

EQUIPMENT AND DEVICES FOR MUTANTS & MASTERMINDS. THIRD EDITION

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Incredible inventions and clever gadgets have been part of superhero comics from the very beginning, able to even the playing field for "normal" heroes and provide mad scientist villains endless ways to challenge the good guys.

When Green Ronin Publishing produced *Power Profiles*, one of the things that book specifically did *not* cover was the full range of devices and gadgets possible using the MUTANTS & MASTERMINDS system, pointing out that such material could easily fill an entire book of its own. Well, this book is it!

Like its "companion" book, Gadget Guides started out as a series of smaller electronic products, now compiled together as a single book with some additional content. It looks at equipment, devices, and gadgets of all kinds, from the fairly mundane to the extraordinary, greatly expanding upon the basic rules and information given in **Chapter 7** of the MUTANTS & MASTERMINDS Hero's Handbook.

Also like *Power Profiles, Gadget Guides* builds on the effects-based system of *M&M*, using the basic effects from the *Hero's Handbook* to describe gadgets in game terms, offering a wide range of worked examples of how to create everything from weapons and armor to computers, constructs, vehicles, headquarters, and much more. It answers many of the "How do I...?" questions of the system with ready-to-use items, or useful examples you can modify to fit your needs.

HOW TO USE THIS BOOK

You can use *Gadget Guides* to fill a number of roles in your *M&M* game, making it a primary resource for both players and Gamemasters. The following are the most common uses for the material in this book.

CHARACTER CREATION

Gadget Guides is a reference for quicker and easier character creation for MUTANTS & MASTERMINDS. Players can consult its pages for ready-made devices and equipment to outfit their heroes, while Gamemasters can do the same for villains and supporting characters. Gadget Guides streamlines the character building process by offering a la carte options you can use as they are or modify to suit your needs.

CHARACTER INSPIRATION

In addition to making it easy to equip characters, *Gadget Guides* can serve as a catalog of concepts for creating new heroes and villains. Just flip through its pages, noting different devices and themes that inspire ideas. Some of the items in this book—particularly **Magic** and **Power** gadgets—can form the basis for an entire character, while others provide great starting ideas. If a player has a concept for a character, but needs some help in defining the character's equipment or devices, the work may already be done in the pages of this book!

GAMEPLAY REFERENCE

Given options like inventing (see **Appendix: Inventing**), power stunts, and Variable effects, many *M&M* characters can produce gadgets on-demand in the midst of a game. *Gadget Guides* forms a useful reference of ready-made items with their effects and power point costs already worked out, allowing Gamemasters and players to look up just the right device and get on with the fun of the game. It's a catalog of potential gimmicks for your gadgeteer and inventor characters!

GENRE SOURCEBOOK

Lastly, *Gadget Guides* provides some expansions of existing MUTANTS & MASTERMINDS rules suitable for running games that emphasize different types of equipment, devices, and capabilities. For example, the **Constructs**, **Mecha**, and **Vehicles** guides provide additional information for a series based around special vehicles, humanoid mecha, and transforming robots, for example. Similarly, the **Magic** guide and the **Rituals** appendix offer additional detail suitable not just for superhero games but for an *M&M* series using the *Supernatural Handbook*, or set in a low-tech fantasy environment. Add the **Steamtech** guide and you can do fantastic Victoriana! This book expands the basic *M&M* rules to allow you to handle settings and genres more focused on heroes with the right equipment rather than a lot of innate super-powers.

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ALIEN TECHNOLOGY

In most comic book universes, like Earth-Prime, the home of Freedom City and Emerald City, humanity is not alone in the cosmos, far from it, in fact. Any number of alien civilizations have contact with Earth, ranging from the lone survivors of long-lost worlds and peaceful explorers to invading empires, marauding warlords, or inhuman horrors. Each of these alien species has its own technology, used to further its purposes, and often so advanced as to appear like just another super-power to the inhabitants of a world of costumed heroes and villains. This Guide looks at technology and devices commonly used by aliens, and how to include them in your M&M series.

DESCRIPTORS

The following descriptors in particular apply to alien technology in an *M&M* setting.

- Alien simply means "foreign" or, for most M&M settings, "not from Earth." The important thing about an alien descriptor is the lack of familiarity earthly characters may have with alien technology. Not only might it be far in advance of human science (see the Unfamiliar Technology sidebar) but alien tech might have completely different design esthetics as well; whereas a human-designed weapon is fairly easily recognized as a weapon, an alien weapon might not be apparent until it is actually used, or what appears to be a weapon could prove to be just a sensor or recording device for alien scientists or tourists! This unfamiliarity can lead to misunderstandings between humans and aliens, creating conflicts in a story.
- Preternatural is a step beyond merely alien. Preternatural effects and technologies may not even follow the same physical laws as those we know, belonging to an entirely different region of the universe or a different—vastly alien—cosmos altogether. Such things are truly "unnatural" and may have a frightening quality to them, even in just their implications. Preternatural versions of alien technology often have disturbing biological elements, perhaps being a form of alien biotech (see Biotech for details).
- Super-Science is scientific understanding beyond Earth's modern science, and technology based upon it. It's purely speculative, fictional, science like fasterthan-light travel or teleportation, for example. More advanced alien technology is often super-science, as are many of the devices created and used by charac-

ters in a MUTANTS & MASTERMINDS setting. It's important to note that, while alien super-science may be commonplace in the culture it comes from, it may or may not be considered suitable for equipment in a modern Earth-centic M&M series. It is generally fine if limited to vehicles and installations, along with fairly routine equipment like weapons and life support, but the GM is encouraged to

make unusual alien technology into powers with the Removable flaw or a suitable Power Loss complication rather than equipment acquired with points from the Equipment advantage. See **Chapter 7** of the *Hero's Handbook* for additional discussion.

ALIEN WEAPONS

Only rarely do aliens in the comics "come in peace." More often, they arrive on Earth as invaders, armed for combat. Alien arsenals may include any of the weapons from the various other sections, particularly **Energy Weapons**, although some particularly warlike species also favor various close combat weapons as well.

BLASTER

Although alien species use a wide variety of weapons, the blaster is the most ubiquitous throughout known space: a simple beam of charged particles that inflicts impact damage, found in varieties from small hand weapons to larger rifles or ship-based cannons. The blaster technology of certain species may carry a particular "signature" (color, noise, beam frequency, etc.) those familiar with alien cultures can identify.

Blaster: Ranged Damage, typically 2–8 ranks • 2 points per rank

CLOSE WEAPONS

Militaristic alien cultures often still make use of close combat weapons, particularly those with great cultural or ceremonial significance. These are often similar to various archaic human weapons (see **Archaic Weapons** and **Asian Weapons**) perhaps with a slight modification or the addition of a weapon feature or two. Close weapons from an advanced culture may be forged from nigh-indestructible alloys or have additional technological features like damaging energy fields or even "blades" of solidified force.

Close Weapons: Damage (often Strength-based) often with modifiers like Penetrating, Reach, etc. • 1 point per rank

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CONTROL POD

Some alien weapons are more subtle than blasters or blades, using advanced technology to turn humans into loyal slaves of their new alien masters. A control pod typically attaches to the skin near the head or spinal cord, sending a mind controlling signal to the victim. Preternatural control pods are often creatures in their own right: small parasites that latch onto and control their victims. If a control pod is tiny and easily hidden (say, at the base of the spine) it may also have the Subtle modifier. Some control pods need careful placement, adding Grab-based or Limited to Restrained Targets (a –2 per rank flaw).

Control Pod: Affliction (Resisted and Overcome by Will; Entranced, Compelled, Controlled), Progressive • 3 points per rank

ALIEN DEFENSES

Both alien explorers and invaders look to protect themselves from attack, detection, and the effects of dangerous environments.

CONTAINMENT POD

Aliens may take prisoners, either victims kidnapped for purposes of examination and imitation, or prisoners of war kept alive for repatriation, reprogramming, or due to some other quirk of the aliens' culture. Containment pods are individual life support units that keep creatures placed within them in a state of suspended animation, allowing them to be revived at a later time. For some alien species, this might even function as a "larder," preserving creatures like humans as food....

At the GM's discretion, containment pods can be considered an added headquarters feature, much like prison cells, in which case the feature improves existing Holding Cells for any number of prisoners based on the size of the installation. See **Chapter 7** of the *Hero's Handbook* and **Installations** for more information.

Containment Pod: Enhanced Advantage 1 (Trance) plus Immunity 4 (Aging, Starvation, and Suffocation), Affects Others, Others Only, Limited to Helpless Subjects • 1 point

ENVIRONMENT SUIT

Traveling through space and visiting other worlds, aliens often have and wear protective life support gear providing them with a comfortable environment, which may differ significantly from an Earth-normal environment, if the species hails from a planet with a significantly different atmosphere, temperature, or gravity.

Environment Suit: Immunity 7 (cold, heat, pressure, radiation, suffocation, vacuum) • 7 points

FORCE CELL

Rather than placing prisoners in containment pods (previously), some aliens may use more conventional prison cells augmented with force fields, or made entirely out of force fields. These fields can provide cells capable of withstanding the kind of might superhumans can bring to bear, and might have other features as well, including power dampeners (see the section on **Power** gadgets for an example).

Force cells may be a feature of an alien vessel or installation, applying the Impervious extra to the Toughness of the Holding Cells feature.

Force Cell: Create Force Cell, Impervious, Limited to Trapping, Limited to Helpless Targets • 1 point per 2 ranks

GUN-JAMMING FIELD

Although primitive Earth firearms are often little threat to superior alien defenses, some prefer not to take any risk, and deploy technology that renders chemical propellant weapons useless in a given area, while still allowing advanced (typically energy-based) alien weapons to function. A gun-jamming field can turn a small fighting chance on the part of Earthly security and military forces into a complete rout when soldiers' guns fail to work. Apply additional ranks of the Area modifier to expand the field's influence over a wider area.

Gun-Jamming Field: Nullify Firearms, Burst Area, Simultaneous, Sustained • 5 points per rank

UNFAMILIAR TECHNOLOGY

Dealing with unfamiliar—and typically more advanced—alien technology is usually good for a circumstance penalty (**Chapter 1** of the *Hero's Handbook*). While even a –5 penalty may seem small dealing with advanced technology from another civilization, comic book characters do so quite often, so the usual circumstance penalties tend to be sufficient. In a more realistic setting, the GM may wish to up the penalty to –10 or more. Also note that checks involving alien tech usually cannot be considered routine, unless the character is both familiar with the technology and has a sufficient check bonus to ignore the additional circumstance modifier.

Conversely, aliens who are unfamiliar with Earth technology might suffer circumstance penalties, but are more likely to deal with various "Unfamiliar with Earth" complications. It is often not that they do not understand how a particular technology works, rather they do not know what it is used for. For example, an alien may understand the concept of plumbing and running water, but may not initially realize that human beings use streams of pressurized water to clean themselves, rather than safe, dry, and efficient ultrasonic "showers" or nano-cleansing agents. This can lead to some mishaps and unintended comedy for aliens trying to live amongst humans.

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ALIEN ADVANCEMENTS

While alien technology may be initially unfamiliar (see the **Unfamiliar Technology** sidebar) it is not necessarily going to stay that way, especially if some intrepid Earthlings get their hands on it. What happens to all of the tech alien invaders and visitors leave behind on Earth and what impact does it have on human technology?

The simplest option is not to worry about it: The tech is simply too advanced for humans to even begin to understand it, like Neanderthals trying to figure out a smartphone. We might be able to get it to work (for a while, at least) but any effort to take it apart or replicate it likely wrecks it, and might have dire consequences, leading to another adventure hook. The super-geniuses likely able to figure the stuff out have reasons to keep their insights to themselves: the heroes to keep technological advancements away from a world not yet ready to handle them, the villain to keep technological advantages to themselves.

Another option is to allow for some alien influence on human technology. After all, most comic book worlds have super-science of one sort or another available to governments, megacorporations, and other organizations with sufficient resources. Who's to say some of that didn't come from studying and reverse-engineering alien tech? Those factions are still likely to keep their inventions top-secret for as long as possible to retain their advantage, and some alien-derived tech may be considered too unstable or dangerous for widespread use.

Lastly, samples of alien technology could revolutionize human society as we know it, creating tremendous leaps forward in scientific understanding and technical capabilities. A few years after acquiring a working FTL drive, for example, some human nations might have their own hyperspace ships, capable of visiting (and colonizing!) other planets! Take this step carefully, as it changes the style of the setting, but it can make for an exciting and dynamic one as humanity encounters new opportunities and challenges afforded by such advancements.

ALIEN SENSORS

Whether their mission is exploration or paving the way for conquest, aliens make use of various sensor devices to gather information and transmit it back to their mothership or home world.

COMMUNICATOR

A simple communications device, transmitting an encrypted signal to an alien communications network. Individual devices have a limited range, but can be boosted by base vehicles, installations, or orbiting vessels.

Communicator: Communication 3 (radio), Subtle • 13 points

EXAMINATION SUITE

Whether studying other life-forms out of scientific curiosity or looking for weaknesses to exploit militarily,

many aliens use complex banks of sensors to closely examine living subjects, which are usually restrained or sedated for the process. Successful Technology checks using an examination suite can provide the user with details about a being's physiology, capabilities, and weaknesses.

Examination Suite: Senses 8 (Detect Life Form, Acute, Analytical, Microscopic Vision, Penetrates Concealment, Rapid 3), uses Technology in place of Perception, Limited to Restrained Subjects • 3 points

MIND PROBE

The mind probe takes the physical scrutiny of the examination suite a step further, delving into the deepest recesses of the subject's mind, scanning thoughts and sifting through memories to give the alien examiners a more detailed view of an alien culture and whatever the subject might know. The probe requires fitting leads or scanner pods closely around the subject's head, so it can only be used fairly motionless subjects (usually restrained in some fashion).

Mind Probe: Mind Reading, Cumulative, Effortless, Close, Limited to Restrained Subjects • 1 point per rank

UNIVERSAL TRANSLATOR

Alien invaders are not necessarily going to bother to learn English (or any other human language) yet they always seem able to speak it, or to make their demands understood. This piece of technology automatically provides translations from a vast database of languages and can quickly and easily extrapolate based on brief exposure to new languages. It may be entirely calculation-based, or have a telepathic component, allowing speakers to understand each other in their native languages.

Universal Translator: Comprehend 2 (languages, speak and understand) • 4 points

ALIEN INFILTRATION

A common alien invasion scenario is the "They Are Among Us!" conspiracy, where a "silent invasion" of aliens, concealed to look like ordinary human beings, is already happening. Aliens may want to visit Earth incognito for a number of reasons, ranging from scientific research (with care not to contaminate or influence human culture) to scouting parties or saboteurs preceding an invasion force.

CHAMELEON CLOAK

Since most aliens cannot easily pass amongst humans without being noticed, this technology is useful for scouts and infiltrators. It creates the realistic illusion of a human appearance, even allowing the wearer to imitate

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specific humans. A chameleon cloak changes appearance and voice to create an effective disguise, but will not fool other sensors, so some caution is still needed. Damage to the cloak (the equivalent to a stunned condition) can also cause it to "flicker," revealing the wearer's true appearance.

Chameleon Cloak: Morph 3 (humanoids), Limited to visual and auditory • 12 points

CLOAKING DEVICE

Rather than disguise, some alien infiltrators may simply go completely unseen. Alien technology may allow them to vanish from sight. A cloaking device can be a personal item (for scouts and spies) or installed in a vessel, allowing it to escape detection even while in orbit above the Earth or "parked" in the middle of a field or clearing! Ship-based cloaking devices often add additional senses—particular radio—to their Concealment to hide from the sensor sweeps of other vessels.

Cloaking Device: Concealment 4 (visual) • 8 points

MIND MASK

Given the presence of telepaths amongst some species, alien infiltrators lacking psionic abilities of their own may use technological means to mask their unique thoughts and brain patterns from detection. The mind mask either makes the wearer mentally "invisible" or else provides an unremarkable mental "façade" to fool mind-readers. A

mind mask is often incorporated into a chameleon cloak to enhance its concealment.

Mind Mask: Concealment 2 (mental) • 4 points

TELEPORTER

In addition to small vessels like scout ships and troop landers (see **Alien Vehicles**, following) alien visitors are most likely to have technology capable of instantly transporting them from distant orbiting vessels to a planet's surface, eliminating the need for landing craft and reducing the potential that their arrival will be discovered. Such teleportation technology may also allow aliens to move quickly and covertly around a planet, using either a ground-based installation or their ship as a relay station.

An alien teleporter needs a minimum rank of 15 to operate from geostationary orbit above the Earth (a bit over 22,000 miles) but a rank as low as 11 is capable of operating from low-Earth orbit (around 2,000 miles).

Teleporter: Teleport, Extended, Limited to Extended • 2 points per rank

A similar technology for some aliens is a teleportal: a "gateway" defined by a technological framework which creates a warp in space or even between dimensions, allowing aliens to travel simply by stepping through it. A teleportal might simply add the Portal modifier to a teleporter or it could be Dimensional Travel technology for aliens from another universe to enter our own. Portals of various sorts are common for preternatural alien species.

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ALIEN VEHICLES

In order to visit Earth from whatever distant planet they call home, aliens need some form of transportation. In many ways the space-ship, from the classic "flying saucer" to a city-sized mothership, is a staple of alien technology.

Many alien vessels are armed. For some potential weapons, see the **Heavy Weapons** and **Vehicles** gadget sections as well as **Chapter 7** of the *Hero's Handbook*.

HOVER SLED

A simple one- or two-person craft consisting of an open platform about five feet long, with a raised control and steering column in the front (which also provides the pilot with partial cover) and anti-gravity pods underneath, providing lift and propulsion. Hover sleds are common patrol and combat vehicles for planetary surfaces, and may be equipped with forward mounted weapons, or a second crew person standing behind the pilot, able to fire weapons in any direction to the sides or rear of the craft.

HOVER SLED 30 EP

Size: Medium **Strength:** 2 **Speed:** 8 (air) **Defense:** 6 **Toughness:** 7 **Features:** Autopilot (+4), Communications, Navigation System

HOVER PLATFORM

A larger version of the hover sled, designed more as a troop carrier for a cluster of a dozen or so medium-sized personnel, usually with a low raised edge the soldiers can easily step or jump over to disembark. Like the hover sled, a platform may be armed, typically with heavier weapons, such as a blaster cannon operated by two or more of its crew.

HOVER PLATFORM

30 EP

Size: Huge Strength: 8 Speed: 8 (air) Defense: 4 Toughness: 9 Features: Autopilot (+4), Communications, Navigation System

TROOP LANDER

An enclosed "drop ship" designed to quickly move troops from an orbital mothership to the surface of a planet, or from place to place on a planet. The troop lander is comparatively bulky and difficult to maneuver, but well armored. It lands in a "drop zone" and opens large bay doors to quickly off-load troops and even smaller vehicles (like hover sleds), then usually withdraws to a safe distance or returns to its mothership to transport additional troops.

TROOP LANDER

38 EP

Size: Gargantuan **Strength:** 12 **Speed:** 10 (space) **Defense:** 4 **Toughness:** 11 **Features:** Autopilot (+4), Communications, Computer, Navigation System

SCOUT SHIP

A scout ship is a relatively small interstellar vessel, capable of extended missions to other star systems on its own, and intended to explore alien systems and planets. Some scout ships are useful for peaceful exploration, while others are military scouts, intended to learn as much as possible about a civilization's technology, defenses, and potential value for conquest. Given its purpose, a scout ship may be equipped with a cloaking device or a chameleon cloak, modified for different vehicle or object forms (see **Alien Infiltration**, previously)

SCOUT SHIP

46 EP

Size: Gargantuan **Strength:** 12 **Speed:** 12 (space) **Defense:** 6 **Toughness:** 11 **Powers:** Movement 2 (Space Flight) **Features:** Autopilot (+4), Communications, Computer, Navigation System

SPACE FIGHTER

A space fighter is a sleek and fast ship intended for ship-to-ship combat in deep space or (often) in planetary atmospheres. Space fighters come in a wide range of configurations, some with a crew of one or two (a pilot, plus a possible copilot or gunner) while others are automated and run by robots or remotely piloted from another location (such as a control ship). Some space fighters have their own faster-than-light drives, but most are intended to be deployed from larger interstellar mother ships.

SPACE FIGHTER

48 EP

Size: Huge Strength: 8 Speed: 14 (space) Defense: 8 Toughness: 9 Features: Autopilot (+4), Communications, Computer, Navigation System, Remote Control

ALIEN VEHICLES

NAME	SIZE	STRENGTH	SPEED	DEFENSE	TOUGHNESS	COST
Hover Sled	М	2	8 (air)	6	7	30
Hover Platform	Н	8	8 (air)	4	9	30
Troop Lander	G	12	10 (space)	4	11	38
Scout Ship	G	12	12 (space)	6	11	46
Space Fighter	Н	8	14 (space)	8	9	48

HICHIC YENROYS

Even in the modern world of superheroes, archaic weapons like swords, hammers, and bows remain common. Some of these weapons are enhanced by magic or technological gadgetry, while others rely solely on the tremendous skill of their wielders. In either case, old school weapons are primary tools for many heroes and villains.



WEAPON DAMAGE

The basic effect for weapons is Damage (Hero's Handbook, page 104), since the primary purpose of weapons is to inflict injury. Archaic weapons are Strength-based as well, unless their damage relies on some property of the weapon rather than how forcefully it is wielded.

DAMAGE TYPES

Archaic weapon damage comes in three descriptors: bludgeoning, piercing, and slashing.

Bludgeoning weapons, like clubs or hammers, rely on sheer force, and the weapon being stronger than the object or person it strikes.

Piercing weapons are pointed and thrust, point first, into their target, like spears or arrows. They're usually designed to focus a great deal of force on a very small point and to penetrate armor.

Slashing weapons are sharp edged and swung, either like a sword, or via a chain or long handle to provide leverage.

A weapon's damage type may affect game traits like Immunity and limited forms of resistance; a foe Immune to Piercing Damage, for example, can still suffer damage from a bludgeoning weapon.

Some weapons have multiple damage descriptors; a sword, for example, can be both a slashing and piercing weapon, depending on how it's wielded. The same for a hammer backed with a pick (both bludgeoning and piercing). This does not have a cost, it's just a quality of the descriptors, unless the breadth reaches the level of the 1-point version of the Variable Descriptor extra (Hero's Handbook, page 145).

THE "UNSEEN EDGE"

Although piercing and slashing weapons are designed to be lethal in the real world (bludgeoning weapons, too, when the proper force is applied), comic books often choose to "overlook" the nastier effects of these weapons; targets suffer no more than a few nicks and cosmetic cuts,

and a hero with a sword can defeat a foe without running him through or otherwise causing any lasting—much less lethal—injury. This is the default assumption of MUTANTS & MASTER-MINDS, which treats all Damage effects largely the same, and assumes damage is not lethal unless an attacker deliberately chooses to kill an incapacitated target. Likewise, serious injuries resulting from weapons are treated as complications, rather than the specific result of failed Toughness resistance checks (see Lasting Injuries, Hero's Handbook, page 199).

WEAPON OUALITIES

Weapons may have a variety of different qualities that define them. Some of these qualities are modifiers (extras and flaws) for the weapon's basic Damage effect, while others are Features added on top of the weapon's Damage, or Alternate Effects of its Damage for a weapon with different uses. Weapon qualities that are effectively Enhanced Advantages do not stack with other advantages unless the advantages is normally ranked.

STRENGTH-BASED DAMAGE MODIFIERS

When a Strength-based Damage effect has modifiers that increase its cost to more than 1 point per rank, a special rule applies to the addition of Strength ranks to the effect's Damage rank: divide the wielder's Strength rank by the Damage effect's point cost per rank and round down to determine the total Strength bonus that applies to the weapon.

Example: A compound bow with Ranged Strength-based damage (costing 2 points per rank) divides the wielder's Strength rank in half before adding any bonus to the bow's Damage.

Note that this rules does not apply to modified Damage effects with a cost of less than 1 point per rank (the Strength rank is not multiplied for these effects), nor does it apply to flat modifiers that do not change cost per rank. Flat modifiers simply apply their normal rank to the total damage of the effect. Additional modifier ranks can be taken to "widen" the extra to include added Strength ranks (to a point).

Example: A Strength-based Damage sword has Penetrating 3, the same as its Damage rank. Additional Strength ranks add to the sword's Damage, but are not Penetrating. However, the sword could have Damage 3, Penetrating 8, allowing up to 5 additional Strength ranks added to it to become Penetrating as well.

ACCURATE

Attacks with the weapon gain a +2 bonus to the attack check per rank of this quality. This bonus counts towards power level determinations. 1 point per rank.

AURA

The striking portion of the weapon is surrounded by an aura of some damaging force or energy (not the same as the Energy Aura power from the *Hero's Handbook*, however). In game terms, this applies an additional descriptor to the weapon's damage. For example, a sword with a flame aura has the "fire" descriptor while a hammer with a lightning aura has the "electrical" descriptor on its damage in addition to bludgeoning. This is primarily just a Damage descriptor but may, like the basic descriptors for damage type, change how the weapon affects some targets, such as a foe vulnerable to fire. The aura may also allow the wielder to perform different stunts with the weapon. *1 point*.

BANE

The weapon is especially effective against a certain type of target. This is typically additional ranks of Damage with a Limited flaw based on how rarely the target appears. Excluding about half the potential targets is worth a –1 flaw.

Since the benefits of Bane are limited by power level, they can make the weapon less effectual overall, so Gamemasters may wish to bend the power level limits for Bane weapons, allowing their additional Damage bonus to exceed power level limits by up to 2 ranks. More than this is not recommended. –1 flaw.

BINDING

The weapon grants the benefits of the Weapon Bind advantage: if you take a defend action while wielding the weapon, and successfully defend against an armed attack, you can make an immediate disarm attempt against the attacker as a reaction. 1 point.

BREAKING

The weapon grants the benefits of the Weapon Break advantage: if you take a defend action while wielding the weapon, and successfully defend against an armed attack, you can make an immediate smash attack against the attacker's weapon as a reaction. 1 point.

CARRIER

The weapon's attack and damage serve as a carrier for another Linked effect, such as Affliction or Weaken. The descriptor may be anything from a powerful electrical shock to a toxin or even a magical effect. The Linked effect may have its own modifiers to further define it. Linked effect cost.

CHOKING

The weapon provides the benefits of the Chokehold advantage: After successful attack and grab checks, the target suffocates for as long as you maintain the hold. 1 point.

CONCEALABLE

The weapon is either small and easy to conceal or can fold or collapse down into a concealable form. This is similar to the Subtle modifier, and provides a +10 circumstance bonus to Sleight of Hand checks to conceal the weapon (base DC 20 to find it when it is concealed as a routine check). *1 point*.

DANGEROUS

Dangerous weapons are more likely to inflict critical hits: each rank of this quality increases the weapon's critical threat range by 1, to a maximum of 16–20 with 4 ranks. 1 point per rank.

DEFENSIVE

Like the Improved Defense advantage, when you take the defend action while wielding the weapon, you gain a +2 circumstance bonus to your active defense checks. 1 point.

DOUBLE

A double weapon has two striking ends or sides and can be used to strike twice, splitting the weapon's damage (the Split modifier, Hero's Handbook, page 144). *1 point*.

DISARMING

A disarming weapon is more effective in knocking things out of a target's grasp, allowing disarm attempts to be made with no circumstance penalty (*Hero's Handbook*, page 195). *1 point*.

ENTANGLING

Grab attacks made with the weapon are particularly difficult to escape from and grabbed targets suffer a –2 circumstance penalty to checks to escape. *1 point*.

GRABBING

The weapon provides the benefits of the Fast Grab advantage: After a hit with the weapon, make an immediate grab check against the target as a free action, using the weapon's Damage rank as its effective Strength rank. The weapon attack inflicts its normal damage and counts as the initial attack check to grab the target. 1 point. No cost if the weapon attack has no effect other than the grab.

IMPRESSIVE

The design or function of the weapon is sufficiently impressive to grant the wielder a +2 circumstance bonus to interaction checks involving it, usually Intimidation checks when using the weapon to threaten someone. 1 point.

INDESTRUCTIBLE

The weapon's physical form cannot be damaged. It is immune to smash attacks and, while it can be taken away from the wielder, it cannot be destroyed. *1 point*.

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PENETRATING

The weapon's Damage has the Penetrating modifier, allowing it to overcome Impervious Toughness, typically due to extreme sharpness or other "armor piercing" capability. *1 point per rank*.

PERSONAL

The weapon is "keyed" to the wielder in some fashion (biometric signature, aura reading, magical link, etc.) such that only the wielder may use it. The weapon simply doesn't function for anyone else. 1 point.

RANGED

Ranged use of archaic weapons is handled in one of three ways:

- The weapon is generally used at range and has the Ranged modifier on its Damage. It may or may not be Strength-based, and ammunition is handled as a complication if it becomes one (Hero's Handbook, page 161). This suits weapons like bows and slings as well as things like hammers or shields that return to the wielder's hand when thrown. +1 point per rank.
- The weapon is used at range, but has a very finite number of uses (5 or less). It has the Ranged modifier on its Damage, but is Unreliable. This suits things like a brace of throwing knives or shuriken that run out quickly. +0 points per rank.
- Lastly, the weapon can be used at range (typically thrown) but doing so deprives the wielder of the weapon until it can be retrieved, such as throwing a hammer, spear, or similar weapon. This is best treated as a combination of a stunt (allowing the weapon to attack at range) and a complication (depriving the wielder of the weapon) when it happens, with no change in the weapon's point cost and no fatigue or hero point cost for the stunt; in essence, the complication "pays" for the one-time extra. 0 points.

REACH

The weapon's length or design provides the wielder with additional reach in attacking nearby targets (*Hero's Handbook*, page 143). *1 point per +5 feet of reach*.

SMASHING

The weapon is especially effective at smashing held objects, you suffer no attack check penalty for making a smash attack against an object held by another character. 1 point.

TRIPPING

The weapon is effective in making trip attacks (*Hero's Handbook*, page 196), providing the benefits of the Improved Trip advantage: no penalty to the attack check to trip, no opposing trip attack, and a choice of which trait your target uses to defend (Acrobatics or Athletics). *1 point*.



SAMPLE WEAPONS

The information in this Guide can build a wide range of archaic weapons; the following are provided as examples and benchmarks for your own weapon creations and as a quick-pick list for players and GMs looking to outfit a character with weapons.

BLADES

Blades range from short, easily concealed knives and daggers to heavy two-handed swords or axes.

Dagger: A short blade, less than 12 inches. Daggers may be single or double edged slashing weapons and are also often pointed piercing weapons as well. A dagger is typically a Dangerous weapon and small or folding blades, like a switchblade or butterfly knife, may be Concealable.

Sword: Longer blades, over a foot in length, up to four feet or more. Like daggers, swords may be single or double-edged slashing weapons as well as pointed piercing weapons. Particular sword designs have different qualities, including Binding, Breaking, Dangerous, and Defensive. Enchanted or high-tech swords may have additional qualities or powers of their own.

Axe: A chopping (slashing) blade attached to a handle, axes range from small hand axes (which can also be thrown) to heavy, wide-bladed battleaxes wielded by fantasy ogres and alien gladiators. An axe is a Dangerous Breaking weapon.

BLUDGEONS

A bludgeon may be as simple as a heavy length of wood used as a club or as sophisticated as a metal warhammer or mace.

Club: The simplest bludgeoning weapon, possibly even a makeshift weapon, although clubs and cudgels (like the Irish *shillelagh*) suit some character concepts.

Hammer: A heavy warhammer with a broad striking head, or possible a blacksmith's tool turned into a weapon. Hammers are excellent Smashing weapons.

Mace: Similar to a hammer, but with a rounded, flanged, or spiked head. Maces are often also badges of office or associated with priestly or ceremonial functions. A morningstar is typically a heavier, spiked mace with a longer handle.

Flail: A handle connected to a heavy (often spiked) weight by a chain, allowing the weapon's head to swing or spin. A flail grants the benefit of additional Reach.

POLEARMS

Sharp or bladed polearms inflict piercing or slashing damage. Blunt polearms (or the haft of a polearm used as a striking weapon) do bludgeoning damage. Dangerous, Double, Reach, and Tripping are common polearm qualities.

Staff: A five- to seven-foot length of hardened wood or (occasionally) metal.

Javelin: A thin, light spear about three feet long, primarily designed for throwing.

Spear: A haft or handle three to six feet long or more, ending in a sharp point. The simplest spears are sharpened sticks (the points often fire hardened). More common are spears with metal heads, often with sharpened edges as well as points, allowing the spear to be swung as a slashing weapon. Spears can also be thrown, although doing so deprives the wielder of the weapon.

Trident: A spear with three tines or points, also a piercing weapon. Since the trident is associated with the Greek and Roman sea gods, it is a common weapon and emblem for aquatic characters. Like a spear, a trident can be thrown.

ENTANGLING

While some entangling weapons (like the whip) can inflict damage, their primary purpose is to trip up or grab targets and restrain them.

Bolos: A set of three or four weights connected by cords to a central hub, a bolo is thrown in such a way as to make the weights spin around the center point, allowing the cords to wrap around the target and restrain it. Like other thrown weapons, bolos use one of the three options listed for **Ranged** on page 3 of this Guide.

Net: A mesh of strong cord or even metal, thrown or cast over a target to entangle it.

Whip: A long, flexible strand, often braided leather, a whip can be cracked so the tip strikes with considerable force, used as a goad for animals (or even sentient slaves or prisoners). A whip can also wrap around a limb or limbs to restrain a target.

RANGED

The following archaic weapons use the first option for ranged weapons given earlier in this Guide. Many of the previous weapons—particularly some blades and polearms—can also be thrown using the second or third options for ranged weapons.

Bow: Whether an archaic weapon of wood (often reinforced with horn or similar materials) or a modern bow made of metal or composites. Fires bladed or pointed arrows by default, although a wide range of "trick" arrows are common (see the Trick Arrows section, following).

Crossbow: Like a bow, but with a pistol-like trigger and stock, and generally easier to load and draw. A modern crossbow might even be semi-automatic, self-loading with each pull of the trigger.

Sling: A small pouch able to hold a stone or "bullet" of metal, typically spun from cords, one of which is released to sling the stone at the target. Staff slings place the pouch at the end of a long handle, which is swung or snapped to fire the sling bullet.

GADGET GUIDES, MUTANTS & MASTERMIND

ARCHAIC WEAPONS

WEAPON	EFFECT	CRITICAL	COST		
	BLADES				
Dagger	Strength-based Damage 1 (piercing), Dangerous	19–20	2		
Sword	Strength-based Damage 3 (slashing)	20	3		
Axe	Strength-based Damage 3 (slashing), Breaking, Dangerous	19–20	5		
	BLUDGEONS				
Club	Strength-based Damage 2 (bludgeoning)	20	2		
Hammer	Strength-based Damage 3 (bludgeoning), Smashing	20	4		
Mace	Strength-based Damage 2 (bludgeoning), Dangerous	19–20	3		
Flail	Strength-based Damage 2, Dangerous, Disarming, Reach	19–20	5		
	POLEARMS				
Staff	Strength-based Damage 2, Double	20	3		
Javelin	Damage 1 (Ranged), Dangerous	19–20	3		
Spear	Strength-based Damage 2, Dangerous, Reach	19–20	4		
Trident	Strength-based Damage 3, Dangerous, Disarming, Reach	19–20	5		
	ENTANGLING				
Bolos	Ranged, Grabbing 3 (no damage)	20	6		
Net	Grabbing 2, Entangling	20	3		
Whip	Damage 1, Disarming, Grabbing, Reach 2	20	5		
RANGED					
Bow	Ranged Damage 3	20	6		
Crossbow	Ranged Damage 3	20	6		
Sling	Ranged Damage 1	20	2		

TRICK ARROWS

Costumed archers rarely limit themselves to traditional arrows. Instead, they carry quivers full of arrows equipped with various gadgets, giving them a wide range of effects.

These trick arrows are an array (*Hero's Handbook*, pages 136 and 161), usable one at a time, with the potential complication of running out of arrows (or crossbow bolts).

Potential trick arrows include the following:

- Bolas: As the weapon described in the Entangling section.
- Boomerang: A Homing modifier, allowing the arrow to catch missed targets by surprise on a return arc.
- Cable: A grappling arrow trailing a cable useful for Swinging.
- Capture: The arrowhead bursts to release a fast-expanding capture foam that instantly hardens to trap the target (a Snare Affliction, Hero's Handbook, page 131).
- Cold: A spray of intensely cold chemicals, useful for putting out fires, targeting foes with cold weaknesses, or perhaps working like a capture arrow (previously), trapping the target in ice.

- Explosive: The arrowhead is actually a tiny grenade that goes off on impact or following a short timed delay for a Burst Area Damage effect.
- Flash: A visual Dazzle Affliction (Hero's Handbook, page 103).
- Gas: A Cloud Area Affliction resisted by Fortitude.
- Net: As the weapon described in the Entangling section.
- Smoke: A cloud area Visual Concealment Attack.
- Screamer: An ultrasonic arrowhead that creates an Auditory Area Affliction, likely either dazed and stunned or impaired and disabled.
- Taser: Contact electrodes and a powerful battery releasing an electrical charge on contact for a Ranged Affliction attack (resisted by Fortitude).
- Tracer: The arrow itself does no damage and may be taken as a glancing or failed attack, but it does leave behind a mini-tracer stuck to the target (see Hero's Handbook, page 163).

The basic concept for trick arrows can also apply to crossbow bolts or even sling bullets, and even when deprived of their primary weapon, characters may find ways to throw or wield trick ammunition. Along with weapons, armor and protective gear are some of the first tools and technologies. Heroes lacking invulnerability, intangibility, or superhuman speed may rely on armor and other protective gadgets to survive the dangers of their heroics, and some make armor their primary theme.

This Guide looks at all types of protective gadgets, from armor and shields to goggles and gas masks. For power armor as a full-fledged power theme, see the **Armor Powers** section of the *Power Profiles* book.



Protective gadgets rely on defensive power effects. In particular, they use what can be called the preventative defense effects: Deflect, Enhanced Defense (including Protection), and Immunity. These are differentiated from the curative defense effects like Immortality and Regeneration, which correct harmful conditions rather than preventing them.

DEFLECT

This effect is primarily useful for shields and other gadgets used to actively block or turn aside attacks. Note that the default configuration of Deflect is Ranged; any character can "deflect" using the option to actively defend given in the **Action & Adventure** chapter of the *Hero's Handbook*. The only reason to have a Close Range Deflect is to apply power modifiers, such as Reflect and Redirect, to it.

Deflect is deliberately designed to require the standard action to actively defend, because its benefit "bends" power level limits, granting an opposed check for attacks against the defending character, which can result in up to a +10 bonus to active defense (if the player rolls a 20 on the character's defensive check). This is why an "automatic" Deflect requiring less than a standard action is prohibited; it would give the character a substantial power level bending advantage at no in-play cost (apart from the necessary power points).

Example: A player wants to create a "deflector field" that deflects attacks automatically, making Deflect a free action. At PL10, the player puts the Deflect rank at 10. That means a minimum defense of 21 at all times (since Deflect rolls add 10 to any roll of 10 or less) and a maximum defense of 30 without any effort on the character's part! The Gamemaster suggests the player consider one of the Enhanced Defense or Immunity options for the power.

ENHANCED DEFENSE

The primary defense effect is simply increasing a character's defense ranks using power effects, rather than spending points on "innate" defenses. This is particularly relevant for Toughness, which can *only* be increased as a power, using the Protection effect (which is essentially the same as Enhanced Toughness).

Protection is by far the most common form of Enhanced Defense, granted by armor and other types of protective gear. Some advanced types of armor may provide ranks of Impervious Toughness, but more than 3–4 ranks tends to be the

Enhanced Dodge effects usually represent protective equipment designed to make the wearer harder to spot (and therefore target) or intended to cause attacks to slide off or otherwise miss. It's a common effect of items like shields. Similarly, Enhanced Parry is for items used to block close attacks, and some defensive items provide both benefits.

province of super-science or magical armor.

Enhanced Fortitude is relatively rare for protective items, generally just those offering a bonus to Fortitude resistance checks for specific hazards, such as a filter mask for dealing with some breathing hazards. More often, protective equipment simply provides Immunity (following) to certain specific hazards, rather than a broad Fortitude bonus. Enhanced Fortitude that applies to only specific hazards has an appropriate Limit flaw (from –1 to –3).

Enhanced Will is the rarest effect from protective gadgets, with the exception of magical and super-science items aimed specifically at protecting against malign mental influences (see **Exotic Defenses** later in this *Guide* for examples).

DEFENSE EXTRAS

At the Gamemaster's option, the Reflect and Redirect extras of Deflect and Immunity can apply to Enhanced Defense effects as well, allowing characters to reflect or redirect unsuccessful attacks against those defenses as a reaction.

Example: Dragoneye has a spell that not only provides a "spirit shield" in the form of Impervious Enhanced Will, but also adds the Reflect extra, causing any Will-based attack that fails to overcome the defense to rebound back at the attacker! The power costs a total of 3 points per rank: 1 for Enhanced Will, +1 for Impervious, and +1 for Reflect.

GADGET GUIDES MUTANTS & MASTERMINDS

IMMUNITY

Immunity is the "last-ditch" effect option for defense, but is the most suitable effect for anything that grants a simple, flat immunity to some other effect or hazard—foregoing resistance checks, rather than enhancing resistance. It's the primary effect for protective gear rather than armor (see the **Protective Gear** section), working against environmental hazards and specific attack effects rather than overall Damage most of the time.

Although Immunity is normally a permanent effect, some Immunity-granting gadgets may require active use to provide their benefits, applying the Sustained or even Concentration duration modifiers to the effect. This can be a useful way to balance an Immunity that can be disrupted or that limits what else the user can do while it is active.

Relatively low-ranked Immunities (rank 10 or less) may be equipment, ranging from gas masks to spacesuits, whereas higher-ranked Immunities are more likely to come from Removable devices than equipment.

ARMOR

Armor, simply put, is a kind of protective clothing or outer layer worn over clothing. Primitive armor uses materials like leather or metal while modern armors are made from advanced synthetic materials. Far-future armor might not even use "material" at all, being made out of coherent fields of energy.

The primary effect of armor is Protection, increasing the wearer's Toughness. Some advanced armors may be Impervious, although that term is relative; archaic armor proved almost completely ineffective against firearms when they were introduced, rendering the most "impervious" armor no more useful than cloth.

Partial Armor: Only rarely does armor cover the wearer's entire body and, even then, there are typically joints, seals, or openings (including eye- and mouth-slits) where the armor is weaker. This can be represented in game terms in two ways. First is to apply the Unreliable flaw for armor that covers half or less of the wearer. Second is to consider the effects of a Power Attack maneuver against the wearer targeting the armor's weak points, taking an attack penalty for a more specific target, but gaining in damage.

Ablative Armor: Attacks can chip away at worn armor, causing damage and even breaking parts of it. If you want to reflect this in game terms, apply the Fades flaw to the armor; each successful attack reduces its rank by 1 until the armor no longer provides any protection. Damaged armor must be repaired like a moderate item (see the **Building Items** section of the Technology skill in **Chapter 4**, *Hero's Handook*).

ARCHAIC ARMOR

Characters from a pre-industrial culture or setting may wear simple armor made of materials like leather and

metal, like that used throughout the ancient world until the development of firearms made such armor largely obsolete. Although realistically, archaic armor should be Limited to non-ballistic and non-energy attacks, it's generally easier to assume its Protection is across the board, unless you specifically choose to Limit it.

Likewise, archaic armor often had difficulties associated with it, notably bulk and encumbering the wearer. The game traits (and the source material) largely ignore these unless the player or GM wants to bring them into play as complications or appropriate Quirk flaws.

Leather protects Protection 1, with an additional rank for studded leather (set with close-spaced metal studs) or heavy hide armor.

Chain-mail (suits of interlocking metal rings) or scale mail (leather with overlapping metal scales sew to it) offer Protection 3. The addition of a full metal breastplate increases this to rank 4. Layered armors of laminate and padding, like ancient samurai armor, are at the same rank.

Plate-mail, a suit of metal plates buckled over chain main, provides Protection 5.

Full plate armor, a jointed and articulated suit of solid metal plates, grants Protection 6, the peak of archaic armor.

MAGICAL ARMOR

Archaic armor encountered in Mutants & Masterminds settings is often magical in nature, one of the reasons to wear it rather than modern armor. Magical armor is nearly always a Removable power rather than an item of equipment. The armor can have any Protection rank up to the wearer's power level limit, and is generally no more cumbersome or difficult than any other superhero costume. Magical armor may also be Impervious, even if it is only leather or metal chain, due to its enchantments.

Magical armor may grant its wearer a wide range of other powers, from Immunity to some effects to special movement, enhanced abilities, or more, much like a suit of power armor with a magical rather than a technological descriptor. the **Armor Powers** section of the *Power Profiles* book for details on collections of powers like these.

MODERN ARMOR

Modern body armor tends to focus on protection against ballistic weapons like bullets, reducing penetration and kinetic impact, although it often also provides incidental protection against other forms of Damage. Modern armor vests and similar body armor concentrated on the torso may be considered partial armor (previously).

Leathers can include things like heavy leather "biker jackets" and other protective motorcycle or sports gear, designed primarily to absorb impacts, but also useful in combat. They typically provide 1–2 ranks of Protection, like archaic leather armor.



Undercover Vest: A torso-covering of ballistic cloth thin enough to be worn under loose fitting street clothes. Provides Protection 2 with the Subtle modifier.

Bulletproof Vest: A thicker vest or even suit of ballistic cloth, with impact absorbing pads covering much of the torso, provides Protection 4. Usually worn as an outer layer of clothing, a bulletproof vest may also have pockets for metallic or ceramic inserts to provide more rigid protection, adding up to 4 ranks of Impervious to the effect.

Riot Armor: A full suit of ballistic cloth armor with additional armor panels, heavy boots, gloves, and visored helmet, offering Protection 6. May also include a riot shield (see **Shields**) and a gas mask (see **Protective Gear**) for protection against gases deployed as crowd control agents. These items are not included in the armor's cost and are considered separate. A lighter version of riot armor is a ballistic jumpsuit: a form-fitting uniform of armored cloth, typically worn for government agents in the field, providing Protection 4–6 using more advanced (and less bulky) materials.

SUPER-SCIENCE ARMOR

This armor uses technology beyond that of modern world science. It may be considered equipment in some far-future or science-fiction settings, or for characters with access to cutting-edge or experimental gear (such as agents of secret government agencies) but should otherwise be treated as Removable powers.

Force Fields are protective energy barriers, which typically surround the wearer like a second skin. They're normally visible as a glowing aura, but a Subtle force field may be invisible to the naked eye. They can provide Protection greater than any material armor, limited only by their power source, field strength, and the power level of the series.

Some force fields are porous to gases, allowing wearers to continue to breathe, but leaving them vulnerable to airborne gases and toxins. Others may be airtight and come with their own oxygen supply or air-recycling system. Indeed, this type of force field may serve as a kind of environment suit (see the **Life Support** section).

Nano-armor is made from "smart" adaptive nano-material, a mass of microscopic, interlocking machines able to reorganize into a variety of forms. At the most basic level, nano-armor offers Protection with the Variable Descriptor modifier, allowing it to "morph" and shift to the most advantageous armor descriptors for the situation. More advanced nano-armor may be able to adapt to almost any threat, like the Adaptive Immunity power (see the **Meta-Powers** section of the *Power Profiles* book). An "experienced" suit of nano-armor makes its wearer virtually invulnerable!

Power Armor is a general term of highly advanced collections of wearable technology, including armor, weapons, sensors, life support systems, and computers (amongst other things), an entire suite of powers built into a single Removable gadget. Power Armor is described in more detail in the **Armor Powers** section of the *Power Profiles* book.

Armor

GADGET GUIDES ______ MUTANTS & MASTERMINDS

MITIGATING GADGETS

Some "protective" items are intended to mitigate the effects of a complication, like a Disability or Vulnerability, rather than guard against a more general type of harm. These items are plot devices that do not cost power points unless they grant effects or benefits other than those associated with the complication. The item is a part of the complication, and its loss or failure may trigger it. Examples of mitigating gadgets may include:

- A "containment suit" that allows a noncorporeal being made of energy or gas to have a physical form. If the suit is
 ruptured or destroyed, the wearer is unable to take any actions affecting the physical world and may suffer additional effects.
- A skullcap, headband, or amulet that prevents a hostile psychic entity from taking control of the character. This
 might be another personality or a true case of possession by a demon or ghost. If the item is disabled, the character
 is Controlled by the entity.
- Special gloves that prevent the character's touch from having a dangerous effect, anything from blocking a Permanent Reaction effect based on touch to mitigating another complication, such as an empath who suffers painful overload when in direct physical contact with another person.
- A suit or other worn item that immunizes the character against the harmful effects of his or her own powers, such
 as an electrical controller who will "short circuit" without a special "breaker belt" to regulate his overloading neuroelectricity.

SHELIS

Shields are handheld barriers wielders can interpose between them and attacks to provide additional protection. In *M&M* game terms, shields generally provide a bonus to active defenses (Dodge and Parry), serving to deflect attacks, rather than adding a Toughness bonus. The shield's bonus ranges from +1 for a small shield or buckler to +2 to +3 for a broad "kite" shield, perhaps as much as +5 for a "tower" shield that covers almost the entire body of the wielder (similar to total cover).

Bracers are arm guards usable as shields. At the most basic, a set of bracers might provide the Improved Defense advantage (see **Chapter Five**, *Hero's Handbook*): a +2 circumstance bonus to defense checks when taking the defend action. Bracers may also function like a regular shield, offering a bonus to active defenses, or provide Protection or Immunity requiring some action on the wearer's part, making its duration Sustained or Concentration.

Force Shields are solidified energy fields shaped and used like ordinary shields, often protected from a glove or wrist-bracer. They may have any of the effects of ordinary shields or bracers, but with a different descriptor, and may also provide the ability to expand the shield to protect others (applying the Affects Others and Area modifiers, possibly as an Alternate Effect).

SHIELDS AS WEAPONS

A shield can serve as a close combat weapon in a pinch. A basic "shield bash" attack simply uses the wielder's Strength Damage, applying a different descriptor, and the GM may wish to consider it a free application of the shield's descriptors. If the shield adds to the wielder's Strength Damage, give it an Strength-based Damage Alternate Effect.

Some characters even use shields as throwing weapons. Per the guidelines in **Archaic Weapons**, if this is a one-shot use that deprives the wielder of the shield, it can be con-

sidered a 0-point descriptor. If the character can recover the shield after each attack to use it again (as a weapon or defense) then apply the Ranged modifier to the shield's Damage, which should be an Alternate Effect of its defensive bonuses. The Ricochet extra (see **Extras** in **Chapter Six**, *Hero's Handbook*) is a common one for thrown shields, and may help explain how the shield "bounces back" to its wielder after an attack.

PROTECTIVE GEAR

The human body is vulnerable to many forms of damage or injury other than outright physical harm. Protective gear safeguards against these hazards, protecting vulnerable areas like the eyes and ears, breathing passages, the lungs, and—in exotic cases—even the mind and spirit.

SENSORY PROTECTION

Glasses cover the eyes to protect against visual effects.

Goggles also seal against the skin in addition to covering the eyes, providing protection against liquids and gases that might otherwise work around glasses.

Both types of vision protection can provide benefits ranging from a bonus to resistance checks against visual attacks (1 point for +5) to the Second Chance advantage against such attacks (1 point) or Immunity to Visual Attacks (5 points).

Earplugs fit into the ears to protect against loud noises and similar auditory effects.

Earmuffs fit over the ears, typically worn with a connecting band around the head.

Like visual protection, these gadgets offer resistance to auditory attacks ranging from a resistance bonus to Second Chance or Immunity.

Nose-plugs provide protection from olfactory effects, with a +5 bonus to resistance checks for 1 point.

17/

ARMOR & PROTECTIVE EQUIPMENT

1774		COST	
ITEM	EFFECT	COST	
	ARCHAIC ARMOR		
Leather armor	Protection 1	1	
Chain-mail armor	Protection 3	3	
Laminate armor	Protection 3	3	
Plate-mail armor	Protection 5	5	
Full-plate armor	Protection 6	6	
	MODERN ARMOR		
Leathers	Protection 1	1	
Undercover vest	Protection 2, Limited to Ballistic, Subtle	2	
Bulletproof vest	Protection 4, Limited to Ballistic	2	
Bulletproof vest with plates	Protection 4	4	
Riot armor	Protection 6	6	
	SUPER-SCIENCE ARMOR		
Force field	Protection	1/rank	
Force field, sealed	Immunity 8 (life support except for eating and sleeping, Protection	8 + 1/rank	
Nano-armor	Protection, Variable Descriptor 2	2 + 1/rank	
Adaptive nano- armor	Immunity 140 (Fortitude, Toughness, and Will Effects), Limited to effects the armor has experienced at least once	70	
	SHIELDS		
Small shield	+1 Dodge and Parry	2	
Medium shield	+2 Dodge and Parry	4	
Large shield	+3 Dodge and Parry	6	
Tower shield	+5 Dodge and Parry, –1 speed	9	
Bracers	Enhanced Advantage (Improved Defense)	1	
	PROTECTIVE GEAR		
Glasses/Goggles	+5 bonus to resist visual attacks	1	
Earmuffs	+5 bonus to resist auditory attacks	1	
Earplugs	+5 bonus to resist auditory attacks, Subtle	2	
Nose-plugs	+ bonus to resist olfactory attacks, Subtle	2	
	BREATHING PROTECTION		
Rebreather	Immunity 2 (suffocation), Limited to 20 rounds	1	
Gas mask	Immunity 1 (eye and throat irritants)	1	
Oxygen mask	Immunity 2 (suffocation)	2	
	LIFE SUPPORT		
Scuba gear	Immunity 2 (suffocation)	2	
Diving suit	Immunity 3 (pressure, suffocation)	3	
Space suit	Immunity 5 (pressure, radiation, suffocation, vacuum)	5	
Life support field	Immunity 8 (life support, except for eating and sleeping), add Subtle for an invisible field	8	
EXOTIC DEFENSES			
Amulet	Enhanced Advantage (Second Chance) or Immunity (see description)	1+	
Psi-shield	Enhanced Will (Limited to Mental Powers) or Immunity 10 (mental powers)	1/2 ranks or 10	

GADGET GUIDES ______ MUTANTS & MASTERMINDS

BREATHING PROTECTION

Characters can only hold their breath for so long, and airborne gases and other agents can affect anyone who breathes, regardless of Toughness.

Rebreather: A small cylinder that fits into the mouth and contains enough oxygen for two minutes (20 rounds) during which time the wearer does not need to make suffocation checks. *1 point*.

Gas mask: A face-covering mask with integral goggles and air-scrubbing filters to remove hazardous gases. A gas mask provides Immunity to Gas Attacks (1 rank), provided the gas affects the eyes or respiratory system. *1 point*.

Oxygen mask: Like a gas mask, but with an independent oxygen supply, adding Immunity to Suffocation for up to an hour. 2 points.

HELMETS

Armored helmets protect the head against injury, any suit of armor is assumed to include a helmet, those that do not may be Unreliable, at the GM's discretion, although some armored characters manage just fine without a helmet. Helmets may also incorporate sensory and breathing protection (previously) along with things like Senses effects. Other helmets are more Removable power sources than armor *per se* (see the **Power Gadgets** guide for details).

GLOVES & GAUNTLETS

Gloves provide some protection for the wearer's hands from both the environment and minor forms of damage. Any suit of armor is assumed to include suitable gloves, and they're a minor enough benefit to be considered a descriptor of the character's Protection and costume rather than a Feature.

Gauntlets are heavier and often armored in their own right. In some cases, gauntlets can function like bracers (see **Shields**) particularly if they are the only armor the character has available. Some gauntlets may also provide the wearer a +1 Strength-based damage bonus in unarmed combat.

LIFE SUPPORT

Scuba Gear has oxygen tanks and a face mask for operating underwater, providing Immunity to Suffocation for several hours. While more effective than a rebreather, scuba gear is also bulkier and less portable. 1 point.

Diving Suit: Adds pressure support to the scuba benefits, allowing for deeper dives. *2 points*.

Space Suit: A fully self-contained suit designed to function in the vacuum of space or airless (or toxic) planetary surfaces. A space suit provides Immunity to suffocation, vacuum, cold, and radiation. Its protection against heat

is limited, although super-science versions may protect against those environments as well. *5 points*.

Life Support Field: A super-science force field that surrounds the wearer in a protective aura, granting full life support (Immunity 10) while the field is active, even photosynthesizing oxygen from light and the wearer's waste gases. The field has the Quirk of not providing nourishment or eliminating the need to sleep (–2 points). These gadgets may be common equipment for advanced alien civilizations or other space-faring species (including humanity in the future). 8 points.

EXOTIC DEFENSES

In a superhero setting, there are many more unusual attacks and hazards to defend against. Naturally, people will develop gadgets to protect against these as well, and use them where and when they can.

Amulets are magic items intended to protect against particular hazards or forms of harm. They range from "lucky charms" that grant Enhanced Advantage (Second Chance) to Enhanced Defenses (typically Limited to a particular hazard) to items providing full Immunity. For example, the legendary "ghost shirt" worn by Native American warriors is supposed to provide Immunity to Projectiles in spite of being simple woven cloth or soft buckskin decorated with beads.

Some amulets take the form of mitigators (see the **Mitigating Gadgets** sidebar) such as a ring or necklace giving a vampire the ability to walk unharmed in the daylight, or preventing a lycanthrope from changing uncontrollably during a full moon.

Guardian Nano is made up of microscopic nano-machines in the subject's body, most often traveling the bloodstream like immune system cells. It is designed to protect bodily integrity, providing Enhanced Fortitude, possibly Limited to diseases and toxins, although guardian nano can also broadly help with almost anything requiring a Fortitude resistance check. It may also protect against hostile forms of attack nano, either offering an Enhanced Fortitude check or providing Immunity. Because it's internal to the subject's body, guardian nano is a power with a technological descriptor rather than a Removable device or equipment.

Psi-shields protect against outside mental influence or mind reading. Their form can be anything from a helmet, headband, hat, or other headwear (including the infamous "tinfoil hat") to a small item of jewelry, circuitry worked into clothing or armor, or a pocket-sized gadget like a remote control, to name a few. Psi-shields tend to be technological, but can just as easily be magical amulets as well (see their description previously).

A psi-shield's effect is typically ranks of Enhanced Will, Limited to Mental Powers, and possibly Impervious (offering total protection against low-ranked powers) but advanced psi-shields may simply offer Immunity to Mental Powers (10 ranks, 20 if mental powers are a very common descriptor in the setting).

Heroes and villains in pulp fiction and early comic books often wielded powers or weapons from "the mysterious East" and the fascination with Asian martial arts (especially ninjas) in the 1980s made various historic Asian weapons a superhero staple. This Guide looks at archaic Asian weapons and those often used to supplement unarmed martial arts, along with gadgets employed by ninjas.



Hook Sword: These Chinese weapons, usually wielded in pairs, are designed with curved hooks at the end of the blade. crescent-shaped handguard, and a sharp, dagger-like pommel, allowing them to be wielded in a number of different ways. Hook swords are effective at tripping, catching opposing weapons, and blocking. They can even be hooked together at the tips, swinging the second sword out so its pommel

slashes, extending the wielder's

reach.

HIDDEN IN PLAIN SIGHT

Due to the laws and customs of many of their original cultures, many Asian weapons evolved from otherwise mundane tools or agricultural implements, items peasants could easily own and carry without raising the kind of suspicion a sword might (to say nothing for the cost of a finely-made sword for a poor peasant farmer). Thus nunchaku developed from the threshing flail, the kama from the sickle, and the tonfa from a mill wheel handle, for examples. Although the purpose of many of these weapons was concealment, they are not considered Subtle effects, as their "concealment" is more of a cultural matter (and largely out of context in the modern world anyway). Only truly hidden or concealed weapons need the Subtle modifier. See Concealed Weapons later in this **Guide** for examples.

PAIRED WEAPONS

Many Asian melee weapons are wielded in pairs as part of a two-handed fighting style. In MUTANTS & MASTERMINDS, having and wielding a pair of weapons can be treated as an application of the Split extra (Hero's Handbook, page 144): pay an extra point for the second weapon in the pair, and then split the total damage for one weapon into two.

Specific constructions may also treat paired weapons as Linked effects, a Multiattack, or even a Secondary Effect, but this **Guide** uses the Split version.

SAMPLE WEAPONS

The information in the Archaic Weapons Guide can build a wide range of weapons. The following are provided as examples and benchmarks for your own Asian weapon creations and as a quick-pick list for players and GMs looking to outfit a character with weapons.

Various bladed weapons have as much importance in Asian culture as the swords and daggers of Western culture.

Kama: A weapon adapted from the type of small sickle used to harvest crops throughout southeast Asia. Kama are used in Indonesian, Filipino, and Japanese martial arts, often wielded in pairs.

Katana: The famous "samurai sword" wielded by noble warriors in feudal Japan. Katanas are slightly curved single-edged blades, worn by samurai with the edge facing up to facilitate quick drawing (the Quick Draw advantage is a common element of Japanese kendo, or sword fighting). It is traditionally worn as part of a pair (or daisho) with the shorter wakizashi blade.

Katar: The Indian "punch dagger" has an H-shaped grip, so the wielder's knuckles rest behind the wide, triangular blade, allowing it to thrust with considerable force, although they can also make slashing attacks. Katar are effective in punching through armor.

Kris: An Indonesian dagger with a distinctive wavy or "flame" blade design, the kris is a cultural icon, and every adult male in Indonesia was expected to own one, often passed down as family heirlooms. The blade design allows kris to inflict terrible wounds.

Indonesian legend attributes many supernatural powers to the kris, including the power to kill at a distance simply by pointing at a target, attacking targets by stabbing their shadow or footprints, alerting the wielder to imminent danger, and even controlling fire (flames being similar to the knife's own blade).

Kukri: A heavy Nepalese knife with an inward curving edge, used as both a tool and weapon. Kukri are perhaps most famous as weapons wielded by Gurkha regiments, including the Royal Gurkha Rifles of the British Army.

Ninja-to: A short, straight sword carried and used by ninja. The ninja-to is single edged with a chisel point and a square guard, typically worn in a back sheath and drawn over the shoulder.

Sai: Tapering metal batons, often wielded in pairs, with curved side prongs that serve as hand guards and to catch **GADGET GUIDES** MUTANTS & MASTERMINDS

opposing weapons. Although sais are traditionally blunt, in the comics they're typically pointed and also used as stabbing weapons.

Wakizashi: The shorter companion blade to a katana, the wakizashi was primarily useful for close-in fighting (particularly indoors). It was also used for beheading a fallen foe and, most famously, to commit ritual suicide (seppuku).

War Fan: A weapon based on the more common folding fans found in different Asian cultures. War fans typically have bronze, iron, or hardwood struts (sometimes in combination) or folding metal panels while others are solid metal and do not fold. In Japan an entire combat style—tessenjutsu—developed around the use of the war fan. The edges of the struts or panels may be sharpened, and the fan can be wielded closed like a club or slashing weapon or open like a small shield.

Nunchaku are wielded with circular and twirling motions to deflect incoming attacks and give momentum to the wielder's strikes. The three-section-staff is similar, but has three segments, and therefore greater reach and can be used as a double weapon (add Reach and Split to the basic traits).

Tonfa: Originally a mill wheel handle, the tonfa is a stick slightly longer than forearm length, with a handle at a right angle, allowing the stick to extend along the wielder's forearm. Tonfa are common close combat weapons for law-enforcement, where they're commonly known as side-handle batons or "T-batons".

Wind and Fire Wheels (feng huo lun): Chinese weapons consisting of metal rings with grips and flame-styled blades extending from the rest of the ring. Typically wielded in pairs as slashing weapons able to block and disarm opponents. Legend has it the first wind and fire wheels were gifts from the Taoist immortal Taiyi and could be used together as a magical flying vehicle by standing on them.

BLUDGEONS

Asian bludgeoning weapons tend to be simple monkish or peasant tools, but should not be underestimated in their effec- tiveness.

Bo: simple wooden staff, often doubling as a walking stick, making it a useful weapon and tool for wandering monks. The tetsubo or kanabo is a more powerful club shod with iron studs. Legend has them as the weapons of the monstrous oni, and the Japanese saying "like giving a kanabo to an oni" means giving greater advantage to someone who already has an ad-

Nunchaku: A pair of sticks or batons (about a foot in length) connected by a short piece of rope or chain, originally an adaptation of a threshing flail.



CULTURAL WEAPON LEGENDS

Much like the sword in the European Middle Ages, or the six-shooter in the American Wild West, various weapons play key roles in certain Asian cultures, placing them at the center of different legends and beliefs about their capabilities. In a superhero setting, some or all of these legends might be true, and those weapons may grant their wielders special powers (or certain specially-trained or chosen wielders may have access to those powers). Specific examples are cited in the weapon descriptions, along with examples of the powers granted by the weapon, but are not included in the mundane weapon's game information. They should be handled on a case-by-case basis between the player and Gamemaster, just like any other power-granting device.

POLEARMS

Polearms primarily offer the wielder greater reach and leverage than their opponents and the ability to strike opponents on horseback or otherwise out of reach of shorter weapons.

Naginata: The Japanese naginata is a wooden haft topped with a curved blade similar to that of a katana or wakizashi. The Chinese guan dao ("reclining moon blade") is a similar weapon with a broader, more cleaver-like blade, traditionally with a red scarf or tassel attached between the blade and shaft. In Japan after the Edo period, the naginata became a symbol of status for women of the samurai class and a common "woman's weapon"—use is still taught to some Japanese schoolgirls as a sport.

Nine-dragon Trident (*geo loon cha*): A polearm topped with a complex collection of curving and hooked points, particularly effective in blocking and catching enemy weapons and in hooking and tripping opponents, as well as impaling them on one or several of the points.

Spear: Both the Chinese *qiang* and the Japanese *yari* are polearms with pointed, often leaf-shaped, blades. In addition to the benefits of reach, such spears often had tassels or whistling notches intended to distract opponents, allowing the wielder to make a check to feint using attack bonus rather than Deception (adds 1 point to cost).

ENTANGLING

Some Asian fighting styles use entangling weapons to both disarm foes and to disable them with the minimum of injury.

Chain: A number of Asian weapons are based on the use of entangling metal chains, including the chain whip and Japanese *kusari* (also known as the *manrikigusari* or "ten thousand power chain"). The *kusari-fundo* attaches weights to either end of the chain while the meteor hammer goes a step further, adding heavy metal striking heads. The *kusari-gama* is a kama (see Blades) with a kusari attached to the handle, allowing the wielder to

strike with the chain or the sickle (or swing the sickle out at the end of the chain for greater reach).

Garrote: A length of waxed cord or metal wire, often with handles to help pull it tight around a victim's throat. It is an assassin's weapon, generally used to attack from surprise and get the victim into a chokehold.

Sash whip: A number of Asian cultures used a length of cloth (a belt, sash, or even sarong), often with small weights sewn into it, which could be wielded and cracked like a whip, and easily concealed as a mundane garment when not in use.

RANGED

Ranged weapons either use ammunition (such as arrows, darts, or even handfuls of *shuriken*) or are singular throwing weapons. In the latter case, the weapon may return to the thrower to be used over and over as part of a normal Ranged modifier. Otherwise, the weapon is good for only one throw, and then the wielder is deprived of its use until it is recovered (Recoverable is a +0 modifer).

Arrows: The Japanese bow or *daiku* features an asymmetrical grip so it can more easily be used on horseback. Arrows may use different types of heads for different purposes.

- Dragon's Tongue: A rounded, tapering arrowhead designed to penetrate armor.
- Frog Crotch: A Y-shaped arrowhead, with the inner angle sharpened, useful for cutting cords and legend has it—even the wood hafts of weapons.
- Skinsplitter: A broad, triangular head designed for inflicting shallow, bleeding wounds.
- Willow Leaf: A long, thin arrowhead to slip between small openings in armor or even the slits in a helm or similar target.

Blowgun (*fukiya*): A hollow tube used to fire small darts by blowing into one end. The blowgun is typically a weapon for hunting or assassination using darts tipped with poisons, since the actual damage the weapon inflicts is negligible.

Chakram: This Indian throwing weapon is a metal ring with a sharpened outer edge, spun when it is thrown for additional cutting power. A master chakram wielder may have the Throwing Mastery advantage and the Ricochet extra as a power with the training or skill descriptors.

Shuriken: These Japanese throwing weapons come in two main types: spike or bo shuriken are short metal spikes similar to large nails, while star shuriken are flat star-shaped wheels with sharpened edges. Both are fairly easily concealed in sleeves or sashes and typically thrown several at a time (giving them the Multiattack modifier).

Ninjas are infamous for applying poisons to the points and edges of shuriken, adding an Affliction effect (resisted and overcome by Fortitude) to the weapon's damage.

ASIAN WEAPONS

WEAPON	EFFECT	CRITICAL	COST	
	BLADES	3		
Hook sword	Strength-based Damage 3 (slashing), Double <i>or</i> Reach, Tripping	20	5	
Kama*	Strength-based Damage 2 (slashing), Dangerous	19–20	3	
Katana	Strength-based Damage 3 (slashing), Dangerous	19–20	4	
Katar	Strength-based Damage 2 (piercing or slashing), Penetrating 1	20	3	
Kris	Strength-based Damage 2 (piercing or slashing), Dangerous 2	18–20	4	
Kukri	Strength-based Damage 2 (slashing), Dangerous	19–20	3	
Ninja-to	Strength-based Damage 2 (slashing)	20	2	
Sai*	Strength-based Damage 1 (piercing), Defensive, Disarming	20	3	
Wakizashi	Strength-based Damage 2 (slashing), Dangerous	19–20	3	
War fan*	Strength-based Damage 1 (slashing), Concealed, Defensive	20	3	
Wind and Fire	Strength-based Damage 2 (slashing)	20	2	
Wheel*				
	BLUDGEONS			
Во	Strength-based Damage 2 (bludgeoning), Double, Reach	20	4	
Nunchaku*	Strength-based Damage 2 (bludgeoning), Disarming, Impressive	20	4	
Tonfa	Strength-based Damage 2 (bludgeoning), Defensive	20	3	
	POLEARMS			
Naginata	Strength-based Damage 3 (slashing), Reach	20	4	
Nine-dragon Trident	Strength-based Damage 2, Dangerous, Disarming, Reach	19–20	5	
Spear	Strength-based Damage 2 (piercing), Dangerous, Reach	19–20	4	
	ENTANGLING			
Chain	Damage 2, Disarming, Grabbing, Reach	20	5	
Garotte	Grabbing (no damage), Chokehold	_	2	
Sash whip	Damage 1, Disarming, Grabbing, Reach	20	4	
RANGED				
Arrow				
Dragon's Tongue	Ranged Damage 3, Penetrating 1	20	7	
Frog Crotch	Ranged Damage 3, Smashing (limited to cutting)	20	7	
Skinsplitter	Ranged Damage 3, Dangerous	19–20	7	
Willow Leaf	Ranged Damage 3, Precise	20	7	
Blowgun	Ranged Affliction (poison; Resisted and Overcome by Fortitude; Impaired, Disabled, Incapacitated; Resistible (Toughness))	20	1/rank	
Chakram	Ranged Damage 3, Dangerous	19–20	7	
Shuriken	Ranged Damage 1, Multiattack	20	3	
GRENADES				
Black powder	Burst Area Damage 3	_	6	
Flash powder	Burst Area Dazzle 3 (Hero's Handbook, page 103)	_	6	
Lacquer poison	Cloud Area Affliction 3 (Resisted and Overcome by Fortitude; Impaired, Disabled; Limited Degree)	_	6	
Smoke	Cloud Area Concealment Attack (visual) 2	_	6	
	*Often paired as a Double weapon (adds +1 point to cost)			

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ANIMAL WEAPONS (OR "SNAKES ON A CHAIN")

In addition to the relatively common Asian weapons in this **Guide**, there are a number of examples of animal-themed weapons ranging from the exotic to the strange, which players and Gamemasters may wish to include in their Mutants & Masterminds games. Examples include various metal throwing weapons shaped like animals and usually named for them (e.g. iron duck, iron toad, steel scorpion, etc.) made so wingtips, beaks, claws, and the like form sharp edges and points while the rest of the weapon is simply blunt striking surface. Meant to invoke some of the spiritual power of the animal, these weapons may actually do so for some characters.

The other type literally uses certain animals as weapons! Particular examples include a long chain or pole that grips a poisonous snake by the neck; the wielder swings so as to strike the target with the (understandably irritated) snake so it will bite and poison them. Similar is a clay vessel containing scorpions, wasps, or other poisonous vermin, which shatters on impact, releasing the creatures to sting the victim. In *M&M* game terms, these are best handled as Limited Afflictions based on the animals' attack (and venom), likely Unreliable and possibly with Side-Effects for a failed attack.

High-tech or magical shuriken may have a number of extras, ranging from Penetrating ultra-sharp edges (or energy fields) to Homing ability.

NINJA GADGETS

In addition to weapons like the ninja-to, the legendary ninja of Japan were renowned for their use of cunning and concealed gadgets to carry out their missions. Modern ninja in an *M&M* setting might use versions of their traditional gear (perhaps made with modern materials and methods) and could supplement it with high-tech or even magical gadgets ranging from night-vision goggles to enchanted ninja uniforms or versions of their mundane gear. Most of the contents of the **Utility** gadget section would find use in a ninja's arsenal.

CONCEALED WEAPONS

Often working in disguise, ninjas carried weapons concealed within otherwise mundane objects or easily hidden in sleeves or sashes (such as shuriken, under **Ranged**, previously). The most common concealed weapon is a blade hidden within an ordinary staff, much like a European sword-cane, or a staff able to split apart into sections connected by chain, forming a nunchaku or three-section staff (or both, depending on which sections are detached).

The effect of a concealed weapon is a rank of the Subtle modifier, making the weapon difficult to detect when not in use. Ninja often make additional use of the weapon's concealment, such as using the hollow staff that contains a blade as a snorkel, or having a hidden compartment for a vial of poison or other small objects. These can be treated as Features of the item, or simply stunts the ninja performs on an as-needed basis by spending hero points.

Concealed Weapon: Subtle added to weapon cost • 1 point.

CLIMBING CLAWS

These metal claws fit over the wearer's knuckles, with the claws facing inward (from the palm) to improve climbing ability on most surfaces where the claws can get purchase. In a pinch, climbing claws can also be used as a weapon, changing the wearer's normal bludgeoning Strength damage to slashing damage, best handled as an occasional stunt rather than a regular effect.

Climbing Claws: Movement 1 (Wall-crawling), Limited to surfaces where the claws can get purchase • 1 point.

NAGETEPPO (GRENADES)

Ninjas produced grenades by filling empty eggshells with combinations of powers that combust rapidly upon contact with fire, typically a campfire or household brazier or hearth. They were kept in padded pouches or in sleeve pockets, but were prone to breakage (a potential complication). Given their costs, an array of grenades may be common ninja ordinance.

These grenades have limited range, given their design. The user is assumed to be just *outside* their radius when used, rather than at the center of it.

Unless *nageteppo* have magical properties or great cultural significance, modern ninja are more likely to use compact modern ordinance, described in other gadget sections.

- Black Powder: A charge of black powder sufficient to cause a small explosion, possibly mixed with tacks or other small, sharp objects as shrapnel.
- Flash Powder: The powder flares with a blinding flash, particularly in nighttime settings where the fire is being used for illumination (such as a campfire).
- Lacquer Poison: A combination of powdered lacquer releases a smoke that is painfully irritating to the eyes, throat, and skin, helping to distract the ninja's targets.
- Smoke Powder: The nageteppo released a thick cloud of dark smoke, allowing the ninja to move and act with visual concealment.

Nageteppo: See Asian Weapons table for effect and cost.

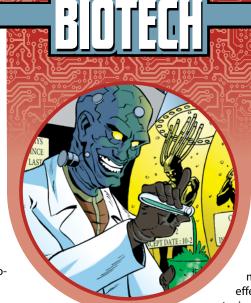
WATER-WALKING SHOES

Special folding shoes made of woven reeds allow the wearer to remain buoyant enough to "walk" on the surface of water without sinking.

Water-walking Shoes: Movement 1 (Water-walking), Limited to half speed • 1 point.

Medical science has long sought ways to cure, heal, and improve the human condition, but the knowledge to heal also comes with the knowledge to harm, and the science of improving life can also twist it in a variety of ways.

Biotech looks at biological technology, from cloning and genetic engineering to biometrics, forensics, biomodification, biological equipment, and biochemicals.



Slow: An Affliction or Weaken effect with this flaw takes much more time to affect its target, usually outside of the rounds of action time. A Slow effect may take minutes, hours, or a day or more between checks to resist and overcome it. On the upside, the effect lasts longer, but it may not take effect quickly enough to change the outcome of the encounter where it is used! This makes an Affliction or Weaken effect operate more like a traditional toxin or disease. –1 point per rank.

DESCRIPTORS

Biotechnology is technology based on or affecting life, life forms, or life processes. The term is also commonly used for living creatures (or the products of them) turned into technology (see the **Living Technology** section of this section).

DNA, short for deoxyribonucleic acid, is the molecular encoding of the genetic instructions for the development and growth of organisms (or, at least, organisms on Earth for settings with alien life). Understanding and manipulation of DNA is often essential in more advanced biotech.

Genes are molecular units of hereditary traits, encoded into the DNA, and the foundation of **genetics** (the study of genes). When a genetic descriptor is applied to a trait, it generally means that trait can potentially be passed on to the subject's offspring and is inherent in the subject's DNA, meaning it will carry over to a clone of the subject, for example.

In some cases there may be a distinction between the genetic *potential* of the trait and its *expression*. For example, certain humans in an *M&M* setting might have the genetic potential to develop superpowers, but that potential expresses in different ways depending on how it is triggered. Therefore, offspring only inherit their parents' potential, not necessarily the same expression.

MODIFIERS

The following effect modifiers suit some biotech powers, gadgets, and techniques:

Injected: The effect must be injected into the target's body in order to work. This means it must first penetrate the target's skin or outer surface, typically using a needle or other injector. This is essentially the same as the Resistible flaw from the Hero's Handbook, adding a Toughness resistance check on top of the effect's existing resistance. If the Toughness check succeeds, there's no injection and, therefore, no other effect. –1 point per rank.

BIOMETRICS

Biometrics are a wide range of techniques for identifying individuals by their physical traits, including but not limited to finger- and palm prints, blood type, DNA, facial recognition, iris- and retinal-patterns, and even less tangible qualities like gait, gestures, and voice.

Biometric techniques require at least an acute sense (see the **Senses** effect in **Chapter 6** of the *Hero's Handbook*) and many need an analytical one; other senses are not sufficiently refined to provide useful data. Most of the time, this data is gathered by sensors more acute than normal human ones, but some characters with acute or analytical senses may be able to gather and use biometric data on their own. For example, a character with acute olfactory senses could tell different blood types by scent alone.

Likewise, certain effects can mask or change biometric information. Broadly speaking, any effect that conceals or changes a character's appearance can fool things like facial recognition (perhaps with an opposed Perception versus Deception or power check). For finer biometric data, a Precise effect is generally required; so Precise Morph, for example, allows characters to not only disguise their appearance but to put forth false biometric data like blood composition, DNA, retinal patterns, and so forth, fooling various acute or analytical sensors.

FORENSICS

One area where biometric data is applied is forensics, gathering and processing evidence in the investigation of crimes (or other scientific pursuits). This is covered by the Investigation skill in **Chapter 4** of the *Hero's Handbook*. Checks to gather and analyze evidence often involve biometric data. Characters with acute or analytical senses may be able to forego circumstance penalties for not having tools (not needing them to get useful information) while some Precise power effects—notably Morph—may

confuse forensic evidence, leaving misleading traces that implicate the wrong person, for example!

SECURITY & SURVEILLANCE

Biometrics are also used to identify particular people for security and surveillance purposes, such as finger- or palm print scanners, or retinal scans built into locks, or retinal scanners and facial recognition software used in surveillance cameras. This can help to secure sites against intrusion, or become a tool of a police state. Indeed, things like modern facial recognition may be why superheroes and villains wear masks!

As with forensics, certain effects may provide concealment from biometric scanners while some Precise effects may be able to fool them with false information.

GENE SEQUENCING

The ability to study and sequence DNA can tell a great deal about a subject. In addition to potentially identifying someone from a DNA sample (even a stray hair, a few flakes of skin, or a drop of blood), if a subject has genetic modifications or powers with a genetic or mutant descriptor, they will show up as part of the test, which may even be able to identify what powers the subject has! The same is true for non-human characters; even if an alien is completely human-looking, a DNA test will show otherwise.

BIOCHEMICALS

There is a fine line between "medicine" and "poison"—often just a matter of dosage. That line gets even blurrier when dealing with "designer drugs" and engineered biochemicals with a variety of purposes.

TREATMENT TOOLS

The most common role biochemicals play is as a part of the tools used with the Treatment skill for dealing with injuries and illnesses. This generalizes the pain-killers, antibiotics, stimulants, and other drugs commonly found in a well-stocked first-aid kit or doctor's bag. Inventors with an Expertise in Biochemistry might be able to use these basic ingredients to whip up inventions at the GM's discretion.

COMPLICATIONS

Medications can also serve as mitigators, or even triggers, for certain complications. A diabetic—or a character with another chronic condition—might need regular doses of medication to stay healthy and avoid complications, but then the need for a supply of medication can itself become a complication. Likewise, an addiction (physical, psychological, or both) to a drug is also a potential complication, whether the drug is purely recreational or has some other effects.

WONDER DRUGS

Comic books are full of "miracle pills" and "super-serums" with amazing effects, especially in the Golden and Silver Ages before the "war on drugs." Some of these wonder drugs are sources for empowerment (see the **Genetic Engineering** section, following) providing a biochemical descriptor for the character's powers. Others have strictly temporary effects with the Fades or Unreliable modifiers (and Activation, if the character must take a dose to activate certain powers).

TAILORED TOXINS

Other biochemicals are baneful brews, usually cooked up by villains and functioning as a poison of one kind or another. These are typically Affliction effects, resisted and overcome by Fortitude, since they work on living biologies, and causing a wide range of conditions. The **Hazards** section of **Chapter 8** of the *Hero's Handbook* provides some sample poison ranks and effects for comparison, and many real and fictional toxins have the Slow modifier from this Guide, taking effect over minutes or hours rather than in the seconds of a single action round.

MICROORGANISMS

Microorganisms or microbes are the vast variety of microscopic life forms, including bacteria, protozoa, microscopic plant-life, and often viruses (although some classify the latter as non-living). The key quality of microorganisms is their size, which allows them to infiltrate and often affect the biological systems of other life forms, causing disease and allergic reactions, for example.

DISEASE

Most diseases in superhero settings are either handled as extended complications (much like **Lasting Injuries** in **Chapter 8** of the *Hero's Handbook*) or as specific powers, inflicting fast-acting disease symptoms on targets as an Affliction, for example. The **Hazards** section of **Chapter 8** of the *Hero's Handbook* also talks about game mechanics for diseases and their effects and provides some sample disease ranks and conditions caused by the progression of the illness.

MICRO-MONSTERS

A good deal of the threat associated with microbes is a matter of scale: at the microscopic level, they can afflict a host's system, but reduce characters to their level, or bring microbes into the "macro"-sized world and... look out!

A common comic book element is heroes shrunk down to microscopic scale, faced with invading microbes or even white blood cells convinced they are invaders! Likewise, mad science might enlarge otherwise invisible microbes into giant monsters! Either way, you can use the Blob monster archetype from **Chapter 3** of the *Gamemas*-

GADGET GUIDES ______MUTANTS & MASTERMINDS



ter's Guide for the general traits of a giant-sized microbe (whether it's actually giant-sized, or just seems that way from the perspective of a tiny character). The Giant Flytrap archetype can also serve as a model for some equally-sized protozoa or the like.

CLONING

Cloning—especially human cloning—is a staple of the comic books. Generally, it involves the creation of a forced-growth from a mature cell sample, often with some type of mind or memory transfer (or outright brain transplant). That is, clones can be grown from a DNA sample from an adult human being (rather than requiring embryonic cells) and can be grown to maturity much faster than they would develop naturally, plus there is a means to give the clone memories, knowledge, and a personality (perhaps that of the donor, perhaps not) rather than ending up is a "blank" and mindless clone. All of these various things make cloning super-science, requiring a power, device, or the Inventor advantage.

IMMORTALITY

One of the simplest uses for cloning is to provide the donor with a new, presumably younger and healthier, body when the old one wears out or suffers illness or injury. If the subject's mind is transferred into the new body, it is like the Immortality effect from the *Hero's Handbook*, with the interval for the character's return to life being the time needed to grow and "activate" the clone.

This kind of cloning is the same as the Nano Backup trait from the **Nanotech** gadget section.

DUPLICATION

A clone can be force-grown from a still living person in order to create a living duplicate (who may or may not be the same physical age and condition as the original). There are any number of reasons why someone might do this, not the least of which are creating a duplicate loyal to its creator as an infiltrator or spy, or making multiple copies of a person with useful abilities. The cloned legions of SHADOW are one example of duplicates designed for loyalty far exceeding that of any normal human recruits.

Duplication of specific characters can be treated like a Summon effect, particularly for inventing (or the magical equivalents).

Example: With a sample of Princess' blood, Dr. Azoth creates a homunculus-clone in an alchemical bath. The GM determines that a Summon 10 effect is needed, for a DC of 30 (10 + a 20-point effect), which Azoth can accomplish routinely with his Expertise: Alchemy bonus. It takes him about a week's work: 20 hours of research and preparing the alchemical bath, and another 20 hours of growing and preparing the homunculus before she can emerge. Then the new "Princess" is set to infiltrate the Sentinels!

THE DNASCENT PROCESS

In the Earth-Prime universe (the setting of Freedom City and Emerald City) the research arm of the Labyrinth has created a genetic resequencing technique known as the "DNAscent Process." Initially developed about thirty years ago in the early stages of genetic research and testing, the process produced more failures than successes. Even now, it is risky, sometimes resulting in out of control mutations or aggressive cancers, or inflicting permanent brain damage or psychological trauma on its subjects. The process is illegal in most of the world, although a few governments (including the United States) have acquired enough data to replicate the process, if they want to do so.

The process consists of a series of designer drugs and tailored viruses administered to the subject over a number of days, which create a series of genetic changes, "unlocking" latent potential. The most common benefits are physical—enhanced strength, toughness, speed, and so forth—but physical mutations or even psionic abilities are known. The "basic" process provides powers, at a street cost of about \$10,000 per power point of traits, but the new powers only last for about a month per power point before they begin to fade, being completely gone in the same number of days unless further regular drug treatments are applied. Targeted radiation treatments can "fix" the process and make it permanent, but have their own side effects and have been known to trigger random mutations or cause severe trauma.

Access to the DNAscent Process is primarily through the Power-House, a front for the Labyrinth that provides super-powered henchmen and pit fighters to anyone able to pay their prices. The Labyrinth also continues to experiment and refine the Process in secret, turning its most promising subjects into its agents, although more than a few have escaped over the years and devoted their lives to shutting down the experiments and exposing the Labyrinth (no small task, considering how long the conspiracy has been around).

For in-game application of the DNAscent Process, use the **Quick-Start Character Generator** to determine powers, limited to just the Powerhouse archetype (for the basic process) or that plus Elemental, Energy Controller, Mimic, Paragon, Psychic, Shapeshifter, Speedster, and Warrior for the full process, re-rolling any other archetypes.

TRANSFORMATION

While clones start out as genetic duplicates of their donor, they do not have to stay that way. In fact, they can be modified in a number of different ways during the creation process.

Genetic engineering (following) may alter the original DNA, causing the clone to develop and mature differently, ranging from small "tweaks" like eye color to a change in sex or even complete changes in morphology.

The process of "implanting" the clone's mind and memories may be tailored to give the clone a different personality, beliefs, preferences, and so forth. While physically identical, the clone could be an entirely different "person" mentally and psychologically.

Similarly, if some type of mind recording and transfer technology is available, or if comprehensive brain transplants are possible, then the clone could be a "host" body for a different personality. Imagine a dying super-criminal transplanted into a clone copy of his arch-foe, for example!

GENETIC ENGINEERING

Understanding the genetic "blueprint" and how it works opens up possibilities for rewriting those plans, changing an organism's genetic "destiny" and custom-designing life forms for a diverse range of purposes. A good deal of biotech is based on the availability of genetic engineering to create the necessary organisms, or to modify existing ones.

EMPOWERMENT

If super-powers have a genetic basis (and, in most settings, many of them do) then genetic engineering may be

able to isolate the genes and sequences that grant certain powers and deliberately engineer people who have them.

Of course, it may not be so simple. First is the challenge of actually isolating and mapping the genetics, which may lead unscrupulous researchers to kidnap "test subjects" or take their DNA by force or subterfuge. Then there is the matter of testing if the new gene sequences do in fact grant powers, usually with more test subjects, who may be even less cooperative once they're empowered. The process might also only grant the epigenetic potential for powers, needing some type of catalyst to activate it and influence how the potential expresses itself.

Still, even the potential of "home grown" superhumans is considerable, and many factions will devote considerable resources towards pursuing it. See **The DNAscent Process** sidebar for details on a genetic empowerment process in the Earth-Prime setting for *Freedom City* and *Emerald City*.

UPLIFTING

Uplifting is the process of granting sentience to nonsentient species (or individual members of a species). It usually involves some genetic engineering, intended to make the uplift permanent and—in the case of a whole species—allowing it to be passed on to future generations without the need for continued maintenance or modifications.

The basic effect of uplift is adding higher Intellect and Presence ranks to an animal species archetype from the Hero's Handbook or Gamemaster's Guide, but the process usually tries to take into account the ability to use that enhanced intelligence as well, providing manipulative appendages, vocal capabilities, and movement capabilities for species lacking them.

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For example, three common "candidate" species for uplift are chimpanzees, dolphins, and octopi (all believed to be fairly intelligent). Chimps need the least modification, but still lack a human voice box. Aquatic creatures like dolphins and octopi need additional capabilities in order to function on land, including body support, locomotion, and manipulators (in the case of dolphins). Most of these additions simply involve removing complications animals face that humans do not, and may still leave the uplifts with some physical Disabilities or related complications due to their unusual physiology.

BIOMODIFICATION

In addition to "designer genes," biotech may modify existing life forms in different ways.

CHIMERAS

A chimera is an organism made up of cells with distinct genetic differences, that is, some of its cells are genetically unrelated to others. It is named for the mythic creature made up of parts of different animals, including a lion, a goat, and a serpent. With biotech, chimeras may be creatures "spliced" together from different parts, or that have foreign genes (and therefore traits) introduced into their bodies, deliberately or accidentally.

A classical literary chimera is "Frankenstein's monster," a reanimated humanoid made out of different organs and parts harvested from corpses and animated by a "spark of life". Such a creature might have superhuman abilities, including strength and toughness.

Another classic type of chimera is a human-animal hybrid, usually humans altered with animal genes to give them traits ranging from enhanced abilities and senses to fur, claws, tails, wings, and so forth. See the **Animal Powers** section of the *Power Profiles* book for a full range of abilities these types of chimera might have. In a setting where advanced biotech is relatively common, chimeras may even be a fashion statement, with certain people adopting animal-like characteristics as part of their sub-culture.

LIVING TECHNOLOGY

Living technology is creatures used as technological tools, or tools engineered with living characteristics, able to "eat," heal, and even reproduce, for example.

BIOMANUFACTURING

Living creatures are powerful "factories" for the production of many biochemicals, consuming food (and, in the case of photosynthetic life, sunlight) and producing biomass and waste products. These processes may be harnessed for manufacturing using other tools like genetic engineering, biomodification, and cloning to produce "living factories" for a wide range of things. Examples include "pharm" animals and plants that produce useful biochemicals, which can be harvested,

or genetically modified spiders or silkworms that spin industrial-grade "silk" usable to make cloth or cable with tremendous tensile strength. Accidents involving biomanufacturing processes can also lead to power origins (such as getting bitten by a genetically modified spider...).

SELF-MAINTAINING ITEMS

Growth and healing are primary qualities of life that biotechnology seeks to emulate. While nanotech allows for self-repairing objects and materials (see the **Nanotech** section) biotech may do so by allowing items to emulate living things and "heal" on their own, consuming nutrients or even obtaining power through photosynthesis like plants. As mentioned in the **Nanotech** section, the ability to self-repair over time is essentially a rank 1 Feature for most items, the Regeneration power for things like vehicles, headquarters, and constructs.

Self-Maintaining Items: Feature 1 (recovers from damage) for most items, Regeneration for constructs, headquarters, vehicles, and more complex items • 1 point or 1 point per rank.

LIVING VESSELS

Biotechnology may virtually erase the lines between creature, construct, and vehicle in *M&M* game terms, creating creatures modified for use as a form of transportation, taking the concept of riding animals a stage further, allowing passengers to ride *inside* a living creature. This has benefits: the vessel can heal (self-repair), may be intelligent enough to act on its own (a kind of "autopilot"), and can provide a sealed self-sustaining environment wherein the crew essentially exist as symbionts (or parasites) in terms of life support.

ARCANE MOURNER

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Size: Colossal Strength: 18 Speed: 15 (space) Defense: 2 Toughness: 15 Powers: Blaster Batteries (Ranged Damage 12), AE: Lamprey Torpedoes (Ranged Penetrating Damage 10, Homing 4), Movement 2 (Space Flight), Regeneration 2 (Subspace Wail 6 (Nullify Subspace Communication, Radio Perception Area, Selective, Sustained), Features: Autopilot (+4), Communications 2, Computer, Navigation System, Rooms (Hangar, Holding Cells, Laboratory, Living Space, Personnel, Security System, Workshop)

The shapeshifting alien sorcerers known as the Arcane typically use mystic portals to move from world to world, but when they traverse the void between the stars, they have their "Mourners," living starships that are the last of a noble species once known as the Voidsingers. The colossal whale-like creatures were enslaved by the Arcane long ago and modified by their occult sciences to serve as vessels, their bodies hollowed out and fitted with chambers and suitable comforts, their brains connected with control systems, their hides armored and bristling with weapons. Their once exultant subspace songs have become an endless dirge that jams other signals, helping to block communications when the dread ships of the Arcane appear in the sky.

In less than a century, computers have gone from science fiction "thinking machines" to ubiquitous elements of everyday life. The Internet spans the world, opening new frontiers, as well as new opportunities for criminals and law enforcement alike.

This section looks at computers and associated technology, including skills in computer use, programming, and "hacking".

COMPUTER Skill Checks

Most normal computer operations—using software, getting your e-mail, accessing the Internet—don't require a check and can be done untrained. However, searching an unfamiliar network for a particular file, writing programs, altering existing programs to perform differently, and breaking computer security all require Technology skill checks (and training).

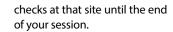
Find File: The DC and the time required to locate a file on an unfamiliar system are determined by the size of the site. Finding public information on the Internet does not fall under this category; this only pertains to finding files on unfamiliar computer systems.

SCOPE OF SITE	DC	TIME
Personal computer	10	1 round
Small office network	15	2 rounds
Large office network	20	1 minute
Massive Network	25	10 minutes

Defeat Computer Security: The DC is determined by the quality of the security installed to defend the system. If the check fails by more than one degree, the system immediately alerts its administrator there has been an unauthorized entry. An alerted administrator may attempt to identify you or cut off access to the system.

LEVEL OF SECURITY	DC
Minimal	20
Average	25
Exceptional	30
Total	35

Sometimes, you have to defeat security at more than one stage of the operation. If you obtain three or more degrees of success when attempting to defeat computer security, you automatically succeed at all subsequent security



Defend Security: If you are the system administrator for a site (which may be as simple as being the owner of a personal computer), you can defend it against intruders. If the site alerts you to an intruder, you can attempt to cut off the intruder's access or even to identify the intruder.

To cut off access, make an opposed Technology check against the intruder. If the check succeeds, the intruder's session

is ended. The intruder might be able to defeat your security and access your site again, but has to start over again. Attempting to cut off access takes a full round.

One surefire way to prevent further access is to simply shut the site down. With a single computer, that's no big deal, but on a large site with many computers (or computers controlling functions that can't be interrupted) it may be time-consuming or even impossible.

To identify the intruder, make an opposed Technology check. If the check succeeds, you learn the site from which the intruder is operating (if it's a single computer, you learn the name of the computer's owner). Identifying the intruder requires 1 minute and is a separate check from cutting off access. This check can only be made if the intruder is accessing your site for the entire length of the check—if the intruder's session ends before you make the skill check, your attempt fails.

Degrade Programming: You can destroy or alter programs on a computer to make it harder or impossible to use. Crashing a computer simply shuts it down. Its user can restart it without a skill check (however, restarting takes at least 1 minute). Destroying programming makes the computer unusable until the programming is repaired. Damaging programming imposes a –5 penalty on all checks made with the computer (sometimes this is preferable to destroying the programming, since the user might not know anything is wrong, and won't simply decide to use a different computer).

You can damage the programming of multiple computers at a single site; doing so adds +2 to the DC for each additional computer.

SCOPE OF ALTERATION	DC	TIME
Crash computer	10	1 minute
Destroy program	15	10 minutes
Damage program	20	10 minutes
Repair program	25	1 hour

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Write Program: You can create a program to help with a specific task. This is DC 20 and takes an hour. The program grants a +2 circumstance bonus to the task. A specific task, in this case, is one type of operation with one target. Increasing the DC of writing the program to 25 increases the circumstance bonus to +5.

Operate Remote: Many devices are computer-operated. If you have access to the computer controlling them, you can shut them off or change their operating parameters. The DC depends on the nature of the operation. With more than one degree of failure on the check, the system alerts its administrator there has been an unauthorized use of the equipment. An alerted administrator may attempt to identify you or cut off your access to the system.

TYPE OF OPERATION	DC	TIME
Shut down passive remote	20	1 round
Shut down active remote	25	1 round
Reset parameters	30	1 minute
Change passcodes	25	1 minute
Hide alterations	+10	+1 minute
Minimum security	-5	_
Exceptional security	+10	_
Total security	+15	_

HACKING CHALLENGES

The Technology skill in **Chapter 4** of the *Hero's Handbook* covers the essential uses of computers, but challenges involving more detailed use of computers, particularly "hacking" into secure systems or networks, can use the following guidelines.

When you hack, you attempt to invade a site. A site is a virtual location containing files, data, or applications. A site can be as small as a single computer, or as large as a corporate network connecting computers and data archives all over the world—the important thing is access to the site connects the user to everything within it. Some sites can be accessed via the Internet or similar networks; others are not connected to any outside network and are only accessible from particular locations.

A system administrator is in charge of a site, and maintains its security. Often, the system administrator is the only person with access to all of a site's functions and data. A site can have more than one administrator; large sites have a system administrator on duty at all times. You are the system administrator of your own personal computer.

When you hack into a site, the visit is called a session. Once you stop accessing the site, the session is over. You can go back to the site in the future; when you do, it's a new session. Generally, each session can be considered a separate Technology challenge to hack the site.

Several steps are required to hack into a site:

Access the Site: There are two ways to do this: physically or over the Internet.

- Physical Access: You gain physical access to the computer, or a computer connected to the site. If the site being hacked is not connected to a network, this is probably the only way you can access it. A variety of checks may be required, depending on the method used to gain access.
- Internet Access: Reaching a site over the net requires two Technology checks. The first check (DC 10) is needed to locate the site on the net. Increase the DC for hidden or concealed sites. The second is to defeat the site's security. Once you have succeeded in both checks, you have accessed the site.

Locate What You're Looking For: To find the data (or application, or remote device) you want, make a Technology skill check.

Defeat File Security: Many networks have additional file security. If so, you need to make another check to overcome it.

SECRET IDENTITIES & SOCIAL NETWORKS

Superheroes concealing their identities behind domino masks (or a pair of eyeglasses) can be outlandish enough, but how does a costumed character keep secrets in the modern world where everyone has a digital video camera close at hand and even social networks have built-in facial recognition software (to say nothing of the data-mining capabilities available to law enforcement)? The answer depends a great deal on the type of setting and game the group wants to run:

THERE ARE NO SECRETS

...at least, not for every long. Maintaining a secret identity is just as hard as it seems, meaning even a full facemask will only go so far (given things like voice recognition). Those who want to maintain their secrets either need serious measures (a costume covering everything along with a voice-mask) or a power that lets them transform into another identity altogether.

KEEP THINGS CLOSE

Masked heroes can keep their true identities secret with some amount of effort, enough to qualify for various complications. There may occasionally be a need to come up with a clever story to explain away an inconvenient online picture or video—or to enlist the help of a computer expert to eliminate or compromise it. Less tech-savvy characters may benefit from having a helpful ally or contact who knows which end of a data connection to manipulate.

TURNING A BLIND (ELECTRONIC) EYE

All the modern methods of gathering information don't have any effect on things like secret identities. For whatever reason, nobody notices the clues any more than people noticing that the guy with glasses looks a lot like a famous superhero without them. There might be an actual explanation for this (if the GM chooses) or it could just be the way things are and nobody questions it...and neither should the players.

Do Your Stuff: Finally, you can do what you came to do. If you just want to access information, no additional check is needed. (You can also download data, although that often takes several rounds or even several minutes, for especially large amounts of information.) Altering or deleting records sometimes requires another check to defeat computer security.

Covering Your Tracks: This step is optional. By making a Technology check (DC 20), you can alter your identifying information. This imposes a major circumstance penalty (–5) on any attempt made to identify you if your activity is detected.

COMPUTER HARDWARE

A computer's hardware determines its physical capabilities, including processors, memory, storage capacity, and various peripherals (printer, external readers or drives, and so forth).

From a game system perspective, computer hardware is largely all the same. Having regular access to a computer is worth 1 equipment point, and is assumed to come with most common peripherals like a camera, scanner, and printer, as well as an Internet connection. A smartphone, tablet, or similar device that combines the capabilities of a computer and a cellphone costs 2 equipment points.

At the Gamemaster's discretion, especially top-line or cutting-edge computer hardware may provide a circumstance bonus to skill checks involving its use. For 1 equipment point, the hardware provides a +2 circumstance bonus, for 2 equipment points, it offers a +5 bonus. Such equipment may be restricted to characters with the means or skills to acquire or build it, if the GM wishes.

The circumstance bonuses for top-line hardware and effective software (following) do stack, but only to a degree: two +2 circumstance bonuses make a major (+5) bonus, but the circumstance bonus does not increase beyond that; there is a limit to how much benefit a user can derive from just the technology.

COMPUTER SOFTWARE

Software is made up of the program instructions that tell computers how to perform a variety of functions. Computer software is often referred to as "programs" or "applications" ("apps" for short). Software gives computers considerable versatility, allowing the basic hardware to accomplish many different tasks.

In game terms, software serves three functions: providing access to information, performing tasks on command, and aiding users in performing other tasks.

 Access Information: An application may contain or access a database of information. Modern applications may also search available online databases via the Internet. Essentially, the software provides the necessary resources for doing different kinds of research or answering questions via Expertise (see Chapter 4 of the Hero's Handbook). Access to software may provide the answers to questions that routine Expertise checks can provide, given some time. The Gamemaster may permit a Technology skill check to substitute for the appropriate Expertise check, with a circumstance bonus for the quality of the database or search software.

- Perform Task: Programs can perform a wide range of tasks, from word processing and number-crunching to retrieving email or operating machines by remote. Fairly routine computer use is covered by the simple Feature of having a computer. More complex tasks, such as remote control, can constitute additional Features (see the Remote Control feature of vehicles, for example). A programmable computer able to execute certain tasks may be a descriptor for a Triggered effect (see the **Traps** section for details) or an explanation for a hero point used to retcon a situation (see **Chapter 1** of the *Hero's Handbook*).
- Aid Task: Lastly, computer software may be considered a necessary tool for certain skills requiring tools, removing the circumstance penalty for attempting the skill without the proper tools. Especially sophisticated software can actually provide a circumstance bonus for those tasks. So, for example, computer design software may be necessary to use Technology to build or repair certain things, with cuttingedge versions of the software providing a +2 or +5 circumstance bonus to the Technology skill check for design, construction, or repair. Characters can write programs to aid specific tasks (see Write Program, previously) or acquire advanced software designed to do so (generally a 1 rank Feature for a circumstance bonus, 2 ranks for a major bonus).

DEDICATED COMPUTERS

While computers—even just processors on chips—are found in virtually all modern electronics, some dedicated computer systems are worth noting in their own right. These systems may be stand-alone equipment or configurations of the same multi-function computer system (in which case add their game traits together to determine the systems total cost).

INVESTIGATIVE COMPUTER

Also known as a "crime computer," an investigative computer is designed as an aid for Investigation skill use. Having a properly programmed investigative computer can provide a circumstance bonus on checks to analyze evidence. This is essentially the same as the bonus provided by dedicated software (in this case forensic and investigative applications).

INSTALLATION COMPUTER

An installation can have the Computer feature (see **Chapter 7** of the *Hero's Handbook* or the **Installations** section), giving it a dedicated computer system capable

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of overseeing the installation. The advantages are that many of the installation's functions can be automated, but the computer is subject to being hacked, and the installation's functions overridden like other computer-controlled remotes (see the **Operate Remote** task under **Computer Skill Checks**). A criminal hacker with the right access to the installation's computer and security systems can turn a hero's own headquarters into a deathtrap!

NAVIGATIONAL COMPUTER

Vehicles and even mobile devices can have a built-in navigational computer able to determine position (usually via connection to the Global Positioning Satellite network) and plot routes to different known destinations. This is a Feature essentially the same as the Direction Sense effect and includes the circumstance bonus of the Navigation System listed for vehicles in **Chapter 7** of the *Hero's Handbook*.

TACTICAL COMPUTER

A tactical computer system links sensors to an expert software package to rapidly calculate the most advantageous tactics on the battlefield, providing information via a heads-up display (HUD) in a visor, for example. A tactical computer system might provide various Enhanced Advantage ranks in combat advantages from Improved Initiative to Precise Attack or Favored Environment (for a pre-programmed environment or set of conditions).

TARGETING COMPUTER

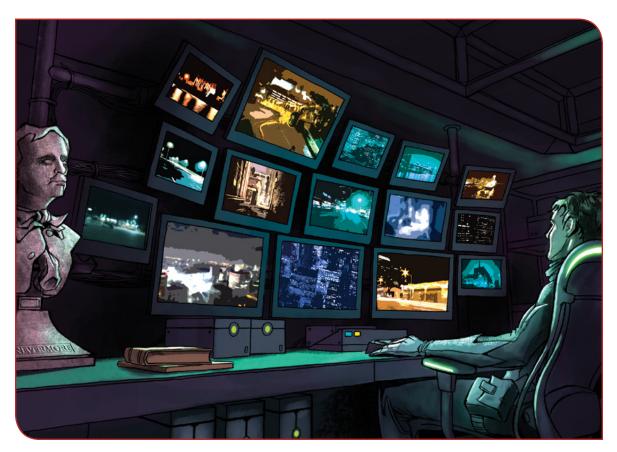
A targeting computer rapidly calculates all the variables involved in aiming a ranged weapon at a target, from distance to wind-speed, and compensates to improve the user's aim. A basic targeting computer may provide an Enhanced Advantage (Improved Aim) effect, while a more sophisticated system can offer ranks of Enhanced Advantage (Ranged Attack) on top of that. The latter bonus is limited by power level while the former (being a circumstance bonus) is not.

VEHICLE COMPUTER

Like an installation, a vehicle can have its own dedicated computer system as a Feature, allowing it to provide the necessary tools for Technology skill use and to control the vehicle's systems via "autopilot". If the vehicle also has the Remote Control feature, the computer is accessible via communications networks, allowing the vehicle to be controlled from a distance, but also opening up the possibility of the system being hacked and overridden, as with an installation.

VIRTUAL REALITY

Virtual reality is a computer generated simulation of a real (or even imaginary) experience. Using an interface ranging from a cumbersome helmet and goggles to a direct neural link, a computer system projects a simulation of a virtual world with which the user can interact.



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The simplest virtual realities are obviously computer interfaces, while the most sophisticated are Illusion effects, capable of seeming just as real as the real world. Neural interface virtual realities can even have the Psychic modifier from the **Illusion Powers** section of the *Power Profiles* book, adjusting the images they present based on information drawn from the subject's own mind.

AUGMENTED REALITY

An interim step between virtual reality and the mundane world is "augmented reality," where virtual images or interfaces overlay perceptions of the real world. This is common for advanced computer systems able to project "virtual" controls on a touch surface or even in the open air (sensitive to the user's movements), giving the system a great deal of flexibility in terms of user interface and responsiveness.

VIRTUAL NETWORKS

A virtual network translates the interactions of a computer system into virtual symbols, such as a network as a vast city with datalines as "roads" and computer systems as structures. In this virtual "world" both authorized users and hackers can carry out computer related tasks.

M&M Gamemasters may wish to use a virtual network metaphor in settings with sufficiently advanced technology, or for characters with appropriate powers and equipment to allow them to visualize their computer system interactions in this way.

VIRTUAL WORLDS

With enough processing power and an effective interface, a computer system could support an entire virtual world (or even virtual *universe*). To the minds "inside" the simulation it appears entirely real, even if events that take place in the virtual world are unreal or difficult to believe (potentially allowing for checks to find faults in the illusion).

A virtual world is a powerful kind of trap, since most subjects are not even aware they are anywhere other than the real world. The controller or programmer of a virtual world may use command of its "reality" to lull subjects into a false sense of safety and security or to torment them with "misfortune."

Virtual worlds also make for unusual places for heroes to visit and adventure, since the "rules" of reality are different there than in the real world. "Physical" interaction with the setting is defined by programs within the system, meaning characters have only the abilities defined by those parameters. In a setting like the virtual world of Tronik—an alien "cyber-city" digitized by the Curator and running on a computer system in Centurion's Sanctum—your heroes can adventure in a science fiction setting with blasters and soaring air-cars, but without the powers they possess in the real world!

ARTIFICIAL INTELLIGENCE

An artificial intelligence (abbreviated "Al") is a type of construct (see **Constructs** in **Chapter 7** of the *Hero's Handbook* and the **Robots** section).

Artificial intelligences count as minions or sidekicks, much like other constructs. Since an AI is unlikely to become involved in direct conflicts (outside of the virtual reality of a computer network) most tend to be minions.

ABILITIES

Unlike robots, which generally lack Intellect and Presence, being essentially mindless, Als lack Strength and Agility, having no "body" apart from the computer hardware that houses and runs their software. They are bodiless intellect, true "ghosts in the machine." Als possessing a mobile body lack only Stamina, but may even have self-repairing capabilities (Regeneration ranks) to compensate for that. See **Robots** for details.

SKILLS

Artificial intelligences may be programmed with certain skills and, as intelligent beings, can also learn and improve skills. Als lack physical skills, unless they have the ability to use them via remotes, such as an Al computer with ranks in Ranged Combat because it has control over a gun emplacement, or Vehicles because it can act as an auto-pilot (and may even be the "brain" of a vehicle).

ADVANTAGES

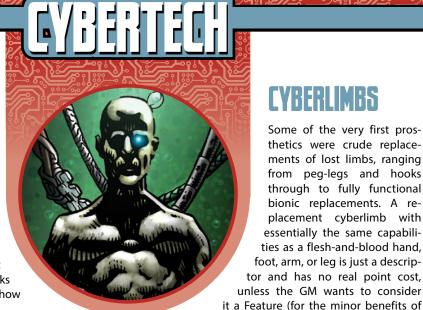
The construction of Als as digital intelligences grants them certain advantages. All Al computers have Eidetic Memory, with perfect recall of information stored in their systems. Many are also Fearless, although not necessarily, since Als may have emotions (including fear). Other skill or intelligence-based advantages like Inventor, Languages, Skill Mastery, or Well-informed may be common for Als, whereas combat advantages are rare unless the computer is designed for combat.

POWERS

The physical makeup of artificial intelligences generally means they have Immunity to Fortitude effects to go along with their lack of Stamina. Some also have either Immunity to Mental Powers or Immunity to Will effects based on their digital mentality, although their mental immunity does not automatically extend to powers that specifically affect machines or computer "minds" (see the the **Mental Powers** and **Tech Powers** section of the *Power Profiles* book for further discussion).

Als may have Comprehend (machines), since they usually *are* machines themselves, able to interface and communicate with other computers. An Al's ranks of Intellect and Technology skill (if any) determine its effectiveness as a computer programmer and hacker.

The concept of prosthetic limbs or replacing parts of the body with machines has been around since mythic heroes with arms of finely crafted silver and the like. Modern technology has made the idea of "cybernetic organisms" (cyborgs or even just borgs for short) even more common, with entire sub-genres of fiction—cyberpunk, and later posthumanistdevoted to human enhancement and "upgrades". This section looks at the concept of cyberware and how it works in M&M game terms.



Some of the very first prosthetics were crude replacements of lost limbs, ranging from peg-legs and hooks through to fully functional bionic replacements. A replacement cyberlimb with essentially the same capabilities as a flesh-and-blood hand, foot, arm, or leg is just a descriptor and has no real point cost,

having a limb that doesn't bleed or feel pain in the same fashion as a biological one). Of course, having a cyberlimb may also be a complication at times, particularly if it suffers damage or malfunctions, or is detected by a scanner.

DESCRIPTORS

Cybernetics is the study of control systems, often applied to the field of human-machine interface ("cyber-" comes from a Greek root word meaning "to steer"). Bionics is the application of biological principles to engineering, often in the area of producing machines that mimic body parts, organs, or organisms in some fashion.

In modern parlance, cyberware is hardware designed to be implanted or grafted onto a biological life form (usually a human being) to function as part of that individual's body, either to replace a damaged or missing part, or to provide some enhancement. A creature with cyberware implants is a cyborg.

While the vast majority of cyberware is technological, there may be cybernetic implants with alternative descriptors, from "steampunk" clockworks to magically crafted replacements with their own powers or enhancements.

Because it is grafted into the subject's body, cyberware is generally not considered either equipment or a Removable device, but rather a descriptor for powers the subject possesses, no different than those granted by strange radiation or other things that alter an otherwise normal person. Thus characters generally pay for their cyberware with power points like other powers. The **Tech Powers** section of the Power Profiles book provides some abilities that may be cyber-based or interact with cyberware.

Cybernetic implants are often fairly obvious, unless they are hidden beneath the outer layers of skin and muscle or else concealed with artificial skin or the like. Cyberware follows the usual guidelines for Noticing Power Effects given in Chapter 6 of the Hero's Handbook: continuous and permanent effects are not noticeable by default, while instant, concentration, and sustained effects are. The Noticeable and Subtle modifiers may change how easy the effects of cyberware are to detect, and obvious cyborgs may have to deal with a prejudice complication from some people.

CYBERHANDS

A replacement hand may provide any of the following effects. Total the point costs of all the effects the cyberhand provides to determine its cost. If the character has only one cyberhand (rather than a pair) some effects may be Limited to One Hand, or have a complication. Otherwise assume the effects are the same whether the character has one cyberhand or two. The GM may wish to require a Feature effect for concealed devices in cyberhands, particularly if they allow for surprise attacks.

- Extendable Fingers: The fingers of your cyberhand can telescope and flex like tentacles, providing additional reach and flexibility. Feature, 1 point.
- Finger Blades: Concealed blades slide out of your fingertips. Strength-based Damage, 1 point per rank.
- Finger Tools: Small tools emerge from hidden compartments in the fingertips. Enhanced Advantage 1 (Improvised Tools), 1 point.
- **Grappler:** Your cyberhand can extend or launch out on a cable from your arm, acting like a grabber or grappling hook. Elongation, Limited to One Arm, plus Movement (Swinging), 2 points + 1 point per 2 ranks.
- **Improved Dexterity:** The cyberhand has improved Dexterity over a normal flesh-and-blood hand. Enhanced Dexterity, 2 points per rank.
- Weapon: Your cyberhand can morph into a handheld weapon or flip open or otherwise shift to allow a concealed weapon to move into its place. See the various weapons sections (including Archaic, Asian Weapons, Guns, and Energy Weapons) for ideas. Cost as weapon attack effect.



CYBERARMS

In addition to having a cyberhand, a full replacement cyberarm may have additional space for larger weapons (stored in the forearm or converting the whole arm into a weapon) as well as the following:

- Enhanced Strength: The cyberarm's artificial muscles or motors are stronger than normal. Enhanced Strength, Limited to One Arm, 1 point per rank.
- Extendable: Your cyberarm can extend out like a telescoping spring. Elongation, Limited to One Arm, 1 point per 2 ranks.
- Extra Arms: In addition to having replacement arms, you might also have extra cyberarms grafted onto your torso. The extra arms can have any of the effects associated with regular replacement cyberarms. Extra Limbs, 1 point per rank.

CYBERLEGS

A cybernetic leg replacement may mimic the form and function of a normal humanoid leg, or abandon that design for a differently jointed digitigrade leg, for example (with an extended "ankle" joint). Cyberlegs are more common in pairs, although a character might still have just one. They can provide the following effects:

- Compartments: A cyberleg may have concealed compartments for carrying small items, including equipment. Feature, 1 point.
- **Kicking:** Artificial leg muscles or motors can provide more powerful kicks in close combat. *Strength-based Damage*, *1 point per rank*.
- Leaping: Enhanced leg strength provides greatly increased jumping distances. Leaping, 1 point per rank.
- **Speed:** Increased leg strength and actuator motors allow the character to run at increased speed, perhaps as fast (or faster) than a moving car! *Speed,* 1 point per rank.
- Swimming: Modified feet (possibly able to deploy into flippers) and leg strength give you enhanced swimming speed. Swimming, 1 point per rank.
- Traction: Your feet have built-in treads, spikes, or a similar surface to enhance traction, perhaps modifying themselves to suit different surfaces. Amongst other things, you never need to wear shoes! Movement (Sure Footed), 2 points per rank.

BODYWARE

Cybernetic enhancement of the torso and overall body, or implants to enhance or replace various organs, can grant a number of effects.

ARMOR

Your skin is reinforced with sub-dermal armored materials or covered in armor plating or similar material, giving you improved damage resistance. Obviously artificial armor

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qualifies for the Noticeable flaw and may cause other complications. Reinforced armor may have the Impervious extra as well.

Armor: Protection • 1 point per rank

COMPARTMENT

Part of your body cavity (usually abdomen) contains a small storage space, accessible from a hidden panel, and sufficient to hold about a cubic foot (volume rank 0).

Compartment: Feature 1 • 1 point

DRUG INJECTOR

You have an injector tap built into your bloodstream, or even artificial glands capable of creating and delivering certain biochemicals to your system on command. The effects of these drugs can be anything the GM permits for their biochemical descriptors, although things like Enhanced Abilities with the Fades modifier or Regeneration are common. See the **Life Powers** section of the *Power Profiles* book for some additional ideas.

Drug Injector: Drug or biochemical effect, often with the Fades or Unreliable (limited uses) modifiers • per effect cost

FILTER LUNGS

Your lungs and throat have built-in filters able to remove many harmful gases and other airborne toxins, irritants, and pathogens.

Filter Lungs: Immunity 2 (airborne gases and toxins) • 2 points

FULL CYBORG

Your entire human body, with the exception of your brain, has been replaced with a machine body. Your brain is kept alive inside a life support system connected to your new body, and you have a weakness complication concerning your brain, which may suffer if its support system is damaged or compromised in any way. Otherwise, you're a machine in nearly every way. If you no longer have a human brain as well (your memories and personality digitally transferred to a computer brain, for example), then you are a true construct rather than a cyborg. Your cybernetic body need not be limited to the humanoid form and can have any of a wide range of traits. See the **Robots** section for details.

Full Cyborg: Immunity 30 (Fortitude effects), No Stamina rank • 10 points

GILL IMPLANTS

You have artificial gills implanted along your neck or clavicles, or else the lining of your lungs is altered to be able to extract oxygen from water, allowing you to breathe normally while submerged.

Gill Implants: Immunity 1 (drowning) • 1 point

REDUNDANT ORGANS

Your internal systems have backups and redundancies built into them, giving you more resiliency than an unaugmented person.

Redundant Organs: Enhanced Advantage 1 (Diehard), Immunity 2 (critical hits) • *3 points*

SEMI-AUTONOMOUS WEAPON

A semi-autonomous weapon ("SAW" or "cyber-SAW") is a cybernetic weapon able to act at least partially on its own under the direction of its own computer and programs. Once activated, the SAW carries out its instructions, usually attacking available targets identified by its sensors (and those of its "host").

A SAW is often a concealed weapon, having a rank of Subtle, meaning it is difficult to detect until it is deployed. It can have a variety of configurations, from taking over (and possibly reconfiguring) an existing cyberlimb to extending a new "limb" from within the character's body (typically stored inside another limb or in the main body cavity). A SAW that extends out of the mouth is an assassin's weapon, especially useful for a surprise attack, or a finishing attack in an intimate moment. Some hosts might not even know they have a SAW installed until it activates!

The SAW is designed as a fairly "dumb" construct with suitable attack effects, capable of taking its own actions during a round, but limited by its connection to the host character. Because of this, many SAWs have Elongation to give them additional reach.

Particularly durable SAWs have the Heroic modifier in place of Active. With the Multiple Minions modifier, you can even have more than one SAW, and with the Horde modifier, you can activate them all at once.

Semi-Autonomous Weapon: Summon SAW, Active, Mental Link, Triggered, Limited to moving with summoner • 2 points + 2 points per rank

SAMPLE SAW: CYBERSNAKE

PL8

STR 3 STA — AGL 8 DEX 0 FGT 8 INT — AWE 0 PRE —

Powers: Armor (Protection 4), **Combat Programming** (Enhanced Advantage 11 (Chokehold, Defensive Roll 4, Fast Grab, Improved Critical (rippers), Improved Grab, Improved Initiative 2, Takedown), **Construct** (Immunity 30: (Fortitude effects)), **Infrared Scanner** (Senses 1 (Infravision)), **Rippers** (Strength-based Damage 5), **Telescopic** (Elongation 1)

Offense: Initiative +16, Grab +8, Rippers +8 (Close, Damage 8, crit. 19–20)

Defense: Dodge 8, Parry 8, Fortitude Immune, Toughness 8/4, Will Immune

Totals: Abilities 8 + Powers 52 + Advantages 0 + Skills 0 + Defenses <math>0 = 60

CYBERTECH.

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SKELETAL REINFORCEMENT

Your skeleton has either been replaced or reinforced with new materials, such as diamond-analog carbon molecules, making your bones virtually unbreakable, allowing you to withstand considerable physical punishment.

Skeletal Reinforcement: Immunity 20 (Bludgeoning Damage), Limited to Half Effect • 10 points

SKINMORPH

Your artificial skin can shift in response to neural electrical pulses, allowing you to change your outward appearance at will, molding your features, skin tone, etc., however you wish, or according to a set of pre-programmed instructions. Skinmorph gives you a +20 circumstance bonus to Deception checks involving disguising your appearance.

Skinmorph: Morph 2 (people of your size and gender) • 10 points

STINGER

A drug injector (previously) designed to inject *other* people via a small hypodermic, usually concealed in a fingertip or inside the mouth (allowing you to inject with a bite... or a kiss). A stinger may also be mounted as part of a SAW, giving it a "poison sting". Apply the Ranged modifier and your stinger can fire drug-tipped darts as well.

Stinger: Affliction (Resisted and Overcome by Fortitude; choose conditions based on the appropriate drug or toxin), Cumulative, Resistible (Toughness) • 1 point per rank

HEADWARE

Headware covers cybernetic enhancement or replacement of sensory organs like the eyes, ears, nose, and tongue, as well as enhancement of the brain and central nervous system.

CEREBRAL CACHE

Your brain has a slaved computer memory system, giving you additional mental "processing power" and memory "storage." Given the technological descriptors, this enhancement (like some other cyberware) may allow certain computer-targeting powers to affect you. See the **Tech Powers** section of the *Power Profiles* book for details.

Cerebral Cache: Enhanced Advantage (Eidetic Memory), Quickness (Limited to Mental Actions) • 1 point + 1 point per rank

CHEMICAL ANALYZER

Your tongue and sinuses are enhanced with chemical analyzers, giving you enhanced olfactory senses.

Chemical Analyzer: Acute or Accurate and Analytical Olfactory • 2 or 4 points.

CYBEREARS

Your ears are enhanced or replaced with artificial implants. Cyberears can provide various auditory Senses effects, including Accurate, Analytical, Counters Illusion, Extended, Penetrates Concealment, Rapid, and Ultra-Hearing. Cyberears can also provide Immunity to Hearing-Dependent Attacks.

Cyberears: Senses (Auditory) • 1 point per rank **Optional:** Immunity 5 (hearing-dependent attacks) • 5 points

CYBEREYES

Your eyes are enhanced or replaced with artificial implants. Cybereyes can provide different visual Senses effects, including Analytical, Counters Concealment, Counters Illusion, Darkvision, Distance Sense, Extended, Infravision, Low-Light Vision, Microscopic Vision, Penetrates Concealment ("X-Ray Vision"), Radius (with side- and back-facing visual sensors), Rapid, and Ultravision. Cybereyes can also provide Immunity to Vision-Dependent Attacks.

Cybereyes: Senses (Visual) • 1 point per rank **Optional:** Immunity 5 (vision-dependent attacks) • 5 points

CYBERHAIR

Your natural hair has been replaced by artificial fibers the respond to mild electrical current, allowing you to animate and move them at will. The fibers may also be somewhat elastic, able to stretch and then snap back to their normal length. This allows your cyberhair to function somewhat like an additional prehensile limb.

Cyberhair may also have a Feature, allowing it to change color and texture at will as well as length, providing a +5 circumstance bonus to Deception checks to disguise your appearance.

Cyberhair: Extra Limb 1 • 1 point + 1 point per 2 ranks for any ranks of Elongation, Limited to Cyberhair Only. **Optional:** Feature 1 (change color and texture) • 1 point

CYBERVOX

Your voice box is modified or replaced by implants. At the basic level, a cybervox gives you considerable ability to mimic and reproduce sounds, a +5 circumstance bonus to Deception involving sounds and voices per Feature rank. A cybervox may also give you the ability to "speak" in the ultraor infrasonic ranges (an auditory Communication effect) or even other sonic powers. See the **Sonic Powers** section of the *Power Profiles* book for additional information.

Cybervox: Feature (mimic sounds, +5 Deception bonus) • 1 point per rank **Optional:** Communication (auditory) • 4 points per rank

HEADLINK

You have an implanted radio communicator, connected to your auditory nerves and allowing you to respond

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TECH SUPPORT

Cyberware is hardware (and software) and can suffer from breakdowns, technical problems, and damage. Gamemasters may wish to consider failures of a character's cyberware or other problems related to it as temporary complications (power loss, disability, or otherwise). Damage to cyberware impairing its function can be considered the same as lasting injuries (**Chapter 8** of the *Hero's Handbook*) and having a non-functional cyberarm is not all that different from having a broken bone or an otherwise disabled flesh-and-blood arm.

Repairing and maintaining cyberware is the province of the Technology skill, as given in **Chapter 4** of the *Hero's Handbook*. In some instances, substitute Technology for the uses of the Treatment skill when working with cyborgs, or use the lower of the two skills for characters trained as both medics and technicians. Otherwise, Treatment may suffer a circumstance penalty for unusual biology or biochemistry, as noted in the skill description.

through subvocalization. If your headlink is encrypted, apply a rank of the Subtle modifier. In some settings, a headlink may allow you to subscribe to cellular communication services, extending its range through the cell network as a Feature.

Headlink: Communication (Radio) • 4 points per rank

INTERFACE JACK

An input/output port allows you to plug in to a computer or computer network and interface with it, providing and receiving input with nothing more than your brain. An interface jack is normally touch ranged, requiring either a hardwired connection like a cable or contact induction pads of some type (usually in the fingers or palms of the hands). If you also have a headlink (previously) then you can also interface wirelessly using its radio signal.

Interface Jack: Comprehend Machines 2 • 4 points

MIND SHIELD

Cybernetic implants in your brain shield you from the effects of mental powers. Some Mind Shield implants may be Limited to Half Effect, reducing the effectiveness of mental powers, but not blocking them out completely. Note that the default Mind Shield screens out all mental powers, both friendly and hostile, and cannot be turned off. A sustained version can be switched off, but leaves you without any protection while it is off.

Mind Shield: Immunity 10 (mental powers) • 10 points

NEURAL BOOSTERS

Your central nervous system is rewired and enhanced with superconductors, signal boosters, and computer sub-processors, giving you a faster response time. Some versions of neutral boosters may also grant ranks in Quickness, allowing you to perform routine (or pre-programmed) activities faster, or offer Seize Initiative as an Enhanced Advantage as well.

Neural Boosters: Enhanced Advantage (Improved Initiative) • 1 point per rank. **Optional:** Enhanced Advantage 1 (Seize Initiative) • 1 point and/or Quickness • 1 point per rank

PERSONA BACKUP

Your brain has an automatic "backup" system, like a computer, that maintains a regularly updated copy of your memories and personality. Should you ever be killed, your persona backup can be installed into a new body (clone, cybernetic construct, etc.) with memories complete up to the point of your last backup. This process is assumed to take at least two weeks (time rank 18), additional ranks can reduce the time, to a minimum determined by the GM. Extremely fast backup recovery may involve nanotechnology, exotic "smart" matter, or similar super-science that restores your body almost instantly.

Persona Backup: Immortality, Limited (body transfer) • 1 point per rank.

SKILL SOFTWARE

You have the ability to download pre-programmed models of different skills and advantages into your mind, usually through an interface jack or a cerebral cache, perhaps via a wireless headlink connection. The action required for your Variable effect is the time needed to swap out existing skill software programs for others. It is a standard action by default, apply the Move Action or Free Action modifiers to do it faster, or the Slow flaw if it takes longer.

Skill Software: Variable (Skills and Advantages) • 7 points per rank.

TARGETING SYSTEM

Range finders and other sensors, coupled with targeting software and links to your central nervous system, allow you to target ranged attacks with greater accuracy, making you into a living targeting scope. The bonus from your targeting system counts against your power level limits, although some targeting systems also include Enhanced Advantage (Improved Aim) for an additional circumstance bonus. If you can also receive a readout from your range finder, add Senses (Distance Sense).

Targeting System: Enhanced Advantage (Ranged Attack) • 1 point per rank.

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CYBER COMPLICATIONS

Extensive modification of the body and brain can lead to a number of drawbacks as well as advantages, and cyberware may include some of the following complications.

ADDICTION

Cyber-users may become addicted to the contents of drug injectors (previously) or to medication used to manage the pain or healing of their implants. They may even initially acquire some implants to deal with the degeneration caused by long-term abuse of substances.

CORTEX BOMB

A tiny explosive device with a timer or triggered detonator is implanted in your brain or one of your other vital organs. Cortex bombs are used as blackmail and suicide devices to ensure the compliance of subjects, and to eliminate them in the case of capture or interrogation. Disabling a cortex bomb requires either blocking its detonator signal (using a sensory effect like Concealment) or carefully removing it using surgery (minimum DC 30 Technology and Treatment checks). Similar technology may include toxin-release capsules and explosive or toxic nanites in the victim's system.

A cortex bomb is a serious Weakness complication, which results in the target's death, if the bomb goes off! The complication may also cause difficulties while whomever controls the detonation of the bomb can give the character orders. In fact, it is primarily the threat of the device that is the complication, rather than its actual use.

CYBERPSYCHOSIS

The gradual transition from flesh-and-blood to partially or even wholly machine can have adverse psychological effects, collectively referred to as "cyberpsychosis." Common forms of the condition include:

- A gradual loss of empathy and a growing sense of detachment, becoming more cold and machine-like, and feeling less and less in common with "organic" beings.
- A loss of control over one's emotions, leading to random—and often violent—outbursts of anger, doubt, fear, sadness, and so forth.
- A weakening of the ego or sense of self, leading to a loss of will (perhaps even an actual decrease in Will defense rank) and a vulnerability to interaction skills or mental powers.
- A loss of memory or identity due to trauma or actual modification of the brain.

Cyberpsychosis may be treated with conventional psychotherapy (or by specialists trained in dealing with it) as well as drug therapies (see the **Addiction** complication) but treatment may be limited in its ability to control and reverse the condition.

DISABILITY

Cyberware is often used to correct a disability, such as the loss of a limb, meaning the malfunction or loss of the implant results in having to deal with the effects of that complication again. A character with cybernetic eyes, for example, who loses the use of them not only suffers power loss of the additional Senses effects, but is also blind!

Cybernetic characters also tend to be targets for more extreme violence. It's more likely, in the comics, to see a character's bionic arm bloodlessly severed or torn off in combat than it is to see the same done to a character's flesh-and-blood limb, since the loss of a limb is just a temporary complication for the cyborg, rather than a life-altering injury.

Lastly, cybernetic implants can pose certain complications when it comes to using the Treatment skill on cyborgs (see the **Tech Support** sidebar, following). Implants can complicate traditional medical treatment, from increasing the difficult of some Treatment checks to dealing with semi-autonomous weapons that won't allow medics anywhere near the injured character! Full cyborgs scarcely need medical treatment at all—they require technicians!

POWER LOSS

Cyberware can fail in a number of different ways. It may be damaged in combat or by accident, run out of power, or develop a mechanical or programming fault in need of repair. Cybernetic software might be "infected" with virus programs, causing it to malfunction or shut down altogether, and attacks like an electromagnetic pulse might shut down cybernetics, causing power loss (and possibly some disabilities).

PREJUDICE

Cybernetic implants are quite often obvious and can be disturbing, especially if they are extensive or especially unnatural looking. Cyborgs may suffer prejudice, being treated either as tragic cripples or inhuman freaks who are more machine than human, and some might direct the same prejudice at themselves.

WEAKNESS

Cybernetic implants can lead to a vulnerability to things like electrical attacks or those intended to affect machines. This can range from added degrees of effect for electrical attacks to effects with computer, technology, or related descriptors being able to affect cyborgs where they would have no effect on flesh-and-blood targets. For example, cybernetic might be vulnerable to outside computer hacking or reprogramming.

Cyberware can create a dependence on the implants to sustain the character's life, without them, the cyborg not only suffers from disabilities, but may well perish! The same may be true, to a lesser degree, of drugs or other treatments intended to prevent rejection of the character's artificial implants.

CYBERTECH

Since the days of pulp heroes armed with "ray guns," various types of directed energy weapons have been part of the superhero genre. Heroes and villains are frequently armed with them, and minions from uniformed agents to robots wield them.

ENERGY WEAPON Descriptors

Since the effects of most energy weapons are either Damage or some form of Affliction, the weapon's descriptor has a significant effect on what kind of weapon it is, how it works, and what modifiers may be appropriate for it.

The following are common energy weapon descriptors. In addition to the material here, Gamemasters may find the corresponding **Powers** section of the *Power Profiles* book useful for more about the effects of that type of energy, and different ways it can be applied. For example, for more on electricity, see the **Electrical Powers** section of that book.

COLD

Cold-based weapons may involve some type of "cryoenergy" that slows molecular motion, thereby reducing temperature. They tend to have one of two effects: either freezing targets directly or producing large amounts of ice, usually by condensing and freezing atmospheric moisture.

Freezing: Intense cold may be Fortitude-resisted Damage (bypassing Toughness) or a Fortitude-resisted Affliction, causing fatigue or impairment. Severe cold that incapacitates a target can cause frostbite-related complications, although in the comics characters can be frozen and thawed out without any long-lasting effects.

Suspended Animation: A potential power stunt or alternate effect of a cold weapon may be to put targets into a state of suspended animation, a form of Immunity that suspends the target's normal life functions, including aging, breathing, and eating, and suspending the effects of disease and poison, at the cost of leaving the subject helpless and incapacitated. Consider this a –2 flaw, lowering the cost of the necessary 6 ranks of Immunity to 2 points.

Ice: Cold weapons able to generate large amounts of ice may produce binding Affliction effects (trapping targets in bonds or blocks of ice) as well as Permanent Create effects, with the weapon's beam "shaping" the ice as it forms into different objects, which later melt with the prevailing temperature.

Chemical Cold: Some cold weapons are not "energy" weapons at all but sprayers for super-cooled chemicals. These weapons can have either freezing or ice effects, and differ primarily in terms of descriptor and things that might interact with or block their spray. They rely upon tanks or containers of chemicals rather than batteries or some other power source.

FI FCTRICITY

Electrical weapons range from tasers and stun-guns to powerful electrolasers or EMP (electromagnetic pulse) weapons designed to take out other electronics.

Electrolaser: An electrolaser uses a laser beam (see **Lasers**, following) to create an ionized path through the air, along which a powerful electrical charge can be directed with some precision to the target. Electrolasers are sometimes known as "zap guns" and typically inflict electrical Damage on the target, although some may be tunable to function as electro-stunners as well (see following); the weapon is an array with multiple settings as Alternate Effects. Like regular laser-based weapons, an electrolaser might be able to use its path-creating beam as a laser targeting sight as well, adding a rank of Accurate to the weapon.

Electro-stunner: A powerful electrical charge can overload and stun the nervous system of most creatures or the electrical system of a piece of technology. Whether in the form of a close-range weapon (stun gun or cattle prod) or a longer range "beam," an electro-stunner is typically an Affliction (Resisted and Overcome by Fortitude; Dazed, Stunned, Incapacitated). Some may be Cumulative as well.

Electro-blaster: An electro-blaster or "lightning gun" fires a powerful charge of electricity, like an artificial bolt of lightning, at its target. This causes a surface blast and intense Damage. Powerful lightning guns may be rifle or even cannon-sized, mounted on vehicles or installations.

Electromagnetic Pulse: Rather than damaging electrical current, an electromagnetic pulse can overload and damage electrical circuitry in the affected area, making it a useful weapon against modern installations and individuals dependent on electrical equipment. As detailed in the **Electrical Powers** profile, an EMP is a Broad, Simultaneous Weaken Electronics effect, typically with the Burst Area modifier, although a directed EMP weapon might have a Cone or Line area instead, allowing for finer targeting.

ENERGY WEAPONS

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ENERGY WEAPONS AS EQUIPMENT

The *Hero's Handbook* describes equipment as "relatively mundane technology" and "technology commonly available in the setting" and yet lists blasters in the ranged weapon equipment table. What gives? As the *Hero's Handbook* further states on page 162: The GM decides what is "commonly available". In many, if not most, superhero settings, some type of energy weapon is "standard issue," if not for the police or military, for para-military security organizations like AEGIS in the *Freedom City* setting. That makes some energy weapons suitable as equipment, if the GM chooses.

Of course, such weapons are still subject to the usual restrictions on equipment: Their availability and ownership may be limited (probably to the aforementioned government organizations and similarly influential groups) and they are more subject to damage and loss than devices that are a part of the character's powers. Additionally, "off the rack" energy weapons are subject to whatever other technological limits the GM chooses to impose, including a ceiling on effect rank and modifiers. For example, while blaster weapons may be available, the GM can rule they are limited to Damage 8 at most, and cannot be Subtle without illegal (and expensive) modifications to the weapon.

KINETIC

Kinetic weapons use the energy of force or movement to produce powerful impacts or even to literally tear targets apart. They include the classic comic book "blaster" weapons as well as weapons using shaped or projected force fields.

Force: The same principle used to create solid barriers of force can also create equally forceful beams, projectiles, or striking surfaces for weapons. In addition to being far tougher than most weapons made out of matter, force weapons dissipate into harmless energy particles when broken or scattered, limiting collateral damage. Shaped force weapons can have edges or points far sharper than almost any material object, giving them the Penetrating extra.

Gravity: Gravity-beam weapons harness gravitons or gravity waves to produce pounding force beams capable of inflicting Damage. Unless a side effect of the beam emitter produces visible light, gravity weapons are most likely Subtle in nature, visible only by the damage that they cause. Some gravity weapons may have effects other than Damage, such as a Move Object effect for "tractor" beams able to push, pull, and manipulate objects, or even an Affliction effect for gravity weapons that alter the effects of local gravity on the target, such as imposing the hindered and immobile conditions by making the target heavier (possibly adding conditions like impaired/disabled or dazed/ stunned as well).

Particle Beams: Some kinetic weapons use beams of accelerated subatomic particles to produce a surface impact when the beam strikes its target. "Blaster" weapons tend to be particle beams, unless specified otherwise. The beams produce considerable force and impact, but no appreciable thermal or electrical shock.

FIRE/HEAT

Fire- and heat-based weapons inflict burning Damage and are particularly effective against vulnerable targets, such as flammable constructs, or those with ice or cold powers, for example. Most modern technological fire weapons rely on burning fuel sprayed at a target. This typically makes them Cone or Line Area attacks. A fire weapon's fuel tank may be vulnerable to complications which puncture or set off the fuel, creating an explosion (inflicting the weapon's damage in a Burst Area around the tank, including the wielder).

Flame: A flame attack has the potential to continue burning the target; the GM may wish to consider the Secondary Effect modifier (*Hero's Handbook*, page 144) for flame attacks. To represent chemical accelerants like napalm, which continue burning the target for some time, consider increasing the value of the Secondary Effect to a +2 extra for two additional rounds of effect and a +3 extra for an effect that continues until it is countered or the target is incapacitated (see **Countering Effects**, *Hero's Handbook*, pages 95–96).

Plasma: A high-energy ionized state of matter, similar to a gas, plasma burns extremely hot. A plasma weapon fires a "packet" or discharge of the super-heated material, perhaps contained or channeled by a magnetic field or an ionized path similar to an electrolaser (previously). Plasma inflicts burning Damage and its high temperature gives it the Penetrating extra, allowing it to overcome even the most hardened defenses. Plasma can also set lasting fires like flame weapons, so the GM may wish to consider the Secondary Effect modifier for it as well.

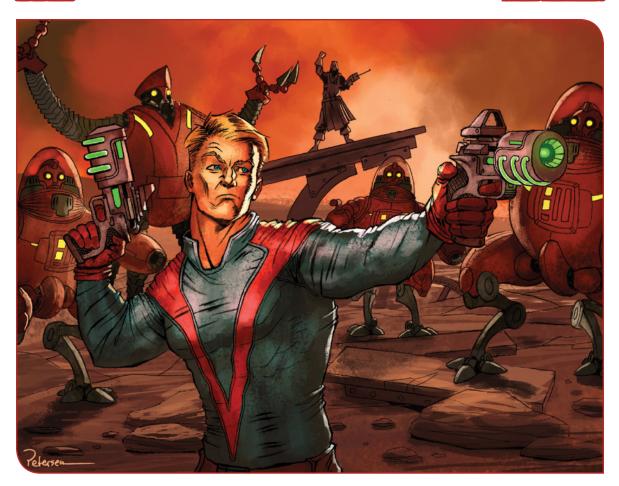
LIGHT

A light weapon may project nothing more than a bright light, capable of temporarily blinding and/or stunning a target, allowing for different Affliction effects. Such light attacks are typically resisted by Dodge or Fortitude and overcome by Fortitude as the target's system shakes off the effect (also meaning they're useless against nonliving targets and others Immune to Fortitude Effects). Such light weapons are non-lethal, making them a popular option for heroes, with the additional benefit of limiting collateral damage, since a "miss" with the weapon has little effect on anything else.

Lasers: Damaging light weapons are typically lasers. The term was initially an acronym for *Light Amplification through Stimulated Emission of Radiation,* but now

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stands on its own. Lasers are coherent light beams, tightly focused enough to inflict heat damage and burn or melt through materials. The "laser" acronym has been adopted for many other types of energy beams (see **Radiation**, following).

Laser Sight: A laser may use a low-level form of its own beam as a laser sight, projecting a small, glowing dot at its targeting point. This adds the Accurate modifier. See the Laser Sight in **Firearms** for details.

Blue-Green Lasers: Most laser weapons use the red portion of the spectrum, but it is possible to use the shorter blue-green wavelengths. A blue-green laser uses more power, but is capable of firing through water (which tends to scatter the longer wavelengths) and at greater range. A character might be able to modify a more conventional laser to fire a blue-green beam as a power stunt, as the GM's discretion.

RADIATION

Light is not the only form of radiation turned into a weapon. Principles similar to the creation of visible-light lasers are also used in the creation of different types of focused radiation beams.

Precisely because these weapons use non-visible wavelengths of the spectrum, they may well have the Subtle modifier, unseen except to sensors able to detect their radiation. Of course, in the comics, a "gamma ray blast" or similar attack may be quite visible as a glowing beam, so Subtle isn't required. Feel free to decide that these weapons shed some visible light, or excite air molecules to create a glowing "beam" when fired, or the like, if you wish.

Grasers: Short for "gamma ray laser" a graser can be considered a Subtle, Penetrating form of laser, able to more easily pass through armor and similar countermeasures. Grasers primarily inflict heat damage and targets protected against heat or radiation may be able to resist or ignore their effects.

Masers: A maser is a concentrated microwave beam, which inflicts heat damage, literally boiling targets from the inside out. Like ordinary microwaves, masers can be blunted by intervening materials, particularly large amounts of water or metal. Like grasers, they are generally Subtle Penetrating Damage attacks.

Microwave Area Denial (MAD): This weapon is designed for crowd control, producing a low-level, wide microwave beam that causes a terrible burning sensation all over the targets' body, searing pain with minimal damage. It is a Subtle Cone Area Progressive Affliction, Resisted and Overcome by Will, causing targets to become Impaired, Disabled, and Incapacitated by the pain. The effect lasts as long as a target is in the area of the beam and it is tuned on, but it has Instant Recovery for when a target leaves the area or the beam is shut down.

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Microwave Disruptors: A disruptor fires a microwave beam tuned to disrupt electronics, like a targeted electromagnetic pulse (see **Electricity**, previously). Like an EMP, this is a Broad, Simultaneous Weaken Electronics effect, but Ranged and lacking the Area modifier.

X-ray lasers: An X-ray laser is a stepped-up version of the graser, but essentially the same in game terms apart from the different descriptor. X-ray lasers are Subtle Penetrating Ranged Damage effects.

SONIC

Like light, sonic weapons may employ nothing more than extremely loud sound to deafen or stun targets, or focus sound into extremely destructive beams or blasts of sonic force.

Sonic weapons require a medium through which to travel, usually air; they don't function in a vacuum, and may function differently under water. Single target sonic weapons may become Area effects due to the greater conductivity of the water, or need adjusting to function normally.

SONICS AND SUBTLETY

Note that sonic attacks are not normally considered Subtle, even if they are not visible, since they usually involve loud noise and vibration, along with visible distortions in the air. An ultrasonic weapon, which uses sound wavelengths beyond the human range of hearing, would be considered Subtle, since only those with Ultrahearing could notice it.

Disruptors: Sonic disruptors fire blasts of intensely focused vibration that strike with considerable force and tear targets apart with a Damage effect.

Screamers: These weapons employ extremely loud (and often high-frequency) sound to deafen targets. Screamers may be single target beam weapons or Cone or Burst Area attacks. They have an Affliction effect: Resisted and Overcome by Fortitude, with the Impaired, Disabled, and Unaware conditions, Limited to hearing. Screamers may incorporate the Extra Condition modifier, essentially adding the stunner or vertigo attacks (following) to their main effect.

Stunners: A sonic stunner uses sound frequencies to shock the target, an Affliction effect Resisted and Overcome by Fortitude or Will (choose one) with the Dazed, Stunned, and Incapacitated conditions. Some stunners also have the Cumulative and/or Concentration modifiers.

Vertigo: This weapon uses sonic projection to upset the inner ear, causing extreme disorientation. It is also an Affliction effect: Resisted and Overcome by Will, with the Impaired, Prone, and Incapacitated conditions. Some versions may have Limited Degree (getting no worse than prone) while others have Extra Condition, layering on Hindered and Immobilized.

OTHER ENERGY DESCRIPTORS

The previous list covers just the most common descriptors for energy weapons. The only limit is the player's



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imagination and what the GM will reasonably permit. For example, an energy weapon might have a "cosmic" energy descriptor, perhaps drawing upon some universal force permeating all reality. Likewise, it might have a "psionic" descriptor, reflecting a type of energy linked to some mental powers. Supernatural energy weapons can even have divine or magical descriptors for things like an angel's flaming sword or a thunder god's lightning powered weapon, although such things are more likely to be considered devices than equipment (see **Energy Weapons as Equipment**).

Some "energy weapons" with particularly unusual descriptors or effects fall more under the category of powers and are covered in the **Power Gadgets** Guide.

ENERGY WEAPON CONFIGURATIONS

An energy weapon's configuration is how it applies the energy from its descriptor (previously) and how much of that energy it delivers to its target. Essentially, configuration determines the weapon's effect rank, whether or not it is ranged, and other range modifiers like Reach or Increased Range.

RANGED WEAPON

The usual configuration for a ranged energy weapon is a gun with a barrel and grip with a trigger, easy to hold and aim, and clearly recognizable as a weapon. The size (and therefore the capacity of the power source and space for focusing and generating elements) determines the weapon's overall effect rank.

HOLDOUT

A holdout is a small weapon, designed to fit into the palm of the hand and be easily concealed. This generally means it has limited ammunition or energy capacity, and may be Unreliable (having 5 or fewer shots). A holdout energy weapon is typically between rank 2 and 4.

PISTOL

A pistol roughly the size of a modern handgun, although pistol energy weapons may vary in shape and appearance. Rank is generally between 4 and 6.

RIFLE

An energy rifle has a larger stock and longer barrel, allowing it to have a larger battery or ammo magazine. Rifle ranks are typically between 8 and 10, possibly higher for especially powerful energy weapons. A skilled marksman armed with an energy rifle can easily reach between power level 8 and 10 (or more) in offensive capabilities.

THROWN

A thrown energy weapon converts a fairly conventional type of throwing weapon into an energized version. Examples include shuriken with "blades" of lasers or force fields, or a spear with a "sonic blade" at its tip. Any of

SAMPLE ENERGY WEAPONS

RANGED WEAPON	EFFECT	CRITICAL	COST
Blaster pistol	Ranged Damage 5 (force)	20	10
Blaster rifle	Ranged Damage 8 (force)	20	16
Flamethrower	Line Area Damage 6 (fire), Secondary Effect	20	18
lce gun	Ranged Affliction 8 (ice; Resisted by Dodge, Overcome by Damage; Hindered and Vulnerable, Defenseless and Immobilized)	20	16
Laser pistol	Ranged Damage 5 (light), Accurate	20	11
Microwave disruptor	Ranged Weaken Electronics 6, Broad, Simultaneous, Accurate	20	25
Plasma burst	Cone Area Damage 8 (fire), Secondary Effect	20	24
Sonic stunner	Ranged Affliction 6 (sonic; Resisted and Overcome by Fortitude; Dazed, Stunned, Incapacitated)	20	12
X-ray laser sniper rifle	Subtle Ranged Damage 8 (radiation), Penetrating 5, Accurate, Dangerous, Extended Range	19–20	25
CLOSE WEAPON	EFFECT	CRITICAL	COST
Electro-whip	Damage 3 (electricity), Concentration, Disarming, Grabbing	20	8
Grav gauntlet	Strength-based Damage 6	20	6
Laser sword	Damage 6, Penetrating	20	12
Shock baton	Cumulative Affliction 5 (Resisted and Overcome by Fortitude; Dazed, Stunned, Incapacitated)	20	10
Sonic knife	Strength-based Damage 2 (slashing, sonic), Dangerous	19–20	3

ENERGY WEAPONS

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the thrown weapons from the **Archaic Weapons Guide** or the **Asian Weapons Guide** could be converted into energized versions, simply by changing their Damage descriptor and possibly adding an extra rank or two of effect.

MELEE WEAPON

Although they are most commonly used at range, energy weapons may also be configured for use in close combat.

Although most melee weapons are Strength-based damage, their energy versions may or may not be, depending on their descriptors. A "kinetic gauntlet" that magnifies the wearer's punches is still Strength-based, but a "laser sword" with a blade made of pure energy is not.

BATON

A "baton" refers to any short, simple handheld weapon that produces an energy effect by touch. Examples include electrical "shock prods" or heated "branding rods" as well as a "gravity mace" or "kinetic amplifier".

BLADE

An energy blade typically has a handle or hilt that emits a "blade" of pure energy out to a specific length, allowing it to be wielded like a sword. If the energy is invisible to the naked eye, the blade may have the Subtle modifier, since targets will find it more difficult to detect and dodge.

A blade weapon can be like a conventional sword, or shorter, like a dagger. It might have a long handle and a short blade, like spear, or even two blades, one emerging from either end of the handle, making it a double weapon able to use the Split extra (*Hero's Handbook*, page 144) to attack twice with the weapon, splitting its damage between the two attacks. If the combination of hilt and blade are particularly long, the weapon may grant ranks in the Reach extra as well.

GAUNTLET

The weapon is built into a glove or gauntlet, able to emit energy from its surface. This may produce a close range attack where the wielder must touch the target, or add to the wearer's Strength-based Damage (with the addition of a different Damage descriptor). A gauntlet attack could be ranged, however, such as an energy blaster

built into the palm or fingers, or set in the back of the hand to fire above the knuckles of a closed fist. Gauntlet weapons may have their own internal power source or connect up to another source, such as part of a suit of armor.

LASH

Similar to a blade, a lash weapon is a hilt or handle that projects a beam of energy, except its "beam" forms a flexible tendril (possibly running along the length of a monofilament wire or other conductor), allowing the wielder to use the weapon like a whip. A lash provides at least a rank or two of Reach, and may offer some of the other benefits of wielding an actual whip (from the **Archaic Weapons** Guide) including Improved Disarm and Improved Grab.

MODIFICATIONS AND ACCESSORIES

Some of the accessories from **Firearms** may also apply to energy weapons, essentially any not specifically concerned with the kind of ammo the weapon uses. Additionally, energy weapons may have one or more of the following.

CONCEALED

Although most energy weapons look like weapons, some may be built into otherwise innocuous items: canes, wristwatches, eyeglasses, pens, cell phones, and so forth, keeping the weapon concealed until it is used. This is 1 rank of the Feature effect, 2 ranks if the weapon is also concealed for most sensor scans other than just visual inspection.

MULTI-MODAL

The weapon can function in different configurations, switching from one to another, such as a blade also able to function as a whip, or a gauntlet also able to fire a ranged blast. The weapon's additional modes are Alternate Effects of the primary mode (with the highest point cost).

SPECTRUM WEAPON

The weapon is capable of emitting or using multiple types of energy, such as having different "settings" for cold, heat, and radiation, for example. Apply the Variable Descriptor modifier, if the energies have the same effect. Otherwise, the weapon has an array of Alternate Effects.

ENERGY WEAPONS

Some heroes look on them with disdain, others use them as essential equalizers. All heroes have to deal with them sooner or later. Guns are the most common type of modern weapon, used by criminals, the authorities opposed to them, national armies, and the agents of criminal masterminds.

GUN ACTIONS

Guns in *M&M* fall into three categories in terms of their action, or how quickly they fire.

- Single Action: Pulling the trigger of a single action weapon fires the round currently loaded into the weapon's firing chamber. Readying the weapon to fire again may involve manually levering a new round into the chamber, cocking a hammer, or some similar action.
- Semi-automatic: A semi-automatic weapon fire and chambers a new round with a single pull of the trigger, allowing the weapon to fire fairly rapidly with multiple trigger pulls. There is little effective difference between single action and semi-automatic weapons in M&M game terms, apart from potential complications which can arise from malfunctioning equipment, which is more common in semi-automatic weapons.
- Automatic: A fully automatic firearm continues to fire so long as the trigger is pulled. Some automatic weapons can be set for burst fire, which fires a set number of rounds (typically three to five) with each trigger pull, to help conserve ammunition. Automatic weapons have the Multiattack modifier (*Hero's Hand-book*, page 143).

Their ability to fire multiple rounds with a single trigger pull allows automatic weapons to perform all of the effects given for the Multiattack modifier: increased damage against a single target, hitting multiple targets by sweeping the attack across an area, and providing covering or "suppressing" fire for an ally.

GUN TYPES

The following firearm categories discuss guns in general terms based on different configurations. The subtle differences between makes and models (or particular calibers or gauges) is largely irrelevant in a system like MUTANTS & MASTERMINDS except as descriptors and background color.

PISTOLS

Holdout pistol: A palm-sized, typically low-caliber weapon, easily concealed and used as a backup, often worn in an ankle holster or hidden in a wrist holster.

Light pistol: A common semiautomatic handgun or small caliber revolver like the typical sidearm used by a police officer or detective licensed to carry a firearm.

Heavy pistol: A high-caliber handgun (semi-automatic or revolver) like the .357 Magnum or Desert Eagle.

RIFLES

Rifle: A long-barrelled firearm, fired with both hands. Rifles typically have higher caliber, longer range, and a more stable firing stance, making them easier to aim. Some hunting rifles are single action (requiring manual reloading) while others are semi-automatic.

Sniper Rifle: A rifle designed for use at greater range, typically in conjunction with accessories like a targeting scope and a tripod or other stabilizing platform.

Assault Rifle: An assault rifle is an automatic weapon, typically with settings for single shot, burst, and fully automatic fire. It is the configuration for standard military rifles like the M-16 and AK-47.

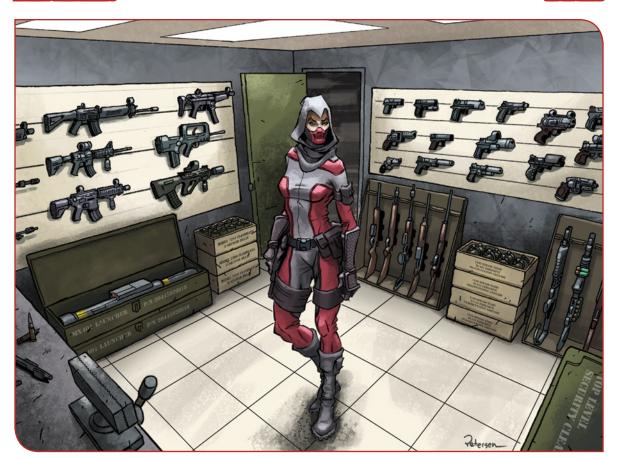
SHOTGUNS

Shotguns, both single- and double-barrelled, can fire solid slugs, which inflict the weapon's normal ballistic damage, or they can load shot, which gains Accurate (+2 bonus to hit) but applies the Limited to target's without Protection modifier to 2 ranks of the gun's Damage, due to shot's limited ability to penetrate. A shotgun can also load material other than metal shot, including things like rock salt, which is not only less lethal, but may be more effective against the vulnerabilities of certain targets.

SUBMACHINE GUNS

Submachine guns are automatic carbines or pistols that can be fired with one or both hands. Their damage capability is similar to that of a pistol but their effectiveness is enhanced by their ability to fire multiple rounds with a single trigger pull. Widely used by militaries since the mid-20th century, submachine guns have largely been replaced by assault rifles for military use, but they still see use both by police and counterterrorist units as well as criminals.

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OTHER GUNS

Air Gun: This pistol-sized gun fires a blast of compressed air powerful enough to knock targets down and potentially stun them. A useful non-lethal weapon with no projectiles required.

Dart Gun: A pistol or rifle that fires small hypodermic darts, primarily intended to deliver drugs or poisons into the target's system. Typically used by naturalists and animal control officers to tranquilize dangerous animals, they can also be used on human targets.

Flare Gun: Not intended as a weapon, but a signaling device, this gun fires a brightly glowing flare straight up into the air where it slowly drifts down towards the ground, providing some illumination and signaling anyone within sighting distance of the flare, particularly at night, when it is most visible. Members of a hero team may use flare guns to signal to each other in emergencies; less common in the modern age of compact radio communicators, but flare guns aren't affected by jamming or electromagnetic interference. Flare guns can be used as weapons in a pinch and inflict rank 1 burning and impact Damage on their targets and may ignite flammable materials.

Paintball Gun: A compressed air gun that fires gel pellets filled with paint or dye. Paintball guns are typically sporting "weapons" for games or training exercises, since the impact of the paintballs may sting, but is generally harmless. They may be modified into actual

weapons by changing the ammunition they fire, with loads such as acid or contact poison, created a Ranged Affliction effect in most cases.

Taser: A compressed air weapon firing a pair of darts that release a powerful electrical charge on impact capable of stunning the target.

PRIMITIVE GUNS

Although they're not likely to come up often, time-travel, parallel universes, and obsessed collectors mean *M&M* characters may occasionally encounter primitive firearms like flintlocks and muskets. These weapons used black powder and small metallic balls (usually lead shot) as projectiles. They were only good for one shot and took long enough to reload that they were rarely reloaded in combat unless along a firing line some distance from the enemy. They have a variation of the Unreliable flaw that allows them to be fired only once every five rounds, taking the rest of the time to reload.

Most of the "primitive" firearms that show up in *M&M* settings merely look like old fashioned flintlocks and the like, but are actually as sophisticated (if not more so) than modern weapons, being descriptors for a character's powers. Examples include "space pirates" with primitive-looking energy weapons and "Colonial ghosts" armed with muskets that fire spectral "bullets" that don't require reloading (and that may have effects other than just Damage).

GUNS

WEAPON	EFFECT	CRITICAL	COST		
	PISTOLS				
Holdout pistol	Ranged Damage 2	20	4		
Light pistol	Ranged Damage 3	20	6		
Heavy pistol	Ranged Damage 4	20	8		
RIFLES					
Rifle	Ranged Damage 4	20	8		
Rifle, high-power	Ranged Damage 5	20	10		
Sniper rifle	Ranged Damage 5, Extended Range	20	11		
Assault rifle	Ranged Damage 5, Multiattack	20	15		
	SHOTGUNS				
Shotgun	Ranged Damage 5 (AE: Ranged Damage 5, Accurate, 2 ranks Limited to targets without Protection)	20	11		
	SUBMACHINE GUN				
Machine pistol	Ranged Damage 3, Multiattack	20	9		
Submachine gun	Ranged Damage 4, Multiattack	20	12		
	OTHER GUNS				
Air gun	Ranged Affliction (Resisted and Overcome by Fortitude; Dazed, Prone, Incapacitated)	20	2/rank		
Dart gun	Ranged Affliction (Resisted and Overcome by Fortitude; Impaired, Disbaled, Incapacitated; Resistible by Toughness)	20	1/rank		
Flare gun	Environment 2 (light)	20	2		
Taser	Ranged Affliction (Resisted and Overcome by Fortitude; Dazed, Stunned, Incapacitated)	20	2/rank		
Paintball gun	Feature 1 or Ranged Affliction	20	1 or 2/rank		
	ACCESSORIES				
Ammunition					
Armor-piercing	Penetrating	20	1/rank		
Explosive	Improved Critical	20+	1/rank		
Smart	Homing	20	1/rank		
Stun	AE: Ranged Affliction* (Resisted and Overcome by Fortitude; Dazed, Stunned, Incapacitated)	20	1 point		
Tracer	Accurate	20	1 point		
Bayonette	AE: Strength-based Damage 2 (piercing)	20	1 point		
Biometric Lock	Restricted	_	1 point		
Iron Sights	Improved Aim	_	1 point		
Laser Sight	Accurate	_	1 point		
Scan-proof	Subtle (DC 20)	_	1 point		
Silencer	Subtle (DC 20)	_	1 point		
Spotlight	Feature (counter darkness penalties)	_	1 point		
Targeting Scope	Extended Vision	_	1/rank		
	*Ranks equal to the weapon's Damage rank				

MUTANTS & MASTERMINDS ______GADGET GUIDES

BEING BULLETPROOF

The most common way of being immune to gunfire in Mutants & Masterminds is ranks of Impervious Toughness; 10 ranks is enough to provide immunity to most guns (with a base Damage rank of 5 or less), 12–14 ranks covers most man-portable military weapons as well. If the character's invulnerability is limited to bullets or projectiles, then the Impervious modifier may have the Limited flaw. It may also be sustained rather than permanent in duration, if the Impervious extra requires some modicum of effort or concentration on the character's part, such as bringing a shield or bracer into a defensive position, or reinforcing a force shield or the character's own innate Toughness. The Immunity effect can also make characters "bulletproof," ranging from 5 ranks for Immunity to Ballistic Damage (but no other form of damage) to higher ranks that include gun fire (like Immunity to Impact Damage) up to full-fledged Immnity to Toughness effects at 80 ranks.

AMMUNITION & ACCESSORIES

As described on page 161 of the *Hero's Handbook, M&M* does not generally track ammunition or differentiate between weapons based on magazine capacity or how many shots a weapon can fire before it must be reloaded.

Running out of ammunition is handled as a complication when the Gamemaster chooses to impose it, the same as having a gun jam or some similar complication that deprives the character of the use of the weapon. These complications are separate from other circumstances that deprive characters of their equipment, mainly having the weapons taken away, damaged, or destroyed, which is covered by the nature of the equipment itself and not considered a complication (see page 162 of the *Hero's Handbook* for further discussion).

In addition to the ammunition types discussed here, characters may carry and use different ammunition materials with the addition of the Variable Descriptor modifier to the weapon. Examples include bullets made of substances like silver or wood (potentially triggering supernatural vulnerabilities) or things like ice bullets, which have been used in assassinations; the bullet melts, leaving only traces of water and no ballistics (effectively a variation on the Insidious extra).

ACCESSORIES AND BONUSES

Note that circumstance bonuses provided by accessories stack to a limited degree; a +2 bonus becomes a major (+5) bonus. Other bonuses, such as those provided by the Accurate extra, also stack, but are limited by power level, whereas circumstances bonuses are not.

AMMUNITION, ARMOR-PIERCING

This ammunition is designed to punch and slip through armor, increasing its penetrating power but reducing its explosive impact.

Armor-piercing Ammunition: Penetrating • 1 point per rank

AMMUNITION, EXPLOSIVE

Explosive rounds are designed to burst or flatten to enhance the damage caused by their impact (rather than passing straight through a target) making more serious damage from a shot more likely.

Explosive Ammunition: Improved Critical • 1 point per rank.

AMMUNITION. SMART

Super-science or magical ammunition capable of changing course in mid-flight to seek out a target it has locked on to. This type of ammunition is not available as equipment in most settings, but may be part of a gun device.

Smart Ammunition: Homing • 1 point per rank.

AMMUNITION, STUN

Rubber bullets or other non-lethal ammunition designed to stun targets temporarily.

Stun Ammunition: Alternate Effect: Ranged Affliction (Resisted and Overcome by Fortitude; Dazed, Stunned, Incapacitated) • 1 point

AMMUNITION, TRACER

Ammunition that leaves a visible streak of light, particularly in dim or dark conditions, making it easier to place where the shots are going and adjust aim accordingly, providing a +2 bonus to attack checks.

Tracer Ammunition: Accurate • 1 point

BAYONET

A bayonet is a blade that mounts onto the end of a rifle, turning it into a spear for use in close combat. Bayonets originated when rifles were usable for only one or two shots, but still remain useful for close quarters fighting or occasions when a firearm is unusable (jammed, out of ammo, and so forth).

Bayonet: Alternate Effect, Strength-based Damage 2 • 1 point

BIOMETRIC LOCK

The weapon's grip has an electronic scanner that reads the wielder's finger- and palm-prints (or possibly even DNA code). If the wielder is not authorized in the weapon's built-in database, it locks out all of its functions, preventing the weapon from firing. This prevents a confiscated gun from being used against its owner, amongst other things. A Precise Illusion or Morph effect can fool and override a biometric lock.

Biometric Lock: Feature (Restricted) • 1 point

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GADGET GUIDES ______MUTANTS & MASTERMINDS

IRON SIGHTS

Flanges on the end of the gun's barrel help to line it up with a target for improved accuracy. Iron sights give a weapon the benefit of the Improved Aim advantage, increasing the circumstance bonus for aiming from +2 to +5.

Iron Sights: Enhanced Advantage (Improved Aim) • 1 point

LASER SIGHT

Projects a low-level laser beam to show a small red dot of light where the gun is expected to hit. A laser sight provides a rank of Accurate to the weapon (+2 bonus to hit) and can often grant a circumstance bonus to Intimidation checks when used as an implied threat. At the GM's option, additional ranks of Accurate may be available to more advanced laser sights or weapons with "smart" munitions.

Laser Sight: Accurate • 1 point

SCAN-PROOF

The weapon and its ammunition are made from nonmetallic components (advanced ceramics and plastics, for example), making it virtually invisible to conventional methods of scanning and detection.

Scan-Proof: Subtle • 1 point

SILENCER

A gas- and sound-suppression attachment added to the weapon's barrel, reducing the sound of the gunshot to a loud coughing noise. Silencer devices (beyond the capability of equipment) may even make the shot completely silent with 2 ranks of Subtle. The flash suppressor, a similar attachment, reduces the muzzle flash of the weapon, making it visually Subtle. A piece of equipment can perform both functions for 2 points.

Silencer: Subtle (sound) • 1 point

SPOTLIGHT

The barrel of the weapon mounts a powerful light, illuminating whatever the weapon is pointing at, useful for overcoming darkness penalties, at the cost of making the weapon wielder highly visible.

Spotlight: Feature (light, eliminates circumstance penalties for darkness) • 1 point

TRICK SHOTS & GUN POWERS

Most combat advantages from Chapter 5 of the *Hero's Handbook* work in conjunction with guns unless the advantage's description specifies otherwise. The descriptors of the advantage may change slightly when used with guns; for example, a Power Attack isn't necessarily more forceful (it's difficult to "shoot harder" with a gun) but an attack that gains in damage potential in exchange for increased difficulty with the attack check, such as making a more difficult shot at a more vulnerable part of the target. Similarly, Accurate Attack (trading damage for accuracy) may involve snapping off multiple shots in hopes that one will "wing" a difficult to hit target.

Likewise, many of the actions and maneuvers from Chapter 8 of the *Hero's Handbook* are usable in conjunction with guns beyond just Attack. In particular, Aim and Delay are common gun actions, used to improve accuracy and to "cover" targets without having to shoot them. Guns are also usable for Disarm and Smash actions, although at a considerable attack penalty.

The **Talent Powers** Profile from *Power Profiles* adds the additional option of "gun-fu" abilities, powers involving the use of firearms based on training, talent, and skill rather than another power source. The examples in that profile include Flurry (adding Multiattack to a weapon) or Hurt Anything (adding Penetrating to a weapon's damage) but may also add different extras or Features to a gun's Damage that it does not normally possess. These powers generally have the Variable Descriptor extra for any gun the character picks up and uses.

Lastly, some M&M characters have guns that are far more than mere firearms, either Devices specific to that character, or just descriptors for other powers. This includes all of the various super-science weapons (some touched upon in the **Energy Weapons** Guide) and things like enchanted guns, to characters able to do things like cause guns (or even whole arsenals of weapons) to appear in their hands at will.

TARGETING SCOPE

An optical or electronic telescope to enhance targeting. The scope provides ranks of Extended Vision to counteract circumstance penalties due to range. Sniper weapons with targeting scopes typically also have both iron sights (cross-hairs) and possibly a laser sight, for up to a +7 attack bonus (with no range penalty) from the weapon's maximum range while aiming.

Targeting Scope: Extended Vision • 1 point per rank

When giant monsters or rampaging super-villains attack the city, it's time to pull out the big guns. This Guide looks at the heavy weapons used by military forces, from machine guns to missiles and beyond to nuclear weapons and planet-busting bombs.

HEAVY Weapon Rules

Heavy weapons operate differently from personal combat weapons in a number of ways, particularly how the weapon is aimed and fired at its targets, and the effect it has on those targets, given that many heavy weapons have a blast radius or wide area of effect.

TARGETING

The range and radius of most heavy weapons mean they tend to be targeted differently from normal ranged attacks.

DIRECT FIRE

Direct Fire weapons are targeted like regular ranged attacks, so long as they are capable of a direct hit (see the following). Otherwise, they are area attacks and do not require an attack check, unless the GM wishes to use the optional **Scatter** rules (see the sidebar).

MULTIATTACK

Multiattack weapons are direct fire weapons capable of "spreading" their effect over or across an area, or concentrating it on a single target. These weapons use the Multiattack modifier (Hero's Handbook, page 143). Per the extra description, a spreading Multiattack suffers a –1 penalty per target in its arc, making a single attack check and comparing the result against all targets. At the GM's discretion, any 30-degree portion of the arc without a target in it can be considered a "target" for the purposes of the modifier, adding an additional –1 penalty. Some Multiattack weapons have a limited arc of fire while others move freely enough to have a complete 360 degree arc.

INDIRECT FIRE

Indirect Fire weapons fire in long arcs intended to increase their range. They have 1 rank of the Indirect modifier (Hero's Handbook, page 141) allowing the effect to "originate" from the height of its arc, measuring line of sight of that point. This allows indirect fire weapons to overcome cover, such as walls, between the weapon and the target. Targets still benefit from concealment,

however, unless a "spotter" is employed to help direct the weapon fire on-target.

EFFECT

An attack with a heavy weapon with an Area modifier can have one of four possible outcomes:

MISS

The target is outside of the attack's area, and therefore unaffected by it, although collateral damage may have some incidental effect. For example, a miss with an incendiary weapon has no direct effect on the target, but the weapon still ignites fires, which may spread or otherwise affect targets outside the initial area.

NEAR MISS

The target is inside the attack's area, but succeeds on a Dodge resistance check to reduce the effect's rank (*Hero's Handbook*, page 138). This represents diving for cover, hitting the ground, almost (but not quite) clearing the area, and so forth. Divide the effect in half and round down for that target, with a minimum of 1 rank. The Evasion advantage grants a circumstance bonus to the Dodge resistance check for a near miss.

HIT

The target is inside the attack's area and does not succeed on a Dodge resistance check to avoid some of the effect. The target is subject to the full effect of the attack, but may make any other resistance check(s) the attack allows.

DIRECT HIT

Additionally, some heavy weapon attacks may have additional ranks defined as a direct hit, targeting only a single target, presumably one at the center of the attack's area. Scoring a direct hit requires a normal ranged attack check against the target, even if the rest of the weapon's effect is area-based.

Example: A missile is Ranged Burst Area Damage 8 with Ranged Damage 2 (direct hit). If the missile scores a direct hit, the target resists Damage 10 (the base Damage, plus the direct hit). If the attack check fails, the target resists the missile's Burst Area Damage normally (including rolling a Dodge resistance check to halve the effect).

The direct hit ranks of a weapon cost the same as a singletarget version of the weapon's effect (without any area modifiers). Direct hit weapons can have modifiers to their GADGET GUIDES MUTANTS & MASTERMIND

SCATTERING AREA ATTACKS

While standard area effects in M&M require no attack check to place them in the chosen area, some area effect weapons suffer from "scatter," particularly when using indirect fire. Gamemasters interested in implementing this in game terms can use the following guidelines.

If a heavy weapon is used with indirect fire and no line of sight, an attack check is required to deliver the attack on-target. For static targets, this is a check against DC 10 (an effective Dodge rank of 0). Moving targets use their normal Dodge defense. With a hit, the attack is centered correctly. On a miss, each point less than the DC results in the center of the attack shifting in a random direction (roll a d20 with 1-5 = North, 6-10 = East, 11-15 = South, and 16-20 = West) a distance rank equal to the area rank , minus 2 (so about 6 feet for Burst Area 1, for example). A sufficient miss (two degrees of failure or more on a standard Burst Area) may leave some targets out of the affected area altogether.

The scattering guidelines can also be used for direct fire attacks, in which case the GM may allow attackers to choose between making a "safe" area attack that requires no attack check, but has a standard effect (and allows a Dodge resistance check) or making an attack check, which allows all the usual attack check modifiers for a direct hit, including things like aiming and power attack, but risking scatter if the attack check misses.

attack bonus (such as Accurate) and can trade-off accuracy for effect, but are limited by power level like normal attacks, and their area modified ranks cannot exceed power level, as usual.

MACHINE GUNS

Machine guns start out with relatively crude hand-cranked mechanical versions like the 19th Century Gatling gun (and its "steampunk" equivalents): a cluster of rotating barrels which each feed, fire, and eject a round as they turn, fed ammo from a connected drum or bin. Operated properly, such a gun fires with the Multiattack extra on its Damage. Mechanical machine guns must be mounted, at least on a tripod, more often on the deck of a vehicle like a carriage, wagon, or ship. Mechanical machine guns are prone to various complications, particularly jamming or even exploding, and may be considered Unreliable (although these problems were generally not common enough for a flaw, and are better handled as complications or possibly a Quirk).

Modern automatic machine guns are single-barrel weapons using automatic fire for Multiattack. They generally use belt-fed ammo and can fire as long as they have ammo and the weapon's barrel does not overheat (a common complication).

Light machine guns (LMGs) fire rifle rounds and are light enough for a single gunner to fire from a bipod or shoulder stock. Their traits are similar to an assault rifle (Ranged Multiattack Damage 5) but with a greater ammo capacity.

Medium machine guns (MMGs) use a tripod or permanent swivel mount to provide additional stability, making them Accurate (and therefore more likely to inflict greater Multiattack damage).

Heavy machine guns (HMGs) use higher-caliber ammo, giving them Damage 6 or even 7. They are otherwise similar to medium machine guns, including the need for a fixed firing mount. Some heavy machine guns use depleted uranium or other types of armor piercing ammo, giving them ranks in Penetrating to overcome vehicular armor.

ARTILLERY

Artillery begins with cannon, guns with a bore larger than 20 mm, initially firing heavy metal balls using a charge of gunpowder. They're mounted on wheeled carts or other vehicles, including the decks of ships.

Eventually, artillery pieces include mortars, used for indirect fire of explosive rounds, and breechloading weapons with hydraulics to absorb the shock of recoil.

Artillery weapons are nearly always Ranged Burst Area Damage effects, sometimes with extra Ranged Damage ranks for direct hits (see **Direct Hit**, previously). They range in rank from 7 (for the lightest artillery pieces) to 13 (for massive shipboard gun batteries).

The key element of artillery weapons is Indirect fire, launching projectiles in a high ballistic arc to hit targets great distances away. Artillery typically has 5–7 ranks in Extended Range as well: a Damage 9 howitzer has a long range of about 57,000 feet (Extended Range 6).

As described under **Indirect Fire**, unless there is a spotter or forward observer feeding information back to the gunnery crew, targets of artillery benefit from concealment, since the attacker is too far away to see them! Artillery fire can target specific areas or map coordinates, but not highly mobile targets. Still, Dodge resistance checks are required when passing through artillery fire, and taking cover is the best defense against it.

MISSILES

Missiles are self-propelled weapons, usually chemical rockets, equipped with their own guidance systems to direct them to a target. Indeed, the presence of some type of guidance is the difference between a missile and a rocket (which is also self-propelled, but cannot change course in flight towards its target).

GUIDANCE

A missile has one of three types of guidance: aiming, remote, or homing.

HEAVY WEAPONS



Aiming guidance points the missile at a particular target but, if the initial attack misses, the missile continues following its trajectory until it hits something or it is remotely destroyed. This is essentially the same as a normal ranged attack with a single attack check against the target's Dodge defense.

Remote missiles are guided by a "pilot" who controls the missile remotely. This gives the missile the benefit of the pilot's skill in hitting its target, and typically also gives it the Homing extra, since a pilot can have a missile that misses its target change course to pursue or swing around for another attack. The primary drawback of remote missiles is jamming or interference with the remote connection used to guide the missile, which leaves it with no guidance.

Homing missiles are self-guided, locking onto the target using some type of sensor, and then tracking to follow the target until the missile hits. This gives the missile the Homing extra based on a particular sense, typically infravision for "heat-seeking" missiles and accurate radio for radarquided ones.

Targets may be able to "fool" homing missiles by providing a different target or masking the original target from the missile's sensors so it loses the target-lock. Decoys and chaff are used to distract or overwhelm homing missiles.

WARHEADS

Missiles are equipped with a warhead, a payload of explosive material, chemical incendiary, gas, or other effect that is delivered upon impact. The missile's warhead determines what effect it has. See the tables on page 187 of the *Hero's Handbook* for some additional useful ranks.

Explosive warheads are the most common, providing a Burst Area Damage effect, typically rank 8–12, often with additional ranks of Area to increase the radius. Missiles with explosive warheads may have non-Area ranks of Damage for a direct hit effect as well, as described under **Heavy Weapons Rules**.

Gas warheads create a Cloud Area of gas or other chemical agents, typically an Affliction effect of some type, although some poisonous or corrosive gases may simply be Damage as well, perhaps with Resisted by Fortitude, and possibly a Secondary Effect in some cases.

Incendiary warheads release a Burst Area of chemical accelerants for fire Damage with a Secondary Effect, as well as setting combustible materials in the area ablaze. Like explosives, they may have extra ranks of Damage for direct hits as well.

Biological warheads also release Cloud Areas, similar to gas, but carrying a biological agent like a pathogen. This is typically a Progressive Affliction effect, sometimes Limited to less frequent resistance checks (from an hour to a day or more between checks).

Nuclear warheads are the most powerful and dangerous of modern weapons. See **Nuclear Weapons** (following) for details.

GADGET GUIDES _____MUTANTS & MASTERMIND:

"ONLY A BURSTING SHELL..."

Heavy weapons rarely have or need the Penetrating modifier, since their sheer Damage rank allows them to overcome all but the highest-ranked Impervious Toughness. Even rank 20 Impervious Toughness does not protect absolutely against artillery or air-to-air missiles (and other modern military weapons), altough it may make succeeding on Toughness resistance checks against those weapons relatively easy. For true "invulnerability" to even heavy weapons, take the Immunity effect—particularly Immunity to Toughness effects for 80 ranks. Otherwise, simply add on higher ranks for Toughness to handle the "big guns".

The primary exception to Penetrating Damage heavy weapons is anti-tank weapons, using shaped explosives specifically designed to punch through armor. These weapons often do have Penetrating ranks, allowing them to inflict at least some Damage through even the heaviest armor. This makes them fairly effective weapons against giant armored monsters and invulnerable super-beings as well.

DEFEATING MISSILES

Given their speed, a close range attack with a missile is handled just like a regular ranged attack: if the attack check succeeds, the missile hits, if it fails, it misses. Since missiles often have explosive warheads, they may use the direct hit guidelines from the **Heavy Weapons Rules** section, with the caveat that most missiles do not have a Near Miss degree unless the missile impacts another target (including the ground) near the original target, but still within the radius of the missile's Area of Effect.

Fooling a remote or homing missile requires giving the target concealment from the sense(s) the missile uses. This applies the usual effects of concealment: a -2 circumstance penalty for partial concealment, -5 for total concealment and, if a totally concealed target changes location, the missile cannot get a positive "lock" and misses unless the target's location is re-acquired. These modifiers take effect once the concealment is in place, modifying any subsequent checks involving the missile.

Outrunning (or at least outmaneuvering) a missile is an option for targets with the right movement effects. Most missiles have speed rank 9 (with actual speeds falling in the range between ranks 9 and 10). Treat outmaneuvering the missile as a challenge with a DC of (10 + missile's speed rank) requiring five degrees of success before three degrees of failure. Appropriate traits for checks include movement ranks, Agility, or skills like Acrobatics or Vehicles. Winning the challenge means the missile attack misses, while losing it means the character takes a direct hit from the missile.

Diverting a missile requires successfully grabbing it (see **Grab**, *Hero's Handbook*, page 196) using the missile's speed rank as its Strength for resistance. Once grabbed, the character can make another opposed check (Strength versus Speed rank) to redirect the missile. Of course, remote or homing missiles may be able to adjust their course and get back on-target, unless they're diverted into another target (including the ground) that sets them off. Diverting is difficult and dangerous because the character either has to match the missile's speed to catch up to it and grab it, or be in *front* of the missile, in which case a failed grab check results in a direct hit against the diverting character!

Disarming a missile is a challenge with a DC of 25–30, requiring at least five degrees of success before three of failure. Traits used may include Strength, Damage, or Technology to gain access to the internal mechanisms and

Expertise, Technology, or Dexterity to manipulate and disconnect those mechanisms. A degree of failure may cause a complication, like speeding up a timer or breaking an important part, while complete failure on the challenge sets the warhead off. Success disarms the missile so that it has no effect other than its impact. At the GM's option it may also reduce the impact to a negligible amount. The disarming process requires the character to be able to access the missile during the entire time, meaning it must be stationary, the character must be keeping pace under his or her own power, or the disarming character must be riding the missile, providing plenty of incentive to succeed!

TORPEDOES

Torpedoes are essentially missiles designed to function under water and hit aquatic targets. Apart from this, they work in essentially the same way, and can use the same rules, including means of fooling, outrunning, diverting, and disarming them (substituting aquatic movement for aerial or ground movement).

NUCLEAR WEAPONS

Nuclear weapons are the ultimate "big guns" in the modern world, and amongst the ultimate weapons in comic book settings as well. They rely on nuclear fission or fusion to release tremendous energy in the form of light, heat, ionizing radiation, and a powerful concussive blast. This means, in *M&M* game terms, a nuclear blast has four separate effects.

FLASH

The initial flash of a nuclear explosion releases light bright enough to cause permanent blindness for anyone looking in the direction of the blast without sufficient visual shielding or protection. This is a Visual Range Dazzle Affliction (Hero's Handbook, page 103) with the addition of a fourth degree effect, where the Visually Unaware condition becomes permanent unless treated with a power such as Healing or Regeneration. The GM may wish to treat flash-blindness as an Incurable condition as well, requiring Persistent effects to treat it.

BLAST WAVE

The flash of a nuclear blast is followed (at a comparative snail's pace) by a wave of heat and concussive force. The heat wave can vaporize nearby objects, leaving nothing

HEAVY WEAPONS .

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but charred "nuclear shadows" behind, while the blast wave can blow apart virtually any structure or object in its path. This is a pure Damage effect, with the heat and impact descriptors, and plenty of the Burst Area modifier; even a "tactical" nuclear blast has at least 10 ranks of Burst Area, giving it a radius of about a mile. More powerful weapons have even more ranks, each doubling the blast radius.

PLANET-BUSTING

The truly "heavy weapons" in the comic books can destroy targets as large as entire planets! While it is often easier to simply treat such massively powerful attacks as plot devices, sometimes it's fun to consider the limits of the game system in terms of modeling them. Case in point: how many ranks of Damage would you need to destroy an Earth-sized planet in MUTANTS & MASTERMINDS?

A lot of it depends on how we define "destroy." For the sake of discussion, let's stipulate the following:

- The Earth is an "object" in game terms (albeit a big one). So it is subject to the rules for damaging objects.
- While made of a wide variety of materials, we'll consider the Earth's base Toughness around rank 8.
- The "thickness" of the Earth is its diameter: 7,901 miles. That's technically a distance rank of 20, since it's shy of the 8,000 miles value of rank 21. Since an object's Toughness equals its base rank + (distance rank + 7), that would make Earth's Toughness rank 8 + (20 + 7) or 35.
- Let's say the Earth's Toughness is also Impervious, so nothing less than Damage 17 even has a chance of damaging the planet as a whole. Anything else might mess up the landscape, but that's all.

So, the minimum Damage rank (17) has a resistance DC of (17 + 15) or 32, less than the planet's Toughness value, meaning the resistance check can't fail. A Damage rank of 21 (DC 36) is needed for there to even be a chance.

Of course, a planet is a pretty large target, so it seems unfair to allow anything less than an area effect to work against it, perhaps a very *large* area effect! That limits the options, since area effects do not require attack checks, and are not subject to modifiers like critical hits or maneuvers like power attack. They're also subject to power level limits, meaning a planet-buster has to have *serious* power, above PL20. The area may not need to encompass the whole planet, but the radius or range should span at least its mantle, about 10–20 miles on Earth, which is 13–14 ranks of Burst Area.

At Damage 21 (DC 36), the planet only needs to roll a 1 for no significant damage (although targets on the surface of the planet are likely devastated). Even a failed check only means a Toughness reduction. It takes at least Damage 25 before two degrees of failure become possible: the attack blows a hole *through* the crust of the planet! While that wouldn't shatter the Earth in one strike, it probably means the end of life as we know it, as the planet's molten core bursts out and floods the surface. At a truly massive Damage 35 (DC 50), the planet needs a die roll of 15 or better to avoid damage altogether. A roll of 10 or less means a hole punched through the mantle, while a roll of 5 or less shatters the entire planet!

ELECTROMAGNETIC PULSE

The explosion produces a powerful electromagnetic pulse (EMP), affecting unshielded electronics within a line-of-sight to the blast. This is a Visual Range Weaken Electronics effect with the Broad and Simultaneous modifiers. Electronic equipment affected by the EMP does not regain lost ranks until it is repaired, and some equipment may be permanently damaged or in need of replacement parts.

RADIATION

Lastly, a nuclear blast releases ionizing or "hard" radiation, a Progressive Affliction effect (Resisted and Overcome by Fortitude; Fatigued, Exhausted, Incapacitated) with Extra Degree (Dead) and the Limit of one resistance check per day. So even managing to survive the blast may only result in slower death by radiation poisoning.

In the case of a groundburst, where part of the blast touches the ground (rather than an airburst), there's also the matter of radioactive "fallout" where irradiated matter is thrown high into the air to drift on the winds and settle across an area extending downwind from the blast site. This radioactive material has a similar Affliction effect and makes the area near the blast dangerous for quite some time thereafter.

EFFECT RANK

A "tactical" nuclear blast should be rank 20, with larger nukes up to rank 30. Needless to say, few targets are going to be able to resist effects at this rank without some form of Immunity. The Gamemaster may wish to allow for an "impossible" resistance check: where a natural 20 rolled on the check allows the character to survive. The same may be allowed for a hero point spent for on a re-roll, in which case a natural 10 or 20 allows for survival (doubling the odds).

Surviving—or even being killed by!—a nuclear blast is also an excellent opportunity to redesign a character from the ground up (**Reallocating Power Points**, *Hero's Handbook*, page 26).

SUPER-SCIENCE WEAPONS

MUTANTS & MASTERMINDS settings may offer super-science weapons of mass destruction far greater than anything that exists in the real world, from alien planet-busters to mad science doomsday machines.

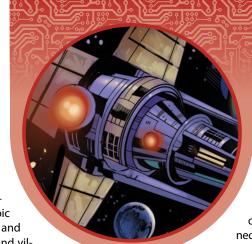
As these weapons are often far greater in their destructive potential than even fusion bombs, they tend to be best handled as plot devices which have whatever effect they are stated to have—whether that is blowing up a planet or melting the polar ice caps—in the unlikely (and unfortunate) event that the heroes do not manage to stop the weapon from being unleashed!

Dealing with these weapons may use many of the same guidelines found under **Defeating Missiles**, particularly disarming, although fooling or diverting are also possibilities if the weapon uses guidance or a projectile of some sort or is carried as a warhead onboard a missile.

INSTALLATIONS

From hidden caves and arctic fortresses to urban towers and sanctums sanctorum, comic book heroes have distinctive places they call home in their costumed identities. Likewise, villains operate from hidden lairs and brooding castles, and finding and breaching a villain's headquarters can be an important part of an adventure.

This Guide looks at installations of all kinds, including heroic headquarters, villainous lairs, and the many places where heroes and villains might clash in a MUTANTS & MASTERMINDS series.



INSTALLATIONS AND POWER LEVEL

Like vehicles and other gadgets and equipment, installations are limited by the series' power level, or have their power level determined by their traits (for installations used solely by non-player characters). Gamemasters may wish to limit an installation's power level to that of the NPC who owns or uses it, but this is not strictly necessary; a PL8 mad scientist could well have a PL12 installation, for example.

As with most NPC power levels, it is merely a quideline and tool for the Gamemaster.

Since they have no active defenses, installations may have Toughness ranks up to twice the power level, effectively trading off their "defense" entirely (see **Trade-Offs** in **Chapter 2** of the *Hero's Handbook*).

INSTALLATION TRAITS

An installation is a permanent, fixed structure of some sort. The simplest installation may be a stone cottage or tower, while highly advanced installations can be orbiting satellites or vast underground complexes. The *Hero's Handbook* uses the term "headquarters," but this **Guide** uses installation to cover all types of permanent structures, whether they are used as headquarters, lairs, or what have you.

The key descriptors of an installation are *permanent* and *fixed*. A tent or other temporary shelter is more equipment than an installation, while something capable of moving under its own power (rather than drifting on currents or in a fixed orbit) is a vehicle rather than an installation (see **Vehicles** for more information). Installations may be moved from place to place (see **Movable** under **Installation Features**, following) but this is usually an involved process, rather than the mobility of a vehicle.

Unlike more complex items like vehicles, installations have fairly few traits: just their size (starting at small), Toughness (starting at rank 6) and whatever Features or powers the installation is given. Note that installation size is measured on a separate scale, given on the **Installation Size Categories** table. The installation's total cost (in equipment points) is based on its traits:

INSTALLATION TRAIT COST

TRAIT	BASE VALUE	EQUIPMENT COST
Size	Small	1 point per size category
Toughness	6	1 point per +2 Toughness ranks
Features	_	1 point per feature
Powers	_	power cost

INSTALLATIONS AND ENVIRONMENTS

Also like vehicles, installations are assumed to provide suitable life-support conditions for their inhabitants at no additional point cost. This is usually Earth-normal atmosphere, pressure, temperature, and gravity, regardless of where the installation is located (particularly important for things like orbiting satellites, moon-bases, and deepsea installations, to name a few). Problems with an installation's life-support systems can range from a nuisance (like the air conditioning going out on a hot day) to a serious complication (like the air recycling system failing on a space station)!

Immunity to other effects generally requires a Feature for the installation, and an installation's self-sustained environment does not generally prevent changes to the environment within the installation, such as someone capable of manipulating the temperature, atmosphere, etc. At the GM's option, use of the installation's environmental systems may be able to counter some of these effects ("I'll use the ventilation fans to clear out this gas!"). See **Countering Effects** in **Chapter 5** of the *Hero's Handbook*, substituting the installation's power level for an effect rank for the countering check.

SHARED INSTALLATIONS

It is common for heroes, at least, to share an installation as a common "home base" and most hero teams will have a headquarters of some kind, even if only to hold meetings and train, if not to interact with the public. Occasionally villain teams will also share an installation, although it more often belongs to the villain team's leader

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HOW MUCH FOR THE WHOLE COUNTRY?

Some characters control *far* more extensive resources than just a single installation, no matter how large. Billionaire industrialists may have labs, homes, and facilities around the world, while hereditary monarchs (and villainous dictators) can call upon the loyalty and resources of entire nations! Characters from places other than Earth may even rule an entire planet, stellar empire, or dimension!

Generally speaking, such considerable resources are best handled as a Benefit advantage, reflecting the character's wealth and influence. The GM determines the appropriate rank, based on the availability and usefulness of the resources. The *Hero's Handbook* recommends rank 5 for the equivalent of a billionaire; the king of a small nation might be similar, with the ruler of a planet being perhaps rank 7, and higher ranks for even greater influence. Keep in mind that while this benefit gives a character virtually unlimited access to most material resources, there is only so much the character can do with it all at once. If it becomes problematic, the GM is free to intervene or to cite the various responsibilities that come with such a position of power and influence. After all, it's difficult enough for a billionaire CEO to run off and play hero, to say nothing of the next Emperor of the Andromeda Galaxy!

Villains are another matter, of course, and some do rule over vast territories. As with minions and other resources, a villain's game traits don't have to account for things like material wealth and influnce unless the GM wants to keep track of it in some fashion. Even then, the villain does not usually have the same difficulties as heroes in managing such resources (one area where ruling with an iron fist is useful).

or organizer. The same is true of villainous organizations, which make extensive use of installations controlled by the organization itself.

A truly shared installation divides its equipment point cost amongst all of the characters who have access to and use it. Generally, each character contributes 1 or more ranks of the Equipment advantage towards the cost of the installation. Characters who leave the team permanently regain any contributed Equipment ranks and may apply them elsewhere. The deficit is either covered by new characters joining the team or by the Gamemaster applying future power point awards towards making up the difference.

INSTALLATION SIZE CATEGORIES

SIZE	COST	EXAMPLES	
Awesome	6	Small town, sprawling installation	
Colossal	5	City block, estate	
Gargantuan	4	Skyscraper	
Huge	3	Castle, cave complex	
Large	2	Mansion, cave	
Medium	1	Warehouse	
Small	0	House	
Tiny	-1	Townhouse	
Diminutive	-2	Apartment	
Fine	-3	Loft	
Miniscule	-4	Room	

ALTERNATE INSTALLATIONS

As with vehicles and other forms of equipment, characters may have multiple installations as Alternate Effects of each other (*Hero's Handbook*, **Chapter 7**, **Alternate Headquarters**). This is based on the same concept of diminish-

ing returns as other Alternate Effects: an extra installation is not "worth" as much as having the initial one, since the successive installations are more likely used as backups, or provide the feature of having a convenient home-base in different geographic locations.

INSTALLATION FEATURES

The basic features of installations are listed in **Chapter 7** of the *Hero's Handbook*. Many "Features" are also included as part of the default structure of the installation. These include doors and windows, access passages (hallways, stairs, elevators, etc.), storage (closets, crawlspaces, storerooms, etc.), lighting and connections to utilities (unless the installation has its own Power System) and the necessary environmental systems. If the installation has the Living Space Feature, it is also assumed to have full kitchen and sanitary facilities.

The following are additional Features which may be useful in creating some installations.

Habitat: A portion of the installation is given over to an artificial environment suitable for certain plants or animals. It may be a greenhouse, arboretum, zoo, or even "living laboratory" with a self-contained ecosystem. The habitat may serve primarily as a place of rest and quiet contemplation, a home for pets or rare creatures, or have more practical uses, including the generation of oxygen (from plants) or the growth of food for the inhabitants of the installation.

Holding Cells: Defined in the *Hero's Handbook,* this Feature may have different enhancements or upgrades, particularly in an installation designed to contain prisoners long-term. For additional Feature ranks, the cells can have the following options:

- Impervious on the Toughness of the cells.
- "Punishment" cells (an Affliction effect at the installation's power level).
- "Sleeper" cells (an Affliction effect at the installation's power level that keeps prisoners incapacitated).

INSTALLATIONS

GADGET GUIDES, MUTANTS & MASTERMIND



Intelligent: The installation itself is intelligent, aware, and capable of interaction, having total effective Intellect, Awareness, and Presence ranks up to the installation's power level. It may be an advanced computer, a magical spirit, or some other disembodied entity. The installation's intelligence is capable of controlling any part of it, from doors and windows to environmental systems or powers.

Movable: The installation is capable of relocating from one place to another, but it is not as capable as a vehicle in that regard. Generally speaking, moving the installation is a significant undertaking that can only occur (at most) once per game session, and probably less often than that. This may be due to the need to charge powerful batteries, make complex calculations, wait for the right alignment of mystic energies, or any number of other reasons. The key point is that the installation isn't particularly useful for getting from place-to-place within the context of a single adventure, although it may move between adventures, and even serve as a primary means of conveying characters to adventures, such as a "Tower Beyond Time" that shifts from dimension to dimension, with each dimensional shift heralding a new locale and a new adventure.

Remote Feature: One of the installation's Features is separate from the main structure, such as a laboratory in an isolated area (for safety and security) or a hangar high in the mountains overlooking an installation in a valley far below.

Teleport Lock: The installation has a feature that emits a "beacon" or "lock" for certain Teleport effects, making the installation a "well-known location" and effectively making teleporting to it Accurate (like the extra) so long as the character is going to the installation, has the right Teleport descriptor(s), and is authorized. This is a common "escape hatch" for villains to quickly teleport back to their hidden lair, should plans go awry.

Trophy Room: The installation has an area specifically dedicated to storing and displaying various trophies, souvenirs, and keepsakes acquired by its owner(s). A trophy room may function primarily as an archive and museum, a storehouse, a monument to its owner's ego, or some combination thereof. In game terms, the trophy room serves three primary purposes: as a source of adventure hooks involving the items and information stored there, as a source of complications for the same reasons, and as a means for characters using the installation to spend hero points for inspirations, scene edits, and power stunts connected to the contents of the trophy room (see **Chapter 1** of the *Hero's Handbook*).

Variable Environment: Beyond just adjusting thermostats and dimmer switches, the installation is capable of a full range of Environment effects, significantly altering the environment throughout, or in just a select number of rooms. Among other things, this means control over the temperature, gravity, and composition of the atmosphere (or whether there is even an atmosphere at all). Intended primarily to adapt parts of the installation to different life-support needs (for alien visitors, for example) this Feature can also serve as a kind of Deathtrap by flooding an area with toxic gas, evacuating all of the air, raising temperatures to fatal levels, and so forth. In the latter case, the GM may consider overcoming and escaping the environmental hazard a challenge based on the installation's power level.

INSTALLATION POWERS

Installations can have power effects as Features. The Effect Feature gives the installation a power effect at up to its power level in rank, with roughly twice its power level in power point value, although the GM is free to adjust this, if desired, including charging multiple Feature ranks

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INSTALLATION ARCHETYPES

STRUCTURE	SIZE	TOUGHNESS	BASE COST
Apartment (1 BR)	Diminutive	4	-4
Cottage	Tiny	6	-1
Townhouse/Brownstone	Tiny	6	-1
House	Small	6	0
Warehouse	Medium	6	1
Large Warehouse	Large	6	2
Mansion	Large	6	2
Cavern	Large	8	4
Cave complex	Huge	8	5
Castle	Huge	8	5
Skyscraper (4–6 floors)	Large	8	4
Skyscaper (whole building)	Gargantuan	8	6
Estate (includes Grounds)	Large (Colossal)	6	3
Village	Colossal	6	5
Complex (interconnected structures)	Colossal	8	7
Complex (massive)	Awesome	8	8
Satellite	Gargantuan	10	8

for particularly expensive power effects (with each additional Feature rank doubling the number of available power points, but not changing the maximum effect rank allowed).

Generally, installation powers should be things that focus on the installation itself or its grounds and not extending much beyond. Gamemasters should be cautious about allowing installation powers to have far-reaching use in the series unless they are agreed upon in advance. An example of this is a teleport or portal network, since it effectively gives every character with access to the installation the Teleport power at a substantial rank for virtually no cost! Gamemasters should approve all installation power effects and keep in mind that they are subject to the usual limitations of equipment. Feel free to have them break down at inopportune times, get sabotaged (especially by villainous foes aware of them), or cause other complications (like a teleporter affected by sunspots accidentally sending the heroes to a dangerous parallel Earth, for example).

DEFENSES

Installations may have defenses beyond just their Toughness and environmental systems. The most common is for some or all of the installation's Toughness to have the Impervious modifier (at the usual cost of 1 point per rank) making it largely immune to minor damage or attacks. This may come from hardened or super-science materials or special defensive force fields or the like.

Speaking of force fields, an installation may have them as well. They tend to take two forms: additional Sustained

Toughness, applied on top of the installation's normal rank, and a Create effect capable of producing shapes of solid force such as walls, domes, or cubes, perhaps even enclosing the entire installation. Unlike added Toughness, Create effects are independent objects, offering cover (and perhaps concealment) for anything behind them. An installation beneath a force dome (for example) cannot be damaged until an attack breaks through the dome and destroys it.

Lastly, an installation may offer ranks of Immunity beyond just the normal benefits of its environmental systems. For example, a mystic site may have inherent protection against malign magic, granting anyone there Immunity to Magical Attack (5 ranks). Similarly, an installation may be shielded against outside intrusion, providing Immunity to Teleport effects (and related Movement effects) for 5 ranks, preventing anyone from teleporting into or out of the installation. The Gamemaster approves Immunity effects assigned to an installation, just like any other.

TRANSPORT

While installations themselves are generally fixed (although see the **Movable** Feature, previously) they may offer different means of transporting people who use them.

The most common is simply for the installation to have the Dock, Garage, or Hangar Features and associated vehicles. See **Vehicles** for more on the possibilities here. A team vehicle tends to go hand-in-hand with a team headquarters as a primary mode of transportation.

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Alternately, the installation might have the ability to transport people. A Teleport effect may be a matter-energy "transporter," a series of spatial gateways, or some similar set-up, turning the installation into a "way-station" for sending people virtually anywhere.

Typically, such a system is both Extended and Limited to Extended, curtailing its use as a tactical option (since it leaves characters dazed and vulnerable for a round after teleporting). It may be further Limited to certain destinations, such as a linked series of teleport gates, booths, or transport tubes, meaning users cannot just teleport anywhere. Perhaps the system is only one-way: the teleporter in the installation can *send* characters to any destination within range, but cannot bring them back. They must either return under their own power, or use another teleporter in a different installation to send them back.

The same concept for a teleport system can also apply to various Movement effects, particularly Space Travel (for very long-range teleportation between planets and star systems), Dimensional Travel (for an interdimensional transporter or portal), and Time Travel (for an intertemporal transporter). These options may serve primarily as plot devices, and the GM should keep a close eye on their use, particularly time travel, depending on the settings rules for such. See the **Plot-Stopping Powers** section of the *Power Profiles* sourcebook for discussion on handling some of these powers effects in-game.

WEAPONS

Installations may be equipped with a variety of weapons systems, both external (to defend against assault) and internal (to use against invaders who have breached the installation's outer defenses). Unless the installation has the Computer or Intelligent Features, these weapons systems require operators, either directly firing the weapon, or controlling them from an interface within the installation.

Weapons can be virtually any attack effect allowed in the setting. The various weapon sections, particularly **Heavy Weapons**, may provide some inspiration and useful suggestions.

Generally speaking, the weapons of heroic installations tend to be non-lethal and aimed at restraining or harmlessly incapacitating targets, while the installations of less scrupulous and more ruthless owners may be quite lethal. Weapons used within the installation are likewise more likely to feature effects that will not severely damage the installation itself.

OTHER POWERS

Installations can have a range of other miscellaneous powers, particularly sensory effects representing external or internal sensor systems or equipment capable of performing scans or analysis. See the **Alien Sensors** section of the **Alien-Tech** section for some examples suitable for an installation.

The key thing to keep in mind for installation powers is: are they an integral part of the installation, or are they independent gadgets in their own right? For example, a scrying pool in a magical sanctum that provides Remote Sensing is an integral part of the installation (as it cannot be moved and must be used there) whereas a crystal ball that offers the same effect is more of a portable and Removable power, rather than something integral to the sanctum.

ALTERNATE EFFECTS

Just as with other power effects, an installation's powers may have Alternate Effects, usable one at a time (or in combination for Dynamic Alternate Effects). These usually represent "settings" on the installation's systems, or an allocation of resources like energy or processing power, distributed amongst different systems.

Unlike characters, some installation powers might not be best handled as Alternate Effects if they need to be usable all at the same time. An example is weapons: while characters often have arrays of attacks (usable one at a time), an installation may need to be able to use multiple weapons systems all at once to repel attacks from different sides.

INSTALLATION PERSONNEL

The Personnel Feature described in **Chapter 7** of the *Hero's Handbook* allows an installation to have a staff of personnel "commensurate with its size and facilities." What this means in practical terms is largely up to the Gamemaster, although the following guidelines may be helpful in describing and defining installation Personnel in game terms.

- Personnel should always be considered minions (per the rules given under Conflicts in **Chapter 8** of the *Hero's Handbook*). Non-minions should be regular non-player characters rather than personnel.
- Personnel should not be useful outside of the context of the installation for the most part. Underlings that accompany characters away from the installation should be acquired via Summon, Minions, or Sidekick.
- Personnel are subject to the power level limits of the installation and the series, and the GM may require them to be even lower level (6 or less, for example).
- Personnel can create complications for the owners of the installation, ranging from the need to protect them from potential harm (or rescue them from danger) to interpersonal conflicts or even betrayals.

The **Supporting Characters** from the *Hero's Handbook* and the **Minion Archetypes** from the **Gamemaster's Guide** can provide ready-made personnel suitable for particular installations (or ones easily "re-skinned" to suit).

INSTALLATIONS

Not all superheroic gadgets are technological—far from it, in fact. Some are actually products of magic, from enchanted weapons and armor to cloaks, amulets, or "techno-magic" items fusing modern technology with ancient sorcery.

The **Magic** guide looks at these magic items and their different uses in a MUTANTS & MASTERMINDS game.

MAGICAL ITEMS

As pointed out in the *Power Profiles* sourcebook, "magic" is a broad descriptor with a number of potential modifiers related to the type of magic in question.

Certain magic items may have additional descriptors to further define the type of magic associated with them, such as the magical tradition (divine, faery, hermetic, witchcraft, etc.), the magical "school" or purpose (divination, necromancy, sorcery), or the makeup of the item itself, such as adamantine, cold iron, hawthorn, and such, which can be quite relevant when dealing with certain weaknesses and vulnerabilities of magical beings.

UNIQUE VS. "STANDARD" ITEMS

Magic items tend to be unique—the work of particular enchanters— even if they fit into a general overall category. For example, while there may be many magical swords or weapons in the world, each one often has its own name, history, and particular qualities. Only in a setting with highly industrialized magic can you find a "standard magic sword" mass-produced like many modern commercial items.

This means magic items often have a particular character to them, different from conventionally produced technological gadgets. It's not just "a magic katana"; it is Grasscutter, the legendary creation of the Japanese gods, whose merest cut is potentially fatal. It is not merely "a magic wand," but the "Willow Wand of the Witches," wielded by generations of spell-workers; and so forth.

The main exception to this is the Artificing advantage (*Hero's Handbook*, **Chapter 5**), which specifically creates temporary and limited-use items. By their very nature, these things tend to have less individual character, although they might still carry a certain "signature style" able to identify their maker (with an appropriate Expertise: Magic skill check). Artificing tends to either place temporary enchantments on durable items (giving a weapon or armor a temporary bonus, for example) or else creates a short-term or single-use item, like a potion, powder, or talisman, that does that does its intended job, and then is used up.

TECHNO-MAGIC

While traditional magical items come from a pre-industrial civilization and are thus always hand-crafted things, that often is not the case when it comes to a superheroic setting where sorcerers may also be mad scientists, inventors, or hackers.

"Techno-magic" infuses technological items with magical powers or properties, allowing magic to take the place of super-science as a descriptor for gadgets with capabilities far

beyond those of modern technology. This can range from enchanted guns (perhaps designed to slay magical creatures) to magic armor or magical constructs, such as golems or animated skeletons or suits of armor (see **Robots** for details). Indeed, virtually any of the superscience items from other sections can be made into techno-magical devices with just the application of the right descriptors.

SUFFICIENTLY ADVANCED TECHNOLOGY

Of course, not everything that seems like magic actually is. Some characters in a MUTANTS & MASTERMINDS setting may possess technology so advanced—thought-controlled devices capable of manipulating matter and energy, for example—that they might as well be magic. This can include aliens, time travelers, and visitors from other dimensions. Their abilities might be mistaken for magic, or the characters could deliberately mislead others into thinking that they have magical powers. Sometimes, "it's magic" is the simplest explanation for what is, in fact, incredibly sophisticated technology that is difficult to explain to modern human "primitives," just as a modern person would have a difficult time trying to explain what a smartphone is and how it functions to a Stone Age primitive.

The difference between techno-magic and sufficiently advanced technology is that the former truly does incorporate magic, while the latter does not. This can come as a surprise when a true magic-wielder tries to dispel or banish the effects of an alien "wizard" or likewise when a dimension traveler discovers that there is such a thing as genuine magic, rather than just technological trickery!

ACTIVATION AND USE

While technological gadgets generally work for anyone who knows how to operate them, magic items may have particular restrictions on their use; in particular, items may have the Activation and/or Check Required flaws.

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Activation represents an item that requires more time to prepare than the usual action for its power effects. Magic items that take more than a standard action to prepare qualify for a full –1 point per rank flaw like the Slow flaw of the Variable effect (**Chapter 6** of the *Hero's Handbook*).

Check Required usually involves an Expertise: Magic skill check, representing the requisite knowledge to activate and use the item, although it could be another skill or even a trait like Will to represent "willful" items that require great mental strength to wield.

ARRAY ITEMS

Some magic items have a single purpose, and effects focused on that purpose, while others have an array of magical effects, possibly representing different spells, enchantments, or assembled items.

Array items may provide a base effect along with one or more Alternate Effects or they might simply offer Alternate Effects, requiring the user to have a base power (such as the Magic array described in **Chapter 6** of the *Hero's Handbook*) in order to provide the "power" to use the item's effects.

SPELLBOOK

While many magicians and magical traditions keep written records of spells and rituals, sometimes these spellbooks are useful for things beyond just referencing information. They may contain spells so potent that anyone reading out of the book can tap into their power—or, at least, anyone with some measure of mystical potential. Such a spellbook comes with the Power Loss complication: the user has to read from the book in order to access its powers. It may also have the Removable flaw, should the book ever be taken away.

Spellbook: Magic Array with Alternate Effects • 2 points per rank +1 point per spell (Alternate Effect)

CONJURE BAG

Similar to a spellbook, a conjure bag is a pouch, satchel, or even a deep-pocketed garment, from which can be drawn seemingly endless mystical talismans and trinkets to do the wielder's will. Some conjure bags can also store items, giving them the Dimensional Pocket power (see **Dimensional Powers** in the *Power Profiles* sourcebook).

Conjure Bag: Magic Array with Alternate Effects • 2 points per rank +1 point per talisman (Alternate Effect)

THE ARCANA OF SUMMONING

A set of 22 finely etched ivory plates of the major arcana of the Tarot, each card grants the power to summon, in turn, an avatar of that Trump, who will serve the holder of the card. The Arcana have been wielded for both good and ill over the centuries, and the Trump Avatars seems to care nothing for the intentions of their master, faithfully

doing whatever they are told. The card controlling a singular avatar is effectively Easily Removable, but the deck as a whole is simply Removable, and the loss of a single card does not greatly diminish its powers.

Arcana of Summoning: Summon Tarot Avatar 11 (165 points), Controlled, Heroic, Mental Link, Variable Type (General), Removable (–13 points) • 54 points.

OFFENSIVE MAGIC ITEMS

Common offensive magical items are enhanced versions of mundane weapons, usually with effects like Enhanced Fighting or Enhanced Damage, sometimes with an additional or different descriptor (such as turning a sword's slashing Damage into fire damage or mixed fire/slashing damage) or a Secondary Effect.

ABYSSAL TRIDENT

A savage-looking weapon of dark iron, an Abyssal Trident is both tool and badge of office for many Abyssal Lords and devils. It channels soul-searing hellfire at its wielder's command and can tear through the fabric separating the realms, allowing passage between worlds or bringing forth the denizens of those netherworlds (see **Demons** in **Chapter 3** of the *Gamemaster's Guide*).

A non-demon wielding an Abyssal Trident may gain great power, but usually acquires various complications, particularly a vicious Temper, and an Obsession with the weapon, and a gradual shift in motivation towards evil.

Abyssal Trident: Ranged Damage 12 (hellfire; AE: Close Damage 6 (Strength-based, piercing/fire), AE: Ranged Damage 8 (Alternate Resistance – Will)), Movement 2 (Dimensional Travel 2, Portal), Summon Demon Minions 8 (120 points, General Type), Easily Removable (–22 points) • 36 points

ANKH OF THE AVENGER

A massive golden warhammer in the shape of an Egyptian ankh, wielded by the earthly avatar of the god Horus the Avenger, the Ankh commands the light and heat of the sun itself and is a fearsome weapon in close combat. It also allows the wielder to soar through the depths of space or across the dimensions, and to pierce the veil of any illusion. Although Horus took the Ankh with him when he left earthly affairs behind, he might well loan or gift it to a worthy wielder.

Ankh of the Avenger: Ranged Damage 14 (fire and heat; Alternate Effect: Ranged Affliction 14 (blinding light; Resisted by Dodge, Overcome by Fortitude; Impaired, Disabled, Unaware; Cumulative, Limited to Vision), AE: Close Damage 8 (Strength-based, Penetrating 6), AE: Environment 14 (daylight)), Feature 1 (Instant Change), Flight 10, Immunity 10 (life support), Movement 4 (Dimensional Travel 2, Space Travel 2), Senses 7 (Vision Counters All Concealment and Illusions), Removable (Indestructible, –14 points) • 63 points

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GRASSCUTTER

A katana with a shining steel blade etched with graceful, bending lines like tall grass waving in the wind, *Kusanagi* (Grasscutter) is the creation of the gods of the Japanese pantheon.

So sharp is its blade that the slightest cut may prove fatal, continuing to bleed until the victim perishes or is treated with magic. Because of this, Grasscutter's Damage is not Strength-based, as force is not a factor in its effectiveness.

Grasscutter: Penetrating Damage 14, Secondary Effect (Affliction 14 (Resisted and Overcome by Fortitude; Impaired, Disabled, Dying), Progressive), Easily Removable (Indestructible, –27 points) • 43 points

MOONSLAYER

A late 19th century six-shooter made of black iron engraved with mystic symbols, the gun Moonslayer is always loaded with six rune-carved silver bullets capable of wounding or even slaying many magical creatures.

Lore has recently surfaced to suggest the gun is one of a pair and that the other, Sunslayer, fires wooden bullets that burst into flames upon impact; its fate is unknown.

Moonslayer: Ranged Damage 8 (ballistic, magic), Affects Insubstantial 2, Feature (silver bullets) • 19 points

DEFENSIVE MAGIC ITEMS

As with offensive items, defensive magic items are often enhanced mundane defenses, particularly magical armor and shields that provide greater bonuses, or otherwise ordinary items of clothing enchanted to provide Protection as it they were armor, such as normal looking cloaks or shirts the grant the Protection effect.

AMULETS

A common type of defensive magic item is an amulet, a small item intended to ward off a particular danger or form of harm. Amulets often take the form of necklaces, rings, charm bracelets, and other jewelry worn close to the skin. The effect of an amulet may range from providing the Second Chance advantage on resistance checks against a specific hazard through Enhanced Defenses (perhaps Limited to a specific hazard, perhaps not) to outright Immunity, Limited to Half Effect for some amulets, with the most powerful offering complete Immunity to their particular hazard.

GHOST SHIRT

In Native American tradition, a ghost shirt is a linen or buckskin shirt, enchanted to provide protection against weapons. In modern usage, virtually any garments which magically provide Protection.

Ghost Shirt: Protection • 1 point per rank.

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SECOND CHANCE RING

This metal finger ring, often engraved with symbols of life or infinity, provides its wearer with an opportunity to cheat death so long as it is worn.

Second Chance Ring: Immortality • 2 points per rank

WARDING BRACER

A warding bracer is a metal wrist-guard, used to block close attacks, and endowed with the magical ability to block more effectively than the wearer's normal level of skill.

Warding Bracer: Enhanced Parry • 1 point per rank

MOVEMENT MAGIC ITEMS

Magic can grant virtually any movement effect from the *Hero's Handbook*, and movement magic items tend to be focused on individual movement (with some exceptions, such as the **Magic Carpet**, following).

CONJURE CLOAK

A conjure cloak is created from the arts of the Wardens of the Dimension of Doors, a transitive mystic plane "between" other realities. The cowled cloak enables its wearer to "step" across space and dimensions as easily as crossing a room. Additionally, the conjure cloak can transport anything in its folds into a "dimensional pocket" and magically shed dirt and stains, even regenerating wear and tear over time, always remaining in pristine condition.

Conjure Cloak: Feature 1 (self-cleaning and repairing), Feature 10 (dimensional pocket, store up to rank 10 mass), Teleport 12 (Accurate, Change Direction, Change Velocity, Extended, Increased Mass 3; Alternate Effect: Movement 3 (Dimensional Travel 3)), Removable (–12 points) • 53 points

LEVITATION CLOAK

This high-collared cape allows its wearer to rise into the air and fly simply by willing it. Users beware: If the cloak is Removable (or subject to Power Loss), having it snatched away while in the air can result in a nasty fall!

Levitation Cloak: Flight • 2 points per rank

MAGIC CARPET

Like a levitation cloak for company, a magic carpet is an enchanted rug able to fly at its owner's command, bearing aloft additional passengers able to fit into a modified Line Area (10 feet by 15 feet). Larger carpets (with more Area ranks) can carry more passengers.

Magic Carpet: Flight, Affects Others, Line Area (modified, see description), Platform • *3 points per rank*

SEVEN-LEAGUE SHOES

The wearer of this magical footwear (or any of a number of similar items) can cross great distances with but a single step.

Seven-League Shoes: Teleport (Accurate, Easy) • 4 points per rank

GENERAL MAGIC ITEMS

The following is just a sample of the broad range of other magic items.

THE EYE OF ARGON

A darkling gemstone dating back to pre-cataclysmic Atlantis, the Eye of Argon houses a malign intelligence with a desire to experience worldly pleasures and the power to do so. It once possessed society reporter Amanda McKittrick in 1940s Freedom City, transforming her into the villainess known as Opal, a foe of the Golden Age Siren and the Liberty League. Kept under guard in the vaults of Atlantis, the Eye now patiently waits, calling out to those susceptible to its influence.

The Eye of Argon: Create Object 8 (energy constructs; Movable, Precise), Enhanced Advantage 10 (Attractive 2, Ranged Attack 8), Enhanced Dodge 8, Enhanced Parry 8, Enhanced Stamina 5, Enhanced Strength 4, Flight 8 (500 MPH), Immunity 10 (life support), Protection 3 (Impervious), Removable (–20 points) • 80 points

MASK OF THE MODROSSUS

The Mask—more properly a helm, covering the wearer's whole head—is a magical item of legendary power, transforming its wearer into a living avatar of the Modrossus, the greatest mystical force for order, and permitting the Three-Who-Are-One to work through the body of their avatar, who is ideally a practitioner of the mystic arts.

As those who have attempted to turn the Mask's power to evil have learned, the Modrossus punish those with the hubris to don the mask without their blessing. The presumptuous wearer must make a DC 30 Will resistance check against a Progressive Affliction (impaired, disabled, incapacitated) for each round the mask is worn. Those incapacitated by it are often driven permanently mad.

Mask of the Modrossus: Enhanced Advantages 7 (Benefit (guidance from the Modrossus), Fearless, Luck 5), Enhanced Awareness 10, Enhanced Presence 5, Enhanced Magic 20 (adds 20 points to existing Magic array), Enhanced Skill 5 (+10 Expertise: Magic), Immunity 10 (life support), Protection 8, Senses 9 (Cosmic Awareness, Detect Magic (Acute, Analytical, Extended 3, Ranged), Magic Awareness), Removable (-14 points) • 60 points

MEDALLION OF THE MODROSSUS

This silver clasp bearing the Mark of the Modrossus (a circle within a triangle) is part of the regalia of Earth's Master Mage. The Medallion is a powerful talisman of light and

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ARTIFACTS

In myth and legend, there are magical items far surpassing the powers of those described here, sufficient to grant any mortal wielder the powers of the gods themselves, or even more. These artifacts are pure plot devices, having no assigned game traits but capable of doing whatever is required to fulfill their role in the story. The classic example is a "wishing" item—from a genie's lamp to a magic ring—capable of doing anything its wielder wants. Artifacts often have a measure of awareness and agendas of their own, and some cause considerable complications for their owners, shifting their motivations or even transforming them altogether to suit the artifact's design.

This is not to say that artifacts are without limits. They often have particular quirks, such as a limited number of uses, or loss of their power under particular circumstances (such as during an eclipse or the dark phase of the moon, for example). Smart heroes can take advantage of any known limitations of an artifact, and an Expertise: Magic skill check might reveal them.

Villains often scheme to find or control artifacts, wielding their tremendous powers to further their own plans, while heroes try to stop them from unearthing "things man was not meant to know." Stopping a villain who has gained control over a mystic artifact can be a major challenge for a team of heroes and the climax of an adventure series.

Gamemasters should be careful to keep artifacts from falling into the hands of player characters. While they might be able to use a "liberated" artifact to undo any damage caused by the villains, they should be wise enough to understand that "absolute power corrupts absolutely" and resist the temptation to keep the item and continue to use it. If they cannot, feel free to have some mystical higher power intervene and take it away from them, hiding it away from the sight of mortals once more, at least until another would-be world-conqueror manages to find it again.

truth against the forces of darkness and chaos. When willed, it emits a pure blue-white light able to blind, read thoughts, or banish creatures of supernatural evil. Its power is limited, however, by the arcane knowledge and skill of its wielder, who must possess the Magic power (that is, an array of Alternate Effects with a magic descriptor). See the sample **Magic** power in **Chapter 6** of the *Hero's Handbook*.

Medallion of the Modrossus: three Dynamic Alternate Effects: Ranged Affliction (blinding light; Impaired, Disabled, Unaware), Cumulative, Limited to Vision; Mind Reading; Nullify Summon Supernatural Creatures, Perception Range), Removable (–1 point) • 5 points

THE PHILOSOPHER'S STONE

The legendary Philosopher's Stone is the ultimate instrument of alchemy. It has the power to transmute the elements, turning lead into gold, water into mercury, or oxygen into chlorine. The Stone itself appears fairly unremarkable: a polished grey rock that fits easily into the palm of the hand, although to those with Magical Awareness, the Stone is clearly a potent magic item, shining with power.

The Philosopher's Stone: Transform 11 (any element into any other), Easily Removable (–22 points) • 33 points

THE SCRYING STONE OF SIRRION

Some believe this obsidian sphere is the prototype for all "crystal balls" and seeing stones throughout history. Its purported creator, the archmage Sirrion, is known for discovering and codifying many of what would later be known as the fundamental structures of magic and artifice, so it's quite possible. The Scrying Stone has been a part of the inheritance of the Master Mage since Sirrion himself held the title. It rests upon a three-legged stand of dark metal, the sphere resting upon a metal ring, but rising up into the air when in use.

The Scrying Stone of Sirrion: Remote Sensing 20 (visual, auditory, mental; Dimensional), Senses 9 (Detect Evil 2, Detect Magic 2, Magical Awareness, Vision Counters Concealment and Illusion; Expertise: Magic Check Required, DC 13, –3 points), Removable (–14 points) • 53 points

THE SERPENT SCEPTER

A creation of the ancient Serpent Empire of pre-cataclysmic Lemuria, the Serpent Scepter is a roughly two-foot long rod of greenish stone, similar to jade, except infinitely harder. It is carved into the shape of four twining cobralike snakes, their fanged, open-mouthed heads facing away from each other at the top of the rod, just beneath a sun-disk shape.

The Scepter is infused with preternatural serpent magic. Amongst other things, it is indestructible to any known force. It has been hidden away in many places—the deepest trenches of the ocean floor, in warded vaults, and deep underground—but always the Scepter seems to find its way into the hands of those who can be corrupted by its power.

The Serpent Scepter can control the minds of humanoid creatures, and those under its sway undergo an inexorable transformation into reptilian Serpent People, first developing small patches of scales and golden eyes with vertical pupils, eventually shedding their outer skins altogether and becoming full-fledged Serpent People. Thus the Scepter's magic ensures the continuation of its people.

The Serpent Scepter: Perception Range Burst Area Affliction 20 (Resisted and Overcome by Will; Entranced, Compelled, Controlled; Extra Condition (controlled subjects undergo slow transformation into Serpent People with one resistance check per day), Progressive), Side-Effect (wielder suffers from complications and Extra Condition effect), Easily Removable (Indestructible, –31 points) • 49 points

MIGIC

Giant robots are a staple of the superhero genre, from the minions of supervillains to superheroes in their own right. The **Mecha** section looks at larger, particularly piloted, robots and how to create and use them in *M&M*.

The term *mecha* comes from the Japanese abbreviation for "mechanical" and technically refers to all kinds of mechanical or technological devices. The Japanese still use the term robot (*robotto*) for mecha with humanoid limbs. In the translation of Japanese *anime* and *manga* to the American market, *mecha* largely refers to stories involving giant (usually humanoid) robots.

For the purposes of this guide, mecha do *not* include form-fitting power armor of the type covered in the **Armor Powers** section of *Power Profiles*, although they may include larger "battlesuits" that are essentially humanoid vehicles carrying a pilot, rather than worn suits of armor.

MECHA DESIGN

Mecha are similar to both constructs and vehicles, as described in **Chapter 7** of the *Hero's Handbook*, vehicles since they may carry a pilot or even passengers, considered constructs due to their form, which is generally humanoid or otherwise based on a living creature.

Mecha are acquired with equipment points, the same as vehicles and headquarters: Each rank of the Equipment advantages provides 5 points to purchase the mecha's traits. Simply divide a mecha's point total by 5 and round up to determine how many Equipment ranks it requires.

MECHA POWER LEVEL

In most M&M series, mecha are subject to the same series power level limits as characters, and non-player character mecha have their power level derived from their applicable traits, just like other NPCs.

In a more mecha-focused series, the GM may wish to have two separate power levels: one for the mecha themselves, and another for their pilots, and other characters.

Example: In the Soul Mirrors series, humans use mecha to battle the Phyren, alien extradimensional energy beings. The GM sets the power level of the series at 12 for the Phyren and the human-piloted mecha designed to fight them, but chooses a power level of 6 for the mecha pilots and other human characters, and generally bans humans from having any powers outside of their mecha.

MECHA ABILITIES

Like constructs, mecha have their own ranks in Strength, Agility, Dexterity, Fighting, and Awareness. They have no ranks in Stamina, Intellect, or Presence by default. They have Dodge, Parry, and Toughness defenses, but no Fortitude or Will.

Strength is typically based on a mecha's size and the efficiency of its artificial "muscles". It determines close combat damage and lifting/carrying capacity.

Agility is the mecha's mobility or "handling" and determines its basic maneuverability and Dodge defense.

Dexterity is the mecha's precision for targeting as well as using its limbs. A mecha lacking manipulative limbs may still have Dexterity (for targeting purposes) but also a Disability complication.

Fighting likewise measures a mecha's precision with close combat attacks and its ability to evade the same.

Awareness measures the sensitivity of the mecha's sensor systems and ability to pick up and process information.

A mecha's abilities substitute for the pilot's, combining the controlling pilot's skill rank with the mecha's ability rank (subject to power level limits).

"Mecha" given Stamina ranks are bio-mechanical beings able to heal on their own, while mecha with Intellect ranks are intelligent and capable of independent action. They may also have Presence ranks, if they can interact with other creatures, and Intellect and Presence skills of their own.

MECHA AND ENVIRONMENTS

Mecha have no Stamina rank and Immunity to Fortitude Effects, meaning they have no life support requirements of their own and can, by default, function in any environment that does not cause direct damage (resisted by Toughness rather than Fortitude). The inability to function in a particular environment, or impaired function in an environment, may be considered a complication for some mecha.

Similarly, like vehicles, mecha are assumed to provide the benefits of their capabilities to their pilots and passengers; so long as they are enclosed within the mecha, they are immune to any environmental effects outside of it. Failure of a mecha's environmental systems may be a potential complication or the result of damage or stress to the mecha's systems (see **Mecha Stress and Damage**, following).

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MECHA STRESS AND DAMAGE

Having no Stamina, mecha are incapable of fatigue. They can, however, use extra effort as described in **Chapter 1** of the *Hero's Handbook*. Rather than fatigue, mecha suffer *stress*, much like equipment. Like characters, mecha have three distinct levels of stress: impaired, disabled, and immobilized. The circumstance penalties for impaired or disabled mecha apply to all checks utilizing the mecha's systems. Additionally, a disabled mecha is hindered (–1 to speed rank) much like an exhausted character. These conditions persist until the mecha undergoes maintenance to repair them (see **Repairing Damage**).

In some settings, the GM may also rule that extra effort involving mecha imposes fatigue on the *pilot*, just like an ordinary use of extra effort by that character. This is particularly appropriate in cases where the pilot is linked to the mecha in some fashion, such as a direct mind-machine interface or sympathetic magic.

Mecha suffer damage like characters but, like other constructs, do not recover from damage on their own unless they have Regeneration; they must be repaired otherwise. At the GM's option, rather than suffering a cumulative –1 Toughness penalty, mecha may suffer an impaired or disabled condition affecting one or more systems (sensors, weapons, environmental, and so forth). Damage to mecha systems may also be handled as a complication, particularly the long-term loss of a system, which can be considered a "lasting injury" (see **Chapter 8** of the *Hero's Handbook*).

At the GM's discretion, some mecha may be considered minions (*Hero's Handbook*, **Chapter 8**). This is particularly appropriate for large battles, where each successful attack takes out a target, and it's not worth tracking individual mecha damage.

REPAIRING DAMAGE

Repairing mecha damage requires the proper tools and a garage, hangar, or similar facility. A character without the proper tools suffers a –5 circumstance penalty on the Technology skill check, as usual. Repairing minor damage like a Toughness penalty is a simple check (DC 15, one hour), repairing a staggered result is a complex check (DC 25, one day). Destroyed mecha cannot be repaired; they are "totaled" and must be rebuilt from scratch.

JURY-RIGGING

When mecha suffer damage in an action scene, characters may need to initiate emergency repairs or bypass some of the mecha's systems. This is generally a Technology skill check with the DC based on the severity of the damage and/or the complexity of the system, as chosen by the GM. See the guidelines for jury-rigging repairs under the **Technology** skill in **Chapter 4** of the *Hero's Handbook*.

MECHA SIZE

By default, mecha should be at least size rank –1, big enough to enclose a size rank –2 human pilot. Smaller

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"mecha" tend to fall under the category of power armor (see the **Armor Powers** section of the *Power Profiles* book) unless the pilot is correspondingly smaller: A size rank –2 (human sized) mecha might have a size rank –4 alien pilot, for example.

This means mecha usually have 4 or more ranks of Permanent, Innate Growth, with the standard size modifiers applied to their traits. Mecha size does not modify Stamina (as they have none) but does affect Toughness. See the **Reference Tables** section at the back of the *Hero's Handbook* for a quick summary of modifiers by size rank.

MECHA MOVEMENT

Mecha have ground speed rank 0—modified by their size—at no cost. So a size rank 2 mecha has Speed 2 (base 0 + 2 for size). Many mecha have additional movement effects as well:

- Flight is common for mecha equipped with rockets or capable of morphing into aircraft (see Mechamorphs, following).
- Leaping may represent short-range "jump-jets" or enhanced lower limbs that allow mecha to make tremendous leaps.
- Movement effects are relatively rare for mecha, save for Space Travel (although, even then, mecha are more likely to be carried on board a starship than capable of space travel on their own). Environmental Adaptation may show up for mecha designed to operate in specific environments.
- Swimming suits "submarine" mecha designed to operate on or under water. Mecha may or may not be able to swim on their own, depending on their design capabilities. Not being able to swim may constitute a complication in some circumstances.

A mecha's movement applies to it and to its pilot, crew, and passengers, just like a character's movement applies to that character and everything he or she is wearing or carrying.

Mecha can have multiple movement modes, paying the full point cost for the most expensive mode, and acquiring the others as Alternate Effects of that primary mode.

Like a vehicle, a mecha's drive system (the exact mechanics of its movement) is left as a descriptor. Mecha fuel and power systems are also handled as descriptors and complications on the occasions when problems arise, the same as ammunition. See **Ammo, Batteries, and Charges** in the **Equipment** section of **Chapter 7** of the *Hero's Handbook*.

MECHA FEATURES

Mecha can have a number of Features. As with vehicles, "standard" features for a mecha, allowing it and its passengers to operate normally in its chosen environment(s), are included as descriptors at no cost. This includes things like environmental systems, safety harnesses, seating (or other accommodations) for the pilot and crew, internal lighting, and so forth.

Possible mecha Features include the following, which the GM should feel free to add to as needed:

- Advantage: The mecha has the equivalent of a combat or general advantage (see Chapter 5 of the Hero's Handbook). Mecha cannot have fortune or skill advantages (although their pilots may).
- Autopilot: The mecha is capable of self-piloting, moving on its own to follow simple pre-programmed instructions. Unless given additional ability ranks, treat the mecha's Intellect as -5.
- Cargo: The mecha has space to contain cargo inside
 of itself. It can carry a volume of cargo equal to its size
 rank +10. So a size rank 0 mecha can carry up to 1,000
 cubic feet of cargo (volume rank 10).
- Lifepods: The mecha's cockpit is capable of ejecting from its chassis and maintaining environmental systems for a time in order to allow the pilot/crew to escape the destruction of the mecha. Larger mecha capable of carrying passengers (see the following) have sufficient lifepods to accommodate as many as they can carry.
- Passengers: The mecha can carry people other than its pilot and crew. The mecha must be at least size rank 0 (enough to carry four passengers). Each additional size rank doubles the number of passengers.
- Remote Piloting: The mecha can be piloted remotely via telepresence, similar to the Communication Link effect of Senses and the Mental Link extra of Summon. Choose a sense type for the link, sensory effects targeting that sense type may interfere with or disrupt it.
- Transponder: The mecha has an IFF (Identification, Friend or Foe) system, sending out a signal other IFF transponders can read to identify the machine. In addition to being able to easily tell friend from foe on the battlefield, mecha with transponders can ignore the cover friendly targets normally provide to foes like the Precise Attack advantage.
- Vehicle Feature: Mecha may also have suitable vehicle Features (see Vehicles). The GM should approve any such Features.

MECHA POWERS

Like characters, mecha can have any power effect the Gamemaster approves. Mecha powers have their own descriptors and, like vehicles and headquarters, they are not necessarily limited to the same standards as equipment, unless the GM chooses for them to be (typically series where mecha are common and "standard equipment" for the heroes).

DEFENSES

Mecha rely on their basic Toughness and Defense ranks against attacks, but may have additional built-in defenses including (but not limited to): additional ranks of Protection

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(sometimes Impervious) as armor-plating and structural reinforcement, although the mecha's Protection could also be Sustained in the form of a force field or "defense screen" of some type. Some mecha have layered defenses of both types. Additional defenses might be ablative, having the Fades modifier and degrading during use until they are used up or repaired. Mecha defenses apply to all characters inside it, so a mecha with Immunity to Magical Attacks protects those inside from all such attacks, for example.

SENSORS

Mecha are assumed to have basic sensors roughly equal to a human's senses for the mecha's given Awareness. A low or negative Awareness rank suggests limited sensors while a higher Awareness rank means more detailed and accurate ones. Mecha can also have various Senses effects to represent exotic or unusual sensors outside of the human range, such as radar (Accurate Radio, often with ranks of Extended) and sonar (Accurate Extended Ultra-Hearing).

WEAPONS

Offensive effects serve for mecha-mounted weapons of all kinds, from high-caliber auto-cannons and missile batteries to blaster cannons and pulse lasers. See the **Heavy Weapons** section and the **Energy Weapons** section for plenty of weapons suitable for use with mecha and the guidelines on handling them in play.

MECHAMORPHS

In some settings, mecha have morphing or transforming abilities, either changing their form and function or merging to form even more powerful mecha out of their assembled parts.

MORPHING MECHA

Morphing mecha use the Metamorph modifier of the Morph effect (**Chapter 6** of the *Hero's Handbook*). The mecha can have Metamorph as a stand alone Feature and does not need Morph unless its transformation also serves to disguise it in some way, such as allowing the mecha to appear as an otherwise ordinary vehicle.

Mecha can have multiple Metamorph extras, allowing them to assume different configurations. All of the mecha's forms must be at least a minimum size for its pilot and crew. Mecha able to assume an especially wide range of forms may have a Variable effect rather than Metamorph; the mecha redistributes power points amongst its traits whenever it changes form. See the **Variable** effect in **Chapter 6** of the Hero's Handbook and the **Morphing Powers** section of the *Power Profiles* book for additional information and ideas.

COMPOSITE MECHA

A composite mecha is formed when two more smaller mecha merge to form another (usually more powerful) machine. This is essentially the same as the **Combine**

power from the **Summoning Powers** section of the *Power Profiles* book: a Summon effect costing 2 points per rank that requires all of the components be present to assemble the composite form and leaves the components unable to act on their own while a part of the composite form.

Divide the point cost of the composite mecha by 15 to determine the required Summon rank, then divide the needed ranks amongst the component mecha as evenly as possible. Typically, the "lead" or "head" component carries any remainder in the Summon ranks. The composite form may have a higher power level than its components, although it is still limited by the power level(s) set for the series (see **Mecha Power Level**, previously).

If the components can Combine in multiple ways (such as five mecha able to link together into five different combinations), make each additional composite form an Alternate Effect of the most expensive (and highest ranked) form. If the composite form can also morph—without the need to break apart and recombine—apply the guidelines for morphing mecha (previously).

Example: The three Starbird mecha can combine to form the Nova-Hawk, a more powerful mecha form uniting their powers. Nova-Hawk costs 150 points which, divided by 15, equals 10 ranks for the Combine (Summon) power. Starbird-Blue and Starbird-Gold each have 3 ranks, while Starbird-Red (the lead mecha) has 4, costing 6 and 8 points, respectively. The Starbirds take a standard action on their turns to combine and, thereafter, must act together as Nova-Hawk until they end the combination and break apart again (as a free action).

MECHA IN ACTION

The following rules deal with mecha interacting with each other and with other characters in action time.

MECHA PILOTING

As a default, mecha pilots use the Vehicles skill for checks involving operating and controlling mecha. The Vehicles skill may substitute for any Agility- or Strength-based skill check like Acrobatics or Athletics involving mecha as well.

MECHA EXPERTISE

If the GM prefers, Mecha can be made into an Expertise skill (Dexterity-based) distinct from Vehicles. For most *M&M* settings, however, using the standard Vehicle skill makes things considerably simpler.

UNTRAINED USE

The Vehicles skill cannot be used untrained and there is generally no "routine" operation of mecha, so characters untrained in the skill cannot pilot mecha unless the GM specifically chooses to allow it.

MECHI

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LINKED MECHA

For some settings and types of mecha, the Vehicles skill may not be needed or used. Mecha linked to their pilots and designed to mimic their movements, for example, may simply translate the pilot's own physical skills and movements into those of the mecha. This is a 0-point Feature (although the GM may choose to charge a Feature rank for it in settings where linked mecha coexist along-side more cumbersome ones piloted with the Vehicles skill).

REMOTE MECHA

With Remote Piloting (see **Mecha Features**) a pilot does not even need to be present to control the mecha! A remote pilot operates the mecha from a distance using a communications link. Difficulties can arise when a sensory effect disrupts this link, leaving the mecha unable to receive instructions. The Feedback flaw may apply to some types of remote piloting, particularly if the GM wants to ensure that mecha pilots are not completely insulated from the effects of combat.

MECHA COMBAT SKILLS

"Mecha Weapons" is a specialization of the Close Combat and Ranged Combat skills, with the default assumption that ranks of the Close Attack and Ranged Attack advantages apply to using mecha weapons as well as personal weapons. So attacks with mecha weapons use the mecha's Dexterity + Attack advantage (if any) + Mecha Combat Skill (if any). Some mecha weapons may also be Accurate, applying that bonus, or Area effect weapons requiring no attack check, except for a direct hit. See **Heavy Weapons** for details and examples.

The GM may choose to allow personal combat skills to apply to similar mecha weapons. For example, Ranged Combat: Guns might suit for firing a mecha-mounted gun, and Close Combat: Swords might apply for wielding the blade of a giant mecha. This is particularly appropriate when dealing with linked mecha (previously) which closely mimic their pilot's movements.

MECHA ACTIONS

Most skill checks to pilot or move mecha are move actions, unless specified otherwise. Controlling a mecha in operation requires a move action each round, and may require a skill check. Essentially the pilot's controlling move action translates into the mecha's move action to move or do something similar. Routine operation, such as walking along, or flying under normal conditions, does not require a check.

Linked mecha operate essentially like any other largersized characters with Growth, taking their regular allotment of actions (one move and one standard, plus a number of free actions) each turn.

MECHA COMBAT

Attacking a mecha is just like attacking a character. Mecha generally have an applicable size modifier included in



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their defense, and tend to be easier to hit than characters overall due to their size.

TARGETING OCCUPANTS

An attack against a mecha occupant is made like any other attack, except that a character inside a mecha benefits from cover and concealment provided by the mecha. See **Cover** and **Concealment** in **Chapter 8** of the *Hero's Handbook*. Note that crew and passengers completely enclosed in a mecha and not visible to attackers on the outside (complete cover) cannot be targeted by attacks, including perception ranged effects. Some mecha have windows or open cockpits, leaving the pilot visible (and subject to targeting). Treat this as a weakness complication when it comes into play (see **Chapter 2** of the *Hero's Handbook*).

MECHA MANEUVERS

Mecha use the same combat maneuvers as characters, found in **Chapter 8** of the *Hero's Handbook*. In particular the Accurate Attack, All-out Attack, Defensive Attack, Feint, Power Attack, and Slam Attack maneuvers may all apply to mecha.

WEAPONS LOCK

A mecha gunner can take a Ready action to achieve a "weapons lock" on a target. The attacker makes the attack check in advance. If it is successful, the weapon is "locked" and the attacker can make that successful attack automatically when using the readied action. If the attack check is unsuccessful, no weapon lock is achieved. The gunner

can choose to try again on the next turn or use the readied action to fire manually, making the attack check when the attack is made. Taking another action while holding a weapon lock breaks the lock, but the attacker still gets a +2 bonus, if making an attack check with that weapon in the next turn (like the aim action). Anything that conceals the target from the attacker's accurate senses also breaks the weapon lock.

Example: The pilot of an MF-15 Raptor (in fighter mode) readies an attack on an alien craft. The pilot makes the attack check, even though the attack is not yet initiated. The check result is successful against the alien ship's Defense so, as long as the Raptor pilot maintains the lock, she can fire on the enemy vessel and hit it with her readied action. She gets on the comm and says, "Alien vessel! I have a weapons lock on you. If you do not withdraw, I will open fire." Then she awaits their response, finger poised on the trigger....

SAMPLE MECHA

The following are some iconic examples of mecha. Each has its own power level and an Equipment Rank (ER) based on the number of ranks of Equipment advantage needed for that mecha. Feel free to modify and customize these mecha to suit your own games and to use them as archetypes and models for creating your own original mecha.

The pilot of this humanoid tank is a fearsome force on

SPECIAL TACTICS ARMORED UNIT

any battlefield: the STAU's size and strength allow for heavier armament than any individual soldier

SPECIAL TACTICS ARMORED UNIT

KERBERALTES

GADGET GUIDES ______MUTANTS & MASTERMINDS

could carry, with the maneuverability to move behind enemy lines and inflict maximum damage in lightning-strikes. STAUs are quite capable of operating on their own, but are more often deployed in small squads, making them even more effective. Models armed with non-lethal or crowd-control weapons may even be used by law enforcement, from police to federal organizations like AEGIS.

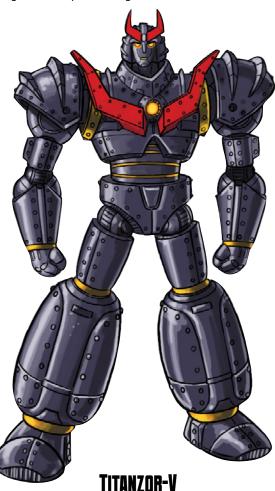
KERBERALTES

Its origin is unknown, its purpose a mystery, but Kerberaltes is the only thing standing between humanity and monstrous alien invaders, and able to banish them to a limbo dimension.

Kerberaltes charges a high price for its protection: the pilot of this mystic guardian risks his or her very soul. Kerberaltes' pilot suffers Feedback from damage to the mecha and a Side-Effect (Weaken Will, DC 20) when rolling a natural 1 or 20 while operating the mecha.

TITANZOR-V

Titanzor-V serves the cause of justice, deployed by an elite team of international crime fighters to thwart the schemes of the enemies of peace, from artificial earthquakes to sabotaged nuclear plants and giant monsters.



SPECIAL TACTICS ARMORED UNIT PL8/ER18

STR 8 STA — AGL 0 DEX 2 FGT 4 INT — AWE 0 PRE -

Powers: Armor (Protection 6, Impervious Toughness 8); Construct (Immunity 30 (Fortitude effects)); Large (Growth 4, Permanent, Innate); Pulse Rifle (Ranged Damage 8, Multiattack, AE: Rocket Launcher (Burst Area Ranged Damage 8)); Sensor Suite (Senses 6: Accurate Radio [radar], Extended Hearing, Extended Vision, Infravision, Radio)

Typical Pilot Traits: Close Combat: Mecha 4 (+8), Ranged Combat: Guns 6 (+8), Vehicles 8 (+10), Fortitude 5, Will 5

Offense: Initiative +1, Pulse Rifle +8 (Ranged, Damage 8), Unarmed +8 (Close, Damage 8)

Defense: Dodge 6, Parry 6, Fortitude Immune, Toughness 10, Will Immune

Totals: Abilities –10 + Powers 84 + Advantages 0 + Skills 0 + Defenses 12 = 86

KERBERALTES

PL11/ER28

STR 14 STA — AGL 5 DEX 5 FGT 6 INT — AWE 3 PRE -

Powers: Armor (Impervious Toughness 8); Gargantuan (Growth 12, Permanent, Innate); Construct (Immunity 30 (Fortitude effects)); Dimensional Fist (Strength Damage Affects Insubstantial 2); Dimensional Vortex (Cone Area Affliction 11, Resisted and Overcome by Will; Dazed, Stunned, Transported, Affects Insubstantial 2); Sensors (Senses 10 (Accurate, Acute and Ranged Detect Aliens, Communication Link (pilot's best friend or significant other), Radius Vision (All), Vision Counters Concealment (Invisibility)); Shield Generator (Sustained Protection 4, Impervious, Fades); Wings (Flight 6 (120 MPH))

Typical Pilot Traits: Close Combat: Mecha 2 (+8), Ranged Combat: Guns 4 (+9), Fortitude 6, Will 8

Offense: Initiative +5, Dimensional Fist +8 (Close, Damage 14 Affects Incorporeal), Dimensional Vortex (Close, Cone Area Affliction, DC 21 Will)

Defense: Dodge 6, Parry 6, Fortitude Immune, Toughness 16 (12 without shields), Will Immune

Totals: Abilities 12 + Powers 115 + Advantages 0 + Skills 0 + Defenses 13 = 140

TITANZOR-V

PL13/ER27

STR 16 STA — AGL 2 DEX 4 FGT 4 INT — AWE 1 PRE -

Powers: Armor (Impervious Toughness 16); Atomic Beam (Ranged Damage 13, radiation; AE: Cone Area Damage 13; AE: Rocket Fists, Ranged Damage 13, bludgeoning); Colossal (Growth 16, Permanent, Innate); Construct (Immunity 30 (Fortitude effects)); Features 4 (Cargo, Instant Up, Lifepods, Power Attack); Jump Jets (Leaping 8 (1 mile)); Sensors (Senses 6 (Extended Vision, Radio, Vision Penetrates Concealment))

Typical Pilot Traits: Close Combat: Unarmed 6 (+10), Ranged Combat: Mecha Weapons 8 (+12), Vehicles 10 (+14), Fortitude 6. Will 6

Offense: Initiative +2, Atomic Beam +12 (Ranged, Damage 13), Rocket Fists +12 (Ranged, Damage 13), Unarmed +10 (Close, Damage 16)

Defense: Dodge 4, Parry 4, Fortitude Immune, Toughness 16, Will Immune

Totals: Abilities –8 + Powers 125 + Advantages 0 + Skills 0 + Defenses 18 = 135

The visions of early science fiction and comics revolved around "big iron"—technology that was larger, more impressive, and more powerful. More recent technology and fiction have focused on the power of technology that is smaller—a lot smaller. Nanotech puts control over the basic building blocks of matter into the user's hands, able to create—or destroy—on a scale that is anything but small.



in the *Hero's Handbook*, taking minutes or hours rather than occuring instantly.

NANOTECH INVENTION

Some of the more "industrial" uses of nanotech, particularly in the areas of fabrication, are better suited to the work of inventors, as detailed in **Chapter**7 of the *Hero's Handbook*, unless nanotech is actually a commonplace technology in the setting.

DESCRIPTORS

Nanotechnology, or just **nanotech** for short, is the manipulation of matter on the molecular and atomic scale, and also the technology capable of doing so. Individual pieces of nanotechnology—microscopic robot—are often referred to as **nanites**, although **nano** is also used to refer to the components and the technology as a whole.

Monofilament is a strand of nano-scale material, making it capable of cutting through virtually anything by passing between its molecules. Functional monofilament is assumed to be strong enough to withstand use, although it does not need to support a great deal of weight (since it slices through anything it touches).

Smart Matter uses nanotechnology to create objects capable of changing according to their environment. A smart matter building, for example, might not have regular doors or windows, but would "grow" them as needed, possibly fast enough to anticipate the needs of a person walking towards an otherwise solid wall. **Programmable matter** is similar, except it only changes based on programmed instructions rather than reacting or adapting to changing conditions. Adaptable superhero costumes may be smart matter—like the "morphic molecules" from the *Freedom City* setting.

Nanotechnology is true super-science. It can only be considered equipment in a setting with *extremely* advanced technology. In most *M&M* settings, it functions as a descriptor for various powers, much like any other descriptor. Some of the uses for nanotechnology described in the following sections are more properly associated with its widespread use, but can be found as power effects in headquarters, for example, and the GM may wish to consider some of them as Features for headquarters, vehicles, or similar resources.

Given nanotechnology's uses in shaping (and reshaping) materials, you may find the powers and information in the **Illusion Powers** and **Morphing Powers** sections of the *Power Profiles* book useful, particularly the guidelines on the Create and Transform effects. Nanotech effects may have the Slow flaw from the Variable effect

This works like any other use of Inventing: the inventor makes a design check, followed by a construction check to actually produce the invention, creating something good for a particular use. Since nanotech often requires extremely specific programming and design, this makes it well suited to the inventing process.

Example: Daedalus, called in to help repair a badly damaged Kid Robot, feels that a nanotech bath is the way to go. Ordinarily, the Kid's damage would be beyond conventional technology, but nanites can effect repairs on the molecular level. Daedalus' player suggests a minimal (rank 1) Regeneration effect, with Affects Only Objects and Persistent, costing 2 power points total. The DC 12 Technology checks are routine for someone of Daedalus' skill so, with ten hours' work, Daedalus has the repair bath ready to go and flips the switch with a hopeful group of Sentinels standing by.

Failed design or construction checks involving nanotech can lead to all kinds of complications. See the **Rogue Nanotech** sidebar for a worst-case scenario.

NANOFABRICATION

The primary purpose of nanotechnology is in manufacturing, building things from the "bottom up". Nanofabrication can take a number of different forms.

NANOFABRICATORS

A nanofabricator consists of a holding tank with feeds for raw materials (usually in liquid suspension) and nano assemblers. The assemblers are programmed with a construction pattern via a control interface, then set to work, taking the raw materials and assembling them so the desired item essentially "grows" inside the tank until it is completed.

In *M&M* game terms, a nanofabricator is a Permanent, Innate, Subtle, Create effect (using "transmuted bulk matter" as the effect descriptor), possibly with the Limit

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that the process is relatively slow, requiring minutes rather than a few seconds (a standard action). The fabricated objects are real for all intents and purposes, although they have no visible seams, welds, or other signs of being manufactured unless the fabricator is programmed to duplicate such things in order to make its goods appear more "mundane" or "low-tech".

Since a nanofabricator can potentially make anything, provided it has the right program and the necessary materials, Gamemasters may want its owner to have ranks of Benefit (Wealth) to reflect access to such a wide range of goods, including manufacturing diamonds out of base carbon, for example.

Nanofabricator: Create Objects (Innate, Permanent, Subtle) • 2 points + 2 points per rank

REPAIR NANO

In addition to making things, nanotechnology can more effectively repair them, mending cracks, breaks, and other damage seamlessly, such that the item is as good as new. This is a basic Transform effect (costing 2 points per rank) and is Continuous, since the repair is permanent, requiring no maintenance from the nanotech once it is complete. Of course, nanotech with broader Transform capabilities can still do repairs, particularly at 5 points per rank, where it can transform any material into any other kind of material.

Repair Nano: Continuous Transform • 3 points per rank.

SCAVENGER NANO

Uniting the qualities of fabricators and repair nanotech, scavenger nano breaks down available materials in order to construct new items according to its instructions. Amongst other things, it is an effective means of "smuggling"—the scavenger nano can take a collection of scrap metals and plastics, for example, and turn them into equipment for a thief, commando, or assassin. The original materials are consumed in the process of producing the new items.

Scavenger nano can be an explanation for on-hand equipment (**Chapter 7** of the *Hero's Handbook*): it's easy to justify having an item if you can make things virtually at will!

Sophisticated scavenger nano may even by able to use living creatures for raw materials (see **Disassemblers** and **Transforming Nano** under **Nano Weapons**).

Scavenger Nano: Continuous Transform (raw materials into finished goods) • *5 points per rank.*

LIVING MATERIALS

A step up from nano repair, items may be built with active nanites still in them, allowing them to repair themselves when damaged, consuming outside materials or resources as needed to do so (as well as gathering back their own damaged or broken parts). So long as their nanites continue to function, living materials

ROGUE NANOTECH

One of the nightmare scenarios of nanotechnology is the "grey goo"—self-replicating nanites capable of scavening building materials from virtually anything, including the carbon and other essential elements found in living creatures. Unleashed in an environment, they would replicate out of control, consuming local matter to build more of themselves, which would continue to consume and replicate exponentially. Such rogue nanites could potentially consume an entire planet! The destructive potential of rogue nanotech makes it a useful doomsday weapon for a villain looking to blackmail or destroy the world. It can also be the unintended result of otherwise useful nanotech that mutates or develops flaws in its programming. A grey goo outbreak is a disaster worthy of a challenge sequence for a group of heroes looking to stop it. See the guidelines for challenges in **Chapter 5** of the *M&M* Gamemaster's Guide, keeping in mind that the technological nature of the disaster allows for a combined approach between more physical heroes trying to contain the damage and more intellectual ones looking for approaches to neutralize the rampaging nanotech.

will essentially last forever, as new as the day they were manufactured.

For complex items like vehicles and headquarters, Gamemasters may wish to treat this self-repair capability just like the Regeneration effect but, for most items, being made of living material is essentially just a Feature rank that says the item cannot easily be destroyed and that it will recover from damage, given time.

Living Materials: Feature 1 (recovers from damage) for most items, Regeneration for constructs, headquarters, vehicles, and more complex items • 1 point or 1 point per rank.

MIRACLE FOG

Miracle fog is made up of tremendous numbers of nanites, capable of aerostatic movement, such that they normally appear as a fine mist hanging or slowly moving through the air. On command, the nanites can interlink to form whatever solid shapes the user wishes, with a wide range of textures and density, from a chair to a cloak to a tool or weapon. They use local matter to replenish themselves as needed.

Miracle fog is one of the ultimate expressions of nanoassemblers: able to create virtually anything in an instant out of "nothing". In extremely advanced cultures, miracle fog may, in fact, be the only material, since it is able to make or become anything else on command.

Miracle Fog: Create Items (Continuous, Movable, Precise, Subtle) • 2 points + 4 points per rank.

PERSONAL NANO

Nanotechnology offers considerable options for either modifying human biology or providing extensions to it, "wearable" materials that integrate themselves so much that they are effectively a part of the user.



NANOSUITS

A nanosuit is a mass of nanites able to flow over the surface of a wearer's body, functioning like a second skin. At a minimum, a nanosuit provides life support for the wearer and protects against attack. On command, it can retract into the form of a belt, collar, or the like, flowing back into a full body covering again when needed.

Nanosuits can be programmed with a wide range of other capabilities, any that other suits of armor or battlesuits might have. See the **Armor** section of this book, and the **Armor Powers** section of *Power Profiles* for additional ideas. Their metamorphic abilities may also give nanosuits considerable powers, such as Adaptive Immunity from The **Meta-Powers** section of *Power Profile* or some powers from the **Morphing Powers** section of that book (keeping in mind that it is the suit that morphs, not the wearer).

Nanosuit: Immunity 10 (life support), Protection, Activation (move action) • 9 points +1 point per rank.

GUARDIAN NANO

Nanites in your bloodstream enhance your immune system, protecting you against both biological pathogens and hostile nanites that might infiltrate your body. This is one of the most benign and passive forms of personal nano, and may be quite common in civilizations where the technology is routinely available.

For an added Feature rank, your guardian nano also reports to you when it performs its duties via a neural

communication link, so you know when it stops an invader and what it was, which may alert you to otherwise undetectable environmental hazards or attacks.

Guardian Nano: Immunity 5 (immune-system effects) • 5 points +1 point for optional reporting Feature.

NANO REGENERATION

Repair nano (previously) in a living creature's system grants the ability to regenerate from damage at an accelerated rate. A creature may require additional sustenance after a bout of regeneration to replace biological supplies used up in the process, and may exhibit elevated body temperature or perspiration (like a mild fever) due to the waste heat it generates. These are just descriptors unless they cause an actual complication in play (in which case award a hero point, as usual).

Nano Regeneration: Regeneration • 1 point per rank.

NANO HEALING

You can inject or introduce repair nano into another creature's system, healing injuries and repairing damage. If the nano is programmed to work on both biological life forms and things like machines, apply the Affects Objects modifier. Nano Healing may have all the various extras of the Healing effect, up to and including Resurrection for nano able to revivify the recently deceased.

Nano Healing: Healing • 2 points per rank.

NANOTECH

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NANO METAMORPHOSIS

Beyond repair, nanites can rebuild your body in an almost endless variety of different ways. At the most basic level, metamorphosis nano can serve as an origin descriptor for various body modifications: it can cause genetic changes that lead to various powers, or it can "grow" technological implants within the body without the need for surgery (see **Cybertech** for details on implants). This is just an origin descriptor; the actual powers the nanites engineer may be of a wide range, from biological and technological to psionic and more.

Symbiotic nanites can also allow a biological creature to change shape and appearance. This might be a simple Morph effect (with or without the Metamorph extra) or a more full-fledged form of shapeshifting. See the **Morphing Powers** section of the *Power Profiles* book for details on different metamorphic powers nanites might enable.

Nano Metamorphosis: Descriptor or suitable morphing power • *Cost per power description.*

NANO BACKUP

Nanites create a comprehensive "map" of your body, including your brain and all of its biochemically encoded information (your memories) such that a nano assembler tank can recreate you in the event that you are killed, even if your body is completely destroyed. You are restored to the state of your last "backup," which may be before the time of your death, if the backup system requires periodic visits or is otherwise not constant. This is generally just a part of the backup system's Limit, although it can be considered a complication at times (leaving important gaps in your memory, for example). The default time to "activate" a backup is two weeks, additional ranks improve this to as little as a few seconds to assemble and awaken a new, duplicate body.

Nano backup systems typically have some programming safeguards in place to prevent the system from simply duplicating you while you are still alive, but theoretically the system can also create *copies* of the still-living you, which the GM may choose to treat as a Heroic Permanent Summon effect, although it is more likely to be a complication when it occurs unexpectedly during a story.

Nano Backup: Immortality, Limited to nano assembler site and backed-up information • 1 point per rank.

NANOBLOOD

You replace the ten or so pints of blood in your body with silverly liquid nanotech, each individual machine smaller than a blood cell. The nanoblood completely replaces the normal functioning of your biological blood and provides you with complete life support as well as the benefits of guardian nano and nano regeneration (previously).

Depending on its programming and sophistication, nanoblood may grant many other powers. It could flow

outward, passing through your muscle and epidermis, to extrude a nanosuit around you. Extruded nanites can function like miracle fog (previously), forming into different items, or can grant you a version of the Mechamorph capability of a nanobot (following), limited to reshaping your exterior nanosuit with different technology. You may be able to extrude nano weapons or sensors as well (see the following section), making nanoblood into a descriptor for a whole range or array of nanotech powers.

Nanoblood: Immunity 15 (life support and immune-system effects), Protection, Regeneration • 15 points +1 point per rank each of Protection and Regeneration.

NANOBOTS

A nanobot is a construct (*Hero's Handbook*, **Chapter 7**) made up of a mass of nanites, giving it considerable control over its form and function by rearranging its structure. In its transitional state, a nanobot may resemble a silvery liquid like mercury or even a mist like miracle fog (previously).

With a standard action, a nanobot can shift its Variable points to any physical traits that suit its form. This may include some traditionally "mental" traits like Awareness, represented by improved sensors and the like, at the GM's discretion. It can also acquire various physical power effects by creating the necessary hardware or shape. A nanobot able to reconfigure more quickly applies the Action extra to its Variable effect.

Nanobots typically have Nano Regeneration (previously) in addition to their other traits, making them self-repairing and difficult to disable for very long. See the Morphbot archetype in the **Robots** section for a fully detailed nanobot.

Nanobot: Construct (Immunity 30 (Fortitude effects), No Stamina rank), Insubstantial 2 (gaseous), Nanomorph (Morph 4, Variable) • 50 points + 7 points per Variable rank.

NANO WEAPONS

With the ability to affect objects, including living creatures, on the most fundamental scale, there a numerous applications for nanotech as a powerful weapon.

DELIVERY SYSTEMS

Nano weapons can use of one several different delivery systems, which affect the weapon's range and the modifiers (if any) applied to its effects:

- Contact: The attacker must touch the target, indicating the nanites are emitted from the attacker's body or outer layer of clothing, or a similar dispenser wielded like a close combat weapon. Ranged contact nano may be contained in capsules similar to paintball pellets, released on impact with a potential target.
- Spray: A sprayer disperses a mist containing the nanites in a Cone Area.

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 Stream: A sprayer or nozzle projects a stream of nanites in a Line Area.

 Cloud: The nanites are released in a Cloud Area around a point of impact or attack. For grenade-like munitions the attack may be Ranged as well.

MONOFILAMENT BLADE

A nano-scale wire is bonded to or built up on the edge of a blade, making it almost impossibly sharp.

Monofilament Blade: Penetrating Damage • 2 points per rank.

MONOFILAMENT WHIP

A monofilament whip (also known as a monowire whip or "monowhip" for short) is a length of nano-scale wire on a spool contained in a grip or handle with a small weight at the end of the wire to impart momentum and control. The wielder of a monowhip swings it through the air, the wire cutting into (and through) anything it touches.

A monowhip is an extremely dangerous weapon to wield, since a mishap can cut the wielder just as easily as anyone else. If all of the targets of a monowhip succeed on their Dodge resistance checks, the wielder must make an immediate Dodge resistance check against (10 + the monowhip's Damage rank) to avoid being damaged by it. A failed Dodge check means a normal Toughness check against the whip's damage.

Monofilament Whip: Burst Area Selective Penetrating Damage, Side-Effect (damages wielder) • 3 points per rank.

TOXIC NANO

Toxic nano functions in the body like a highly efficient poison or pathogen, creating specific, programmed conditions. It only affects living, biological creatures, although similar "toxic" nano can be designed to affect machines, causing various "symptoms" and conditions (with the Affects Objects extra).

Toxic nano has the additional advantage of being difficult to treat, given that it is not an actual poison or disease organism, and thus won't respond to treatment for them. Gamemasters may wish to consider the conditions Incurable because of this. Unlike regular toxins, toxic nano can be programmed to ignore certain targets (or only go after certain targets) making it Selective.

Toxic Nano: Progressive Affliction (Resisted and Overcome by Fortitude; conditions vary) • 3 points per rank.

NANO DISASSEMBLERS

Disassemblers simply break down the target, eating away at its structure until it collapses or dissolves. Like toxic nano, disassemblers can be made Selective, and often are, since they will otherwise indiscriminately break down *everything* in their target area.

Nano Disassemblers: Progressive Weaken Toughness, Affects
Objects, Incurable, Limited to 1 rank per failed check

• 1 point + 3 points per rank.

TRANSFORMING NANO

Rather than poisoning or breaking a target down, nanite infiltration can also transform targets, literally rebuilding them from the inside out. This is often slow compared to the other effects—the Affliction may be Limited to just one check per hour or day—but does not need to be. If the "transformation" is rewriting or reprogramming the target's brain, the final condition might be controlled rather than transformed.

Transforming Nano: Progressive Affliction (Resisted and Overcome by Fortitude; Dazed, Stunned, Transformed)

• 3 points per rank.

NANO SENSORS

Apart from its capabilities to create (and to destroy), nanotechnology can also revolutionize surveillance and sensors.

SMART DUST

Smart dust is a virtually invisible cloud of nanites capable of collecting and transmitting data.

Smart Dust: Remote Sensing • 1-5 points per rank.

SENSOR CLOUDS

Nanite sensors can surround a "host" character in an invisible cloud, providing various Senses effects, including radius senses, danger sense, even ranged touch senses.

Sensor Clouds: Senses • 1 point per rank.

NANOTRACKERS

Nanites in a target's system serve as tracking transmitters.

Nano Trackers: Feature 1 (tracer) • 1 point.

Although many of the gadgets used by comic book characters can be considered "powers" in their own right, some gadgets are specifically focused on interacting with super-powers in different ways: enhancing them, weakening or blocking them, or granting them to those who might not otherwise have them.

The **Powers** guide looks at these types of gadgets and how they can affect the powers of characters in your own *M&M* adventures.

POWER DESCRIPTORS

As the *Power Profiles* sourcebook attests, the definitions and descriptors around "powers" can be quite broad, sometimes including extraordinary capabilities that are the result of training, talent, luck, or skill rather than "power" per se. The descriptors power gadgets are most concerned with fall into two categories: effect and source.

- Effect descriptors involve what a power does, such as burning (or heat), force, information, mind, motion, and so forth. Some power gadgets are focused on dealing with particular effects, regardless of their source.
- Source descriptors are about where a power comes from, like magical, mutant, psionic, and so forth, largely regardless of what the power actually does. Some power gadgets focus on dealing with powers coming from a particular source, like enhancing all mutant powers, or nullifying all psionic ones.

In some cases, a power gadget may have both effect and source descriptors to narrow its focus, such as a mind shielding device that only protects against psionic (source) mind reading (effect) but that provides no benefit against a magical mind-reading spell or a psionic emotion-projection effect, for example. Such gadgets have narrowly defined power effects or are Limited to those effects to reflect these descriptors.

INDEPENDENT MODIFIERS

In addition to adding or removing (or at least deactivating) powers wholesale, power gadgets often serve to modify existing powers in various ways, usually adding ranks of effect, providing extras, or removing (or reducing) flaws. These modifications, independent of the power itself, are called *independent modifiers* and have some special circumstances to consider.

ADDITIVE RANKS

Making the power ranks of a gadget additive with the ranks of the user's existing powers is a +0 "Additive" modifier, similar to Strength-based Damage. Technically, this would also make the device Limited to users with that power effect but, since this flaw does not apply to the primary intended user(s), it is not really a flaw and, since it also ensures the device is difficult to use against its owner, it counts as a net +0 modifier. Additive ranks are not usable on their own: if the

user of a gadget lacks the effect, then the gadget's extra ranks are unavailable, just as a character with no Strength cannot use a Strength-based Damage effect.

Additive ranks of effect may have their own particular extras and flaws applied to them to reflect the benefits and drawbacks of the added power. For example, Additive ranks might Fade with use, or cause the power to become Uncontrollable. Extras applied to Additive ranks apply solely to those ranks unless an additional amount is allocated to cover the ranks of the user's power as well.

Example: The mento-intensifer helmet has Mind Reading 2 (Additive, Cumulative, Effortless), costing 4 points per rank or 8 points. It also costs 20 points to apply the Cumulative and Effortless modifiers to an additional 10 ranks of Mind Reading possessed by the wearer.

ADDITIVE EFFECTS & POWER LEVEL

An important factor to consider with additive effects is the series power level, which does apply to the additive ranks. Thus, if all of the player characters are "maxed out" in terms of the power level limits, a character will most likely operate at the series power level with the additive ranks and below the power level without them.

The Gamemaster is free to bend the power level limits as desired when it comes to temporary additive ranks that might come into play, particularly from things like inventing (see **Chapter 7** of the *Hero's Handbook*). Some stories might call for a waiving of the power level limits where an invention or plot device is intended to increase a hero's capabilities to a higher (often *much* higher) rank for a particular purpose, rather than a permanent or ongoing modification.

Example: Daedalus whips up a pair of energy-boosting gauntlets to significantly increase Firepower's thermal projection. Although his Damage rank is already at the series power level limit, the GM allows a 6-rank increase, knowing the gauntlets will burn out after one use, after Firepower has gotten the job done.



REDUCED RANKS

Power restraining devices may be designed to subtract ranks of different powers, rather than add them. While most power restraining devices rely on the Nullify effect (see **Power Nullification**, following) some might use the Weaken effect to remove ranks from powers. The key difference is that Nullify is all-or-nothing (a power is either nullified or it isn't) while Weaken completely eliminates some powers (reducing their rank to 0) and weakens others, reducing their effectiveness, even if they are not completely eliminated.

EXTRAS

Rather than (or in addition to) adding ranks of effectiveness, power gadgets may enhance an existing power with extras, such as a "geolocator band" that grants a teleporter the Accurate, Change Direction, Change Velocity, and Turnabout extras.

Flat extras simply pay their regular cost, or as many ranks as desired for those available in ranks. Per rank extras must pay for a number of ranks the extra will benefit; if the user of the gadget has more ranks than it covers, the additional ranks do not benefit from the extra. In the prior example, if the geolocator bank provides 10 ranks of Accurate, then a wearer with Teleport 13 can only accurately teleport within distance rank 10 (18 with an Extended Teleport). The additional 3 ranks of Teleport do not benefit from the extra.

ALTERNATE EFFECTS

Among the extras a power gadget can provide is Alternate Effect, either adding additional Alternate Effects to an array or turning a regular power into an array by adding Alternate Effects to it. An example of the former is a spellbook (see **Magic**) that provides additional spells for an existing Magic array. An example of the latter is an energy-channeling item able to take the basic energy of a wielder's Damage effect (with a suitable descriptor) and turn it into various other effects.

Independent Alternate Effects work just like other applications of the extra, save that they rely upon the device. Without it, the character loses access to its Alternate Effects (and may no longer be able to maintain any currently operating ones, depending on the descriptors). Independent Alternate Effects can be Dynamic, if the base effect is Dynamic or if the gadget includes an extra rank of Dynamic to apply to the base effect.

FLAWS

Independent modifiers interact with flaws in two ways: either applying a flaw to a power that does not usually have it, or removing a flaw from a power, so long as the independent modifier is in place.

Flaws applied to additive ranks in a power are in effect so long as those added ranks are in use. For example, an energy booster that provides Ranged Damage 4 (Additive,

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Tiring) means the user suffers a level of fatigue when using the added ranks.

Removing a flaw from a power using a gadget turns that flaw into a removable modifier (see the following).

REMOVABLE MODIFIERS

Independent modifiers may themselves be modified by the Removable flaw, representing modifiers that can be taken away in some fashion. In this instance, the Removable flaw applies to the modifier itself, rather than the power as a whole.

Example: The mento-intensifier helmet has 28 points worth of independent modifiers. It is also Easily Removable, for a modification of –12 points in cost, making the helmet's final cost 16 power points but, if it is snatched off the wearer's head, all of the extras it provides are lost.

The Removable modifier can also be applied to points spend to eliminate a flaw, reducing their cost, and making the flaw worth a fraction of its normal value.

Example: Psyche's rank 8 Mind Reading power is Uncontrolled, but she wears a necklace that suppresses that flaw. The Uncontrolled flaw is worth –8 points, so removing that flaw costs 8 points, –2 points for being Removable. Psyche's Mind Reading has only a 2 point reduction in cost, but she only suffers from the Uncontrolled flaw when her necklace is removed or no longer works.

POWER AUGMENTATION

Power augmentation gadgets are primarily aimed at providing independent modifiers (see previous) for existing powers. They may be customized for particular users (indeed, they may need to be) or designed for general power types or descriptors.

For additional discussion of power augmenting or boosting options, see the *Power Profiles* sourcebook, particularly the "By Design" articles **Booting Powers** and **Powers Beyond**.

ENERGY BOOSTING GAUNTLETS

These heavy metallic gauntlets focus and intensify energy emissions, making the wearer's own energy projection powers stronger, but they have no effect without a source of energy to focus.

Energy Boosting Gauntlets: Ranged Damage (energy; Additive) • 2 points per rank

JUMP BELT

A booster and directional aid, a jump belt is worn around the waist, allowing a teleporter to cover considerably more distance with greater accuracy.

Jump Belt: Accurate and Extended extras for Teleport • 2 points per rank

POWER MODERATION

The opposite of power augmenting devices in some ways, power moderation gadgets are designed to ease or limit the effects (or side-effects) of powers, making it easier for characters to use or rely upon them. For some, power moderation may be the difference between a hero with the power to do good in the world and a menace to society and a danger to everyone around them.

POWER REGULATOR

This small electronic device is worn somewhere close to the skin, often in the form of a headband, necklace, or bracelet. It helps to regulate powers of a particular origin, such as mutant or psionic, removing certain flaws from untrained or newly developed powers. The power type(s) and specific flaws vary according to the design of the power regulator, and some powers or flaws may not be subject to regulation.

Power Regulator: Removable modifier on select power flaws, see **Removable Modifiers**, previously.

POWER NULLIFICATION

Power nullification gadgets suppress or remove powers, helping to "even the playing field" or even give their users an advantage against super-powered opponents not used to operating without their powers.

NULLIFICATION RESTRAINT

The classic in power nullification, a nullification restraint is a small device, typically worn as part of a collar, bracelet, or anklet that is locked onto the wearer. It can only be placed on a helpless or unresisting target, and is not intended for use during conflicts.

While worn and activated, it nullifies the wearer's powers. Nullification restraints are tuned to a particular origin descriptor, such as mutant or psionic powers, and need to be re-tuned for subjects with different power origins. They may only be available for some origins; for example, nullification restraints for mutant powers may exist, but they could be impossible for magical or alien powers.

Once a subject's powers are nullified, they remain so while the device functions. A nullified subject can use extra effort to gain an additional resistance check against the Nullify (see **Resistance** under **Extra Effort** in **Chapter 1** of the *Hero's Handbook*).

Nullification restraints are sometimes incorporated into physical restraints like manacles, adding an Affliction effect to the device. Restraints intended as punishment devices may have an electric shock or nerve inducer builtin, functioning like a close range agony beam (see **Traps** for details).

Nullification Restraint: Nullify Powers, Broad, Simultaneous, Sustained, Close Range, Limited to Helpless Targets • *3 points per rank*

EXTREME MEASURES

Laws concerning the proper and humane treatment of prisoners are likely to take a considerable beating in a world where some inmates can do things like control minds or teleport. If simple solutions like power nullifying restraints or fields are unavailable, authorities may have to reply on more brute force measures to ensure super-criminals cannot use their abilities to escape and wreak havoc.

- **Restraints:** In some cases, heavily reinforced restraints, like manacles with heavy chains made from titainium or super-alloys, may be sufficient to restraint super-criminals, preventing them for exerting leverage with their super-strength, for example. These restraints could be fitted with punishment devices, such as a taser-like electrical charge (an Affliction effect) triggered by remote control, should the prisoner attempt to escape or get out of hand.
- **Blinders:** Since many powers rely on line of sight, prisons may carefully control an inmate's ability to see potential targets, ranging from some measure of solitary confinement (perhaps interacting only via video images) to fitted blindfolds or masks that prevent the wearer from seeing at all or sufficiently filter their vision to render their powers ineffective.
- Drugs: A variety of chemical cocktails may be applied to keep super-powered prisoners unable to use their powers, and perhaps also render them docile and easy to control. Such drugs might induce weakness, reducing a super-strong inmate to close to normal human levels, or disrupt concentration, or whatever bio-chemical triggers control the subject's powers. At the most extreme end, medical procedures may be used to keep especially dangerous prisoners in a controlled coma, although such treatment might be conducted only in top-secret facilities not even subject to regular legal authorities.

NULLIFICATION FIELD

A nullification field is similar to a nullification restraint, save that the device does not need to be in direct contact. Instead, it emits an invisible energy field in a 30-foot radius, nullifying the powers of all subjects within its area of effect.

Subjects affected by a nullification field experience a telltale tingling and know when their powers are suppressed. An Insidious version of the field leaves no sign: subjects do not know their powers no longer work until they try to use them.

Nullification Field: Nullify Powers, Broad, Burst Area, Simultaneous, Sustained, Close Range • 5 points per rank

NULLIFIER RAY

A nullifier ray is a beam weapon in pistol or rifle form that turns the energy emission of a nullification field into a focused, visible beam, able to nullify the powers of a target struck by it. The effect of a nullifier ray is long-lasting—until a target is able to overcome it with extra effort—but not necessarily permanent.

Name: Nullify Powers, Broad, Simultaneous, Sustained • 5 points per rank

Any of the previous nullification gadgets can have the Nullify effect replaced with a Progressive Weaken effect for +1 point per rank cost (since Weaken is a Close Range effect by default).

POWER SHIELD

Power shields apply nullification technology to protect targets of powers rather than preventing subjects from using those powers. The shield, which is usually a small, worn electronic device, surrounds the wearer in a field of protection.

Power Shield: Either Enhanced Defense, Limited to Defined Power Effects, or Immunity to Power Effects • 1 point per 2 ranks or 2 points (for uncommon powers), 10 points (for common powers), or 20 points (for very common powers)

PSI-SCREAMER

A psi-screamer is a psionic power shield (previously) with a twist: it not only deflects incoming psionic energies, but amplifies them and reflects them back at their source in a debilitating psionic "scream" that gives any would-be mental attacker or eavesdropper a nasty surprise.

Psi-Screamer: Perception Range Affliction (Resisted and Overcome by Fortitude; Dazed, Stunned, Incapacitated),
Reaction (mental attack or contact) • 6 points per rank + Power Shield cost

EMPOWERMENT

Technically speaking, all gadgets are "empowerment" gadgets in that they provide their users with various power effects. The type of gadgets referred to in this section either instill powers in the subject, or provide access to power sufficient that a character might rely entirely on the gadget powers to equal other characters of the same power level.

THE EMPYREAN HELM

Legend has it that the alien Preservers left a number of artifacts behind to further their mission to safeguard life in the cosmos. One of these is the Empyrean Helm, the instrument of the Cosmic Protector, linked to the Power Primal itself that flows through the fabric of the universe. In addition to the listed powers, the Helm also restructures its user's body to withstand tremendous cosmic forces, providing STR 20 and STA 15, permanent which remain whether or not the helm itself is worn (and are thus not subject to the Removable modifier).

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The Empyrean Helm: Removable (-23 points) • 93 points total

Empyrean Awareness: Comprehend 4 (Languages – read, speak, understand, understood), Senses 17 (Cosmic Awareness, Counters Illusion, Extended 10 (x10 billion range), Precognition (Limited to Cosmic Events) • 23 points

Invulnerable: Immortality 2, Immunity 10 (life support), Impervious Protection 5, Impervious Toughness 15, Regeneration 1 • 50 points

The Power Primal: Ranged Damage 20, Precise, Variable Descriptor 2 (cosmic energies) • 43 points

METAMORPHOSIS MACHINE

Inventors have created various gadgets intended to imbue subjects with powers. A "metamorphosis machine" is a typical example: a booth- or coffin-like container where a subject is bombarded by strange energies, emerging transformed into a super-being.

The machine's rank determines how many power points it can invest into the empowered form and it may also cause cosmetic changes as part of the transformation, usually visible signs of the subject's new powers (such as increased musculature, for example). See the **Empower** description in *Power Profiles* for additional details.

The effects of a metamorphosis machine are often temporary and may have Side-Effect flaws as well.

Metamorphosis Machine: Summon Empowered Version, General Type, Limited to Available Subjects • 2 points per rank

THE VIRIDIAN CROWN

Reputed to be the creation of Lemurian artistry and enchantment—meaning it was made by non-human hands thousands of years ago—the Viridian Crown is a collection of seven thumb-sized crystals in all of the colors of the spectrum, each a double-terminated point etched with an arcane symbols on its side facets. The crystals are all viridian stones, psychoactive crystals from the Atlas Mountains near Emerald City (see the Secrets of Emerald City book for details).

When "attuned" to a sentient being (held and focused upon for a minute or so), a gem from the Crown begins to levitate and slowly orbit the new "owner's" head, leaving a faintly glowing trail of golden light behind it. All seven of the gemstones orbit in different paths, forming a complex swirling pattern. Each stone in the Crown grants a different benefit:

- Red projects a powerful beam of heat.
- Orange generates an orange-colored beam able to grab onto and move objects.
- Yellow projects a beam of blinding light.
- Green forms constructs of solidified energy.
- Blue can project visual illusions, realistic holograms of reshaped light.
- Indigo allows the user to teleport in a darkling flash of indigo light.
- **Violet** grants Mind Reading, glowing softly when in use.

Additionally, attunement to any of the stones surrounds the owner in a glowing aura of that color that provides protection and defies gravity, allowing the user to fly through the air.

The Viridian Crown: Each stone grants Flight 2, Impervious Protection 2 (Sustained), 2 ranks of an array effect, and an Alternate Effect modifier, for a total of 13 power points per stone. The stones' ranks are Additive, so having the entire Crown provides 14 ranks in all of the listed effects, for a total of 91 points.

- · Red: Ranged Damage (heat)
- · Orange: Move Object
- Yellow: Ranged Affliction (Resisted by Dodge, Overcome by Fortitude; Impaired, Disabled, Unaware), Cumulative, Limited to Vision
- Green: Create Object
- Blue: Illusion (visual)
- · Indigo: Teleport
- · Violet: Mind Reading

PLOT DEVICE POWER GADGETS

In addition to those types described in this Guide, some power gadgets are pure plot devices, operating at Power Level X (see the "By Design" article **Powers Beyond** in the *Power Profiles* sourcebook). In essence, the gadget is capable of doing anything within its listed effects, at an unlimited rank. So a cosmic artifact that grants unlimited powers of teleportation, for example, has "Teleport X" as its effect, able to provide any Teleport effect at any rank, sufficient to go *anywhere* the user desires. At the most extreme level, a "cosmic" gadget might have a Variable X effect, essentially giving it unlimited ranks in the Variable effect, meaning it has unlimited ranks in *every* effect, as its user wishes!

Just like more limited power gadgets, plot devices may serve different functions. The Moonstone, for example, is an ancient alien artifact that acts as a power augmentation device for mental powers, but does so with virtually unlimited ranks, and ignoring power levels. The Silver Storm—the alien nanotechnology used by Tellax in Emerald City—is an empowerement device, but far wider reaching and longer lasting than a metamorphosis machine.

As with all Power Level X traits, these plot device gadgets exist in MUTANTS & MASTERMINDS primarily for the convenience of the Gamemaster, both to encompass those examples from the comic books where truly "cosmic" power has few, if any, boundaries, and to make it easier by explicitly allowing the GM to not have to figure out what "near-infinite" means in precise, numerical game terms. GMs are encouraged to use the option sparingly and to keep such items out of the heroes' hands, at least in the long term.

POWERS Exercise was exercise as the exercise as the exercise as the

Although the powers of the mind are often seen as beyond mere gadgetry, psychic abilities sometimes rely upon certain props or tools. In settings where scientific understanding of mental powers and their mechanisms is sufficient, there may also be technology to enhance, retard, or even create psychic abilities, or technology based on new insights they provide about the nature of the universe.

The gadgets in this guide are strongly related to the **Mental Powers** section of *Power Profiles*, and readers may wish to consult it for further information about specific mental powers or descriptors related to them, particularly the definition of minds and effects Limited to Minds. Psychic gadgets are also strongly related to **Power Gadgets**, and can indeed be considered a particular type of power gadget, as described in that guide.

MENS EX MACHINA

A key question for psychic gadgets is *mens ex machina*, the "mind from the machine:" how integral is the mind to the exercise of psychic abilities and can its role be taken over by a machine? Depending on whether organic life, an active mind, or both are required, the possibilities break down into the following:

- Organic Minds Only: The most restrictive version is that only living, organic minds can produce psychic effects. They cannot be replicated by machines; some X-factor in an organic consciousness is required. This does not preclude the possibility for psychic gadgets as focuses or enhancers of an organic mind; it just means that they're useless without one. A psychic enhancing crystal, for example, is of no use to a non-psychic mind, and has no inherent power of its own.
- Minds Only: While a mind may be required to access and use psychic powers, nothing says it has to be based in an organic brain. Such minds could be artificial intelligences or disembodied beings of "pure mind" with no physical form. Still, some form of mind is needed, and while mindless gadgets may enhance or influence their powers, they cannot have any psychic abilities of their own.
- Organic Only: Organic life could be a key component of psychic powers, perhaps connected to the kirilian aura or morphic field or something similar. If it is only life that is required, and not necessarily a mind per se, this opens the possibility to psychic bio-

technology. See the **Biotech** section for additional information.

• Mechanisms: Lastly, if psychic powers simply access and use aspects of physics that are not yet fully understood, then perhaps those abilities are the key to expanding our knowledge, leading to mechanisms that can replicate their effects. Psychic telepathy, for example, could lead to the creation of an effective brain-scanning machine, or psychic teleportation powers could unlock access to hyperspace

for faster-than-light communication or the mechanical transmission of matter. In this case, non-living, non-sentient machines can replicate the effects of psychic powers in many regards. This tends to be the default assumption of most superhero settings, given the broad range of capabilities that gadgets can have.

PSYCHIC WEAPONS

Most psychic weapons act upon the mind and, as such, are resisted by Will defense. Immunity to Mental Powers usually protects against them, especially if their effect is to enhance a user's existing psychic abilities.

CONTROL DISK

A small, flat disk, about the size of a coin, which adheres to a target. When placed on the head or neck, it sends signals that override the subject's own mind, exerting control. Removing the control disk ends the effect, but subjects rarely cooperate! Some may conceal control disk technology in head- or neckwear ranging from hats and helmets to locking collars, making it harder to detect or remove. More insidious versions of this technology inject or implant it into the victim's body, making it that much more difficult to remove. Control disks may be mindlinked devices (see **Psychic Utilities**), allowing their controller to send commands telepathically.

Control Disk: Affliction (Resisted and Overcome by Will; Entranced, Compelled, Controlled; Sustained, Progressive, Instant Recovery) • 4 points per rank

FEAR PROJECTOR

This device sends out a telepathic signal that activates and enhances its target's latent fears to the point where they become overwhelming. At its worst, the victim of a fear projector is unable to do anything other than huddle in terror, unable to move or act. While the

GADGET GUIDES _____MUTANTS & MASTERMIND:

CREATED VERSUS CRAFTED

Many psychic "devices" are, in fact, not devices at all and not designed or built by anyone, but natural phenomena with an effect on psychics and their powers, adopted by those aware of their properties. Examples of this include naturally-occuring crystals with a known effect on psychic abilities (such as viridian from *Emerald City*), certain conductive or non-conductive materials, or particular plants (including their leaves, flowers, roots, and even pollen). People may use these items to create psychic devices—crafting conductive materials into a coronet or brewing a tea from leaves—but the properties largely reside in the materials themselves.

It is up to the Gamemaster to decide if such materials exist in the setting and what their effects might be. In some worlds, psychic powers could be inhibited by large amounts of ferrous metal or running water—perhaps giving rise to superstitions about such things warding off faeries or evil spirits. This creates potential Power Loss complications for psychic characters and opportunities to exploit those materials—trapping psychics in an iron or steel cell set in the middle of a fast-flowing river, for example.

standard device affects a single target, larger versions broadcast over a wider area, effecting everyone, and a truly widespread fear projector could be a weapon with which to blackmail an entire city, nation, or even the world! Some versions have the Instant Recovery flaw, the effects ending as soon as exposure to the projection does, while others require some time for victims to shake off the effect.

Fear Projector: Ranged Affliction (Resisted and Overcome by Will; Impaired, Disabled, Incapacitated), Concentration, Subtle (mental power) • 1 point + 3 points per rank

MINDSEEKER

A weapon with the Homing extra (**Chapter 6** of the *Hero's Handbook*) may have a "mindseeker" option, which detects targets with a mind and homes in on them, meaning it ignores mindless targets. With the Acute Senses option, a mindseeker can even "lock on" to a specific mind, making it very difficult to fool or shake without a specific Mental Concealment effect.

Mindseeker: Senses 2 (Detect Minds, Ranged), Linked to Homing • 2 points, +1 point for Acute

MINDSWORD

A mindsword is a short, baton-like grip that, when activated, projects a beam of psychic or psionic energy in the shape of a sword. A mindsword has no substance, and no effect on mindless targets, passing through them harmlessly. When it strikes a target with a mind, it inflicts harm equal to that of a real sword, save that it ignores the defenses of the target's body, affecting the mind directly. Some similar weapons project different-shaped beams, simulating different weapons, usually with greater Reach, such as a mindspear or mindwhip. Because the weapon passes through physical barriers, targets gain no benefit from physical cover, only concealment.

Mindsword: Damage, Resisted by Will • 2 points per rank

MIND TRANSFER

A mind transfer device has two terminals, usually headbands or helmets, possibly even chairs or couches with restraining straps. When a subject is placed in each terminal and the device is activated, it switches their minds, placing each in the other's physical body.

Name: Cumulative Affliction (Resisted and Overcome by Will; Transformed), Limited Degree (Third Only) • 1 point per rank

PSYCHIC DEFENSES

Most psychic defense gadgets protect against psychic powers themselves, covered by the **Power Nullifcation** section of the **Powers** guide, particularly the Power Shield.

Other psychic defense gadgets duplicate the effects of psychic powers that provide other defenses.

KINETIC SHIELD

Typically worn as a belt or harness, a kinetic shield generates a psychokinetic barrier around the wearer, providing protection from most external attacks. Some kinetic shields are Limited to Physical, meaning they cannot deflect radiant energy such as heat or electricity, but most provide overall protection against all Toughness-based attacks. Like similar force fields, a Kinetic Shield might have the Impervious extra, or the Subtle extra if it is normally invisible, detectable only to exotic mental or kinetic senses.

Kinetic Shield: Sustained Protection • 1 point per rank

PSYCHIC SENSORS

Psychic sensors duplicate or simulate the effects of various ESP (extra sensory perception) abilities, from remote viewing to telepathy.

AURA READER

A diagnostic tool, an aura reader scans the invisible "aura" around a living creature, measuring its overall health and looking for signs of injury, illness, or imbalance.

Aura Reader: Senses 4 (Detect Health, Acute, Analytical) • 4 points



MIND SCANNER

One of the ultimate pieces of psychic gadgetry, a mind scanner is capable of reading the thoughts and memories of a subject. Typically, the scanner consists of a head-piece (helmet, headband, or electrode-net) connected to a console, often with a monitor to display the retrieved information. Others add an additional headpiece so the operator (or another subject) can perceive things directly. More advanced mind scanners may be wireless or do away with the headpiece altogether, perhaps as small as a handheld device. Generally, the subject must be in close range (wired directly to the machine or at arm's length) and physically unable to resist or escape.

A mind scanner is typically Effortless, allowing it to break down almost any subject, eventually. Resisting a mind scanner over time usually involves extra effort for additional resistance checks (see **Chapter 1** of the *Hero's Handbook*). At the Gamemaster's discretion, characters can even push themselves past incapacitated to keep resisting, suffering progressive degrees of Damage instead. Once it incapacitates them, their condition becomes dying.

Particular mind scanner technology may have additional technical flaws, including being Limited to Surface Thoughts or Limited to Unconscious (or Dreaming) subjects. Some have the Feedback flaw and suffer damage if a subject successfully resists, even burning out.

Mind Scanner: Mind Reading, Effortless, Sensory Link, Close Range, Limited to Helpless Subjects • 1 point per rank

PSI-SENSOR

A psionic (or psi) sensor detects the energy emissions of psychic powers, allowing the operator to know when they are in use nearby. More sophisticated psi-sensors can also pin-point the source of the emissions and identify the type of power(s) in use.

A psi-sensor can also serve as the sense to trigger another effect, such as in a security system or trap designed to handle psychics (see **Traps** for details).

Psi-Sensor: Senses 1 (Mental Awareness) • 1 point, +2 points for Accurate, +1 point for Accute, +2 points for Analytical

VIEWING PORTAL

This is a psychic device for remote sensing. It may be a technological "remote viewer" able to see distant places through quantum entanglement or some paraphysical mechanism, or a more traditional psychic device like a gazing crystal or a mirror. This presumes the device is the source of the effect, rather than just a prop or focus for a psychic's own clairvoyant abilities.

Gamemasters may wish to use the **Long-Range Sensing** option from **Sensory Powers** in *Power Profiles* for viewing portals and other types of psychic remote sensing.

Viewing Portal: Remote Sensing (visual and auditory) • 3 points per rank

GADGET GUIDES ______ MUTANTS & MASTERMINDS

PSYCHIC TRANSPORTATION

Psychic transportation devices are often conventional vehicles equipped as mindlinked devices (see **Psychic Utilities**, following), allowing them to respond to a pilot's thoughts, although some particular modes of transportation take advantage of psychic means.

ASTRAL PROJECTOR

This device typically looks like a throne-like chair or an iron-lung (or sensory deprivation chamber). When activated, it allows the subject to astrally project, sending their mental form out from their physical body, which is monitored by the projector equipment.

Astral Projector: Remote Sensing (Visual, Aural, and Mental), Side-Effect (physical body is defenseless and immobile, –2) • 2 points per rank

JUMP PLATFORM

A jump platform is a teleportation projector, shifting people and objects placed on the platform to a location within the platform's memory banks or within range of its scanners (or possibly an associated remote viewing device). The platform can also recall targets within its range; if it is a one-way jump that requires another platform on the other side, apply an additional Limited flaw.

Jump Platform: Teleport, Burst Area, Extended, Limited to Extended • 3 points per rank

PSI-DRIVE

The principles of psychic teleportation may lead to break-throughs in the development of faster-than-light travel. A psi-drive is one such device, a space-folding drive system for a starship, allowing it to cross interplanetary or even interstellar space almost instantly. The drive might require the psychic abilities of a specially trained navigator or pilot (or both) in order to operate, or it could be controlled by a computer or mundane crew. When fully powered, the psi-drive warps space, allowing the ship to "jump" to its destination.

Psi-Drive: Movement (Space Travel) • 2 points per rank (up to a maximum of 3 ranks)

PSYCHIC UTILITIES

Psychic utility gadgets exist to take advantage of certain psychic capabilities, or to support their use. In most settings they are likely cutting edge, experimental, or one-of-a-kind items, but in worlds where psychic powers are relatively common, they might be as well.

ISOLATION CHAMBER

This device is intended to minimize sensory input, allowing a psychic to focus inward, filtering out all other

distractions. It may be a full-body sensory deprivation chamber, where the psychic floats suspended in fluid, to a helmet equipped with blinders and sound baffles. The set-up provides a circumstance bonus on checks involving concentration, focus, and the use of psychic abilities involving them. Naturally, the use of an isolation chamber requires the psychic to be physically inactive during that time.

Isolation Chamber: Feature (circumstance bonus for concentration; +2 for 1 rank, +5 for 2 ranks) • 1 or 2 points

MEMORY EDITOR

The ability to access and "read" memories may also provide the means to edit and replace them. A memory editor sends a psychic signal into the mind of its target, changing memories as directed by the user. It may be linked to a mind scanner (previously) to locate and review the relevant memories, downloading them for editing, or it may simply "inject" the changes, allowing the subject's mind to integrate them.

A memory editor operates under similar guidelines to a mind scanner, including ongoing resistance. The devices often have additional flaws, including Limited to Helpless Subjects (who must be strapped down or otherwise unable to resist physically) or Limited to particular types of memories, such as only erasing a certain amount of short-term memory. The alterations are considered permanent, however, unless circumstances stimulate the altered memory, allowing the subject a new Will check, or some other effect attempts to counter the alteration.

Memory Editor: Cumulative Affliction (Resisted and Overcome by Will; Transformed), Concentration, Limited Degree (Third Only) • 2 point per rank

MINDDRIVE

A minddrive is a type of psychic storage device. It may be a specially attuned or prepared type of crystal, something more akin to a modern flash-drive, or even a liquid medium like mercury or some similar fluid. Whatever the case, the drive is psychically sensitive, allowing a user to impress thoughts, emotions, and memories into it, recording them so a later user can recover them.

For purposes of psychic powers, a minddrive can be considered a "mind" in terms of having thoughts accessible to effects like Mind Reading and Mental Communication. Most minddrives are open and readable by any psychic or device with the means to do so, while others are "locked" or "encrypted," giving them a Will rank for purposes of resisting attempts to access them by anyone who does not have the proper passcode or profile (like a brainwave pattern or psychic imprint). Especially extensive minddrives (capable of storing vast amounts of information) may require additional ranks, at the Gamemaster's discretion.

While minddrives are typically used to store specific information, much like computer memory, at the more extreme end, it is possible to use a minddrive as a kind of "brain back-up," containing all of an individual's memories, the complete sum of their life (and, presumably, also their personality). This might be the basis for some types of artificial intelligence and virtual reality (see the **Computers** Guide) or the Persona Backup technology in the **Cybertech** section.

Minddrive: Feature (telepathic recording device) • 1 point +1 point per rank of Will defense

MINDLINKED DEVICE

Psychically-sensitive technology allows for the creation of "switches" or circuits that respond to telepathic signals, allowing a user to activate or control a device by thought alone. Essentially, the device becomes a receiver for Mental Communication, allowing a user to, for example, open an electronic lock with a thought, or flip an on/off switch. A series of mindlinked switches (like a keyboard) allow for more complex interactions and controls.

This option can be added to any gadget capable of electronic remote control, functioning in the same way, except that it is controlled by thought. This type of control may be good for a circumstance bonus in situations where thought control provides more precision or better timing than manual control, the Gamemaster's discretion.

Mindlinked Device: Senses 1 (Communication Link) • 1 point

TELECOMM

A telecomm is a small communications device, similar to a bluetooth earpiece or a "button" microphone, except it operates on a telepathic carrier rather than conventional radio. This means it can transmit to any mind within its range, whether the subject has a telecomm or not, although users will often communicate with other telecomms as a matter of course. Like other forms of Communication, telecomms can have the Area, Rapid, Selective, and Subtle modifiers for more advanced versions, and some have the Limited to Telecomms modifier, meaning they can only communicate with other telecomm users.

Telecomms are for communication only, and do not provide Mind Reading effects. Users decide what to communicate (and what to withhold) and can choose to lie or otherwise use Deception when communicating via telecomm, unless the technology is specifically Limited otherwise.

Telecomm: Communication (Mental) • 4 points per rank

THOUGHT PROJECTOR

This technology translates thoughts into audio-visual media, which can then be sent to a monitor and speaker setup, or projected onto a screen or even via holograms. It is useful as a communications device to literally show others what you are thinking or visualizing. It can also be used in conjunction with technology like a mind scanner to display uncovered thoughts and memories to others, whether the subject wants them to be or not.

The most basic thought projector set up makes it obvious that the projections are just that, although Deception or Expertise skill checks might fool observers into thinking the projection is something that it is not, such as an actual surveillance video or live news broadcast, for example. This is within the scope of the overall Feature effect.

A more sophisticated thought projector creates images akin to the Illusion effect (see **Chapter 6** of the *Hero's Handbook* and the **Illusion Powers** section of *Power Profiles*) and should be handled as an illusion power in terms of cost.

Thought Projector: Feature 2 (translates thoughts into images and sound) • 2 points

PSYCHOPHARMACEUTICALS

Given the primarily organic nature of psychic powers (see *Mens Ex Machina*, previously), a common way of enhancing or limiting those powers is the use of different drugs given to a psychic.

The effects of these drugs are generally covered by the options in the **Powers** guide, namely adding or subtracting ranks, or adding or removing extras and flaws. An empowerment drug might grant users temporary psychic abilities for as long as the drug lasts, or might serve as a catalyst to activate latent psychic potential. In either case, there may be side-effects, and any or all of these drugs could be addictive (physically, psychologically, or both).

Psychic drugs can be naturally occuring compounds, harvested from plants or animals (including alien flora and fauna) or chemically designed and engineered. In either case, certain parties may control access to the source of the drug and use this to their advantage.

In addition to specific psychopharmaceuticals, other mundane drugs can influence psychics and their powers. Any drug that makes it more difficult to concentrate, for example, limits a psychic's powers, while hallucinogens can be dangerous for someone whose powers are dependent on their mental state: a psychic reacting to a hallucination—lashing out in fear, for example—could easily produce a real-world effect like a telekinetic shock wave!

PSYCHIC

As heroes, villains, and legions of minions, robots have been a staple of the superhero genre since the first days of comic strips. Although they have become more sophisticated as real-world technology has moved ever closer to the mechanical marvels of comic books, robots remain common technology for both heroes and villains.

ROBOT DESIGN

Robots are constructs, as described on pages 179–181 of the *Hero's Handbook*. Creating a robot follows steps similar to those of creating a character (given on pages 23–24 of the book) modified as follows:

CONCEPT

Start with the robot's intended purpose: is it a soldier or guard, a chaperone, a servant, exploratory scout, or is it used for tasks like dispensing medicine or construction? A robot's purpose provides considerable direction in terms of its capabilities, although some things may be multipurpose or "repurposed"—for example, a welding or medical laser could also be used as a weapon (if the robot's programming allows).

POWER LEVEL

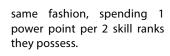
The robot's power level is limited to that of the series, if it is the creation of a player character. Otherwise, the robot may have any power level the GM wishes that suits the series and the robot's intended use. Generally speaking, robot minions can be higher power level than robots lacking the minion descriptor, and singular robots can be a higher power level than robots encountered in larger numbers.

ABILITIES

As constructs, robots have different starting abilities than characters, but still increase those basic abilities in the same way: spending 2 power points per +1 rank in an ability.

SKILLS

Similarly, robots may have restrictions on the skills they can possess, based on their abilities, and how they can apply those skills, but otherwise acquire them in the



ADVANTAGES

Robots generally do not possess as many advantages as characters do, although they can be designed for them, particularly combat units provided with various combat advantages. Some of these may come from Enhanced Advantage powers as part of the robot's construction.

POWERS

Robots can have as wide a range of powers as the Gamemaster allows; robots in the comic books can do everything from grow and shrink to shapeshift and control the elements. Robots generally do not possess power descriptors based on biology or living systems, but that does not prevent them from having power effects like Regeneration (self-repair systems) or even Healing (useful for sophisticated medical robots).

COMPLICATIONS

Robots tend to have a few complications simply by the nature of how they are constructed, and might have others, as well. See the **Complications** section later in this Guide for details.

GAMEMASTER APPROVAL

Finally, if the robot is a player creation, the Gamemaster looks over the design, makes sure it fits the rules parameters, and approves it for use in the game.

"FLESHING" THINGS OUT

The individual design steps are detailed further in the following sections. Note that the rules in this Guide are not intended for use with heroes or villains who happen to be robots, as they are not considered constructs—they typically have both the full range of abilities and the same free will as other characters, although they typically have some measure of Immunity (either life support or full Immunity to Fortitude effects) and "robotic" or "technological" descriptors for many of their traits. The **Tech Powers** section of the *Power Profiles* book covers the essentials of a hero or villain character who is also a robot, android, or similar artificial being.

BASIC CAPABILITIES

All robots share certain basic capabilities as part of their nature, including:

- No Stamina, Intellect, and Presence: Robots by default have no rank in Stamina, Intellect, and Presence. They are not living beings, nor are they sentient or self-aware (although some may mimic such qualities). They do have Awareness (a base rank of 0), since robots are assumed to be capable of operating on their own, following pre-programmed instructions, which requires a measure of Awareness of their surroundings. Lacking these three abilities has a net value of –30 points.
- Immunity to Fortitude Effects: As constructs, robots have no biological systems. They are machines, not living beings. Thus, though they do not recover or heal on their own (lacking a Stamina rank), they are also immune to things affecting living creatures (resisted by Fortitude).
- Immunity to Interaction: Since they lack Intellect and Presence, robots can neither use interaction skills nor be affected by them. They cannot be deceived, persuaded, intimidated, and so forth. They can be given incorrect *information*, but not led, through interaction, to believe something they did not before. Non-intelligent robots can use the non-interactive aspects of Insight (machinery can "detect lies" for example) but not those involving evaluating others or getting a sense or "gut feeling" about anything. This ability is an effect of the lack of Intellect and Presence and has no point cost. A robot that adds ranks in those abilities loses this trait (or must pay for 5 ranks of Immunity to retain it).
- Immunity to Mental Effects: Similarly, as they lack Intellect and Presence, robots do not have "minds" as such and are immune to mental effects that do not specifically work on machines with descriptors appropriate to the robot. So, for example, a telepathic Mind Reading effect automatically fails against a robot (no resistance check required). There's nothing there to "read"! This ability is an effect of the lack of Intellect and Presence and has no point cost. A robot that adds ranks in those abilities loses this trait (or must pay for 10 ranks of Immunity to retain it).

ABILITIES

As noted previously, robots by default lack any rank in Stamina, Intellect, or Presence, being unliving and non-sentient. They do have a measure of the other five abilities, set at a default rank of 0, just like for characters.

STRENGTH

Strength is commonly the highest ability for robots, motors and metal being stronger than muscle and bone. Take a robot's size into account when considering its Strength, as ranks of Growth increase base Strength rank. Robots may also have ranks of Power-Lifting (*Hero's Handbook*, page 123) to represent sustained hydraulics and similar systems useful for lifting and carrying great weights, but not for any other purpose.

AGILITY

The classic comic book robot is not overly agile, being a large, clanking menace, but there are also quick, agile robots with computer speeds and servo-motors or swiftflowing nanomachines and the like.

DEXTERITY

While some robots display more brute force than finesse, robots intended for relatively fine and delicate work may have substantial Dexterity ranks, rivaling or even exceeding the most dextrous humans. However, robots tend to be specialists and are more likely to have appropriately high ranks in pre-programmed skills based on Dexterity or an overall advantage like Ranged Attack (see **Skills** and **Advantages**, following).

FIGHTING

Unless a robot is specifically intended to attack and defend itself, it is not likely to have much of a Fighting rank and is more likely to rely upon its innate Toughness and Immunity to protect it from harm. Still, most comic book robots used by heroes and villains have some Fighting ranks, since they're fairly sure to get into scrapes.

"THE DEVIL HAS BUILT A ROBOT!"

Comic books indiscriminately mix-and-match fictional elements and origins from all across the spectrum, so it would not be surprising, for example, to encounter robots built by ancient aliens, steampunk gnomes, sinister sorcerers, or even the Devil himself!

All of these constructs are still "robots" and typically involve some type of technology, but may also have other descriptors, such as alien, clockwork, steam-powered, arcane, or evil as part of their nature. The additional descriptors mean the robot may interact with some effects differently (a diabolic robot held at bay by holy symbols, for example) but otherwise does not change the information found in this Guide.

Do not allow the "robot" descriptor to limit your imagination (or that of your players) when it comes to producing interesting creations to add some fun and color to your MUTANTS & MASTERMINDS game!

ROBOTS

GADGET GUIDES _____ MUTANTS & MASTERMIND

AWARENESS

Although they lack Intellect or Presence, robots are assumed to have some degree of Awareness, able to move through their surroundings and physically interact with them. This actually takes a considerable sophistication in programming in the real world, but it's a given for comic book machines. Awareness for most robots simply measures the sensitivity and accuracy of their sensors, which are assumed to roughly approximate human sensory capabilities, modified by the robot's powers (see **Powers**). Robots lacking a sensory ability have a potential complication which may come into play.

SKILLS

When it comes to robots, it is less a matter of "skill" than it is of "programming" with regards to tasks the robot can perform. Robots lacking Intellect are automatons, capable of accepting commands and carrying them out, but incapable of self-directed action, creativity, or changing their instructions. Skill modifiers essentially measure how capable a robot is at performing a task, ranging from things like Close Combat or Stealth to using Expertise to perform certain job skills.

REPROGRAMMABLE SKILLS

Since a robot's skills are essentially software (whether electronic or encoded on punch cards, wax cylinders, etc.), it may be possible to change them around by reprogramming the robot or uploading different skills into its active memory. If this is a significant capability in game play, it can be handled as a Variable effect, Limited to Enhanced Skills, with an Action appropriate to the time required to change the skills around (or the Slow modifier if they can only be changed outside of action time).

ADVANTAGES

Robots may be designed for some advantages, particularly combat advantages for military or combat units. Robots cannot have fortune advantages (unless they are free-willed player characters), nor can they have skill advantages involving skills they cannot use, such as interaction skills. Improved Hold is a common advantage to reflect a robot's literal "iron grip," and Teamwork is appropriate for groups of robots designed and programmed to operate together.

POWERS

Power effects cover everything else about a robot not handled by abilities, skills, advantages, or complications (following). Amongst other things, this includes unusual chassis configurations, movement capabilities, sensor systems, and armaments. Note that power effects not listed here are not forbidden, simply rare enough as to not be worth mentioning. As mentioned under **Robot Design**, robots can have potentially any powers the GM permits.

AFFLICTION

Useful primarily for unusual weapons or attacks a robot might have, ranging from tasers to gas grenades. See the appropriate weapon section or the *Power Profiles* book for some ideas.

BURROWING

A robot designed for underground exploration or travel might have this effect, perhaps with some type of tunneling drill mechanism.

COMMUNICATION

Radio Communication is a common effect for robots, especially if they are remote-controlled. A Mental Link extra for a Summon Robots effect might be radio- rather than mental-based.

COMPREHEND

A useful effect for translator robots fluent in different forms of communication (six million or otherwise). This usually involves intelligence, although a translator robot could mindlessly translate, repeating whatever it hears in a different language until ordered to do otherwise.

CONCEALMENT

Different forms of Concealment may be "cloaking" or camouflage technology good for infiltration or combat robots.

DAMAGE

The standard attack effect, which might be a close weapon to add to the robot's Strength damage or a ranged weapon ranging from ballistics to energy beam weapons. See the different weapon sections or the *Power Profiles* book for a wide range of Damage effects.

ELONGATION

A robot might be built with telescoping limbs, able to elongate and return to a "resting" shape. This is also an effect suitable for nanomorphic or shape-changing robots.

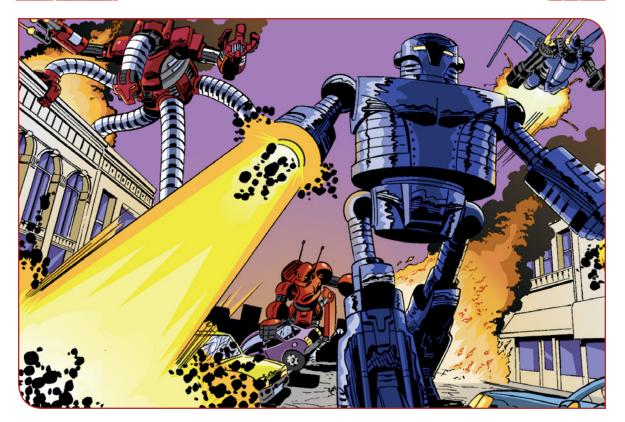
EXTRA LIMBS

While the default design of a robot is humanoid, it does not have to be, and a robot could have additional limbs, perhaps many of them, and a limb configuration more like an octopus (for example) than a humanoid.

FEATURE

This is the catch-all effect for small "add-ons" or features a robot might have; anything useful enough to be worth accounting for, but minor enough not to fit into an existing effect.

ROROTS



FLIGHT

Another mode of movement, using anything from chemical rockets to anti-gravity. Some robot designs may have Flight modifiers, particularly Gliding or Wings.

GROWTH

Although a robot could be capable of changing size, this effect usually reflects a robot built at a larger size, with the Permanent and Innate modifiers. The robot benefits from all of the Growth bonuses (except for Stamina, which applies solely to Toughness) but also has to deal with all of the penalties all of the time.

ILLUSION

Not a common effect for robots, it may involve image- or sound-projecting equipment.

IMMORTALITY

This effect means the robot is self-repairing to the point of being able to rebuild itself if destroyed! This is common for nanotech robots, able to reconstitute from even a tiny amount of their substance.

IMMUNITY

In addition to their standard immunities (Fortitude and mental effects and interaction skills), robots may have additional immunities by virtue of their design. A robot built

to operate in intense heat, for example, may have Immunity to Heat Damage or even all Heat Effects. Similarly, a robot with heavy shielding may have Immunity to some or all Electrical Effects.

LEAPING

Hydraulic or mechanical limbs may grant a robot leaping as a form of movement.

MORPH

This effect suits "infiltrator" robots or androids, but assumed the robot can change its appearance. If the robot is disguised as something other than a robot, that can be considered a Feature, possibly with a Power Loss complication that the robot's true nature may be revealed by damage puncturing or tearing its artificial outer "skin".

MOVE OBJECT

Suitable for effects like tractor beams or control over magnetism, suitable for moving things at a distance.

MOVEMENT

Various Movement effects may suit robots, depending on configuration. Slithering, Sure-footed, Swinging, Wall-crawling, and Water-walking may reflect different designs. Environmental Adaptation is appropriate for robots designed for a particular environment.

GADGET GUIDES MUTANTS & MASTERMINDS

PROTECTION

This is the standard means of increasing a robot's Toughness, as they have no Stamina. Effects that improve Stamina (such as Growth) affect Toughness instead. A robot's Toughness may be Impervious to reflect rigid armor plating and reinforced structures.

OUICKNESS

Able to operate at computer- or machine-speeds, some robots may have ranks of this effect, possibly Limited to particular specialty tasks. For example, a maintenance robot might have Quickness, Limited to Technology skill checks.

REGENERATION

This effect reflects self-repair capabilities, and is the only means for a robot to "recover" from damage without external repairs, since it does not have Stamina to recover on its own.

REMOTE SENSING

A robot with a small remote sensor may have this effect, effectively able to "scan" away from where its main body is located. Use Perception to notice the remote rather than Insight.

SENSES

Use the Senses effect options to construct suites of sensors for a robot with capabilities beyond the normal human sensory ranges, including low-light or infrared vision, ultrasonic hearing, radio reception, and so forth. See the **Sensory Powers** section of the *Power Profiles* book for options.

SHRINKING

Like Growth, this effect usually applies to robots that are permanently smaller than medium sized, having ranks of Shrinking with the Permanent and Innate modifiers. Small robots may have the Normal Strength extra, being stronger than their size would suggest.

SPEED

This effect typically means the robot has a form of locomotion other than walking, although a legged robot may be able to run at high sustained speeds (not having the same physical limitations as a flesh and blood creature). It may also mean a robot with wheels, treads or the like.

SWIMMING

This effect generally means that this is a robot specifically designed for underwater movement, since robots otherwise tend to have negative buoyancy and sink

(although with their Immunities can move along the bottom of a body of water unharmed).

VARIABLE

This effect suits reconfigurable robots with modular parts or the ability to change their construction. It particularly suits nanotech robots able to reconfigure at the microscopic level. See the Mechamorph power in the **Tech Powers** section of the *Power Profiles* book for a possible configuration.

COMPLICATIONS

Although they are tireless and completely loyal servants, robots do have their limitations.

First and foremost, non-intelligent robots are capable of independent action, but only within the parameters of their programming and orders. A robot ordered to guard a particular place will do so until the order is countermanded or the robot is no longer capable of carrying out the command. Robots cannot exercise creativity or initiative when it comes to interpreting or carrying out their orders.

As constructs, robots may be subject to mechanical problems. While they're immune to the concerns of living beings, they may be vulnerable to things like power surges, electromagnetism, or fine grit or other obstructions in their mechanisms. Gamemasters can handle these vulnerabilities on a case-by-case basis depending on the robot and the situation.

A robot's design or construction may impose certain physical disabilities on it, ranging from having wheels (and being therefore unable to navigate stairs) to lacking hands or certain sensory capabilities (most commonly touch, taste, and smell). These can create some complications.

Lastly, robots not specifically disguised or camouflaged are obviously machines and people react to them accordingly, making it difficult for the robot to pass unnoticed.

ROBOT CREATION

Non-intelligent robots are non-player characters by definition, meaning someone usually created and controls them. Robots can belong to a character through the Minion and Sidekick advantages as well as different versions of the Summon effect. The advantages better suit standard robots that are always "on-call" or available to a character, while Summon works for characters able to call or summon robot minions to them (or create them on the spot) and particularly able to command a wide range of different kinds of robots with the Variable Type modifier.

Robots created using the inventing rules (*Hero's Handbook*, page 159) can be handled as inventing a Summon effect for that robot; divide the robot's total point cost by 15 to determine the number of Summon ranks necessary.

HOBOTS

SAMPLE ROBOTS

The following are just a few examples of the diverse types of robots. See page 181 of the *Hero's Handbook* and pages 141–142 of the *Gamemaster's Guide* for some general robot archetypes and pages 121–124 of the *Gamemaster's Guide* for the Robot villain archetype.

GRABBER

A cylindrical-shaped robot with a single rotating sensor "eye" and multiple telescoping metal limbs designed to grab and restrain targets, used as a guard and capture mechanism.

GRABBER PL 6

STR 6 STA — AGL 0 DEX 0 FGT 0 INT — AWE 2 PRE —

Powers: Armor (Impervious Protection 8), Elongation 2, Enhanced Advantage 1 (Improved Hold), Extra Limbs 5, Immunity 30 (Fortitude effects), Senses 3 (darkvision, radio)

Skills: Close Combat: Grabbing 6 (+6)

Offense: Initiative +0, Grab +6 (Close, +5 to opposed check, -5 to target's checks to escape, Damage 6)

Defense: Dodge 4, Parry 4, Fortitude Immune, Toughness 8, Will Immune

Totals Abilities –14 + Powers 57 + Advantages 0 + Skills 3 + Defenses 8 = 54

MORPHBOT

A robot made of microscopic nanomachines able to reconfigure themselves into different shapes. Some morphbots have even more extensive abilities to change their traits, such as mimicking the abilities and powers of other characters.

MORPHBOT PL 8

STR 6 STA — AGL 0 DEX 0 FGT 6 INT — AWE 1 PRE —

Powers: Disguise (Morph 4, any form), **Immunity 30** (Fortitude effects), **Mechamorph** (Variable 6, Free Action), **Self-Repairing** (Regeneration 5)

Skills: Ranged Combat: Morph Weapons 6 (+6)

Offense: Initiative +0, Morph Weapons +6 (Ranged, Damage up to rank 10), Unarmed +6 (Close, Damage up to rank 10)

Defense: Dodge 8, Parry 8, Fortitude Immune, Toughness Varies up to rank 8, Will Immune

Totals Abilities –4 + Powers 103 + Advantages 0 + Skills 3 + Defenses 16 = 118

SERVO

A small, spider-like maintenance robot used to perform repairs (or sabotage). Not particularly intended for combat, but capable of it when necessary.

SERVO PL 4

STR 1 STA — AGL 0 DEX 3 FGT 0 INT — AWE 1 PRE -

Powers: Welding Torch (Damage 4, Precise), Extra Limbs 4, Immunity 30 (Fortitude effects), Movement 2 (wall-crawling), Senses 3 (darkvision, radio), Shrinking 4 (Innate, Permanent)

Skills: Close Combat: Welding Torch 4 (+4), Technology 8 (+8)

Offense: Initiative +0, Welding Torch +4 (Close, Damage 4)

Defense: Dodge 6, Parry 6, Fortitude Immune, Toughness 0, Will Immune

Totals Abilities –18 + Powers 55 + Advantages 0 + Skills 6 + Defenses 8 = 51

TOY SOLDIER

This robot looks like a harmless child's toy, from an old fashioned "wooden soldier" to a modern plastic action figure. Individually, they're not much more than tiny mobile gun-platforms, but they usually show up in small hordes.

TOY SOLDIER PL 4

STR -5 STA — AGL 0 DEX 0 FGT 0 INT — AWE 0 PRE —

Powers: Built-in Weapon (Ranged Damage 4), Immunity 30 (Fortitude effects), Shrinking 8 (Innate, Permanent)

Skills: Ranged Combat: Weapon 4 (+4)

Offense: Initiative +0, Built-in Weapon +4 (Ranged, Damage 4)

Defense: Dodge 8, Parry 8, Fortitude Immune, Toughness 0, Will Immune

Totals Abilities –36 + Powers 55 + Advantages 0 + Skills 2 + Defenses 8 = 30

WARBOT

A hulking, humanoid tank, programmed for battlefield and search-and-destroy missions without compassion or mercy.

WARBOT PL 9

STR 10 STA — AGL 0 DEX 0 FGT 8 INT — AWE 1 PRE —

Powers: Armor (Impervious Protection 8), Blaster Cannon (Ranged Damage 10), Immunity 30 (Fortitude effects), Large (Growth 4, Innate, Permanent), Senses 3 (darkvision, radio), Speed 2

Skills: Ranged Combat: Blaster Cannon 8 (+8)

Offense: Initiative +0, Blaster Cannon +8 (Ranged, Damage 10), Unarmed +8 (Close, Damage 10)

Defense: Dodge 7, Parry 7, Fortitude Immune, Toughness 12, Will Immune

Totals Abilities 0 + Powers 70 + Advantages <math>0 + Skills 4 + Defenses 10 = 84

Technology has long been used to provide an advantage when it comes to getting access to things one should not have, whether places, people, goods, or information. Necessity is the mother of invention, and the needs of criminals and spies have inspired a variety of technology, including a range of counter-measures.

Spy-Tech looks at gadgets used for infiltration, burglary, deception, disguise, and surveillance, and the equipment used to detect and defend against all of those things.



INFILTRATION

Gadgets from wire lockpicks and braided rope to electronic code-crackers and motorized harnesses are used for getting into places (and out of them) without being detected.

A good deal of infiltration work involves avoiding alarms and overcoming traps and security measures. See **Traps** for details on various sorts of traps infiltrators may encounter, need to avoid, or fall into, if they are not careful enough.

HIDDEN & CONCEALED TECH

A key element of a lot of spy-tech is its hidden nature: tools or weapons disguised as mundane items, for example, or able to conceal contraband or other cargo, or go unnoticed while doing their work.

- Concealed technology is disguised to look like something else, at least while it is not in use. Examples include "poison pens" with hidden hypodermics, watches with X-ray lock-picks, and other cinematic "spy-gear" intended to pass as something else. Such a disguise is generally a Feature of the item, unless the GM considers it too minor to bother (or the item is something the player whips up on the spot by spending a hero point). An additional Feature rank may be required for concealed items that can pass serious scrutiny like X-rays or similar scans.
- Hidden items are simply stashed away out of sight, making it more difficult to find them. This may involve the use of hidden compartments (see Concealment & Stealth, following) or just the effective use of available hiding places. As a general rule, trying to hide something versus trying to find it is an opposed check of Sleight of Hand or Stealth versus Perception or Investigation (the former to notice something out of the ordinary, the latter for a careful and deliberate search).

Characters can hide or look for things as routine checks (**Chapter 1** of the *Hero's Handbook*), meaning some characters have a sufficient skill bonus to hide things so most people have no chance of finding them or, conversely, have a sufficient skill bonus to be able to find most hidden items easily without the need for a skill check, so long as they are not under any immediate pressure or distractions. The availability of effective hiding places may provide a circumstance modifier to the check to hide the object(s), as can the size and composition of the objects themselves.

BURGLARY TOOLS

Simple breaking and entering and burglary makes use of various tools, from lockpicks and prybars to wiring, gloves, and glass cutters (to name a few). The default assumption is that characters trained in particular skills have access to the necessary tools to use those skills without incurring a circumstance penalty for doing so, unless a complication arises that deprives the character of those tools. So ordinary tools have no point cost and do not need to be listed amongst a character's equipment.

At the Gamemaster's discretion, a particular fine or highquality version of ordinary tools may be available, providing a +2 circumstance bonus to checks involving those tools at the cost of a single Feature (1 equipment point).

BIOMETRIC DECODER

A small (palm-sized) device able to bypass biometric security measures such as palm- and fingerprint scanners or retinal scans, either using stored (valid) information or by "cracking" the system and supplying false information that it accepts as valid. Successfully using a biometric decoder may require a prior effort to acquire a usable scan of an authorized user. If this is accomplished, the GM may waive the skill check needed to operate the decoder, or have the check take place when the information is acquired (although its success or failure can't be assessed until the data is actually used).

Biometric Decoder: Morph 2 (biometric access data), Precise, Limited to Biometrics, Technology Check Required (DC 15, –5 points) • 5 points

ELECTRONIC LOCKPICK

A small device that, when attached to an electronic lock, will "crack" the combination needed to open the lock. At the most basic level, an electronic lockpick is simply a tool re-

BURGLARY SKILLS

Generally, the Technology skill is used to handle checks involving overcoming security measures, from mechanical locks and traps to sophisticated electronics. However, some characters who specialize as burglars and spies have a fairly narrow specialty when it comes to technology, in which case the following advantage may be useful:

BENEFIT (BURGLAR)

You substitute your Sleight of Hand or Stealth skill bonus for Technology skill checks involving the Security uses of the Technology, but not for other uses of the skill (see **Chapter 4** of the *Hero's Handbook*). Choose which skill bonus you use when you acquire this advantage.

quired to use the Technology skill to open electronic locks, costing no equipment points. Additional Feature ranks may grant a circumstance bonus for its use (see **Burglary Tools**, previously).

Electronic Lockpick: Feature (circumstance bonus to Technology checks to open electronic locks, 2 ranks for major bonus) • 1 point per rank

CLIMBING CABLE

A high-tension cable with a grappler at one end (magnetic, mechanical, or using some type of adhesive, depending on descriptors) as well as a gun capable of firing the cable out to grab onto a target point. The climbing cable makes scaling a sheer surface relatively easy (no check required) so long as the climber isn't stunned or left unable to hold on to the cable (the Platform flaw).

Some characters may upgrade from a climbing cable to a swing cable with the Swinging effect of Movement. See the **Utility** guide for details.

Climbing Cable: Movement 1 (Wall-crawling), Platform • 1 point

GECKO GEAR

This climbing equipment consists of gloves, shoes, and often knee- and elbow-pads covered with a micro-adhesive or tiny suction cups, enabling the wearer to scale sheer surfaces like a gecko lizard. It's usually coupled with a stealth suit or other types of stealth gear (see the following section).

Gecko Gear: Movement 1 (Wall-crawling) • 2 points

SUSPENSION HARNESS

A torso harness connected to a set of motorized cables that can raise or lower the wearer from an anchor point above, suitable for working suspended over pressuresensitive floors or networks of detection beams. Certain actions while wearing a suspension harness may require Acrobatics skill checks in order to maneuver.

Suspension Harness: Movement 2 (Safe Fall, Swinging), Limited Range of Movement • 2 points

CONCEALMENT & STEALTH

Of course, breaking into a locale can be for nothing if the attempt is detected too soon (or at all). A good deal of spy-tech relies on concealing people and things, and their activities, from both guards and surveillance measures.

Naturally, the Concealment effect most often comes into play here, with varying ranks based on which senses are affected and to what degrees. True "stealth" technology may provide total concealment to one or more senses, while more realistic gadgets have flaws, particularly Blending, Partial, or Passive.

Stealth Technology: Concealment • 2 points per rank.

STEALTH SUIT

A dark colored or camo-patterned uniform, typically with a mask covering all but the wearer's eyes, designed to provide additional concealment and make it easier to hide. A properly patterned stealth suit grants a circumstance bonus to Stealth checks to hide. For an additional Feature rank, the suit can change patterns and colors to suit different environments, although the change must be directed, and happens too slowly to keep up with the environment around wearers as they move (but see the **Chameleon Cloak**, following).

Stealth Suit: Feature (circumstance bonus to Stealth checks, 2 ranks for a major bonus, +1 rank for variable patterns) • 1 point per rank

CHAMELEON CLOAK

A suit or device surrounds the wearer with a field or material that adapts to match the background, rendering the wearer virtually invisible, although there is some distortion around the wearer's contours, and rapid movement makes the effect difficult to maintain.

Chameleon Cloak: Concealment 2 (Visual), Blending • 2 points

IR CLOAKING

A special suit or field masks the wearer's body heat, matching the temperature of the surrounding air, and making the wearer "invisible" to infrared detectors, including hiding any footprints or other heat traces the wearer might leave by touching things. This also means that "heat-seeking" weapons cannot lock-on to the wearer without somehow overcoming the concealment.

IR Cloaking: Concealment 1 (Infravision) • 2 points

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HUSH FIELD

A suit or field surrounds the wearer and muffles all outgoing sound, rendering the wearer completely silent. The effect is fairly close to the wearer's body, so while it silences things like breathing, speaking, footfalls, and the rustle of clothing, it does not affect external sounds like slamming a door or knocking something to the floor. A hush field makes its wearer "invisible" to accurate auditory senses like sonar.

Hush Field: Concealment 2 (Auditory) • 2 points

PHASING FIELD

This gadget takes the wearer "out of phase" with ordinary matter, able to pass through it harmlessly as if it were not even there. However, the wearer must turn off the field in order to touch or interact with anything in the physical world. The field is still vulnerable to visible-light based effects. The user of an active phasing field generally glows or appears ghost-like or translucent. Experimental phasing fields may have various flaws, particularly Unreliable.

Phasing Field: Insubstantial 4 (incorporeal) • 20 points

SENSOR CLOAK

A full-spectrum "jamming" device that makes the wearer completely undetectable by electronic sensor devices of all kinds. The wearer does not appear on video cameras, is not picked up by microphones, does not trip sensor beams, and so forth. Sensor cloak wearers are still visible to the senses of living beings, but hidden from any electronic equipment they might be using.

Sensor Cloak: Concealment 10 (all senses), Limited to Electronics • 10 points

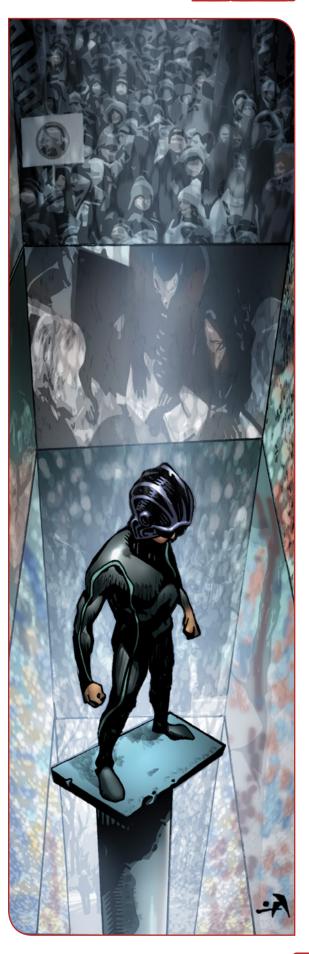
SURVEILLANCE

While a great deal of information gathering is done in person, technology provides many more options for surveillance and intelligence gathering from afar, without ever needing to leave the security of one's home base (with the possible exception of setting up the surveillance in the first place). Many surveillance gadgets provide digital storage of information they gather (a 1 rank Feature) or connect to a computer that does so.

TRACERS

Tracers are tiny (DC 20 Perception check to notice) gadgets that can be planted on a target with a successful attack check (opposed Sleight of Hand versus Perception check to do so without the target noticing). The tracer emits a signal of a particular sense type (typically radio) that allows it—and the subject it is planted on—to be tracked. Sensory effects of the same type as the signal may also pick it up or interfere with it.

Tracer: Senses 1 (Tracking) • 1 point



INFILTRATION CHALLENGES

The process of infiltrating a site—from approaching undetected to getting in and escaping—is generally handled as a challenge (**Chapter 7** of the *Hero's Handbook*) although it may well be a series of challenges, or even the bulk of an entire adventure, depending on how it is planned.

Relatively unimportant infiltrations and spy activities can be handled with a single skill check, perhaps even as routine actions (although spying is usually anything but routine). So a character might need a Stealth or Technology skill check to slip past security. More involved infiltrations become challenges, with a series of checks representing the different stages of the process—Stealth, Technology, possibly Deception or other interaction skills and Investigation or Perception—with a number of degrees of success needed before a requisite number of degrees of failure can accumulate. Like other challenges, these tests may be undertaken by a single character or they could be a team effort. Finally, some infiltration scenarios are scenes or whole adventures unto themselves, often with multiple challenges needed to succeed.

BUGS

A "bug" is a small, remote surveillance device capable of transmitting audio (and often video) to a receiver. The DC to notice the bug is that of noticing the Remote Sensing effect, and can be further modified with Subtle. Bugs are Limited to where the transmitters can be and are placed and to the Medium of transmitters available to them. Removing the Limited flaw allows the bugs to change positions, making them mobile (perhaps disguised as robotic insects or the like).

Bug: Remote Sensing, Limited to Transmitter Placement, Medium (transmitters) • 1 point per rank for Audio and Visual, 1 point per 2 ranks for Visual only, 1 point per 3 ranks for Audio only

MICROPHONES

Surveillance microphones include parabolic and laser microphones designed to pick up and amplify sound over a distance, providing the benefits of Extended Hearing.

Microphone: Senses (Extended Hearing) • 1 point per rank

CAMERAS

A basic camera is just a storage device for visual information (a 1 rank Feature) but cameras often come with various visual Senses effects to enhance their capabilities, including Extended Vision and Infravision.

Camera: Feature 1 (image storage) • 1 point +1 point per rank for additional Senses effects

DISGUISE

When not being detected at all is not an option, some type of disguise may be called for. Indeed, some spies are virtual chameleons when it comes to adopting different identities and personas to fool their enemies.

DISGUISE KIT

As with burglary tools (previously), the basic disguise kit simply fulfills the requirement for tools needed to use the Deception skill for disguise without a circumstance penalty (**Chapter 4** of the *Hero's Handbook*). More sophisticated disguise kits may grant a circumstance bonus as a Feature (with a major bonus requiring two Feature ranks).

Disguise Kit: Feature (circumstance bonus to Deception checks for disguise, 2 ranks for major bonus) • 1 point per rank

LAYERED DISGUISE

This is a more sophisticated form of disguise material, which can be applied in thin layers, allowing the wearer to quickly (as a move action) tear off, dissolve, or otherwise remove the top layer of the disguise, revealing the next, and so forth until all of the layers have been exposed or removed. Essentially, this allows for the preparation of multiple disguises with the usual 10-minute preparation time required for disguising, and switching quickly between them. Normally, the player must specify the descriptors of each layer, but the GM may allow a hero point spent to edit the scene (**Chapter 1** of the *Hero's Handbook*) to specify a different disguise for a particular layer. ("It just so happens that my next disguise is of the mayor!")

Layered Disguise: Feature (doubles number of disguises in preparation) • 1 point per rank, up to 3 ranks (8 layers)

MEMORY MATERIAL

Memory material can be "programmed" with a variety of different shapes and forms, which it can assume based on a cue, such as a mild electrical charge or a sharp rap (or shaking out, in the case of a flexible material like fabric). This allows for things like clothing that can instantly transform its color, pattern, and even cut, or tools that can change form into other useful shapes (or disguises).

Memory Material: Variable Descriptor (alternate shapes or appearances) • 1–2 points (depending on breadth)

DISGUISE FIELD

The ultimate in personal disguise, a disguise field allows the wearer to instantly change appearance to any other individual of roughly similar size, including whatever the character is wearing or carrying. The disguise field may

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use stored patterns, scans of subjects, built-in controls, or some combination thereof. A disguise field provides a +20 circumstance bonus to Deception checks for disguise. Especially advanced disguise fields may have the Precise modifier, allowing them to fool even detailed scans or security measures (and potentially bypass things like biometric identity scanners). It might also provide Enhanced Advantage (Hide in Plain Sight) with an instant disguise.

Disguise Field: Morph 3 (humanoids) • 15 points

VOICE MASK

A voice mask is able to change the sound of your voice to match someone else's or simply mask it as unidentifiable. A voice mask is a useful addition to disguises that do not use the Morph effect, and therefore do not provide any change in the user's voice or speech other than the use of the Deception skill.

Voice Mask: Illusion 2 (Aural), Limited to Voices • 1 point

FORGERY

Often as or even more important than disguising one's features is having the right identification to confirm that new appearance. Forgery techniques and technology produce false information, documents, and even artifacts and works of art.

FORGERY BY HAND

Once, all forgery was a matter of artistry, copying penmanship, writing styles, and things like seals and other emblems used to authenticate documents. This falls into the realm of a suitable Expertise skill, including artistic or craft skills, as well as a specific Expertise: Forgery focusing on producing exact copies of things.

In the modern world, most hand-made forgeries are imitations or reproductions of artwork where the traditional techniques like line and brush strokes (as well as materials) are important and cannot easily be reproduced by fabrication.

The results of these forgeries are determined by a Expertise skill check (often routine), which then sets the DC for an Expertise or Investigation skill check to notice any flaw or deviation in the forgery that exposes it as such.

FORGERY BY FABRICATION

More modern forgeries are often reproductions using scanning and fabrication technology able to reproduce

subjects in exacting ways, opposed by similar scanning technology able to detect such forgeries through telltale signs of their fabrication. This typically adds a Technology skill check to the forgery process, in some cases using the lower of the Expertise and Technology check results to set the DC for detecting the forgery, but with a suitable circumstance modifier to the DC for casual observation of the forgery (assuming there's any reason to believe it is not genuine in the first place).

POWER FORGERY

The Create and Illusion effects can produce forgeries, with differing results.

A Subtle Create effect "makes created objects not noticeable as constructs" (**Create**, **Chapter 6**, *Hero's Handbook*) while the Precise modifier "can create more precise and detailed objects." Together, the two modifiers make Create capable of producing convincing forgeries. The GM may require an Expertise skill check to determine the effectiveness of the forgery, perhaps with a circumstance modifier based on the rank of the Create effect used to produce it.

The Illusion effect is designed to deceive, producing sensory impressions that seem real. Some forgeries, especially purely digital creations, may be considered Illusion effects, with their rank determining the difficulty class of detecting that they are not what they appear to be (again, assuming the observer has any reason to disbelieve the illusion in the first place). See the effect description in the Hero's Handbook for details.

With the addition of the Psychic modifier from the **Illusion Powers** section of the *Power Profiles* book, an illusory forgery gains the additional benefit of appearing exactly like an observer *expects* it to appear.

PSYCHIC PASSPORT

This item is capable of appearing to be whatever identification or paperwork the viewer expects the holder to have, or that the holder should have, given the situation. If the passport's effect is also psychic—that is, it just *appears* different, but doesn't actually change—apply Limited to Minds (from *Power Profiles*). It may also be Resistible by Will in that case. An effective psychic passport grants a +20 circumstance bonus to Deception checks to masquerade as whomever (or whatever) the passport claims you are. For example, bluffing your way past government security guards is much easier of you appear to have highlevel security clearance!

Psychic Passport: Morph 2 (identification), Psychic • 12 points

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The science fiction of the 19th and early 20th centuries speculated (as science fiction does) about all kinds of amazing technological innovations that would come about in "the world of the future!" As with later stories, some of this speculation had a core of truth to it, while much of it was wildly innacurate. Nonetheless, the "steamtech" ideas of these stories have become the foundation of a whole sub-genre of fiction looking back on a different view of the future and "high tech," one that sometimes influences comic book superhero settings, particularly given the prevelance of time travel and immortal inventors from bygone eras.

This section looks at the steamtech concepts and how some of them can be applied to create retro-style technology for your own *M&M* series, perhaps even an entire game set in an alternate high-tech Age of Steam!

DESCRIPTORS

Descriptors are an important consideration when it comes to steamtech, as they are often the only things separating it from more conventional technology (see the **Just Add Gears!** sidebar). The following descriptors commonly apply to steamtech:

Clockwork: A clockwork is a collection of interlocking gears, flywheels, and other means of transferring mechanical energy, usually from a coiled spring or some other driver like a water-wheel or steam-engine. Steamtech clockworks can be quite intricate, to the point of clockwork automata capable of mimicking some of the movements and qualities of living creatures, like androids.

Mechanical: In a steamtech context, this descriptor primarily exists to constrast with electronic, which is to say a device that is driven or operates completely on the mechanical transfer of energy rather than the flow of electrons through wires or other conductive material.

Steam-Powered: Steamtech gets its name from the prevalence of steam-engines during the Industrial Revolution, particularly to drive locomotives for trains (classic symbols of the technology of the time) as well as steamships. Steam engines use escaping steam from a boiler as motive power, interacting with both heat and water descriptors for other powers (see the *Power Profiles* sourcebook for details).

BYGONE THEORIES

Some fictional steamtech is based on scientific theories later proven completely erroneous, including the following.

Antigravity: Theories suggested gravity was a type of "radiance" that could be shielded against, perhaps by chemical screens or exotic materials (such as H.G. Wells' cavorite). This shielding would negate some or all of an object's weight, making it easier to lift, or even causing it to "fall" upwards against the normal force of gravity.

Élan Vital: Early biology speculated on the existeince of a "vital force" that animated and brought life to lifeless matter, the key distinction between life and lifelessness. If this *élan vital* could be identified and isolated, then perhaps control over or the creation of life itself is within reach. The classic example of this is in Mary Shelley's novel *Frankenstein*, where electricity (in the form of lightning) is a component of the *élan vital* needed to transform a collection of body parts from corpses into a new "modern Prometheus".

Luminiferous Aether: Physicists theorized that the space between planets and stars was filled with a "luminiferous aether," a rarified medium that allowed light from distant stars to reach Earth, in which the celestial bodies moved. The concept of the aether became increasingly problematic as understanding of electromagnetism, gravity, and planetary motion expanded but, during the 18th and 19th centuries, the concept still held some weight, and was considered a possible medium for "aether ships" to "sail" betwen worlds or to transmit messages (much like telegraphy) to distant worlds.

Phlogiston: Already largely on the rubbish pile of science by the 1800s, phlogiston was a theorical invisible element that gave materials their combustive properties, causing things to burn. Phlogisticated materials would dephlogisticate as they burned and used up their supply of phlogiston. Technologies could take advantage of the amount of phlogiston in a substance. For example, dephlogisticated air would be able to combine with more phlogiston (having none itself) to support combustion longer whereas phlogisticated air was too saturated with phlogiston to support the combustion of other materials.

Given modern knowledge and perspective of these bygone theories, Gamemasters who want to incorporate steamtech into their series should consider one of the following choices:

 No bygone theories: The bygone theories are all false and, therefore, no technology based on them

STEAMTECH

GADGET GUIDES _____MUTANTS & MASTERMIND:

JUST ADD GEARS!

Steamtech is often more a matter of style (and descriptors) than it is of function: In M&M game terms, a device inflicting ballistic Damage is mechanically the same, whether it is a modern semi-automatic, a near-future plastic pistol firing caseless rounds, or a retro steamtech weapon with brass fittings and multiple revolving barrels to change out rounds rather than a sliding chamber mechanism.

What this means is you can use a lot of the existing gadget game information in this book as it is just by changing some descriptors and giving them an appropriately steamtech look and feel. For example, nearly all of the information in the **Robots** guide can apply to steamtech "clockwork men" or "steam-powered automata" save for the fact that they are likely to have mechanical or punch-card "computer" systems rather than digital electronics. The same goes for things like weapons, armor, traps, and so forth.

works, or even exists, in the setting. Ignore anything from this *Guide* that is based on a bygone theory; it is not available in the setting.

- Alternate explanation: Although the inventor or users of the technology might think it is based on a bygone scientific theory, it is not, and actually uses some other mechanism to function, even if it appears otherwise. The most extreme example of this approach is an inventor or other character capable of "bending" reality in order to make otherwise impossible technological achievements work! Perhaps phlogiston is nothing but scientific hokum, but for the infamous Professor Phlogiston, it somehow works! No wonder they laughed at him at university! (Oh, but they will rue the day...).
- Alternate terminology: Superhero settings already include many wild ideas (including magic and mythic beings). Perhaps the bygone theory is merely something else known to the modern world. Common examples include various forms of antigravity (which may exist in a comic book setting regardless of how gravity actually operates) or the élan vital, which is just another "life force" descriptor (see Life Powers in Power Profiles for others).
- Alternate reality: The series is set in an alternate reality where one or more of the bygone theories is actually correct. Perhaps there is a steamtech alternate Earth where the luminferous ether really does exist between planets and serves as a means for space-faring ships to sail the gulf between worlds, or where the élan vital can be found, isolated, and infused, giving life to the lifeless. This approach best suits a series that immerses itself in the tropes of the steamtech period, rather than a traditional modernday setting.

STEAMTECH WEAPONS

"God made men, but Samuel Colt made them equal," the saying goes, referring to Colonel Colt's early development and mass production of the revolving pistol so strongly associated with the American West.

Firearms come into their own in the steamtech era (see **Firearms** for a wider selection). What specifically characterizes steamtech weapons are use of gimmicks beyond just the common sidearm.

CLOCKWORK CARBINE

This steamtech version of an automatic weapon uses spring-loaded clockworks to rotate a series of loaded gun barrels into position in front of a firing chamber and to push new rounds into the barrels from a magazine built into the weapon's stock. Once fully wound, the carbine will run out of ammo before its mechanisms run down, allowing it to be fired like a machine gun.

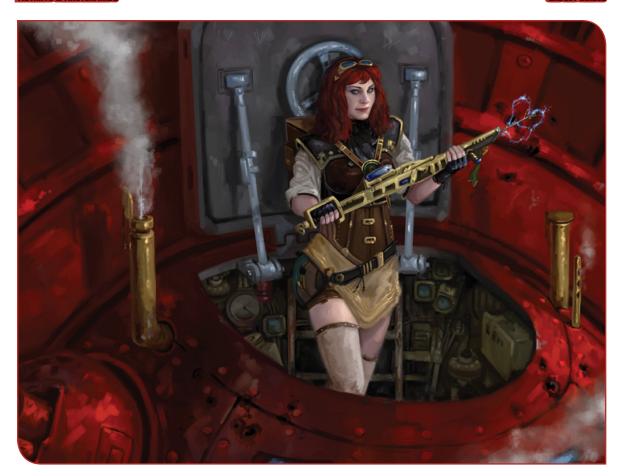
Clockwork Carbine: Ranged Multiattack Damage 4 (ballistic) • 12 points

GIMMICKED CANE

The ubiquitous gentleman's cane can be made into a weapon and tool, or even several of them, depending on the modifications. The cane itself is often machined steel, laquered to look like wood, with a polished metal head and foot, and often an ornamental knob at the top. A cane is useful in and of itself as a bludgeoning weapon, the equal of a club: Strength-based Damage 2. It can also have one or more of the following:

- Blowgun: A hollow length of the cane (perhaps the sheath or container for other gadgetry) serves as a blowgun, with ammunition kept in a compartment at its end. The gun's darts or pellets do negligable damage in and of themselves, but often carry various drugs or toxins for Affliction effects • cost varies (per Affliction effect).
- Compartment: A hollow space resides within part of the cane's length (usually at the top, with the knob as its cap), suitable for stashing a test tube or glass phial, a set of lockpicks, a small stack of coins or roll or bills, or similar small objects Feature 1, 1 point.
- Shock cane: The cane's metal tip is wired to a capacitor controlled by a hidden stud on the handle. When depressed, the cane emits a surge of electricity when it touches a conductive object, including a person, creating an Affliction 3 effect like a close range voltaic gun (see the following) 3 points.
- Spear cane: A short, sharp blade springs from the tip of the cane when a stud on the grip is pressed, allowing it to function like a short spear, doing Strength-based piercing Damage 2, with Improved Critical (19–20) 3 points.

TEINTE(()



- Spyglass: A segment of the cane contains a collapsible spyglass, providing Extended Vision 3 3 points.
- Sword cane: A length of the cane serves as a sheath for a thin sword blade, with the cane's handle as its hilt, equal to a regular sword: Strength-based slashing Damage 3 • 3 points.

Gimmicked Cane: Damage 2 (bludgeoning) plus cost of Features • 2+ points

SLEEVE DERRINGER

This tiny gun fits nearly into the palm of the hand and is fitted into a spring-loaded wrist sheath. With just a quick twist of the wrist, the gun pops into the wearers hand, ready for use, making it an excellent emergency back-up weapon.

Sleeve Derringer: Ranged Damage 3 (ballistic), Subtle, Limited to Two Shots • *4 points*

VOLTAIC GUN

Also known as a "Tesla gun," a voltaic gun is pistol-sized, with a rubberized grip and a copper coil at the end of its barrel. Rather than a projectile, it fires a powerful arc of electricity, sufficient to stun the nervous system of most human-sized creatures. The gun's capacitors are good for only a few shots before it runs out of power, making it a somewhat unreliable weapon. Tesla theorized about

voltaic guns powered by invisible "broadcast power" that would never run out of energy, so long as they were within range of a broadcast source.

Voltaic Gun: Ranged Affliction 6 (electricity; Resisted and Overcome by Fortitude; Dazed, Stunned, Incapaciated), Unreliable (5 uses) • 6 points

STEAMTECH APPARATUS

Steamtech can create a wide range of apparatus for diverse purposes. The following is just a sample of these wonders of science.

As with other steamtech, this category can include many of the other gadgets in this book, modified with appropriate steamtech names and approaches to their design.

ANALYTICAL ENGINE

An analytical engine is a steamtech computer, a mechanical device for running algorithms—typically provided on punch-cards or mechanical tape—and coming to an end-state based on them. Unlike digital computers, analytical engines are mechanical, having no electronics and relying on the power of either mechanical springs or something like a steam engine. This makes them huge compared to even primitive digital computers; an analytical engine intended to do much more than serve as glorified calculator would fill a warehouse.

STEAMIER

GADGET GUIDES ______ MUTANTS & MASTERMINDS

For M&M game purposes, it's simplest to treat steamtech analytical engines as another descriptor for computers (see the **Computers** section), giving them similar capabilities, limited by their mechanical nature. One of the aspects of these devices is that effects intended for electronic computers do not work on mechanical ones!

FLIGHT HARNESS

Based on the initial work of DaVinci and perhaps incorporating antigravity materials (see **Bygone Theories**), the flight harness is a set of bat-like artificial wings, driven either by the muscle power of the wearer or a built-in engine, with a tail-like steering vane. The wearer can glide and bank, much like a hang-glider or, if the harness does include antigravity or similar "lift", emulate true, bird-like flight! Advanced versions may also fold up into a backpack, able to deploy on-command like a parachute.

Flight Harness: Flight 3 (16 MPH) • 3 points (with the Gliding flaw), 6 points (without it)

HYPNOTIC POCKET WATCH

Employing the principles of Dr. Mesmer and vibrational brainwave frequencies, this seemingly innocent pocketwatch contains mechanisms of a diabolical psychic influence. Swung back and forth in front of a victim to activate it, the watch exerts a numbing power, placing its victim into a highly suggestive mental trance.

Hypnotic Pocket Watch: Affliction 8 (Resisted and Overcome by Will; Entranced, Compelled, Controlled), Concentration, Subtle, Activation (move action), Sense-Dependent (subject must see the watch and hear the hypnotist) • 4 points

X-RAY GOGGLES

These heavy, thick-lensed, goggles emit invisible rays which the lenses translate into shadowy images, allowing the wearer to "see" through solid objects, perceiving varying degrees of material density as dark (dense) and light (less dense).

X-Ray Goggles: Senses 4 (Vision Penetrates Concealment) • 4 points

STEAMTECH VEHICLES

Emerging from an era where riding animals and sailing were the most advanced forms of travel, steamtech embraces a whole range of potential vehicles. The steamtrain is the symbol of the era, and the reliable work-horse of mass travel, but wondrous inventions promise even faster and more exotic forms of transportation.

See **Vehicles** and **Chapter 7** of the *Hero's Handbook* for additional information about vehicles, their capabilities, and optional features.

DIRIGIBLE

An improvement upon the concept of simple travel by balloon, the dirigible offers both a more aerodynamic shape as well as the potential for engine-driven fans or propellers to allow the ship to move under its own power, rather than being at the mercy of the winds. Truly advanced engines, perhaps incorporating concepts of antigravity or eletromagnetism, may allow an airship even greater speed and maneuverability. As it is, a dirigible's primary advantage in the steamtech era is the relative lack of other aircraft to match it.

A sizeable gondola provides an excellent platform for mounting large-scale versions of the clcokwork carbine or voltaic gun (previously) with as much as double the ranks of the personal weapons. Vehicle features like a smokescreen (simulating a cloud-bank) or even a cloaking device may suit a dirigible.

DIRIGIBLE

Size: Colossal Strength: 16 Speed: 4 (air, 30 MPH) Defense: -8 Toughness: 13 Features: Navigation System

DIVING BELL

The simplest form of this vehicle is a metal shell (possibly with viewing ports of reinforced glass or other transparent material) with an open bottom, which is lowered into water, the air pressure within the shell keeping the water from entering it, but allowing divers to pass through the opening out of and back into the bell. Diving bells (along with underwater breathing apparatus) allow for the exploration of aquatic sites and visits to mysterious underwater ruins or even hidden aquatic civilizations. The bell may be packed with scientific instruments for measuring and recording these discoveries, and it is usually deployed from a ship on the surface, which limits the depth to which the bell may be lowered, in addition to practical concerns over how much water pressure the metal structure can withstand before being crushed.

DIVING BELL 4 EP

Size: Large Strength: 4 Speed: 1 (aquatic) Defense: -2 Toughness: 8 Features: Airlock

ORNITHOPTER

A step beyond the flying harness and its design (previously), an ornithopter is an aircraft that artificially recreates the flight of birds and other winged creatures. The most basic design is powered by the pilot, pedalling like a bicycle, while more advanced versions have steam or electric engines. The framework is necessarily light, primarily wood and fabric, although more advanced materials may be included.

ORNITHOPTER

9 EP

13 EP

Size: Large Strength: 4 Speed: 3 (air, 16 MPH) Defense: 0 Toughness: 7 Features: None

STERMTECH.

SUBMERSIBLE

A step beyond the simple diving bell (previously), submersibles are true underwater vehicles: self-contained with motive power of their own. Their primary limitation is the amount of time they can remain submerged without surfacing to replenish their air supply; with an internalized means of doing so, a submersible could stay beneath the surface for days or longer.

The simplest submersible may be little more than a one-or two-person vehicle, intended for short jaunts or scouting missions (or as a launch for a larger vessel) while the most advanced may be almost sovereign unto themselves, able to operate at sea for great lengths of time and equipped with weaponry ranging from rams and powerful harpoon guns to torpedoes or an electrified hull (similar to a close range voltaic gun).

SUBMERSIBLE

25 EP

Size: Colossal **Strength:** 16 **Speed:** 5 (water) **Defense:** -6 **Toughness:** 13 **Powers:** Impervious Toughness 12 **Features:** Living Quarters, Navigation System

TIME MACHINE

The most unusual of steamtech vehicles, this machine does not move in space, but in time! Consisting of a largely open console surrounding a central pilot's chair, the machine has dials and levers for measuring and controlling its "speed" through time, vanishing from its point of departure, moving through the time-stream, then rematerializing at that same physical location at some point in the past or future.

The time machine is driven by a complex engine, most likely powered by electromagnetic principles, although it may require some exotic or unusual materials (radium, for example) and travel may deplete its capacitors, requiring a means of recharging, which can be quite difficult in the bygone eras of the past!

At the Gamemaster's option, a time machine may also be able to access alternate or parallel timelines, adding Dimensional Travel to its movement capabilities. Even time machines not normally capable of this might end up doing it accidentally, if the right circumstances come together.

TIME MACHINE

7 EP

Size: Medium Strength: 0 Speed: 0 Defense: 0 Toughness: 5 Powers: Movement 3 (Time Travel 3) Features: None

STEAMTECH SORCERY

The 19th Century also saw a resurrgence in the occult and spiritualism, including an influx of spiritual ideas and practices from the Near and Far East, influencing and combining with concepts in Europe. It was also a time for seeking scientific explanations for many "paranormal" phenomena, including psychic abilities, ghosts, and the nature of

the mind and spirit, all things previously considered the realm of the supernatural.

Steamtech sorcery may include many of the things described in the **Aritificing** section of the **Inventing** appendix as well as the material in the **Rituals** appendix. The steamtech era is also one of the first for the application of scientific and technical principles to the arcane arts, a melding of the scientific and the sorcerous.

ELECTROETHERIC BARRIER

An understanding of the etheric and ectoplasmic nature of spirit, combined with the use of arcane conductive materials, leads to the creation of this unique type of magical ward. The apparatus is a braided metallic cable of arcanely-prepared materials, connected to a capacitor or other power source. When activated, an electrical charge energizes the cable, causing it to emit an electroetheric barrier, through which ectoplasmic forms cannot pass. The cable is typically used to outline the shape of the barrier, laying it across an opening or in a circle to form a closed loop.

Electroetheric Barrier: Shapeable Area Affliction (Resisted and Overcome by Will; Entranced, Compelled, Controlled), Affects Insubstantial 2, Progressive, Limited to Supernatural Spirits • 2 points + 2 points per rank

ETHERIC COMMUNICATOR

With the discovery of the principles of radio and telegraphy, this form of communication with the spirit world—the so-called "seance-in-a-box"—becomes possible. Tuned to the right frequencies, the etheric communicator allows spirit entities to speak in audible tones and receive messages transmitted to them.

Etheric Communicator: Comprehend 2 (spirits) • 4 points

SPELL ENGINE

The spell engine is based on the idea that magical rituals are procedures that, like many of the procedures and crafts of the pre-industrial world, can be automated. An analytical engine (previously) carries out the necessary process of compiling and executing the ritual, creating an "engine" capable of casting spells!

At the basic level, a spell engine simply allows non-ritualists to encode the process of a ritual onto media like punch cards and then run them through the engine to execute the ritual: the preparation is the creation of the program, while the performance is the execution of it. The Technology skill of the programmer is used in place of Expertise: Magic for the necessary checks.

A more advanced spell engine may have ranks of Quickness to reflect its ability to handle more "compact" programming instructions.

Spell Engine: Enhanced Adantage (Ritualist), Feature 1 (self-executing ritual) • 2 points

"I HAVE YOU FIRMLY IN MY CLUTCHES NOW, HEROES! BWA HA HA HA HA HA HA HA HA HA!"

- EVERY VILLAIN EVER

They are a part of every well-prepared villain's bag of tricks, ranging from the fiendishly complex to the seemingly simple—traps.

Some are meant just to capture, others are meant to interrogate, torture, or kill. All of them are potential challenges for heroes in your MUTANTS & MASTERMINDS games.

Types of traps

The MUTANTS & MASTERMINDS *Gamemaster's Guide* discusses traps in some depth in **Chapter 5**, focusing on traps as challenges for heroes to overcome.

This Guide divides traps into four main types, including the two from the *Gamemaster's Guide*. They are:

- Action traps, meant to be used during action time to capture or incapacitate opponents, function much like other gadgets.
- Capture traps, intended to restrain or contain subjects, but generally leave them unharmed (although such traps can still be quite dangerous).
- Stress traps, used for interrogation or torture of captured subjects, but still intended not to kill, although they may cause lasting harm or even death unintentionally.
- Deathtraps, designed as slow (and often torturous) forms of execution for their victims.

By their very nature stress traps and deathtraps tend to be limited to villains, although some vigilante heroes may use stress traps of a sort, or even find that "deathtraps" seem to spring up when they're around (see the **Poetic Justice** sidebar under **Deathtraps**).

TRAPS & INSTALLATIONS

Other than action traps (which are often portable), traps are usually found as features of installations (see the **Installations** guide, and **Chapter 7** of the *Hero's Handbook*) using the Defense System, Deathtrap, Effect, or Holding Cells features or some combination thereof. For ease, each trap can be considered an Effect feature, regardless of its intended purpose.

TRIGGERS

The Triggered extra (see **Chapter 6** of the *Hero's Hand-book*) is a common element of trap effects, allowing the trap to lie in wait until a target comes into range, or does something to set it off.

As the extra specifies, a trigger must have a particular circumstance that activates it, and the circumstance must be detectable to a normal sense, or a Senses effect Limited and Linked to the Trigger. Note

that there is a difference between a trigger limited to a particular target or class of targets and an effect that is Selective or Limited. For example, a Burst Area Damage effect Resisted by Will might be Triggered by a Detect Mental Powers Sense but, once triggered, affects all targets in its area unless the Damage effect is also Selective or Limited to Targets With Mental Powers (or the like).

DETECTING TRIGGERS

A set Triggered effect has a degree of subtlety (it is not noticed automatically) but may be detected with a successful Perception check (DC 10 + effect rank).

Subtle: The addition of a rank of the Subtle extra makes the set effect only noticeable to certain unusual senses, while Subtle 2 means the set effect is undetectable until it is triggered. These are separate from the effect itself, which can also be Subtle or Insidious, making it difficult to detect even after it is triggered. *1 point per rank*.

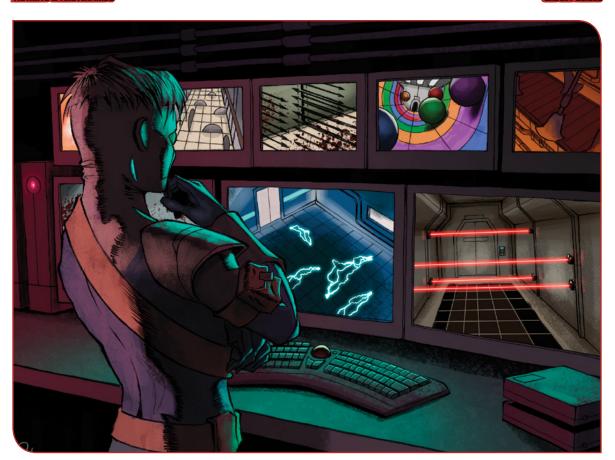
Example: A magical exploding glyph is Triggered by anyone walking across or touching it, but the glyph is also only visible to those able to perceive magical forces, giving it a rank of Subtle. If the glyph were invisible to everyone, it would have Subtle 2.

DISARMING & BYPASSING TRIGGERS

Once detected, a set Triggered effect can be potentially disarmed or bypassed with a suitable skill or power check (DC 10 + effect rank). The Gamemaster should choose reasonable checks to disarm or bypass the trigger, based on its descriptors.

A disarmed effect is no longer set and will not activate. A bypassed effect remains set, and may activate if the requirements of its trigger are met again, but does not activate in that particular instance. Whether the effect is disarmed or bypassed depends on the trigger's descrip-

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tors and possibly the choice of the character making the check. The GM can choose to make one option more difficult than the other, adding a major circumstance penalty to the former (+5 DC). The two options may require different traits for the check as well.

Examples: A technological trap may be bypassed or disarmed with a Technology skill check, but some traps may be harder to bypass rather than disarm, adding +5 to the check DC. The trap could also be bypassed using physical means—such as an Acrobatics check—for that character only, without the increase to DC. A magical trap might be disarmed with a successful Nullify check, or bypassed with an Expertise: Magic skill check. An "intelligent" trap could even be disarmed or bypassed using an interaction skill check!

Complex: The triggered effect is especially difficult to bypass or disarm. Each additional rank of the Triggered extra devoted to this modifier increases the DC to do so by +5. 1 point per rank

Layered: At the GM's option, each additional rank of the Triggered extra devoted to this modifier adds an additional check (at the trigger's base DC) needed in order to disarm or bypass it, taking the normal time required for that check. So a laser beam detection system with Layered 2, for example, requires three successful checks to bypass or disarm. 1 point per rank

Unusual: Requiring a rare or unusual trait to disarm or bypass a trigger may call for a rank of the Subtle modi-

fier to reflect the added benefit this grants the user of the effect. *1 point*

SAMPLE TRIGGERS

The following are just a few potential Triggered extras a trap might have. All of them include the Triggered extra for 1 point (unless 1 rank is added for a Variable Trigger) and all Senses effects are both Limited and Linked to Trigger (a – 1 point per rank flaw).

- Infrared or Laser Beam: A subject crossing the beam triggers the effect (infravision), Senses 1 (Infravision), Subtle • 3 points
- **Light Sensitive:** Triggers the effect when the surrounding light level changes in a specific way (vision) 1 point
- Mind Detector: Triggers the effect when a subject is detected, Senses 2 (Detect Minds, Ranged, mental).
 Add Acute for detecting specific minds. • 2 points
- Motion Sensitive: Triggers the effect when the device is moved (touch) • 1 point
- **Pattern Recognition:** Triggers the effect when the device detects a particular image (face, logo, etc.; visual) 1 point
- **Timer:** Triggers the effect after a set amount of time elapses. Senses 1 (Time Sense) may be required for truly split-second timing 1 point

TRAPS

GADGET GUIDES ______MUTANTS & MASTERMINDS

"(GASP!) MY ONE WEAKNESS!"

A common element of traps for superheroes is targeting their specific weaknesses and vulnerabilities. If a hero is amphibious, for example, then a trap may rely on dehydrating him, while an ice-using hero is surrounded by intense heat or fire, and so forth. Sometimes this is the villain guessing at fairly obvious weaknesses while in other cases the trapper exploits a known and useful weakness, such as a rare element or a hero whose secretly Faerie-derived powers are taken away by chains of cold iron.

Sometimes the "weakness" exploited by a trap is not even a Power Loss or Weakness complication *per se,* but more of an instance of one effect countering another (see **Countering Effects** in **Chapter 6** of the *Hero's Handbook*). It's fairly common-sense for a villain looking to trap a fire-using hero to use fire-retardant materials, for example. Whether the GM chooses to consider this a complication is largely based on whether or not the hero gets an effect rank check to resist versus simply suffering the power loss. Indeed, Gamemasters can even leave it up to the player: choose to resist normally or accept a complication and lose out on the resistance check altogether.

- Tripwire: Triggers the effect when the subject touches or crosses a line (touch). A related trigger is a pressure sensitive floor or other trigger that responds to touch. • 1 point
- Voice Activated: Triggers the effect when the device detects a specific voice or voices (hearing). A related trigger is someone speaking a key word or phrase
 1 point

REPEATED TRIGGERS

Once activated, a Triggered effect is expended and does not activate again until it is reset. For an effect that activates over and over in response to a particular trigger, apply the Reaction modifier to the effect instead. This follows the same guidelines for a Triggered effect, except the number of activations is unlimited and the effect remains set until it is specifically disarmed or deactivated.

Repeating: At the GM's option, an intermediate stage between Triggered and Reaction is to allow additional ranks of the Triggered extra to extend the number of activations; each additional rank allows the Triggered effect to activate an additional time before it is expended and must be reset. *1 point per rank*

TRIGGERS & EXTRA EFFORT

As many characters—particularly heroes—are unlikely to take many regular power effects with the Triggered extra, but will occasionally wish to create traps employing it (and some of their other effects), Gamemasters may wish to employ the following guidelines.

Treat the creation of a trap as a use of extra effort (**Chapter 1** of the *Hero's Handbook*), essentially a power stunt of sorts. Rather than immediately taking effect, the hero is setting up the stunt, Triggered for later use. Although it slightly bends the Alternate Effect guidelines, given the single use nature of the Triggered modifier, it works reasonably well. Since this option may permit heroes the time to recover from the fatigue of extra effort, the GM may wish to require a hero point for this type of extra effort (treating it like a Heroic Feat).

Example: Giving Deathtrap a taste of his own medicine, the Rook lays a trap for his foe, a simple tripwire intended to give him an edge in the con-

frontation with Deathtrap to come. He uses materials from his gadgets and makes it a power stunt of his arsenal array:

Tripwire: Affliction 9 (Resisted by Dodge, Overcome by Fortitude; Hindered and Vulnerable, Defenseless and Prone), Extra Condition, Triggered, Limited Degree

The GM asks the Rook's player to spend a hero point on setting up the trap, noting that it has a DC of 19 (10 + rank 9) to notice and to disarm. When Deathtrap rushes to his control panel, thinking he has the advantage, he's in for a surprise!

RETROACTIVE TRAPS

Players may even be able to use the Edit Scene capability of spending a hero point (**Chapter 1** of the *Hero's Handbook*) to retroactively *insert* a trap into the scene! This should be in addition to any requirements for creating the trap in the first place, and the player should have a plausible explanation or opportunity for how the trap got there; otherwise, this is best handled as a regular power stunt instead of a retroactive Triggered effect.

Example: Extending the prior example, the Rook, having infiltrated and scouted Deathtrap's lair after escaping from his latest trap (and also blacking out his sensors), confronts the villain, who rushes to his control room.

"I want to spend a hero point to have planted a tripwire trap across the door of the room," the Rook's player says, outlining its effect. The GM nods, requesting an additional hero point for the power stunt of the trap itself. She then rolls the dice, saying:

"Deathtrap glances back over his shoulder as he rushes towards his console, failing to see the nearly invisible wire. He tumbles into the room and sprawls across the floor!"

TRAPS & COMPLICATIONS

Used as Gamemaster tools, traps often rely on complications (see **Chapter 2** of the *Hero's Handbook* and **Chapter** 5 of the *Gamemaster's Guide*). While power effects, challenges, and environments have a great deal to do with de-

RIPS

MUTANTS & MASTERMINDS ______GADGET GUIDES

fining traps, complications are sometimes useful (or even necessary) in making them function. Trap complications tend to break down into two main types: catching the heroes unprepared or unawares (springing the trap) and making it more difficult for heroes to overcome or escape the trap, or making the trap more effective against its particular targets.

In the first case, the occurrence of the trap itself—setting it off or falling into it—is treated as a complication. Rather than giving the heroes Perception checks or other opportunities to avoid the trap, the GM simply springs it on them without warning, perhaps even editing things a bit behind the scenes to make the trap fit into the overall story, as if the villain planned it that way. Generally, when the players are hit with an unavoidable situation that does not result from their choices, it's a complication. This means many traps start out with the heroes earning a hero point just for being put into the trap.

In the second case, Gamemasters can make traps more challenging by limiting the heroes in various ways. This might be a direct use of a Power Loss or Weakness complication (see the sidebar, previously, for more on this) or adding innocent civilians or loved ones into the mix, giving the heroes people other than themselves to take care of, who may be more at risk. Traps can also step on a hero's psychological quirks and complications, intentionally or accidentally, such as a claustrophobe being trapped in a room where the walls a closing in, or an arachnophobe confronted with a pit of deadly spiders.

ACTION TRAPS

Traps used during action time tend to fall into two categories: weapons that immobilize or incapacitate targets rather than damaging them outright, and stand-alone gadgets that are Triggered (see **Triggers**, previously, and the other types of traps following).

BINDING BLASTER

A binding blaster is a straightforward ranged weapon designed to restrain a target using netting, cables, webbing, fast-hardening glue, or similar materials. Some binding blasters feature materials that can be layered to enhance their effect; apply the Cumulative extra to reflect this. For things like capture materials that replicate and "grow" on their own once they have stuck to the target, apply the Progressive modifier instead. For a net gun or similar area weapon, apply the Burst Area modifier (or another Area modifier like Cone or Cloud).

Binding Blaster: Ranged Affliction (Resisted by Dodge, Overcome by Damage; Hindered and Vulnerable, Defenseless and Immobilized), Alternate Resistance (Dodge), Extra Condition, Limited Degree • 2 points per rank

GAS GUN

This weapon fires a cloud of knockout gas intended to incapacitate targets. Gas guns with greater range may fire gas *grenades* that burst on target, adding the Ranged

extra. A gas gun might also have the Cone or Line Area extras in place of the Cloud Area, but lack the secondary effect Cloud Area has on targets.

Gas Gun: Cloud Area Affliction (Resisted and Overcome by Fortitude; Impaired, Disabled, Incapacitated), Cumulative • 3 points per rank

HYPNOTIC INDUCER

The hypnotic inducer places its target into a trance, allowing for easy capture. Other versions of the device may induce states like fear, ecstasy, or even agony to incapacitate the target, rather than a passive trance state, but all of them incapacitate, regardless of the descriptor. An inducer that relies on a visible beam or display may be Vision Dependent, having no effect on those unable to see it.

Hypnotic Inducer: Ranged Affliction (Resisted and Overcome by Will; Entranced, Stunned, Incapacitated), Cumulative
• 3 points per rank

SPEED BUMP

The "speed bump" is a trap for high-mobility targets, typically involving things like scattering marbles or ball bearings, or creating slicks of oil or other low-friction materials, causing quick-moving targets to slip and fall. The Cone Area is a typical spread from the user, but you can substitute other Area modifiers for different dispersal patterns (or make the different patterns and modifiers Alternate Effects in an array).

Speed Bump: Cone Area Affliction (Resisted by Perception, Overcome by Fortitude; Hindered and Vulnerable, Defenseless and Prone), Alternate Resistance (Perception), Extra Condition, Limited Degree • 3 points per rank

CAPTURE TRAPS

Capture traps are often fixed versions of action traps (previously) installed as defense systems in structures (see **Installations** and **Chapter 7** of the *Hero's Handbook*). They are designed to restrain or incapacitate intruders without any lasting harm. Capture traps even show up in villainous lairs as a means of capturing foes alive in order to subject them to the torture of stress traps or to eliminate them in proper deathtraps (see the following).

DROP CAGE

The drop cage is simplest of capture traps: when triggered, a cage or enclosure drops into place around the target, trapping them. The cage is typically barred, but could be composed of a solid material, even airtight once it is closed, to entrap targets mere bars cannot contain. The cage has Toughness equal to its rank.

Drop Cage: Create Cage, Continuous, Triggered, Limited to Cages, Limited to Trapping • 1 point + 1 point per rank

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GRAPPLERS

Grapplers consist of artificial tendrils, tentacles, hands, or similar grabbing devices that seize and immobilize targets in their area.

Grapplers: Burst Area Affliction (Resisted by Dodge, Overcome by Damage; Hindered and Vulnerable, Defenseless and Immobilized), Extra Condition, Triggered. Limited Degree • 1 point + 2 points per rank

TAR PIT

A tar pit trap drops the victims into a sticky or viscous substance (which may or may not be actual tar). If it is possible for the victims to sink deep enough to suffocate, a tar pit may also eventually be a deathtrap.

Tar Pit: Burst Area Affliction (Resisted by Dodge, Overcome by Strength; Hindered and Vulnerable, Defenseless and Immobilized), Extra Condition, Progressive, Triggered, Limited Degree • 1 point + 4 points per rank

TELEPORTER

A teleporter trap suddenly transports targets into another trap, ranging from a prison cell to one of the traps described in this Guide. This type of capture trap is often applied as a complication, waiving the resistance check and awarding a hero point for the automatic capture.

Teleporter: Burst Area Teleport Attack, Triggered • 3 points per rank

STRESS TRAPS

The degree to which Gamemasters and players want to play out the effects of stress traps in the game depends on how comfortable they are with the idea of even fictional torture. Generally, more four color stress traps inflict pain in a bloodless fashion, with the focus more on a struggle of wills between the interrogator and the victim, while darker settings might have more realistic interrogation techniques and effects.

Afflictions associated with stress traps often have the Instant Recovery flaw; once the victim is free of the trap, all of its effects end immediately.

AGONY BEAM

This trap has a neural stimulator or similar effect that causes the victim searing pain.

Agony Beam: Affliction (Resisted and Overcome by Will; Dazed and Impaired, Defenseless and Stunned), Cumulative, Extra Condition, Limited Degree • 2 points per rank

BRAINWASHING

Rather than torment, a brainwashing trap attempts to break the victim's will, "reprogramming" them to suit the

POETIC JUSTICE

While heroes don't plan fiendish deathtraps for their foes, they are still known to happen from time to time. Usually, they're "tragic accidents" or cases of villains hoisted on their own petards—such as falling into a trap set for the heroes, either too suddenly for the good guys to do anything about it, or too stubborn to let them. ("Take my hand!" – "Never!") Such fates usually occur "off-panel" enough to leave the villain's ultimate fate in doubt, at least ensuring there's no body to recover. This sets villains up for a sudden and mysterious return next time, along with an explanation of how they avoided certain death.

captor's wishes. Victims often exhaust themselves using extra effort to attempt to resist the effect.

Brainwashing: Affliction (Resisted and Overcome by Will; Entranced, Compelled, Controlled), Cumulative • 2 points per rank

MIND PROBE

A mind probe delves deep into the target's thoughts and memories to extract information.

Mind Probe: Mind Reading, Cumulative, Close • 1 point per rank

DEATHTRAPS

Although designed to be lethal, the ultimate purpose of all deathtraps is to *prolong* the victims' struggles, to allow them the opportunity to fight against their fate, knowing they are doomed, before it its finally sealed. After all, if a villain truly wanted to eliminate captured heroes, there are far more brutal and efficient means than a deathtrap. The key is that the villain wants the heroes to suffer, and needs for them to be awake and aware of their impending doom, which also allows them the opportunity for escape.

Chapter 5 of the *M&M Gamemaster's Guide* details a number of different types of deathtraps, including the idea of combination traps using two or more of the basic types at the same time. As described in that chapter, deathtraps are best handled as challenges rather than power effects, although they may include power effects, particularly for instances where the heroes accumulate degrees of failure on their challenge checks.

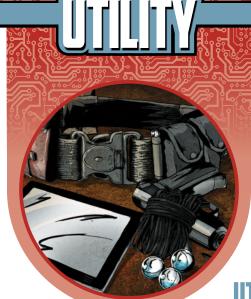
As described in the *Gamemaster's Guide*, the base DC for a deathtrap check is the series power level, with the base number of degrees of success required equal to half that number (so DC 10 and 5 degrees of success for a base PL10 trap). The heroes must accumulate enough success before three total degrees of failure to escape the trap.

If you are using the Deathtrap feature for installations, base the DC on the installation's power level and the success threshold on half that number. Each additional Feature rank increases either the DC or threshold by +1.

Tillig

The ubiquitous "utility belt", the hero's best friend, can be a player's worst nightmare when it comes to stocking all of those various pockets and pouches with just the right equipment for every occasion.

This section looks at options for utility belts (and bags, bandoiliers, and containers of all sorts) and the things you carry in them so your hero is never caught unprepared!



Example: Knicknack has a Utility array with a base cost of 25 points for its most expensive gadget. His player chooses to widen the array by paying a base cost of 50 points, plus the usual 1 point per Alternate, but now Knicknack can use any two Alternates at once, so long as their total values as individual items does not exceed 50 points.

UTILITY FEATURES

THE UTILITY ARRAY

The usual configuration for a utility belt is in an array of alternate items (*Hero's Handbook*, page 136) the user can pull out one at a time. This works well for most things, although it can limit combinations like wielding a defenive and offensive gadget at once, or using either alongside a movement gadget. For this reason, characters may pay power points for some items outside of the utility belt's array so they are always available.

Although the array is treated as a single "power" or "piece of equipment" in terms of cost, in play it is collection of items, so a character may, for example, lose a single alternate from the array due to a disarm or similar effect, or lose the entire thing, if the container it is held in is taken away.

WIDE ARRAYS

Alternately, characters have the option of paying a higher base cost in order to "widen" the array to mixand-match alternates from it, so long as their total does not exceed the increased base cost. This differs from a Dynamic Array (*Hero's Handbook*, page 138) in that each alternate is fixed; the character must assign all the necessary points to the alternate or none of them, whereas Dynamic Alternates vary.

Utility gadgets, as the name implies, are practically made for the Feature effect, and vice versa. A great many utility items are nothing more than a rank or two of Feature providing a particular benefit or convenience for the character, ranging from a toolset to access to information or the ability to overcome a circumstance penalty (or to gain a circumstance bonus) for having the "right tool for the job". In addition to the specific items listed in this Guide, the following Feature guidelines may be useful for creating utility gadgets. A Feature effect may be used to:

- Provide a bonus: The Feature offers a circumstance bonus in particular instances where it is useful, such as making it easier to peform a particular task or use a particular skill or aspect of a skill. Whether the Feature provides a +2 or +5 bonus depends on how common the circumstance is expected to be; +2 for circumstances that occur more than a quarter of the time, +5 for less frequent circumstances.
- Overcome a penalty: Similarly, the Feature removes a circumstance penalty from a particular task or situation, ranging from the penalties for poor visibility or environmental conditions to those for lacking proper tools or equipment. See the various penalties assessed against skill use in Chapter 4 of the M&M

ROBOTIC SHARK REPELLANT?

Utility belts are home to some of the most oddball and unexpected gadgets. Some characters always seem to have just the right thing at the right time to solve any problem, no matter how unlikely it might be for them to be carrying something like it around with them.

At the basic level, utility belts offer excellent opportunities to spend hero points for on-hand equipment and power stunts (*Hero's Handbook*, pages 161 and 20, respectively). Need an antitoxin or a dose of powerful defoliant? Spend a hero point and you just "happen" to have some!

For more extreme cases, Gamemasters can consider allowing "omni-items"—essentially a placeholder power for any effect that reasonably fits into the descriptors of the character's utility gadgets. This is a Variable effect (*Hero's Handbook*, page 132) often with an Action modifier (depending on how quickly the character can retrieve the item) and possibly a Quirk or Limit if the item has to be less than 1 rank of effect (5 power points of cost), such as:

Variable 1 (any tool or skill equipment), Free Action, Quirk (Limited to 2 equipment points or less, -3 points) • 6 points

GADGET GUIDES, MUTANTS & MASTERMINDS

Hero's Handbook for examples. Whether the Feature overcomes a –2 or –5 penalty depends on frequency, as described for bonuses, previously.

• Fulfill a useful function: This is the broadest category of Features, since they are more difficult to quantify. Essentially, one rank of the Feature effect is good for the ability to perform a specific useful function. The emphasis here is upon useful, a function that is mere background color is just a descriptor. For example, it's not a Feature to be able to use an item as a bottle opener. Even if that is handy in some situations, it's not all that useful in game terms. A multitool, however, is useful in a broad enough range of situations to qualify as a Feature (Hero's Handbook, page 163).

OFFENSIVE UTILITIES

Offensive gadgets in a utility belt tend to be either small enough to fit into the palm of the hand, or collapsable to that size, able to quickly expand or unfold to full size for use. They supplement the user's own combat skills, particularly by providing some ranged attack options and ways of taking down multiple opponents.

As with most weapons requiring ammunition, offensive utilities are assumed to be essentially unlimited in number, unless a flaw like Unreliable is specifically applied to limit their uses, or the GM chooses to apply a complication where the user runs out. See **Ammo**, **Batteries**, and **Charges** on page 161 of the *Hero's Handbook* for additional discussion. This is separate from any Removable modifier on the gadgets, which may result in the user losing access to them in different ways.

Offensive utilities are often small and limited compared to other weapons; the examples given in the *Hero's Handbook*, for example are more likely to affect only minion or and low power-level opponents rather than foes of the recommended starting power level of 10 or more. This is largely intentional, as utility users tend to fight more low-level foes, particularly with weapons. However, in dealing with more powerful opponents, they do have some options:

- Advantages like Power Attack can greatly enhance the
 effect of a direct attack weapon like brass knuckles
 or a throwing weapon (following) and users of utility
 gadgets typically have enough skill in wielding them
 to make this sacrifice of accuracy for power while retaining a good chance to succeed with their attacks.
- Offensive gadgets may be useful for extra effort, particularly power stunts to target a foe's known weak points or providing a circumstance bonus for some other action, such as an Intimidation check; the weapon itself isn't so important as the flashy effect making the hero appear menacing.
- Lastly, the only real limit on offensive utilities is the same as all weapons in the game: the series power level. The GM may require some high-powered weapons to be devices rather than equipment (see The Limits of Equipment, Hero's Handbook, page 162, for details).

BRASS KNUCKLES

A heavy striking plate that fits over the knuckles, increasing the damage of the wielder's punches. Originally made of brass, modern versions are more likely chromed steel or advanced composites.

A set of brass knuckles might have high-tech or magical capabilities to inflict additional damage, channeling kinetic energy, electricity, or some similar damaging effect. This gives the Damage effect at least two descriptors: bludgeoning and one other. A weapon with the Variable Descriptor modifier may even have different "settings" for energy or damage types.

Brass Knuckles: Strength-based Damage • 1 point per rank.

CAPTURE WEAPON

A throwing weapon intended to hinder and capture a target, such as a bolo, collapsible net, or even fast-hardening foam grenade. The latter versions may also have the Burst or Cloud Area modifiers.

Capture Weapon: Ranged Affliction (Resisted by Dodge, Overcome by Damage; Hindered and Vulnerable, Defenseless and Immobilized), Extra Condition, Limited Degree • 2 points per rank.

COLLAPSIBLE TRUNCHEON

A club or baton that collapses small enough to fit into the palm of the hand (or a utility pouch or pocket). A version able to extend out into a bo- or quarterstaff has an additional rank of Reach, increasing cost to 4 points.

Collapsible Truncheon: Strength Based Damage 2, Subtle (concealable) • *3 points*.

MINI-GRENADES

A single palm-sized device or a handful of smaller, pelletor ballbearing sized ones. Mini-grenades, like their larger cousins, are either explosives, flash-bangs, or gas weapons covering an area around where they are used.

Mini-Grenades: Choose one of the following, with the others available as Alternate Effects:

- Explosive: Ranged Burst Area Damage 3 points per rank.
- Flash Bang: Ranged Burst Area Affliction (Resisted by Dodge, Overcome by Fortitude; Impaired, Disabled, Unaware) • 3 points per rank.
- Gas: Ranged Cloud Area Affliction (Resisted and Overcome by Fortitude; Dazed, Stunned, Incapacitated) • 3 points per rank.

THROWING WEAPON

A small handheld and aerodynamic object, designed to be thrown as a weapon. This might be a boomerang, flying disk, sphere (like a small baseball), or some other shape based on the character's theme.

MUTANTS & MASTERMINDS GADGET GUIDES

THE COMPLETE PACKAGE

"How much for one with everything?" you might ask. As discussed under **The Utility Array**, the gadgets from this Guide are often kept together as a single device, used largely one at a time as they are needed, with the overall array used for power stunts to "happen" to have other items on-hand, or in the seemingly bottomless container where the regular gadgets are kept.

The cost for having *everything* in this Guide in a single utility belt (or other container) is the cost of the most expensive gadget, plus 1 point for each additional item as an Alternate Effect. The most expensive items are the mini-grenades; assuming a rank of 6 for them (costing 18 points), the total cost of the container would be 45 points (a base 18 plus 27 additional items). This is in equipment points if the utilities are treated entirely as equipment (requiring 9 ranks of the Equipment advantage) or it can be a device with the Removable modifier. Note that containers for utility gadgets are typically not Easy to Remove, even if some of the individual items may be.

Even if you don't have "one with everything" keep in mind that you can always spend a hero point to temporarily add one of the items fron this Guide to your hero's arsenal for one use when the need arises!

Characters often have various advantages involving their throwing weapons, from Improved Critical and Improved Disarm to Throwing Mastery. Some weapons may also provide Enhanced Advantages, like Improved Critical, which are qualities of the weapon, rather than the wielder.

If a throwing weapon is Strength-based, apply additional ranks of the Ranged modifier to cover the amount of additional Strength the weapon can handle, such as: Strength-based Damage 1, Ranged 3, meaning up to 2 ranks of the thrower's Strength is added to the weapon's damage when it is thrown.

Throwing Weapon: Ranged Damage • 2 points per rank.

DEFENSIVE UTILITIES

Given the size limitations of most utility gadgets, defensive utilities tend to be focused on dealing with particular hazards rather than providing overall defense.

Defensive and other utility gadgets are assumed to be for one user, the character has only one gasmask or set of climbing gear for example. The character can share or loan out the gadget like the +0 version of Affects Others: losing the use of it while someone else has it. The GM can also allow the application of the +1 version Affects Others modifier to grant an additional copy of that gadget the character can provide while still being able to use the original.

ANTITOXIN

A chemical compound designed to neutralize the effects of certain known toxins or venoms. Applying an antitoxin grants a +5 circumstance bonus on resistance checks against the toxin.

Antitoxin: Feature (+5 bonus on resistance checks against toxins) • 1 point.

GASMASK

A foldable filter mask that provides protection against inhaled gases and those directed at the face (such as eye protection against tear gas).

Gasmask: Immunity 1 (gases) • 1 point.

REBREATHER

A small oxygen cylinder and filter with a mouthpiece, providing a few minutes of breathable air. Generally, having a rebreather run out is a complication.

Rebreather: Immunity 2 (suffocation) • 2 points.

MOVEMENT UTILITIES

Like defensive utility, most movement utilities need to be small and collapsible in order to be easily carried. Many are intended for emergency use or as back-ups.

CLIMBING GEAR

Gloves and boots equipped with suction cups or micrograbbers and similar gear provides a +2 circumstance bonus to Athletics checks to climb.

Climbing Gear: Feature (climbing bonus) • 1 point.

GLIDER

A foldable parawing or ultralight, able to deploy in an instant to serve as a glider. This gadget is often built into a costume component like a cape or cloak, or even a backpack or beltpack from which the glider deploys. Such gliders rarely have more than 4 ranks of Flight, unless they also have some sort of rocket-booster to provide additional momentum.

Glider: Flight, Gliding • 1 point per rank.

PARACHUTE

An even simpler version of the glider (previously) intended primarily to slow a user's fall to a safe speed, allowing for a safe landing.

Parachute: Movement (Safe Fall) • 2 points.

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SMOKE BOMBS

These tiny items produce a brief burst of smoke—or perhaps a flash of light, or both—providing you with a momentary distraction sufficient to make a Stealth check to hide while you are being observed. Essentially, with a sufficiently high check result, smoke bombs allow you to instantly "disappear". In the case of a non-player character, the GM may wish to simply consider this escape a complication, allowing it to automatically succeed, and awarding the player(s) a hero point.

Smoke Bombs: Enhanced Advantage 1 (Hide in Plain Sight) • 1 point.

SWING LINE

This is a gadget able to project a study swing cable, suitable for swinging from tall buildings and the like. It might be a spring- or gas-powered grappling gun or high-tech spinnerette projecting artificial "webbing" or the like.

Swing Line: Movement (Swinging) • 2 points.

ZIP LINE

Similar to a swing line (previously) this approach sets up a line between your starting point and a destination that allows you to zip along it using gravity, and possibly a small motorized device, to move at greater speed.

Zip Line: Flight 3, Gliding, Limited to between two points, Platform • 1 point.

GENERAL UTILITIES

General utility gadgets cover a wide range of tools for use with different skills, and various communication, surveillence, and burglary devices.

COMMLINK

A button-sized radio able to handle voice communication with other devices on its frequency up to about a mile away (longer if patched into the cellular network or a provide network of signal boosters). A Subtle commlink is encoded or scrambled to prevent eavesdropping.

Commlink: Feature (Communication Link) • 1 point (2 points if Subtle).

CUTTING TORCH

A tool with a high-temperature flame for cutting through metal. Variations on the cutting torch include a water-saw (which uses a high-pressure stream of water with fine grit to cut through materials) or thermite paste, a high-temperature chemical compound for burning through metal locks, bars, and similar obstacles. It may also include small amounts of powerful acids used similarly.

Given the descriptors of this gadget, the Precise extra, and the fact that it only works on objects (which do not recover traints lost to Weaken), it ignores the normal limit on Weaken effects and can continue to weaken the target's Toughness even past the first rank of effect.

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Cutting Torch: Damage 1, Precise, Linked to Weaken Toughness 1 • 3 points.

DIGTAL RECORDER

A palm-sized device for recording audio and/or video information onto a digital data-card. One Feature rank is sufficient for recording audio or taking still pictures, two allows for full audio-video recording.

Digital Recorder: Feature (recording) • 1 point for audio or photographs, 2 points for both audio and video.

EVIDENCE KIT

A set of tools for the Gather Evidence use of the Investigation skill. Removing any circumstance penalties for lacking proper tools. At 2 ranks, the kit includes the essentials of a portable crime lab suitable for the Analyze Evidence use of Investigation as well.

Evidence Kit: Feature (tools, Investigation) • 1 or 2 points.

FIRST-AID KIT

This small kit contains anticeptic, bandages, and other essential supplies for using the Treatment skill. Higher ranks of this Feature may even grant a circumstance bonus to Treatment, at the GM's discretion.

First-aid Kit: Feature (tools, Treatment) • 1 point.

FLASHLIGHT

A compact, high-powered light able to eliminate penalties for darkness in the immediate area. Stealth types may use Subtle flashlights that emit infrared or ultraviolet light so only the user (wearing IR or UV lenses) can see what the flashlight illuminates. There's no visible light to give away the user's presence or position.

Flashlight: Environment 1 (light) • 1 point (2 points if Subtle).

LOCKPICKS

A small set of tools suitable for using the Technology skill to open locks. It is assumed to include tools for both mechanical and electronic locks.

Lockpicks: Feature (tools, Technololgy) • 1 point.

MULTI-TOOL

A foldable modular tool usable for a number of functions. A multi-tool reduces the circumstance penalty for not having tools from -5 to -2, as it may serve for a number of

different purposes, but is not necessarily the ideal tool for any given job. At the GM's discretion, a highly adaptable multi-tool with 2 Feature ranks may substitute for *any* tool, eliminating the circumstance penalty entirely.

Multi-tool: Feature (reduce penalty) • 1 point.

PAINT TAG BOMB

A small compressed-gas device that sprays an indelible ink onto the target, making it easier to track down and perhaps preventing criminals from using stolen goods or concealing their identities. An Insidious version of this gadget sprays ink that is only visible under ultraviolet light. Unless placed for detonation (such as inside a bag of loot) a paint tag bomb requires an attack check to place at the target.

Paint Tag Bomb: Feature (paint tag) • 1 point (2 points if Subtle).

RESTRAINTS

Plastic zip-ties or locking metal cuffs intended to restrain a prisoner. They can only be placed on a helpless or unresisting target and impose the disabled and vulnerable conditions (immobilized and vulnerable if the target's legs are restrained). Restraints are DC 20 to escape using Sleight of Hand and Toughness 5 to break. An additional Feature rank increases either escape DC or Toughness by 5.

Restraints: Feature (restraint) • 1 point.

TRACER BUG

A tiny radio transmitter about the size of a pinhead that can be attached to a target and used to track the target's location and movements with a range of about a mile. It requires either an attack check or a Sleight of Hand check to plant a tracer onto a target.

A similar bug transmits audio information, serving as a listening device for eavesdropping on conversations nearby. With two Feature ranks, the gadget can do both.

Tracer Bug: Feature (tracking signal) • 1 point.

WRIST-COMP

A compact computer, typically built into the back of a glove or wrist-band for easy access (although it may have distrubuted parts elsewhere on the wearer's person). A wrist-comp provides the tools necessary for use of the Technology skill for interacting with computer networks. A skilled character can use it to acquire information, alter records, or access and control computer systems and their associated equipment.

Wrist-Comp Feature (tools, Technology) • 1 point.

From hot rods to starships, many heroes and villains use vehicles to get from place to place, and some even rely heavily on a vehicle as the source of their abilities. This Guide expands the game systems and information on vehicles found in the MUTANTS & MASTERMINDS Hero's Handbook.

VEHICLE TRAITS

Vehicle traits are summarized in **Chapter 7** of the *Hero's Handbook*. All vehicles have Size, Strength, Speed, Toughness, and Defense, most have Features, and many also have Powers in their own right. A vehicle's Size category determines its base Strength, Toughness, and Defense, while Speed is acquired separately, based on its mode(s) of movement.

VEHICLES AND POWER LEVEL

On their own, the unmodified vehicle templates by size category given in **Chapter 7** of the *Hero's Handbook* are all power level 3, based on their Defense and Toughness ranks, with room for a +1 modification of either without changing power level. This allows vehicles to fit easily into virtually any series.

Vehicles generally have the same power level limits as characters, although in some series, the Gamemaster may wish to institute separate power level limits for characters and vehicles. This is most appropriate for settings where vehicles are common and characters are primarily intended to be their lower-level pilots. See the **Mecha** for more on this.

VEHICLES AND ENVIRONMENTS

A vehicle is assumed to provide the necessary life support for its passengers for the environments it is equipped to move through. So, for example, an aquatic vehicle is assumed to be water-tight and have its own oxygen supply, while a space vehicle is assumed to provide a safe, breathable environment, and even gravity. These are part of the vehicle's descriptors and have no point cost. The GM may wish to permit the lack of such environmental systems as a Quirk on the vehicle's cost or a complication in play. Certainly the disruption of such systems constitutes a complication!

Immunity to environments or other effects not normally part of the vehicle's mode(s) of movement is acquired as a power for the vehicle, typically Affects Others and Others Only for a net +0 modifier, protecting everyone inside the vehicle.

REDLINING: VEHICLES & FATIGUI

The Limits of Equipment section of the Hero's Handbook (see Chapter 7 of that book) notes that extra effort used in conjunction with equipment always places the strain on the equipment, rather than the character. This is also the case for vehicles, where extra effort is known as "redlining" the vehicle, pushing it past its normal specifications and limits. Like characters,

the vehicle has three distinct levels of strain from this effort: impaired, disabled, and immobilized. The circumstance penalties for an impaired or disabled vehicle apply to all checks utilizing the vehicle's systems. Additionally, a disabled vehicle is hindered (–1 to speed rank) much like an exhausted character. These conditions persist until the vehicle undergoes maintenance to repair them (see **Repair Checks** under **Vehicles in Action**).

MOVEMENT MODES

All vehicles have a Speed rank, representing at least one, if not several modes of movement. The default is ranks in the Speed effect for movement along the ground, but vehicles can have ranks in any movement effect allowed by the GM:

- **Burrowing** is good for "mole machines" and similar vehicles intended to tunnel through the ground and other obstacles. It is not necessary for vehicles that travel through already established tunnels (such as subway trains) just for those that create their own.
- Flight is the basic movement mode for all kinds of aircraft (and spacecraft). M&M does not address the details of runways, VTOL (vertical take-off and landing), hovering, and similar aircraft capabilities; assume most aircraft either have these capabilities or apply a complication for circumstances where their lack of them poses problems for the heroes.
- Leaping is a relatively rare vehicle ability, but may apply to "leapfrog" designs or vehicles with "jumpjets" or similar capabilities.
- Movement effects suit special types of vehicles. Dimension Travel and Time Travel suit trans-dimensional vessels, while Space Travel is a must for starships capable of leaving the solar system and visiting other stars. Wall-Crawling can suit an unusual vehicle capable of driving (or climbing) up vertical surfaces while Water-Walking works for a "surface skimmer" like a hovercraft. Vehicles do not generally require Environmental Adaptation, as they are

MUTANTS & MASTERMINDS _____ GADGET GUIDES

MOUNTS AS VEHICLES

Although relatively rare in most M&M settings, riding mounts can generally be considered "vehicles" for the purposes of most of the rules and information in this Guide. The primary difference between a mount and a vehicle is that mounts are creatures in their own right (usually living animals, but in superhero settings they can be constructs, robots ... almost anything) and riders are usually outside, riding on the mount, as opposed to inside an enclosed vehicle. Even these lines blur when dealing with vehicles that have the Computer feature. With the right set of traits (particularly Intellect and Stamina) a vehicle could even be a living creature capable of housing smaller life forms inside of it!

Riding a mount is slightly different than controling a vehicle. Riding falls under the Athletics skill, unless the GM considers it significant enough to the setting to require a separate Expertise: Riding skill (based on Agility). Mounts are considered minions and are therefore capable of taking their own actions, usually in the form of move actions, although many mounts are also capable of making attacks of their own. An especially capable mount might be a Sidekick rather than a minion, dropping the minion quality and disadvantages (see the Sidekick advantage in **Chapter 5** of the *Hero's Handbook*).

assumed able to function in environments they can move through.

- Swimming is the movement mode for waterborne and aquatic vehicles of all kinds. It is the same for both surface and submersible vehicles, although Gamemasters may wish to consider Swimming movement limited to the surface of the water to have a flaw (probably not much more than a 1 point Quirk, however).
- Teleport is suitable for vehicles that can "jump" from point to point, taking their passengers and cargo along. Those that can teleport passengers away from the vehicle or back to it have a separate Teleport effect with Affects Others and Others Only. Interplanetary or interstellar "hyperjumps" are just a descriptor for the Space Travel effect (previously) rather than Teleport.

A vehicle's movement applies to it and to all of its passengers and crew, just like a character's movement applies to that character and everything he or she is wearing or carrying.

As noted under **Vehicle Traits** in **Chapter 7** of the *Hero's Handbook*, a vehicle can have multiple movement modes, paying the full point cost for the most expensive mode, and acquiring the others as Alternate Effects of that primary mode.

Example: An AEGIS "all-terrain" undercover car is truly all terrain: it is capable of Flight 6 (12 points) but can also drive like a regular car up to Speed 6 (normally 6 points, but taken as a 1 point Alternate Effect of Flight) and can air-seal and submerge like a submarine, with Swimming 6 (also 6 points, but taken as a 1 point AE of Flight). The car's total Speed trait costs 14 points: 12 for Flight + 2 for the two alternate movement modes.

Generally, a vehicle's drive system (the mechanics of its movement) are left as a descriptor, although certain systems may qualify as modifiers to the vehicle's type of movement. For example, a hovercraft has Speed, but should also have Movement 1 (Water-Walking). A train's Speed is Limited to moving along established tracks (should the point-cost of a train as a vehicle even become relevant).

Vehicle fuel is also handled as a descriptor and a complication on the occasions when fuel problems arise, the same as ammunition. See **Ammo**, **Batteries**, **and Charges** in the **Equipment** section of **Chapter 7** of the *Hero's Handbook*.

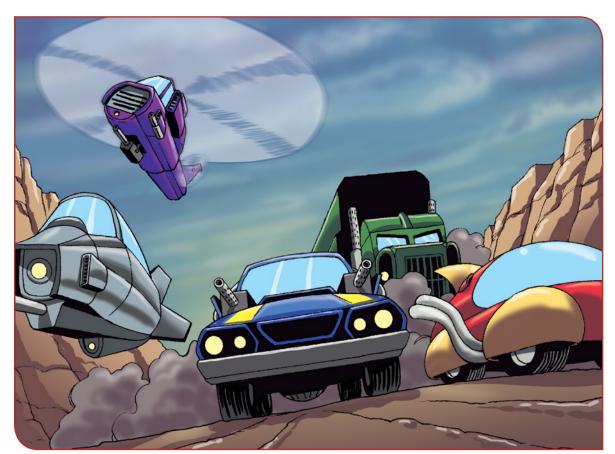
VEHICLE FEATURES

Vehicles can have a wide range of Feature effects, enough to fill a book of their own in detail. As with other Features, those of a vehicle must be game effects significant enough to be worth a rank in their own right, but not already covered by an existing power effect. As the Hero's Handbook notes, "standard" features for a vehicle, allowing it and its passengers to operate normally in its chosen environment(s), are included as descriptors at no cost. The vehicle Features in **Chapter 7** of the Hero's Handbook provide a starting set of examples. Others may include:

- Autopilot: The vehicle is capable of self-piloting with its own Vehicle skill of 4 skill ranks per rank in this Feature (half the usual cost of the skill, since it is Limited to just this vehicle).
- Communications: The vehicle has a communications system (CB radio, cellular link, even subspace or FTL radio) designed to communicate with similar systems. For an especially broad-spectrum system, the GM may wish to charge an additional Feature rank.
- Computer: The vehicle has an on-board computer, capable of accessing information and controlling the routine operations of the vehicle.
- **Dual Size:** Like the headquarters feature from **Chapter 7** of the *Hero's Handbook*, the vehicle has two size categories: its inside category (purchased normally) and an outside category, one or more size categories smaller, making it larger on the inside than the outside. Pay the cost of the larger interior size, plus 1 rank in this feature for each size category reduction of the exterior size. Determine the vehicle's STR and Tou from the larger size and its Defense from the smaller one.
- Rooms: At the Gamemaster's discretion, a Gargantuan or larger vehicle can incorporate some headquarters features (see Chapter 7 of the Hero's Handbook) essentially functioning like a mobile installation. So,

VEHICLES

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for example, a Gargantuan jet plane might have an Infirmary and Living Space on board, while an Awesome-sized starship might have that plus a Gym, Hangar, Holding Cells, Laboratory, and more! For Dual Size vehicles (see previous) the vehicle's *internal* size determines if this feature is available.

VEHICLE POWERS

Vehicles can have virtually any power effect the Gamemaster will allow. Unlike most equipment, vehicles are not necessarily limited to power effects based on available technology, and "super-science" (or magical) vehicles with unusual powers are possible, and still acquired using equipment points, since vehicles have other drawbacks compared to normal equipment, notably their size and maintenance.

DEFENSES

Vehicles may have built-in defensive systems beyond just the vehicle's inherent Toughness and Defense ranks. This typically involves ranks of Protection (sometimes Impervious) as armor-plating and structural reinforcement, although the vehicle's Protection could be Sustained in the form of a force field or "defense screen" of some type as well. Some vehicles may even have layered defenses of both types. Vehicle defenses apply to all passengers inside an enclosed vehicle, so a vehicle with Immunity to Heat protects those inside from all heat effects, for example.

INSTRUMENTS

Instruments serve to control the vehicle's other systems or provide information to its pilot and passengers. In particular, instruments often use the Senses effect for various sensors and scanning equipment. Probably the most common are radar (Accurate Radio, often with ranks of Extended) and sonar (Accurate Extended Ultra-Hearing).

SYSTEMS

Systems are miscellaneous vehicle powers capable of various effects. They may include:

Cloaking: Concealment effects to make the vehicle difficult to detect, ranging from a "cloaking device" invisibility field to "radar invisible" stealth vehicles with Radio Concealment.

Manipulator: The vehicle has Extra Limbs proportionate to its size and Strength, typically a "cargo arm" or similar manipulator. See **Mecha** for more on "vehicles" with humanoid limbs.

Self-Repair: The Regeneration effect allows vehicles to recover from damage on their own, for a vehicle with autonomous repair systems or even biological systems capable of rapid healing.

Tractor Beam: A Move Object effect for grabbing and manipulating things at a distance. Some vehicles may have the Limited Direction flaw for a grappler only able to pull objects towards the vehicle.

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WEAPONS

Offensive effects serve for vehicle-mounted weapons of various sorts, from high-caliber machine guns and missiles to blaster cannons and anti-matter mines. See the **Heavy Weapons** section for plenty of options for weapons suitable for use with vehicles and the guidelines on handling them in play.

VEHICLE MODIFIERS

If the Gamemaster wishes, the following modifiers to the Equipment advantage may be permitted for ranks allocated to vehicles. Note these are modifiers to the cost of the Equipment advantage itself, *not* the point cost of the vehicle, much like power modifiers apply to the cost of a power. These modifiers are optional and may not be appropriate for all settings.

Durable: Vehicles bought with Equipment ranks with this modifier suffer damage like characters rather than normal equipment. The vehicle still functions while staggered, but suffers a –1 penalty to Speed rank. It only stops functioning once it is incapacitated, and is only destroyed if its condition becomes "dying". +1 point per rank.

Minion: Vehicles bought with Equipment ranks with this modifier are considered minions, having all the conditions outlined for character minions in **Chapter 8** of the *Hero's Handbook.* –1 point per rank.

Summonable: The character with the Equipment advantage can summon the vehicle out of nowhere as a standard action, causing it to appear next to the summoning character. The character can likewise dismiss the vehicle back to wherever it came from as a free action, causing it to disappear. The vehicle reappears in the same condition as it was last seen. For an additional +1 modifier, the vehicle always reappears in its normal condition, recovering from any damage while it is "away". +1 point per rank.

VEHICLES IN ACTION

Interaction with vehicles in scenes is generally routine, involving using them to get from place to place. Things become more involved during action time.

VEHICLES SKILL

Detailed in **Chapter 4** of the *Hero's Handbook*, the Vehicles skill is used for all checks involving operation and use of vehicles, regardless of their type. While this may be a bit unrealistic—making an expert driver also a skilled pilot, or even sailor—it's generally how it works in the comics; characters good at driving or piloting things are good at all of it.

VEHICLE SUB-SKILLS

If the GM prefers, Vehicles can be broken up into more distinct sub-skills, such as Driving and Piloting (for land and aerospace vehicles), perhaps with the addition of a sepa-

rate Sailing or Boating skill as well. For most *M&M* settings, however, a single Vehicles skill makes things considerably simpler.

UNTRAINED USE

Note that although Vehicles cannot be used untrained, *routine* operation of vehicles is permissible without ranks in the skill. You do not have to be trained in Vehicles to know how to drive a car in the modern world, and most characters can be assumed to know how to do so. Lacking the ability to routinely operate a commonly known vehicle (in a way that is relevant to the story) can be treated as a complication if and when it arises.

VEHICLE COMBAT SKILLS

"Vehicle Weapons" is its own specialization of the Close Combat and Ranged Combat skills, with the default assumption that ranks of the Close Attack and Ranged Attack advantages apply to using vehicle weapons as well as personal weapons. So attacks with vehicle weapons use Dexterity + Attack advantage (if any) + Vehicle Combat Skill (if any). Some vehicle weapons may also be Accurate, applying that bonus, or Area effect weapons requiring no attack check, except for a direct hit. See **Heavy Weapons** for details and examples.

If vehicle combat is relatively rare in the setting, the GM may choose to allow personal combat skills to apply to similar vehicle weapons. For example, Ranged Combat: Guns might suit for firing a vehicle-mounted gun, and Close Combat: Swords might apply for wielding the blade of a giant mecha (see the **Mecha** section for details on this).

VEHICLE ACTIONS

Most Vehicles skill checks are move actions, unless specified otherwise. Controlling a vehicle in operation requires a move action each round, and may require a check. Routine operation, such as driving at a safe speed along a clear road, or flying under normal conditions, does not require a check. If no one is spending at least a move action each round controlling the vehicle, it goes out of control like a failed control check (following).

MANEUVER CHECK

Difficult conditions or maneuvers require a Vehicles skill check, using the guidelines from **Chapter 4** the *Hero's Handbook*. A failed check results in a control check (following).

CONTROL CHECK

Control checks are required when a maneuver calls for a control check, or the vehicle suffers damage that causes a control check.

The control check is a DC 15 Vehicles skill check. You make only one control check per round per vehicle even if more GADGET GUIDES MUTANTS & MASTERMIND

than one is called for: every additional control check required instead increases the check DC by +5. Open terrain is –5 DC, tight terrain is +5 DC, and close terrain is at the normal Difficulty.

On a failed check, the vehicle crashes into an obstacle (or possibly another vehicle, depending on the situation). The vehicle and the obstacle (and any occupants of either) suffer damage equal to the Speed rank of the fastest moving vehicle, +1 for collision with another vehicle, +1 per difference in size category to the smaller vehicle, +2 ranks for two degrees of failure on the control check, +5 ranks for three or more degrees of failure. For vehicles moving in the same direction, subtract the lower speed rank from the higher to get the effective speed rank of the crash. Occupants make Dodge checks against a DC of (Damage rank + 10) to suffer half damage from the crash.

An air or space vehicle may stall on a failed control check if there is no hard terrain or other obstacle to crash into. The pilot can restart the vehicle with a successful Vehicles skill check (DC equal to the control check).

DEFENSIVE CHECK

The pilot of a vehicle can take a standard action for "evasive maneuvers" during a round. If so, substitute the result of the character's Vehicle skill check, modified by the Defense modifier for the vehicle's size, for the vehicle's normal defense that round. So, for example, a character piloting a gargantuan fighter jet (–6 Defense modifier) takes evasive action and gets a Vehicle skill check result of 22. Subtracting the jet's size modifier gives a Defense of 16 for that round.

REPAIR CHECK

When vehicles suffer damage in an action scene, characters may need to initiate emergency repairs or bypass some of the vehicle's systems. This is generally a Technology or Vehicles skill check with the DC based on the severity of the damage and/or the complexity of the system, as chosen by the GM. See the guidelines for jury-rigging repairs under the **Technology** skill in **Chapter 4** of the *Hero's Handbook*.

VEHICLE COMBAT

Attacking a vehicle is just like attacking a character. Vehicles generally have an applicable size modifier included in their defense, and tend to be easier to hit than characters overall, unless the vehicle's pilot is making a defensive check (previously).

TARGETING OCCUPANTS

An attack against a vehicle occupant is made like any other attack, except that a character inside a vehicle typically benefits from both cover and concealment provided by the vehicle. See **Cover** and **Concealment** in **Chapter 8** of the *Hero's Handbook*.

VEHICLE MANEUVERS

Vehicles can use many of the same combat maneuvers as characters, found in **Chapter 8** of the *Hero's Handbook*. In particular the Accurate Attack, All-out Attack, Defensive Attack, Feint, Power Attack, and Slam Attack maneuvers



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may apply to vehicles, substituting a Vehicles skill check for the interaction check to feint. A slam attack maneuver with a vehicle generally consists of ramming a target with the vehicle itself, essentially subjecting the pilot and passengers to the effects of a crash (previously) for the slam damage.

VEHICLE DAMAGE

Vehicles suffer damage like equipment: a vehicle suffers the normal –1 cumulative penalty to Toughness checks result plus either a –1 penalty to checks involving the vehicle or the loss of a feature or a point worth of capability per –1 circumstance penalty. A "staggered" vehicle no longer functions. A vehicle that is staggered while moving drops one speed rank each round until it comes to a stop. The driver cannot attempt any maneuvers except a 45 degree turn. A staggered water vehicle may begin to sink slowly. An "incapacitated" vehicle is destroyed.

VEHICLE MINIONS

At the GM's discretion, some vehicles may be considered minions (*Hero's Handbook*, **Chapter 8**). This is particularly appropriate for large battles with a considerable number of enemy vehicles, where each successful attack takes out a target, and it's not worth tracking individual vehicle damage.

REPAIRING DAMAGE

Repairing vehicle damage requires the proper tools and a garage, hangar, or similar facility. A character without the proper tools suffers a –5 circumstance penalty on the Technology skill check, as usual. Repairing minor damage like a Toughness penalty is a simple check (DC 15, one hour), repairing a staggered result is a complex check (DC 25, one day). Destroyed vehicles cannot be repaired; they are "totaled" and must be rebuilt from scratch.

CHASES AND RACES

Many vehicle activities involve one or more vehicles trying to catch up with or outpace each other, often through difficult terrain or circumstances. Whether it is a "death race" across the surface of an alien planet or a car chase through the streets and back alleys of a modern city, these situations can be handled using a challenge sequence (from **Chapter 8** of the *Hero's Handbook*).

This works like any other challenge in that the challenger must acquire a number of degrees of success before three or more degrees of failure. For a standard pursuit, the required degree of success is three as well, although the GM may modify this depending on circumstances.

The traits used in a pursuit challenge are typically those involving maneuverability (Vehicles skill or Acrobatics for characters), knowledge of the terrain (Expertise), and so forth, although players can potentially find uses for traits like Deception, Stealth, and various power effects.

A key element is speed rank: characters within one rank of each other have no modifier to their challenge checks. Two ranks of difference gives the character with the higher rank a +2 circumstance bonus, while three or more ranks of difference gives the character with the higher rank a +5 circumstance bonus.

Example: The Rook, piloting a Speed 7 hovercycle, is taking part in the "Desert Death Race" created by the cosmic Gamemaster to test a variety of participants, promising a mysterious prize to the winner ... and an eternity in limbo to the losers! The Rook has a Vehicles skill bonus of +6.

Most of the other vehicles in the race have Speed ranks within 1 of each other, although there is a Grue saucer-pod with Speed 10, giving them a +5 circumstance bonus on their checks. The GM rules that the Grue pilots have a +4 Vehicles skill bonus. They're clearly the competitors to beat! The GM says five accumulated degrees of success are needed to win the race, before three accumulated degrees of failure, which put a competitor out of the race (and into the Gamemaster's limbo realm).

UPPING THE ANTE

In addition to making checks to accumulate successes towards winning the contest, participants can choose to "up the ante" by performing difficult, daring, or dangerous maneuvers: moving at high speed through tight terrain, crowding out other vehicles, and so forth. In this case, the maneuvering pilot chooses a Difficulty Class for the skill check in that round of the challenge, with a minimum equal to the DC set by the GM. That becomes the new DC for the round and all contestants must roll against it to generate their successes.

Example: Unable to shake the Grue saucer-pod, the Rook decides to up the ante, maneuvering his hover-cycle through narrow gullies and canyons, and taking the DC of the contest this round from 15 (set by the GM) to 20. The Rook's player then elects to spend a hero point on the Vehicle's skill check, rolling an 8, but then adding 10 (for the hero point) plus the Rook's Vehicles bonus of +6 for a 24. The GM rolls for the Grue (with an effective Vehicles bonus of +9) and gets a 10, just missing the DC. The Grue have to make a control check to keep their saucer-pod from crashing into the cliff-face, and the Rook pulls ahead!

SAMPLE VEHICLES

The following are some examples of the breadth of possible vehicles. See **Chapter 7** of the *Hero's Handbook* for a list of "stock" vehicles and their basic game traits, which you can easily modify using the information in this *Guide* into a wide range of vehicles for specific uses and needs.

AEGIS RAPTOR APC

45 EP

Size: Huge Strength: 12 Speed: 4 (air) Defense: 6 Toughness: 12 Powers: Impervious Toughness 8, Ranged Damage 8 (AE: Ranged Burst Area Damage 5) Features: Autopilot (+4), Communications, Navigation System

The Raptor is AEGIS' fast-deployment flying APC (armored personnel carrier), equipped with advanced, compact tur-

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similar

bofan engines and vertical take-off and landing and hover capabilities, heavy armor, and a roof-mounted Thunderbird blaster cannon. The fold-down doors allow on-board agents to crouch behind total cover while using their personal weapons. The Charon-class vehicle deployed by SHADOW has similar specs.

IMPERIUM STAR-CRUISER

Size: Colossal Strength: 18 Speed: 14 (space) Defense: 2 Toughness: 15 Powers: Laser Batteries (Ranged Damage 12), Energy Torpedoes (Ranged Burst Area Damage 10, Direct Hit Damage +2, Homing 8), Movement 2 (Space Flight) Features: Autopilot (+8), Communications 2, Computer, Navigation System, Rooms (Hangar, Holding Cells, Infirmary, Living Space, Personnel, Security System, Workshop)

A standard ship of the line for the Stellar Imperium, a star cruiser is a vessel several city blocks in length, equipped with powerful blaster arrays and defensive screens, a crew of hundreds of trained soldiers, and a hangar bay filled with smaller landing shuttles.

PEGASUS SPACEPLANE

40 EP

Size: Gargantuan Strength: 12 Speed: 12 (space) Defense: 6 Toughness: 13 Powers: Movement 2 (Space Flight) Features: Autopilot (+4), Communications, Computer, Navigation System, Remote Control

The Pegasus-class spaceplace is a design used by the Freedom League. It is capable of atmospheric speeds up to Mach 10 and has a fully-sealed life support system for space flight.

THE PHANTOM CYCLE

Size: Medium Strength: 1 Speed: 11 (ground) Defense: 10 Toughness: 10 Powers: Movement 4 (Permeate 2, Wallcrawling 2) **Extras:** Summonable (+2 to Equipment rank cost).

The mysterious Phantom Cycle is a ghostly, translucent motorcycle. When "bonded" to a rider, the Cycle can appear out of the netherworld when summoned. It moves far faster than any earthly vehicle and is capable of ignoring the effects of gravity, driving up sheer walls, or even passing right through them (bringing its rider along with it). Although the Phantom Cycle can be damaged or even destroyed, it is always whole when it is summoned once again.

SHADOW SOBEK GUNSHIP

Size: Huge Strength: 8 Speed: 8 (air) Defense: 6 Toughness: 9 **Powers:** Tartarus Blaster Cannons (Ranged Multiattack Damage 8), Apep Rockets (Ranged Burst Area Damage 6 + Direct Hit Damage +3), Camo-Cloak (Passive Visual Concealment 4), Radarbane (Radio Concealment 2) Features: Autopilot (+4), Communications, Navigation System, Stealth (Subtle Flight)

not technically a "vehicle." A jet pack (providing Flight) is

The Sobek-class gunship is a modified military helicopter used by SHADOW in its international operations. A true "black helicopter," the Sobek is painted in dead-black radarreflective materials (save for the red circle of the SHADOW emblem). It is capable of running in "stealth" mode, making its flight virtually silent, and has a camo-cloak able to make it virtually invisible, for lightning-fast surprise raids.

URBAN TANK

Size: Huge Strength:10 Speed: 6 (ground) Defense: 7 Toughness: 12 Powers: Impervious Toughness 8 Features: Alternate Vehicle (emergency motorcycle), Autopilot (+4), Caltrops, Communications, Computer, Navigation System, Oil Slick, Remote Control

A low-slung urban assault vehicle with the armor of a tank, but the speed and maneuverability of a car, and an emergency ejector system that turns the pilot seat into the saddle of a high-speed motorcycle.

WYLDRIDE

Size: Medium Strength: 5 Speed: 20 (space) Defense: 10 Toughness: 15 Powers: Cosmic Blaster (Ranged Damage 12), Immunity 5 (Warpwold, Affects Others), Wyldwarp (Space Travel 3) Features: Communications

A wyldride is a "cosmic chopper" used and ridden by the Overriders of the Warpwold, the forbidden regions on the outskirts of the Terminus. Although they are open like terrestrial motorcycles, wyldrides still protect their riders with full life support and protection from

the deleterious effects of the



ROCKET SKATEBOARD

Powers: Speed 5

This jet-powered skateboard ("piloted" with Acrobatics rather than Vehicles skill) is an example of a piece

of equipment that provides a movement effect, but is

APPENDIX: INVENTING

Superhero gadgetry has to come from somewhere and, generally speaking, it is not being mass produced. On the contrary, most of the amazing devices used by heroes and villains are one-of-a-kind or specialized items made by lone inventors.

If "necessity is the mother of invention," then the demands of superheroics certainly qualify! Inventive heroes are frequently called upon to put their skills to work coming up with solutions to difficult problems. The MUTANTS & MASTERMINDS Hero's Handbook details a system for in-game creation of these ingenious inventions and this **Appendix** expands upon it.

THE INVENTOR ADVANTAGE

So far as the game rules are concerned, there's invention and then there's invention. "Inventing," as its described and discussed here, is the ability to come up with devices—items producing various power effects—on relatively short notice. It is the province of the techie, gadgeteer, and kit-basher, and not the slow and steady process of advancing technology.

In order to use the inventing rules at all, a character must have the Inventor advantage (*Hero's Handbook*, **Chapter 5**). The character will also benefit from a high Technology skill bonus, and may also have a high Intellect to go with it, although neither high Intellect nor formal training are necessary to be an Inventor. Like many *M&M* traits, the advantage makes no assumptions about how the character does it, just describing the capability.

In cases when the character's inventiveness is truly a power or from some source other than the inventor's own genius (the blessings of a god of technology, for example), then the Enhanced Advantage power is appropriate, allowing the character's inventing ability to be affected like any other power.

Note that, since Inventor is a skill advantage, it is possible to spend a hero point for a Heroic Feat to acquire the advantage for one turn. Unfortunately, by default this isn't enough time to actually do anything with it. Gamemasters wanting more opportunities for non-inventors to indulge in a bout of technical brilliance should feel free to modify this rule to be one *use* of the advantage, allowing a non-inventor to spend a hero point to come up with an invention, even though they normally lack the ability to do so. This option is particularly suitable for Silver Age style games, where it sometimes seems that *every* hero is an inventor!

INVENTING SKILLS

Inventing requires Technology skill checks and, since the skill cannot be used untrained, inventors must be trained in Technology in order to make use of the Inventor advantage, although this training may come from innate talent or even Enhanced Skill rather than actual training or experience.

At the Gamemaster's discretion, inventing may also require some secondary Expertise in a particular field related to the invention, in which case the inventor uses the lower of the two skill bonuses for the design phase of the invention (see the following): the character's theoretical knowledge limits, and is limited by, practical engineering. Generally, this is not required, and inventors can design and invent whatever they want using only the Technology skill, but required Expertise may suit certain styles of games or settings where the GM wants to limit the Inventor advantage or require a degree of specialization.

THE INVENTING PROCESS

Chapter 7 of the *Hero's Handbook* details the inventing process, using the following steps, expanded upon here:

CONCEPT

The first step is for the player to come up with a concept for the invention, defining its effects in game terms and determining their overall cost in power points, using the guidelines from **Chapter 6** of the *Hero's Handbook* (and supplementary material like this book and *Power Profiles*).

The GM reviews and approves of the concept for the invention and asks for modifications, if necessary. In particular, the Gamemaster may determine that certain effects or ranks of effect are unsuitable for the series.

Players of inventor characters may wish to keep notes on the concepts for various inventions for future reference, should the character decide to "re-activate" that invention or create something similar. This saves time during play and reduces the work the GM needs to do in reviewing and approving of the concept (since it was previously approved).

INVENTING AND POWER LEVEL

By default, inventions are subject to the same power level limits as all other effects in the series. Gamemasters may wish to bend or waive this rule, depending on the circumstances or style of the series, but should keep in mind that allowing inventions to exceed power level limits makes them more difficult to create, given that the inventor's skills are still limited; a PL6 inventor (limited to a +16 skill bonus at most) will have some difficulty with DC 30+ checks, for example, although they are not impossible. Allowing an invention to circumvent power level limits can be one way of allowing heroes to overcome otherwise near-impossible odds.

INVENTING AND CHALLENGES

In some instances, the effect of an invention is to overcome a challenge, such as overriding the lock-out on an alien computer system, or taking control of a villain's GADGET GUIDES ______MUTANTS & MASTERMINDS

"THEY LAUGHED AT ME!" (OR, WHY INVENTIONS DON'T SELL)

In spite of being full of all kinds of amazingly advanced technology and scientific geniuses able to design and build it, comic book worlds (including Earth-Prime) look remarkably like our own, with technology moving along at its own pace. To be sure, some of the "futuristic" technology of comics from earlier decades has come to pass, but not every soldier wears a suit of power armor, and there are still no flying cars. Why don't super-geniuses patent and market their inventions rather than using them to combat or carry out crimes?

The simple answer is that, if they did, then the world of the comic books *wouldn't* look much like ours and would lose an important connection with readers. That's not as important for a roleplaying game, unless you want your game world to be a faithful adaptation of the comics. If not then, by all means, play around with the idea of inventors selling their inventions and changing the world.

Otherwise, you can assume there are reasons why most, if not all, amazing inventions don't end up on-sale. They might be too expensive to mass produce, or too unstable. Maybe they are dependent on something unique about their inventor, leading to sheer frustration when the device doesn't work for anyone else (and explaining why some "mad scientists" go mad in the first place). Some heroic inventors might deliberately withhold certain technologies, feeling they are too dangerous, or could fall into the wrong hands. Corporations might even pay them *not* to sell their inventions! Especially if they have the potential to put an entire industry out of business!

deathtrap long enough to escape. These "inventions" can be handled as conventional challenges (see **Chapter 8** of the *Hero's Handbook* and **Chapter 5** of the *Gamemaster's Guide*) using Technology and related skills, rather than the inventing process outlined here.

Mind Shielding—Concept: Up against the influence of the Cosmic Mind, Daedalus needs to shield himself against the Mind's psychic influence and free mind-controlled members of the Freedom League as well. His player proposes the concept of an Immunity to Mind Control device, requiring 5 ranks, plus Affects Others, allowing Daedalus to place the protective devices on others to shield them as well, and Area for multiple devices to protect Daedalus and his teammates. The Gamemaster looks over the concept and approves, noting that the total power point cost of the concept is 15 points for a rank 5 effect costing 3 points per rank (1 base cost +2 extras).

DESIGN

Once the player has the concept for the invention, the character has to go through the process of designing it, figuring out how the technology will work. This takes an hour per point of the invention's cost and usually involves research, note-taking, sketching diagrams and testing conceptual models and so forth. At the end of that time, the inventor makes a Technology skill check with a DC of 10 + the invention's power point cost. The GM may apply circumstance modifiers to the check for particularly good or poor facilities.

If the check is successful, the inventor has a complete design for the invention. If it fails, the inventor has run into a road block or dead-end in the design process, and has to go back to the drawing board and start over. Three or more degrees of failure of the design check means the design has a hidden flaw; the inventor *thinks* it will work, but won't know until the invention is built and tested! Because of this, the GM may wish to make the Technology check for the design secretly. The inventor's player is allowed to spend hero points on the check, and still

takes the better of the two rolls, but won't know what either roll was!

Given the potential for failure, characters cannot make design checks as routine checks (*Hero's Handbook*, **Chapter 1**). An inventor can have assistants providing a team check bonus: the assistants must work with the inventor during the entire design time, and make a DC 10 Technology skill check, with one degree of success granting a +2 circumstance bonus and three or more degrees of success total granting a +5 bonus. This bonus is often used to increase the design check DC and reduce the time required (see **Faster Designs**, following).

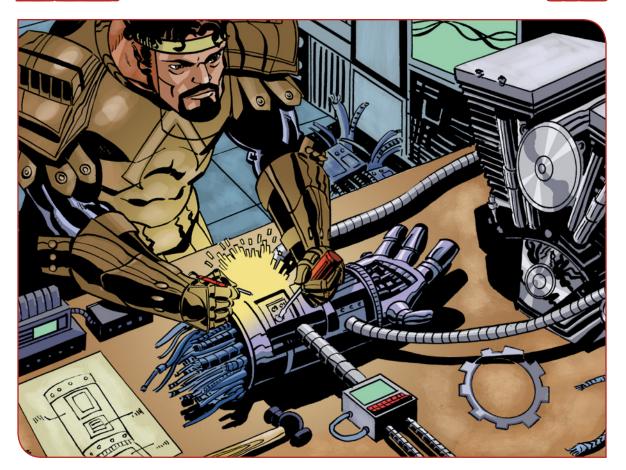
Mind Shielding—Design: With the idea worked out, Daedalus needs 15 hours of research and design work (1 hour per point of his concept's cost) to come up with what he thinks will be a working design. This involves spending time in a lab and doing research, perhaps including studies of previous scans of the Cosmic Mind and her powers. The GM points out that, if Daedalus has a particularly high-resolution scan of the Mind's exact psionic frequency, that would be good for a circumstance bonus. At the end of that time, the GM rolls a secret Technology skill check for Daedalus against DC 25 (base 10 + 15 for the invention's point cost).

SAVING DESIGNS

At the Gamemaster's discretion, inventors can save designs they have completed and use them again to produce inventions in the future without having to redesign that invention. If so, players should keep track of the designs their inventors have created, including their concept and game traits. If anything about the invention changes, the inventor has to re-design it, although the GM may grant a circumstance bonus to the design check the second-time around, given the inventor's prior experience. Changes to the invention might include changes to the circumstances the invention was originally designed to take into account. For example, a device intended to circumvent a particular subject's powers might need reworking to function against another target with similar

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powers, and an invention that worked against a target before might not be as successful the next time around.

FASTER DESIGNS

Inventors often don't have hours to spend on design. If looking to speed up the process, there are a few options:

- DC Modifier: For every +5 increase to the DC of the design check, the inventor halves the time needed, rounding down. So if an invention would normally have a design time of 11 hours, adding +10 to the check DC reduces that time to 2 hours (11/2 = 5.5, rounded down to 5; 5/2 = 2.5 rounded down to 2). If the design check fails, however, the inventor has to start over without reducing the design time in order to succeed.
- Quickness: If the inventor has mental Quickness (Hero's Handbook, Chapter 6) it applies to the reduction of the time needed for the design. So for a design requiring 16 hours (time rank 13), an inventor with Quickness 10 that applies to mental tasks could complete the design in time rank 3 (13 - 10) or one minute! If combining this with the first option, apply halving and DC modifiers first, then Quickness.
- Jury-Rigging: Lastly, the inventor's player has the option of spending a hero point and jury-rigging the invention, skipping the design phase altogether. See Jury-Rigging, following.

Mind Shielding—Design: Looking to speed things along, Daedalus (with his +22 Technology bonus) decides to bump the DC of the design check up from 25 to 30 (still fairly easy for him) and halve the time from 15 hours to 7 (7.5, rounded down).

CONSTRUCTION

With a completed design, the inventor can begin the process of actually constructing the device. This has a base time of four hours per power point of the device's cost and, like the design phase, usually involves access to a laboratory, workshop, or similar facility with the necessary parts and equipment. Circumstance modifiers apply for good or bad conditions; especially skilled inventors can overcome a –5 circumstance penalty and throw together a device with nothing more than makeshift tools and household appliances!

At the end of the construction time, make another Technology skill check for the inventor. The Difficulty Class is 10 + the invention's point cost. Success means the construction is complete and the device functions according to the design (although, if the design is flawed, the device will be as well). Failure on the construction check means the time was wasted and the inventor has to begin the construction process over again. Three or more degrees of failure, or a natural roll of 1 on the check, may result in a mishap at the GM's discretion, anything from an unexpected side-effect of the device or its construction to an explosion, energy discharge, or some other problem,

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depending on the nature of the invention. The GM may wish to treat this as a complication, awarding the inventor a hero point for the setback. In either case, the mishap means the invention doesn't work and the construction process has to begin again.

As with design, the construction check cannot be routine due to the risks, but can be a team check, if the inventor has assistants. The assistants do not need to have the Inventor advantage themselves, only training in the necessary skill (usually Technology) and the ability to follow the inventor's directions and designs.

Mind Shielding—Construction: With the design work complete, Daedalus now needs to build the devices. With a point cost of 15, it will take him 60 hours of work (15 x 4) to get everything done. The GM agrees that Daedalus can work 16 hour shifts without adverse effects for the necessary time, but working around the clock will require Fortitude checks against fatigue.

At the end of the necessary time, Daedalus' player makes another Technology skill check against DC 25. Given his bonus, he succeeds fairly easily. Had the player rolled a natural 1, the GM might have imposed some mishap, like the completion of the anti-psi circuits sending out a signal to give away Daedalus' location to the Cosmic Mind and her minions.

JURY-RIGGING

When an invention is needed right now, inventors have the option of jury-rigging: spending a hero point to skip the design phase entirely and throw the device together in a number of rounds equal to its point cost. The only check is the construction check, which is at +5 DC (so 15 + the invention's point cost).

Success on the construction check means the invention works for one scene, while failure means it does not work at all and three or more degrees of failure may still result in a mishap, as described previously. The construction check for jury-rigging *can* benefit from teamwork, and only the inventor has to spend the hero point needed to jury-rig the invention.

Mind Shielding—Jury-Rigging: Before Daedalus can complete his work on the mind shield devices, the Cosmic Mind's psychic sweeps discover his location and she dispatches his mind-controlled teammates to deal with him. Having only moments, Daedalus has no choice but to jury-rig the process and hope. His player spends a hero point and makes a DC 30 Technology check (the original DC of 25 + 5 for jury-rigging). Fortunately, Daedalus' skill is high enough for him to succeed anyway, and he completes the devices just as a mind-controlled Johnny Rocket zooms into the room. "Now all I need to do it tag him with it," Daedalus mutters to himself, thinking about what he learned dealing with Hermes.

USING INVENTIONS

Assuming the whole inventing process is successful, the inventor has use of the completed invention for one scene, after which it stops working: running out of power or fuel, burning out components, breaking down, or the like. Because of this, inventors generally create inventions as needed and then use them, although an inventor can keep an invention in reserve, creating a weapon designed to exploit a foe's weakness, for example, and not using it until confronted with that foe.

SHARING INVENTIONS

Generally, there's no restriction on an inventor giving an invention to someone else to use, other than the power level limits of the series. Inventions can also be restricted to their inventor, which is a no-cost descriptor; it keeps the invention from being shared, but also from being taken and used against its inventor.

Inventors may also be able to share *designs*, if the GM wishes, but since inventions are so personal and idiosyncatic, another character must succeed on a Technology skill check with a DC equal to the design's total point cost in order to understand it well enough to use the design to construct a working version of that device.

RE-USING INVENTIONS

An inventor can keep an existing invention running by either taking the time needed to design it (hours equal to its point cost) to do maintenance and repairs and making a DC 10 + point cost Technology check, or by spending a hero point. The latter makes the invention immediately available for another scene. If a Technology check to re-use an invention fails, the character needs to take the full maintenance time to try again. If it fails by two or more degrees, the invention cannot be re-used and must be rebuilt from scratch.

RETAINING INVENTIONS

An inventor wanting to retain and continue using an invention can choose to spend power points to make the item part of the character's regular powers, usable at any time. Inventions retained in this way can have the Removable flaw, which helps to reduce their final cost. Gamemasters may also allow an inventor to "pay-off" a retained invention on an installment plan: the player puts the hero's future earned power points towards paying for the cost of the new device.

ON-HAND INVENTIONS

Although inventors can design and build inventions in advance, the GM should set limits to what they can reasonably have "on-hand" at any given time. Ask the player of the inventor to spend a hero point to have easy access to a particular useful invention when it is needed.



ARTIFICING

Artificing is similar to inventing, except it involves something other than Technology, usually some form of arcana or "weird science," substituting an appropriate Expertise skill for Technology for the design and construction checks. Artificing creates *artifacts*, rather than inventions.

Artificing is a separate ability from inventing, requiring the Artificer advantage (*Hero's Handbook*, **Chapter 5**). Like Inventor, the GM may allow a hero point spent for a Heroic Feat to provide the benefits of the advantage to a character for the creation of a single artifact (one use of the advantage, rather than one round).

There may even be multiple types of the Artificer advantage, based on different power sources for artifacts, such as:

- Alchemy for brewing potions and creating artifacts that are elixirs, powders, and similar concoctions.
- Attunement for altering the "psychic ressonance" of items, particularly those with a crystaline structure, to generate, hold, or project some type of psychic energy.
- Enchantment for the creation of magical items, from magic weapons to charms and amulets.
- Investiture for placing spiritual or divine power into mundane objects, or even summoning divine objects as gifts from higher powers.
- Weird Science for employing pseudo-scientific or bygone theories (see the Steamtech guide) to produce artifacts that function in spite of known scientific principles rather than because of them.

Gamemasters are free to create others, as desired. All of the above can fall under the general Artificer advantage, with the primary style of the artifacts coming from the particular Expertise skill used to create them, rather than needing separate advantages. Multiple advantages suits settings where multiple characters in a group are likely to be artificers of some sort (needing greater distinction).

ARTIFACTS AND RITUALS

There is a fine line between artifacts and rituals (see the **Rituals Appendix**), particularly readied rituals and artifacts. The primary difference is that artifacts invest effects into an object or device whereas rituals, while they might have props or components, create effects independent of such things. So a magical charm is an artifact, as is a potion, enchanted weapon, or handful of sand that causes a magical effect. A readied ritual, on the other hand, can create an effect with just a word or gesture, more like a character's own powers than a removable device.

As in all things MUTANTS & MASTERMINDS, the Gamemaster is the final arbiter of any gray areas when it comes to the uses of inventing, rituals, or their creations.

APPENDIX: RITUALS

The rituals rules given in **Chapter 7** of the *Hero's Handbook* are an extension of the Inventing rules (see **Appendix: Inventing**), just substituting different trappings for the process of creating something in a lab or workshop. Rituals can be extended to cover a wide range of "slow" powers that require time, preparation, skill, and effort, rather than the relatively effortless powers of most superheroes and villains.

This **Appendix** presents optional expanded rules for rituals and their related game traits for MUTANTS & MASTER-MINIOS

RITUAL POWER SOURCES

The standard MUTANTS & MASTERMINDS rules assume rituals are magical in nature, drawing upon mystical forces. (It even says so in the name of the rule: "Magical Rituals".) However, the mechanics of the ritual system do not inherently require magic, and could also be used with different practices and power sources, such as the following.

- Chi: Rituals based in yoga, martial arts, meditation, and other disciplines serve to cultivate and harness the user's chi or life force to create remarkable effects. The design and construction of the rituals involve research, deep meditation, introspection, and practice, while the performance of the ritual involves a complex series of movements and meditative postures.
- Divine: These rituals call upon the intervention of a divine power (a god or gods) on behalf of the ritualist. The design and construction phases are prepratory rituals of sacrifice and purification, along with divination and augury to determine the most auspicious elements, times, and other components of the ritual itself. Because of the shifting cycles of the world and the shifting whims of the gods, these rituals need additional preparation each time they are used, going through at least the construction, if not design, phase again. Rituals calling upon an evil deity are often referred to as "infernal" instead of divine.
- Mathemagical: Although these rituals may seem
 magical, they are actually "sufficiently advanced
 technology" employing esoteric mathematics to manipulate the building blocks of the cosmos in order
 to create certain outcomes. The process involves a
 great deal of calculation of the known variables and
 then the process of "solving" the necessary equations
 in order to bring about the desired effect.
- Preternatural: Some rituals, and powers, are Things
 Man Was Not Meant to Know, preternatural forces
 from outside the known universe, able to bend and
 twist our physical laws (and minds) in shocking ways.
 Preternatural rituals, and the occult knowledge to
 create and perform them, is nearly always the province of strange, forbidden cults, like the Brotherhood

of the Yellow Sign from *Freedom City* or the Eightfold Web from *Threat Report*.

- Psychic: Similar to both chi and magical powers, psychic rituals tap into the latent powers of the mind and spirit and typically involve meditation and other practices intended to focus and open the mind to those potentials. Psychic rituals may require trappings like crystals or other "vibrational" tools to attune a space or user to psychic energies. See the Psychic section of this book and the Mental Powers section of Power Profiles for additional ideas.
- **Spiritual:** Related to divine powers, spiritual rituals call upon the abilities of other beings—incorporeal spirits—to create their effects. These spirits might be those of the ancestors or more recent dead, shamanic spirit allies and totems, races of spirit beings like the faerie or djinn, or orders of lesser divine beings, from choirs of angels to the demonic legions of Hell itself.

RITUALIST ADVANTAGE

The ability to perform rituals is an advantage called Ritualist (Hero's Handbook, Chapter 5). Note that, since Ritualist is a skill advantage, it is possible to spend a hero point for a Heroic Feat to acquire the advantage for one turn. Unfortunately, by default this isn't enough time to do anything with it. Gamemasters wanting more opportunities for non-ritualists to include in the occasional ritual should feel free to modify this rule to be one use of the advantage, allowing a non-ritualist to spend a hero point to create or perform a ritual, even though they normally lack the ability to do so.

The default form of the Ritualist advantage given in the *Hero's Handbook* assumes the use of the Expertise: Magic skill and magical forces but, as **Ritual Power Sources** describes, that does not have to be the case, and there may be multiple forms of the Ritualist advantage in the setting drawing upon different power sources.

RITUAL SKILLS

The Ritualist advantage provides the potential to create and perform rituals. Certain ritual skills offer the practical knowledge and ability to do so. Usually, this is a particular Expertise skill, such as Expertise: Magic in the default ritual system. A character could likewise have Expertise: Meditation, Expertise: Religion, or Expertise: Occult, to name a few potential ritual skills.

Generally, other existing skills from *M&M* are unsuitable as ritual skills, although the GM can make exceptions, if desired. Given the physical performance aspects of some rituals, a case can be made for Acrobatics or Athletics as a ritual skill (although more likely Expertise in Dance, Katas, Yoga, or some similar form of performance). Technology

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could also be a potential ritual skill for "technomantic" or "mathemagical" rituals, already serving that role for inventing (see **Appendix: Inventing**).

CREATING & USING RITUALS

Chapter 7 of the *Hero's Handbook* details the creation and use of rituals, using the following steps:

CONCEPT

The player defines the game effects of the ritual as a power, using the material in **Chapter 6** of the *Hero's Handbook* (and possibly supplementary material and examples from *Power Profiles*). The game definition of the ritual's effect—specifically its power point cost—is used for the later steps of creating the ritual.

This step is also when the GM offers feedback on the ritual concept and whether or not it is suitable for the series as a whole and the character's particular style of ritual. The GM can rule some rituals unsuitable based on the needs of the story or the overall rules of how rituals work in the setting. For example, if it is a metaphysical rule that magic cannot raise the dead, then Resurrection rituals are impossible without special circumstances, regardless of the skill of the ritualist.

Speaking with the Dead—Concept: Thomas Rhymer needs information about a brutal murder that took place on the dark moon a few days prior. Rhymer's player proposes a ritual to summon the ghost of the murder victim and question her. He suggests a rank 2 Comprehend (Spirits) effect. The GM agrees, but tacks on the requirement of a Feature effect (equivalent to inspiration from spending a hero point) where Thomas will get one question per rank of the effect. The player proposes 3 ranks, making the effect's total cost 7 power points (4 for 2 ranks of Comprehend, and 3 for 3 ranks of Feature).

PREPARATION

Once the concept for the ritual is set, the ritualist needs to *prepare* the ritual, which entails gathering all the necessary components, doing research, performing preparatory rituals of purification, attunement, empowering components, divination, and so forth, and preparing the space for the ritual itself.

This process takes 4 hours per point of the ritual's effect and requires another Ritual Skill Check against DC 10 + the effect's total point cost. Success means the ritual is ready to be performed. Failure means the time is wasted and the ritualist has to start over. Three or more degrees of failure mean there is a flaw in the preparations, but the character doesn't know it, and won't until the ritual is performed! For this reason, the GM should make the preparation check secretly and only inform the player whether or not it appears to have succeeded. Players can spend hero points on the Ritual Skill Check for preparation, taking the

better of the two rolls, as usual, but still won't necessarily know what the rolls were.

At the Gamemaster's discretion, special preparations above and beyond just the time and skill check needed may provide a circumstance bonus for the performance of the ritual or its effect, based on the value of the preparation in relation to the ritual, such as making a special effort to acquire rare or unusual components.

Speaking with the Dead—Preparation: Now Thomas turns to his grimoires and journals, as well as police reports and other information about the crime, to prepare the ritual. He has an Expertise: Magic bonus of +12, high enough that he cannot botch the preparations without knowing it, so his player doesn't bother to spend hero points on the effort.

It takes just over a full day (28 hours, 7 points times 4 hours) to do all the work, culminating in drawing the ritual diagrams and setting out candles, incense, and other components at the site of the murder in preparation.

Thomas also acquires a sample of the victim's blood, which the GM agrees is good for a circumstance bonus on the performance check. The GM makes an Expertise: Magic check for Thomas against DC 17 and announces to the player that the preparations appear successful and everything is ready.

REUSING DESIGNS

At the Gamemaster's discretion, characters can retain and reuse successful ritual designs, essentially skipping this step for future uses of the ritual, and just constructing and performing it in the future. This requires some bookkeeping in terms of what rituals the character has designed, and it's up to the GM whether or not ritual designs can be shared or used amongst other ritualists.

PERFORMANCE

Finally, the ritualist needs to actually perform the ritual to create the effect. This takes 10 minutes per point of the ritual's power point cost and a final Ritualist skill check against DC 10 + the effect's total point cost. Success means the ritual works and has the desired effect. Make any additonal checks required for the ritual—attack, power, or resistance checks, for example—at this time. Failure means the ritual does not work and the ritualist has to begin the preparation step over again to make another attempt.

If the performance of the ritual is interrupted for any reason, the ritualist must make a successful Ritual skill check against the ritual's DC to overcome the interruption and continue. If the ritualist becomes unable to complete the ritual during the performance, the ritual automatically fails.

If the ritual design is flawed (from the Design stage) there is no chance the ritual will succeed, but something may happen. The ritualist will know that the ritual is flawed at this point and (assuming the failure allows for another

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attempt) can go back to the drawing board and begin designing the ritual from the start.

A successful ritual creates the intended effect for one scene or however long the ritual needs to do what it is intended to do, whichever is less.

Speaking with the Dead—Performance: It takes Thomas just over an hour (70 minutes, 7 power points x 10 minutes) to perform the rite, timed to culminate at midnight. His player makes an Expertise: Magic check against DC 17. With the +2 circumstance bonus for components, he only needs to roll a 3 or better, and easily succeeds. The candlelight flares and dies down, and the ghostly image of the murdered girl appears outside of the magic circle.

FAST-CASTING

Sometimes ritualists don't have the luxury of researching, preparing, and performing rituals over hours or days. When a ritual is needed right away, "fast-casting" is an available, if risky, option.

Fast-casting requires a hero point. When the point is spent, the ritualist may skip the design and preparation phases, and perform the ritual in a number of *rounds* equal to its point cost. The DC of the Ritual Skill Check for performance increases by +5 to DC 15 + the ritual's total power point cost. Failure on the check means the ritual does not work while success means it creates the desired effect, just like a normal ritual performance.

The GM may choose to limit fast-casting to existing ritual designs (see **Reusing Designs**, previously), allowing the

ritualist to skip the preparation phase, but *not* the design phase of the ritual. This limits fast-casting to a smaller subset of known rituals, rather than any effect.

Instant Exorcism: Thomas Rhymer needs to exorcise a murderous demon possessing a boy and doesn't have time to faff around, so he goes for a fast-casting of a Nullify ritual. His player spends a hero point and chooses to make the effect touch range, since it is already going to be difficult enough, going for rank 8. That costs 4 power points, meaning Thomas' allies need to keep the kid busy for four rounds while he casts, then he makes a DC 19 Expertise: Magic skill check (base DC 10 + 4 for the ritual cost + 5 for fast-casting fairly easy with his +12 bonus). If he makes it, the demon has to roll a Will resistance check against Thomas' Nullify power check or be cast out of the boy's body. Thomas' player is saving another hero point to help make sure it succeeds!

READIED RITUALS

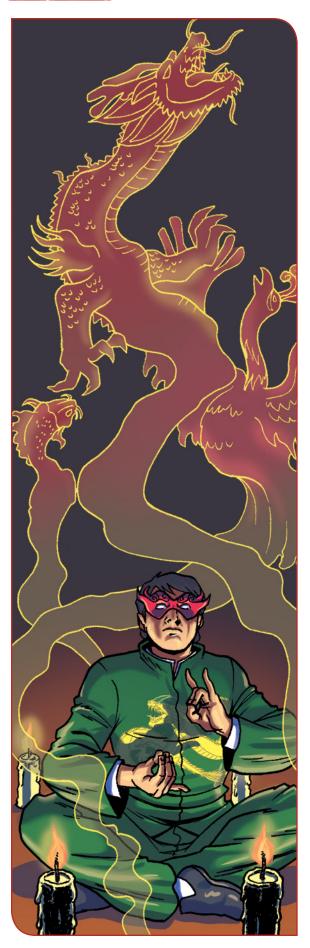
Some ritualists have mastered the technique of performing one or more rituals and leaving them "paused" just on the edge of completion, such that it only takes a moment (and a standard action) to finish and activate them, allowing the ritualist to have some effects "readied" for quick use.

Readied Rituals is a Benefit advantage (*Hero's Handbook,* **Chapter 5**), with the following requirements and benefits:

 Each rank of the advantage allows the ritualist to have one prepared ritual "ready"—so Readied Rituals 4 allows a character to have four rituals readied, either four different ones or four instances of the same ritual.

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- To have the Readied Rituals Benefit, you must have the Ritualist advantage and be trained in its associated Ritual Skill.
- You can only ready rituals with a cost equal to or less than your associated Ritual Skill bonus. More difficult rituals are too hard to hold "at the ready" without completing them.
- You are limited in the number of ranks of Readied Rituals you can have. Usually this is the series power level, although the GM may vary this to a fraction of power level or even a multiple, depending on the series.
- Readying a ritual to occupy one of your available "slots" takes the same amount of time as performing it, and you can fast-cast a ritual to ready it, if you wish.

Example: Thomas Rhymer has Benefit (Readied Rituals) 4, allowing him to have up to four rituals "at the ready," able to cast with just a standard action. With his Expertise: Magic bonus of +12, he can ready rituals with a cost of up to 12 power points. He usually likes to have Banishment, Dispel Magic, Guise, and Veil readied, although sometimes he'll go for more of the first two, if he knows summoned or otherworldy creatures are involved.

SAMPLE RITUALS

The following are some sample rituals, including their effects, power point cost, design, preparation, and performance times, and the Difficulty Class of their Ritual Skill Checks. As mentioned previously, it is up to the Gamemaster to decide if a particular ritual is suitable for the series and fits into the "laws" of the power source governing that ritual. Many of these rituals can work with the different power sources mentioned at the start of this **Appendix**, but are slanted towards magical rituals as the most common type.

BANISHMENT

Preparation 32 hours • **Performance** 80 minutes • **DC** 18

This ritual undoes a specific summoning within range. If the power check exceeds the Will resistance check of the summoned creature (or its summoner, if present), the creature is banished back whence it came. A touchranged version halves all of the time requirements and reduces the Ritual DC to 14. Given the immediate need, this ritual is often fast-cast.

 $\textbf{Banishment:} \ \text{Nullify Summon 8} \bullet \textit{1 point per rank} \bullet \textit{8 points}$

CURE

Preparation 24 hours • **Performance** 60 minutes • **DC** 16

Performed for an injured subject, this ritual promotes swift healing. It doesn't always work: the healer must roll a die and get a 7 or better, otherwise the ritual fails (this is in adGADGET GUIDES ______MUTANTS & MASTERMINDS

RITUALS ONLY SERIES

An option for a low-power MUTANTS & MASTERMINDS series is to make rituals the only power effects available from sources other than equipment, skill, or training (see the **Martial Powers** and **Talent Powers** sections of *Power Profiles* for details). All "supernatural" abilities in the setting take time, preparation, and effort, rather than the normally effortless super-powers of most comic book heroes.

This approach suits a low-powered *Supernaturals Handbook* series, where some characters might be ritualists and others trained or exceptionally skilled humans fighting against supernatural threats. It also works for a modern "urban fantasy" setting or a more traditional fantasy world where magic and similar rituals are more practices than on-call powers.

Note that this limit applies only to the *heroes*; these settings may still have supernatural creatures with innate powers, or even evil sorcerers able to tap into the Magic power (and the inevitable corruption that comes with it) but the goodguys have to work with rituals and their limitations.

dition to the Ritual Skill Check to successfully perform the ritual). Given the requirements, it is used to help someone who is injured, but stable, to recover faster, but is of not use for field treatment without fast-casting.

Cure: Healing 3 • 2 points per rank • 6 points

CURSE

Preparation 48 hours • **Performance** 120 minutes • **DC** 22

This ritual places a baleful curse upon the subject. The ritualist must have some physical part of the subject (typically a lock of hair, fingernail clipping, or blood sample). To the uninitiated, the curse may appear to be a natural illness or bad luck, with no apparent natural explanation. Only a dispel ritual (following) or two consecutive successful resistance checks can end the curse.

Curse: Perception Ranged Progressive Affliction 4 (Resisted and Overcome by Will; Impaired, Disabled, Incapacitated), Limited to Material Link, Limited to One Resistance Check per Hour • 3 points per rank • 12 points

DISPEL MAGIC

Preparation 40 hours • **Performance** 100 minutes • **DC** 20

This ritual cleanses a subject of any magical effects, including other rituals, beneficial or baneful. It is often used to counteract curses and similar effects, or fast-cast in times of more immediate need.

Dispel: Nullify Magic 5, Broad, Simultaneous, Close Range • 2 point per rank • 10 points

DREAM THIEF

Preparation 24 hours • **Performance** 60 minutes • **DC** 16

The ritualist slips into the realm of dreams to visit the mind of a sleeping subject and pilfer its treasures, learning things the subject knows and perhaps even delving deeply into personal thoughts and memories.

Dream Thief: Mind Reading 6, Limited to Sleeping Subects • 1 point per rank • 6 points

EXORCISM

Preparation 16 hours • Performance 40 minutes • DC 14

Calling upon higher powers and mystic authority, the ritualist casts out any outside influences or possessing spirits afflicting the subject of the ritual. Learning the true name of a possessing spirit, or having components particularly baneful to it, can provide a circumstance bonus on the opposed power check to exorcise it.

Exorcism: Nullify Control Afflictions 8, Close Range • 1 point per 2 ranks • 4 points

GATE

Preparation 16 hours • **Performance** 40 minutes • **DC** 14

This ritual opens a portal between worlds, a gateway from the realm of the ritualist to a chosen mystical dimension.

Gate: Movement 1 (Dimensional Travel 1), Portal • 4 points per rank • 4 points

GHOST WALK

Preparation 24 hours • **Performance** 60 minutes • **DC** 16

For one scene (or until the effect is no longer sustained, whichever comes first) the subject can move at normal speed through solid objects as if they were not there. The ritual provides no protection from attack or ability to breathe while inside an object, however.

Ghost Walk: Movement 3 (Permeate 3) • 2 points per rank • 6 points

GUISE

Preparation 20 hours • **Performance** 50 minutes • **DC** 15

The subject of the ritual assumes a specific appearance, chosen when it is prepared, gaining a +20 bonus to Deception checks to convince others of the disguise.

Guise: Morph 1 (Disguise) • 5 point per rank • 5 points

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FORETELLING

Preparation 16 hours • Performance 40 minutes • DC 14

The ritualist gains a vision of the future, as described for the Precognition option of the Senses effect in **Chapter 7** of the *Hero's Handbook*.

Foretelling: Senses 4 (Precognition) • 1 point per rank • 4 points

PORTAL

Preparation 36 hours • **Performance** 90 minutes • **DC** 19

The completion of this ritual opens up a portal to a point in space known to the ritualist up to eight miles away.

Portal: Teleport 3, Portal, Limited to Extended • 3 points per rank • 9 points

SCRYING

Preparation 40 hours • Performance 100 minutes • DC 20

With a specially prepared surface (typically a crystal, mirror, or bowl of water) the ritualist can see visions of distant places (using the long-range sensing option from *Power Profiles*).

Scrying: Communication 3, Perception (visual and auditory), Dimensional, Concentration, Distracting, Limited to Perception, Limited to Scrying Surface • 3 points per rank • 10 points

SENDING

Preparation 16 hours • Performance 40 minutes • DC 14

Frequently readied or fast-cast, a sending ritual can project a single short message (a couple of sentences at most) to a subject anywhere else in the world.

Sending: Communication 4 (mental), Concentration, Limited to a Single Message (–2) • 1 point per rank • 4 points

SPEAK WITH THE DEAD

Preparation 20 hours • **Performance** 50 minutes • **DC** 15

This ritual calls up a departed ghost to answer one question posed to it. Each +1 to cost and DC adds an additional question.

Speak with the Dead: Comprehend (ghosts) 2, Feature (inspiration) • 2 points per rank • 5 points

SPIDER-CLIMB

Preparation 8 hours • Performance 20 minutes • DC 12

The subject of this ritual may climb walls and ceilings like a spider.

Spider Climb: Movement 1 (Wall-crawling) • 2 points per rank • 2 points

SUMMONING

Preparation 64 hours • **Performance** 160 minutes • **DC** 26

This fairly involved ritual summons a creature (often a demon or other extradimensional monster) to serve the ritualist for a particular task.

Summoning: Summon Creature 4 (60 points), Heroic • 4 points per rank • 16 points

VEIL (CONCEALMENT)

Preparation 16 hours • **Performance** 40 minutes • **DC** 14

This ritual renders the subject invisible to all visual means of detection, until the subject does something requiring an attack or effect check, which removes the veil.

Veil: Concealment 4 (all visual senses), Passive • 1 point per rank • 4 points

WARD

Preparation 32 hours • Performance 80 minutes • DC 18

A ward creates a 30-foot radius circle where supernatural creatures are hedged out, so long as the ritualist concentrates on maintaining it.

Ward: Burst Area Affliction 8 (Resisted and Overcome by Will; Entranced, Compelled, Controlled), Concentration, Limited to Supernatural Creatures, Limited to Warding Off • 1 point per rank • 8 points

WEATHER WORKING

Preparation 40 hours • **Performance** 100 minutes • **DC** 20

A weather working ritual changes the weather in an area about eight miles in radius, creating summer-like heat, wintery cold, rain, fog, and so forth as the ritualist wills.

Weather Working: Environment 10 • 1 point per rank • 10 points

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