Work 15
- **Benefit:** Allows construction of the Chopper facility.

#### Aquatic Port

This advancement allows for the redevelopment of advanced naval capabilities.

- **Requirements:** Colony Militia
- **Develop Cost:** Minerals 5, Work 15
- **Benefit:** Allows construction of the Hydrofoil facility.

## Colony Militia

This advancement provides martial and tactical training to the colony's citizens and puts into place organized defensive measures.

- **Requirements:** —
- **Develop Cost:** Energy 1, Minerals 2, Nutrients 1, Work 10
- **Benefit:** In colony warfare, the colony's Population adds as a bonus when calculating Might.

#### High-Gravity Transport

Siren's high gravity presents a particular challenge when designing ground vehicles. With this advancement the new designs come to maturity.

- **Requirements:** Colony Militia
- **Develop Cost:** Energy 1, Minerals 3, Work 15
- **Benefit:** Allows construction of the Tac-Rover facility.

#### Mass Destruction

With this advancement the colony regains the means of manufacturing single-use, strategic weapons of mass destruction.

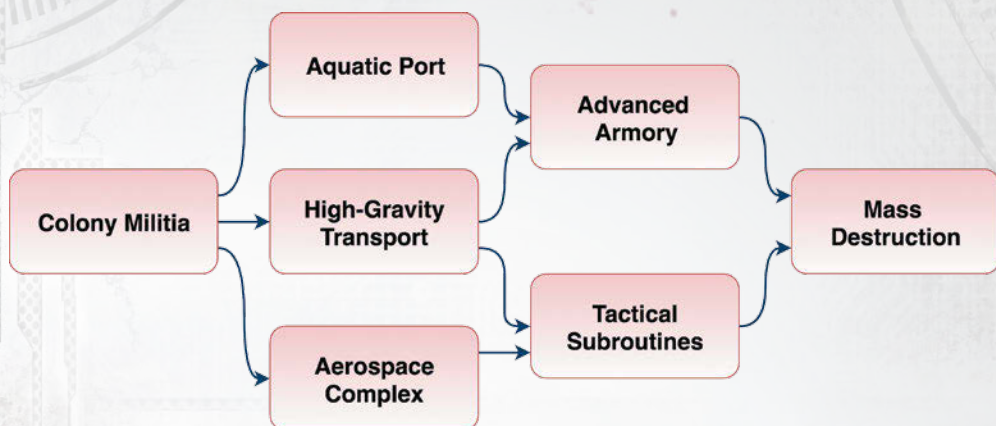
- **Requirements:** Advanced Armory or Tactical Subroutines
- **Develop Cost:** Energy 10, Work 30
- **Benefit:** Allows construction of the W.M.D. facility.

#### Tactical Subroutines

Advanced artificial intelligence and machine automation opens up a new front on the battlefields of Siren.

- **Requirements:** Aerospace Complex or High-Gravity Transport
- **Develop Cost:** Energy 3, Minerals 4, Work 20
- **Benefit:** The colony gains a bonus VP when engaging in colony warfare.

## Might Advancement Tree



## Making Characters Matter

In the rules for the Colony Building mini-game as written, there are very few ways for the players to make flips that directly affect their colony's stats. In part this is intentional, as giving players the agency to provide bonuses at whim would quickly unbalance the system.

Instead we have left it to individual GMs to decide how the player characters' actions affect the colony. GMs are urged to allow the characters' actions to matter, but to still be conservative with the bonuses or other benefits provided. A few example PC actions and benefits are given below:

- Working to improve morale might increase the High Morale consequence, which can be used up to provide an extra Work 1 per severity during a later colony turn.
- Doing surveys and going on exploration missions might provide Work 1 towards the Explore action this turn.
- Performing research in a particular area might provide Work 1 toward developing a particular advancement.





## Industry Advancements

Industry advancements focus on commercial and industrial development, from manufacturing to resource allocation.

### Automated Drilling

Machine automation benefits the drilling and mining industries, as machines can travel in environments that would be unsafe for humans.

- **Requirements:** Recycling Protocols or Synthetic Petrochemicals
- **Develop Cost:** Energy 4, Minerals 2, Work 20
- **Benefit:** Allows construction of the Automine facility.

### Energy Grid

An integrated energy delivery grid is an important piece of infrastructure that allows for the more efficient delivery of electricity.

- **Requirements:** Hab Manufacturing
- **Develop Cost:** Minerals 5, Work 15
- **Benefit:** The Charging action produces Energy 2 rather than Energy 1. This affects both the Turbine and Reactor facilities.

### Hab Manufacturing

The infrastructure to construct new habs eases population pressures in the makeshift structures dropped from the colony ship, thereby increasing quality of life.

- **Requirements:** —
- **Develop Cost:** Energy 1, Minerals 3, Work 10
- **Benefit:** The colony's Lifestyle rating improves by +1.

## Industrial Automation

Many industrial processes can benefit, at least in part, from machine automation, including the construction of new facilities.

- **Requirements:** Automated Drilling or Remote Monitoring
- **Develop Cost:** Energy 8, Minerals 2, Work 30
- **Benefit:** The Build action produces Work 2 rather than Work 1.

### Recycling Protocols

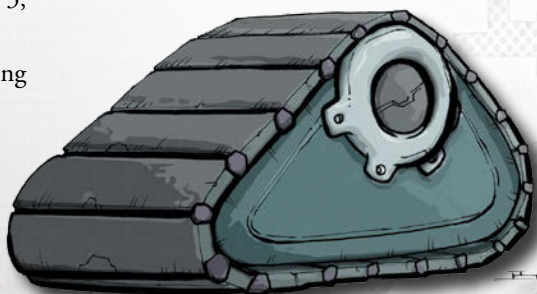
Even seemingly destroyed structures and associated materials can be repurposed to allow for comparatively quick recovery from disaster.

- **Requirements:** Hab Manufacturing
- **Develop Cost:** Energy 2, Minerals 1, Work 15
- **Benefit:** Facilities that would be destroyed from colony warfare or other sources of harm are instead only damaged. This allows the Repair action. Damaged facilities can be repaired with Minerals 1 and Work 2.

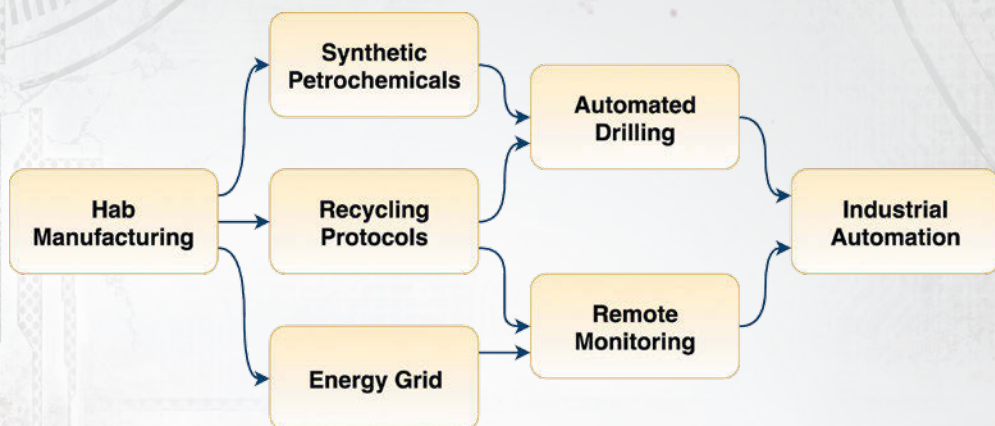
### Remote Monitoring

The remote monitoring of energy production facilities allows for a smaller workforce and the more efficient deployment of colony personnel.

- **Requirements:** Energy Grid or Recycling Protocols
- **Develop Cost:** Energy 4, Minerals 1, Work 20
- **Benefit:** Allows construction of the Reactor facility.



# Industry Advancement Tree



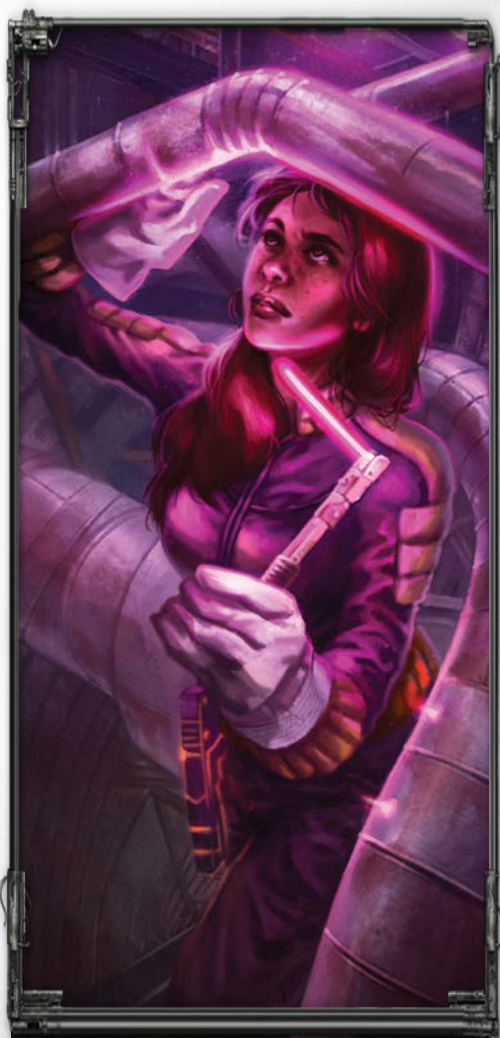
## Synthetic Petrochemicals

The production of refined or fully-synthetic petrochemicals is a large step forward in industrialization on a world where environmental carbon is in short supply.

- **Requirements:** Hab Manufacturing
- **Develop Cost:** Energy 1, Minerals 3, Work 15
- **Benefit:** The Mining action now produces Minerals 2 rather than Minerals 1. This affects both the Mine and Automine facilities.

## Production & Advancements

Sometimes players may want to know when the colony will have the necessary infrastructure to produce a certain kind of gear, for example: bullets for guns. In these situations the GM will need to make a judgement call. We recommend looking at the advancement trees and picking out the most similar advancement as the prerequisite to producing the gear in question. For example, bullets might require either the Colony Militia or Synthetic Petrochemical advancements.





## Knowledge Advancements

Knowledge advancements are those that focus on new scientific frontiers or which contribute toward establishing the colony's scientific capabilities.

## Adaptive Processing

Adaptation to the new environment is necessary, not just for human biology, but for the human technology as well. This advancement puts into place standard software necessary for making this adaptation.

- **Requirements:** Information Network
- **Develop Cost:** Energy 2, Minerals 1, Work 15
- **Benefit:** The colony's Lifestyle rating improves by +1.

## Centauran Ecology

Expanded knowledge of Siren's biosphere allows for the more efficient gathering of nutrients from the environment.

- **Requirements:** Information Network
- **Develop Cost:** Energy 1, Minerals 2, Nutrients 1, Work 15
- **Benefit:** The Gather action produces Nutrients 2 rather than Nutrients 1.

## Education Protocol

Establishing an education and training system is necessary in the eventual development of any colony. Unless the body of human knowledge is passed from individual to individual, generation to generation, civilization is lost.

- **Requirements:** Information Network
- **Develop Cost:** Energy 1, Minerals 3, Work 15
- **Benefit:** The Develop action produces Work 2 rather than Work 1.

## Information Network

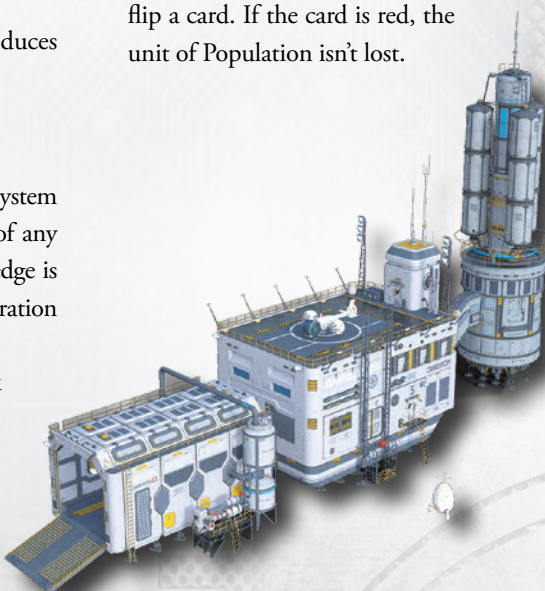
The goal of any exploratory endeavor is information. When this information can be easily shared, correlated and filtered, future exploration can become more precise.

- **Requirements:** —
- **Develop Cost:** Energy 2, Minerals 1, Work 10
- **Benefit:** When flipping a card on the exploration table, the GM should instead flip two cards and give the players the option of which result to take. If the players do not reach an agreement, the GM should take the higher of the two.

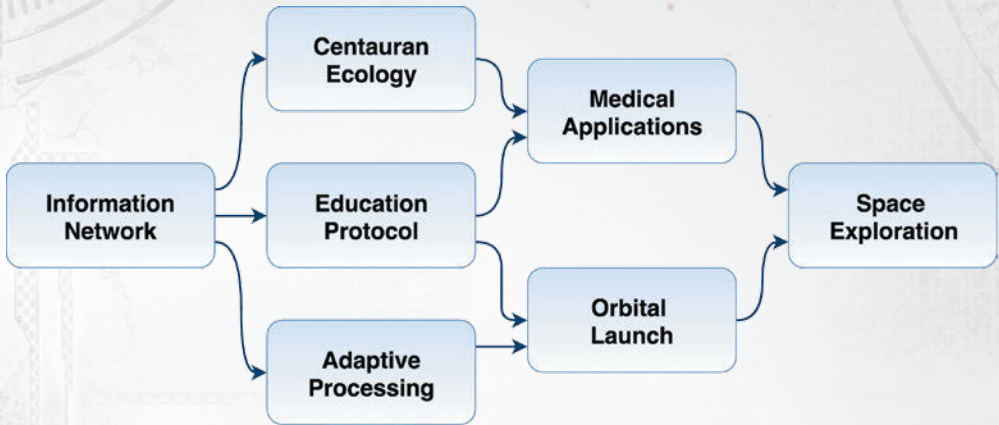
## Medical Applications

Human beings are fragile, and violence can easily break them. Through the use of new medical infrastructure and newly discovered compounds derived from the Siren biosphere, broken people can sometimes be fixed.

- **Requirements:** Centauran Ecology or Education Protocol
- **Develop Cost:** Energy 3, Minerals 4, Work 20
- **Benefit:** Whenever a unit of Population would be destroyed through colony warfare, flip a card. If the card is red, the unit of Population isn't lost.



# Knowledge Advancement Tree



## Orbital Launch

Escaping Siren's gravity well is a significant challenge. Not only must gravity be overcome, but the infrastructure necessary to break orbit must first be put in place.

- **Requirements:** Adaptive Processing or Education Protocol
- **Develop Cost:** Energy 4, Minerals 2, Work 20
- **Benefit:** When flipping a card on the exploration table, the GM should instead flip three cards and give the players the option of which to take. If the players do not reach an agreement, the GM should take the highest of the three. Additionally, contact is immediately established with all remaining uncontacted colonies.

## Space Exploration

With regular ventures into space becoming possible, the colony has once again become a spacefaring civilization.

- **Requirements:** Medical Applications or Orbital Launch
- **Develop Cost:** Energy 7, Minerals 6, Work 30
- **Benefit:** During Exploration Phase, the players may choose to flip a card on the Space Exploration table instead of the usual Exploration tables.





## Facility List

The facilities listed below are available in the Colony Building mini-game. Unless specified otherwise, only one unit of Population may use a facility each turn.

### Autofarm

This is a farm that has been improved with agricultural automation, thereby becoming significantly less labor intensive.

- **Requirement:** Automated Agriculture
- **Build Cost:** Energy 5, Farm, Minerals 5, Work 10
- **Farming (action):** Produces Nutrients 2. This facility can take this action each turn without requiring Population to do so.

### Automine

Industrial automation has benefited this mining facility, as robots and other machines can perform tasks that would be dangerous for humans.

- **Requirement:** Automated Drilling
- **Build Cost:** Energy 5, Mine, Minerals 5, Work 10
- **Mining (action):** Produces Minerals 1. This facility can take this action each turn without requiring Population to do so.

### Chopper

This is a military-capable rotorcraft that's capable of generating significant lift in Siren's dense atmosphere.

- **Requirement:** Aerospace Complex
- **Build Cost:** Minerals 5, Work 5
- **Battle (action):** Provides Might 5. For a full description of colony warfare and the Battle action see page 52.

### Farm

Everyone needs to eat, and farms are basic agricultural infrastructure that help facilitate this.

- **Requirement:** —
- **Build Cost:** Work 3
- **Farming (action):** Produces Nutrients 2.

### Hydrofoil

This military-quality watercraft is fitted with struts that during operation can lift its hull clear of the water, increasing the vehicle's speed.

- **Requirement:** Aquatic Port
- **Build Cost:** Minerals 4, Work 4
- **Battle (action):** Provides Might 4. For a full description of the Battle action see page 52.

### Leisure Pod

These recreational facilities act as both a distribution point for a vast array of entertainment and as the means to create new arts and entertainment.

- **Requirement:** Post-Scarcity Culture
- **Build Cost:** Energy 1, Minerals 1, Work 3
- **Arts & Culture (action):** Increase the colony's Lifestyle rating for next the next turn (year) only. How much Lifestyle increases depends on the portion of the Population taking this action. If this action is being taken by Population 1 or more, Lifestyle increases by +1. If a third or more of the colony's Population is taking this action, Lifestyle increases by +2. If two-thirds or more of the colony's Population is taking this action, Lifestyle increases by +3. As usual, an individual Leisure Pod may only be worked by a single unit of Population.

### Mine

Mines allow the colony to extract important minerals from below the ground.

- **Requirement:** —
- **Build Cost:** Work 3
- **Mining (action):** Produces Minerals 1.

## Reactor

Nuclear reactors use fission to heat water, which turns large turbines and provides energy for the surrounding grid.

- **Requirement:** Remote Monitoring
- **Build Cost:** Energy 5, Minerals 5, Turbine, Work 10
- **Charging (action):** Produces Energy 1. This facility can take this action each turn without requiring Population to do so.

## Tac-Rover

Tactical ground transport provides an important advantage in warfare. These tactical rovers are designed with that in mind.

- **Requirement:** High Gravity Transport
- **Build Cost:** Minerals 3, Work 3
- **Battle (action):** Provides Might 3. For a full description of colony warfare and the Battle action see page 52.

## Turbine

Turbines are simple rotary devices that extract energy from the flow of a liquid or gas, and convert that energy into a useful form.

- **Requirement:** —
- **Build Cost:** Minerals 2, Work 3
- **Charging (action):** Produces Energy 1.

## W.M.D.

Weapons of mass destruction are horrifying devices designed to kill lots of human beings in a very short amount of time.

- **Requirement:** Mass Destruction
- **Build Cost:** Energy 10, Minerals 10, Work 10
- **Battle (action):** Provides Might 50. Destroy this facility after use. Regardless of whether you won or lost the battle, resolve the battle as if you have an additional 10 VP that can only be used to destroy facilities or population. For a full description of colony warfare and the Battle action see page 52.









# Shadows Over Sol

**Humanity's first step beyond the Sol system might be its last.**

The ARC Project is humanity's first ever attempt to build and launch an interstellar colony vessel. It is one of the most ambitious endeavors ever undertaken. If successful, it will transport some 10,000 colonists the 4.4 light years from Sol to the planet Siren, orbiting Alpha Centauri A.

The journey will take 400 years, with all passengers and crew in stasis. No one knows exactly what will be found on the other side—what challenges and horrors the colonists will face as they make a life on this new world.

***Siren's Call: Player's Brief*** is a player's companion to the ***Siren's Call*** campaign and sourcebook. It contains all of the player-facing information necessary to participate in a ***Siren's Call*** campaign.

Designed for use with the ***Shadows Over Sol*** roleplaying game.



Tab Creations

