# Cepheus Deluxe – Reference Document

***All the contents of this file are Open Game Content.***

# Basic Rules

## Die Roll Conventions

**Cepheus Deluxe** uses common six-sided dice. We note each die you need to roll as a “D”. Unless noted otherwise, “2D”, for example, means “roll two dice and add the results together”.

In this game, DM means Dice Modifier – a number you add or subtract from a dice roll. For example, “2D, DM-2” means “roll two dice, add the results together, and then subtract 2 from the total”.

Another die roll type is “D66”. In that case, throw two six-sided dice, but do not add the results together. Instead, use one die as the “tens” and the other as the “ones”, providing 36 results.

## The basic game mechanic

The basic mechanic of Cepheus Deluxe is the throw, and when we say this, we mean dice throw. Throw 2D, add the relevant skill and characteristic DMs, and if the total is equal or higher than the target number, you succeed. For example, “throw Athletics/STR 8+” means “throw 2D and add your Athletics skill level and Strength Dice Modifiers; if the total is 8 or more, you succeed” The amount by which your total throw exceeds or misses the target number is called the Effect.

If a task is even remotely feasible, a natural (unmodified) roll of 2 is always a failure, while a natural (unmodified) roll of 12 is always a success. This is regardless of target numbers or further circumstances.

**Opposed throws:** in a situation where two characters oppose each other in an attempt, for example, a spy trying to sneak past a guard, each character throws 2D plus the appropriate skill and characteristic modifier; the higher roll wins. On a tie, the character with the higher total DM to the throw (from skill, characteristics, etc.) wins. If both characters are equally competent, reroll the tie.

**Unskilled characters:** if a character attempts a throw with a skill they do not possess, they suffer DM-3 to that throw.

**Trying Again:** generally, you may retry failed skill or characteristic throws. However, in some cases failure has consequences: failing a Demolitions throw might mean having a bomb explode in your face. This instance precludes the possibility of second chances.

**Note** that skilled characters are competent and can usually practice their trade or profession, under normal conditions, without a throw. Use throws only when the characters are at serious risk or under pressure, such as time pressure, opposition, or adverse conditions. For example, a physician (Medicine 3) can give effective first aid without requiring a throw and can help characters recover from serious wounds but would have to make a Medicine throw to treat a genetically engineered disease.

### Collaboration

In some cases, characters may work together on a task throw. The character with the highest skill and characteristic makes the main skill throw. Any assistant can make a skill throw at the same difficulty as well; if they succeed, add DM+1 to the primary character’s throw; if they fail, the primary character suffers no penalty. There can only be one assistant to the main skill throw. However, the Referee is encouraged to allow other characters to assist the assistant. Each throw has the same difficulty as the original skill throw. Note that characters who are assisting in the throw do not necessarily have to use the same skill. If the player and Referee agree, a related skill task throw can assist. For example, a ship’s engineer might throw Engineering to assist the Pilot’s skill throw. Teamwork!

**Common Target Numbers**

The table below provides guidelines for Referees to set Target Numbers. Any Target Number below 4+ is probably not worth calling for a throw.

|  |  |  |
| --- | --- | --- |
| **Difficulty** | **Target Number** | **Examples** |
| Easy | 6+ | Repairing a damaged vehicle system in a properly equipped workshop |
| Average | 8+ | Shooting a target in Effective range |
| Difficult | 10+ | Shooting a target beyond Effective range |
| Formidable | 12+ | Landing a ship in a hurricane with a damaged engine, under enemy fire |
| Impossible | 14+ | Anything that the Referee would find amusing |

### Advantage

In certain advantageous situations, specifically related to Traits and cybernetics, the rules may grant you an *Advantage*. In this case, throw 3D, and choose the 2 highest die results.

## Fatigue

Fatigue is common in the demanding sci-fi future. When Fatigued, a character suffers DM-2 to all throws. 8 hours of rest remove Fatigue.

## Optional Rule: Hero Points

The Cepheus Deluxe rules present a universe of gritty heroism: heroes can be powerful, but they are still human and constrained by this harsh reality. However, if you desire larger-than-life science-fiction heroes, use the following rule.

Each player starts each game session with 2 personal Hero Points. The group also has an additional number of Hero Points equal to the number of players present that session.

Each time a player fails in a skill or characteristic throw of at least 8+ with an Effect of 6 or more, the group Hero Point pool increases by 1.

Each time a player succeeds in a skill or characteristic throw of at least 8+ with an Effect of 6 or more, their own Hero Point pool increases by 1.

All pools reset at the beginning of each session.

A character may use their personal Hero Points, and with the other players' agreement, points from the group pool.

By spending Hero Points, a character may:

* Reroll any single die throw, including damage throws and vehicle or ship damage and critical hits. They may pick the better result.
* Force the Referee to reroll a single NPC's die throw, including damage throws and vehicle or ship damage and critical hits. The second result stands, so watch out!
* Reroll a throw on the Trauma Surgery, Cyborg Conversion, or Bio-Reconstruction tables. They may take the better result.

### Optional Rule: Only Individual Hero Points

For a more modest Hero Point system, ignore the Group Hero Point Pool and only grant Individual Hero Points.

# Skills

Characters in Cepheus Deluxe use a variety of skills to confront the challenges awaiting them among the stars, from piloting a starship to shooting a laser.

Skills are a character’s greatest asset. Skilled characters are competent. A Skill at level 1 (denoted “Skill 1”) represents someone who is employable; Skill 3 denotes a trusted professional; and Skill 5 represents a world-class expert. For example, a newly trained paramedic has Medicine 1; an experienced physician has Medicine 3; and a cutting-edge cyber-surgeon, skilled beyond the typical physician, has Medicine 5. The task resolution system takes this into account – professionals should automatically succeed at routine tasks (difficulty 6+) and easily perform average tasks (difficulty 8+), while experts will automatically succeed in routine and average tasks and easily manage difficult (10+) ones.

**A note about the Cepheus Engine Core and System Reference Document:** Cepheus Deluxe skills are somewhat different than those found in the Cepheus Engine Core rules but are easily compatible. Most notably, Repair is the combination of Electronics and Mechanics; Admin subsumes the Advocate skill; Carousing subsumes the Gambling skill.

## Zero-Level Skills

Normally, a character is either skilled in a task or unskilled. In the latter case, they suffer DM-3 for lacking the appropriate skill. However, to facilitate play, we recommend that the Referee grant a few skills as “Zero-level” to each character at the start of the game. This means that while the character is not skilled enough to hold down a job with that skill, and does not enjoy a positive DM on rolls, the character is familiar enough with that skill to avoid the unskilled penalty (DM-3). The recommended Zero-level Skills for all adventurers are shown in the table below.

|  |  |
| --- | --- |
| Zero-Level Skills | |
| Military and Paramilitary Characters | Purely Civilian Characters |
| Athletics | Athletics |
| Drive | Drive |
| Gun Combat | Zero-G |
| Melee Combat |  |
| Zero-G |  |

## Skill List

The skills included below are comprehensive, though there can be overlaps between two or more skills, depending on the context of the skill use in question, the players, and the Referee. We advise a certain amount of flexibility to keep the game moving.

**Admin:** understanding and dealing with bureaucracies, businesses, and the law. Also covers forgery.

**Aircraft:** controlling and using atmospheric aircraft. This skill covers navigation and basic maintenance, but not repairing damage.

**Animals:** the care and training of animals. Also covers riding and general agriculture.

**Athletics:** the ability to exert oneself physically. You may add the Athletics skill to appropriate physical characteristic rolls. This skill is never rolled unskilled.

**Carousing:** the art of mingling in social settings to achieve your goals. Also covers gambling.

**Computer:** programming, working with computer hardware, and hacking. This skill also covers the use of sensors and communications gear.

**Deception:** convincingly avoiding the truth and misleading other people. This skill covers sleight-of-hand and disguise as well.

**Demolitions:** working with explosives to blow stuff up! This skill also covers defusing said explosives before they blow up!

**Driving:** controlling and using ground vehicles. This skill covers navigation, as well as basic maintenance, but not repairing damage.

**Engineering:** using and maintaining of starship drives, powerplants, and other systems specific to starships. Engineering is the required skill for Jump drive operation. This skill is not a substitute for the Repair skill (below).

**Grav Vehicles:**  controlling and using gravitic vehicles. This skill also covers navigation and basic maintenance, but not repairing damage.

**Gun Combat:** using small arms, crossbows, and bows in combat.

**Gunnery:** using vehicle-mounted or spaceship-mounted weapons.

**Heavy Weapons:** using plasma guns, rocket launchers, and other portable heavy weapons.

**Investigation:** keen observation, forensics, research, and detailed analysis.

**Jack o’ Trades:** this special skill reduces the unskilled penalty (DM-3, noted above) by its level. For example, a character with Jack o’ Trades at level 2 would only suffer DM-1 to all unskilled rolls. You may not gain more than 3 levels in this skill and cannot improve it after character generation.

**Leadership:** motivating and directing others, often in times of crisis.

**Liaison:** negotiation and diplomacy in a myriad of social situations. This skill covers diplomatic meetings, haggling in interstellar trading negotiations, or at the shouq, and talking down a gunman who is holding hostages.

**Medicine:** training in the medical sciences, from diagnosis and triage to surgery.

**Melee Combat:** fighting hand-to-hand, either with a weapon or unarmed.

**Piloting:** operating, controlling, and navigating interplanetary and interstellar space craft, both in real space and in jump space.

**Recon:** scouting for danger and spotting threats, including traps. Recon also covers performing forward observation for artillery.

**Repair:** the ability to maintain, repair and build mechanical and electronic devices of all sorts. This skill also covers lockpicking, both mechanical and electronic. Ship-specific systems are handled by the Engineering skill, and Computers covers the use of electronic devices.

**Science:** the multi-disciplinary scientific skill, as would be typical for a starship’s science officer.

**Stealth:** the ability to be unseen and unheard, both while stationary and moving.

**Steward:** the care and serving of passengers and other guests. Steward skill adds to the throw for locating High Passage passengers. See the Starship Operations chapter.

**Streetwise:** familiarity with underworld society and the ways of working with it. The Streetwise skill adds to the throw for finding Low Passage passengers (see the Starship Operations chapter for more details).

**Survival:** staying alive in the wilderness. This also covers “outdoor” skills such as tracking, foraging, navigation, and fishing.

**Tactics:** tactical planning and decision making, whether on the ground or in space.

**Watercraft:** controlling and using watercraft, including submarines. This skill includes navigating these vehicles, as well as performing basic maintenance, but not repairs.

**Zero-G:** working and living under microgravity conditions. Also covers the use of space suits and heavy armor. When characters are in combat in microgravity, they should use the lower of their combat or Zero-G skill.

### Languages

Characters know a number of languages, in addition to their cultures' standard language, equal to their EDU modifier (see Characteristic Modifiers in **Chapter 4: Character Generation**). After character generation, characters may learn additional languages using the experience rules (see below) by purchasing the language for 8 XP. There are no skill levels of a language; either a character knows that language or they do not. The Referee is free to allow a Level 0 version of a language skill, representing a basic understanding of the language.

### A note on Prospecting

*Uranium Fever*, a belter sourcebook by **Stellagama Publishing**, uses the Prospecting and Comms skills for asteroid mining. When using Cepheus Deluxe with that book, use the Science skill instead of Prospecting and Computer instead of Comms.

## Skill Advancement

**Cepheus Deluxe** characters can slowly advance in skill through experience. Players advance their characters by spending Experience Points (XP). A Character will typically gain 1 XP per session. The Referee might award 2 XP for a session where the *player* did an outstanding job, or if the *character* was very successful. Characters can only advance skills during downtime in game: during periods of relative quiet and inactivity. Note that advancement is incremental: for example, to increase a skill from Level 1 to Level 3, the character must first purchase Level 2 and only then Level 3. In general, use of XP should allow a character to increase one skill by one level per game year.

### Increasing Skills

Spend XP to increase skills per the following table. Skills can be improved by exercise or study, represented by spending XP, as noted in the table below.

|  |  |
| --- | --- |
| **Desired Skill Level** | **XP Cost** |
| 0 | 2 |
| 1 | 10 |
| 2 | 20 |
| 3 | 20 |
| 4 | 30 |
| 5 | 40 |

Note, however, that the total sum of a character’s skill levels still may not exceed the sum of their current INT + EDU characteristics. If using Level 0 skills, these do not count towards the maximum skill levels.

### Learning Languages

You may learn a new language by investing 8 XP.

### Gaining Traits

You may gain a new Trait by investing 30 XP. The character must meet all the prerequisites to purchase the Trait.

### Optional Rule: Improving Characteristics

Some Referees may allow characters in their games to improve their characteristics. If this is the case, then any characteristic may be increased via XP expenditure, except for Social Standing.

To improve a characteristic **by one point**, spend XP equal to *three times* the new value. So, to improve a characteristic from 7 to 8 costs 24XP. The human maximum for any characteristic is 15, and Referees may wish to limit the number of times a given characteristic may be improved to 2 or 3. Social standing can only be improved by social advancement, which is accomplished through role-playing and successful adventuring.

# Character Generation

Your character starts the game as a skilled, experienced adult. This chapter will show you how to generate a character and take them through a career.

## Step 1: Characteristics

Characteristics describe your character’s general talents and abilities. They serve as basic skills – for tasks which every human (or alien!) can perform, but some can perform better or worse than others. They also modify your character’s skill throws, representing your natural aptitude with various tasks.

Assign the following array to the six characteristics in any order desired to your six characteristics: 5, 6, 7, 8, 9, 10.

The characteristics are:

**Strength** (STR): Physical prowess and brute force.

* Strength determines a character’s carrying capacity.
* Add your STR DM to your melee *damage*. Note, however, that even with low STR, any attack that hits does at least 1 point of damage (before armor).
* Strength modifies skill throws related to brute force and feats of raw might.

**Dexterity** (DEX): Agility, coordination, and speed.

* Dexterity is the attribute used for throwing knives and grenades, as well as evading physical threats.
* Add your DEX DM to your *ranged attack throws*.
* Dexterity modifies skill throws related to coordination and speed.

**Endurance** (END): Physical resilience, fitness, and force of will.

* Endurance helps the character resist biological threats such as disease and poison.
* Endurance determines your character’s Stamina and Lifeblood, representing toughness and resistance to damage, respectively (see below).
* Endurance modifies skill throws related to physical resilience.

**Intelligence** (INT): Reasoning, creativity, and intellectual capabilities.

* Together with EDU, Intelligence determines the character’s maximum number of skill ranks.
* Intelligence modifies skill throws related to reasoning, creativity, and perceptiveness.

**Education** (EDU): Formal schooling and general knowledge.

* Education 8+ allows rolling on the Advanced Education column in the career tables.
* A character gains a number of additional languages equal to their EDU DM.
* Together with INT, Education determines the character’s maximum number of skill ranks.
* Education modifies skill throws related to academics, science, and knowledge.

**Social Standing** (SOC): A character’s connections and position in society.

* Social Standing provides characters with a number of free contacts equal to their SOC DM.
* Social Standing often modifies skill throws in social settings.

### Characteristic DMs

Each characteristic has an associated Dice Modifier (DM) based on its value or score, as noted below:

**Characteristic DMs**

|  |  |
| --- | --- |
| **Characteristic Score** | **Characteristic DM** |
| **0-2** | **DM-2** |
| **3-5** | **DM-1** |
| **6-8** | **DM+0** |
| **9-11** | **DM+1** |
| **12-14** | **DM+2** |
| **15-17** | **DM+3** |
| **18-20** | **DM+4** |

Above 20, a character increases their characteristic DM by another +1 per three points – for example, 21-23 will have DM+5, and so on. This means that very powerful creatures will almost automatically succeed in throws using their powerful characteristic. This is intentional: a massive alien brute, for example, would be capable of feats of strength unattainable by most humans.

### Using characteristic throws

Characteristics represent general human (or alien!) capabilities that every character possesses to one degree or another. This is opposed to skills, which represent specialized training. These include things such as fitness and agility (STR, END, and DEX), general reasoning (INT), general knowledge (EDU), and using connections and social innuendo to further one's ends (SOC). Anyone can jump to a certain distance (DEX), but not everyone can pilot a starship (Piloting skill). However, general aptitudes do influence even the actions of professionals, for example the DEX DM is often added to Piloting skill throws.

Characteristic throws use only the Characteristic DM, rather than Characteristic + Skill. Characteristic throws do not suffer the DM-3 Unskilled penalty. Characters never suffer the DM-3 Unskilled penalty for Athletics throws.

*Example: A character with EDU 5 tries to recall a fun piece of trivia. The Referee calls for an EDU characteristic roll. The roll is 2d6, DM-1.*

## Step 2: Homeworld Skills

At the age of 18, before embarking in a career, your character has already learned a single skill. Choose a homeworld type and one skill from its list.

|  |  |
| --- | --- |
| **Homeworld** | **Available Skills (choose one)** |
| High-tech core world | Computer-1, Grav Vehicles-1, Streetwise-1 |
| Water World | Watercraft-1, Repair-1, Athletics-1 |
| Capital World | Carousing-1, Grav Vehicle-1, Liaison-1 |
| Frontier colony | Driving-1, Watercraft-1, Survival-1 |
| Inhospitable outpost | Repair-1, Science-1, Zero-G-1 |
| Primitive backwater | Animals-1, Recon-1, Survival-1 |

## Step 3: Career

Characters start off at the age of 18. Then they “grow” through the character generation system.

**Note that the total sum of a character’s skill Levels can never exceed the sum of their INT + EDU characteristics.** However, first generate the character and list all skills, even if they exceed this limit. After Mustering Out, if the total of your skill points exceeds the sum of your INT + EDU, you may choose which skills to reduce to bring your total under the character’s INT + EDU. You may reduce skills to Level Zero, as they do not count against the character’s skill level total.

The Referee determines the number of career Terms characters will go through prior to the game’s start. Each Term represents roughly 4 years.

1. **Term 1**: Select a career. Your character begins their career at Rank 0.
   1. Note your career’s Service Skills. You can raise one Service Skill to level-1. The rest of the Service Skills are Level 0.
   2. Pick **TWO** skill levels from that career’s available skills tables: Service, Specialist, or Advanced Education.
      1. Characters must have an EDU 8+ to select from the Advanced Education table.
      2. A maximum of ONE skill level per term may be spent to improve any Characteristic by +1.
      3. No skill level may be higher than 2 in the **first term**.
      4. Roll on the Career’s Event Table. This might increase the number of skills the character receives, or even cause injury. Note that if an event calls for a skill test, do not include any Attribute DMs. Just throw 2D and add the skill level, if any. If the character does not have the listed skill, do *not* apply any penalty.
   3. Increase the character’s age by 4 years to 22 years old.
      1. **OPTION**: Roll 1D for the number of years the character ages this term.
2. **Second and Subsequent Terms**: Select skill levels from available tables.
   1. As characters advance their careers, the number of skill levels available per term decreases. See the Master Character Generation Table, below.
   2. A maximum of one skill level per term may be spent to improve any characteristic by +1.
   3. Increase career Rank by 1 on terms 2, 4, and 6. Add additional Bonus Rank skills as indicated on the Rank Table.
   4. Roll on the Career’s Event Table.
   5. Increase the character’s age by 4 years.
      1. **OPTION**: Roll 1d6 for the term length in years.
   6. Roll for **Aging Effects** at the end of Term 4 and subsequent Terms. Note that even if the character is not yet 34 years old, begin rolling for aging effects at the end of Term 4.
3. **Mustering Out:**
   1. **Roll for Mustering Out Benefits** on the relevant career table. The number of Mustering Out Benefits is equal to 1, plus 1 per term served. The player may choose to roll on the Cash Benefits or Material Benefits table for each roll.
   2. **Rank as Mustering Out Benefit**: you may purchase additional Rank levels with a Mustering Out Benefit. Each promotion costs one Mustering Out Benefit. Gain any Rank skills at appropriate ranks.
   3. **OPTION**: The Referee may assign additional level-0 skills (see the Skills chapter).
   4. **OPTION**: The Referee may wish that each character have a skill from a given Skill Package (see below) *in addition* to their career skills. Select one skill from the indicated Skill Package at this time. Each skill from a Package may only be selected once, by one character.
   5. Select 1 **Trait** from the Traits chapter for every 2 terms served, rounding up (see Master Character Generation Table, below).

**Skill Packages**

|  |  |
| --- | --- |
| **Campaign Style** | **Skills Available** |
| Exploration | Piloting-1, Engineering-1, Survival-1, Science-1, Repair-1 |
| Military | Leadership-1, Gunnery-1, Melee Combat-1, Heavy Weapons-1, Tactics-1 |
| Naval | Piloting-1, Computer-1, Repair-1, Gunnery-1, Engineering-1 |
| Trading | Piloting-1, Engineering-1, Liaison-1, Medicine-1, Steward-1 |
| Criminal | Streetwise-1, Stealth-1, Admin-1, Recon-1, Deception-1 |

**Master Character Generation Table**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Terms | Skill Levels Granted | Total Skill Levels\* | Aging? | Rank Increase? | Traits | Mustering Out Benefit Rolls | Total Events |
| 0 | 1 (homeworld) | 1 | N |  | 1 | 1 | 0 |
| 1 | 2, plus a level 1 service skill | 4 | N |  | 1 | 2 | 1 |
| 2 | 2 | 6 | N | +1 | 1 | 3 | 2 |
| 3 | 2 | 8 | N |  | 2 | 4 | 3 |
| 4 | 1 | 9 | Y | +1 | 2 | 5 | 4 |
| 5 | 1 | 10 | Y |  | 3 | 6 | 5 |
| 6 | 1 | 11 | Y | +1 | 3 | 7 | 6 |
| 7 | 1 | 12 | Y |  | 4 | 8 | 7 |

\* As noted above, regardless of homeworlds, careers, and packages, the total number of skill tanks a character may possess may not exceed the sum of their INT and EDU Characteristics.

## Optional Rule: Switching Careers

Some Referees allow characters to switch careers during character generation. This is simple enough. Simply switch careers. The character begins at Rank 0, unless they are in a military career and switching into another military career—in that case, keep the character’s rank the same (though you should convert Army ranks to equivalent Navy or Marine ranks).

Characters in their new career receive ONE Service Skill at Level-0, and then proceed normally in their new career, using the Master Character Generation Table to determine how many skill levels they may pick in their new profession. Mustering Out Benefits are rolled on the appropriate career table. Reduce the total number of Benefit rolls by one for each career change to reflect the hardships that starting a new career often entail.

## Career Tables

### Agent:

You were a police officer, government or corporate spy, or private investigator.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Service Skills | | | Specialist Skills | | Advanced Education |
| Investigation | | | Deception | | Admin |
| Admin | | | Gun Combat | | Computer |
| Computer | | | Grav Vehicles | | Liaison |
| Streetwise | | | Athletics | | Science |
| Carousing | | | Driving | | Medicine |
| Stealth | | | Recon | | Leadership |
|  | | |  | |  |
| Rank | **Title** | **Bonus Skill** | **Mustering Out Benefits** | | |
| 0 | Agent |  | **1D6** | **Cash** | **Materials** |
| 1 | Special Agent |  | 1 | 1,000 | Low Passage |
| 2 | Sp. Agent in Charge |  | 2 | 5,000 | +1 INT |
| 3 | Unit Chief | Admin-1 | 3 | 10,000 | Weapon |
| 4 | Section Chief |  | 4 | 10,000 | Contact |
| 5 | Assistant Director |  | 5 | 20,000 | +1 SOC |
| 6 | Director |  | 6 | 50,000 | High Passage |

|  |  |
| --- | --- |
| **2D** | **Agent Event** |
| **2** | **Injury**. Roll on the Injury table, but you are not ejected from your career. |
| **3** | **Cybered**! Your employer pays for advanced cybernetic implants. Gain Cr8,000 worth of cybernetics. |
| **4** | **Dangerous Mission**. You are assigned to a dangerous mission above and beyond your normal duties. Roll Recon 8+, Streetwise 8+, or Gun Combat 8+. If you succeed, gain a bonus: an additional Benefit roll. If you fail, roll on the Injury table. |
| **5** | **Specialist Training**. You receive advanced training. Throw EDU 8+ to increase any one skill by one level. |
| **6** | **Labor Dispute**. Your employers send you to infiltrate a group of striking workers or civilian protesters. If you try to avoid bloodshed, you give up your after-action bonus but gain the union leader as a Contact; Or you can doom the movement and gain another Benefit roll from the after-action bonus. However, the union leader escapes, and you gain them as an Enemy. |
| **7** | **Life Event**. Roll on the Life Event table. |
| **8** | **Undercover**. You participate in an undercover operation. Throw Streetwise 8+ or Deception 8+. If you succeed, pick one skill from the Specialist Skill table of the Rogue career. If you fail, roll on the Injury table. |
| **9** | **Trusted Informant**. You recruit a close informant. Throw Streetwise 8+ to gain a Contact. |
| **10** | **Kidnapping Rescue**. You participate in an operation to rescue a kidnapping victim. Throw Investigation 8+ or Stealth 8+; succeed, and you gain a hostage VIP as a Contact; fail and throw on the Injury Table. |
| **11** | **Mentor**. A senior officer befriends you. Gain Leadership or Admin and a Contact. |
| **12** | **Conspiracy**. You uncover a major conspiracy and are promoted as a reward. Gain one skill level and one rank. The nature of this conspiracy is at the Referee's discretion. |

### Army:

You served in a planetary military or mercenary force.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Service Skills | | | Specialist Skills | | Advanced Education |
| Gun Combat | | | Repair | | Computer |
| Recon | | | Tactics | | Admin |
| Heavy Weapons | | | Stealth | | Medicine |
| Melee | | | Demolitions | | Jack of All Trades |
| Driving | | | Survival | | Leadership |
| Athletics | | | Grav Vehicles | | Gunnery |
|  | | |  | |  |
| Rank | **Title** | **Bonus Skill** | **Mustering Out Benefits** | | |
| 0 | Private |  | **1D6** | **Cash** | **Materials** |
| 1 | Lieutenant | Leadership-1 | 1 | 1,000 | Low Passage |
| 2 | Captain |  | 2 | 5,000 | +1 INT |
| 3 | Major | Tactics-1 | 3 | 10,000 | Weapon |
| 4 | Lt. Colonel |  | 4 | 10,000 | Mid Passage |
| 5 | Colonel |  | 5 | 20,000 | Weapon |
| 6 | General | SOC+1 | 6 | 50,000 | High Passage |

|  |  |
| --- | --- |
| **2D** | **Army Event** |
| **2** | **Injury**. Roll on the Injury table, but you are not ejected from your career. |
| **3** | **Cybered**! The military pays for advanced cybernetic implants. Gain Cr8,000 worth of cybernetics. |
| **4** | **Hostile World**. You are stationed on a world with a hostile or wild environment. Gain one of Animals, Survival, or Zero-G. |
| **5** | **Street Fighting**. You fight a battle in an urbanized area. Gain one of Tactics, Stealth, or Streetwise. |
| **6** | **Budget Cuts**. Your government cuts your unit’s budget. Throw Admin 8+ to regain funds for your unit; if you succeed, gain your unit’s commander as a Contact. If you fail, gain a government official as an Enemy. |
| **7** | **Life Event**. Roll on the Life Event table. |
| **8** | **Police Action**. You are involved in counter-insurgency operations. Throw DEX 8+ or END 8+. If you succeed, gain Liaison, Recon, Leadership, or Tactics. If you fail, roll on the Injury table. |
| **9** | **Garrison**. You are assigned to garrison duty. Gain one of Admin, Carousing, or Streetwise. |
| **10** | **Bug Hunt**! You fight hostile xenofauna. Throw Gun Combat 8+; if you succeed, gain Animals or Survival. If you fail, roll on the Injury Table. |
| **11** | **Electronic Warfare**. You train in advanced SIGINT and cyber-warfare techniques. Gain a level in Computer. |
| **12** | **Advancement**. Your heroic service in battle gains you a promotion. Gain one free skill level and increase your rank by one. |

### Belter:

You were a hard-working asteroid miner or other blue-collar spacer.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Service Skills | | | Specialist Skills | | Advanced Education |
| Repair | | | Jack of All Trades | | Admin |
| Demolitions | | | Carousing | | Medicine |
| Piloting | | | Engineering | | Grav Vehicles |
| Computers | | | Streetwise | | Liaison |
| Zero-G | | | Gunnery | | Science |
| Athletics | | | Melee Combat | | Leadership |
|  | | |  | |  |
| Rank | **Title** | **Bonus Skill** | **Mustering Out Benefits** | | |
| 0 | Miner |  | **1D6** | **Cash** | **Materials** |
| 1 | Roughneck |  | 1 | 1,000 | Low Passage |
| 2 | Crew Boss |  | 2 | 5,000 | +1 INT |
| 3 | Foreman |  | 3 | 5,000 | Space Suit |
| 4 | Rep | Admin-1 | 4 | 10,000 | Mid Passage |
| 5 | Senior Rep |  | 5 | 30,000 | +1 EDU |
| 6 | Local President |  | 6 | 100,000 | Prospector |

|  |  |
| --- | --- |
| **2D** | **Belter Event** |
| **2** | **Injury**. Roll on the Injury table, but you are not ejected from your career. |
| **3** | **Specialist Training**. You get on-the-job training. Gain one of Computer, Science, Administration, or Demolitions. |
| **4** | **Explosion**. An impending mining explosion threatens your ship or mine. Zero-G 8+. If you succeed, gain Demolitions; if you fail, roll on the Injury Table. |
| **5** | **Protection Racket**. Pirates organize a protection racket in your belt. If you pay, lose one Benefit roll. If you resist, throw Gun Combat 8+ or Melee Combat 8+. If you succeed, gain Streetwise but also a pirate Enemy; if you fail, roll on the Injury Table. |
| **6** | **Bureaucracy**. You find yourself counting beans for your mining operation. Gain Administration. |
| **7** | **Life Event.** Roll on the Life Event table. |
| **8** | **Drone Operations**. You oversee a delicate remote mining operation. Roll Computer 8+ to gain an extra Benefit roll. |
| **9** | **Strike**! Miners at your site go on strike. Support the strike and gain a Contact in the union and an Enemy in management. Scab and gain an extra Benefit roll and an Enemy in the union. |
| **10** | **Investment**. A major bank invests in your mining operation. Roll Admin 8+ to gain an additional Benefit roll. |
| **11** | **Cyberterrorism**. A terrorist hacker subverts your ship’s drones and robots. Throw Gun Combat 8+ or Computer 8+; if you succeed gain a level of Computer; if you fail, roll on the Injury Table. |
| **12** | **Advancement**. You automatically Advance after discovering a major strike. Gain a free skill level and one rank. |

### Colonist:

You packed your bags and made a life on a distant frontier world.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Service Skills | | | Specialist Skills | | Advanced Education |
| Survival | | | Liaison | | Science |
| Repair | | | Melee Combat | | Medicine |
| Jack of all Trades | | | Grav Vehicles | | Computer |
| Animals | | | Gun Combat | | Admin |
| Driving | | | Leadership | | Aircraft |
| Carousing | | | Recon | | Watercraft |
|  | | |  | |  |
| Rank | **Title** | **Bonus Skill** | **Mustering Out Benefits** | | |
| 0 | Citizen |  | **1D6** | **Cash** | **Materials** |
| 1 | District Leader |  | 1 | 1,000 | Low Passage |
| 2 | District Delegate | Admin-1 | 2 | 5,000 | +1 INT |
| 3 | Council Advisor |  | 3 | 5,000 | Weapon |
| 4 | Councilor | Liaison-1 | 4 | 5,000 | Mid Passage |
| 5 | Lieutenant Governor |  | 5 | 10,000 | Contact |
| 6 | Governor |  | 6 | 20,000 | High Passage |

|  |  |
| --- | --- |
| **2D** | **Colonist Event** |
| **2** | **Injury**. Roll on the Injury table, but you are not ejected from your career. |
| **3** | **Friends in High Places**. You befriend a senior corporate or government official. Gain them as a Contact. |
| **4** | **Xenomorphs**! Deadly organisms infiltrate your colony; carnage ensues. Throw Gun Combat 8+ or Science 8+ to avoid Injury; if you succeed, gain a level in Survival. |
| **5** | **Crime**. You have a chance to get involved in a criminal gang. Avoid this opportunity and gain its leader as an Enemy. Join in, and throw Administration 8+, Stealth 8+, or Streetwise 8+; on success, you gain an extra benefit roll; on failure, you go to Prison. |
| **6** | **Growth**. Your colony thrives. Gain DM+2 to one of your Benefit rolls. |
| **7** | **Life Event.** Roll on the Life Event table. |
| **8** | **Hard Work**. You work hard at your job. Gain either Administration, Computer, or Repair. |
| **9** | **Colonial Strife**. Social strife on your colony explodes into bloodshed. Join the rebels and gain Gun Combat or Demolitions but you must throw Gun Combat 8+ to avoid an Injury Table roll. Stay away from violence and avoid risk to life and limb, but you gain no skill. |
| **10** | **Industrial Accident**. Faulty safety measures result in a major disaster at your colony. Roll Repair 8+ or Science 8+. If you succeed, gain a Contact in the colonial administration. If you fail, lose one Benefit. |
| **11** | **Underground Politics**. You encounter an illegal political movement. Turn them in to gain a Benefit roll and gain their escaped leader as an Enemy. Join, and throw Demolitions 8+. Stealth 8+ or Streetwise 8+; if you succeed, gain the movement’s leader as a Contact; if you fail, go to Prison. |
| **12** | **Advancement**. Your hard work has been recognized. You gain one rank and one free skill level. |

### Elite:

You were a member of the upper crust of society, a diplomat, or a junior executive.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Service Skills | | | Specialist Skills | | Advanced Education |
| Admin | | | Leadership | | Medicine |
| Liaison | | | Melee Combat | | Sciences |
| Carousing | | | Athletics | | Aircraft |
| Computer | | | Steward | | Animals |
| Grav Vehicles | | | Watercraft | | Piloting |
| Deception | | | Streetwise | | Computer |
|  | | |  | |  |
| Rank | **Title** | **Bonus Skill** | **Mustering Out Benefits** | | |
| 0 | Analyst |  | **1D6** | **Cash** | **Materials** |
| 1 | Supervisor |  | 1 | 2,000 | Contact |
| 2 | Manager |  | 2 | 10,000 | +1 EDU |
| 3 | Director |  | 3 | 20,000 | +1 SOC |
| 4 | Managing Director | Admin-1 | 4 | 40,000 | High Passage |
| 5 | Vice President |  | 5 | 50,000 | Yacht |
| 6 | President |  | 6 | 100,000 | Explorer’s Society |

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| --- | --- |
| **2D** | **Elite Event** |
| **2** | **Injury**. Roll on the Injury table, but you are not ejected from your career. |
| **3** | **Celebrity Status**. You are part of your homeworld’s celebrity circles. Gain one level of Carousing, Liaison, or Steward. |
| **4** | **Cybered**! Your patrons (or parents) pay for advanced cybernetic implants. Gain Cr10,000 worth of cybernetics. |
| **5** | **Inheritance**. You inherit a gift from a rich relative. Gain an extra Benefit roll. |
| **6** | **Conspiracy**. You are invited to join a conspiracy against the locally dominant corporation. If you refuse the offer, gain an Enemy. If you accept the offer, throw Deception 8+ or Liaison 8+. If you succeed, gain one of Carousing, Liaison, or Deception. If you fail, throw Admin 10+ to avoid spending a term in Prison. |
| **7** | **Life Event**. Roll on the Life Event table. |
| **8** | **Corporate Infighting**. You can criticize, or even bring down, a questionable corporate executive. If you refuse and support the exec, gain both a Contact and an Enemy. If you attempt to discredit the exec, roll Liaison 8+ or SOC 8+. If you succeed, gain their primary rival as a Contact. If you fail, reduce SOC by 1. |
| **9** | **Acclaimed Leadership**. Your directorship is acclaimed by all as being fair and wise. Gain either a jealous rival or an unhappy subordinate as an Enemy but also gain a DM+2 on your next Benefit throw. |
| **10** | **Interstellar Tour**. You go on a tour, visiting several different worlds. Gain Piloting, Animals, or Zero-G. |
| **11** | **Alliance**. You make an alliance with a powerful and charismatic member of the government. Gain a Contact and either a level of Leadership or a DM+4 on your next Benefit throw. |
| **12** | **Advancement**. Your high-level dealings have been very successful. You gain a rank, and a free skill level. |

### Marine:

You were a member of spacefaring infantry, specializing in boarding actions and planetary assault.

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| --- | --- | --- | --- | --- | --- |
| Service Skills | | | Specialist Skills | | Advanced Education |
| Gun Combat | | | Carousing | | Survival |
| Heavy Weapon | | | Repair | | Admin |
| Athletics | | | Demolitions | | Computer |
| Gunnery | | | Recon | | Piloting |
| Melee Combat | | | Tactics | | Medicine |
| Zero-G | | | Stealth | | Engineering |
|  | | |  | |  |
| Rank | **Title** | **Bonus Skill** | **Mustering Out Benefits** | | |
| 0 | Trooper |  | **1D6** | **Cash** | **Materials** |
| 1 | Lieutenant | Leadership-1 | 1 | 1,000 | +1 EDU |
| 2 | Captain |  | 2 | 5,000 | Weapon |
| 3 | Major | Tactics-1 | 3 | 5,000 | Mid Passage |
| 4 | Lt. Colonel |  | 4 | 10,000 | +1 SOC |
| 5 | Colonel |  | 5 | 20,000 | High Passage |
| 6 | Brigadier |  | 6 | 50,000 | Explorer’s Society |

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| --- | --- |
| **2D** | **Marine Event** |
| **2** | **Injury**. Roll on the Injury table, but you are not ejected from your career. |
| **3** | **Special Forces**. You receive special forces training. Throw END 8+. If you succeed, gain Computers, Demolitions, or Recon. If you fail, you suffer DM-1 to one Benefit roll. |
| **4** | **Advanced Training**. You receive advanced training. Throw EDU 8+. If you succeed, increase any skill you already have by one. |
| **5** | **Cybered**! The Corps pays for advanced cybernetic implants. Gain Cr10,000 worth of cybernetics. |
| **6** | **Counterterrorism**. Your unit responds to a terrorist attack. Throw Gun Combat 8+ or Stealth 8+; on success, gain DM+4 to your next Benefit throw; on failure, roll on the Injury Table. |
| **7** | **Life Event**. Roll on the Life Event table. |
| **8** | **Bug Hunt**! You fight hostile xenofauna. Throw Gun Combat 8+; if you succeed, gain Animals or Survival. If you fail, roll on the Injury Table. |
| **9** | **Labor Dispute**. Your employers send your unit to suppress striking workers or civilian protesters. Try to avoid bloodshed and give up your after-action bonus but gain the union leader as a Contact; go in with guns blazing and gain another Benefit roll from the after-action bonus, but also an escaped union leader as an Enemy. |
| **10** | **Boarding Action**. You are involved in a violent boarding action in space. Throw Melee Combat 8+ or Gun Combat 8+. If you succeed, gain either Zero-G, Tactics, or Leadership. If you fail, roll on the Injury table. |
| **11** | **Political Ally**. Your commanding officer takes a professional interest in you. Gain a DM+2 to one Benefit roll due to their influence. Gain a Contact. |
| **12** | **Advancement**. Your heroic service is recognized. You gain a rank and a free skill level. |

### Merchant:

You were an independent spacefaring trader or worked for an interstellar corporation.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Service Skills: Pick 1 at level 1 | | | Specialist Skills | | Advanced Education |
| Steward | | | Gun Combat | | Medicine |
| Repair | | | Melee Combat | | Science |
| Liaison | | | Pilot | | Survival |
| Carousing | | | Gunnery | | Grav Vehicles |
| Admin | | | Streetwise | | Engineering |
| Zero-G | | | Stealth | | Computers |
|  | | |  | |  |
| Rank | **Title** | **Bonus Skill** | **Mustering Out Benefits** | | |
| 0 | Crewmember |  | **1D6** | **Cash** | **Materials** |
| 1 | Deck Cadet | Leadership-1 | 1 | 2,000 | Low Passage |
| 2 | Fourth Officer |  | 2 | 10,000 | +1 EDU |
| 3 | Third Officer |  | 3 | 20,000 | Weapon |
| 4 | Second Officer | Pilot-1 | 4 | 30,000 | Contact |
| 5 | First Officer |  | 5 | 40,000 | High Passage |
| 6 | Captain |  | 6 | 50,000 | Trader |

|  |  |
| --- | --- |
| **2D** | **Merchant Event** |
| **2** | **Injury**. Roll on the Injury table, but you are not ejected from your career. |
| **3** | **Cybered**! A good trade deal or corporate favor earns you Cr6,000 worth of cybernetic implants. |
| **4** | **Smuggler**. You are offered the opportunity to smuggle illicit items. If you accept, throw Admin 8+ or Streetwise 8+. If you succeed, gain a level of the skill you rolled and an extra Benefit roll. If you fail, gain an Enemy. |
| **5** | **Risky Business**. You have a chance to risk your fortune on the possibility of a lucrative deal. You may risk as many Benefit rolls as you have. Throw Admin 8+ or Streetwise 8+. If you succeed, you gain half as many additional Benefits as your risked, rounded up. If you fail, you lose the Benefits you risked. Either way, gain a level of the skill that you rolled. |
| **6** | **Good Deal**. You make a good deal on some merchandise. Gain a +1 DM on a Benefit roll. |
| **7** | **Life Event**. Roll on the Life Event table. |
| **8** | **Legal Trouble**. You are caught up in a legal battle. Throw Admin 8+. If you succeed, gain one of Admin, or Liaison. If you fail, you must spend next term in Prison. |
| **9** | **Advanced Training**. You receive advanced training. Throw EDU 8+. If you succeed, gain a level of Admin, Engineering, Computer, Piloting, or Zero-G. |
| **10** | **Pirate Raid**. Pirates or privateers attack your ship. Throw Gun Combat 8+, Gunnery 8+ or Dexterity 10+. If you fail, roll on the Injury table. If you succeed, gain another Benefit. |
| **11** | **Xenomorphs**! You encounter deadly planetary, or space born organisms. Throw Gun Combat 8+ or Melee Combat 8+ to avoid Injury. If you succeed, gain a level in Survival. |
| **12** | **Advancement**. Your wheeling and dealing pay off big-time. You gain a rank, and a free skill level. |

### Navy:

You were a member of an interstellar space navy.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Service Skills | | | Specialist Skills | | Advanced Education |
| Zero-G | | | Piloting | | Science |
| Repair | | | Carousing | | Admin |
| Computers | | | Melee Combat | | Medicine |
| Gunnery | | | Leadership | | Tactics |
| Gun Combat | | | Engineering | | Jack of All Trades |
| Athletics | | | Survival | | Liaison |
|  | | |  | |  |
| Rank | **Title** | **Bonus Skill** | **Mustering Out Benefits** | | |
| 0 | Starhand |  | **1D6** | **Cash** | **Materials** |
| 1 | Ensign | Leadership-1 | 1 | 1,000 | Low Passage |
| 2 | Lieutenant |  | 2 | 5,000 | +1 EDU |
| 3 | Lt. Commander | Tactics-1 | 3 | 5,000 | Weapon |
| 4 | Commander |  | 4 | 10,000 | Mid Passage |
| 5 | Captain |  | 5 | 20,000 | +1 SOC |
| 6 | Commodore | SOC+1 | 6 | 50,000 | High Passage |

|  |  |
| --- | --- |
| **2D** | **Navy Event** |
| **2** | **Injury**. Roll on the Injury table, but you are not ejected from your career. |
| **3** | **Gambling Ring**. You join a gambling ring aboard your ship during your down time. If you wish, you may risk a Benefit roll. Throw Carousing or Streetwise 8+. If you succeed, gain an additional Benefit roll. If you fail, lose a Benefit roll. |
| **4** | **Cybered**! The Navy pays for advanced cybernetic implants. Gain Cr10,000 worth of cybernetics. |
| **5** | **Ship Destroyed**. Your ship suffers severe damage in battle. You may attempt to save some of your shipmates, risking your own life. If you choose to try to save them, throw DEX 8+ or Repair 8+. If you succeed, gain a Contact among the crewmembers you saved and DM+2 on a Benefit throw. If you fail, roll on the Injury table. If you choose to only save yourself, you escape unarmed but with no benefits. |
| **6** | **Advanced Training**. You receive advanced training in a specialist field. Throw EDU 8+ to gain one level of any skill you already have. |
| **7** | **Life Event**. Roll on the Life Event table. |
| **8** | **Naval Battle**. Your ship participates in a naval battle against raiders or a rival navy. Throw Gunnery 8+ or Piloting 8+; succeed, and gain one of Computer, Gunnery, Engineering or Piloting; fail, and roll on the Injury Table. |
| **9** | **Mutiny**. You foil an attempted mutiny on your ship. Gain an Enemy among the escaped mutineers, but also a +2 DM on one Benefit roll. |
| **10** | **Xenomorphs**! Deadly organisms infiltrate your ship. Throw Gun Combat 8+ or Melee Combat 8+ to avoid Injury. If you succeed, gain a level in Zero-G. |
| **11** | **Electronic Warfare**. You train in advanced inter-ship cyber-warfare techniques. Gain a level in Computer. |
| **12** | **Advancement**. Your exemplary service has gained you a promotion. You gain a rank, and one free skill level. |

### Pirate:

You were a space outlaw, a crewmember of a pirate ship.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Service Skills | | | Specialist Skills | | Advanced Education |
| Streetwise | | | Deception | | Liaison |
| Repair | | | Carousing | | Engineering |
| Gun Combat | | | Piloting | | Jack of All Trades |
| Melee Combat | | | Tactics | | Computer |
| Zero-G | | | Demolitions | | Medicine |
| Recon | | | Gunnery | | Admin |
|  | | |  | |  |
| Rank | **Title** | **Bonus Skill** | **Mustering Out Benefits** | | |
| 0 | Crewmember |  | **1D6** | **Cash** | **Materials** |
| 1 | Midshipman |  | 1 | 1,000 | +1 INT |
| 2 | Lieutenant | Pilot-1 | 2 | 5,000 | Weapon |
| 3 | Lt. Commander |  | 3 | 10,000 | High Passage |
| 4 | Commander |  | 4 | 20,000 | +1 SOC |
| 5 | Captain | Leadership-1 | 5 | 40,000 | High Passage |
| 6 | Dread Pirate |  | 6 | 80,000 | Corsair |

|  |  |
| --- | --- |
| **2D** | **Pirate Event** |
| **2** | **Injury**. Roll on the Injury table, but you are not ejected from your career. |
| **3** | **Gambling Ring**. You join a gambling ring aboard your ship during your down time. If you wish, you may risk a Benefit roll. Throw Carousing or Streetwise 8+. If you succeed, gain an additional Benefit roll. If you fail, lose the Benefit roll you risked. |
| **4** | **Smuggling**. Pirates often dabble in smuggling, and such an opportunity arises. Throw Deception 8+, or Streetwise 8+; if you succeed, gain an extra benefit. If you fail, go to Prison. |
| **5** | **Cybered**! Your bosses pay for advanced cybernetic implants. Gain Cr6,000 worth of cybernetics. |
| **6** | **Colonial Raid**. You raid a frontier colony. Throw Recon 8+ or Liaison 8+ to locate good loot; if you succeed, gain an extra benefit. |
| **7** | **Life Event.** Roll on the Life Event table. |
| **8** | **Prize Catch**. You board a merchant vessel. Throw Zero-G 8+ or Gun Combat 8+; if you succeed gain and extra Benefit roll; if you fail, roll on the Injury Table. |
| **9** | **Naval Battle**. Your ship participates in a naval battle against a governmental navy, corporate forces, or rival corsairs. Throw Gunnery 8+ or Piloting 8+; succeed, and gain one of Computer, Gunnery, Engineering or Piloting; fail, and roll on the Injury Table. |
| **10** | **Yarrr**! You befriend a famous pirate. Gain them as a Contact. |
| **11** | **Stranded**! Your ship crash-lands and you are stranded on a marginally habitable far-frontier world. Throw END 8+; if you succeed, gain a level in Survival; if you fail, roll on the Injury Table. |
| **12** | **Advancement**. You are quickly becoming a legend among pirates. You gain a rank, and a free skill level. |

### Rogue:

You were a criminal, drifter, or other ne’er do-well.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Service Skills | | | Specialist Skills | | Advanced Education |
| Streetwise | | | Melee Combat | | Survival |
| Recon | | | Liaison | | Jack of All Trades |
| Gun Combat | | | Athletics | | Engineering |
| Deception | | | Liaison | | Medicine |
| Stealth | | | Admin | | Tactics |
| Carousing | | | Repair | | Computers |
|  | | |  | |  |
| Rank | **Title** | **Bonus Skill** | **Mustering Out Benefits** | | |
| 0 | Independent |  | **1D6** | **Cash** | **Materials** |
| 1 | Associate |  | 1 | 1,000 | Low Passage |
| 2 | Made Soldier | Gun Combat-1 | 2 | 5,000 | +1 INT |
| 3 | Lieutenant |  | 3 | 5,000 | Weapon |
| 4 | Underboss |  | 4 | 10,000 | Contact |
| 5 | Consigliere |  | 5 | 20,000 | Weapon |
| 6 | Boss |  | 6 | 30,000 | Mid Passage |

|  |  |
| --- | --- |
| **2D** | **Rogue Event** |
| **2** | **Injury**. Roll on the Injury table, but you are not ejected from your career. |
| **3** | **Rat**! You have an opportunity to inform on a rival criminal. Betray them to the authorities and gain an extra Benefit roll but receive them as an Enemy; keep your mouth shut, and the rivalry is over - receive them as a Contact. |
| **4** | **Cybered**! Your boss pays for advanced cybernetic implants. Gain Cr6,000 worth of cybernetics. |
| **5** | **Look at You, Hacker**! You engage in cybercrime. Throw Computer 8+; if you succeed, gain an additional Benefit throw. If you fail, go to Prison. |
| **6** | **Caught**! You may try to defend yourself; throw Admin 8+ to avoid going to Prison. Alternatively, you may hire a hotshot lawyer to defend you; lose one Benefit but gain the lawyer as a Contact. |
| **7** | **Life Event.** Roll on the Life Event table. |
| **8** | **Heist**! You participate in a high-stakes criminal operation. Throw Computer 8+, Stealth 8+, or Streetwise 8+; if you succeed, gain an extra Benefit throw. If you fail, go to Prison. |
| **9** | **Gang War**! You become involved in a feud between gangs. Throw Gun Combat 8+ or Melee Combat 8+; if you succeed, gain a level in Streetwise; if you fail, roll on the Injury Table. You gain an Enemy in the rival gang in any case. |
| **10** | **Gambling Ring**. You join a gambling ring – or even organize one. If you wish, you may risk a Benefit roll. Throw Carousing or Streetwise 8+. If you succeed, gain an additional Benefit roll. If you fail, lose the Benefit roll you risked. |
| **11** | **Mentor**. You befriend a boss of a famous criminal gang. Gain them as a Contact. |
| **12** | **Advancement**. Crime really does pay. Gain a rank, and a free skill level. |

### Scholar:

You were a scientist, doctor, or researcher.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Service Skills | | | Specialist Skills | | Advanced Education |
| Admin | | | Survival | | Pilot |
| Computer | | | Repair | | Zero-G |
| Medicine | | | Carousing | | Animals |
| Liaison | | | Engineering | | Recon |
| Investigation | | | Jack of All Trades | | Athletics |
| Science | | | Medicine | | Leadership |
|  | | |  | |  |
| Rank | **Title** | **Bonus Skill** | **Mustering Out Benefits** | | |
| 0 | Student |  | **1D6** | **Cash** | **Materials** |
| 1 | Researcher |  | 1 | 1,000 | Contact |
| 2 | Research Adjunct |  | 2 | 5,000 | +1 EDU |
| 3 | Assistant Professor | Liaison-1 | 3 | 10,000 | +1 INT |
| 4 | Associate Professor |  | 4 | 20,000 | Mid Passage |
| 5 | Professor |  | 5 | 20,000 | +1 SOC |
| 6 | Distinguished Prof |  | 6 | 50,000 | Research Vessel |

|  |  |
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| **2D** | **Scholar Event** |
| **2** | **Injury**. Roll on the Injury table, but you are not ejected from your career. |
| **3** | **Cybered**! Your academic institute pays for advanced cybernetic implants. Gain Cr6,000 worth of cybernetics. |
| **4** | **Breakthrough**! You make a breakthrough in your research. Gain DM+2 to one Benefit roll. |
| **5** | **Field Work**. You conduct your research on the far frontier. Gain a level in Survival or Repair. |
| **6** | **Immoral Research**. You are offered an opportunity to engage in immoral, potentially illegal, research. Accept, and gain a level in Science, Deception, or Medicine; refuse, and you do not receive this skill; blow the whistle and gain the project lead as an Enemy. |
| **7** | **Life Event.** Roll on the Life Event table. |
| **8** | **Confidential Project**. You work on a secret project for a powerful organization. Keep your mouth shut and gain a level in Science, Liaison, or Medicine. Sell the results to a rival company and gain an extra Benefit roll but the organization as your Enemy. |
| **9** | **Plagiarism**. You have an opportunity to steal another scholar’s work. Exploit it, and receive an extra Benefit roll, but gain your victim as an Enemy; avoid the temptation, and you gain nothing but integrity. |
| **10** | **Talent Grab**. A rival organization decides to kidnap you and force you to work for them. Try to escape and throw DEX 8+ to avoid Injury; jump ship and gain an extra Benefit roll from your new employer but gain your former employer as an Enemy. |
| **11** | **Mentor**. You work with a prominent and famous academic in your field. Gain them as a Contact. |
| **12** | **Advancement**. Your research has been phenomenally successful. Gain a rank, and a free skill level. |

### Scout:

You were an intrepid explorer, surveyor, or courier

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Service Skills | | | Specialist Skills | | Advanced Education |
| Piloting | | | Gunnery | | Admin |
| Repair | | | Athletics | | Grav Vehicles |
| Computer | | | Recon | | Medicine |
| Gun Combat | | | Science | | Tactics |
| Zero-G | | | Investigation | | Engineering |
| Survival | | | Stealth | | Jack of All Trades |
|  | | |  | |  |
| Rank | **Title** | **Skill** | **Mustering Out Benefits** | | |
| 0 | Scout |  | **1D6** | **Cash** | **Materials** |
| 1 | **-** |  | **1** | 1,000 | Low Passage |
| 2 | **-** |  | **2** | 5,000 | +1 INT |
| 3 | **-** | Science-1 | **3** | 10,000 | Weapon |
| 4 | Senior Scout |  | **4** | 10,000 | Mid Passage |
| 5 | **-** |  | **5** | 20,000 | Space uit |
| 6 | **-** |  | **6** | 50,000 | Scout Ship |

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| --- | --- |
| **2D** | **Scout Event** |
| **2** | **Injury**. Roll on the Injury table, but you are not ejected from your career. |
| **3** | **Ambushed**. A rival corporate or pirate vessel ambushes your ship. If you choose to run, throw Piloting 8+ to escape; if you fail, roll on the Injury table. If you choose to fight, throw Gunnery 8+; If you succeed, gain a DM+1 on one Benefit roll; if you fail, roll on the Injury table. |
| **4** | **Cybered**! Your employers pay for advanced cybernetic implants. Gain Cr6,000 worth of cybernetics. |
| **5** | **Survey Duty**. You survey an alien world. Gain one of Animals, Admin, or Science. |
| **6** | **Exemplary Service**. You perform a great, but secret, service to the Scout Bureau or a corporation. Gain DM+1 on one Benefit roll. |
| **7** | **Deep Space Travel**. You spend several years jumping from world to world. Gain one of Engineering, Computer, Piloting, or Zero-G. |
| **8** | **Life Event**. Roll on the Life Event table. |
| **9** | **Rescue Mission**. Your ship is the first vessel on the scene of a disaster. Throw Engineering 8+ or Medicine 8+. If you succeed, gain a level in the skill you tested and a Contact. If you fail, gain an Enemy. |
| **10** | **Xenomorphs**! You encounter deadly planetary organisms. Throw Gun Combat 8+ or Melee Combat 8+ to avoid Injury. If you succeed, gain a level in Survival. |
| **11** | **Courier Duty**. You serve as a courier for important messages for a corporation or the Scout Bureau. Gain either Liaison, Steward, or a high-ranking Contact in a megacorp. |
| **12** | **Bonanza**! You spend time on the fringes of known space and discover a new world or unsanctioned colony of great worth. Gain an extra Benefit roll and one free skill level. |

## Life Events

Roll on the following table if you roll a Life Event on the Event tables above.

|  |  |
| --- | --- |
| **2D** | **Life Event** |
| **2** | **Sickness or Injury**. You suffer an injury or illness. Roll on the Injury table. |
| **3** | **Birth or Death**. Someone close to the character dies or is born. |
| **4** | **Good Fortune**. Something good happens to you. Gain DM+1 on one Cash Benefit roll. |
| **5** | **Ending of Relationship**. A romantic relationship or important friendship ends – badly. Change a Contact into an Enemy. If you do not have a Contact, you still gain an Enemy. |
| **6** | **Improved Relationship**. A romantic or friendly relationship deepens, possibly leading to marriage or a lasting friendship. Change an Enemy into a Contact. If you don’t have an Enemy, gain a Contact. |
| **7** | **New Relationship**. You become involved in a romantic relationship. |
| **8** | **Travel**. You spend a lot of time travelling between worlds. Gain either Steward-1 or Carousing-1. |
| **9** | **Study**. You work to improve yourself. Gain +1 to EDU. |
| **10** | **Crime**. You commit, or are accused of committing, a crime. Lose one Benefit roll. Throw Admin 8+. If you fail, you must spend the next Term in Prison. |
| **11** | **Cybersurgery**. You undergo surgery to install commonplace cybernetics. Gain any implants with a total cost of Cr5000. |
| **12** | **Unusual Event**. Something strange or unusual happens to you. Roll 1D:   1. **Missing Time**. For an unknown reason, there is a period of 3D days you cannot remember. 2. **Psionics**. Gain basic Psionic training. See the Psionics chapter. 3. **Trait**. Gain a free Trait. 4. **Underworld Contacts**. You join a gang or acquaint yourself with criminal figures. Gain a senior criminal Contact. 5. **Contact with Government or Corporations**. You briefly encounter a senior government or corporate VIP. Gain them as a Contact. 6. **Alien Artifact**. You somehow find an alien artifact. Its nature is up to the Referee. |

## Mustering Out Benefits

Characters may gain cash or material benefits from Mustering Out. Roll on the Material or Cash Benefit tables on the appropriate career table.

Cash benefits can be spent on equipment, weaponry, trade goods for speculative trade, or saved for later. **Characters with the Carouse skill** may throw Carouse/SOC 10+ to gain a DM+1 on a given Cash Benefit Table roll. If they fail, they get a DM-1 to the roll instead. Penalties or bonuses to the Mustering Out Benefit rolls can never raise the result over 6 or lower it below 1.

Characters may gain one or more of the following material benefits:

* **Contact:** gain an important and useful relationship with a person or group who can provide you with significant favors: an arms dealer might provide otherwise unobtainable gear, while a corporate exec could serve as a patron and supply highly useful information on the corporate world. Contacts typically stay on one world, but some do move around. Abusing contacts and not reciprocating the positive relationship can lead to the loss of the contact. Note that characters with a positive SOC DM gain a number of free contacts equal to that DM.
* **Corsair:** gain a 300-ton pirate Corsair. The ship belongs to a pirate boss or gang; you owe them big time for the use of the ship, and they *will* request favors from time to time. You pay for all regular operating costs and owe half the profits from your piracy to the boss or gang.
* **Free trader:** gain a 200-ton Free Trader ship. The character must make mortgage payments of Cr230,000 a month for the next forty years. Each additional time you receive this benefit reduces this by ten years; receive it four times, and you don’t have to pay a mortgage; but you get a 40-year-old antique!
* **Explorer’s Society:** Become a member of the exclusive Explorer’s Society. Membership grants a free high-passage ticket for one parsec every two months and free stay at Society hostels in most starports.
* **Passage:** Gain a single ticket of the type named (low, middle, high) for travelling one jump (up to two parsecs) on a starship.
* **Prospector:** Gain partial ownership in a 100-ton Prospector – typically subsidized by the government or handed down due to military or commercial arrangements. You must pay operating expenses and maintenance. You don’t owe any payments for the ship, but it is a 1D decades old rustbucket – beware!
* **Research Vessel:** gain a 200-ton Research Vessel. The ship belongs to a research institute and the character pays for regular operating expenses, except for annual maintenance. The research institute has a right to veto certain activities and missions that the character might undertake—often, the research institute will insist on an NPC minder to be part of the crew. The institute’s leadership may also require that the scholar undertake missions for them from time to time.
* **Scout Ship:** gain a 100-ton Scout Ship. The Scout Service still owns the ship but makes it available to you on reserve basis. You gain free maintenance and refueling for the vessel at Scout bases. Expect the Scout Service to have missions for you from time to time.
* **Weapon:** Gain any non-heavy personal weapon or weapons up to TL12 (the Referee might change the TL for their game). The weapon or weapons may be worth up to Cr1,000 in value including ammunition. Multiple benefits of this kind allow either multiple weapons or a more expensive weapon. Weapon modifications are included in this budget as well.

Alternatively, the character may opt to take personal armor, or, at the Referee's discretion, cybernetics, under the same restrictions, customized as desired by the character under the given budget

* **Space Suit**: the character receives a standard issue space suit. Multiple benefits of this kind allow the character to upgrade to a Hostile Environment Space Suit, or an Advanced Space Suit, their choice.
* **Yacht:** gain the use of a 100-ton yacht from a government or corporation. You are responsible for all costs and maintenance and owe favors to said government or corporation. They will call in those favors in from time to time.

### Retirement Pay

Characters who retire after 5 terms (age 38) or more receive an annual retirement pay. The base pay at 5 terms is Cr10000 a year; each additional term served in that career adds Cr2000 per year.

## Aging

Characters must make aging rolls beginning at the age of 34, or at the end of 4 terms, if rolling for term length. At the end of the 4th term, and on the end of each subsequent term, throw 2D on the following table. The character’s total number of terms serves as a negative DM to the throw. The Referee might add DM+2 for characters living in technologically advanced societies with good health care (see below).

|  |  |
| --- | --- |
| **2D** | **Effect of Aging** |
| -6 | Reduce three physical characteristics by 2, reduce one mental characteristic by 1 |
| -5 | Reduce three physical characteristics by 2. |
| -4 | Reduce two physical characteristics by 2, reduce one physical characteristic by 1 |
| -3 | Reduce one physical characteristic by 2, reduce two physical characteristics by 1 |
| -2 | Reduce three physical characteristics by 1 |
| -1 | Reduce two physical characteristics by 1 |
| 0 | Reduce one physical characteristic by 1 |
| 1+ | No effect |

### Aging Crisis

If any characteristic falls to 0 due to aging, the character must throw 6+ to survive. If still alive, they will now have that characteristic at 1, and must retire from their career.

## Optional Rule: Aging and Technology

Advanced medicine prolongs life and delays aging. At TL8-10, add DM+1 to all aging rolls during character generation. This DM increases to DM+2 at TL11-12, and to DM+3 at TL13+.

### Prison

When an Event sends you to prison, you spend one Term as a prisoner. You do not receive a Benefit for this Term; however, you may resume your previous career afterwards. Roll for a prison event:

**Prison Event**

|  |  |
| --- | --- |
| **2D** | **Prison Event** |
| **2** | **Sickness or Injury**. You suffer an injury or illness. Roll on the Injury table. |
| **3** | **Escape Attempt**: you attempt a daring, foolhardy escape! Roll Deception 10+, Stealth 10+ or Admin 10+. If you succeed, you escape, and now enter the Rogue career. If you fail, roll on the Injury table, and spend the next term in Prison! |
| **4** | **Gang Recruitment**: one of the prison gangs attempts to recruit you. Agree, and gain a Contact from the criminals. Refuse and roll Melee Combat 8+; if you succeed, gain a contact in law enforcement. If you fail, roll on the Injury table, and gain a law enforcement contact. |
| **5** | **Smuggling**: you get involved in a lucrative smuggling racket, getting luxuries from outside. Roll Streetwise 8+ to gain one Benefit roll on your career table. Fail, and lose one Benefit roll. |
| **6** | **Forced Labor**: the prison farms you out to local frontier colonists who benefit from your toil. Gain Athletics-1. |
| **7** | **Cell Mates**: you form a solid relationship with a cellmate. Gain a contact. |
| **8** | **Prison Riot!** Bedlam in your cell block! Roll Melee Combat 8+, Stealth 8+, or Liaison 8+ to avoid rolling on the Injury table. Either way, gain a level in the skill you rolled. |
| **9** | **Study**. You work hard in the prison library to improve yourself. Gain +1 to EDU. |
| **10** | **Assault a Guard**: you were provoked! Roll Melee Combat 8+. Succeed, and gain a level of Streetwise and a criminal contact. Fail, and roll on the Injury Table. |
| **11** | **Experimentation**. You are used as a guinea pig for unethical scientific research. Roll END 8+. If you succeed, gain the *Hard to Kill* trait. If you fail, lose one point of END. |
| **12** | **Paroled for good behavior!** You may select one skill from your eligible career skills and resume your career normally next term. |

### Injury Rules

You should roll on the following Injury Table whenever an Event result says so. In this case, the character suffers an injury, but may continue their career.

Note that this is the far future; maimed characters can rely on cybernetics for recovery. Deduct the cost of cybernetics listed below from the character’s starting funds. If the funds run out, and medical cybernetics debt remains, the character owes money to someone powerful: a government, a corporation, or an organized crime syndicate.

Upon being injured, throw END 6+, note the throw’s Effect, and consult the following table.

**Injury Table**

|  |  |
| --- | --- |
| **Effect** | **Result** |
| -6 or less | The character is nearly killed. Reduce one physical characteristic by 1D, and both other physical characteristics by 2 (or one of them by 4). Roll 1D: 1-2, the character loses a leg; 3-4, the character loses an arm; 5, the character loses an eye; 6, the character loses both eyes. |
| -5 to -2 | Character is severely injured with severe lasting implications. Reduce one physical characteristic by 1D. Roll 1D: 1, character loses a leg; 2, character loses an arm; 3, character loses both eyes; 4-6, the character is otherwise unharmed. |
| -1 to +0 | Character is injured with lasting implications. Roll 1D: 1-2, character loses a hand; 3-4, character loses one eye; 5, character loses an arm; 6, reduce one physical characteristic by 2. |
| +1 to +5 | Character is injured and suffers mild lasting injuries. Roll 1D: 1-2, character is badly scarred; 3-4, character loses 1D fingers; 5, character loses most teeth; 6, reduce one physical characteristic by 1. |
| +6 or more | Lightly injured. No permanent effects. |
| DMs: -2 if the character is a Pirate or a Scout; -1 if in a military career; +0 if civilian. | |

### Injury Effects

Below are the effects of injury, followed by a table presenting cybernetic replacement costs.

**Blinded:** The character loses both eyes to injury and is blind and may not perform any task requiring sight.

**Lost Arm:** One of the character's arms must be amputated to save their life. The character obviously cannot use this arm for any purpose.

**Lost Fingers:** The character loses several fingers to injury. He or she suffers from DM-2 to all checks related to that specific hand.

**Lost Hand:** One of the character's hands must be amputated as part of medical care, though surgery saves most of the arm. The character loses all uses of the hand.

**Lost Leg:** One of the character's legs must be amputated to save his or her life. The character cannot move unaided other than by crawling. Using a crutch or a wheelchair, the character may move 3 meters per minor action.

**Lost One Eye:** The character is blinded in one eye but retains the other, losing depth perception and drastically reducing their field of view. The character retains vision but suffers DM-2 to all actions requiring depth perception, such as ranged attacks. The penalty should also be applied to any check related to having a full field of vision, such as noticing someone sneaking up on the character.

**Lost Teeth:** Most of the characters' teeth are knocked out, making eating difficult causing DM-2 to all checks involving speech.

**Physical Characteristic**: The character’s characteristics are reduced due to lingering physiological, neurological, and psychological damage. Adjust attribute DMs accordingly.

**Scarring:** The character suffers extensive and lasting scars or burn marks from his or her injury. The character is easily recognizable and suffers DM-2 to all social checks, except for intimidation in which they enjoy DM+2.

### Repairing Injuries

Thankfully, advanced cybernetics allow the restoration of even the worst injuries. The following table presents corrective surgery and cybernetic options, along with their minimum tech levels and Cybernetic Points cost. See the Cybernetics section in the Equipment chapter for more information on cybernetics and Cybernetic Points.

**Corrective Cybernetics**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Injury** | **Implant or Surgery** | **TL** | **Cost (Cr)** | **Cybernetic Points** |
| Blindness | Pair of Cybereyes | 9 | 10,000 | 2 |
| Lost arm | Cyberarm | 9 | 6,000 | 1 |
| Lost fingers | Cyberfingers | 9 | 500 each | 0 |
| Lost hand | Cyberhand | 9 | 1,500 | 1 |
| Lost leg | Cyberleg | 9 | 9,000 | 1 |
| Lost one eye | Cybereye | 9 | 5,000 | 1 |
| Lost teeth | Dental reconstruction | 6 | 2,500 | 0 |
| Physical Characteristic | Therapy and internal cybernetics | 9 | 3,000/point | 1/injury |
| Scarring | Plastic surgery | 7 | 3,000 | 0 |

### Optional Rule: IRON MAN!

For players and Referees seeking a hardcore, old-school experience, treat any Injury on the event tables during character generation as character death – requiring the generation of a new character from the start!

## Stage 4: Calculate Stamina and Lifeblood

The character’s Stamina represents their toughness, and their ability to take a hit and shrug it off. Stamina is equal to the sum of character’s END Characteristic + Athletics skill. For example, a character with END 7 and Athletics 1 will have Stamina 8.

The character’s Lifeblood represents their resistance to injury. It is equal to twice the sum of the character’s END Characteristic and Athletics skill. For example, a character with END 7 and Athletics 1 will have Lifeblood 16.

If the character lacks the Athletics skill, their Stamina simply equals their END score, and their Lifeblood simply equals twice their END score.

## Stage 5: Finalize the Character

Think of your characteristics character’s skills, career, and events. What kind of person are they? Why did they gain a level in Carouse when they should have focused on their careers and gained that level in Admin instead? What happened during their career that made them want to seek a life out in the stars? Perhaps look at the character’s career and create a narrative sketch of what their life was like. What does the character look like? How are they connected to the other Player Characters? Think of your character’s personality and motivation and give them a name.\

# Traits

Traits are unique features of competent and driven characters, such as player characters. Each character typically has one Trait, though, rarely, particularly experienced and determined characters may have two or even three Traits. Each Trait has a simple Prerequisite, and an effect, which often utilizes an Advantage throw – in which you throw 3D and pick the highest 2 for the throw result.

## Skill-Related Traits

***Acrobat***

**Prerequisite:** Athletics 2

Roll with Advantage whenever the character performs high-flying feats of athletics: swinging from ropes, running (not walking) across wires, or leaping from rooftop to rooftop.

***Animal Affinity***

**Prerequisite:** None

Roll with Advantage whenever the character has to interact with animals. The character can opt to have a small pet that understands basic commands.

***Awareness***

**Prerequisite:** INT 9+

The character has sharp senses and is difficult to surprise. When rolling the Recon skill to avoid surprise (even unskilled), the character throws with Advantage. Note that this does not work when the character is setting up a deliberate ambush; the Hunter Trait covers that instead.

***Born Athlete***

**Prerequisite:** None

The character is a natural talent. Choose one physical attribute. Make all Athletics tests with that attribute with Advantage.

***Combat Medic***

**Prerequisite:** Medicine 1

The character is trained in combat medicine and capable of bringing wounded comrades back to fighting condition. As an action in combat, the combat medic may throw Medicine 6+ to immediately revive an unconscious character with Minor Wounds. The revived character will still be wounded, as usual for an awakened character with Minor Wounds, and will be prone, but will be able to act in the following combat round

***Explosive Expert***

**Prerequisite:** Demolitions 1

The character knows how to effectively set up, or throw, explosives and grenades. Add 1D to the damage of all explosives and grenades used by the character.

***Ghost***

**Prerequisite:** Stealth 1

The character is an expert in using one specific terrain type to their advantage. When sneaking in that terrain condition, they throw with Advantage. The possible terrain types might include Forest, Jungle, Urban, Desert, Shipboard, Swamp, etc. The terrain should be quite specific.

***Hacker***

**Prerequisite:** Computer 1

The character is an accomplished hacker who dares to challenge even the most perfect, immortal machine. When trying to break into a secure computer system or when picking an electronic lock (or similar device), the hacker throws with Advantage.

***Hunter***

**Prerequisite:** Recon 1

The character is an expert in ambushing prey, both animal and sentient. When making a Surprise throw when attempting an ambush, the hunter throws with Advantage.

***Juice***

**Prerequisite**: Repair 1 or Engineering 1

Once per session you can push a piece of tech to exceed one of its performance boundaries. For example, sensors or weapons get an extra step of distance to their range; you may reroll a weapon’s damage dice and take the better result; you get a second attempt to open a lock with your tools.

***Legal Eagle***

**Prerequisite**: Admin 1

The character is well-versed in legal codes and can quote appropriate legislation and civil regulations. The character throws Admin with Advantage when dealing with legal matters and procedures.

***MacGyver***

**Prerequisite:** Jack-o-Trades 1

Once per session you can spend 1d3x10 minutes to create 1D4 tools or weapons the baseline tech level of the planet or place you find yourself in.

***Master Tracker***

**Prerequisite:** Survival 1

This character gains Advantage when tracking in a wilderness environment. This trait does not apply in urban or other built-up areas.

*Merchant*

**Prerequisite**: Liaison 1

When haggling over prices, roll with Advantage. This Trait applies to the Speculative Trade table roll as well.

*Palmgreaser*

**Prerequisite**: Admin 1

The character is able to spot a corrupt official a kilometer away and knows how to offer a bribe discreetly and inoffensively. Admin tasks when bribes are used are rolled with Advantage.

***Parkour***

**Prerequisite:** Athletics 1

The character is very adept at bypassing or avoiding obstacles while running at top speeds. All Athletics tests made during chases, as either pursuer or quarry, are made with Advantage.

***Proper Etiquette***

**Prerequisite:** Liaison 1

The character knows the intricacies and rules of very formal social settings, such as Diplomatic Meetings, High Level Business Dealings, and the like. The character gains Advantage on tests made when operating under very formal social rules.

***Rescue Specialist***

**Prerequisite:** Zero-G 1

The character is good at getting at people who are in danger while in zero gravity conditions. Gain Advantage when rolling to avoid damage in space suits during rescue operations, or to help a victim of a space-disaster get medical attention.

***Runner***

**Prerequisite:** Athletics 1.

The character walks and runs very quickly. The character’s movement rate is increased by 1D meters per combat action.

***Scientist***

**Prerequisite:** Science 1

The character is an expert in a specific field of science. Pick one field of science: Life Sciences, Physical Sciences, Social Sciences, or Space Sciences. When making a throw related to that science, the scientist throws with Advantage. You may choose this Trait multiple times, each time gaining expertise in a different field of science.

***Sleight of Hand***

**Prerequisite:** Deception 1

The character is a practiced expert at magic tricks, palming, and legerdemain misdirection. When using the Deception skill in this manner, roll with Advantage.

***Smuggler***

**Prerequisite:** Streetwise 1

The character is an expert in trafficking illicit goods. When throwing below the world's law level to avoid customs harassment, the smuggler throws 3D and picks the lowest two.

Furthermore, when trading in illegal goods, the smuggler throws with Advantage on the modified price table and picks the most beneficial dice (the lowest two when buying and the highest two when selling).

***Surgeon***

**Prerequisite:** Medicine 1

The character is a specialized surgeon. When treating a seriously wounded character, the surgeon may throw Medicine 6+ to reduce recovery time from 5D days to 2D days. If using the ***Trauma Surgery*** rules, the surgeon throws with Advantage when throwing for such a surgery.

***Thief***

**Prerequisite:** Deception 1 or Streetwise 1

The character is specialized in stealing goods, then selling them on the black market. When pick-pocketing or stealing and item, or when attempting to sell stolen goods, the thief throws with Advantage.

***Throwing Arm***

**Prerequisite:** STR 9+

The character is especially adept at throwing grenades and other thrown weapons. Effective range for the character's grenades and other thrown weapons becomes STRx2, and maximum range becomes STRx3.

***Tradecraft***

**Prerequisite:** Investigation 1 or Streetwise 1

The character is skilled in surveillance and counter-surveillance techniques, tailing targets, setting up dead drops, and ensuring that they are not being spied upon. When using Investigation or Streetwise in this manner, roll with Advantage.

## Combat Traits

Gun Combat Traits

***Crack Shot***

**Prerequisite:** Gun Combat 2, one other Gun Combat Trait

Pick one type of firearm category: semi-automatic pistols, revolvers, etc., and gain a +1D damage bonus when using them.

***Defeat Armor***

**Prerequisite:** Gun Combat 1

The character knows how to pick weak spots in the enemy's armor from a distance. When firing an aimed shot, if the to-hit throw's Effect is +6 or better, ignore the target's armor.

***Gunslinger***

**Prerequisite:** Gun Combat 2

The character is a master of handguns and can perform amazing feats of arms with them. When a shot fired by the character from a semiautomatic handgun "drops" an enemy (causes them to fall unconscious or die), the character may immediately attack a second enemy with the same handgun. The character can only attack one additional enemy per combat round. This is cumulative with the Double Tap weapon Aspect.

***Rapid Reaction***

**Prerequisite:** Gun Combat 1

The character has a quick finger on the trigger and reacts quickly to enemy movement. If an Overwatch shot fired by the character hits its target, the character remains in Overwatch and may react one more time in that round to enemy movement. This can be done only once per round (that is, up to two Overwatch shots per round). The Overwatch ends after the second attack.

***Signature Weapon***

**Prerequisite:** Gun Combat 1

The character is particularly proficient in using a specific weapon. Choose one *specific* weapon, such as your service revolver, the family hunting rifle, the laser pistol you pried from that alien’s cold, dead hands, etc.; when attacking with *that* *specific weapon*, the character gains a DM+1 to hit. You may choose this Trait multiple times, each applied to a different weapon. Note that this trait does not apply to a class of weapons (pistols), nor to a model of weapon (Colt .45s), but to a specific weapon the character owns (the custom pearl handled Colt .45 the character’s grandfather gave to him upon entering the Space Marines). If the weapon is lost or destroyed, you can adapt to a new weapon of the same type by training with it for a month. You can always have only one signature weapon at any given time.

***Sniper***

**Prerequisite:** Gun Combat 1

The character knows how to kill unsuspecting victims from a distance. When attacking an unaware target at range, using an aimed shot, add 1D to the attack's damage. This bonus can only be applied outside of active combat.

***Spray N’ Pray***

**Prerequisite:** Gun Combat 1

The character knows how to maximize the effect of automatic fire. When using an automatic weapon, treat its Auto rating as one point higher.

**Melee Combat Traits:**

***Armor Breaker***

**Prerequisite**: Melee Combat 1

The character knows how to hit weak spots in the enemy's armor in melee combat. When attacking in melee, if the to-hit throw's Effect is +6 or better, ignore the target's armor.

***Backstab*Prerequisite:** Melee Combat 1 and Stealth 1

The character knows how to deliver a lethal blow to an unsuspecting victim. When attacking an unaware target in melee, attack with **Advantage** and add 1D to the attack's damage.

***Blind Fighting***

**Prerequisite:** Melee Combat 1

The character knows how to fight in darkness, using senses other than sight. When fighting in melee combat, the character suffers no negative DM to hit for fighting in dim light and only DM-1 for fighting in darkness

***Grappler***

**Prerequisite:** Melee Combat 1

The character gains Advantage when attempting to grapple foes.

***Martial Artist***

**Prerequisite:** Melee Combat 1

The character is lethal in unarmed combat and can cause serious harm even without possessing significant physical might. When making an unarmed attack, the character's damage increases to 1D+STR DM rather than the regular STR DM.

***Signature Weapon***

**Prerequisite:** Melee Weapon 1

The character is particularly proficient in using a specific weapon. Choose one *specific* weapon, such as a family heirloom sword, a dagger won as a war trophy, etc.; when attacking with that *specific* weapon, the character gains DM+1 to hit. You may choose this Trait multiple times, each applied to a different weapon. Note that this trait does not apply to a class of weapons (swords), nor to a model of weapon (long swords), but to a specific weapon the character owns (Excalibur). If the weapon is lost or destroyed, you can adapt to a new weapon of the same type by training with it for a month. You can always have only one signature weapon at any given time.

***Legendary Charge***

### Prerequisite: Melee Combat 1

If you perform a Charge, on a successful hit your attack does double damage.

***High Energy Physics***

**Prerequisite:** Gunnery 1

The character is good at putting shots on target. Once per battle, roll damage twice and take the best result.

***Weapon Handling***

**Prerequisite:** Heavy Weapons 1

The character proficiently handles heavy weapons despite their bulk. The character suffers no penalty for using Bulky weapons, regardless of STR.

***Knows the Terrain***

**Prerequisite:** Tactics 1

The character is an expert in tactical planning and execution in a given environment. Pick a terrain type. Make all tactics throws with Advantage when in that terrain type. The terrain types include, but are not limited to urban, woodlands, jungle, surface navy, submarine, space, etc. The terrain chosen must be specific.

***Rally***

**Prerequisite**: Leadership 2

Once per combat, the character can use their action to rally their companions. Allies immediately heal 2d6 Stamina and for the next two rounds NPC allies get Advantage on all Morale tests.

***Inspirational***

**Prerequisite**: Leadership 1

The character is a shining example for others and knows how to motivate them. When rolling to Inspire or Support Crew in combat, gain Advantage.

### *Commander*

**Prerequisite:** Leadership 1

Once per fight as a free action, make a Leadership/SOC 8+ test. You grant an ally who is Nearby to take a free Action.

***Berserker***

**Prerequisite:** END 9+

When injured in combat, the character can fly into a blind rage. Assuming the character is conscious, the character may elect to unleash their rage. This grants DM+1 to hit and to damage in melee combat, but also grants the character's enemies DM+1 to hit them. This lasts effect until the end of that particular combat encounter and the character may repeat it in any additional combat encounters in which they suffer new damage.

### ***Shake It Off***

Prerequisite: None

Once per combat, you can take no Actions for an entire turn and regain 2d6 Stamina.

### ***Close Quarters Combatant***

Prerequisite: Gun Combat 1 and Melee Combat 1

The character does not suffer any penalties when using pistols and other one-handed firearms in melee combat. Two-handed ranged weapons can still only be used as clubs.

***Combat Readiness***

**Prerequisite:** DEX 10+

The character is quick to act and react in combat. Gain Advantage to all Initiative throws. If the character does not have the Tactics skill, they still roll Initiative unskilled!

***Danger Sense***

**Prerequisite:** INT 9+

The character instinctively senses danger and can try to evade enemy attacks even when generally unaware of the assailant. If you are using the Dodge and Parry optional rules, and the character is attacked by an enemy the character is unaware of, throw DEX 8+; if successful, the character uses the Dodge or Parry bonus despite being unaware of the attacker

***Favored Enemy***

**Prerequisite:** None

The character is particularly skilled or vicious when battling one specific enemy. This could be a specific alien life form, robots, soldiers of a given nationality, pirates, or the like. The choice should be broad enough to be applicable, but not too broad as to be abused. The character gains +1D to all damage rolls against this enemy.

***Hardy***

**Prerequisite:** None

The character is particularly tough and resistant to injury. Add 5 to Stamina. This trait can be taken multiple times.

***Hard to Kill***

**Prerequisite:** None

The character gains 5 additional Lifeblood points. This trait can be taken multiple times.

***Low Profile***

**Prerequisite:** DEX 9+

The character knows how to utilize cover very effectively. When the character is behind hard cover, treat that as heavy cover (DM-3 to hit the character).

***Vigilant***

**Prerequisite:** INT 9+

The character is always on the move, and on the lookout for trouble. If the character used both actions in a combat round for movement, they automatically enter Overwatch mode without requiring a further action. This Trait is not cumulative with cybernetics or pharmaceuticals providing similar effects or granting additional actions.

## Vehicle and Spacecraft Traits

***Signature Vehicle***

**Prerequisite:** RelevantVehicle Skill 1, or Pilot 1

The character gains a DM+1 for all vehicle rolls for a *specific* named vehicle. Note that this trait does not apply to a class of vehicles (for example, “boats” with Watercraft), nor to a specific kind of vehicle (submarines) but to a specific vehicle the character uses (*Red October*).

***Jump Intuition***

**Prerequisite:** Pilot 1

The character has a natural – or perhaps supernatural – knack for navigating Jump Space. Roll with Advantage when making a Jump throw.

### *Ace*

**Prerequisite:** RelevantVehicle Skill 1, or Pilot 1

The character is a gifted expert at maneuvering with a specific vehicle and can easily outmaneuver others to gain great advantage over them in combat. When throwing for a Position in a vehicle chase or battle using the vehicle skill the Ace trait applies to, throw with 2D and take the higher result. **Note that an Ace in the Pilot skill would not be an Ace Driver, or Ace Grav Pilot.** Each Vehicle skill and the Pilot skill has a separate Ace trait. Being an ace in multiple vehicles requires taking this trait multiple times. **In starships (or other large, crewed vehicles) either the Pilot or Captain’s Ace trait may apply. In small craft, the Pilot must have the Ace trait to gain any benefit.**

***Mr. Fix-It***

**Prerequisite:** Repair 1

The character is trained and experienced in performing fast and temporary repairs on vehicles. When throwing to attempt a jury-rig repair on a vehicle system, the mechanic throws with Advantage.

***Easy Rider***

**Prerequisite:** Animals 1

The character is well-trained in riding animals, Terran and alien beasts alike. When making a throw related to riding an animal, including when rolling for a Position in a chase, the rider throws 3D and picks the highest two.

***Miracle Worker***

**Prerequisite:** Engineering 1

The character is trained and experienced in performing fast and temporary repairs on starships. When throwing to attempt a Damage Control action, the mechanic throws 3D and picks the highest two.

***Mask Engine***

**Prerequisite:** Engineering 1

The engineer has developed techniques to make it more difficult to detect the ship. Roll Engineering 10+ and apply the Effect as a penalty for scanning vessels to detect this ship.

***Point Defender***

**Prerequisite:** Gunnery 1

The character is very skilled at destroying incoming missiles, and gains a +1DM to all rolls when engaging in the Point Defense Action—thus, the first point defense attempt would be at +1DM, the second at 0DM, the third at -1DM, etc.

***Sensor Ace***

**Prerequisite:** Computer 1

When using ship sensors to spoof missiles, jam enemy sensors, or to perform a scan for vessels, roll with Advantage.

***Starship***

**Prerequisite:** None.

The character has inherited, won by gambling, loaned, or otherwise received a share in a starship. You may take this Trait multiple times. The first time you take it, you receive a 200-ton Free Trader, a 100-ton mining vessel, a 100-ton Scout or a 200-ton Research Vessel, with forty years’ worth of full mortgage payments remaining. Each additional time you take this Trait, increase the ship's age by a decade and reduce the mortgage payments by one decade as well. Taking this Trait five times means owning a ship outright, but it will be a 40-year-old antique. If the character already has the *Starship* trait, and musters out with a Trader, Scout, or Research vessel, count that Mustering Out Benefit as if they had taken the *Starship* trait again. *For example, a Scout picks the Starship trait, and then receives two Scout Mustering Out Benefits. Instead of having a Scout on loan from the Scout Service, the character owns a 20-year-old Scout starship with 20 years of the mortgage already paid off.*

***Stunt Driver***

**Prerequisite:** Relevant Vehicle Skill 1

The character has a flair for handling vehicles in situations that were well outside the engineering team’s parameters when the vehicle was in the design and testing phase. Whenever the character is performing stunts like flying aircraft into tunnels, driving motorcycles down flights of stairs, or even jumping cars off ramps and over ravines, throw the relevant vehicle skill with Advantage.

## Other Traits

***Artistic***

**Prerequisite:** None

The character is naturally gifted in artistic endeavors. Gain Advantage when rolling a test where artistic talent is relevant.

***Attractive***

**Prerequisite:** None

Roll tests with Advantage in situations where good looks might be important.

***Codebreaker***

**Prerequisite**: EDU 9+

When attempting to decipher codes and break encryptions, roll with Advantage. This trait can also be applied to languages in which the character is not fluent.

***Contacts***

**Prerequisite:** None

The character has highly useful connections. Gain 1d3+1 Contacts (see the Character Generation chapter).

***Cyborg Compatibility***

**Prerequisite:** None

The character is highly receptive to cybernetics. The cyborg gains three Cybernetic Points.

***Diplomat***

**Prerequisite:** None

When the GM rolls for NPC Reactions to you specifically, they should roll twice and take the more favorable result.

***Eidetic Memory***

**Prerequisite:** None

The character’s recall is incredible. When rolling to remember detailed information, gain Advantage.

***Empath***

**Prerequisite:** None

The character, while not being a "true" psion (unless otherwise trained) possesses "passive" empathy allowing them to easily read another person's emotions. Whenever trying to determine an NPC's emotional state, or find out if an NPC is lying, the empath has Advantage. This also applies to games of chance and bluffing, such as poker, where reading an opponent is a central aspect to the game.

*Evasion*

**Prerequisite:** DEX 9+

With this trait, **diving for cover** does not take up your next action.

***Explorer’s Society***

**Prerequisite:** None

The character receives membership in the exclusive Explorer's Society. Membership grants a free high-passage ticket for one parsec every two months and free stay at Society hostels in most starports.

***Fast Healing***

**Prerequisite:** END 9+

The character recovers on their own from a Minor Wound within 1D hours (rather than a day) in the absence of treatment, and from a serious wound within 3D days of medical care. This is not cumulative with the increased rate of healing when successfully treated by a Surgeon (see below).

***Immunity***

**Prerequisite:** None

The character is particularly resistant to toxins and pathogens. When making a throw to resist poison or disease, the character throws with Advantage. When a medic treats this character with Medicinal or Panacea pharmaceuticals, they also gain Advantage.

***Intimidating***

**Prerequisite:** None

You just look scary, or you can manifest scariness when you want to. Roll with Advantage on any tests when intimidating people into giving you information or complying with your requests.

***Iron Liver***

**Prerequisite:** None

For whatever reason, the character has a high tolerance for alcohol. When rolling to drink someone under the table, roll with Advantage.

***Languages***

**Prerequisite:** None

The character is fluent in three additional languages common to the sector.

***Latent Psion***

**Prerequisite:** None

The character has untrained psionic abilities. See the Psionics chapter. Untrained, the character has 1 PSI point and one of the following powers: Enhanced Characteristic, Sense, Lift 1 gram, Life Detection, or Blink. The PSI point regenerates after a night's sleep, as usual. Psionic drugs affect the character as usual and allow more frequent use of their powers. Actual psionic training allows the character to roll a normal PSI characteristic and additional powers. See the Psionics chapter for more details.

***Packrat***

**Prerequisite:** None

The character knows how to pack and carry equipment efficiently. The packrat is unencumbered when carrying up to twice their STR in items. The character is Heavily Loaded when carrying up to four times their STR in items. Note that this recalculation of encumbrance limits should not include the STR attribute DM.

***Radiation Resistant***

**Prerequisite:** END 9+

The character has higher than usual tolerance for radiation. The character only receives 75 per cent of rads from radiation exposure. Round fractions down.

***Scavenger King***

**Prerequisite:** None.

The character is extremely talented at finding parts, gear, weapons, or just about anything that the group could need, in a pinch. When using a skill to scavenge or scrounge equipment, roll with Advantage.

***Strong-Willed***

**Prerequisite:** None

This character gains Advantage when being threatened, intimidated, or coerced. This trait also applies to any rolls to resist Psychic domination.

***Will to Live***

**Prerequisite:** END 9+

When using the Trauma Surgery rules, throw with Advantage when throwing for Trauma Surgery. This trait applies even if the attending physician or autodoc does not have the Surgeon Trait.

### ***Lucky***

**Prerequisite:** None; only in games using the optional Hero Points rules.

Your character starts each game session with 3, rather than 2, Hero Points.

### *Navigator*

**Prerequisite:** Survival 1

When throwing to navigate a course on a world (land, sea, or air) or to call in fire support, throw with Advantage.

### ***Protector***

**Prerequisite:** Melee Combat skill

Once per battle you can choose to take damage that would otherwise be dealt to another character in close range to you.

### *Spot Weakness*

**Prerequisite**: none

If the character spends a full minute observing a target, they can spot its weakness with a successful INT 8+ test. All damage rolls should be rolled twice, and the higher result taken. Note that this *does* work for ship combat, only substitute a Computer/INT 8+ test, modified by the vessel’s computer DM, instead of an INT test.

### ***Trash Talk***

**Prerequisite:** Carousing 1 or Deception 1

As a free action in a battle, you can attempt a Carousing or Deception test to draw the attention of an enemy nearby or closer to yourself, causing them to attack only you on their next turn.

# Equipment

This chapter describes some of the more common items found in an interstellar space opera setting. All prices are in Credits (Cr), the interstellar currency. Thousands of Credits are noted as KCr, and millions of Credits are noted as MCr. A Credit is a futuristic currency roughly equivalent to $3 USD in 2021CE currency.

## Encumbrance

To facilitate fast play, **Cepheus Deluxe** avoids the careful accounting of equipment by weight. Instead, a character may carry a number of major “items” equal to 7 plus their STR DM with no penalty. This represents a Light Load. Characters may carry items beyond this, up to three times the base amount, which constitutes a Heavy Load. A heavily loaded character suffers DM-2 to all physical task throws and can only use a maximum of one move action in a combat round.

An “item” is anything of significant size: a gun, a medkit, a standard length of rope. Larger items may count as more than one item as noted in their description. Small items, such as a compass, a needle, or a candle, do not count as items, subject to the Referee’s judgment.

## Tech Levels

**Cepheus Deluxe** assumes an interstellar society – as befitting a space opera game. However, not all worlds in such a universe possess the same level of technological development, particularly in frontier or post-apocalyptic settings. Furthermore, Referees may want to choose between grittier, nearer-future interstellar sci-fi and no-holds-barred far-future galactic space-opera. For this purpose, **Cepheus Deluxe** ranks civilizations according to 17 tech levels, from 0 to 16. We present some rough historical comparisons with our own world to assist Referees and players in their understanding of tech levels. However, these comparisons should not imply that your own game must follow the same technological development.

|  |  |  |
| --- | --- | --- |
| **TL** | **Notable Characteristics** | **Historical Comparison** |
| 0 | No technology, equivalent to the Stone age. Fire, agriculture, and stone tools. | Agricultural revolution, Stonehenge |
| 1 | Roughly on a par with Bronze or Iron age technology. Writing and mathematics. | Ancient Egypt, Classical Greece, Rome, and China. |
| 2 | Late Medieval technology. Simple black-powder firearms, ocean-going vessels | Renaissance Europe, early colonial America |
| 3 | Mass production allows for product standardization, heralding the beginnings of industrial revolution and steam power. | Great Britain circa 1770 |
| 4 | The transition to industrialization is complete, bringing plastics, radio, and other such inventions. | Western Europe circa 1900 |
| 5 | Widespread electrification, telecommunications, and internal combustion engines. | The First and Second World Wars |
| 6 | Development of fission power and more advanced computing. | Early Cold War |
| 7 | Can reach orbit reliably and has telecommunications satellites. | We are here |
| 8 | Possible to reach other worlds in the same system, although terraforming or full colonization is not within the culture’s capacity. |  |
| 9 | Development of crude gravity manipulation and controlled nuclear fusion, which makes space travel vastly safer and faster; first steps into Jump Drive technology. The advent of a wide range of cybernetics. |  |
| 10 | Development of gravitic vehicles revolutionizes transportation and warfare. |  |
| 11 | The first primitive (non-creative) artificial intelligences become possible in the form of “low autonomous” interfaces, as computers begin to model synaptic networks. |  |
| 12 | Weather control revolutionizes terraforming and agriculture. |  |
| 13 | Powered Armor appears on the battlefield in response to new weapons. “High autonomous” interfaces allow computers to become self-actuating and self-teaching. Gravitics become capable of small-scale manipulation of matter. |  |
| 14 | Fusion tools and weapons become man-portable. |  |
| 15 | The development of longevity treatments means that the human lifespan is now vastly increased. |  |
| 16 | Handheld plasma weapons and energy shields revolutionize warfare. |  |

## Living Expenses

Characters not embarked on a starship must pay for lodging and food. The following table provides costs of living. One column shows a monthly cost of living – assuming long-term purchase of lodging and groceries. The second shows daily living, whenever characters or tourists pay for a motel or hotel room and buy prepared food. These costs include various expenses such as taxes and transportation. Characters should pay according to the quality-of-life representative of their SOC characteristic. Upper class characters living in squalor suffer penalties, as noted below.

|  |  |  |
| --- | --- | --- |
| **Quality of Living** | **Monthly Cost** | **Daily Cost** |
| Starvation (SOC 0-2) | Cr200 | Cr8 |
| Subsistence (SOC 3-5) | Cr500 | Cr25 |
| Ordinary (SOC 6-8) | Cr1,000 | Cr50 |
| High (SOC 9-B) | Cr5,000 | Cr300 |
| Elite (SOC C-F) | Cr15,000 | Cr1,000 |

**Starvation** living means living in the streets, in a tent, or outdoors and eating just barely to keep the character alive. Clothes are basic and always second-hand or worn out. Healthcare, entertainment, and transportation are not included in this level. A character living at starvation levels is always Fatigued.

**Subsistence** living is the bare minimum for civilized life – a tiny apartment, shanty, or capsule in a "coffin hotel" and simple food and clothing. Subsistence level living includes public transit, minimal entertainment, and generally inadequate healthcare.

**Ordinary** living is how most people live in city centers: an apartment, public transit or a small personal vehicle, reasonable food and clothing, reasonable entertainment, and modern healthcare.

**High** living is the good life: a fancy apartment in the city or a small house, eating at restaurants for most meals, a good personal vehicle, partying on a regular basis, fashionable clothes, and good healthcare.

The **Elite** life means living like a king: a mansion or penthouse, regular feasts, or upscale restaurants, dressing in the finest clothes, and maintaining a prestigious personal vehicle. Healthcare is the best money can buy.

A character with SOC 10+ who does not live at a High or Elite level will suffer DM-2 to all high society related social skill rolls and may be ostracized by their high-class Contacts (at the Referee’s discretion).

## Personal Armor

Personal armor reduces the damage caused by incoming attacks. Subtract the armor’s Protection rating from any damage caused to the character. It is not possible to wear more than one type of armor at a time, other than energy shields, which you may use together with any other armor.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Armor** | **Protection** | **Tech Level** | **Cost** | **Encumbrance** | **Skill Required** |
| **Civilian/Paramilitary Protection** | | | | | |
| Leather jacket | 2 | 1 | Cr50 | 1 | - |
| Heavy duster | 3 | 6 | Cr75 | 1 | - |
| Bulletproof vest | 4 | 7 | Cr150 | 1 | - |
| Synthsilk armor | 8 | 12 | Cr6,000 | 0 | - |
| Energy shield | Special | 16 | Cr20,000 | 1 | - |
| **Utility Suits** | | | | | |
| Envirosuit | 3 | 7 | Cr700 | 2 | - |
| Space suit | 6 | 7 | Cr2,000 | 2 | Zero-G 0 |
| Space suit, advanced | 6 | 9 | Cr4,000 | 0 | - |
| Space suit, hostile environment | 10 | 12 | Cr10,000 | 4 | Zero-G 1 |
| Envirosuit, advanced | 5 | 12 | Cr5,000 | 0 | - |
| **Combat Armors** | | | | | |
| Heavy ballistic cloth | 6 | 7 | Cr250 | 2 | - |
| Encased armor suit | 9 | 8 | Cr5,000 | 2 | Zero-G 1 |
| Powered armor | 18 | 13 | Cr200,000 | 0 (when worn) | Zero-G 2 |

**Armor Types:**

**Civilian and Paramilitary Protection** consists of those armors that are either highly concealable, or that are acceptable to wear in most civilian settings. Characters wearing **Utility Suits** would never get a second look on the job where those suits are needed but wearing such a suit everywhere would raise eyebrows. **Combat Armor** is never discreet: whoever is wearing combat armor is signaling everyone around them that they are looking for trouble.

**Bulletproof vest**: lightweight ballistic armor torso protection, easy to wear under clothes.

**Encased armor suit:** heavy, full body rigid armor, often used by corporate SWAT and high-end mercenaries. The suit offers environmental protection as an Envirosuit (see below) and includes integrated comms and a HUD.

**Energy Shield:** a high-energy shield emitter worn on a belt clip, capable of stopping massive amounts of damage. The Energy Shield may be worn with other armor. An energy shield completely negates the first hit it receives in combat but is then depleted. Throw 1D every following combat round; on 4-6, the shield regenerates on your turn, and may negate another hit afterwards.

**Envirosuit**: a full body sealed suit with attached filters and an option to attach oxygen tanks as well. Fully protects against airborne toxins and pathogens. Reduces radiation by 20 rads. The Envirosuit counts as two Items for encumbrance purposes.

**Envirosuit, Advanced:** as an Envirosuit, but ultra-light. It does not count as an item for encumbrance purposes.

**Heavy ballistic cloth:** modern heavy-duty ballistic-cloth armor. Commonly worn by soldiers, well-equipped security, and TL7 mercenaries. Counts as two Items for encumbrance purposes and is not concealable.

**Heavy duster:** long overcoat made of reinforced leather or synth-leather. In some circles, this is the epitome of style.

**Leather jacket:** a heavy leather or synth-leather jacket.

**Powered Armor:** servo-assisted fully enclosed combat armor. This powerful armor Grants DM+2 to STR and DEX characteristic checks and allows carrying double the user’s Encumbrance. Powered armor grants DM+4 to all melee damage done by its wearer. Powered Armor protects against vacuum and hostile environments, as a space suit, with 6 hours of life support, and reduces radiation by 50 rads. Powered armor does not count as an item for encumbrance when worn.

**Space Suit:** a standard, futuristic space suit, lighter and cheaper than a 20th Century Terran space suit. A space suit carries life support supplies for up to 6 hours. It protects against Vacuum, Tainted, and Exotic atmospheres, as well as airborne pathogens. Offers 2D hours of protection against Corrosive atmospheres, and 1Dx10 minutes protection against Insidious atmospheres. Reduces radiation by 60 rads. Counts as 2 items for Encumbrance purposes.

**Space Suit, Advanced:** the final evolution of the space suit. An advanced space suit does not count as an item for encumbrance, is easy enough to use even without a Zero-G skill and provides life support for 12 hours. Offers the same environmental protection as a regular space suit.

**Space Suit, Hostile Environment:** a heavy-duty space suit designed for extreme conditions, such as Corrosive and Insidious atmospheres. Counts as three items for encumbrance. Protects against Vacuum, Tainted, Exotic, and Corrosive atmospheres, as well as airborne pathogens and toxins, and provides 2D hours of protection from Insidious atmospheres. Carries life support supplies for 6 hours. Reduces radiation by 150 rads. Counts as 4 items for Encumbrance purposes.

**Synthsilk Armor:** advanced bio-engineered spider-silk armor. Synthsilk is easily concealable and does not count as an item for Encumbrance.

## Cybernetics

Cybernetic implants, a major theme in many science fiction tales, replace or upgrade body parts with biomechanical technology. Using advanced material science and cutting-edge knowledge of the neural system, cybernetics augment the organic body, adding capabilities beyond those given to it by evolution.

### Cybernetic Grades and Points

Cybernetics in **Cepheus Deluxe** come in four grades, detailed below. Each cybernetic implant cost Cybernetic Points. The implant’s Grade is the primary determiner of the number of Cybernetic Points it uses. Characters may have up to 6 Cybernetic Points’ worth of implants without penalty. Any more cybernetics, and the character will suffer from cyber-dissociation – being more machine than human. Cyber-dissociation applies a DM-2 penalty to all social skill throws (using SOC or any other characteristics). The only exception is when the character intends to intimidate others. In that case, there is no penalty.

**Cybernetic Grades and Points**

|  |  |  |  |
| --- | --- | --- | --- |
| **Grade** | **Cybernetic Point Cost** | **Typical cost** | **Description** |
| A | 0 | Up to Cr1,000 | Common implants used by civilians and typical corporate employees. Many of these can be implanted in out-patient procedures, depending on the world’s tech level. |
| B | 1 | Up to Cr10,000 | Prosthetics and more specialized personal implants. Includes street-level combat implants that may or may not comply with the Law Level of a given world. |
| C | 2 | Up to Cr100,000 | Highly specialized implants, rare among civilian populations, including military-grade combat implants, and other sophisticated cybernetics. |
| R | 3 | Over Cr100,000 | The most advanced and invasive implants: the expertise alone required to install these cybernetics makes them exceedingly rare. The expense only compounds their rarity. |

### A-Grade Cybernetics:

These implants are either superficial, or extremely common among the public on most advanced worlds as to be ubiquitous.

**Cyberfinger (TL9; Cr500)**: cybernetic finger replacement.

**Glow Tattoos (TL9; Cr100):** these are advanced tattoos consisting of smart bioluminescent skin grafts in complex patterns across the subject’s skin. Patterns and designs are up to the subject. The subject may activate or deactivate the tattoos at will.

**Internal OmniComm (TL9; Cr100):** as an OmniComm (see below) but with a neural interface; this implant allows tele-video communication in the user’s mind, without audible speech.

**Internal OmniComp (TL9; Cr300):** as an OmniComp (see below) but with a neural interface. The user can use their minds to operate the OmniComp without any gestures or speech. The details and consequences of having a computer implanted in a character’s brain and connecting to planetary computing grid are left to the players and Referee.

**Internal Storage Pouch (TL9; Cr800):** abdominal pouch accessible via an artificial sphincter. Stows items up to 0.5 kg in weight and 0.5 liters in volume. The Storage Pouch is discreet and can only be discovered by detailed inspection or medical scans.

### B-Grade Cybernetics:

These cybernetic implants include most prosthetics to replace limbs or organs lost to injury, or more advanced and invasive devices that greatly expand human capabilities. Cybernetic prosthetics do not enhance the character’s innate characteristics—they only perfectly replace damaged parts. Some of these cybernetics are regulated by local Law Levels, while others are not.

**Artificial Gill (TL9; Cr2,500):** allows breathing underwater. The artificial gill is powered by the body’s own electrical current, and thus requires minimal maintenance. The gills can be hidden by default, though some may want them to be visible.

**Cybernetic Eye (TL9; Cr5,000)**: a baseline cybernetic eye replacement, providing perfect 20/20 vision. This cyber-eye looks indistinguishable from a normal eye. However, many opt to add cosmetic changes to the eye, or even exposed chrome to the eye housing.

**Cybernetic Eye, Advanced (TL11; Cr7,500)**: this implant operates as the baseline cybernetic eye, but also adds telescopic vision, infra-red imaging, and low-light optics.

**Cybernetic Arm (TL9; Cr6,000):** baseline cybernetic arm replacement. The arm can be customized to look however the character likes. Human-looking cybernetic arms can pass visual inspections but are detected by medical or detailed physical inspections.

**Cyberhand (TL9; Cr1,500):** cybernetic hand replacement. The hand can look however the character likes.

**Cyberleg (TL9; Cr9,000):** baseline cybernetic leg replacement. Cybernetic legs are large enough to install an Internal Storage Pouch at regular prices.

**Data Safe (TL9 Cr5,000):** thissmall implant stores encrypted files in the character’s skull. The data safe cannot be detected by normal sensors; a deep medical scan of the character’s brain is required to detect the safe. The character may or may not have access to the data safe, or the decryption key. On worlds with Law Levels 6+, the Data Safe is a regulated cybernetic.

**Head Bomb (TL9; Cr3,,000):** a tiny remote-controlled explosive device implanted in a subject’s brain. The detonation will kill the subject without causing any collateral damage. Head bombs are rarely implanted voluntarily, and are widely illegal.

**Internal Blade (TL9; Cr5,000):** a set of two 10cm (4”) retractable blades are implanted in the character’s limbs. These can be wrist blades, knuckle spikes, knee spikes, or even dew claws. The character’s unarmed attacks do 2D damage. The blades are constructed out of ceramic composites to avoid detection by most security scans. Only medical scans or TL13 or better sensors will detect the blades. Internal blades are considered illegal on world with Law Level 4+.

**Internal Weapon (TL9; Cr5,000, special)**: this arm-mounted implant allows the character to carry a concealed weapon internally. This can be any pistol-sized weapon limited by tech level: stealth pistol, gyrojet pistol, gauss pistol, laser pistol, blaster pistol, or stunner. The weapon’s magazine capacity is half normal but can be reloaded normally via a retractable magazine holder. Internal weapons still suffer the DM-2 penalty to hit while in melee combat. The internal weapon’s price is Cr5,000, plus twice the weapon’s cost. Internal weapons can be detected with medical scans or detailed physical inspections. Internal weapons are considered illegal on worlds with Law Level 4+.

**Internal Filtration System (TL9; Cr3,000):** protects from airborne toxins and pathogens.

**Internal Oxygen Supply (TL9; Cr4,000)**: provides 3 hours of oxygen.

**Prehensile tail (TL9; Cr9,000):** Provides an additional grasping/manipulating appendage. This appendage provides a DM+1 to any opposed grapple checks in melee combat but does not provide any additional actions. The tail is also strong enough to support the weight of its owner.

### C-Grade Cybernetics:

These implants are all very invasive, and require the amputation of two limbs, and a great deal of surgery. They are thus almost always restricted and very expensive. C-grade implants are usually reserved for elite military and espionage operatives. Only the most well-connected and wealthy civilians can acquire them.

**Advanced Cyberarms (TL9; Cr20,000):** This implant replaces both arms, as well as reinforces the spine. Advanced cyberarms give Advantage to all arm/manipulation Athletics throws and DM+4 to unarmed combat damage. Note that this bonus applies to relevant Athletics tests, but not other skill tests. The damage bonus is cumulative with any internal blade damage bonus, and with the powered armor bonus. Advanced cyberarms count as two implants (total 4 cybernetics points), as they replace both arms.

**Advanced Cyberlegs (TL9; Cr50,000):** this implant replaces both legs and reinforces the hips and spine. Advanced cyberlegs give Advantage to all Athletics checks involving running or leaping, subject to the same limitations as Advanced cyberarms, above. As an action, the character may throw Athletics 8+ to jump 10m horizontally in any direction or 3m upwards. Treat the character’s STR as 4 points higher for purposes of calculating encumbrance limits. This implant also doubles the character's movement speed to 20m per action (up to 40m per round if the character uses both actions for movement). Advanced cyberlegs also reduce falling damage by 1D. Advanced cyberlegs count as two implants (total 4 cybernetics points), as they replace both legs.

**Augmented Joints (TL9; Cr25,000):** an invasive series of implants replace the character's joints with advanced synthetics, high-tech lubricants and shock absorbers. Augmented joints grant inhumanly fine motor precision. This gives Advantage for non-combat throws that require fine motor manipulation and control. For example: lockpicking, sleight-of-hand, and electronics repair.

**Hacking Module (TL9; Cr50,000):** this implant consists of an upgraded, specialized OmniComp and dedicated enhanced synaptic neural processors for computing. A discreet neural jack line feed allows the character to connect to any computer directly. The Hacking Module grants a flat DM+1 to the character’s Computer skill and allows remote hacking of unprotected electronics at up to 3m. Note that at TL9+, most personal electronics cannot be remotely hacked. The Hacking module is illegal on worlds with Law Levels 4+.

**Hypercosmetic Surgery (TL9; Cr75,000):** perfect body sculpting and implanted synthetic pheromone glands radically reconstructs the subject’s body to be perfectly attractive to other members of their species. Grants Advantage to all social skill throws in situations where physical attractiveness matters.

**Subdermal Armor (TL9; Cr15,000):** keratin and ceramic bone lacing and light shielding of vital organs provides 2 points of armor protection. The implant is subtle enough to pass visual inspection but can be spotted with sensor scans. Subdermal armor is added to the protection rating of any worn armor. Subdermal armor is legal on most worlds, but usually will be controlled on worlds with Law Level 8+.

**Subdermal Armor, Heavy (TL9; Cr20,000):** unlike the lighter variety, heavy subdermal armor makes no attempt at being discreet. It provides 5 points of armor protection that is added to the protection rating of any worn armor. Heavy subdermal armor is detectable upon visual inspection and counts as two implants (4 Cybernetic Points). Heavy subdermal armor is illegal on worlds with Law Level 3+.

### R-Grade Cybernetics:

Extremely invasive, experimental, and irreversible cybernetics. These implants are all highly illegal for anyone to own, outside of restricted military circles.

**Berserker Module (TL9; Cr200,000):** this dangerous combat augmentation keeps the user going no matter what injury they sustain. The character stays conscious and active as long as they have even one point of Lifeblood left – even when severely injured. They still die if their Lifeblood reaches zero.

**Bastet Frame Upgrade (TL9; MCr1):** a radical reconstruction of the entire organic body to grant superhuman agility and speed. The implant doubles the character’s DEX (to a maximum of 20), and grants Advantage on all DEX-related Athletics and Stealth throws. Furthermore, the Bastet Frame increases the character’s movement speed from 10m per round to 15m per round. The Bastet Frame Upgrade is incompatible with the Hercules Frame Upgrade.

**Control Rig Implant (TL9; MCr1):** this is a highly specialized implant designed to give elite vehicle pilots even more of an edge. The control rig allows the operator to fully interface their minds with vehicles. The control rig gives the character Advantage on Vehicle skill throws with suitably modified vehicles. This does require the operator to be in the vehicle, and “plugged in.” Modyfing a vehicle to work with control rig increases its cost by 10%. If the vehicle takes damage, roll END 6+ to avoid taking 1D damage from electrical feedback.

**Hercules Frame Replacement (TL9; MCr1):** a radical reconstruction of the entire organic body grants superhuman endurance and might. The Hercules Frame doubles the character’s STR and END (to a maximum of 20), affecting Stamina, Lifeblood, and unarmed combat damage. It also gives Advantage on all Athletics throws requiring brute strength, and Grapple checks in Melee Combat. The Hercules frame upgrade is incompatible with the Bastet Frame Upgrade.

**Military-grade Neural Cyberspace Interface (TL9; MCr1)**: the ultimate interface between the human brain and a machine. The neural cyberspace interface functions as a Hacking Module, but also grants Advantage to all Computer and Repair throws related to electronics and computers.

**Minerva Upgrade (TL13 MCr3):** this implant requires the radical reconstruction of the entire organic neural system. It includes synaptic enhancers, nano-tech upgrades to dendrites, and multiple supplemental neural processor implants directly in the brain. The end result is superhuman intelligence, doubling the character’s INT (to a maximum of 20).

**Neural Booster (TL9; MCr2):** this invasive augmentation to the character’s nervous system and adrenal glands greatly boosts reaction times and suppresses the fight-or-flight response. The Booster grants an additional action per combat round for a total of three. Characters with the Neural booster implant also roll to avoid Surprise with Advantage. As well, the character never suffers the unskilled penalty (DM-3) when rolling to avoid Surprise.

**Vacuum Adaptation (TL13; MCr1):** the ultimate spacer implant turns the user into a voidwalker. Internal oxygen reserves, micro-seals, and metal weave skin allow an hour of operation in vacuum without a space suit. An integral grav unit allows short-range maneuvering in low and micro-gravity. The grav unit is too weak to maneuver in any gravity beyond 0.05g. This augment also provides 5 points of integral armor and reduces radiation by 10 rads. The Vacuum Adaptation implant is visible upon medical inspection or sensor scan, but is otherwise quite discreet.

## Exploration and Personal Equipment

The following items are common among adventurers and explorers. This list is not complete; we invite you to add interesting equipment for their adventuring characters from other games, with Referee approval.

|  |  |  |
| --- | --- | --- |
| **Item** | **Tech Level** | **Cost** |
| Advanced Base | 8 | Cr50,000 |
| Artificial Gill | 9 | Cr4,000 |
| Awareness Disruption Field Generator (AwFiG) | 16 | Cr20,000 |
| Backpack | 1 | Cr50 |
| Binoculars | 5 | Cr10 |
| Breather | 6 | Cr75 |
| Cargo Monitor Tag | 10 | Cr5 |
| Cart, Contra-Grav | 13 | Cr50,000 |
| Cloaking Device, Personal | 16 | Cr100,000 |
| Cold Weather Clothing | 1 | Cr200 |
| Corrosive Gel | 10 | Cr250 |
| Compass | 3 | Cr5 |
| Disguise Kit | 3 | Cr300 |
| Exoskeleton | 8 | Cr15,000 |
| Field Rations, 5 days | 0 | Cr125 |
| Firestarters | 8 | Cr40 |
| Grav Lamp | 13 | Cr100 |
| Hammock | 3 | Cr25 |
| Handcuffs | 5 | Cr10 |
| Hooligan Tool | 8 | Cr150 |
| LED Flashlight | 7 | Cr5 |
| Lockpicks | 5 | Cr25 |
| Long-Range Communicator, 500km range | 7 | Cr250 |
| Mapper, Instant | 9 | Cr1500 |
| Measuring Beacon | 12 | Cr1500 |
| Measuring Tape, Advanced | 9 | Cr500 |
| Medkit | 8 | Cr100 |
| Memory Randomizer | 16 | Cr10,000 |
| Mess Kit, Individual | 4 | Cr20 |
| Multiscanner | 12 | Cr2,000 |
| Night Visor | 8 | Cr100 |
| OmniComm | 8 | Cr50 |
| OmniComp | 8 | Cr250 |
| Omnitool | 8 | Cr150 |
| Oxygen Tanks, 6-hour duration | 6 | Cr250 |
| Panic Button | 14 | Cr1,000 |
| Portable Fusion Generator | 12 | Cr500,000 |
| Portable Generator | 5 | Cr1,000 |
| Pulverizer | 8 | Cr40 |
| Radar Mapper | 8 | Cr1,000 |
| Radiation Detector | 10 | Cr100 |
| Rescue Bubble | 8 | Cr900 |
| Rope, 70m | 1 | Cr50 |
| Sleeping Bag | 5 | Cr50 |
| Sonar Window | 11 | Cr900 |
| Spray Sealant | 9 | Cr30 |
| Super Adhesive | 8 | Cr20 |
| Super Lubricant | 8 | Cr15 |
| Tech Toolkit | 7 | Cr300 |
| Tent | 1 | Cr100 |
| Tent, Pressure | 8 | Cr2,000 |
| Thruster Pack | 8 | Cr200 |
| Water Canteen | 1 | Cr5 |
| Water Purification Tablets | 7 | Cr10 |
| Water Saw | 8 | Cr20,000 |
| Welder, Laser | 9 | Cr6,000 |

The **Advanced Base** is pressurized, modular, and capable of housing 6 persons. It requires 12 person-hours to assemble. Life support lasts for 24 hours without portable generator to power atmoscrubbers.

An **Artificial Gill** allows unlimited underwater activity on worlds with atmospheres 4-9.

An **Awareness Disruption Field Generator** (AwFiG) emits a low-grade psionic wave that affects the perception of those around, causing them to disregard or overlook the presence of a person or thing. To the passer-by the wearer of the AwFiG is not present or is just part of the background and is unlikely to be remembered.

**A Backpack** does not count as an item for encumbrance when worn. The items in the backpack still do count towards encumbrance.

A (**Personal) Cloaking Device** permits its user to become practically invisible. The light-distorting gravitic lensing of the device affects all visible light for organic and mechanical eyes. However, the target still emits infrared heat radiation.

**Cold Weather Clothing** protects against inclement weather. The TL12 version costs Cr800 and does not count as an item for encumbrance.

A standard set of **lockpicks** in a handy carrying pouch. Attempting to pick a lock without lockpicks penalizes the attempt by DM-2.

A **Contra-Grav Cart** is too slow to use as a vehicle but can carry up to 500kg of gear at a speed of 10m per combat action. With some versions, it is possible to “tether” the cart to a person, which makes the cart follow that specific person at a distance of 3m to 20m.

**Corrosive Gel** comes in small metallic tubes. It can be used to mark surfaces or to destroy small objects (like door locks). The gel consists of a binary chemical agent in two chambers in the tube. Once opened and applied, the agents combine within 1D minutes. The exact effect is left to the Referee. Each tube is one-use only.

An **Exoskeleton** grants its user a +6 bonus to their STR score for Athletics/STR skill checks. It also allows the character to jump up to 2m vertically, or 5m horizontally, and increases the wearer’s movement speed to 15m/action. Another benefit is that the exoskeleton allows soldiers to march their normal cross-country speed while tiring at half the rate. The exokeleton’s batteries are good for 48 hours of activity before requiring replacement. At higher tech levels, exoskeletons are often replaced by cybernetics.

5-days' worth of **Field Rations** each count as a single item for encumbrance. TL9+ field rations are much lighter: 25 field rations count as one item.

**Firestarters** are fast-burning chemicals in one-use packages. They will automatically start a sustainable fire with prepared wood and brush kindling. Throw Survive/INT 6+ to start the fire if the wood or other fuel is wet.

A **Grav Lamp** is a floating hands-free light source. It can illuminate an area between 2m and 10m in radius. The illumination radius is adjustable by means of a small lightweight “anchor” worn on the person and does not count as an item for encumbrance. The grav lamp will float near or next to the anchor, between 0.5m and 10m away, depending on the setting used.

A **Hammock** is a cloth or synthetic textile temporary sleeping surface, suspended between two fixed points. It can also be used as a shade. Supports up to 150 kg.

The **Hooligan Tool** is a 0.8-meter, 4 kg tool is designed to breach common door/hatch types. There is forked spade end (for getting doors open), a horn (for getting that initial grab into opening an iris valve or busting padlocks), and a wedge (for those pesky hatches). The tool is designed to maximize leverage. Made of special alloys and composites, the tool is non-sparking, a feature that prevents accidents in explosive atmospheres such as a ship with a liquid hydrogen leak. Complete with fiberglass shaft and hand grips made from non-conducting material.

An **LED Flashlight** is a hand-held, rubberized, sturdy light source with a variable light aperture. The 2m cone of light has a range of 50m, but it can be adjusted to illuminate a 5m radius. Smaller, more expensive (Cr20) versions can be mounted on weapons or clipped to armor. A TL7 LED Flashlight’s battery will last for 24 hours. By TL11, the battery will last for a decade of continual use.

A **Mapper** **(Instant)** can be attached to any hand computer or used alone. It consists of a computer, display, and launcher for a data-gathering probe. The probe is an anti-grav unit that will rise 100-200 m into the air and take 360-degree image of all visible terrain. This data is then compiled into a 2D, or 3D map displayed by the base unit. The Mapper also instantly calculates topographic features and distances to user-selected points.

A **Measuring Tape** **(Advanced)** consists of a base unit and one or more movable beacon units. When activated, the device displays the exact distance between itself and the beacons. It can be thus measuring the dimensions of any object, by placing the base at one edge and the beacon at the other, or placing two beacons on either side, or measure area by placing beacons on 4 sides.

**Measuring Beacon:** A larger-size version of the Advanced Measuring Tape, which can be used as a homing beacon. By leaving the base at a predetermined point and carrying the beacon, the user will always know which direction and how far to go to return to the base unit. The Measuring Beacon has a 500km range.

A **Memory Randomizer** is an insidious disguise device: everyone who comes into contact with the wearer of the Randomizer perceives the wearer but cannot accurately describe them. This makes them impossible to identify by memory unless the target makes a successful INT 12+ throw. The Memory Randomizer can be placed on an object to make it so ubiquitous as to be unrecognizable.

A **Mess Kit** **(Individual)** includes plate, utensils, cup, storage case and disposable cleaning cloths and counts as one item.

The **Multiscanner** combines several sensor functions: it can detect radiation, electromagnetic emissions, metals, and a limited set of chemicals and biological compounds. It can also perform standard blood tests.

The **Night Visor** combines low-light and infra-red vision goggles into one handy device.

Today’s smartphones will eventually evolve into an **OmniComm,** a combination of all your telecom needs in one device, with holographic augmented reality capability. The same applies the **OmniComp** – a hand-held, light-weight computer which evolved from both the laptop and the tablet computer. Both devices are designed to integrate with whatever telecommunications networks are present on a given world. TL8 batteries for these devices last for a few days; TL9 batteries last for months between recharging.

The **Omnitool** is an auto-adjusting, auto-fitting repair tool. It will fit exactly to any kind of bolt, screw or fastening device, and also doubles as wire-cutters, small hack saw, flashlight, and a myriad of other tools. All this is packed into one item’s worth of encumbrance!

A **Panic Button** uses ultrasonic waves and other sensory inputs to produce a physiological and emotional terror response. The Panic Button influences the emotional states of creatures within a 5m wide, 15m long cone, forcing them to make Morale rolls.

A **Pressure Tent** lacks an airlock and must be depressurized to enter or leave; it can house up to 2 people and requires an external oxygen tank.

The **Pulverizer** is – a combination of hammer, nail puller and pry bar. Made of high-tech materials to be lightweight but highly durable. The Pulverizer adds DM+1 to any Strength roll to force open a mechanical object such as a door or iris valve.

The **Radar Mapper** uses radar technology to scan a room or similar space, producing a 3D map of it, to a maximum volume of 10m by 10m by 10m.

The **Radiation Detector** is a matchbox sized device that displays radiation levels in a 10m radius. It also indicates the type of radiation if that is important. The detector can also serve as an alarm, chiming loudly when radiation levels are dangerous to humans. This feature can be shut off.

A **Rescue Bubble** is a 2m-diameter plastic bubble. Piezoelectric layers translate the user’s movement to electricity to recharge the bubble’s battery. It contains enough life support supplies for 2 person-hours of operation. The bubble’s skin can self-repair all but the most serious punctures.

A **Sleeping Bag** is a cloth or synthetic padded bag for one person, to provide insulation/ cover while sleeping. At TL 7, cold weather bags are available. Regular bags are effective to zero degrees centigrade, while cold weather bags, costing Cr150, are insulate to negative 30 degrees centigrade.

A **Sonar Window** is flat-screen device that attaches to a wall/partition. It uses sonar to display what is on the other side of the wall. Image quality depends on Tech Level. The TL11 version displays basic outlines, the TL 12 version costs Cr2,000 and improves image quality and 3D effect. At Cr7,000, the TL14 version’s display is virtually indistinguishable from that of an actual window.

The **Spray Sealant** can seal torn space suits and small hull breaches. The canister is good for three such applications, or one larger hull breach.

The **Super Adhesive** is instant bonding and possesses super-strength. The adhesive comes in roughly 1L canisters that are sufficient for five generous applications. The adhesive adheres to most surfaces, has a drying time 1 minute. Pulling apart the two bonded objects requires a STR 12+ test and will ruin both objects. A special chemical is available for removing people glued to objects with Super Adhesive. It costs Cr100 per application.

The **Super Lubricant** is composed of near-frictionless space-age synthetics. Each can is good for six applications. The lubricant is a standard part of a maintenance tech’s toolset. In addition to loosening stuck objects and ensuring that the internal workings of any mechanical device are working properly, the Super Lubricant can render any surface near-frictionless. Standing on a surface coated in Super Lubricant requires an Athletics/DEX 10+ throw. Walking or, heaven forbid, running on such a surface is impossible. Crawling can be done at 1m per round.

A **Thruster Pack** requires Zero-G skill level 0 and allows maneuvering in zero-G conditions at normal movement rates. Note that this is a TL8 device and does not use any anti-gravity technology. Characters and objects moving by thruster pack are still subject to the laws of motion.

**Water Purification Tablets** cost Cr10 for a pack of 50; each tablet can sterilize up to 1L of water from most types of microorganisms.

A **Water Saw** requires a separate power supply and a large volume of available water. Pumps create extreme water pressure (90,000 psi or more) which is directed through a tiny nozzle. The stream is powerful enough to cut through concrete, stone, and even light metals. Weighs 1000kg and is usually mounted on an exoskeleton or small vehicle.

The handheld **Welder** uses a focused laser beam to perform cutting and welding operations. It can cut through a reinforced bulkhead in 1D starship combat rounds (6-36 minutes). Roll Repair/DEX 10+ to reduce the time to one starship combat round (6 minutes) As a weapon, the laser welder is inaccurate and clumsy, but extremely dangerous: it does 4D damage with a range of 1/5 and has energy for 5 “shots.” As a weapon, the welder also has the Fire aspect.

## Pharmaceuticals

Below is a brief list of pharmaceuticals and drugs that are available at various tech levels.

***Anti-Radiation***

Administered before or immediately after radiation exposure, this drug absorbs 100 rads. Taking more than one dose a day causes 1D *permanent* END damage.

**Cost:** Cr1,000/dose

**Tech Level:** TL8

***Catsight***

This medication grants its user night vision for up to 12 hours. The character does not suffer penalties from operating and fighting in low-light conditions and only suffers DM-1 in total darkness.

**Cost:** Cr100/dose

**Tech Level:** TL9

***Fast Forward***

This drug slows metabolism by a ratio of 60 to 1 – a subjective day to the user is 2 months of real time. Note that this drug will greatly reduce life-support consumption and is often included in emergency survival kits aboard starships.

**Cost:** Cr200/dose

**Tech Level:** TL11

**Slow Motion**

This drug accelerates metabolism by a ratio of 1 to 60 – a subjective hour to the user is 60 hours of real time. Note that this drug accelerates healing accordingly. Using this drug is dangerous without Medicine 1 or better care.

**Cost:** Cr300/dose

**Tech Level:** TL11

***Hyperspace***

Hyperspace is a powerful stimulant, allowing characters to function perfectly for up to 72 hours straight without rest. Once its influence expires, the character is Fatigued (DM-2 to throws), loses 1D Stamina, and must rest for at least 12 hours to recover.

**Cost:** Cr50/dose

**Tech Level:** TL9

***Longevity Treatment***

Longevity drugs prevent aging. For them to be effective, a character must take one dose each month. If the character misses even one month of Longevity Treatment, they revert to their chronological age within a week, which may be lethal in some cases.

**Cost:** Cr5,000/dose

**Tech Level:** TL15

***Panacea***

The Medicinal drug represents a wide variety of vaccines, antitoxins, antibiotics, and other pharmaceuticals. Medicinal allows a character with at least Medicine 1 to neutralize a disease or poison on a throw of Medicine/EDU 8+. The cost of any drug is at the Referee’s discretion. Advanced TL11+ medications cost ten times as much but grant Advantage on the Medicine throw.

**Cost:** Cr50+/dose

**Tech Level:** TL5

## Robots

Robots! The very word conjures up hopes and fears for the future. The idea of an autonomous mechanical entity is old, but its implementation became reality in the early 21st century CE on Earth (TLs7-8). At first, robots revolutionized industrial processes, but eventually even vacuum cleaners were roboticized. In these rules, contrary to various dictionary definitions, “robot” refers to a mobile, autonomous (or remote-controlled) machine capable of varied actions.

All robots and drones have a Chassis and a CPU. All robots (but not drones) have a Robot Type. It is possible to further modify robots, and we present a variety of options, but these modifications are not mandatory. Robots have a number of Build Points determined by their mass, limiting the totally number of components that can be installed. For the sake of rules simplicity and clarity, like organic beings, Robots have Stamina (superficial damage capacity) and Lifeblood (internal damage capacity). They also have armor that functions like personal armor to reduce the damage of attacks.

Note that robot base speed is 5m/action. Higher speeds require the installation of Modifications. Robots start with Sensors +0, further modified by Type and specific Modifications.

### Robot design sequence

1. Select a Chassis. This determines Mass, Stamina/Lifeblood, Build Points, and Armor.
2. Select a CPU. Drones have no CPU; they always require a sentient operator. Smart drones and robots can operate autonomously. The CPU determines the robot’s Intelligence and skill points.
3. For robots, select a Robot Type. This grants certain Modifications, two Base Skills, and could multiply the Chassis’ cost.
4. In addition to Base Skills, robots with advanced CPUs have skill points to spend on skills. Use these skill points to improve Base Skills, or to purchase new ones. The maximum level in any skill depends on the CPU.
5. Optional: purchase modifications, by spending Build Points.

**Chassis Table**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Mass (kg)** | **Stamina/Lifeblood** | **Build Points** | **Unarmed Damage** | **Base Armor** | **Cost (Cr)** |
| 5 | 1/2 | 1 | 1D-2 | 2 | 750 |
| 10 (-1 to hit) | 3/6 | 3 | 1D-1 | 3 | 900 |
| 25 | 5/10 | 4 | 1D | 3 | 1200 |
| 50 | 7/14 | 6 | 1D | 4 | 2,000 |
| 100 | 9/18 | 6 | 1D+1 | 4 | 4,500 |
| 200 | 12/24 | 8 | 1D+2 | 5 | 5,000 |
| 400 | 15/30 | 9 | 2D | 5 | 6,000 |
| 600 | 20/40 | 9 | 2D | 8 | 7,000 |
| 1000+ | 25/50 | 10 | 3D | 12 | 10,000 |

**CPU Table**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CPU** | **TL** | **Intelligence** | **Skill Points** | **Max Skill Level** | **Cost (Cr)** |
| Drone | 6 | - | - | - | 50 |
| Smart Drone | 8 | 2 (-2) | 1\* | 1 | 1,000 |
| Basic Autonomous | 9 | 4 (-1) | Base | 1 | 5,000 |
| Advanced Autonomous | 10 | 5 (-1) | Base+1 | 1 | 10,000 |
| Simulated Intelligence I | 11 | 6 (0) | Base+2 | 2 | 100,000 |
| Simulated Intelligence II | 13 | 8 (0) | Base+4 | 3 | 1,000,000 |
| True AI | 16 | 12 (+2) | Base+10 | 5 | Priceless |

\* Smart Drones do not receive base skills.

**Robot Types**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Robot Type** | **Integral Modifications** | **Base skills (level 1)** | **TL** | **Chassis and CPU Cost Multiplier** |
| Combat | Heavy combat chassis AR x2 | One weapon skill, Tactics | 10 | X3 |
| Humanoid | Passes as human on casual inspection; its sensors mimic human senses. | Any 2 | 13 | X10 |
| Janitor/Labor | -1 Sensors | - | 8 | X0.5 |
| Medical | Medical Instruments cost 1 BP; DEX 8 | Medicine, Science | 13 | X4 |
| Protocol | - | Liaison, Admin/Steward | 12 | X0.75 |
| Pursuit | Move x2 | Athletics or Vehicle Skill, Tactics | 9 | X1 |
| Repair | Tools cost ½ BP | Repair, Computer | 10 | X1.5 |
| Scout | Sensors +2 | Stealth, Recon | 9 | X1 |
| Security | Sensors +1 | One weapon skill, Recon | 9 | X1 |

**Robot Modifications and Upgrades**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Modification** | **Description** | **BP** | **TL** | **Cost (Cr)** |
| Additional Limb | Additional arm | 1 | 8 | 700 |
| Aircraft Flight | Capable of flight; robot must be at least 50kg in mass. Can fly up to 500km/h | 4 | 8 | 25,000 |
| Armor Upgrade: +1 Armor | Basic armor upgrade by 1 point of armor; max total 15 | 1 / +1 | 8 | 100 per point of Armor |
| Detachable Surveillance Module | Allows remote aerial reconnaissance | 2 | 9 | 1,000 |
| Equipment | Tools or other miscellaneous equipment | 1 / tool | 8 | Varies |
| Grav Module | Capable of flight, regardless of mass | 1 | 12 | 10,000 |
| Holographic Camouflage | Obscures and breaks up silhouette, causing DM-2 to hit the robot. | 2 | 12 | 2,000 |
| Laser Welder | Laser welder | 1 | 8 | 8,000 |
| Leaper Upgrade | May jump up to double its movement range in one Action | 1 | 9 | 2,500 |
| Long Range Comms | Can communicate with distant receivers, up to orbital ones. | 1 | 8 | 5,000 |
| Munitions Hold | Additional ammunition for mounted weapons | 1 | 8 | 100 |
| Quad Rotors | Capable of flight; limited to 25kg or less in robot mass; can fly up to a speed of 50km/h | 1 | 8 | 100 |
| Retractable claws | Hand to hand damage 3D | 2 | 8 | 150 |
| Self-repair | 1D Lifeblood repaired per round | 4 | 13 | 50,000 |
| Sensor Upgrade | DM+1 to of basic sensors. Max four times. | 1 / +1 | 8 | 500 per +1 |
| Speed Upgrade: +5m/action (3 upgrades max) | Additional speed per action up to 20m/action | 1 / 5m | 8 | 100/5m |
| Subdermal Armor Upgrade | AR 4, humanoid robots only | 2 | 13 | 1,000 |
| Enhanced Targeting Matrix | DM+1 to hit in ranged combat | 1 | 9 | 5,000 |
| Tentacle | Robot gains DM+2 to Grapple throws. | 2 | 9 | 1,200 |
| Weapon mount, Light | Light armament – small arm | 2 | 8 | 50 + weapon |
| Weapon mount, Heavy | Heavy armament – heavy weapon | 4 | 8 | 1 + weapon |

### Sample Bots

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Bot Type** | **TL** | **Cost** | **Type** | **Mass** | **Stamina** | **Lifeblood** | **Armor** | **Sensors** | **Speed** |
| Cargo Bot | 9 | Cr6,000 | Labor | 600kg | 20 | 40 | 8 | -1 | 5m |
| **CPU:** | Basic Autonomous | | **INT** | 4 (-1) |  | | | | |
| **Skills:** | None | | | | | | | | |
| **Modifications:** | None | | | | | | | | |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Bot Type** | **TL** | **Cost** | **Type** | **Mass** | **Stamina** | **Lifeblood** | **Armor** | **Sensors** | **Speed** |
| Android | 15 | Cr1046100 | Humanoid | 100kg | 9 | 18 | 8 | +0 | 10m |
| **CPU:** | Simulated Intelligence I | | **INT** | 8 (0) |  | | | | |
| **Skills:** | Carousing 2, Gun Combat 1, Liaison 2, Melee Combat 1 | | | | | | | | |
| **Modifications:** | Subdermal armor x1, Speed 1 | | | | | | | | |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Bot Type** | **TL** | **Cost** | **Type** | **Mass** | **Stamina** | **Lifeblood** | **Armor** | **Sensors** | **Speed** |
| Autodoc | 13 | Cr1,022,000 | Medical | 200kg | 12 | 24 | 5 | +3 | 0 |
| **CPU:** | Simulated Intelligence I | | **INT** | 8 (0) |  | | | | |
| **Skills:** | Medicine 3, Science 3 | | | | | | | | |
| **Modifications:** | Medical instruments, DEX 8 (0), sensors +4 | | | | | | | | |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Bot Type** | **TL** | **Cost** | **Type** | **Mass** | **Stamina** | **Lifeblood** | **Armor** | **Sensors** | **Speed** |
| Security Bot | 9 | Cr6850 | Security | 100kg | 9 | 18 | 10 | +2 | 10m |
| **CPU:** | Basic Autonomous | | **INT** | 4 (-1) |  | | | | |
| **Skills:** | Gun Combat 1, Recon 1 | | | | | | | | |
| **Modifications:** | Light Weapon Mount, SMG (2D damage), Munition Hold, sensors +1, Speed 1 | | | | | | | | |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Bot Type** | **TL** | **Cost** | **Type** | **Mass** | **Stamina** | **Lifeblood** | **Armor** | **Sensors** | **Speed** |
| Warbot | 10 | Cr53850 | Combat | 400kg | 15 | 30 | 15 | +2 | 10m |
| **CPU:** | Advanced Autonomous | | **INT** | 5 (-1) |  | | | | |
| **Skills:** | Gun Combat 1, Melee Combat 1, Tactics 1 | | | | | | | | |
| **Modifications:** | 2 Heavy Weapon Mounts, Light Machinegun (3D damage) and Grenade Launcher (by grenade), Munition Hold, sensors +2, Retractable Claw (3D damage) | | | | | | | | |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Bot Type** | **TL** | **Cost** | **Type** | **Mass** | **Stamina** | **Lifeblood** | **Armor** | **Sensors** | **Speed** |
| Recon Drone | 8 | Cr3,000 | Scout | 10kg | 3 | 6 | 3 | +1 | 10m |
| **CPU:** | Smart Drone | | **INT** | 2 (-2) |  | | | | |
| **Skills:** | Recon 1 | | | | | | | | |
| **Modifications:** | Sensors +1, Quad Rotors, Speed 1 | | | | | | | | |

## Vehicles

Science fiction stories often feature wild chases, armored warfare, or exploration of remote planets by all sorts of vehicles. A wide variety of vehicles exist across cultures and species for planetary, atmospheric, and oceanic transportation. The following is a list of a few of the more common conveyances.

Characters may purchase a vehicle at its base Tech Level or on any higher TL. Higher-tech vehicles typically have greater range and endurance, at the Referee’s discretion.

### Stat Block Explanation

**Tech Level (TL):** technological level, as noted above.

**Cost:** in thousands of Credits (KCr).

**Agility:** represents the vehicle’s maneuverability. Applies as a DM to skill and Position throws in vehicle combat.

**Speed:** top speed in km/h; cruising speed is 75% of the listed top speed; off-road speed is equal to 50% of top speed.

**Range:** how far the vehicle can go at cruising speed before refueling. Given in kilometers.

**Armor:** the vehicle’s Armor Class: Unarmored, Light, or Heavy.

**Crew/Passengers:** the first number shows the number of crewmembers the vehicle requires; the second, the number of passengers it may carry.

**Cargo:** dedicated cargo capacity in kilograms or tons.

**Weapons:** weapons included in the vehicle’s price by default. Heavy weapons use the Heavy Weapons skill. Gunnery weapons use the Gunnery skill.

**Active Countermeasures:** When a vehicle equipped with Active Countermeasures is attacked by a rocket, missile, or grenade, throw 2D; on 7+, the Countermeasures intercept the munition, neutralizing the attack.

### Cepheus Engine SRD/Core Conversion Note

To convert **Cepheus Engine SRD/Core** vehicle armor to **Cepheus Deluxe**, use the following table:

|  |  |
| --- | --- |
| **CE: SRD/Core Armor Rating** | **Cepheus Deluxe Armor Class** |
| 6 or lower | Unarmored |
| 7-24 | Light |
| 25 or higher and/or Hull/Structure of 40/40 or greater | Heavy |

When using vehicles from other Cepheus Engine books that use multiple armor ratings, such as different armor for each vehicle facings, simply average the armor rating (rounding down fractions) and consult the table above.

### Ground Craft

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **4x4 Utility Vehicle** | | | **Skill** | Driving | |
| A heavy car (or light truck) built for ruggedness and off-road capabilities. The military version of this vehicle costs KCr84, may have Light Armor (at the Referee’s discretion), and may mount two heavy weapons or one Gunnery weapon. | | | | | |
| **Tech Level** | **Cost (KCr)** | **Agility** | | **Speed (km/h)** | **Range (km)** |
| 7 | 40 | +0 | | 100 | 400 |
| **Armor** | **Crew/Passengers** | **Cargo (tons)** | | **Weapons** | |
| Unarmored | 1/4 | 2 | | None | |
| **Features:** Maximum off-road speed is 75km/h. | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Armored Personnel Carrier** | | | **Skill** | Driving | |
| A low-tech armored vehicle used to carry infantry, that comes in either tracked or wheeled varieties. A TL8 version costs KCr200, has a top speed of 100 km/h, as well as Active Countermeasures. | | | | | |
| **Tech Level** | **Cost (KCr)** | **Agility** | | **Speed (km/h)** | **Range (km)** |
| 6 | 60 | -1 | | 70 | 500 |
| **Armor** | **Crew/Passengers** | **Cargo (tons)** | | **Weapons** | |
| Light | 3/14 | 1 | | 1 GP Machinegun | |
| **Features:** None | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Bus** | | | **Skill** | Driving | |
| A common mass transit bus, capable of carrying many passengers at reasonable speed and comfort. | | | | | |
| **Tech Level** | **Cost (KCr)** | **Agility** | | **Speed (km/h)** | **Range (km)** |
| 7 | 35 | -2 | | 100 | 500 |
| **Armor** | **Crew/Passengers** | **Cargo (tons)** | | **Weapons** | |
| Unarmored | 1/50 | 8 | | None | |
| **Features:** None. | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Exploration Vehicle** | | | **Skill** | Driving | |
| A pressurized long-range heavy exploratory vehicle used for planetary surface travel and surveys. | | | | | |
| **Tech Level** | **Cost (KCr)** | **Agility** | | **Speed (km/h)** | **Range (km)** |
| 8 | 500 | -1 | | 80 | 500 |
| **Armor** | **Crew/Passengers** | **Cargo (tons)** | | **Weapons** | |
| Light | 1/14 | 4 | | None; may mount 1 heavy weapon | |
| **Features:** Maximum off-road speed is 60km/h; cramped accommodations for 15 people; sealed and pressurized; orbital-range comms array. | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Ground Car** | | | **Skill** | Driving | |
| The staple of low-tech urban transport. TL5-6 models are also available at an equivalent cost, but at Agility -1, speed 60 km/h, and range 200km. | | | | | |
| **Tech Level** | **Cost (KCr)** | **Agility** | | **Speed (km/h)** | **Range (km)** |
| 7 | 6 | +0 | | 150 | 400 |
| **Armor** | **Crew/Passengers** | **Cargo (tons)** | | **Weapons** | |
| Unarmored | 1/4 | 0.2 | | None | |
| **Features:** None. | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Pick-Up Truck** | | | **Skill** | Driving | |
| An intermediate between a car and a truck. The more rugged models sometimes end up as “technicals” – improvised combat vehicles mounting a heavy weapon or even a gunnery weapon. | | | | | |
| **Tech Level** | **Cost (KCr)** | **Agility** | | **Speed (km/h)** | **Range (km)** |
| 7 | 10 | +0 | | 120 | 400 |
| **Armor** | **Crew/Passengers** | **Cargo (tons)** | | **Weapons** | |
| Unarmored | 1/4 | 4 | | None; may mount 1 heavy weapon or 1 gunnery weapon | |
| **Features:** None. Technicals reduce speed to 80km/h, have no cargo space, and reduce crew/passengers to 1/2. | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Tank** | | | **Skill** | Driving | |
| A low-tech main battle tank. A TL8 version costs KCr2,000, has an Advanced Cannon and a speed of 70 km/h, Agility -1, as well as Active Countermeasures. | | | | | |
| **Tech Level** | **Cost (KCr)** | **Agility** | | **Speed (km/h)** | **Range (km)** |
| 6 | 300 | -2 | | 50 | 300 |
| **Armor** | **Crew/Passengers** | **Cargo (tons)** | | **Weapons** | |
| Heavy | 4/0 | 0.5 | | Heavy cannon, 2 GP Machineguns | |
| **Features:** Off-road speed is the same as normal speed. | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Tripod** | | | **Skill** | Driving | |
| This ultimate alien fighting machine towers six meters above the battlefield on three thick, articulated legs, boasting massive armor and a devastating fusion cannon alongside the more mundane plasma guns. It also sports a cluster of tentacles for field work and for ripping apart enemy troops in close range. | | | | | |
| **Tech Level** | **Cost (KCr)** | **Agility** | | **Speed (km/h)** | **Range (km)** |
| 13 | 3,000 | +1 | | 90 | Practically unlimited |
| **Armor** | **Crew/Passengers** | **Cargo (tons)** | | **Weapons** | |
| Heavy | 2/6 | 1 | | Fusion Cannon, 2 plasma guns, tentacles (Heavy Weapon for vehicle damage purposes; 4D damage to personnel) | |
| **Features:** Autopilot available; orbital-range comms; sealed and pressurized. | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Truck** | | | **Skill** | Driving | |
| A heavy goods vehicle. TL5-6 models are also available at an equivalent cost, but with speed 50 km/h, and range 250km. | | | | | |
| **Tech Level** | **Cost (KCr)** | **Agility** | | **Speed (km/h)** | **Range (km)** |
| 7 | 50 | -2 | | 100 | 500 |
| **Armor** | **Crew/Passengers** | **Cargo (tons)** | | **Weapons** | |
| Unarmored | 1/1 | 30 | | None | |
| **Features:** None. | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Walker** | | | **Skill** | Driving | |
| A two-legged combat vehicle with a single pilot and heavy armor. | | | | | |
| **Tech Level** | **Cost (KCr)** | **Agility** | | **Speed (km/h)** | **Range (km)** |
| 13 | 500 | +1 | | 90 | Practically unlimited |
| **Armor** | **Crew/Passengers** | **Cargo (tons)** | | **Weapons** | |
| Light | 1/0 | 0.1 | | Fusion Cannon | |
| **Features:** Autopilot available; orbital-range comms sealed and pressurized. | | | | | |

### Watercraft

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Motorboat** | | | **Skill** | Watercraft | |
| A simple motorized boat used for fishing and short-range maritime transport. | | | | | |
| **Tech Level** | **Cost (KCr)** | **Agility** | | **Speed (km/h)** | **Range (km)** |
| 7 | 20 | +0 | | 60 | 400 |
| **Armor** | **Crew/Passengers** | **Cargo (tons)** | | **Weapons** | |
| Unarmored | 2/10 | 10 | | None; may mount 1 heavy weapon. | |
| **Features:** None. | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Patrol** **Boat** | | | **Skill** | Watercraft | |
| A light military vessel intended for littoral (near shore) service. | | | | | |
| **Tech Level** | **Cost (KCr)** | **Agility** | | **Speed (km/h)** | **Range (km)** |
| 7 | 100 | -1 | | 50 | 500 |
| **Armor** | **Crew/Passengers** | **Cargo (tons)** | | **Weapons** | |
| Light | 10/20 | 10 | | 2 Light Cannons; 4 GP Machineguns | |
| **Features:** None. | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Steamship** | | | **Skill** | Watercraft | |
| A low-tech maritime vessel using an external combustion engine. | | | | | |
| **Tech Level** | **Cost (KCr)** | **Agility** | | **Speed (km/h)** | **Range (km)** |
| 4 | 720 | -3 | | 20 | 3,000 |
| **Armor** | **Crew/Passengers** | **Cargo (tons)** | | **Weapons** | |
| Light | 5/10 | 50 | | None; may mount up to 3 heavy weapons | |
| **Features:** 15 cabins, galley. | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Submersible** | | | **Skill** | Watercraft | |
| A medium-sized commercial submarine. | | | | | |
| **Tech Level** | **Cost (KCr)** | **Agility** | | **Speed (km/h)** | **Range (km)** |
| 6 | 1700 | -3 | | 40 | 4,000 |
| **Armor** | **Crew/Passengers** | **Cargo (tons)** | | **Weapons** | |
| Unarmored | 5/10 | 30 | | None; may mount 2 Heavy weapons | |
| **Features:** 15 cabins, galley; sealed and pressurized. | | | | | |

### Aircraft

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Biplane** | | | **Skill** | Aircraft | |
| A primitive airplane with four wings. | | | | | |
| **Tech Level** | **Cost (KCr)** | **Agility** | | **Speed (km/h)** | **Range (km)** |
| 5 | 20 | +0 | | 100 | 400 |
| **Armor** | **Crew/Passengers** | **Cargo (tons)** | | **Weapons** | |
| Unarmored | 1/1 | 0.5 | | None; may mount one heavy weapon; may carry light bombs | |
| **Features:** short-range comms. | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Bomber** | | | **Skill** | Aircraft | |
| A low-tech military craft used for tactical and strategic bombing. | | | | | |
| **Tech Level** | **Cost (KCr)** | **Agility** | | **Speed (km/h)** | **Range (km)** |
| 6 | 1,000 | -2 | | 450 | 3300 |
| **Armor** | **Crew/Passengers** | **Cargo (tons)** | | **Weapons** | |
| Unarmored | 10/0 | 7.5 | | 5 GP machineguns; up to 7.5 tons of bombs | |
| **Features:** long-range comms; DM-2 attack penalty vs. propeller aircraft. | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Fighter, Propellor** | | | **Skill** | Aircraft | |
| A general-purpose low-tech military craft used for ground attack and interception duties. | | | | | |
| **Tech Level** | **Cost (KCr)** | **Agility** | | **Speed (km/h)** | **Range (km)** |
| 6 | 500 | +0 | | 600 | 750 |
| **Armor** | **Crew/Passengers** | **Cargo (tons)** | | **Weapons** | |
| Unarmored | 1/0 | 0.5 | | 2 GP machineguns, some might carry 1 Autocannon | |
| **Features:** long-range comms; no attack penalty vs. propeller aircraft. | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Fighter, Jet** | | | **Skill** | Aircraft | |
| A mid-tech, supersonic flight-capable fighter aircraft. | | | | | |
| **Tech Level** | **Cost (KCr)** | **Agility** | | **Speed (km/h)** | **Range (km)** |
| 7 | 10,000 | +1 | | 2500 | 1500 |
| **Armor** | **Crew/Passengers** | **Cargo (tons)** | | **Weapons** | |
| Unarmored | 1/0 | 1 | | 2 autocannons; 6 air-to-air missiles | |
| **Features:** orbital-range comms; no attack penalty vs. any aircraft. | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Helicopter** | | | **Skill** | Aircraft | |
| A rotor aircraft capable of vertical takeoff and landing. | | | | | |
| **Tech Level** | **Cost (KCr)** | **Agility** | | **Speed (km/h)** | **Range (km)** |
| 6 | 250 | -1 | | 100 | 1,000 |
| **Armor** | **Crew/Passengers** | **Cargo (tons)** | | **Weapons** | |
| Unarmored | 1/7 | 1 | | None; may mount 2 Heavy weapons | |
| **Features:** Autopilot available; long-range comms. | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Jet Liner** | | | **Skill** | Aircraft | |
| A medium sized commercial passenger aircraft. | | | | | |
| **Tech Level** | **Cost (KCr)** | **Agility** | | **Speed (km/h)** | **Range (km)** |
| 7 | 5,000 | -2 | | 1,000 | 10,000 |
| **Armor** | **Crew/Passengers** | **Cargo (tons)** | | **Weapons** | |
| Unarmored | 2/100 | 20 | | None | |
| **Features:** Autopilot available; orbital-range comms | | | | | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Jump Jet** | | | **Skill** | | Aircraft | |
| A commercial or paramilitary jet aircraft capable of vertical takeoff and landing. | | | | | | |
| **Tech Level** | **Cost (KCr)** | **Agility** | | **Speed (km/h)** | | **Range (km)** |
| 7 | 500 | +1 | | 600 | | 5,000 |
| **Armor** | **Crew/Passengers** | **Cargo (tons)** | | **Weapons** | | |
| Unarmored | 2/6 | 5 | | None; may mount one heavy weapon | | |
| **Features:** Autopilot available; orbital-range comms | | | | | | |

### Grav Vehicles

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Aircar** | | | **Skill** | Grav Vehicle | |
| A simple civilian gravitic car. | | | | | |
| **Tech Level** | **Cost (KCr)** | **Agility** | | **Speed (km/h)** | **Range (km)** |
| 10 | 150 | +1 | | 100 | Practically unlimited |
| **Armor** | **Crew/Passengers** | **Cargo (tons)** | | **Weapons** | |
| Unarmored | 1/4 | 0.2 | | None; may mount one heavy weapon | |
| **Features:** Autopilot available; long-range comms | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Grav Barge** | | | **Skill** | Grav Vehicle | |
| A commercial gravitic cargo transport | | | | | |
| **Tech Level** | **Cost (KCr)** | **Agility** | | **Speed (km/h)** | **Range (km)** |
| 10 | 500 | -1 | | 200 | Practically unlimited |
| **Armor** | **Crew/Passengers** | **Cargo (tons)** | | **Weapons** | |
| Unarmored | 1/1 | 50 | | None | |
| **Features:** Autopilot available; orbital-range comms | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Grav** **Belt** | | | **Skill** | Grav Vehicle | |
| A personal, wearable means of anti-gravity mobility. Its fusion battery can last for a week. | | | | | |
| **Tech Level** | **Cost (KCr)** | **Agility** | | **Speed (km/h)** | **Range (km)** |
| 12 | 100 | +2 | | 300 | 1 week of use |
| **Armor** | **Crew/Passengers** | **Cargo (tons)** | | **Weapons** | |
| Unarmored | 1/0 | Personal | | None | |
| **Features:** Autopilot available; long-range comms. | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Grav Carrier** | | | **Skill** | Grav Vehicle | |
| A military gravitic flight infantry carrier. | | | | | |
| **Tech Level** | **Cost (KCr)** | **Agility** | | **Speed (km/h)** | **Range (km)** |
| 10 | 1,000 | +1 | | 600 | Practically unlimited |
| **Armor** | **Crew/Passengers** | **Cargo (tons)** | | **Weapons** | |
| Light | 2/16 | 2 | | Light machine gun; may mount 2 more heavy weapons | |
| **Features:** Autopilot available; orbital-range comms, sealed and pressurized. | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Grav Disc** | | | **Skill** | Grav Vehicle | |
| A single-pilot, close-support grav vehicle, essentially a militarized, combat-ready version of the Speeder | | | | | |
| **Tech Level** | **Cost (KCr)** | **Agility** | | **Speed (km/h)** | **Range (km)** |
| 13 | 110 | +2 | | 400 | Practically unlimited |
| **Armor** | **Crew/Passengers** | **Cargo (tons)** | | **Weapons** | |
| Light | 1/0 | 0.05 | | 1 plasma gun | |
| **Features:** Autopilot available; orbital-range comms, sealed and pressurized. | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Grav Gunship** | | | **Skill** | Grav Vehicle | |
| An advanced military gravitic attack vehicle, also capable of transporting assault troops | | | | | |
| **Tech Level** | **Cost (KCr)** | **Agility** | | **Speed (km/h)** | **Range (km)** |
| 12 | 2,000 | +1 | | 1200 | Practically unlimited |
| **Armor** | **Crew/Passengers** | **Cargo (tons)** | | **Weapons** | |
| Heavy | 2/12 | 1 | | Fusion Cannon, 2 plasma guns | |
| **Features:** Autopilot available; orbital-range comms, sealed and pressurized. | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Grav Liner** | | | **Skill** | Grav Vehicle | |
| A commercial long-range passenger grav vehicle | | | | | |
| **Tech Level** | **Cost (KCr)** | **Agility** | | **Speed (km/h)** | **Range (km)** |
| 10 | 10,000 | +0 | | 1200 | Practically unlimited |
| **Armor** | **Crew/Passengers** | **Cargo (tons)** | | **Weapons** | |
| Unarmored | 2/100 | 20 | | None | |
| **Features:** Autopilot available; orbital-range comms. | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Grav** **Orb** | | | **Skill** | Grav Vehicle | |
| A translucent orb used for personal transportation on high-tech world. While it lacks the speed or sophisticated controls of the more advanced Grav Skiff, it offers affordable and accessible grav-flight. | | | | | |
| **Tech Level** | **Cost (KCr)** | **Agility** | | **Speed (km/h)** | **Range (km)** |
| 13 | 20 | +1 | | 100 | Practically unlimited |
| **Armor** | **Crew/Passengers** | **Cargo (tons)** | | **Weapons** | |
| Unarmored | 1/1 | 0.2 | | None | |
| **Features:** Autopilot available; long-range comms. | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Grav Skiff** | | | **Skill** | Grav Vehicle | |
| A larger, faster alternative to the Grav Orb, capable of carrying more passengers and cargo. A sealed, pressurized version costs KCr375 and can carry only two passengers along with its pilot. | | | | | |
| **Tech Level** | **Cost (KCr)** | **Agility** | | **Speed (km/h)** | **Range (km)** |
| 13 | 100 | +2 | | 200 | Practically unlimited |
| **Armor** | **Crew/Passengers** | **Cargo (tons)** | | **Weapons** | |
| None | 1/4 | 1 | | None | |
| **Features:** Autopilot available; long-range comms. | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Speeder** | | | **Skill** | Grav Vehicle | |
| A small supersonic grav vehicle. | | | | | |
| **Tech Level** | **Cost (KCr)** | **Agility** | | **Speed (km/h)** | **Range (km)** |
| 10 | 900 | +3 | | 2,000 | Practically unlimited |
| **Armor** | **Crew/Passengers** | **Cargo (tons)** | | **Weapons** | |
| Unarmored | 1/1 | 4 | | None | |
| **Features:** Autopilot available; orbital-range comms; sealed and pressurized. | | | | | |

**Example Vehicle Agility Modifiers**: note that for aircraft and grav vehicles, Agility is a function of both maneuverability and rate of climb, as both characteristics are important in Position rolls.

|  |  |
| --- | --- |
| **Vehicle Type** | **Agility** |
| Slow cargo boats, submersibles, the slowest of heavy vehicles | -3 |
| Tanks and other heavy tracked vehicles, heavy cargo aircraft | -2 |
| Trucks, light tracked vehicles, small civilian aircraft, | -1 |
| Small cars, maneuverable aircraft, grav cargo haulers | 0 |
| Fighter aircraft, Motorcycles, agile combat walkers, most grav vehicles | +1 |
| Advanced fighter aircraft, military grav interceptors | +2 |
| Grav speeders | +3 |

## Weapons

Interstellar adventurers face their adversaries with blades, bullets, and lasers. Here we present a few common and iconic weapons used by starfarers.

### Stat Explanations

**Tech Level (TL):** technological level, as noted above.

**Range:** Effective/Maximum range in meters. To attack with a ranged weapon within effective range throw Gun Combat/DEX or Heavy Weapon/DEX 8+; beyond effective range, throw Gun Combat/DEX or Heavy Weapon/DEX 10+.

**Damage:** damage caused by the weapon, expressed as d6s.

**Magazine:** The amount of ammunition the weapon holds. If the magazine requires additional time to reload, this is noted.

**Ammo Cost:** per magazine, in Credits.

**Cost:** The weapon’s cost, in Credits.

### Weapon Aspects

Weapons have Aspects describing any special characteristics, as noted on their table.

**Auto X:** These weapons fire multiple rounds with every pull of the trigger, filling the air with a hail of fire. A weapon with the Auto aspect can make attacks in three fire modes: single, burst, and full auto, as described in the Combat chapter.

**X AV Hits**: These weapons are useful for attacking armored vehicles.

**Blast X:** This weapon has an explosive component or is otherwise effective against all targets in its blast radius. The number given is the blast radius in meters. It is possible to avoid or minimize blast damage, see **Diving for Cover** in the Combat chapter.

**Bulky:** A Bulky weapon has powerful recoil or is simply extremely heavy. This makes it difficult to use effectively in combat by someone of a weak physical stature. Characters with STR 8 or less suffer DM-2 when using such weapons. Bipod and Tripod accessories (see below) remove the Bulky aspect, as long as the weapon is stationary and mounted on the bipod or tripod.

**Double Tap:** the weapon can be fired rapidly, but at a severe loss of accuracy. Itmay fire 2 bullets in one attack to gain DM+1 to damage.

**Fire:** On a successful hit, throw 6+ for the target to catch fire. A burning target takes 2D damage per combat round for 1D rounds, or until put out. See the Environmental Hazard Chapter for Fire effects.

**Laser:** At the Referee's discretion, atmospheric conditions, such as thick smoke, might incur a negative DM to laser fire.

**Scattergun:** Each attack fills the air with a hail of small projectiles, either flechettes or shot. Scatterguns cause 4D damage at Effective range or closer and attacks with scatterguns are made with DM+1. Anyone within 1.5m of the main target is also attacked by the scattergun effect, but at 2D damage. Beyond Effective range, scatterguns only inflict 2D damage and have no bonus to hit.

**Stun:** These weapons deal non-lethal damage and will incapacitate a living target instead of killing it. Damage is only deducted from Stamina, after considering any armor. If the target’s Stamina is reduced to 0, the target is incapacitated and unable to perform any actions for a number of rounds by which the damage exceeded his Stamina. Characters completely recover from Stun damage after one hour of rest.

**Throwable:** these weaponsmay be thrown; effective range equals to five times the thrower’s STR; maximum range equals STRx10.

**Two-Handed:** this melee weapon requires both hands to wield. However, all rifle-sized weapons must be wielded with two hands.

**Zero-G:** the weapon does not suffer a penalty for firing a weapon in zero-g conditions. Lasers automatically have the Zero-G Aspect.

### Melee Weapons

The following weapons use the Melee Combat skill. Melee weapons cannot harm vehicles except in special cases, which are left to the Referee’s discretion.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Weapon** | **TL** | **Cost** | **Dmg** | **Aspects** |
| Axe | 0 | Cr25 | 2D | Throwable |
| Broadsword or Great-Axe | 2 | Cr300 | 4D | Bulky, Two-Handed |
| Cudgel | 0 | Cr10 | 2D |  |
| Cutlass | 3 | Cr100 | 3D |  |
| Dagger | 0 | Cr10 | 1D | Throwable |
| Machete | 3 | Cr50 | 2D |  |
| Neural Whip | 13 | Cr500 | 1D | Stun |
| Shield | 0 | Cr20 | 1D |  |
| Spear | 0 | Cr15 | 3D | Throwable |
| Staff | 0 | Cr10 | 2D | Two-Handed |
| Stun Prod | 8 | Cr300 | 2D | Stun |
| Sword | 1 | Cr150 | 3D |  |
| Unarmed attack | - | - | STR DM |  |
| Vibro-Blade | 13 | Cr500 | 4D |  |

**Axe (TL0):** a one-handed axe made from metal or stone, anything from a stone-age tool through a medieval war axe to a modern fire axe.

**Broadsword (TL2)**: a large two-handed sword, counts as 2 “Items” for encumbrance purposes. A two-handed **Great-Axe** uses the same stats.

**Cudgel (TL0):** a large club or mace.

**Cutlass (TL3):** A short, broad slashing sword with a slightly curved blade and basket-guard hilt. Traditionally used by marines and pirates.

**Dagger (TL0):** a straight, short knife. When wielding a Dagger, a character may use both actions in a combat round to attack.

**Machete (TL3):** A simple yet sturdy broad blade used for cutting foliage and foes alike.

**Neural Whip (TL13):** Consists of a stocky handle connected to a flexible strap. Each stroke by this weapon causes stun damage as above. However, it has two additional vicious effects. First, any target hit by a neural whip must throw END 10+ or fall to the ground suffering from nightmarish pain and be incapacitated for 2D6 combat rounds. Second, in addition to the stun damage, the neural whip causes 1D physical damage per hit.

**Shield (TL0):** A personal shield, with which characters can bash enemies for 1D damage. Anyone carrying a shield penalizes enemies by DM-1 when they attack. If a shield is used with the Overwatch action in combat, the attack is penalized by DM-2.

**Spear (TL0):** from a sharpened shaft to a metal-tipped spear, this is a basic, yet effective, melee weapon.

**Staff (TL0):** A long wooden shaft, sometimes with metal fittings, used with two hands.

**Stun Prod (TL8):** A high-tech riot weapon augmenting the baton's blunt force with an electric charge capable of stunning opponents.

**Sword (TL1):** one of any variety of medium-sized one-handed swords, from gladius (shortsword) to longsword and rapier.

**Vibroblade (TL12):** An intermediate-sized bladed weapon using hypersonic micro-vibrations of the blade to create a potent cutting force.

**A note on unarmed damage:** any character can inflict at least 1 point of unarmed damage (before armor) even if their STR DM is 0 or lower.

### Common Ranged Weapons

The following weapons use the Gun Combat skill. Unless otherwise noted, consider them as Small Arms against vehicle armor.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Projectile Weapons** | | | | | | | |
| **Weapon** | **TL** | **Cost** | **Range** | **Dmg** | **Mag** | **Ammo**  **Cost** | **Aspects** |
| Gyrojet Rifle | 9 | Cr900 | 100/400 | 3D | 20 | Cr15 | Auto 2, Zero-G |
| Gyrojet Pistol | 9 | Cr400 | 10/20 | 2D | 8 | Cr10 | Zero-G, Double Tap |
| Pulse Rifle | 9 | Cr1,000 | 200/400 | 3D | 40 | Cr30 | Auto 3 |
| Assault Rifle | 7 | Cr300 | 50/200 | 3D | 30 | Cr15 | Auto 2 |
| Autopistol | 5 | Cr150 | 10/50 | 2D | 16 | Cr7 | Double Tap |
| Stealth Pistol | 8 | Cr500 | 5/20 | 2D | 6 | Cr20 | Double Tap |
| Bow | 0 | Cr60 | 300/600 | 2D | 1 | Cr10 |  |
| Carbine | 5 | Cr250 | 50/200 | 3D | 10 | Cr12 | Double Tap |
| Crossbow | 2 | Cr75 | 300/600 | 3D | 10 | Cr1 |  |
| Gauss Pistol | 12 | Cr1,000 | 20/100 | 3D | 30 | Cr30 | Auto 2 |
| Gauss Rifle | 12 | Cr1,500 | 300/600 | 4D | 100 | Cr40 | Auto 4 |
| Light Machinegun | 7 | Cr1,200 | 100/300 | 3D | 100 | Cr125 | Auto 4, Bulky |
| Revolver | 4 | Cr150 | 10/50 | 2D | 6 | Cr5 |  |
| Rifle | 5 | Cr500 | 200/400 | 3D | 10 | Cr15 |  |
| Shotgun | 4 | Cr200 | 20/40 | 4D | 6 | Cr10 | Scattergun |
| Submachinegun | 5 | Cr500 | 30/100 | 2D | 30 | Cr20 | Auto 3 |
| Tangler | 12 | Cr750 | 30/90 | - | 1 | Cr100 |  |

**Assault Rifle (TL7):** Standard military arm on mid-tech worlds. An automatic rifle that fires an intermediate caliber. At the Referee's discretion, its ammunition, or even magazines, may be interchangeable with those of a Carbine.

**Autopistol (TL5):** Semi-automatic handgun fed from a magazine.

**Bows and Crossbows (TL0 and 2, respectively)**: muscle-powered ranged weapons. Ammunition for a **Bow** is held in a quiver of 20 arrows, which counts as one encumbrance item. A **Bow** may fire once a round; a **Crossbow** requires 2 actions to reload; a quiver holds 20 crossbow quarrels and counts as one encumbrance item.

**Carbine (TL5):** military longarm that uses a smaller caliber than a full-scale rifle. Carbines are lighter and shorter than rifles, and are often employed as survival weapons.

**Gauss Pistol and Rifle (TL12):** These weapons accelerate small metal spikes to supersonic velocities. Though the principles behind their function have been understood since the early industrial age, Gauss weapons are typically beyond the manufacturing capabilities of frontier worlds. They do appear, from time to time, in the hands of well-equipped mercenary forces.

**Gyrojet (TL8):** Designed for use in zero-G environment, the gyroget rifle fires self-propelled rocket rounds. It has minimal recoil and works perfectly in hard vacuum. The Gyrojet Pistol uses the same rounds as its larger cousin, but is used as a sidearm.

**Light Machine Gun (TL7):** Standard mid-tech squad-level support automatic weapon, typically belt-fed. Considered as two items for encumbrance purposes.

**Pulse Rifle (TL9):** An advanced rifle firing electrically ignited, caseless, high explosive, armor-piercing rounds. Provides a high rate of fire and a large magazine capacity.

**Revolver (TL4):** Simple semi-automatic pistol using a manually loaded rotating drum to feed the bullets. A reliable weapon.

**Rifle (TL5):** a standard military firearm on low-tech worlds that uses a large caliber projectile. At higher TLs, up to and including TL9, such weapons often serve as dedicated sniper rifles.

**Shotgun (TL4):** Scattergun firing a "shot" palette capable of hitting multiple targets at once. These particulate stats represent a pump-action weapon with an internal magazine.

**Stealth Pistol (TL8):** This is an especially light, discreet, and concealable weapon made from advanced polymers. A concealed body pistol can also be disguised as a number of more innocuous items, like comms, digital recorders, and so on.

**Submachinegun (TL5):** Light automatic weapon that fires pistol rounds. Submachinegun bullets are interchangeable with those of the autopistol; at the Referee's discretion, so are the magazines.

**Tangler (TL12):** A stubby, tube-like weapon using a gravitic launch system to deliver a capsule to its target. On a hit, the capsule erupts into a mass of adhesive tentacle-like strands, entangling the target creature and any other creature within a 5m radius. Any creature caught in the strands must roll STR 12+ to break out. The Tangler Gun creates enough strands to entangle a creature up to 500kg in weight; larger creatures are unaffected. On a failed roll, the target is immobilized and cannot act; they may attempt to free themselves each minute (10 combat rounds). Other characters can also cut entangled targets free using edged weapons. The Tangler comes with solvent capsules – which the weapon itself can launch as projectiles – which dissolve the tangling strands holding captives. Tangler strands hit with a solvent capsule will dissolve in one minute.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Energy Weapons** | | | | | | | |
| **Weapon** | **TL** | **Cost** | **Range** | **Dmg** | **Mag** | **Ammo**  **Cost** | **Aspects** |
| Blaster Pistol | 13 | Cr5,000 | 50/200 | 4D | 20 | Cr100 | Laser, Double Tap |
| Blaster Rifle | 13 | Cr10,000 | 200/400 | 5D | 50 | Cr500 | Auto 3, Laser |
| Laser Pistol | 10 | Cr1,500 | 50/200 | 3D | 10 | Cr500 | Double Tap, Laser |
| Laser Rifle | 9 | Cr3,500 | 300/500 | 5D | 30 | Cr1,500 | Double Tap, Laser |
| Plasma Rifle | 16 | Cr15,000 | 150/300 | 6D | 10 | Cr500 | Fire |
| Stunner | 10 | Cr600 | 10/30 | 3D | 10 | Cr10 | Stun, Zero-G |

**Blasters (TL13):** are advanced laser weapons with a compact, internal battery, which is also removable and rechargeable.

**Laser Pistol (TL10):** Handgun-sized directed energy weapon attached to a belt-mounted power pack. The pistol and its power pack are considered one item together. The powerpack is rechargeable from any major power source, such as a ship’s powerplant.

**Laser Rifle (TL9):** Heavier version of the laser carbine, with better armor penetration, range, and even anti-vehicular capabilities. Requires a rechargeable heavy backpack power unit, which counts as a separate item. It is rechargeable from any major power source, such as a ship’s power plant.

Note that **laser weapons** suffer DM-1 to hit when used in environments with a great deal of particulates in the air, like sand, or ash. In these conditions, their ranges are reduced by half as well.

**Plasma Rifle (TL16):** The ultimate small arm, using miniaturized plasma gun technology to propel magnetically shaped pockets of super-hot plasma at its targets.

**Stunner (TL10):** Firing a precise electromagnetic pulse, this non-lethal weapon disrupts the target's neural processes, leading to stun and potentially unconsciousness.

### Common Small Arm Accessories

The following accessories are commonly available for ranged weapons.

You may attach a **Bayonet (TL2),** identical to a dagger in its game statistics on its own, to any rifle-sized weapon. A rifle with a bayonet serves as a melee weapon equivalent to a Spear (3D damage).

**Laser Sight (TL7):** the bonus for Aimed Shots increases to DM+2, but only within Effective range. The DM+3 limit on aimed shot bonuses to hit is still in effect. Cr100.

**Scope (TL6):** the weapon avoids the penalty for firing beyond effective range, as long as the character used the Aimed Shot action before firing. Maximum range still applies. Cr200.

**Silencer (TL6):** May be attached to any firearm. Silencers work for single shots, and short bursts, but never Full Auto attacks. Silencers provide a DM-4 to hear the gunshot sound. Cr250.

**Smart Weapon (TL10):** connects to a HUD or an implanted OmniComp. Grants DM+1 to all attacks. The Smart Weapon bonus is not cumulative with laser sights. This means that after one Combat Action aiming, the character can fire at DM+3. The DM+3 limit on aiming bonuses still applies. Cr1,000.

All Heavy weapons can be mounted on a **Tripod** (TL4), which negates their Bulky aspect. The weapon cannot be moved while mounted on a tripod. Tripods take 10 combat rounds (one minute) to set up. Cr100.

### Common Heavy Weapons

The following weapons use the Heavy Weapons skill. All heavy weapons are considered 3 items each for encumbrance purposes. Ammunition belts, magazines, and individual rockets are each considered one item for encumbrance purposes.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Weapon** | **TL** | **Cost** | **Range** | **Dmg** | **Mag** | **Ammo**  **Cost** | **Aspects** |
| Disposable Anti-Vehicle Rocket | 7 | Cr200 | 50/200 | 5D | 1 | - | Blast 1, Bulky, 2 AV hits |
| Flamethrower | 6 | Cr1,000 | 5/20 | 3D | 5 | Cr25 | Bulky, Fire |
| Fusion Gun | 14 | Cr100,000 | 300/600 | 12D | - | Cr65,000 | Bulky, Fire, 4 AV hits |
| GP Machinegun | 5 | Cr1,500 | 200/400 | 3D | 100 | Cr150 | Auto 4, Bulky |
| Grav Launcher | 13 | Cr20,000 | 500/1000 | 10D | 1 | Cr100 | Blast 5, Bulky, Fire |
| Grenade Launcher | 7 | Cr400 | 100/500 | By grenade | 6 | - | Bulky |
| Guided Anti-Tank Missile | 7 | Cr4000 | 200/600 | 5D | 1 | Cr200 | Blast 1, 2 AV hits |
| Light Assault Gun | 8 | Cr600 | 100/300 | 5D | 5 | Cr30 | Bulky, 2 AV hits |
| Plasma Gun | 12 | Cr20,000 | 200/500 | 10D | 40 | Cr2,500 | Bulky, Fire, 3 AV hits |
| Rocket Launcher | 6 | Cr2,000 | 50/200 | 5D | 1 | Cr150 | Blast 6, Bulky, 1 AV hit |
| Support Laser | 9 | Cr5,000 | 100/400 | 6D | 100 | Cr2,000 | Bulky, 2 AV hits |
| Under-barrel Grenade Launcher | 7 | Cr1,000 | 50/200 | By grenade | 1 | - |  |

**Disposable Anti-Vehicle Rocket (TL7):** A cheap, one-use, portable rocket launcher. Functions as an armor-piercing rocket, with 2 AV hits against vehicles.

**Flamethrower (TL6):** Spews a stream of fire 3m wide at its far end. All targets within this cone suffer damage and catch fire. The tank for the flamethrower holds enough fuel for five full attacks and counts as two items for encumbrance.

**Fusion Gun (TL14):** The advanced development of the plasma gun. This weapon fires plasma bolts undergoing microfusion for massive damage. It uses a back-mounted micro-fusion reactor and thus, for game purposes, has unlimited ammunition. The ammo cost in this case represents purchasing such a backpack. Note that the backpack and gun constitute 4 items in total for encumbrance.

**GP Machinegun (TL6):** A “General Purpose" belt-fed medium machinegun. Often carried on vehicles as a heavy weapon but is also man portable.

**Grav Launcher:** Advanced micro-gravitic technology allows this weapon to guide a floating plasma bomb to its target without having to account for ballistic trajectories or inertia. Once launched, the bomb travels 50m per combat round. Its operator can move it in any direction and can also stop it and have it hover in mid-air. Detonation is on command. The bomb's internal battery allows for 10 rounds of gravitic flight.

**Grenade Launcher (TL7):** Grenade launchers fire grenades over long distances. Grenades for a grenade launcher are not interchangeable with handheld grenades.

**Grenade Launcher, Under-Barrel (TL7)**: this weapon greatly increases the firepower of infantry. The under-barrel grenade launcher can be mounted under most two-handed firearms at TL7 or higher. It is not Bulky and can fire a single grenade before reloading. At TL10+, the weapon has a 3-shot magazine.

**Guided Anti-Tank Missile (TL7)**: this is a portable guided missile system, like the AT-3 Sagger, or present-day Javelin or Eryx. These weapons must be fired from a fixed stationary position. However, the gunner need not be adjacent to the missile’s firing position.

**Light Assault Gun (TL8):** Heavy anti-vehicle rifle firing large armor-piercing shells.

**Plasma Gun (TL12):** High-energy anti-vehicular man-portable weapon firing magnetically contained plasma bolts. It requires a back-mounted, rechargeable power pack counting as two Items for encumbrance purposes.

**Rocket Launcher (TL6):** Man-portable rocket launcher utilizing unguided munitions. Rocket launchers are unsafe to use in enclosed spaces. Rocket payloads are considered high explosive and are not particularly effective against armored vehicles. Armor piercing rockets cost Cr500 per rocket: trade Blast 6 for 2 AV hits, Blast 1. An anti-aircraft homing missile (2 AV hits) costs Cr10000 and does not suffer a penalty when firing at fast-moving air vehicles.

**Support Laser (TL8):** Heavy directed-energy man-portable weapon for fire support and light anti-vehicular duties. Its back-mounted power pack counts as two Items for encumbrance purposes.

### Grenades and Explosives

Throw Athletics/DEX 8+ to accurately throw a hand grenade within effective range, or Heavy Weapons/DEX 8+ to accurately launch a grenade from a launcher. The Effective range for thrown grenades is equal to five times the character’s STR. Maximum range for thrown grenades is STRx10.

On a failed grenade attack, thrown grenades will deviate 2D6 + (the margin of failure) meters from its intended target, double that for grenades fired from a launcher. Beyond Effective range a thrown grenade automatically deviates 2D6 – (Effect) meters, regardless of the result of the attack throw.

Throw Demolitions/EDU 8+ to properly set up an explosive charge for simple demolition, or Demolitions/EDU 10+ or greater for more complex jobs, such as setting a directional shaped charge explosive.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Grenade or Explosive** | **TL** | **Cost** | **Dmg** | **Aspects** |
| Dynamite | 4 | Cr75 | 3D | Blast 1D |
| EMP | 8 | Cr50 | 4D | Blast 5, Stun (Machines), Heavy: 2 AV hits |
| Flashbang | 7 | Cr30 | 3D | Blast 10, Stun |
| Fragmentation | 5 | Cr30 | 3D | Blast 5 |
| HEAP | 7 | Cr50 | 5D | Blast 1, Heavy: 1 AV hit. |
| Incendiary | 6 | Cr30 | 3D | Blast 3, Fire |
| Molotov Cocktail | 4 | Cr5 | 2D | Blast 2, Fire |
| Plasma | 13 | Cr250 | 5D | Blast 5, Fire, Heavy: 2 AV hits |
| Plastique | 6 | Cr200 | 6D | Blast 10 |
| Smoke | 6 | Cr15 | - | Blast 10 (smoke) |

**Dynamite (TL4):** Low-tech explosive made of nitroglycerin, sorbents (such as powdered shells or clay) and stabilizers. Used for demolition but can also be thrown with a lit fuse as a "grenade".

**EMP Grenade (TL8):** Electro-Magnetic Pulse grenade emitting a powerful magnetic pulse capable of disrupting electronics but harmless to organic beings. It causes full damage to robots. Characters with implanted cybernetics are vulnerable to EMP but only take half stun damage (rounded up) from it. Non-cybered organic beings are immune to this stun damage. This grenade counts as a heavy weapon (2 AV hits) for the purposes of damaging TL7+ vehicles.

**Flashbang Grenade (TL7):** Non-lethal stun grenade emitting a powerful flash and deafening noise upon detonation.

**Fragmentation Grenade (TL5):** Basic anti-personnel hand grenade exploding into a hail of shrapnel.

**HEAP Grenade (TL7):** High Explosive Armor-Piercing anti-tank grenade using a focused blast to penetrate armor. This grenade can only be fired from a launcher and counts as a heavy weapon (1 AV hit) for purposes of damaging vehicles.

**Molotov Cocktail (TL4):** Home-made incendiary bomb commonly made from a glass container filled with highly flammable liquid and lit with a fuse.

**Incendiary Grenade (TL6):** Military-grade fire-bomb grenade.

**Plasma Grenade (TL13):** A plasma explosive device in a grenade-sized package. This grenade counts as a heavy weapon for damaging vehicles (2 AV hits).

**Plastique (TL6)**: This generic, multi-purpose plastic explosive is a favorite of military units, terrorists, demolition teams and adventurers across known space.

**Smoke** **Grenade (TL6):** Deploys a cloud of thick smoke upon impact. Apply DM-1 to all attacks passing through its Blast radius. They also apply a further DM-1 to laser weapons. The smoke stays in the air for 1D combat rounds.

### Gunnery Weapons

The following weapons require a vehicular or fixed tripod mount. They use the Gunnery skill. Consider them as Gunnery Weapons when fired against vehicle armor.

AV Hits represents the number of rolls on the Surface Damage or Internal Damage tables if the weapon penetrates the target. If the weapon causes Critical Damage, roll only once on the Critical Damage table, regardless of how many AV Hits the weapon usually causes.

Direct hits on personnel with Gunnery Weapons are **automatically lethal**, unless the target is wearing TL13 powered armor, in which case, they take the Personal Damage listed here, normally. If the character is in the blast radius of a Gunnery Weapon, apply the Personal Damage normally, and see the rules on **Diving for Cover** in the Personal Combat chapter to maximize chances of survivability.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Gunnery Weapon** | **TL** | **Cost** | **Range** | **AV Hits** | **Personal Damage** | **Aspects** |
| Air-to-Air Missile | 7 | KCr50/each | 2,000/4,000 | 3 | 4D |  |
| Anti-Tank Missile System | 7 | KCr15 | 500/2,000 | 4 | 6D | Blast 3 |
| Autocannon | 6 | KCr50 | 750/1,500 | 1 | 4D | Auto 2, Blast 1 |
| Cannon, Light | 5 | KCr30 | 500/1,000 | 1 | 4D | Blast 2 |
| Cannon, Heavy | 6 | KCr60 | 750/1,500 | 2 | 5D | Blast 5 |
| Cannon, Advanced | 8 | KCr120 | 750/1,500 | 3 | 5D | Blast 5 |
| Fusion Gun | 13 | KCr2,500 | 3,000/6,000 | 6 | 10D | Blast 8, Fire |
| Laser Cannon | 8 | KCr150 | 1,500/3,000 | 3 | 6D | Laser |
| Laser Cannon, Advanced | 9 | KCr100 | 1,500/3,000 | 4 | 6D | Laser |
| Plasma Cannon | 11 | KCr750 | 750/1,500 | 5 | 10D | Blast 5, Fire |
| Railgun | 10 | KCr75 | 2,000/4,000 | 3 | 8D | Blast 3 |

**Air-to-Air Missile (TL7):** this is a radar-guided or heat-seeking missile designed for use in air-to-air combat. TL8+ versions are self-guided suicide drones. These missiles can represent large surface-to-air missile installations as well.

**Anti-Tank Missile System (TL7):** A larger, vehicle or fixed-mount version of the guided missile heavy weapon, like the modern TOW or Hellfire missile. These missiles are very effective against slower armored vehicles.

**Autocannon (TL 6):** a rapid-fire cannon in the 20mm-30mm caliber range that is usually found mounted on aircraft and light vehicles. This weapon usually has enough ammunition for 10-20 short bursts.

**Cannon, Light (TL5):** a vehicle-mounted or towed gun in the 40-70mm caliber range, like the guns mounted on early Second World War tanks. They usually have between 40 and 100 shells in their magazine.

**Cannon, Heavy (TL6):** this large vehicle-mounted cannon is the main weapon of modern tank designs. This also represents field guns and light indirect artillery.

**Cannon, Advanced (TL8):** the final evolution of chemically-ignited direct fire heavy guns. Each projectile is an advanced charge that can be set to detonate in the air, upon contact, or designed to self-forge into an armor-piercing penetrator.

**Fusion Gun (TL13):** a large and bulky high-energy weapon that fires magnetically shaped bolts of plasma undergoing nuclear fusion. This weapon is powered by its own fusion reactor and thus has effectively unlimited ammunition.

**Laser Cannon (TL8):** the first battlefield energy weapon. This laser is more costly than an advanced cannon but has twice the effective range. Unfortunately for its operators, laser cannons suffer a DM-1 to hit when there is a large amount of particulates in the air.

**Laser Cannon, Advanced (TL9):** a fully developed, and thus cheaper, battlefield vehicle laser. It is still affected by particulates like all lasers.

**Plasma Cannon (TL 11):** The earliest high-energy weapon on the battlefield. The plasma cannon fires magnetically shaped plasma bolts that release enormous amounts of heat on the target. They are not long-ranged vehicle weapons.

**Railgun (TL 10):** an answer to newly developed laser cannon technology, the railgun fires a slug of nickel-alloy at hypersonic velocities. The weapon is cheap and has a very long range.

# Environmental Hazards

Not all threats carry weapons. Starfarers must contend with disease, radiation, and extreme environments when exploring distant stars. This chapter provides simple rules for implementing these hazards in your game.

## Disease and Poison

When a character is exposed to a disease or poison, they must make an Endurance throw. The target is the pathogen’s Virulence number. If successful, the character shrugs off the effect. If the throw is failed, the disease damages the character’s Stamina according to the listed damage. The infected character must repeat this throw after the pathogen’s listed interval. Success means recovery and failure causes the listed damage, again. If this damage reduces the character’s Stamina to zero, additional damage applies to Lifeblood. The character cannot heal any damage until they recover from the illness or poisoning. Note that most poisons do not have an interval, but rather cause their damage immediately upon poisoning and only once.

**Sample pathogens**

|  |  |  |  |
| --- | --- | --- | --- |
| **Pathogen** | **Virulence (END throw)** | **Damage** | **Interval** |
| Pneumonia | 6+ | 1D | 1D weeks |
| Anthrax | 9+ | 1D | 1D days |
| Biological Weapon | 12+ | 3D | 1D hours |
| Arsenic | 8+ | 2D | - |
| Tranq Gas | 10+ | Unconscious | - |

## Extreme Temperatures

Extreme environments damage unprotected characters, as noted in the table below.

|  |  |  |
| --- | --- | --- |
| **Temperature** | **Damage** | **Example** |
| -100° or less | 1D/round | Deep space |
| -50° | 2D/hour | Mars |
| -25° | 1D/hour | Arctic |
| -10° to 40° | None | Typical Terra |
| 50° | 1D/hour | Searing desert |
| 100° | 2D/hour | Boiling point |
| 200° or more | 1D/round | Mercury |

## Fire

When exposed to fire, characters must throw DEX 8+ to avoid catching fire. A burning character takes 1D damage per round. Make another DEX 8+ throw each subsequent round; if successful, the character puts out the fire. If failed, the character suffers another 2D damage. Putting out the fire by other means, such as an extinguisher, also stops this continuous damage. Note that space suits, encased armor, and powered armor render their wearers immune to fire damage.

## Falling

A character suffers 1D damage per 2m fallen, up to 6D at terminal velocity. Multiply this damage by the world’s gravity rating in Gs. For example, falling 10 meters on a world with 0.45Gs would inflict 5D damage, which is then multiplied by 0.45 for the actual damage result – 2.5D rounded up to 3D.

## Radiation

A character exposed to radiation accumulates rads. Unless treated with anti-radiation medication, this radiation exposure remains forever. Even after a character has recovered from radiation sickness (see below), accumulated radiation remains. Additional significant exposure will cause more severe sickness as any new exposure accumulates with all previous exposures before determining damage.

**Radiation Exposure Levels**

|  |  |  |  |
| --- | --- | --- | --- |
| **Source** | **Instant (rads)** | **Extended (rads)** | **Example** |
| Constant, low | - | 1D/hour | Cosmic radiation |
| Constant, moderate | - | 1Dx10/hour | Nuclear fallout |
| Constant, severe | - | 1Dx100/hour | Solar flare |
| Acute, low | 3D | - | Far nuclear blast |
| Acute, moderate | 1Dx10 | - | Particle Weapon |
| Acute, severe | 1Dx100 | - | Near nuclear blast |

Exposure to radiation might lead to radiation sickness, depending on the amount of rads the character has accumulated. Use the disease and poison rules, in conjunction with the table below.

Radiation Sickness.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Irradiation** | **Total rads** | **END Throw** | **Damage** | **Interval** |
| Mild | 99 or less | None | None | None |
| Low | 100-199 | 5+ | 1D | 1D weeks |
| Moderate | 200-599 | 6+ | 1D | 2D days |
| High | 600-999 | 7+ | 2D | 1D days |
| Severe | 1,000-10,000 | 8+ | 3D | 1D hours |
| Extreme | 10,000 or more | 12+ | 6D | 1 hour |

## Starvation and Dehydration

A character requires two liters of water and 0.5kg of food per day to stay healthy. Special high-tech rations (TL8+) are a lightweight, though unappetizing substitute for food.

A character may go without water for 20 hours + twice their END score with no ill effect. After that time has passed, the character must throw END 6+ per hour without water or suffer 1D damage. There is a cumulative DM-1 with each additional check.

A character may go without food for 3 days. After that, the character must throw END 6+ per day without food or suffer 1D damage. There is a cumulative DM-1 with each additional check.

The character can recover this damage only after drinking and eating.

## Suffocation

In cases of insufficient oxygen, such as on a ship with failing life support, characters suffer 1D damage per minute. If the character has no access to any oxygen whatsoever, like when a character is being strangled, or has been sucked out into space, the damage is 1D per round instead.

## Vacuum Exposure

Contrary to popular belief, vacuum does not kill immediately. A character exposed to vacuum suffers regular suffocation damage (above). While exposed to space they also suffer 3Dx10 rads of radiation per round. Additionally, beginning from the third round of vacuum exposure, the character must throw END 10+ per round or fall unconscious from aeroembolisms – the formation of air bubbles in their blood stream.

# Personal and Vehicle Combat

Spacers and adventurers often run into trouble among the stars. Hopefully, they’ll be able to talk and negotiate their way out of problems. However, in many cases they will have to fight, be that for a cause, goal, or for survival. The following rules allow quick resolution of combats.

See the weapon descriptions in the Equipment chapter for various special Weapon Aspects and how to use them with these rules.

## Combat Procedure Outline

1. Check for surprise. If one party surprises the other, they gain one free combat round during which the surprised party cannot act.
2. Determine Initiative for all combatants.
3. Start the combat round.
   1. Combatants act in Initiative order (highest first).
   2. On their turn, each character has two actions. They may use them for attacks, movement, and other actions. Apply any damage inflicted by an attack immediately.
   3. Once the combat round is over, begin a new round, until the battle is over.
4. If necessary – triage and treat the wounded.

## Combat Rounds

Combat takes place in 6-second segments called Combat Rounds. Characters act in descending initiative order, as discussed below, in each combat round – unless they are surprised or otherwise unable to act.

## Surprise

Characters may surprise other parties or be surprised by them. A good tactician or a keen-eyed recon specialist can lay a good ambush or avoid one.

In situations where surprise is possible, each party throws Recon/INT 10+ or Stealth/DEX 10+. If one party succeeds and the other fails, the winner gains surprise. If both sides succeed or both fail, there is no surprise. A party deliberately setting up an ambush gains DM+2 to surprise rolls: ambushes require advanced knowledge of an approaching enemy, which is beyond the scope of the combat rules. Groups in vehicles, or groups of eight or more characters, suffer DM-2 to surprise rolls. Note that the DM-3 unskilled penalty applies here; if no one in a party has the Recon or Stealth skills, the party throws 2D-3 (modified by the higher between their INT and DEX DMs) for surprise.

Surprise grants a free combat round during which the surprising party may act, but the surprised party may not.

## Initiative

Once fighting begins, each combatant throws 2D + their Tactics skill (if any) + their INT DM. Record these rolls. In each combat round, characters act from the highest initiative score to the lowest. Note that the DM-3 unskilled penalty applies here; characters unskilled in Tactics throw 2D-3 + INT DM for initiative.

A character with Leadership may throw Leadership/INT 8+ at the beginning of combat; if successful, any characters in their parties may apply the throw’s Effect as a skill bonus to initiative. Combatants may only benefit once from this effect. If multiple characters with the Leadership skill are present, only the one with the highest Leadership skill may roll.

### Optional Rule: Simultaneous Combat

As an alternative to initiative-based combat, some groups prefer simultaneous combat. First, resolve any surprise/ambush opportunities. In all subsequent combat rounds, use the following rules:

**First** resolve all melee attacks and movement; they all occur simultaneously and cause damage simultaneously. For example, a character who succeeded in a melee attack and was then incapacitated by another melee attack will still cause damage to their target. Actions are *declared* in reverse DEX order: the lower DEX combatants must declare their actions first. This gives a minor advantage to characters with faster reflexes.

**Second**, after resolving all melee attacks, movement, and damage, resolve all ranged attacks, their damage, and non-movement actions in the same manner.

Note that this makes combat more dangerous and less predictable. It also provides an intentional advantage to melee combat to make it worthwhile to develop and use in a battlefield dominated by guns – to allow for cutlass-wielding cyborg pirates and similar characters!

## Actions and Attacks

Each character has two actions in their turn. Characters may use an action as follows:

**Attack:** attack as described below.

**Charge:** run to a single enemy at a range of up to 20m and make a melee attack at DM+2. Characters on Overwatch (see below) being charged at can, of course, react and attack the charging enemy. Characters not on Overwatch also gain a free attack against a charging enemy, but at DM-2.

**Inspire:** throw Leadership/INT 8+ to add DM+2 to any single character’s next throw.

**Move:** move up to 10m. Alternatively, fall prone or get up from a prone position.

**Overwatch:** delay your action until an enemy moves through your line of sight or attacks you. When this happens, you may immediately act, regardless of initiative order. You may hold your Overwatch for a number of rounds equal to your END score.

**Other** **Typical Actions include** it is impossible to list all potential character actions. Instead, here are a few that can serve as guidelines to assist Referees in determining whether or not whatever the player wants to do is an action or would require more or less time.

|  |  |
| --- | --- |
| Drawing and readying a weapon Loading a weapon Forcing open a locked door Operating sensors | Calling an artillery strike Trying to bypass a lock to open a bulkhead door Piloting a vehicle through difficult terrain Performing a stunt in a vehicle |

## Melee Attacks

To hit in melee (hand-to-hand combat), throw Melee Combat/STR 8+. You may not attack in melee with a longarm (such as a rifle) unless you use it as a cudgel (2D damage) or as a spear (3D damage with a bayonet). You may attack with a handgun (including shotguns and submachineguns) in melee at DM-2 to hit. Note that if a shield is used with the Overwatch action in combat, the wielder is treated as having partial cover, as noted below. This gives an enemy DM-2 to hit the shielded character in melee.

### Frenzy

A character with at least Melee Combat-1 who either kills or disables an enemy in melee combat may move 2m and immediately attack an adjacent enemy. Characters may do so in the same combat action for a number of times equal to their Melee Combat skill.

## Ranged Combat

To hit a target in your weapon’s Effective range, throw Gun Combat/DEX or Heavy Weapons/DEX (as appropriate) 8+. Beyond Effective range, throw 10+ instead out to maximum range.

Hitting an obscured target (such as behind bushes) is penalized by DM-1; when attacking a target behind hard cover, the penalty is DM-2; and for heavy prepared cover, such as a bunker, attacks are penalized by DM-3.

Attacks on a prone character in ranged combat are penalized by DM-2; attacking a prone character behind cover uses that cover DM instead, with an additional DM-1.

However, if a character enjoys a total cover DM of -4 or more, they themselves cannot make any direct fire ranged attacks. They are completely blocked by their cover. They may still attack, and be attacked, by means of indirect weapons like grenades.

Shooting in darkness incurs DM-2 to hit, while shooting in dim light incurs DM-1 to hit. These penalties can be alleviated by various night vision devices.

**Ranged Combat DM Table**

|  |  |
| --- | --- |
| **Condition** | **DM** |
| Target obscured (smoke, foliage) | DM-1 |
| Target behind hard cover | DM-2 |
| Target in heavy cover | DM-3 |
| Target running (double move on its previous round) | DM-1 |
| Target behind total cover | DM-4; direct fire impossible |
| Target prone | DM-2 |
| Target prone behind cover | Cover DM and an additional DM-1 |
| Darkness | DM-2 |
| Dim Light | DM-1 |
| Target dodging (optional rule) | DM-target's Gun Combat skill |

### Aiming

An aimed shot requires two consecutive actions and grants DM+1 to hit. A character may use their first action in a combat round to aim, then enjoy DM+1 to hit when firing on the second action. Alternatively, it is possible to begin aiming as the second action in one round and continue aiming through the first action of the next round, and then make an attack with the second action of that second round. The maximum +Dm achievable by aiming is +3.

### Automatic Weapons

Automatic weapons fire multiple rounds with every pull of the trigger, filling the air with a hail of bullets. A weapon with the Auto aspect can make attacks in three fire modes: single, burst, and full auto, as described below.

*Single:* Attacks are made using the normal combat rules.

*Burst:* Add the Auto score to damage. This uses a number of rounds equal to the Auto score.

*Full Auto:* Make a number of attacks equal to the Auto score. These attacks can be made against separate targets so long as they are all within six meters of one another. Alternatively, use Full Auto for Suppression fire (see the Combat section). Full auto uses ammunition equal to three times the weapon’s Auto score. A weapon cannot use the Auto aspect with the Scope accessory or Aiming action. You may only perform one Full Auto attack in a given round.

### Suppressive Fire

Instead of shooting a target, a character may fire an automatic weapon to deter enemy action in each area. Choose a 3m-by-3m area within effective range. Any combatants who move through this area, or caught in this area, suffer an automatic attack. However, do not apply the shooter's Gun Combat skill to this attack and apply a further DM-2 to it. Thus, such shots hit a suppressed target in Effective range on 10+, or 12+ while in cover – combatants under suppressive fire better keep their head down! This continues until the weapon runs out of ammo or until the shooter’s next round. This consumes ammunition equal to three times the weapon's Auto rating.

You may only perform one Suppressive Fire action per round.

### Thrown Weapons

Thrown weapons an Effective range of five times the thrower’s STR characteristic; the Maximum range is twice that. Throw Athletics/DEX 8+ to hit with a thrown weapon at Effective range, or 10+ beyond it.

Throw Athletics/DEX 8+ to accurately throw a hand grenade at effective range, and 10+ to place a grenade on target at maximum range. Hand grenades. On a failure, the grenade will land 2D6+ (the margin of failure) meters from its intended target. At maximum range, thrown grenades automatically deviate 2D6 – (Effect) meters.

### Blast Effects and Diving for Cover:

Modern weaponry include a wide variety of highly lethal explosive devices, like grenades (see above) and Gunnery weapons. Weapons with the Blast Weapon Aspect do their full damage to everyone within the blast radius. It is possible to reduce this damage by Diving for Cover. The character flings themselves down onto the ground: reduce damage by half, before applying armor. If there is sufficient cover readily available, the character can dive behind it and take only 1D damage before applying armor. What constitutes sufficient cover depends on the explosion and the Referee’s call. A foxhole or slit trench might be sufficient to avoid grenade blasts altogether. Hiding behind a low brick wall might only serve to increase the amount of shrapnel from an exploding artillery shell. Fusion guns tend to ignore most types of matter. The Referee is the final arbiter in these situations. In any case, a character that dives for cover forfeits their next action.

### Optional Rule: Dodge and Parry

Even though they cannot dodge bullets, skilled combatants are harder to hit. A proficient gunman can use the battlefield to avoid line-of sight. An expert swordsman will parry melee attacks. Therefore, for a more cinematic game where skilled heroes can take on multiple armed opponents, we propose the following optional rule. In ranged combat, apply the target’s Gun Combat skill (if any) as a negative DM to all incoming ranged attacks. In melee combat, apply the target’s Melee Combat skill (if any) as a negative DM to all incoming melee attacks. Immobile or unaware targets do not enjoy this defensive benefit. Note that this modifier is ***not cumulative*** with any cover modifiers; use the higher of the two modifiers when shooting at a target in cover. The exception is a shield – a character using a shield in melee may still add DM-1 to be hit by enemies to the above penalty if they used one of their actions in the previous round for Overwatch with the shield.

## Grappling

A character can attempt to wrestle or grab another person instead of hitting them. The attacker must move to melee combat range and beat their target in an opposed Melee Combat throw. If the attacker wins, they may do any one of the following:

• Knock their opponent prone.

• Disarm their opponent. If the attacker succeeds with an Effect of 6+ they can take the weapon for themselves; otherwise, it ends up on the floor.

• Throw their opponent up to three meters for 1d6+STR DM damage.

• Inflict damage equal to 2 + the Effect + STR DM. Grapple damage ignores armor except for Encased Armor Suits, Powered Armor, and Hostile Environment Spacesuits.

• Escape the grapple and move away (as if with a normal movement action).

• Continue the grapple with no other effects.

• Drag or push their opponent up to three meters.

Throwing an opponent always ends the grapple. When using any of the other option above, the winner of the opposed test can choose to end or continue the grapple as they see fit, even if they did not initiate it. A character in a grapple cannot move or do anything other than make opposed Melee checks. Each time an opposed check is made the winner can choose an option from the above list. A character who won the grapple in the previous round enjoys DM+1 to the next grapple; this is not cumulative regardless of the number of grapples they have successively won.

## Damage and Healing

To determine the amount of damage a successful hit inflicts, check the weapon’s damage rating. Each weapon has a number of damage dice: roll them, add the attack throw’s Effect. In melee attacks or when using thrown melee weapons, add the character’s STR DM to the damage (for a minimum of 1 damage in case of a negative STR DM). This is the damage inflicted on the character.

### Armor

Subtract the armor’s protection rating from any physical damage caused to the character before applying the damage to the character’s Stamina and Lifeblood.

### Optional Rule: Armor as a Penalty to Hit

Armor in the core **Cepheus Deluxe** rules absorbs damage. However, some players and Referees prefer armor to render its wearer harder to hit, rather than absorb damage. For such groups, we present the following simple rules.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **None** | **Leather**  **Jacket** | **Bulletproof**  **Vest** | **Heavy Ballistic** | **Space Suit** | **Heavy Duster** | **Encased or Synth Silk** | **Powered Armor** |
| **Natural Weapons** | 0 | -1 | -2 | -3 | -3 | -2 | -4 | -5 |
| **Bludgeoning Weapons** | 0 | -1 | -2 | -3 | -3 | -2 | -4 | -5 |
| **Slashing & Piercing Weapons** | 0 | -1 | -3 | -2 | -2 | -3 | -3 | -5 |
| **Slug Weapons** | 0 | 0 | -1 | -3 | -3 | -1 | -3 | -5 |
| **Assault Weapons** | 0 | 0 | 0 | -1 | -1 | 0 | -2 | -4 |
| **Laser Weapons** | 0 | 0 | -2 | -2 | -2 | -2 | -3 | -5 |
| **Heavy Weapons** | 0 | 0 | 0 | 0 | 0 | 0 | -1 | -3 |

The above modifiers are penalties to hit. All other modifier DMs to hit, like Cover and Darkness, apply as usual. Under this optional rule, of course, armor does not reduce damage; any hit causes regular damage dice without any reduction.

*Weapon Notes*

**Shotguns** (+2) against jack or less in effective range. Treated as a slug weapon.

**Natural Weapons** include Hands, Claws, Teeth, Horns, Hooves, Stingers, and Thrashers, or any similar bodily weapon.

**Bludgeoning Weapons** include Clubs, Batons, and so on.

**Piercing Weapons** include Bayonet, Spear, Halberd, Pike, Foil, Bows, and similar.

**Slashing Weapons** include Dagger, Blade, Cutlass, Sword, Broadsword, etc.

**Slug Weapons** include Body Pistol, Handgun, Revolver, Carbine, Shotgun, SMG, and similar light small arms.

**Assault Weapons** include Rifles, Assault Rifles, Gauss Rifles, Pulse Rifles, Light Machine Guns, and similar rifle-scale small arms.

**Lasers** include all laser-based weapons, including Blasters.

**Heavy Weapons** include GMPGs, explosives, Plasma Weapons, Fusion Weapons, and similar heavy heavy weapons.

### Applying Damage

Cepheus Deluxe uses two attributes to denote a character’s resistance to damage. The first is Stamina, which represents the character’s toughness and ability to shrug off minor wounds. Lifeblood is the character’s health: loss of Lifeblood represents more serious damage.

After any successful attack, apply damage, after first subtracting armor. All damage is first applied to the target’s Stamina. After Stamina reaches zero, any excess or additional damage is then applied to the target’s Lifeblood.

### Knockdown

If a character receives more damage, before armor is applied, in one round than double their DEX score, they are knocked prone. This rule applies even when the character otherwise receives no damage at all thanks to armor. Characters in Powered Armor quadruple their DEX for calculating their knockdown threshold.

### Wounds

If Stamina is above zero, the character is not wounded, only bruised, or scuffed. No negative effects apply to the character in this case.

If the character suffers Lifeblood damage, but their Lifeblood is **above one half its full rating**, the character suffers a **Minor Wound** and applies DM-1 to all actions until healed.

If Lifeblood falls below half its full rating, the character is **Seriously Wounded**; they must throw END 8+ or fall unconscious for 1D hours. Upon waking, the character suffers DM-2 to all actions until healed. The character will require medical care to recover any further.

Characters suffer a **Mortal Wound** if their Lifeblood reaches zero. A mortally wounded character will die within 1 hour unless they undergo Trauma Surgery, as described below. In extreme cases, when the character suffers massive damage, the Referee may declare that they die immediately.

### Optional Rule: Heroes and Grunts

For a cinematic game where heroes cut their way through waves of grunts (also called mooks, or occasionally “extras”), the Referee may rule that, in personnel combat, any attack penetrating armor knocks a grunt out of combat. This rarely means death unless the damage is massive. However, in such heroic tales, grunts often cower after being hurt, are preoccupied by their (sometimes minor) wounds, or pass out after being hit by the hero. Reviving such mooks for interrogation after combat is often easy, though the information available from them is usually limited.

### Healing and Medical Care

**Stamina** recovers on its own to its full rating within 10 minutes after combat. A character’s stamina recovers even if they have received Minor Wounds. Stamina does not recover for characters who receive Serious or Mortal Wounds.

**Minor Wounds** require treatment by a character with at least Medicine-1, a Medkit, and 30 minutes of time. With either Medicine-1 or a Med Kit, rather than both, treatment will take 1 hour. Alternatively, characters will recover from all Minor Wounds on their own after a full day’s rest. This will restore the character’s Lifeblood to its full rating.

**Serious Wounds** require a medical facility—a standard starship medbay will suffice—and treatment by a nurse or a physician (Medicine-2 skill or better). Recovery takes 1 day per point of Lifeblood below half the full Lifeblood rating. Once the character’s Lifeblood reaches half its full rating, the character will recover the other half within another day of treatment.

**Mortal Wounds** require **Trauma Surgery,** as noted below.

### Trauma Surgery

The key to trauma surgery is to bring the mortally wounded character to a hospital within the "Golden Hour" of trauma medicine – that is, within one hour after receiving mortal injury. Even with advanced first aid, critically injured characters whose Lifeblood was reduced to zero will not survive without trauma care after an hour of injury.

Ordinary medbays common on most starships will usually not suffice – a dedicated hospital, whether shipboard or planetside, is the only facility capable of performing such medical operations safely. If no hospital is reachable within one hour, a character with the Medicine skill may attempt field surgery, but, as noted below, this applies a significant penalty to the roll. Also note that characters killed by vehicle-scale or starship-scale weapons cannot be resuscitated.

Once on the operating table, the surgeon treating the critically injured character throws 2D + their Medicine skill, modified by the DMs below, and consults the following table.

**Trauma Surgery Table**

|  |  |
| --- | --- |
| **2D** | **Result** |
| 5- | Death |
| 6-7 | Significant internal damage |
| 8-10 | Radical measures required |
| 11+ | Normal recovery |

*Trauma Surgery DMs:*

**DM-2** if no first aid provided within 10 minutes of the injury.

**DM-2** if operating in a ship’s med bay, and not a proper hospital.

**DM-4** if operating under unsuitable field conditions.

**DM-2** if treated with TL6 equipment-; DM+2 if treated with TL12+ equipment.

**DM-2** if Mortally Wounded by an explosion.

**DM-2** if patient has END 5-, **DM+2** if patient has END 10+.

***Trauma Surgery Results***

***Patient is dead:*** character dies on the operating table. No further resuscitation attempts possible. However, see Cyborg Conversion and Bio-Reconstruction, in Appendix XX.

***Significant internal damage:*** multiple organs severely damaged. Permanently subtract 1D from each physical characteristic. If any of them reaches zero or less, the character dies.

TL9+ vat-grown or cybernetic organs restore full functioning and costs 1D x 2500 Credits – no throws required.

***Radical measures required:*** *Throw 1D:*

*1:* internal organ removed. Permanently reduce one physical characteristic by 1D. Character dies if it reaches zero or less.

TL9+ vat-grown or cybernetic organ restores full functioning and costs Cr2500 – no throws required.

*2-3:* leg amputated. Movement halved (given a crutch) and the character may either act or move during a given round.

See the Cybernetics section of the Equipment section for replacement options.

*4-5:* arm amputated. The character obviously cannot use this arm for any purpose.

See the Cybernetics section of the Equipment section for replacement options.

*6:* eye removed. DM-2 to all actions requiring one eye, including all attack throws.

See the Cybernetics section of the Equipment section for replacement options.

***Normal recovery:*** heal as normal for a Seriously Wounded character.

## Vehicle Combat

Sometimes, characters will find themselves operating a vehicle in combat, or facing enemy vehicles. The following rules allow the inclusion of vehicles in personal combat, as well as vehicle chases. They are not intended to serve as war-gaming rules for large engagements.

### Vehicle Movement

In tactical (non-chase) combat, a vehicle moves on its driver's initiative. Apply the vehicle's Agility as a DM to the driver's initiative.

In personal combat, a vehicle can move up to 20m in a single round. This is considered cautious combat movement. This represents a vehicle advancing slowly through terrain to engage personnel and other vehicles at so-called “knife-fighting” ranges and speeds. Fast-moving vehicles will pass through the tactical battle area in a round, or less. The chase rules below are designed to handle such high-speed combats. An exception would be a one-time intervention of a fast vehicle in tactical combat, such as an armed aircar doing a quick laser strafe of enemy positions during its pass through the area.

### Chases

The tactical combat rules represent action in small, limited areas. For vehicles, this means short range and slow speeds. As noted above, a fast-moving vehicle will easily pass through the entire tactical combat map in less than one combat round. This is unsuitable for chases and dogfighting. Use these rules instead in such cases. They are designed to be highly descriptive in their approach to vehicle combat. It will be up to the Referee and the players to describe how the action unfolds as the participants maneuver, jockey for position, and attack each other.

Chase turns are an abstraction in combat and vary in length depending on circumstances, from mere seconds in high-speed aircraft pursuits to hours in long drawn-out submarine duels. The Referee should inform the players of how long each chase combat turn is at the start of the chase.

There is no initiative throw in chases. Instead, at the start of each turn both participants throw 1D + the relevant Vehicle Skill + Attribute DM + the vehicle's Agility. The pursuer wins on ties. The attribute DM used in vehicle chases depends on the vehicle and context: most high-speed chases would use the DEX DM, while a naval duel might use INT or EDU—perhaps depending on the Tech Level, ranges, and vehicles involved.

The result of the 1D + Attribute DM + Vehicle Skill + Vehicle Agility is called the Position.

The participants in a chase can only attack those targets at an equal or lower Position. They may attack using the normal vehicle attack and damage rules, with the following modifiers based on the relative Position between the attacker and target.

**Position Attack DM Table**

|  |  |
| --- | --- |
| **Attacker is** | **DM to Attack Throws** |
| In the same Position as the target | DM-2 |
| 1 or 2 Positions higher than the target | DM-1 |
| 3 or 4 Positions higher than the target | DM 0 |
| 5 or more Positions higher than the target | DM+1 |

Those vehicles in lower Positions cannot attack any vehicle with higher Position for that turn unless their vehicle has a turret-mounted weapon. Turret attacks made from a worse Position suffer DM-3 to hit. Note that there is no range tracking in these vehicle chase rules. This is intentional. The attack DM penalty for low-relative Positions reflects a bad angle of attack, or sub-optimal range for an attack, such as getting an enemy on your tail in aircraft dogfighting.

It is possible to have multiple parties engaged in a chase. Simply record the different Position results in descending order. The vehicles higher on the “ladder” may attack any vehicle below them, subtracting Positions to determine their Attack DM. This can be used to great effect in a dogfight, below.

Chases last five turns. At the end of the fifth turn, if the prey has not been stopped, disabled, or destroyed, the prey escapes and the chase ends.

### Dogfighting

In a dogfight, two or more highly maneuverable vehicles, such as aircraft or grav vehicles, try to outmaneuver and fight each other. A dogfight usually has no time limit, barring fuel considerations. The dogfight ends either when one participant is disabled or destroyed, or if one participant disengages. To disengage from a dogfight, a participant must use an action that turn to throw Opposed Vehicle Skill/DEX, including the DM for the vehicle’s agility. The vehicle with superior Position gains Advantage on the skill check. If the pilot that initiated the disengagement attempt was successful, they have managed to end the dogfight, and cannot be attacked without first being chased down and re-engaged. For example, a fighter aircraft can break off the fight, and will be free to go its way unless its opponent gives pursuit.

### Foot Chases

Chases on foot use similar rules. Each turn, each side throws opposed Athletics/DEX skills and records the result as their Position. The pursuer wins on ties. The winner of this opposed throw may attack in melee or ranged combat, at the Referee's discretion, while the loser cannot attack in that turn. Use the same Position Attack DM table as vehicle chases. Foot chases end in the same way that other chases end, that is, either when the pursuer subdues the prey or gives up the chase, or after five turns, when the prey escapes. Referees should track the number of turns and remember to consider Fatigue effects, if the situation calls for it.

### Possible Vehicle Maneuvers: Chases

**Evasive Maneuvers**: To make it as difficult as possible to hit their vehicle, the pilot may attempt Evasive Maneuvers on their action. Throw Vehicle Skill/DEX 8+ to gain the pilot’s Vehicle skill as a negative DM to attacks made until their next turn.

**Better Position**: While it is not normally possible to re-roll the Position throw in a round, it is possible to perform maneuvers to help ensure that your vehicle might be in a better Position next turn. For their action, the pilot of a vehicle may roll Vehicle Skill/DEX 8+ to gain a +1 bonus to next round’s Position throw. Note that it is possible for one vehicle to aid another allied vehicle to gain a Better Position on an enemy vehicle (see *Collaboration* in the Basic Rules chapter).

**Obstacle Course**: This risky maneuver is a good choice for agile vehicles desperate to get away from more heavily armed pursuers. The driver/pilot chooses an Obstacle Number, and then throws Vehicle Skill/DEX vs the Obstacle Number chosen (include the vehicle’s Agility score). If the throw fails, the vehicle crashes and is Knocked Out (see Vehicle Penetration and Damage, below) and everyone on board takes 3D damage. If the throw is successful, then the vehicle performing the maneuver can leave the chase, unless the pursuing vehicles opt to throw Vehicle Skill/DEX against the same Obstacle Number the first vehicle chose. If they fail, they crash and are Knocked Out. If they succeed, they continue the chase. If they do not opt to throw the Obstacle Number test, then they are out of the chase.

**Ramming**: For reasons we will not explore here, deliberately ramming another vehicle is a staple of gaming. In tactical combat, performing a ram requires one action by the vehicle pilot. The pilot must throw Vehicle Skill/DEX 8+ to hit a stationary target in combat. If the target is moving, the throw is opposed Vehicle/Skill/DEX. In both cases, add the Agility scores of the vehicles involved. Ramming a stationary vehicle outside of combat is automatically successful. However, if the ram is intended as a first strike, roll to determine Surprise, as normal. Characters who are not surprised may dive for cover to avoid taking damage. Vehicle crews that are not surprised may attempt to evade, making the ramming attack an opposed Vehicle Skill/DEX throw.

In a chase, performing a ram requires that the ramming vehicle have superior Position on the target. Rams cannot occur between two vehicles with the same Position. Ramming a target is an opposed Vehicle/DEX throw, where the vehicle with superior Position gains Advantage on the throw. Apply Agility and Position DMs to the throws. Chases assume that both vehicles are moving.

In both tactical and chase combat, see the collision damage rules below.

**Collisions:**

Characters hit by vehicles travelling at high speeds take 6D damage, subtracting armor. Referees may want to adjust damage to reflect extremely large (8D+) or very small vehicles (4D).

Vehicles that suffer uncontrolled high speed collisions or crashes are Destroyed, as per the Critical Damage table.

If a character is attempting to control a crash, Referees can assume that the vehicle will be Knocked Out, and that characters inside suffer damage accordingly.

Vehicles performing a ram on a target should use the following table to determine damage. If a ramming vehicle is significantly larger than the target vehicle, is travelling at significantly higher relative speeds, or is specifically fitted with a ram, treat the ramming vehicle as having one level higher armor than listed, and read off the next lower row.

**Vehicle Collision Damage Matrix**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Target Vehicle:** | | |
| **Ramming Vehicle:** | **Unarmored** | **Light Armor** | **Heavy Armor** |
| **Unarmored** | Surface | None | None |
| **Light Armor** | Internal | Internal | Surface |
| **Heavy Armor** | Critical | Critical | Internal |
| **Heavy Armor w/Ram** | Destroyed | Destroyed | Critical |

### Attacking Vehicles

When using a vehicle-mounted heavy weapon in tactical combat—not a chase—throw Heavy Weapons/DEX 8+ to hit a target in Effective range and 10+ to hit a target beyond it and up to its maximum range. Apply normal ranged combat modifiers to this roll. The Referee might rule that some heavy weapons ignore otherwise good cover (DM-2). Treat as target obscured (DM-1).

Throw Gunnery/DEX 8+ to hit a target with vehicle-mounted gunnery weapons at the Gunnery Weapon’s Effective range in tactical combat. Beyond Effective range, this throw becomes Gunnery/Dex 10+. Gunnery Weapons have very long ranges and for typical tactical engagements, Gunnery weapon targets will almost always be within Effective range. Hitting a human-sized target with a Gunnery weapon is penalized at DM-2.

Small arms and heavy weapon attacks on a stationary vehicle enjoy DM+1 due to the target’s size. Small arms and heavy weapon attacks on fast moving ground vehicle targets, or slow moving aircraft, helicopters, or grav vehicles are penalized by DM-2. Note that in many cases, attacks on aircraft are made beyond Effective range, meaning that the base difficulty for most personal attacks against slow-moving aircraft will be 12+.

Small arms and ground-fired Heavy weapons cannot hit fast-moving or high-altitude aircraft. There are a number of specialized anti-aircraft weapons available in the Equipment chapter.

Personal weapon attacks **from** a fast-moving vehicle, like a gunman firing a pistol out of the window of a moving car, are penalized by DM-2. This penalty is cumulative with attacking a fast-moving target, such as shooting your submachinegun from one moving vehicle at another moving vehicle. Note that this penalty applies in the Chase combat rules for vehicles as well.

At TL7+, Heavy and Gunnery weapons mounted on military vehicles use targeting computers and stabilization, and do not suffer the DM-2 for attacking **from** a fast-moving vehicle. Nor do such vehicles suffer penalties when firing **at** moving vehicles—in such a situation, the Referee should probably be using the Chase rules, where Position accounts for relative speed penalties.

A gunner may aim for a specific location on a target vehicle. Penalize the attack by DM-4. If the attack is successful and penetrates doing at least Internal Damage, it damages the called location. Otherwise, the shot misses completely.

**Vehicle Combat Modifiers Table**

|  |  |
| --- | --- |
| **Tactical Combat Condition** | **DM** |
| Beyond Effective Range | DM-2 |
| Attacking human sized target with Gunnery weapon | DM-2 |
| Attacking from moving vehicle – unstable firing platform (applies to Chase combat as well) | DM-2 |
| Attacking from moving vehicle, TL7+ (military vehicles) | DM+0 |
| Attacking stationary vehicle | DM+1 |
| Attacking fast moving ground target | DM-2 |
| Attacking slow-moving aerial target | DM-2 |
| Attacking fast-moving aerial target from the ground without specialized anti-aircraft equipment | Not Possible |
| Aiming for a specific location on a target vehicle | DM-4 |

### Vehicle Penetration and Damage

When an attack hits a vehicle, refer to the **Vehicle Penetration Matrix Table** below and roll on the damage tables as indicated by that matrix. If an attack hits with an Effect of 6 or more, shift one column to the left to determine the damage. Note that if a given weapon does not have any AV hits listed in its description, it has 1 AV hit roll.

**Vehicle Penetration Matrix Table**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Unarmored** | **Light Armor** | **Heavy Armor** |
| **Small Arms** | Surface | None | None |
| **Heavy weapon** | Critical | Internal | Surface |
| **Gunnery Weapons** | Destroyed | Critical | Internal |

**Surface Damage Table**

|  |  |
| --- | --- |
| **2D** | **Damage** |
| 5- | Bounce Off |
| 6-7 | Device |
| 8-9 | Locomotion |
| 10 | Breach |
| 11 | Weapon |
| 12+ | Internal Damage |

### Surface Damage Table Results

**Bounce Off:** The attack has bounced off the vehicle's skin or armor. No damage.

**Device:** One secondary external device, such as externally mounted cargo, a headlight, or antenna, is destroyed (Referee's discretion).

**Locomotion:** The vehicle's means of locomotion or engine is damaged.

**First Hit**: halve the vehicle's speed.

**Second Hit**: The vehicle's locomotion is disabled, and it cannot move. In case of aircraft or high-flying grav vehicles, this might cause a crash; throw Aircraft/DEX 8+ or Grav Vehicle/DEX 8+ respectively to land safely. Otherwise, the aircraft crashes: roll on the Critical Damage table

**Breach:** If the vehicle is pressurized, its environmental seal is breached, exposing its occupants to the environment. Patching an environmental seal breach requires pre-packaged emergency hull patches. Most sealed vehicles carry 1D hull patches, which may be used within one combat round of sustaining the damage; alternatively, sealing the breach requires Repair/INT 6+ throw and 1D minutes.

Note that a breached watercraft begins to leak. This reduces its speed by one quarter and reduces vehicle Agility by -1. Four breaches will cause the watercraft to take in too much water and sink. This only applies to small watercraft; large ships such as steamships and larger vessels stay afloat despite such minor breaches—they have compartmentalized hulls designed to prevent small breaches from sinking the whole ship. Only a Knocked Out critical result (see below) will sink large craft.

**Weapon:** One of the vehicle's weapons is disabled and may not fire. Determine which weapon randomly. Throw Repair/INT 8+ or Gunnery/INT 10+ to repair a disabled weapon. Subsequent hits against the same disabled weapon will damage the weapon to the point where it cannot be repaired in combat. If the vehicle survives the encounter, roll 1D: 1-3; the weapon is repairable, 4-6; the weapon is destroyed and must be replaced.

**Internal Damage:** The vehicle suffers an unlucky penetrating hit! Roll on the Internal Damage table!

|  |  |
| --- | --- |
| **2D** | **Internal Damage** |
| 4- | Breach |
| 5 | Cargo |
| 6 | Occupants |
| 7 | Weapon |
| 8-9 | Locomotion |
| 10 | Electronics |
| 11 | Power Plant |
| 12 | Critical |

### Internal Damage

**Breach***:* If the vehicle is pressurized, its environmental seal is breached, exposing its occupants to the environment. Patching an environmental seal breach requires pre-packaged emergency hull patches. Most sealed vehicles carry 1D hull patches, which may be used within one combat round of sustaining the damage; alternatively, sealing the breach requires Repair/INT 6+ throw and 1D minutes.

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**Cargo:** 1 ton of randomly determined cargo is destroyed. If no cargo remains, treat this as an Occupants result.

**Occupants:** 1D hits injure random vehicle occupants: crew or passengers. Each hit inflicts 3D damage. If there are fewer occupants than the rolled number of hits, distribute the hits randomly between the remaining occupants, which means that an occupant may suffer a double hit. Subtract personal armor from this damage if applicable. If the pilot suffers a hit and falls unconscious, a flying or fast-moving vehicle will crash (roll a Critical Hit) unless another character with the appropriate skill can grab the controls within one combat round; alternatively, in TL7+ vehicles the autopilot can take over; however, autopilots always lose Position chase throws.

**Weapon:** One of the vehicle's weapons is disabled and may not fire. Determine which weapon randomly. Throw Repair/INT 8+ or Gunnery/INT 10+ to repair a disabled weapon. Subsequent hits against the same disabled weapon will damage the weapon to the point where it cannot be repaired in combat. If the vehicle survives the encounter, roll 1D: 1-3; the weapon is repairable, 4-6; the weapon is destroyed and must be replaced.

**Locomotion:** The vehicle's locomotion or engine is damaged.

**First Hit**: halve the vehicle's speed.

**Second Hit**: The vehicle's locomotion is disabled, and it cannot move. In case of aircraft or high-flying grav vehicles, this might cause a crash; throw Aircraft/DEX 8+ or Grav Vehicle/DEX 8+ respectively to land safely. Otherwise, the aircraft crashes: roll on the Critical Damage table

**Electronics:** One of the vehicle's electronic systems is destroyed: usually the computer systems or major sensors/radar. Flying an aircraft or Grav vehicle with damaged electronics incurs a DM-2 penalty to all vehicle throws.

**Power Plant:** The vehicle's power plant takes a direct hit.

**First Hit:** the power plant is damaged; halve the vehicle's speed (cumulative with Locomotion damage). The vehicle cannot fire energy weapons and move in the same round.

**Second hit:** the power plant is destroyed; the vehicle is immobilized and cannot use electronics or energy weapons. Aircraft or grav vehicles may crash: throw Aircraft/DEX 8+ or Grav Vehicle/DEX 8+ to land safely, otherwise roll on the Critical Damage table.

**Critical:** The vehicle suffersmassive internal damage. Roll on the Critical Damage table below.

**Critical Damage**

|  |  |
| --- | --- |
| **2D** | **Critical Damage** |
| 6 or less | Knocked Out |
| 7-9 | Crew Hit |
| 10 or more | Destroyed |

### Critical Damage

**Knocked Out:** The vehicle is seriously damaged and inoperable until it undergoes major repairs at a full-scale workshop. Each occupant must throw END 6+ to avoid taking 3D damage. Aircraft and grav vehicles at high altitudes crash, causing 6D damage to all occupants. Low-flying vehicles crash, causing 3D damage to all occupants. Subtract personal armor from this damage if applicable. Watercraft, including large vessels, suffer a massive hull breach. They will sink within 1D combat rounds.

**Crew Hit:** All crew and passengers suffer 4D damage each. Personal armor reduces this damage accordingly.

**Destroyed:** The vehicle is destroyed with the loss of all hands. In the case of ground vehicles, occupants may throw DEX 8+ to bail out unscathed; failure causes 5D damage.

### Repairs

Throw Repair/INT 8+ to jury-rig a damaged or disabled system back to functional status with a handful of spare parts. These repairs are temporary. The system will stop functioning again after 1D hours. Breaches are easier to repair, as noted above.

Properly repairing a disabled system costs 2D6x10% of the system’s original cost. Throw Repair/INT or Repair/EDU 10+ to repair the system in the field using spare parts. If this throw is unsuccessful, the damage requires a workshop to repair. Unless the Referee decrees that the vehicle itself is damaged beyond repair, a character with at least the Repair 1 skill will be able to replace or repair the system, at this cost, at a properly equipped workshop.

### Ground Force Weaponry against Starship-scale Targets

All spacecraft are immune to Small Arm fire. Heavy weapons that hit an unarmored space craft of 99 tons or less will cause one ship surface hit. Roll for damage location normally, per the Space Combat chapter. Gunnery weapons are significantly more dangerous. They can harm small craft of 99 or smaller tons: Gunnery weapons inflict one Internal hit on a successful attack. Against ships between the 100-999-ton range, Gunnery weapons inflict one Surface hit. Spacecraft of 1000 or more tons are immune to non-specialized ground weapons.

### Starship-Scale Weaponry against Vehicle Targets

Civilian ship lasers are considered Gunnery Weapons vs. vehicles. Civilian ship missiles are considered Heavy weapons but cause 1D AV hits when penetrating vehicle armor. Any heavier starship weapons will destroy any vehicle on a successful hit. Any starship weapons will utterly vaporize human-sized targets.

# Psionics

Many science fiction genres posit that in the future, humanity may unlock the powers of the mind, allowing humans to reliably produce tangible psychic effects. Note that in Cepheus Deluxe, psionics are rare and potentially very powerful. Their use in a campaign is subject to the Referee’s discretion.

**Psionic Training**

The Referee may decide to allow one or more psionic characters. In that case, roll 2D to determine the character’s Psionic Strength (PSI) characteristic. The character may gain one of the following psionic talents. They may also attempt to gain further psionic talents. For each additional psionic talent, throw PSI 8+ to receive that talent. Apply a DM-1 per talent the character already has. The five psionic talents are:

* **Awareness** – powers that allow the psion’s mind to control their own body.
* **Clairvoyance** – these powers permit perception at a distance.
* **Telekinesis** – the psion is able to control the movement of matter with their mind.
* **Telepathy** – this talent covers reading minds and mental communication.
* **Teleportation** – the psion can move from one point to another instantly in open defiance of the laws of physics.

### Optional Rule: Powerful Psions

For a more predictable distribution of Psionic Strength, the Referee may permit psionic characters to roll 1D+6 for their PSI rather than 2D. This will ensure that all psionic characters are reasonably competent but will also somewhat increase their power level.

**Using a Psionic Talent**

To activate a psionic talent, the psion must spend the listed number of PSI points, which are taken directly from the PSI characteristic. If this activation cost reduces their PSI below zero, then apply the excess points to the psion’s Stamina, and then Lifeblood scores, as damage. A character with no PSI points remaining cannot activate a talent. Using a psionic talent in combat counts as an action. Each Talent’s various abilities note the minimum PSI characteristic required for its use. This is also the cost in PSI points to use the ability. It also notes the ability’s range. Characters regain their full PSI points after an 8-hour rest.

**Awareness**

Awareness allows the psion greater control over their own body.

**Enhanced Characteristic (PSI 1+, Personal):** the character may transfer PSI points to their STR, END, or DEX as desired. This ability costs 1 PSI point per characteristic point added and lasts for 10 minutes. Multiple simultaneous uses of this ability are permitted, as long as the psion has sufficient PSI to spend. Characteristic increases will change that Characteristic’s DM, accordingly.

**Suspended Animation (PSI 3, Personal):** the character enters a meditative state for 7 continuous days without requiring food, water, or a breathable atmosphere; the character is immune to vacuum for this power’s duration. The psion may terminate this power at will during this period.

**Magnify Senses (PSI 4, Personal):** choose one sense; the psion magnifies it to a superhuman level for 10 minutes. Magnifying sight removes the penalty for firing a weapon beyond its effective range. Magnifying hearing grants DM+2 to Surprise throws. Magnifying smell grants the character with the olfactory senses of a bloodhound. Magnifying taste permits the character to detect toxins in minute samples of substance. Magnifying touch permits detecting microscopic features in the touched surface, such as microscopic cracks.

**Awakening (PSI 5, Personal):** the psion can awaken any single unconscious character. While this power does not heal any damage, it can awaken unconscious wounded characters, and safely thaw cryogenically frozen persons (without requiring a low tech cryotube’s survival throw). The awakening process takes one round.

**Alter Self (PSI 6, Personal):** the psion can change their appearance, including their fingerprints and other biometric markers, as desired, within the limits of their species or similar subspecies (including choosing a different gender). If the psion studies a target for 10 minutes (even covertly), they can imitate this target and its biometric markers. The disguise lasts for 8 hours.

**Regeneration (PSI 9 but see below for cost; Personal):** the psion can heal their own Lifeblood points lost from combat damage. This requires 2 PSI point per Lifeblood point healed but requires a minimum of PSI 9 to use. The effects of the healing take one combat round: a character who is uses Regeneration in one round will not feel the effects until the start of the next round.

**Drain Health (PSI 10 but see below for cost; Personal):** drain 1 Lifeblood from a target, per PSI point spent, healing the psion at the same rate, up to their full Lifeblood rating. If the psion is uninjured, the target still takes damage. Note that touching an unwilling target requires an attack throw, using the psion’s Melee Combat skill and Psi DM.

**Empathic Healing (PSI 12 but see below for cost; Personal):** this ability allows the psion to heal others. For every two PSI point spent, the psion can heal a target for one point of Lifeblood. The psion suffers 1d6 damage every time they use this power. Targets cannot regain more points than their maximum Lifeblood.

**Clairvoyance**

Clairvoyance abilities allow the psion to sense events at distant locations beyond out of view. Clairvoyance cannot usually be blocked.

**Sense (PSI 1, 50m):** the character learns the rudimentary goings-on at a nearby location when using this ability. This provides the psion with a basic understanding of who and what is in a location, and generally what they seem to be doing, rather than any great details.

**Clairvoyance/Clairaudience (PSI 5, 500km):** this ability allows the character to view (clairvoyance) or to hear (clairaudience) a specific location up to 500km away. The character perceives the location as if they were actually there.

**Danger Sense (PSI 6, 30m radius):** a precognitive power, danger sense grants the psion with the ability to sense potential threats. For 8 hours per use of this power, the Referee will inform the character about any serious active threat to their lives, such as an ambush or surprise attack. This grants DM+2 to Surprise rolls as well.

**Clairsentience** **(PSI 7, 500km):** the psion can use this ability to use all senses to perceive a location up to 500km away. The character perceives the location as if they were actually there.

**Telekinesis**

Telekinesis allows the psion to manipulate objects without physically touching them.

**Lift 1 gram (PSI 1, 50m):** lift and maneuver up to a 1gm object for 1 minute (10 combat rounds). This power does not confer fine motor control to the telekinetic but is useful for moving small objects very subtly.

**Lift 1kg (PSI 2, 50m):** lift and maneuver up to a 1kg object for 1D combat rounds. The object can cause 1D damage if it is hurled at a target. To hit a target throw PSI 8+ using the psion’s full PSI characteristic, using the normal ranged combat modifiers.

**Lift 100kg (PSI 5, 50m):** lift and maneuver up to a 100kg object for 1D combat rounds. This will cause 3D damage if hurled at a target. To hit a target throw PSI 8+ using the psion’s full PSI characteristic, using the normal ranged combat modifiers. Psions can also lift themselves or one other person if they are 100kg or lighter. This rudimentary flying can move a character at 5m per round, for one minute.

**Choke (PSI 8, 10m):** grab a single humanoid by its throat, or equivalent, at a distance, and suffocate them for 1D damage per round, for a maximum number of rounds equal to the psion’s full PSI score. The target may throw STR 10+ to break this chokehold; one attempt is permitted per combat round.

**Dissipate Energy (PSI 9, Personal):** throw 5D. This is the number of damage points, from any source, that the power absorbs without harming the character. Once these points are expended, the power ends.

**Microkinesis (PSI 10 but see below for cost, Personal):** This ability allows the psion to manipulate microscopic objects. Microkinesis may be used for subtle, but highly effective attacks on internal organs, causing 1D damage per 2 PSI points spent. Alternatively, this power may aid Medicine (any Surgery or First Aid, but not Diagnosis), Engineering, or Repair rolls by DM+1 per 3 PSI points invested.

**Zombie (PSI 11, 500m):** this macabre power allows remote control of a relatively intact corpse as a puppet. The power lasts as long as the psion concentrates. The zombie can perform melee attacks in place of the psion’s actions. Corpses cannot be so finely controlled as to allow ranged attacks.

**Telepathy**

Telepathy is the terrifying talent of establishing mind-to-mind contact. It is usually subtle but can also be used to bluntly crush the wills of those who oppose the telepath.

Note that thoughts are universal, and thus psionic communications ignores language barriers. However, telepaths find it difficult to perform mental scans on, or communicate with species that are significantly different from themselves—such as an insectoid alien being mind-probed by a human telepath. Such psionic attempts incur double PSI costs.

**Life Detection (PSI 1, 20m):** the telepath can detect the presence of other minds, their general type (human, alien, animal, etc.), and their general location.

**Telempathy (PSI 2, 20m):** the telepath canread and communicate basic emotions; they may also attempt to influence the behavior of sentient beings and aliens, subject to Referee discretion.

**Read Surface Thoughts (PSI 3, 20m):** the telepath can read another sentient being’s active, current thoughts. A non-Psionic target cannot notice this power being used on them, but a Telepathic Shield (see below) blocks the attempt.

**Invisibility** **(PSI 4, see below for range):** this ability causes living creatures (but not machines) to ignore the telepath. The psion becomes invisible to all organic creatures within 10m range. It lasts while the psion concentrates on being invisible, which is a free action each round. Attacking any target terminates this power.

**Communicate (PSI 5, 5km):** the telepath communicate telepathically with one individual. The target does not have to be a telepath to receive and send thoughts in reply, but the telepath has to initiate the contact.

**Emotion (PSI 6, 50m):** this power forces one target to feel a powerful emotion (such as fear) for 1D combat rounds.

**Suggestion (PSI 7, 5km):** the telepathcan plant a simple hypnotic suggestion in the target. Note that targets will not obey suggestions that may physically harm themselves. Furthermore, if the suggestion would cause the target to harm a friend, they may throw INT 6+ to resist the effect.

**Memory Block (PSI 8, Personal):** this insidious ability causes one target to forget up to 12 hours of their recent memory. A Probe (see below) circumvents the Block.

**Probe (PSI 9, 1m):** Telepaths can use this ability to read deeply into the thoughts and long-term memories of a target. The Probe allows the character to know everything the target knows about one specific topic before terminating.

**Assault (PSI 10, 250m):** a brute-force telepathic assault, causing 4D damage to the target. Apply damage first to the target’s PSI, then their Stamina, and finally their Lifeblood. If all three characteristics are reduced to zero, the target dies from a brain hemorrhage. Damage from a telepathic assault regenerates as per the regular healing rules.

**Domination (PSI 12, 5km):** the telepath canmind-control one target for 2D combat rounds. The control is so complete that it may include forcing the target into harming their friends. If the telepath commands the dominated target to harm themselves, they may throw INT 8+ to shake off the mind control.

**Shields and Telepathic Combat:** all telepaths can shield themselves and allies in a 3m radius from telepathic intrusion. Attempting to use a telepathic ability against a shielded target requires an opposed PSI throw. Telepathic defenders shielding their allies throw for non-psionic allies. The defender wins on a tie. If the intruder wins, they may use their ability as desired at the usual cost, and the defender loses one point of Psionic Strength. If the intruder loses, they fail to penetrate the shield and expend one point of Psionic Strength. Note that this uses both characters' current PSI DMs: an exhausted telepath is much more vulnerable to mental intrusion.

**Teleportation**

Teleportation allows instant travel between locations. The psion may only teleport their body, clothes, and personal equipment. Characters cannot teleport more than one kilometer in altitude in a gravity well: teleportation still obeys the law of conservation of mass and energy and the difference in potential energy from any change in altitude must correspond to a change in body temperature in the teleporter. A change in altitude of more than one kilometer would heat or cool the teleporter’s body to a lethal degree. A single teleportation requires an action to perform.

**Blink (1 PSI, 5m):** allows for short teleports of 5m in any direction, while carrying up to a light encumbrance load.

**Teleport Self (PSI 7, 5000km):** the psion can teleport up to 5000km with light encumbrance load.

**Heavy Teleport (PSI 11, 500km):** like Teleport Self, but this ability allows the teleporter to carry up to a heavy encumbrance load, including carrying another living being.

**Psionic Equipment**

The following psionic equipment is available in settings using psionics.

|  |  |  |
| --- | --- | --- |
| **Item** | **Tech Level** | **Cost** |
| Psionic Booster | 9 | Cr500 |
| Psionic Inhibitor | 9 | Cr4,000 |
| Psionic Shield Helmet | 8 | Cr8,000 |
| Psionic Shield | 13 | MCr1 |

**Psionic Booster:** this esoteric drugrestores up to 6 points of PSI. If ingested while the psion is at full PSI, it temporarily increases PSI by 4. Whenever taking more than one dose per week, throw END 6+ or suffer 3D damage and permanently lose one point of PSI.

**Psionic Inhibitor:** this drug forces the subject to make a PSI 9+ throw to use any psionic power and prevents PSI regeneration. This drug lasts for 4D hours, but the character can throw END 6+ each hour after the first four hours to shrug off its influence.

The **Psionic Shield Helmet:** fully protects its wearer from telepathic intrusion. However, a character wearing this helmet cannot use psionics themselves. This helmet does not protect its wearer from the effects of other psionic powers, such as telekinetic attacks.

**Psionic Shield:** as a psionic shield helmet, but cybernetically implanted and invisible to the casual observer.

# Starship Operations

The stars await! Adventurers ply the star-lanes and boldly venture into the unknown; others may serve in a navy, hunting pirates, or raiding enemy shipping. Still others may mine asteroid belts for valuable ores, smuggle goods to distant planets, or even engage in piracy. This chapter covers interplanetary and interstellar travel, as well as starship operations and procedures.

## Interplanetary Travel

Starships and other spacecraft in Cepheus Deluxe have reactionless real-space thrusters with an acceleration rating from 1G to 6Gs. Ships normally travel under full acceleration halfway to their destination, then decelerate for the other half of the journey. The following table presents abstracted in-system travel times according to the ship’s acceleration.

**Common interplanetary travel times by acceleration**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Destination** | **1-G** | **2-G** | **3-G** | **4-G** | **5-G** | **6G** |
| Planetoid Jump Point | 10m | 7m | 6m | 5m | 5m | 4m |
| Ground to Planetary Orbit | 33m | 23m | 19m | 16m | 14m | 13m |
| Ground to Typical Planetary Jump Point | 5h, 30m | 4h | 3h | 3h | 2h, 30m | 2h |
| Small Gas Giant to Jump Point | 12h | 8h | 7h | 6h | 5h, 30m | 5h |
| Large Gas Giant to Jump Point | 17h | 12h | 10h | 9h | 8h | 7h |
| Planet to Close Neighbor | 1d, 13h | 1d, 2h | 22h | 19h | 17h | 15h |
| Planet to Far Neighbor | 3d, 17h | 2d, 15h | 2d, 3h | 1d, 20h | 1d, 16h | 1d, 12h |
| Mainworld to Close Gas Giant | 5d, 16h | 4d | 3d, 7h | 2d, 20h | 2d, 13h | 2d, 8h |
| Mainworld to Far Gas Giant | 6d, 23h | 4d, 22h | 4d | 3d, 11h | 3d, 3h | 2d, 20h |

Travel times are abstracted and, as noted above, generally assume constant acceleration up to the halfway point and then constant deceleration down to the destination. Ships intending to jump will not decelerate towards the jump point. They will emerge from a jump at the speed they entered it.

## Interstellar Travel

Interstellar travel in Cepheus Deluxe uses a faster-than-light engine called the Jump Drive. Jump Drives are rated according to the maximum range in parsecs (represented on the star map as hexagons) they may travel in a single jump. Jump-1 drives can propel a vessel to an adjacent hex, while Jump-3 drives will move a ship up to three hexes. A single voyage through jump-space takes 1 week regardless of the distance traveled. Jump drives require a significant gravity well, like a star system, at both ends of the jump, but not too much gravity. It is impossible to purposefully jump to a destination without a star system. Jump drives are safe to use only at a certain distance from a planetary or stellar body. This is called the Jump Point or Jump Distance. A jump requires an amount of liquid hydrogen fuel equal to 10% of the ship’s volume per parsec traveled. For example, a 200-ton ship making a 3-parsec jump would burn 60 tons of fuel.

The jump drive propels the ship into a parallel dimension, called Jump Space. The jump fuel serves to envelope the ship with a hydrogen bubble, at a distance of approximately 5m in every direction from the hull – the so-called "Jump Bubble" – to protect it from the alien nature of Jump Space. Characters can safely go on EVA within the bubble but will be lost if they leave it and enter real, unprotected Jump Space – even if still tethered to the ship.

### Interstellar Jump Procedure

1. **Calculate Plot**: A jump requires a course calculation called a “jump plot”. Starports rated D or better sell up-to-date jump plots to nearby populated worlds for Cr1,000 per parsec. A skilled pilot can also calculate their own jump plot. Throw Piloting/EDU 6+ to calculate a jump plot, apply a negative DM equal to the number of parsecs the jump will travel; this takes 1Dx6 minutes (i.e., 1D ship combat turns). It is possible to rush this calculation, to guarantee that it will only take one ship combat turn, but the throw is Piloting/EDU 10+. A failed check requires another attempt, or the ship will misjump (see below). It is possible to calculate a jump plot in advance, but it will become obsolete within 1D days.
2. **Engage Drive**: Once the jump plot is ready, the ship’s engineer must throw Engineering/EDU 8+ to engage the Jump Drive. This procedure takes a second and can be done in the same round as the jump throw itself.
3. **Jump!**: To jump, throw 2D with the following DMs. A throw of 0 or less causes a misjump. A bad jump plot causes an automatic misjump.

DM+the Effect of the Engineering throw to Engage the Drive

DM-1 per day the jump plot is out of date

DM-2 if the Jump Drive is damaged.

DM-2 if using Unrefined fuel.

DM-8 if within a hundred-diameter limit of the nearest planet or star (Not at a jump point)

1. **In Case of a Misjump**: A misjump causes a Critical Hit on the ship (see the space combat rules) and may destroy it. Furthermore, the ship travels 1D x 1D parsecs in a random direction. If this leads to an empty hex on the map, the ship emerges from the misjump at the closest star system to that empty hex. In case there are multiple adjacent systems, choose one randomly.

## Starship Expenses

A starship’s owner must handle several expenses, detailed below.

### Mortgage

A mortgaged ship’s owner must pay 1/320th of the ship’s cash price per month for 480 months (40 years). This means that the owner pays 150% of the ship’s purchase price back to the bank.

### Crew Salaries

A ship needs the following crew-members:

**Captain:** Cr6,000 per month if hired (i.e., when the captain is not the ship’s owner/operator). The captain leads the crew and manages the ship and requires at least Leadership 1. Any crew member can serve as captain in addition to another job (at no additional pay), but this limits their capability to lead the crew in battle or other emergency. Furthermore, a ship can have a captain without the Leadership skill, but such captain will be unable to use the special captain actions described in the Space Combat chapter. A dedicated, skilled captain is essential if the ship expects combat.

**Pilot:** Cr6,000 per month. Requires at least Piloting 1. The Pilot flies and maneuvers the ship, as well as plots interplanetary movement and interstellar jumps. Every ship requires a pilot. Military ships will have more than one pilot in the event of crew casualties.

**Sensor Operator:** Cr3,000 per month. Requires at least Computer 1. Many civilian ships forgo this position and have the pilot operate the ship's sensors, but this limits their utility in the case of emergency or combat. For this reason, military vessels will have dedicated sensor operators. A ship can have a single Sensor Operator, though military craft often carry multiple Sensor Operators in the event of crew casualties.

**Engineer:** Cr4,000 per month. Requires at the Engineering skill at level 1. The Engineer maintains the ship and operates its drives. Any ship must have at least one engineer with Engineering 1 per 35 tons of drives and power plant. An engineer with Engineering 2 could run 70 tons of drives and power plants. Ships with less than 35 tons of drive and power plant do not require a full-time engineer. On larger ships, the engineer may have assistants, who are also required to have at least Engineering-1 so that there is one level of Engineering per 35 tons of drives and power plant.

**Medic:** Cr3,000 per month. Requires at least Medicine 1. At Medicine 2 or better, the Medic is referred to as the Surgeon. The Medic provides medical care to passengers and crew and oversees any Low Berths. Any legitimate ship carrying passengers requires a Medic, and many ships without passengers employ one to care for the crew. Each level of the Medicine skill allows the Medic to care for 50 crew and passengers.

**Purser:** Cr3,000 per month. Requires at least Administration 1. The Purser manages the ship’s accounts and supplies. This position is often combined with another job, usually the Steward, with no additional pay. Smaller ships with a single Steward rarely have a Purser.

**Gunner:** Cr1,000 per month. Requires at least Gunnery 1. Any armed ship requires one gunner per turret unless the guns are automated.

**Security and Marines:** Cr1,000 per month. Requires at least Gun Combat 1. This position is optional. Security personnel protect a civilian starship against criminals and pirates. They are most often called upon to handle rowdy passengers. Military ships often carry marines for boarding actions and planetary operations.

**Steward:** Cr1,000 per month. Requires at least Steward 1. Any ship carrying passengers requires one or more Stewards to care for passengers., as described later in this chapter.

### Fuel

Interstellar jumps require **liquid hydrogen fuel**. Starports rated A or B sell refined fuel at Cr500 per ton. Starports rated A to D sell unrefined fuel at Cr100 per ton. Military or exploration ships usually have on-board fuel processors capable of refining fuel; small commercial ships often avoid using refineries to save cargo space and because the purification process is too long to be economically viable.

Ships may refuel, free of charge, by two other means:

A ship can **draw water** from any world with a hydrographic rating of 1 or higher. Fuel extracted in this manner is unrefined. Most worlds with starports discourage or ban this practice, but it is a common practice on the frontier. Consider water drawn in this manner Unrefined Fuel. Drawing water takes 1 hour per 20 tons of water.

A ship can **scoop** gas giants for hydrogen fuel. Fuel gathered in this manner is unrefined. This takes 1D hours per 40 tons of fuel. Note that gas giants are a favorite ambush spot for pirates. Fuel scooped from a gas giant is Unrefined.

**Fuel processors**, if installed, can refine unrefined fuel into refined fuel. A ton of fuel processing equipment can refine 5 tons of unrefined fuel into refined fuel per day.

### Life Support

Each person, passenger, or crew incurs a cost of Cr2,000 per month for life support, other expenses, and overhead. Luxury life support—gourmet food and other luxurious amenities—costs Cr4,000 per month. Note that High Passage *does not* require luxury life support. However, advertising luxury life support grants an additional die to the High Passenger availability roll at Starports rated C or better on the **Available Freight and Passengers Table** below.

Each occupied Low passenger berth costs Cr100 per month for life support in standard travel. Low berth occupants can survive much longer – decades or more – without external life support by putting the passenger into Deep Freeze, but that imposes DM-2 penalty on their revival throws.

Purchasing life support in bulk reduces costs and allows the ship to operate for a longer time away from port. A ton of life support supplies – enough for 20 persons for a month – costs Cr34,000 instead of Cr40,000.

### Port Fees

A starport berth costs Cr100 for 6 days, and Cr100 per day afterwards.

### Maintenance

Ships require maintenance work at a starport rated C or better once per year. This costs 0.1% of the ship’s listed price. If the ship skips maintenance, the Engineer must throw Engineering/INT 8+ each month to avoid a mishap; each mishap means that a single ship system has broken down: roll a single combat Hit and apply the damage to the vessel. Apply a DM-1 for every additional month of maintenance skipped. However, reroll any "Critical Hit" results rolled in this case: ships do not explode due to faulty maintenance. At least, not normally.

## Starship Revenue

Ships generate revenue by carrying passengers, freight, mail, or by hiring out as charters. Speculative trade, described in the Speculative Trade chapter, can also generate revenue.

### Passage

There are five types of ship passage tickets. Prices are per parsec traveled. For example, traveling two parsecs by Jump-2 by Middle Passage would cost Cr16,000 and take one week. The same ticket bought on a Jump-1 ship would cost the same but take 2 weeks minimum.

Roll on the Available Freight and Passengers table below for available passengers of each class going to a *destination* world. A ship may remain in port to look for more passengers; roll again every 3 days after the first six, but they must now use the new number of passengers, even if that number is lower than originally rolled. A ship can take on all or part of the available passengers. Roll an additional die for High Passengers if luxury life support is available.

**High Passage** is first-class travel with excellent service and cuisine, and costs Cr10,000 per parsec travelled. The baggage allowance is 1000kg. The ship’s Steward can serve 3 High Passengers during the journey per level of the Steward skill. Steward-0 does not count for the purposes of tending to High Passengers. For example, Steward-2 allows the steward to care for up to 6 High Passengers. It is normal for a ship to “bump” a Middle Passenger or two Steerage Passengers in favor of a late-arriving High Passenger. In this case, the bumped passenger’s ticket is refunded, but there is no further compensation.

**Middle Passage** is standard travel with normal service and cuisine, and costs Cr8,000 per parsec travelled. The baggage allowance for Middle Passage is 100kg. The Steward may serve 6 Middle Passengers for each level of Steward skill. Steward-0 does not count towards tending Middle Passengers.

**Steerage Passage** is economy-class travel at double occupancy (2 passengers per stateroom) with simple self-service cuisine. Steerage costs Cr3,000 per parsec traveled. The baggage allowance for Steerage is 20kg. Each level of the Steward skill, including Steward-0, allows the steward to serve 12 Steerage passengers.

**Low Passage** means traveling in cryo-sleep. This is unsafe, but cheap, and costs Cr1,000 per parsec traveled. The baggage allowance for Low Passage is 10kg. Cryo-sleep is dangerous and potentially lethal. The ship’s Medic throws Medicine/EDU 6+ to safely thaw and revive Low Passengers. Apply the passenger’s END DM to this throw as well. Failure means that the passenger dies from cryogenic shock. In the absence of a medic, the low berth (cryotube) itself can revive its occupant with an effective Medicine skill of 0 and an INT modifier of +0. A natural throw of 2 always kills the Low Passenger, regardless of the Medic’s abilities or the passenger’s END.

A ship’s captain may hire an individual to fill a vacant position on a starship by arranging **Working Passage**. This provides the passenger with free travel, accommodations, and food in exchange for working at that shipboard post. The baggage allowance is 1000kg. Labor laws often require that the captain hire the passenger on as crew at full salary if they continue to work for more than three jumps.

**Stowing Away** on a starship is ill-advised. If caught and handed over to the authorities, the stowaway will go to prison. Some captains avoid the hassle of dealing with planetary legal bureaucracies by throwing the stowaway out of the airlock, or selling them to slavers or organ-leggers.

Note that each level of Steward skill can serve either 3 High Passengers, or 6 Middle Passengers, in addition to 12 Steerage passengers. For determining the maximum number of passengers, a steward can tend to, consider each level of Steward skill as a point: each point can be allocated to serve only one class of passengers.

For example, a steward with the Steward-1 skill can serve 3 High Passengers, or 6 Middle Passengers, or 24 Steerage Passengers (since Steward 0 can cover 12 Steerage already). That same steward could not manage 2 High Passengers and 2 Middle Passengers. A steward with Steward-2 may serve 6 High Passengers, or 12 Middle Passengers, or 36 Steerage Passengers – or 3 High Passengers, 6 Middle Passengers and 12 Steerage passengers, or 3 High Passengers, and 24 Steerage Passengers, and so on.

### Available Freight and Passengers Table

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Destination Starport**  **Class** | **Freight (tons)** | **High Passengers**  **(Cr10,000/psc)** | **Mid Passengers**  **(Cr8,000/psc)** | **Steerage Passengers**  **(Cr3,000/psc)** | **Low Passengers**  **(Cr1,000/psc)** |
| A | 3Dx10 | 3D | 3D | 4D | 3Dx3 |
| B | 3Dx5 | 2D | 3D | 4D | 3Dx3 |
| C | 3Dx2 | 1D | 2D | 3D | 3D |
| D | 3D | 0 | 1D | 2D | 2D |
| E | 1D | 0 | 1D/2\* | 1D | 1D |
| X | 0 | 0 | 0 | 0 | 0 |

\*Round down

The above availability numbers assume a tramp freighter with no fixed schedule. The Referee should allow DMs if the ship sets up a regular schedule between worlds. Rates are in Credits per Parsec travelled.

### Bulk Freight

A ship can transport cargo in bulk. This pays Cr1,000 per ton of cargo per parsec jumped. For example, transporting a ton of cargo in a single Jump-2 pays Cr2,000. Roll on the Available Freight and Passengers table above for available freight going to a given *destination* world. A ship may remain in port to look for more cargo; roll again every 3 days. A ship can take all or part of the available cargo. A ship may break up the available freight but must take the cargo in lots of each die rolled. For example, if the ship is at a Class B starport, there is 3Dx5 tons of freight available. The Referee rolls the 3D getting a 5, 3, and 6 – therefore, there are 3 available lots of freight 25 tons, 15 tons, and 30 tons. A ship’s Purser may select any or all of the lots but must take them in the full tonnage of each lot.

### Mail and Incidentals

An armed merchant can sign up to carry 5 tons of mail. This pays Cr25,000 per parsec. Throw 1D-1 for the actual tonnage of mail carried (minimum 1 ton).

Other ships may carry private messages and parcels to a specific location. This pays Cr20 to Cr120 (Referee’s discretion) per message or parcel. As a rule of a thumb, one ton of cargo can contain up to 50 typical parcels. Messages are electronic, and the ship’s computer may hold an effectively limitless number of them.

### Charters

A private individual or concern may charter a ship. Payment for in-system charters is Cr4 per ton of the ship per hour, with a 12-hour minimum. For example, a 100-ton scout would cost Cr400 per hour, minimum Cr4800. Payment for interstellar charters is in 2-week blocks at Cr3,000 per ton of cargo hold plus Cr24,000 per passage stateroom and Cr3,000 per low berth. The owner of the vessel still pays the overhead and supplies a crew. For example, a 100-ton Scout has four staterooms (Cr96,000), one low berth (Cr3,000), and 14 tons of cargo (Cr56,000) for a total potential of Cr155,000 for a charter of two weeks. Details of possible charters are left to the Referee.

### Electronics and Sensors

All starships have a computer and assorted electronics and avionics. The computer model determines two things. The first is the highest jump rating the ship can achieve, and the other is a DM to all sensor throws, as shown in the following table.

#### Electronics and Sensors Table

|  |  |  |
| --- | --- | --- |
| **Electronics** | **Max. Jump Rating** | **Sensor DM** |
| Baseline | - | DM-4 |
| Model/1 | Jump-1 | DM-2 |
| Model/2 | Jump-2 | DM+0 |
| Model/3 | Jump-3 | DM+1 |
| Model/4 | Jump-4 | DM+2 |
| Model/5 | Jump-5 | DM+2 |
| Model/6 | Jump-6 | DM+3 |
| Model/7 | Jump-6 | DM+4 |
| Model/8 | Jump-6 | DM+5 |

Throw Computer/INT 8+ to use a ship’s sensors for scanning and detection purposes. Apply the ship’s Sensor DM to this throw. The Referee may determine various further DMs to this throw based on the task at hand.

Starship sensors automatically detect any civilian ship present in the local planetary system if it is using a transponder. Smugglers, pirates, and naval vessels often turn off such transponders and thus require a Computer/INT 8+ throw to detect at long range. A **stealthed** ship applies DM-4 to detection throws. Detecting small craft applies a further DM-2. Detecting ships at short range is done at DM+2.

Sensors are also useful in ship combat, as described in the Space Combat chapter.

# Trade and Smuggling

A ship can generate a steady profit from hauling cargo and passengers. However, speculative trading offers a chance for far greater profits – at the risk of significant losses. The following simple system is designed to allow merchant traders to engage in speculative trade.

## Speculative Trade Procedure

For speculative trade, follow the procedure below:

1. Find a supplier.

2. Determine goods available.

3. Determine purchase price.

4. Travel to a new world.

5. Find a buyer.

6. Determine sale price.

**Remember the first rule of trading: Buy low, Sell high.**

### 1. Find a supplier

Throw the listed skill below to find a supplier. If you fail the throw, you may look for additional suppliers, but at DM-1 per previous attempt per planet per week.

To find a corporate supplier, throw Liaison/SOC 8+.

To find a black-market supplier for illegal goods, throw Streetwise/INT 8+.

To find a private supplier, throw Carousing/SOC 8+.

DM+6 for Starport A; DM+4 for Starport B; DM+2 for Starport C; DM -1 for Starport D and DM-2 for Starport E.

### 2. Determine goods available

There are two types of goods – common and trade. A given supplier has all Common Goods and 1D randomly chosen trade goods. To the 1D roll, apply DM+1 if Starport C, DM+2 if Starport B, DM+4 if Starport A, or DM-2 if Starport E. This can never be less than one. Throw “D66” on the following table to determine available trade goods. This means throwing 2D, but rather than adding them together, read them consecutively, that is – one as the “tens” digit and the second as the “ones” digit. Remember to declare which is which *before* rolling.

Ignore the results of 61-65 unless dealing with a black-market dealer – these goods are universally illegal or otherwise highly questionable.

If certain regular trade goods are illegal on a planet, a black-market supplier will offer them as well. The Referee should use the world’s Law Level as a guide to what is legal and illegal on a particular world.

#### Smuggling

Running contraband–such as results 61-65 on the trade table–means running the risk of being caught by the authorities. Apart from inspection by patrol boat in space, covered by the ship encounter rules earlier in this book, selling or buying illegal goods is likely to attract unwanted law enforcement attention:

To avoid an encounter with law enforcement while smuggling, throw 2D and get equal to or higher than the world’s Law Level. Failure means some police harassment. Such harassment does not necessarily mean that the characters were caught smuggling, but rather that they are in the risk of being caught; avoiding the Law in such a case is an adventure all by itself. The Referee can abstract this interaction to a single Streetwise or Admin throw to avoid trouble, or fully role-play the encounter.

In cases where goods are deemed illegal due to the local planetary Law Level (see the *Worlds* chapter), the Referee should apply a DM+1 or DM+2 to the Sale throw on the Modified Price Table, below.

#### Common Goods Table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Item** | **Cost per ton** | **Tons** | **Purchase DMs** | **Sale DMs** |
| Basic Consumable Goods | Cr1,000 | 2Dx5 | Ag+3. Ga+2 | Hi+1, Ri+2 |
| Basic Electronics | Cr25,000 | 2Dx5 | Ht+2, In+4 | Ni+2, Po+1 |
| Basic Machine Parts | Cr1,000 | 2Dx5 | In+3, Ri+2 | Na+1, Ni+2 |
| Basic Manufactured Goods | Cr20,000 | 2Dx5 | In+3, Ri+2 | Ag+1, Ni+2 |
| Basic Raw Materials | Cr5,000 | 2Dx5 | As+3 Ni+1 | In+2 Ri+2 |
| Common Unrefined Ore | Cr2,000 | 2Dx5 | As+2, Va+1 | In+2, Na+1 |

#### Trade Goods Table

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **D66** | **Trade Goods** | **Base Price per Ton** | **Tons** | **Purchase DMs** | **Sale DMs** |
| 11 | Advanced Electronics | Cr100,000 | 1Dx5 | Ht+2, In+4 | Ni+2, Po+1 |
| 12 | Advanced Manufactured Goods | Cr200,000 | 1Dx5 | In+3, Ri+2 | Ag+1, Ni+2 |
| 13 | Agricultural Equipment | Cr150,000 | 1D | In+3. Ri+2 | Ag+2, Ga+1 |
| 14 | Animal Products | Cr1,500 | 4Dx5 | Ag+2, Ga+3 | Hi+2, Ri+1 |
| 15 | Collectibles | Cr50,000 | 1D | In+2, Ri+3 | Hi+2,Ni+1 |
| 16 | Computers | Cr150,000 | 2D | Ht+3, In+2 | Na+1, Ni+2 |
| 21 | Crystals and Gems | Cr20,000 | 1Dx5 | Ni+3, Na+2 | In+1, Ri+2 |
| 22 | Cybernetic Parts | Cr250,000 | 1Dx5 | Ht+3, Ri+2 | Na+1, Ni+2 |
| 23 | Food service equipment | Cr4,000 | 2D | In+3, Na+2 | Ag+1, Ni+2 |
| 24 | Furniture | Cr5,000 | 4D | Ag+2, Ga+3 | Hi+1, Ri+2 |
| 25 | Gambling Devices and Equipment | Cr4,000 | 1D | Hi+2, Ri+3 | Na+2, Ni+1 |
| 26 | Grav Vehicles | Cr160,000 | 1D | Ht+3, Ri+2 | Ni+2, Po+1 |
| 31 | Grocery Products | Cr6,000 | 1Dx5 | Ag+3. Ga+2 | Hi+1, Ri+2 |
| 32 | Household Appliances | Cr12,000 | 4D | Hi+2, In+3 | Na+1, Ni+2 |
| 33 | Industrial Supplies | Cr75,000 | 2D | In+3, Ri+2 | Na+1, Ni+2 |
| 34 | Liquor | Cr15,000 | 1Dx5 | Ag+3, Ga+2 | In+1, Ri+2 |
| 35 | Luxury foodstuffs and fabrics | Cr150,000 | 1D | Ag+2. Ga+3 | In+1, Ri+2 |
| 36 | Manufacturing Equipment | Cr750,000 | 1Dx5 | In+3, Ri+2 | Na+1, Ni+2 |
| 41 | Medical Equipment | Cr50,000 | 1Dx5 | Ht+2, Ri+3 | Hi+1, In+2 |
| 42 | Petrochemicals | Cr10,000 | 2Dx5 | Na+2, Fl+3 | Ag+1, In+2 |
| 43 | Pharmaceuticals | Cr100,000 | 1D | Ht+3, Wa+2 | In+2, Ri+1 |
| 44 | Complex chemical compounds | Cr7,000 | 4Dx5 | In+2, Ri+3 | Ni+2, Va+1 |
| 45 | Precious Metals | Cr50,000 | 1D | As+3, Ic+2 | In+1, Ri+2 |
| 46 | Radioactives | Cr1,000,000 | 1D | As+2, Ni+3 | In+2, Ht+1 |
| 51 | Robots and Drones | Cr500,000 | 1Dx5 | Ht+3, Ri+2 | Ni+1, Ri+2 |
| 52 | Scientific Equipment | Cr50,000 | 1Dx5 | Ht+3, Ri+2 | Hi+2, Ni+1 |
| 53 | Survival Gear | Cr4,000 | 2D | Ga+1, Ri+2 | Fl+2, Va+1 |
| 54 | Textiles | Cr3,000 | 3Dx5 | Ag+3, Ni+2 | Na+1, Ri+2 |
| 55 | Uncommon Raw Materials | Cr50,000 | 2Dx5 | Ag+3, Ni+2 | In+2, Na+1 |
| 56 | Uncommon Unrefined Ores | Cr20,000 | 2Dx5 | As+2, Va+1 | In+2, Na+1 |
| 61 | Illicit Luxury Goods | Cr150,000 | 1D | Ag+2, Ga+3 | In+4, Ri+6 |
| 62 | Illicit Pharmaceuticals | Cr100,000 | 1D | Ht+3, Wa+2 | In+6, Ri+4 |
| 63 | Illegal Medical Research Material | Cr50,000 | 1Dx5 | Ht+2, Ri+3 | In+6, Na+4 |
| 64 | Illegal Military Equipment | Cr150,000 | 2D | Ht+3, In+2 | Hi+6, Ni+4 |
| 65 | Illegal Weapons and Armor | Cr30,000 | 2D | In+3, Ri+2 | Ni+6, Po+4 |
| 66 | Highly Unusual Cargo | \*\* | \*\* | \*\* | \*\* |

\*\* Unusual cargo denotes highly unusual items such as alien artifacts, high-tech prototypes, stolen artwork, or unique lifeforms.

#### Modified Price Table: Roll 2D

|  |  |  |
| --- | --- | --- |
| **Result** | **Purchase** | **Sale** |
| 2- | 200% | 40% |
| 3 | 180% | 50% |
| 4 | 160% | 60% |
| 5 | 140% | 70% |
| 6 | 120% | 80% |
| 7 | 110% | 90% |
| 8 | 100% | 100% |
| 9 | 90% | 110% |
| 10 | 80% | 120% |
| 11 | 70% | 130% |
| 12 | 60% | 140% |
| 13 | 50% | 150% |
| 14 | 40% | 160% |
| 15 | 30% | 180% |
| 16+ | 20% | 200% |

### 3. Determine Purchase Price

Speculative purchase prices vary wildly based on local supply, political or economic conditions, and the suppliers themselves. To determine the purchase price, throw 2D on the Purchase column of the Modified Price Table, above. The throw is modified by the character’s INT or SOC DM (whichever is higher), and by the character’s Liaison skill level. Use whichever skill or attribute modifier is greatest and consult the Purchase Price column. Further modify this result by a trade good’s Purchase DM based on the world of origin. Only one trade code applies to each transaction – in the case where multiple trade DMs apply to a single world, use the highest one.

Finally, modify the purchase price according to the Traffic and Safety modifiers.

Multiply the base price by the resulting purchase percentage to get the final purchase price per ton. Then multiply that price by the number of tons of goods within a lot to determine the final purchase price of that lot.

Like freight, Common Goods may be purchased in lots of a single die. However, other Trade Goods must be purchased in lots equal to the full tonnage rolled.

### 4. Selling Goods

The procedure for selling goods is the same as purchasing goods: find a buyer on a new planet using the same skills used to find a supplier. Roll 2D on the Modified Price Table and consult the Sale Price column. The throw is modified by the character’s INT or SOC DM (whichever is higher), and by the character’s Liaison skill level. Apply the highest Trade Good Sale DM for the world where the goods are being sold to the roll on the Sale Price table. Finally, apply the Traffic and Safety modifiers to the Sale Price column. Selling Characters may avoid selling goods to a certain buyer or on a certain world and may throw again as they search for another buyer after one week. Alternatively, they may try their luck on another world.

#### Traffic and Safety Modifiers

The Trade Goods have Purchase and Sale DMs that reflect the relative supply and demand realities of the world where those goods are being bought and sold. They are fairly comprehensive, but neglect to consider two important factors that impact prices: the relative amounts of traffic and safety that define the world. High traffic drives purchase and sale prices down, as there are more traders and more merchants competing on a given world. Conversely, worlds that see low traffic tend to have higher prices. As well, worlds that are increasingly unsafe see a dramatic rise in prices as fewer and fewer merchants engage in commerce on those worlds.

There are two ways to define traffic and safety levels in Cepheus Deluxe. The “classic” way uses the Starport, and Zone Codes found in the UWP. A more qualitative method that we include here meshes with the Space Encounter rules found on p.XX, as well as in Stellagama Publishing’s *Piracy and Privateering* rulebook.

#### Traffic, Safety, and Legality Price Modifiers Table

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Starport Code | Traffic Rating | Purchase DM |  | Starport Code | Traffic Rating | Sale DM |
| A | High | +2 |  | **A** | High | -3 |
| B |  | +1 |  | **B** |  | -2 |
| C | Medium | 0 |  | **C** | Medium | -1 |
| D |  | -1 |  | **D** |  | 0 |
| E | Low | -2 |  | **E** | Low | 0 |
| X |  | -2 |  | **X** |  | +1 |
|  |  |  |  |  |  |  |
| System Color | **Safety Rating** |  |  | **System Color** | **Safety Rating** |  |
| Normal | Secure | 0 |  | **Normal** | Secure | 0 |
| Amber | Independent | +1 |  | **Amber** | Independent | 0 |
| Red | Dangerous | +3 |  | **Red** | Dangerous | +2 |
|  | | | | | | |
|  | | |  | **Legality (relative to Law Level)** | | |
|  | |  |  | **Slightly Illegal** | | +1 |
|  | |  |  | **Highly Illegal** | | +2 |

### Local Brokers

A local broker, well-versed in the local market and well-connected to suppliers and buyers, can improve the trader’s chances to gain favorable prices. A broker adds a +DM to purchase and sale price throws but takes a commission from the transaction sum (always paid by the speculative trader). Brokers are always available, limited by the starport class, as noted below.

**Local Brokers Table**

|  |  |  |
| --- | --- | --- |
| **Broker DM** | **Commission** | **Minimum starport class** |
| DM+1 | 5% | E |
| DM+2 | 10% | C |
| DM+3 | 15% | B |
| DM+4 | 20% | A |

# Ship Design and Construction

Starships come in many shapes, configurations, and sizes. Players will typically operate a small vessel, though larger-scale naval, exploration, or merchant-marine campaigns are also possible. This chapter presents a system for designing ships from scratch and for upgrading existing ships.

These rules classify ships by their volume rather than mass, for reasons of tradition and since the use of the magneto-gravitic maneuver drive makes volume a more important design consideration than mass. Ship designs note vessel sizes in displacement tons: this is how many tons of liquid hydrogen the ship displaces. 1 displacement ton (d-ton or ton, for short) equals approximately 14 cubic meters: a cube roughly 2.4m per side. On a square grid map where each square is 1.5m per side and 3.0m high, each ton is represented by approximately two squares on the deck plan.

**A note on tech levels:** the default interstellar space-opera tech level in Cepheus Deluxe is TL12. Ships designed at lower or higher Tech Levels are possible.

Also note that these rules present interstellar-level spacecraft designs at TLs 9-16, which are ideal for space-opera campaigns. Societies at TLs 6-8 can also manufacture spacecraft for intra-system travel, but these are considerably more primitive than the interstellar-era craft one can create with these ship construction rules. For the sake of brevity, we will not describe primitive craft here.

## Ship Design Checklist

1. Choose hull size.
   1. Choose hull configuration.
   2. Add armor, if desired.
2. Choose and calculate maneuver drive, jump drive, and power plant.
3. For jump-capable ships, determine fuel requirements.
4. Add bridge.
5. Choose electronics.
6. Optionally, add weaponry and shields.
7. Add additional components and carried craft.
8. Determine crew and passengers.
   1. Add staterooms and cryotubes accordingly.
9. Allocate remaining space to cargo.
10. Calculate final cost and construction time.
11. Mass-produced ships enjoy a 10% discount.

## Ship Hull

Hulls cost MCr0.1 per ton. This is modified by the ship’s configuration, as given below. The largest available starship hull in **Cepheus Deluxe** is 10000 tons.

Starships can be constructed at Class-A starports, system ships (which lack jump drives) and small craft (vessels under 100 tons) can be constructed at Class-A or Class-B starports. Use the following table to determine the construction time of a spacecraft.

**Spacecraft Construction Times**

|  |  |
| --- | --- |
| **Ship Tonnage** | **Construction Time (weeks)** |
| <100 tons | 26 |
| 100 – 500 tons | 52 |
| 501 – 1000 tons | 78 |
| 1001 – 2000 tons | 120 |
| 2001 – 3000 tons | 150 |
| 3001 – 4000 tons | 180 |
| 4001 – 5000 tons | 210 |
| 5001 – 10000 tons | 300 |

### Hull Configuration

There are three general starship hull configurations:

**Standard:** The ship is robust enough to enter an atmosphere but will maneuver very poorly. It cannot fly like an aircraft but only land and take off into space again. The ship may skim gas giants for fuel. No additional cost is required. All Pilot skill checks when flying in an atmosphere suffer a DM-2.

**Streamlined:** The ship will operate and maneuver like an aircraft in an atmosphere. The ship may skim gas giants for fuel and comes equipped with Fuel Scoops at no extra cost. Streamlined hulls cost 10% more than the standard price (MCr0.11 per ton).

**Distributed:** The hull is designed with only space operations in mind. The ship is non-aerodynamic and will break up if it enters an atmosphere denser than Trace. It may not skim gas giants for fuel; ships with distributed hulls will often carry small craft to interface with worlds. The hull costs 10% less than the standard price (MCr0.09 per ton).

### Ship Armor

Ships armor is available as Light Armor and Heavy Armor. Armor affects the performance of anti-ship weapons and may even prevent damage completely from lighter weapons.

Ships of 1000 tons or more automatically increase armor by one increment: treat an unarmored 1000+ ton ship as having Light Armor, a lightly armored 1000+ ton ship as having Heavy Armor, and a heavily armored 1000+ ton ship as having Massive Armor (a category only available for such large ships).

**Light Armor**

The following table lists how many tons of space Light Armor occupies and how much it costs by Tech Level.

**Light Armor Technology**

|  |  |  |  |
| --- | --- | --- | --- |
| **Armor Type** | **TL** | **Tonnage** | **Cost** |
| Titanium Steel | 7 | 12.5% of ship tonnage | 12.5% of base hull cost |
| Composite Alloy | 8 | 10% of ship tonnage | 20% of base hull cost |
| Crystaliron | 10 | 6.5% of ship tonnage | 25% of base hull cost |
| Superdense | 12 | 5% of ship tonnage | 30% of base hull cost |
| Bonded Superdense | 14 | 4% of ship tonnage | 40% of base hull cost |
| Collapsed Superdense | 16 | 3.5% of ship tonnage | 50% of base hull cost |

**Heavy Armor**

The following table lists how many tons of space Heavy Armor occupies and how much it costs by Tech Level.

**Heavy Armor Technology**

|  |  |  |  |
| --- | --- | --- | --- |
| **Armor Type** | **TL** | **Tonnage** | **Cost** |
| Titanium Steel | 7 | 25% of ship tonnage | 25% of base hull cost |
| Composite Alloy | 8 | 20% of ship tonnage | 40% of base hull cost |
| Crystaliron | 10 | 12.5% of ship tonnage | 50% of base hull cost |
| Superdense | 12 | 10% of ship tonnage | 60% of base hull cost |
| Bonded Superdense | 14 | 8.5% of ship tonnage | 80% of base hull cost |
| Collapsed Superdense | 16 | 7% of ship tonnage | 100% of base hull cost |

**Stealth**

Specialized emissions-masking systems and stealth structures can render a ship difficult to detect by sensors at any range. Stealth costs MCr0.1 per ton of the ship’s hull. Stealth modifications provide DM-4 to any Computer throws to detect or lock onto the ship in and out of combat.

## Drives

A system ship must have a maneuver drive (M-Drive) and a power plant (P-Plant). A starship must have a jump drive (J-Drive) and a power planet (P-Plant); a maneuver drive may also be installed but is not required. Small craft are too small to mount jump drives.

On the Drive Performance tables, the maneuver drive potential is the Thrust number (Tn), measured in the number of G’s of acceleration available. For Jump Drives, the potential is the Jump number (Jn), or Jump range in parsecs. The power plant rating code must be at least equal to either the maneuver drive or Jump drive rating, whichever is higher.

Drives use a percentage of ship’s tonnage. Note that higher tech levels can produce more efficient drives.

Drive and power plant performance is not linear. Small and exceptionally large components tend to be less efficient than moderately sized units. This is especially true with small craft drives, which are significantly less efficient than those of starships (100+ tons).

Note that Performance of “0” represent station-keeping ability only, no tactical maneuvering. Often used by space stations and orbital facilities. Also note that while a space station might have Maneuver Drive 0, it must have at least Power Plant 1 to operate.

**Drive Cost**: Jump drive, Maneuver drive, and Power Plant components cost MCr1.5 per ton.

**Small Craft Drives (10–99-ton hull)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Table: Drive Performance (Percentage of hull tonnage)** | | | | | | | |
| **Type** | **0** | **1** | **2** | **3** | **4** | **5** | **6** |
| **Power Plant** | - | 4.5 | 7.8 | 11.4 | 15.0 | 18.9 | 23.1 |
| **M-Drive** | 1.5 | 2.7 | 4.5 | 6.6 | 9.0 | 11.7 | 14.7 |
| **J-Drive** | - | - | - | - | - | - | - |

**Ship Drives (100+ ton hull)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Table: Drive Performance (Percentage of hull tonnage per drive rating)** | | | | | | | |
| **Type** | **0** | **1** | **2** | **3** | **4** | **5** | **6** |
| **Power Plant** | - | 1.5 | 2.6 | 3.8 | 5.0 | 6.3 | 7.7 |
| **M-Drive** | 0.5 | 0.9 | 1.5 | 2.2 | 3.0 | 3.9 | 4.9 |
| **J-Drive** | - | 3.0 | 4.5 | 6.5 | 9.0 | 12.0 | 15.5 |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Table: Tech Level Adjustment for Drive Percentage*** | | | | | | | | | |
| **Drive Type** | **TL8** | **TL9** | **TL10** | **TL11** | **TL12** | **TL13** | **TL14** | **TL15** | **TL16** |
| **Power Plant** | 1.9 | 1.7 | 1.6 | 1.5 | 1.0 | 0.9 | 0.8 | 0.7 | 0.6 |
| **M-Drive** | 1.5 | 1.3 | 1.2 | 1.1 | 1.0 | 0.9 | 0.8 | 0.7 | 0.6 |
| **J-Drive** |  | 2.0 | 1.4 | 1.2 | 1.0 | 0.9 | 0.8 | 0.7 | 0.6 |

### Jump Technology

While all magneto-gravitic maneuver drives and fusion power plants are available from TL9 on, jump technology develops more gradually, as follows. Remember that the ship’s computer also determines the ship’s maximum jump rating.

|  |  |
| --- | --- |
| **Jump Rating** | **Minimum Tech Level** |
| 1 | 9 |
| 2 | 11 |
| 3 | 12 |
| 4 | 13 |
| 5 | 14 |
| 6 | 15 |

## Fuel

Fusion power plants include their own fuel, typically Helium-3. Power plant fuel suffices for over a year; annual maintenance costs include the expense of refueling the power plant. However, jump drives require liquid hydrogen fuel for each jump. When performing a jump, a starship uses 10% of its tonnage in fuel per parsec jumped. To determine how much fuel a given jump consumes, multiply the starship’s tonnage by 0.1, and then multiply that number by the number of parsecs being travelled in the jump. For example, a 100-ton starship performing Jump 2 must expend 100 x 0.1 x 2 = 20 tons of fuel to operate its jump drive.

## Starship Bridge

Any ship of 100 tons or more has a bridge based on its total tonnage. The size of the bridge is 2% of the hull tonnage and costs MCr0.5 per 100 tons of ship. This tonnage also includes avionics and communication equipment, especially in larger ships. Minimum bridge tonnage is 10 tons for a starship and 5 tons on a system ship.

## Small craft cockpit and accommodations

A small craft control cabin or cockpit costs MCr0.1 per 20 tons of craft. A cockpit is cramped and will be uncomfortable for more than 24 hours of continuous use. Apply a DM-1 to skill checks in those cases. A control cabin is far more comfortable for longer journeys.

In addition, small craft may also mount acceleration couches, allowing them to carry passengers for short flights of 12 hours or less. These couches accommodate a single person each, displace 0.5 tons and cost Cr25000 (MCr0.025) per person. It is possible to install staterooms in small craft as well.

Note that small craft do not require additional electronics beyond the baseline model, though military and exploration craft greatly benefit from them.

|  |  |
| --- | --- |
| **Controls** | **Tonnage** |
| 1-Person Cockpit | 1.5 tons |
| 2-Person Cockpit | 3 tons |
| 1-Person Control Cabin | 3 tons |
| 2-Person Control Cabin | 6 tons |

For each extra person after the first two in a Control Cabin, add 2 tons and MCr0.05 (twice the cost of an acceleration couch because they also have some control capability). Only control cabins can have this added feature. Each cockpit or cabin includes Acceleration Couches for each occupant.

## Electronics

Each ship has a central computer and various electronic systems. The computer core itself is exceedingly small; even with hardening and redundancy, this mainframe is rarely larger than a small 21st century beer refrigerator. The actual tonnage includes various electronic systems: wiring, terminals, sensors, and communication systems.

Electronics are required for calculating interstellar jumps. The computer included in an electronic system grant a DM to sensor throws in and out of combat. The electronics may also assist in targeting, as noted in the Space Combat chapter.

All electronic systems are hardened against radiation and electromagnetic pulses, though this hardening is neither perfect nor complete; see the radiation attack rules in the Space Combat section.

Starships need at least Model/1 electronics for jump calculations. Small craft may have baseline computers with minimal electronics: this is included in their cockpit costs and tonnage. However, baseline electronics are recommended only for civilian craft.

You may add an “Advanced” (adv) option to any electronics system. It increases the electronics cost by 50% but also permits the ship to have a maximum Jump rating one higher than what it would attain with standard electronics. For example, Model/1adv electronics would have a Sensor DM-2, cost MCr1.5, and take up 1 ton of space on board, but would allow a maximum of Jump-2.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Electronics** | **TL** | **Cost** | **Tonnage** | **Max. Jump Rating** | **Sensor DM** |
| Baseline | - | - | - | - | DM-4 |
| Model/1 | 7 | MCr1 | 1 | Jump-1 | DM-2 |
| Model/2 | 9 | MCr3 | 2 | Jump-2 | DM+0 |
| Model/3 | 11 | MCr5 | 3 | Jump-3 | DM+1 |
| Model/4 | 12 | MCr10 | 5 | Jump-4 | DM+2 |
| Model/5 | 13 | MCr20 | 6 | Jump-5 | DM+2 |
| Model/6 | 14 | MCr40 | 8 | Jump-6 | DM+3 |
| Model/7 | 15 | MCr50 | 10 | Jump-6 | DM+4 |
| Model/8 | 16 | MCr100 | 12 | Jump-6 | DM+5 |

## Armament

Military craft, as well as civilian craft operating on the frontier, often carry weaponry. Each weapon requires one or more **hardpoints** to mount on a ship. Ships have one hardpoint available per 100 tons of hull size. Fire control is included in the turret or bay tonnage amounts listed below.

Ship weapons have the following stats:

**Weapon:** weapon’s name.

**TL:** minimum tech level to construct the weapon.

**Type:** the weapon’s type, whether it is Light, Intermediate, Heavy, or a Main Gun.

**Hits:** the number of internal damage rolls the weapon inflicts on the appropriate damage table. Radiation damage rolls apply regardless of armor rating unless the ship is completely invulnerable to that weapon’s class.

### Turrets

One turret may be attached to each hardpoint on the ship.

|  |  |  |  |
| --- | --- | --- | --- |
| **Turret Displacement and Cost** | | | |
| **Weapon** | **TL** | **Tons** | **Cost (MCr)** |
| **Single Turret** | 7 | 2 | 0.2 |
| **Double Turret** | 8 | 3 | 0.5 |
| **Triple Turret** | 9 | 4 | 1 |
| **Pop-Up Turret** | 10 | x2 | +1 |
| **Fixed Mounting** | - | - | x0.5 |

**Single, Double** and **Triple** turrets can hold one, two, or three weapons, respectively.

**Pop-Up** is a quality that can be applied to any type of turret. The turret is concealed in a pod or recessed on the hull and is detectable only when deployed. A ship with all its weapons in pop-up turrets looks unarmed to a casual sensor scan. Pop-up turrets take up twice as much tonnage as their normal counterparts and add MCr1 to the turret’s cost.

**Fixed Mounting** weapons cannot move and are limited to firing in one direction: usually fixed forward, or fixed rear. Fixed mountings are found mainly on small craft. A fixed mounting costs half as much as a turret with the same number of weapons. See the Space Combat chapter for rules on how to fire Fixed weapons.

Turrets and fixed mounts can accommodate a variety of weapon systems. The legality and availability of a given weapon system is beyond the scope of these construction rules. The Referee should be the final arbiter of what is considered normal, legal, licensed, or illegal in their setting. Remember, the rules will not be same in every star system and starship crews must be careful to ensure they comply with local regulations. In almost every case, nuclear weapons are restricted to military use only.

**Weapons**

Weapons may be installed in Turrets, Bays, or as Main Weapons. Not every weapon can be installed in all mounting systems at the same tech level, see the tables below for details.

**Regular missiles** cost Cr1,200 each; smart missiles, Cr2,500 each; nuclear missiles, Cr50,000 each but are not normally available to civilians. **Smart missiles** are accurate, regardless of the gunner’s skill. If they miss their target, they may make one more attempt to hit in the following round. **Nuclear missiles** are Intermediate weapons and cause 2D hits + 1 radiation hit. **Ortillery** missiles attack ground targets and cost Cr5,000 per missile. See the Space Combat chapter for missile attack procedures.

A single missile rack holds 3 missiles, and each ton of cargo space modified as a missile magazine can accommodate 12 missiles. Loading a rack from nearby ordinary cargo takes the gunner a full space combat round. A pre-designated missile magazine allows automatic loading but prevents that space from being used for cargo when not carrying missiles.

**Torpedoes** are larger military-grade guided weapons. They pack an enormous punch, but are vulnerable to spoofing and point defense, like normal missiles. A torpedo launcher holds one torpedo, while torpedo bays fire salvoes of 12 torpedoes. Each torpedo costs Cr5,000, and each ton of cargo space can hold 6 torpedoes. Like missiles, pre-designated torpedo magazines allow for automatic reloading, but prevent the space from being used for cargo at other times.

**Pulse lasers** are ideal for point defense against incoming missiles. They are powerful but inaccurate, causing 2 hits on impact, but attacking at DM-2 to hit ordinary targets. See the Space Combat chapter for rules on point defense.

**Mining Lasers** are a tool more than a weapon. Belters use these lasers to penetrate asteroids and reach valuable ores. Salvagers also use mining lasers to enter derelict ships or cut the ships up for parts. In a pinch, mining lasers can be used as a potent short-range weapon: they suffer DM-3 to all attack rolls when used as a weapon.

**Sandcasters** launch anti-laser sand canisters, described in the Ship Combat chapter. A single sandcaster holds 6 canisters and a single ton of cargo, or magazine, can hold 24 canisters. Sandcaster magazines can serve for sand canisters just as for missile magazines, and a single magazine can be used for both interchangeably, at an exchange rate of two canisters per missile.

**Particle Beams** blast enemies with beams of charged particles, causing both structural and radiation damage. This is the lightest military-grade energy weapon available, and many polities restrict its use to military and paramilitary ships.

**Beam Lasers** are weak but accurate lasers firing continuous beams.

**Plasma Beams:** are powerful beam weapons firing ionized plasma.

**Fusion Beams:** beam weapons emitting plasma undergoing a fusion reaction.

**Gravity lances** fire shearing beams of gravitons which are exceedingly powerful, but attack rolls are affected by the hull configuration: Streamlined: DM-2, Distributed: DM+2.

**Meson cannons** fire streams of exotic particles that decay inside the hull of the target ship. They are notoriously inaccurate, but when they hit, they can cause tremendous damage. Meson cannons ignore armor but are affected by meson shields.

**Cherenkov cannons** fire a stream of particles that are moving faster than the speed of light in the local medium (tachyons) and can easily penetrate armor. Reduce target’s armor rating by one category against this weapon.

**Turret Weapons**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Weapon** | **TL** | **Type** | **Hits** | **Cost** | **Notes** |
| Missile Rack | 6 | Light | 1D per missile | MCr0.75 | Nuclear missiles: Intermediate, 2D hits + 1 Radiation. |
| Pulse Laser | 7 | Light | 2 | MCr0.5 | DM-2 to hit; superior point defense |
| Sandcaster | 7 | Special | Special | MCr0.25 |  |
| Particle Beam | 8 | Light | 1 + 1 Radiation | MCr2 |  |
| Mining Laser | 8 | Light | 1 | MCr0.15 | DM-3 to hit |
| Beam Laser | 9 | Light | 1 | MCr1 |  |
| Plasma Beam | 12 | Light | 3 | MCr3 |  |
| Fusion Beam | 14 | Intermediate | 3 + 1 Radiation | MCr4 |  |
| Gravitic Lance | 16 | Intermediate | 3 | MCr5 |  |

### Large Weapons

Large weapons are turret-mounted weapons, used almost exclusively by military ships. A single large weapon can fit in a triple turret and takes up all the turret’s space. These larger weapons are designed to penetrate low armor values and are commonly found on escorts and frigates. The following large weapons are available.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Weapon** | **TL** | **Type** | **Hits** | **Cost** | **Notes** |
| Laser Cannon | 10 | Intermediate | 2 | MCr5 |  |
| Torpedo Launcher | 10 | Intermediate | 3D | MCr4 | Launches a single torpedo |
| Particle Cannon | 11 | Intermediate | 2 + 1 Radiation | MCr10 |  |
| Plasma Cannon | 12 | Intermediate | 3 + 1 Radiation | MCr15 |  |
| Fusion Cannon | 13 | Intermediate | 4 + 1 Radiation | MCr20 |  |
| Gravitic Lance | 15 | Intermediate | 5 | MCr25 |  |
| Meson Cannon | 16 | Heavy | 5 | MCr30 |  |

### Bays

A bay weapon is a massive, military-scale gun emplacement designed for large-scale naval warfare. Each bay displaces 50 tons and uses 5 hardpoints. The following bay weapons are available.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Weapon** | **TL** | **Type** | **Hits** | **Cost** | **Notes** |
| Mass Driver | 8 | Intermediate | 2 | MCr10 |  |
| Laser Cluster | 8 | Intermediate | 2 | Mcr20 |  |
| Torpedo Bay | 6 | Intermediate | 3D per torpedo | MCr20 | Fires 12 torpedos |
| Particle Gun | 9 | Heavy | 3 + 1 Radiation | MCr50 |  |
| Meson Gun | 11 | Heavy | 4 + 1 Radiation | MCr150 |  |
| Fusion Gun | 12 | Heavy | 4 + 1 Radiation | MCr100 |  |
| Gravitic Lance | 15 | Heavy | 5 | MCr125 |  |
| Cherenkov Cannon | 16 | Main Gun | 5 | MCr300 |  |

### Main Guns

A large starship may carry massive, fixed-mounted, Main Guns in addition to its turrets and bays. A main gun displaces 1000 tons and requires ten hardpoints. There are three types of main guns, Particle Gun, Meson Gun, and Gravitic Disruptor. Note that the Meson Cannon and Gravitic Disruptor ignore armor.

**Main Guns**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Weapon** | **TL** | **Type** | **Hits** | **Cost** | **Notes** |
| Particle Cannon | 12 | Main Gun | 5 + 2 Radiation | MCr500 |  |
| Adv. Particle Cannon | 14 | Main Gun | 5 + 2 Radiation | MCr1,000 |  |
| Meson Cannon | 12 | Main Gun | 5 + 2 Radiation | MCr1,500 |  |
| Adv. Meson Cannon | 14 | Main Gun | 5 + 2 Radiation | MCr3,000 |  |
| Gravitic Disruptor | 15 | Main Gun | 6 | MCr1,250 |  |
| Cherenkov Projector | 16 | Main Gun | 8 | MCr3,000 |  |

## Shields

Shields are defensive energy systems that protect against specific attacks.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Shields** | | | | |
| **Shield** | **TL** | **Effect** | **Tons** | **Cost (MCr)** |
| **Meson Shield** | 12 | Protects against meson weapon damage, halving the number of hits inflicted by a meson weapon (rounded down). Meson shields prevent radiation damage from meson weapons. | 50 | 60 |
| **Nuclear Damper** | 12 | Halves fusion gun and nuclear missile hits (rounded down), removes automatic radiation hit from fusion and nuclear missile attacks. | 50 | 50 |
| **Gravitic Field** | 13 | Uses gravitic pulses to deflect incoming attacks, halving the hits from all weapons, but imposes a DM-1 on all outgoing attacks. At TL14, ignore the attack penalty. | 100 | 100 |
| **Force Field** | 16 | Ignores one attack, regardless of its power; this depletes the shield. Roll 1D on the following round. The Field regenerates on 4-6. Check each round until it regenerates. | 200 | 300 |

## Ship Crew

All vessels require a crew to operate and maintain the ship. A single person can run a 100-ton ship if they have the requisite skills, though a larger crew is advisable. Larger ships require larger crews.

### Small Craft Crew

Each small craft requires a pilot, who can also fire the small craft's weapons. A dedicated gunner allows more complex gunnery actions, as given in the Space Combat chapter.

### Ship Crews

Any ship requires a **pilot** to fly and steer the ship**,** as well as plot its course and calculate jumps. These tasks all require the Pilot skill.Military ships often have 3 pilots, working in four or eight hour shifts for constant monitoring of the flight controls and sensors, when not in jump space.

Some civilian ships and all military ships have a **sensor operator**, using the Computer skill. On smaller civilian ships, the pilot often fulfills this role, though this limits the utility of sensors in emergency or combat. All military ships carry a sensor operator, and sometimes at least three of them to ensure round-the-clock sensor monitoring.

All ships require one **engineer** per 35 tons of drives and power plant. Ships with less than 35 tons of drives and power plant, as well as small craft, do not require dedicated engineers, as their drives are small enough for the Pilot to handle during flight. However, an Engineer may be beneficial in ship combat. Engineers need the Engineering and Repair skills.

Any ship carrying passengers requires one or more **stewards**. See the discussion of Stewards in the Ship Revenue section.

Larger ships must have a **medic** to tend to the health of passengers and crew. Even ships without passengers often carry a medic to maintain the crew's health and handle medical emergencies. There must be one medic per 50 crew and passengers carried, including low passengers. Dedicated medbays require additional medical staff.

Each gun turret requires a **gunner** to operate it. Weapon bays require two gunners, while main guns require ten gun crewmembers each. Each shield requires one gunner. Ships with Model/2 or better electronics may **automate** turrets: one turret per Sensor DM bonus (including DM+0) can be automated. For example, a ship with sensor bonus DM+2 could automate three turrets; the computer has a Gunnery-1 skill. Weapons bays, main guns, and screens cannot be automated. In accordance with naval doctrine, most military craft prefer living gunners for all weaponry and defenses.

Military ships often carry **marines**, as well as flight crew – one **pilot** and one **support crew** per small craft on board. Larger civilian ships often have a **purser** and **security staff** aboard as well. Note that small craft pilots and service personnel are **optional** – many civilian starships do not have such dedicated personnel for their small craft.

All ships have a **captain**, though on smaller ships this is usually a part-time job performed by the pilot in addition to their regular duties. A dedicated captain is ideal for combat vessels and all-but-required on all military vessels.

### Accommodations

The standard accommodations for ship crews are one **stateroom** per crew member. A stateroom displaces 4 tons and costs MCr0.5.

Military ships and more rugged freighters often institute a policy of **double occupancy**: housing two crew members or passengers in each stateroom. This does not increase the stateroom cost but is quite cramped. Highly skilled or senior civilian crew members and military officers usually get their own staterooms. Double occupancy for all crew except for the bridge crew or even for just the captain is standard practice on smaller military ships.

High and Middle Passage passengers require their own staterooms. Steerage class passengers always travel in double occupancy, unless the ship takes off with an odd number of Steerage class passengers, in which case the captain will organize a draw and one Steerage class passenger will have their own stateroom at no additional cost.

**Cryotubes** carry Low Passage passengers in cold sleep. Cyrotubes also serve as emergency transport and for carrying prisoners or captured lifeforms. A cryotube displaces 0.5 tons and costs MCr0.05.

**Emergency cryotubes** carry four persons each, who all share the same risky revival throw as noted in the Passage Section. They serve in emergencies, as well as for transporting large livestock. Most polities forbid carrying passengers in emergency cryotubes in non-emergency situations. Each displaces 1 ton and costs MCr0.1

## Additional Components

|  |  |  |
| --- | --- | --- |
| **Additional Components** | | |
| **Component** | **Tonnage** | **Cost (MCr)** |
| Airlock, Additional | 1 | 0.2 |
| Armory (per 10 marines) | 2 | 0.5 |
| Breaching tube | 3 | 3 |
| Fuel processors (per 5 tons of fuel/day) | 1 | 0.1 |
| Fuel scoops | - | 1 |
| Galley | Included | Included |
| Medbay | Included | Included |
| Medlab (dedicated; per 2 patients) | 8 | 16 |
| Laboratory | 4 | 4 |
| Ship’s locker | Included | Included |
| Small craft or vehicles | craft tonnage | As the small craft |
| Escape pod (per person) | 0.5 | 0.1 |
| Mining Equipment | 10 | 2 |
| Probe drones (per 5 drones) | 1 | 0.2 |
| Repair drones | 1% of hull | 0.5/ton |

Each ship is built with one standard **airlock** per 100 tons as part of the hull at no additional cost. Small craft do not come with airlocks standard. Additional airlocks are 1 ton and cost MCr0.2 each.

Military ships often carry an **armory**, providing military-grade small arms, armor, and equipment. Each 2-ton block of armory costs MCr0.5 and equips 10 marines.

A ship may use a **breaching tube** to breach and board a disabled enemy ship, that is, an enemy ship without an operable Maneuver Drive. A breaching tube takes up 3 tons of space and costs MCr3.

**Fuel processors** can refine unrefined fuel into refined fuel. A ton of fuel processing equipment can refine 5 tons of liquid hydrogen per day. Processors cost MCr0.1 per ton.

All streamlined ship hulls have built-in **fuel scoops** for collecting hydrogen fuel from gas giants. For ships with standard hulls, installing fuel scoops cost MCr1 and do not displace any tonnage.

Every ship has a **galley** (kitchen and lounge) and a **medbay**. These are included in stateroom tonnage and costs. A medbay counts as a medical facility for the purposes of healing wounds. A basic medbay accommodates up to 2 patients. A dedicated **medlab**, costing MCr2 and displacing 8 tons, represents better, hospital-grade care. Medlabs grant DM+1 to all Medicine tasks and allow doctors to perform Trauma Surgery without penalties for working in the field. Each additional 2 tons and MCr0.25 allocated allows another patient. Medlabs require one medic per 4 patients.

A **laboratory** is useful for scientific research, and comes in 4-ton blocks, each costing MCr1. A laboratory provides DM+1 to Science throws by the scientist using it. At the Referee's discretion, a laboratory is required for advanced or obscure scientific investigation.

Every ship includes a **ship’s locker**, which contains various technical and survival supplies, space suits, and civilian small arms such as pistols and shotguns. We recommend that the Referee determine the exact contents of the ship’s locker only when the players wish to access it. In any case, access to the ship’s locker is usually controlled by biometric lock, keyed to the captain or other senior crew.

Ships may carry **small craft** and **vehicles**. The space allocated for a small craft or vehicle does not include space for spare parts or other maintenance equipment. All spares and equipment must be carried as cargo.

Most starships carry **escape pods**, which displace 0.5 tons and cost MCr0.1 per passenger or crew.

**Mining Equipment**, displace 10 tons and cost MCr2 per drone bay, and allow a ship to mine asteroids. Each bay of mining equipment includes the mining drones and machinery to process 1Dx10 tons of asteroid per working day. The tonnage allocated also includes ore handling machinery, allowing the ship to take on ore and transfer it to the cargo bay.

**Probe drones**, displacing 1 ton and costing MCr0.2 per 5 drones,are designed for planetary surveying. The ship drops them from orbit in disposable re-entry capsules; they must be recovered manually. Alternatively, a probe drone in orbit can serve as a survey and communication satellite.

**Repair drones** displace 1% of the ship’s hull and cost MCr0.5 per ton of drones. The complement of drones allows the ship to make one free repair attempt per space combat round. The drones have Repair 1 and Engineering 1 and can only perform or assist the Damage Control action. See the Space Combat chapter. Cost includes software.

### Carried Vehicles

Starships may carry regular vehicles on board. Space allocated for vehicles includes access space and space for basic maintenance equipment. Parts for maintenance need to be stored separately.

## Cargo and Final Cost

The designer can now allocate any remaining tonnage to the ship’s cargo bay.

Add up the cost of various components for the ship’s final cost. Mass-produced ships enjoy a 10% discount to the final cost.

The question whether a ship is mass-produced is left to the Referee. Custom ships designed by players should not be mass-produced, as compared to standard models pre-designed by the Referee.

# Ship Presentation Format

Below is the default ship stat block format used in Cepheus Deluxe.

### Template

The ship’s description is here.

|  |  |  |  |
| --- | --- | --- | --- |
| **Ship Type** | **Tonnage:** in D-Tons | **Armor:** Listed here | Hull configuration |
| **Maneuver:** in Gs of thrust |  | **P-Plant:** Rating |  |
| **Computer:** Model, DM | **Armament:** Listed here by turret | | |
| **Fittings:** Listed here. Ammunition included | | | |
| **Crew:** listed here, including their occupancy arrangement | | | |
| **Cost:** in MCr; **Construction Time:** in weeks | | | |

### Example: TL12 300-ton Corsair

The corsair is a light attack vessel intended for raiding enemy commerce and now often employed by independent pirates and mercenaries.

|  |  |  |  |
| --- | --- | --- | --- |
| **Corsair** | **Tonnage:** 300 | **Armor:** Light Crystaliron | Streamlined |
| **Maneuver:** 4-G | **Jump:** 3 | **P-Plant:** Rating 4 | **Fuel:** 90 tons |
| **Computer:** Model/3, DM+1 | **Armament:** 3x triple turrets: 1x missile, 2x pulse lasers | | |
| **Fittings:** 20x escape pods, armory for 10 marines, fuel processor (30t/day), 10x staterooms, 10x cryoberths, magazine (12 missiles), 5x emergency low berths, 54.0 tons of cargo space | | | |
| **Crew:** 19 total – CO, pilot, sensor operator, medic, 2x engineers, 3x gunners, 10x ship's troops. All crew at double occupancy except for the captain. | | | |
| **Cost:** MCr157.9; **Construction Time:** 52 weeks | | | |

# Space Combat

The spacelanes can be dangerous. Pirates lurk near gas giants and jump points. Vessels belonging to enemy interstellar polities might raid a system and prey on the player characters’ ship. The player characters might decide to engage in some piracy themselves, or they may be the crew of a patrol frigate that has found some pirates or raiders. Use the following rules to run the combat action on such occasions.

## Space Combat Basics

Ships typically fight at a range of several thousand, or tens of thousands, kilometers. However, **Cepheus Deluxe** abstracts ranges in ship combat. There is no need to track ranges, though creative Referees and players might describe their maneuverings and tactics in terms of range.

Space combat typically occurs in 6-minute **rounds**. This time accounts for weapon recharge cycles and long-range missile travel, as well as emergency repairs. Since range is abstracted using the Position mechanic (below), it is possible to run space combats at different time frames. This allows for furious dogfights between fighters, intense chases as smugglers attempt to run blockades, as well as nail-bitingly slow cat-and-mouse actions between pirates and patrol frigates, all using the same basic rules.

However long a round is in space combat, in each round every crew member may take one **action**, as detailed below. This means that crew members staffing two posts – such as a pilot also serving as a captain – must choose only *one* post they are filling in each round. This is the main reason most larger ships, and all military vessels, have dedicated captain and specialized personnel for each crew position. A character may occupy two positions at once, but in each given round, they may only act in one position. For example, smaller civilian starships often have the pilot double as the captain. In such cases, the character must choose every round if they take a piloting action or a captain's command action.

## Position

There is no initiative or range to track in space combat. Each space combat round, all participating ships' pilots throw 1D + Piloting skill + DEX DM + their ship's current maneuver drive thrust number. The attribute DM used in space combat is usually DEX, but in some circumstances the Referee might call for INT or EDU DMs to be used instead.

The result of the 1D + Attribute DM + Pilot Skill + Maneuver Drive Thrust number is called the Position.

The ships in a space battle can only attack those targets in equal or lower Position to themselves, without restrictions. A ship with better Position may choose when to take its turn – before or after its opponents. All characters on a ship act on its turn. They can attack with any weapon on board their vessel, using the following modifiers based on the relative Position between attacker and target.

Ships with lower Positions suffers DM-3 to attack anyone with a higher Position number than them, in a given round. This penalty applies to turrets and bays. Weapons in fixed mounts or Main Guns **cannot attack without Position**. However, a successful Attack Vector Pilot action will allow for ships with fixed mounts or Main Guns to attack, albeit at DM-3. Note that two vessels that have the same result for their Position throw can still attack each other with all weapons, albeit at DM-2 to their attack throws.

### Position Attack DM Table

|  |  |
| --- | --- |
| **Attacker is** | **DM to Attack Throws** |
| Inferior Position with Main Guns or Fixed Mounts | No attack possible |
| Inferior Position with Turrets | DM-3 |
| Inferior Position with Main Guns or Fixed Mounts *and* successful Attack Vector action | DM-3 |
| In the same Position as the target | DM-2 |
| 1 or 2 Positions higher than the target | DM-1 |
| 3 or 4 Positions higher than the target | DM 0 |
| 5 or more Positions higher than the target | DM+1 |

Vessels with disabled Maneuver drives automatically lose Position. Note that space stations with a thrust of 0 roll Position normally. They simply do not have a bonus from maneuver drives. Instead of Piloting, station commanders throw 1D + Tactics + INT DM for Position. It is difficult, but not impossible, to stay in the blind spot of a station-mounted turret.

It is possible to have multiple ships engaged in combat. Simply record the different Position results in descending order. The ships higher on the “Position ladder” have better Position on any ship below them.

## Actions

Each character may act once in each combat round. There are five positions aboard a ship: Captain, Pilot, Sensor Operator, Gunner, and Engineer, each with its own actions. There may be only one character performing an action at a given station, with the exception of Gunners: there is one gunner per turret, bay, or main weapon on a ship. Other characters can assist one of the positions in performing their actions below, according to the rule for collaborating on skill throws found in the Basic Rules chapter.

### Captain Actions

The ship’s captain may engage in one of the following actions:

**Lead Crew:** throw Leadership/INT 8+. If successful, gain a pool of positive DM points equal to the Effect (minimum 1) that the captain may distribute as they see fit for the next round. For example, a roll of 12 generates a pool of 4 points, which can be given to one crewmember for a DM+4, or to four separate crewmembers, for a DM+1 each.

**Outmaneuver:** the captain throws Tactics/INT 10+. If successful, apply a DM+2 to the ship's next round's Position throw.

### Pilot Actions

The pilot may take one of the following actions, in addition to the free Position throw they make at the start of each round.

**Attack Vector:** the pilot may throw Piloting/DEX 8+ and apply the Effect to a single weapon’s attack throws for the round. This throw is not modified by the ship’s thrust rating. If the Effect of the throw is 1 or greater, the pilot may distribute the Effect "points" as positive DMs to various weapons. Alternatively, if the ship does not have Position, this action allows firing fixed weapons or Main Guns at the enemy, albeit at DM-3 to hit. In this case, no positive DMs can be distributed to fixed guns.

**Dock:** Docking is only possible with a friendly ship, or with an enemy ship without a functional maneuver drive. You may not dock with an actively maneuvering enemy ship.

**Disengage**: To disengage from ship combat, a ship can use their Pilot action that round to throw a Piloting/DEX opposed skill throw vs. the pursuer's Pilot/DEX, adding each ship’s thrust rating to their respective throws. Whoever has Position gains Advantage on the roll for that round. The quarry escapes immediately if it wins the opposed throw. In a situation where a ship is attempting to escape multiple targets, use the Pilot skill and thrust rating from the fastest ship of the pursuing side against the lowest thrust rating of the target. Alternatively, a jump-capable ship may jump out of combat, as described below.

**Evasive Maneuvers:** the pilot throws Piloting/DEX 12+, modified by the ship’s available maneuver drive thrust rating. On a success, apply a negative DM equal to the Pilot’s skill (to a maximum of DM-3) to all incoming attacks. This does not require Position, and lasts until the start of the ship’s next turn.

**Plot Jump:** Plotting a jump requires the pilot's attention for 6 – (Pilot Skill) space combat rounds. As well, the pilot must succeed at a Piloting/EDU 6+ throw, with a negative DM equal to the distance in parsecs. It is also possible to plot a jump in one round, but this raises the difficulty to Piloting/EDU 10+. A failed throw means that the jump must be plotted again.

**Emergency Jump:** throw Piloting/INT 6+ to initiate an emergency jump while under fire; if successful, the ship’s engineer must throw Engineering/INT 8+ to power the jump. Failures may be re-rolled in the next round. See the Ship Operations chapter above for the jump procedure itself. Note this applies DM-2 to the Jump Throw, increasing the chance of misjump. This requires a jump plot, as noted above – either prepared beforehand or generated during combat.

### Sensor Operator Actions

The ship’s sensor operator may act as follows:

**Spoof Missiles**: Electronic warfare can defeat incoming missiles; throw Computer/INT 8+ to spoof an incoming missile due to impact that round, or the next round. The sensor operator must roll to successfully spoof each missile. Multiple missiles may be spoofed each round up to the Sensor Operators Computer skill (minimum of 1 attempt).

**Jam Sensors**: Electronic warfare can provide “cover” to a ship. Roll Opposed Computer/EDU against one enemy vessel, modified by the ships’ Computer DMs. If successful, the target of the Jamming suffers a negative DM to any attack roll made against the jamming ship. The negative DM is equal to the skill level of the Sensor Operator. This action is cumulative with a pilot's Evasive Maneuver action.

**Scan:** throw Computer/EDU 8+ to detect vessels and other objects; this throw is modified by the ship’s sensor DM and by the target’s stealth, if any.

**Target Systems:** throw Computer/EDU 10+, modified by the ship’s Electronics DM. If successful, a single gunner may choose to target a specific system on the enemy ship with one attack. If that gunner’s next attack is successful and does damage, they may select which system the attack has hit.

**Sensor Lock**: throw Computer/INT 8+, modified by the ship’s Electronics DM. As well, apply a negative DM equal to the target ship’s Electronics DM (DM+0 and lower do not count). If successful, all attacks against the locked ship gain a DM+1. The sensor lock lasts until the ship attempts to lock onto another target, or it is broken by the target.

**Break Sensor Lock**: throw Computer/INT 10+, modified by the ship’s Electronics DM. As well, apply a negative DM equal to the attacker’s ship Electronics DM (DM+0 and lower do not count). If successful, the existing Sensor Lock is broken.

### Gunner Actions

Each gunner may take one of the following actions. Note that a gunner in a turret may fire all the weapons in that turret using different actions, once per round. For example, a gunner in a turret with a Beam Laser, a Pulse Laser, and a Missile Rack may fire the Beam Laser, launch a missile, and engage in point defense with the Pulse laser.

**Fire Energy Weapons:** throw Gunnery/DEX 8+ to hit a target with an energy weapon such as a laser, particle beam, meson gun, or fusion gun in their turret. For bays and main guns, the Chief Gunner of each such weapon makes a Gunnery/INT 8+ throw to hit the target.

**Launch Missiles:** the gunner launches one missile per rack in the turret. A missile cluster fires a salvo of five missiles, while a missile bank fires a salvo of 12 missiles. Throw Gunnery/INT 8+ before launch to lock the missiles on their target. Failure to lock prevents launching but keeps the missiles ready for launch in the future. If a Sensor Lock exists on the target (see Sensor Operator actions, above), no missile lock throw is required.

**Missiles ignore Position modifiers to** **hit** but are vulnerable to point-defense fire and electronic warfare spoofing. Missiles will hit their target at the end of the *next* round after their launch, allowing the targeting ship to attack missiles with point-defense and spoofing, if desired. On the round that the missiles reach their target, throw 4+ to hit the target, unmodified by any skill. The Evasive Maneuvers Pilot action affects this missile attack throw. Smart missiles that miss the first round may retry this throw once in the following round, after which they are no longer viable.

**Point Defense:** any energy weapon can perform point defense fire against incoming missiles, though pulse lasers are the most effective for this task. Throw Gunnery/DEX 10+ to destroy an incoming missile, with DM+2 if using a pulse laser. The gunner may make multiple point defense attacks with the same turret weapon in the same action, but each attack after the first suffers from a cumulative DM-1, so the third shot, for example, will suffer DM-2 to hit the missile. Using this basic rule, throw against each incoming missile, but note that unlike regular attacks, here the gunner may try to gun down multiple missiles per combat round, with the penalty noted above. If a turret has multiple energy weapons in a turret being used for Point Defense, each weapon is rolled for separately – negative DMs for multiple attacks to not transfer between weapons. However, all weapons in a given turret must be used for point defense against missiles coming from the same enemy ship.

**Launch Sand**: the gunner may launch sand canisters to serve as a defensive screen. Throw Gunner/DEX 6+ to apply a DM-1 to all weapons and sensor locks from a single ship for one round. Multiple canisters stack their DM to a maximum of DM-3. Canisters last for one round, until the ship’s next turn.

**Note**: each *weapon* in a double or triple turret has its own attack throw. However, energy weapons mounted in the same turret may only attack the same target. The gunner may launch missiles at any desired target. Also note that weapons mounted on a fixed mount cannot be used to attack unless the vessel has Position. Each weapon within a given turret can only shoot once per combat round, except when used for point defense. A gunner may fire all or some of the weapons in the same turret at the same round. In a triple turret, a gunner can fire all three weapons every turn.

Finally, note that, for the sake of simplicity, a missile rack, or torpedo launcher or torpedo bay must fire all its missiles against a single target each round.

### Optional Rule: Streamlined Turret Fire

To reduce the amount of die rolls in ship combat, we recommend that for ships with more than 3 turrets, each double or triple turret should carry the same type of weapons. This allows all weapons to share the same attack throw but attacking at DM+1 for a double turret or at DM+2 for a triple turret. Damage is for one weapon only—we abstract the other weapons’ contributions as increasing the chances of scoring a hit. Under this optional rule, all weapons in such a turret must attack the same target. If launching missiles, all missiles in the same turret share a single locking throw but hit their target individually. We recommend that when using the streamlined turret fire rules, you should also use the streamlined point defense rules (see below) for the sake of simplicity.

### Optional Rule: Streamlined Point Defense for ships up to 999 tons

In large battles involving large numbers of missiles and lasers, attacking each missile individually by point defense fire is quite impractical. To simplify such combat, use the following rule. At the beginning of each round, the defender decides how many, if any, energy weapons are dedicated to point defense. This applies a negative DM to all incoming missiles' hit throws, per the following table. Sand Canisters also apply a DM-1 similar to laser point defense.

**Streamlined Point Defense – for ships up to 999 tons**

|  |  |
| --- | --- |
| **Weapons** | **DM to incoming missiles** |
| 1 | -1 |
| 2-4 | -2 |
| 5-7 | -3 |
| 8-9 | -4 |

### Optional Rule: Streamlined Point Defense for ships of 1000+ tons

To resolve streamlined point defense for ships of 1000-10000 tons, use the following table of laser turrets and sand canisters vs. missiles. The attacker makes a single attack throw, Gunnery/INT 8+, without modifiers; if successful, at least some of the missiles hit their target. Then consult the following table to find how many hits were caused by the missiles that penetrated the target’s defensive laser fire. Results marked with a dash (“- “) means that no hits are possible even with a successful attack throw. The left-most vertical column in the number of laser turrets; the top horizonal row is the number of inbound missiles.

The table assumed unarmored, 1000+ tons, starships, which are always rated at Light Armor. For ships rated at Heavy Armor (i.e., Lightly Armored large ships), consider the number of lasers being two steps better; nuclear weapons ignore this. Non-nuclear missiles are ineffective vs. Heavy Armor and nuclear missiles suffer from the number of lasers being two steps better. Both conventional and nuclear missiles are ineffective against Massive Armor.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Missile vs Laser Turret hits | | | | | | | |
| No. of laser turrets/sand/No. of missiles | 10-20 | 21-30 | 31-40 | 41-50 | 51-60 | 61-80 | 81+ |
| 10-20 | 1D | 2D | 3D | 1 Critical | 1D Critical | Destroyed! | Destroyed! |
| 21-30 | 1D | 2D | 2D | 3D | 1 Critical | Destroyed! | Destroyed! |
| 31-40 | 1 | 1D | 1D | 2D | 3D | 1 Critical | 1D Critical |
| 41-50 | - | 1 | 1 | 1D | 2D | 3D | 1 Critical |
| 51-60 | - | - | 1 | 1 | 1D | 2D | 3D |
| 61-80 | - | - | - | 1 | 1 | 1D | 2D |
| 81+ | - | - | - | - | 1 | 1 | 1D |

### Engineer Actions

Any character with the Engineering skill can perform **Damage Control** – emergency repairs of damaged systems and breaches. Multiple characters with this skill may perform damage control at the same time, each on a different system. Throw Engineering/INT 8+ to repair a damaged system or to jury-rig a single disabled system back into operation. Success temporarily repairs one hit on the system. The damage will reappear in 1D hours. Note: destroyed systems cannot be repaired or jury-rigged during combat.

Characters without the Engineering skill but with the Repair skill may assist an engineer in damage control, using the Aid Other rules in the Basic Game Mechanics chapter.

**Repair drones** can make one damage control check per combat round.

**Overcharge Weapon**: the engineer can disable the safeties on an energy weapon for extra damage. Throw Engineering/EDU 8+ to boost a single energy turret’s Hits rating by +1, including all energy weapons mounted on said turret.

**Redline Engines:** the ship’s chief engineer throws Engineering/EDU 8+. On a success, the ship’s thrust rating increases by 1 for next round (including the Position throw).

## Starship Damage

When an attack hits a target, refer to the Ship Penetration Matrix Table below, then roll on the appropriate component damage table. Each weapon indicates (in its “hit” statistic) how many rolls to make on that table. Roll radiation damage separately on the Radiation Table. If a Gunner scores a particularly stunning hit with Effect 6+, shift one column to the left when reading damage. That is, if a gunner fired a beam laser and hit a target with Light Armor, it would normally do Surface damage. However, if that gunner rolled an Effect 6+, treat the target as Unarmored; the attack would do Internal damage.

### Ship Penetration Matrix Table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Weapon/Armor** | **Unarmored** | **Light** | **Heavy** | **Massive** |
| **Light** | Internal | Surface | Undamaged | Undamaged |
| **Intermediate** | Critical | Internal | Surface | Undamaged |
| **Heavy** | Destroyed | Critical | Internal | Surface |
| **Main Gun** | Destroyed | Destroyed | Critical | Internal |

### Surface Hits Table

|  |  |
| --- | --- |
| **2D** | **Surface Components** |
| 2-6 | No damage – attack bounces off |
| 7-8 | Breach |
| 9-10 | Weapon |
| 11 | Electronics |
| 12 | Internal Hit |

### Internal Hits Table

|  |  |  |
| --- | --- | --- |
| **2D** | **Starship Components** | **Small Craft Components** |
| 2 | Breach | Sensors |
| 3 | Power Plant | Power Plant |
| 4 | J-Drive | Hold |
| 5 | Weapons | M-Drive |
| 6 | M-Drive | Crew |
| 7 | Breach | M-Drive |
| 8 | Hold | Armor |
| 9 | Crew | Weapons |
| 10 | Sensors | Breach |
| 11 | Bridge | Cockpit |
| 12 | Critical | Critical |

### Radiation Hits Table

|  |  |
| --- | --- |
| **2D** | **Radiation Damage** |
| 2-5 | No damage – radiation absorbed by hull |
| 6-7 | Sensors |
| 8-9 | Electronics |
| 10-11 | Crew |
| 12 | Critical |

Note that the ship’s armor modifies Radiation Hits, unlike other types of hits. Apply DM-1 for Light Armor, DM-2 for Heavy Armor, DM-4 for Massive Armor, and DM+1 per additional radiation hit in the same round.

### Critical Hits Table

|  |  |  |
| --- | --- | --- |
| **1D** | **Starship Critical Hit** | **Small Craft Critical Hit** |
| 1 | Power Plant Destroyed | M-Drive Destroyed |
| 2 | M-Drive Destroyed | M-Drive Destroyed |
| 3 | Jump Drive Destroyed | Power Plant Destroyed |
| 4 | Critical Crew Hit | Critical Crew Hit |
| 5 | Electronics Destroyed | Electronics Destroyed |
| 6 | Ship Destroyed | Ship Destroyed |

### Surface and Internal Hit Descriptions

The following is a description of ship system internal hits. Note that if a system is destroyed, any more damage on the same system has no further effect.

**Breach**

The ship suffers a hull breach and is exposed to vacuum. Anyone not wearing a space Suit or in a sealed compartment suffers exposure to vacuum per the Adventuring chapter. Staterooms are considered sealed for the purposes of this damage. On large ships of above 1000 tons, each Breach depressurizes 1000 tons of the ship.

**Bridge**

The bridge is hit.

*First Hit:* the crew suffers a Crew Hit (see below). DM-2 on all future Position rolls.

*Second Hit:* bridge disabled; Captain, Pilot, and Sensor Operator actions are impossible until the bridge is repaired, and Gunnery throws suffer DM-2. The crew suffers a Crew Hit (see below).

*Third Hit:* bridge irreparably destroyed; each bridge crew member suffers 4D damage, reduced by personal armor.

**Cockpit**

The small craft’s cockpit is hit.

*First Hit:* the crew suffers a Crew Hit (see below). DM-2 on all future Position rolls.

*Second Hit:* cockpit disabled; all actions are impossible; The crew suffers a Crew Hit (see below).

*Third Hit:* cockpit irreparably destroyed, and each bridge crew member suffers 4D damage.

**Crew**

1D crew members and passengers suffer 2D damage each. If there are fewer people than the number rolled, one or more of them, randomly determined, will receive multiple hits. Personal armor reduces this damage.

**Critical Crew Hit**

All crew and passengers suffer 4D damage each. This damage can be reduced by personal armor.

**Electronics**

The electronic systems are hit.

*First Hit:* The electronics are scrambled. Until the system is repaired, the ship suffers a DM-2 to all Computer, Piloting, and Gunnery rolls.

*Second Hit:* The electronics are disabled. The ship cannot make any Piloting or Computer rolls and cannot maneuver; it loses any benefits from software until the electronics repaired. Manual gunnery is still possible at a DM-4.

*Third Hit:* The ship’s electronic systems are completely burned out.

*Subsequent Hits:* No effect.

**Fuel**

The jump fuel tank is hit.

*First Hit:* 1Dx5% of fuel tank capacity is destroyed.

*Second Hit:* 1Dx10% of the fuel tank capacity is destroyed. This fuel loss is in addition to the losses of the first hit.

*Third Hit:* Fuel tanks destroyed; all jump fuel is lost

**Hold**

The cargo hold is hit.

*First Hit:* 1Dx5% of the cargo is destroyed.

*Second Hit:* 1Dx10% of cargo is destroyed. This cargo loss is in addition to the losses of the first hit.

*Third Hit:* the cargo hold, and all its contents are destroyed.

**J-Drive**

The ship’s jump drive is hit.

*First Hit:* DM-2 to any attempt to jump.

*Second Hit:* jump drive disabled.

*Third Hit:* jump drive irreparably destroyed.

**M-Drive**

The maneuver drive is hit.

*First Hit:* halve the ship’s remaining thrust (round down).

*Second Hit:* maneuver drive disabled. The ship is adrift and has a Position of 0.

*Third Hit:* maneuver drive irreparably destroyed.

**Power Plant**

The power plant is hit.

*First Hit:* halve the ship’s thrust and jump rating (round down).

*Second Hit:* power plant disabled. The ship is functioning on emergency power. Energy weapons fire is impossible. The ship can maneuver, but will always lose Position.

*Third Hit:* power plant irreparably destroyed. Emergency power remains for 1D hours; afterwards, life support systems will fail. Low berths are unaffected by this as they have an integral, long-term power supply.

**Sensors**

The ship’s antennae and other sensor equipment are hit.

*First Hit:* ship sensor DM reduced by -1 (cumulative with electronics damage) Ship can no longer obtain Sensor Locks

*Second Hit:* ship sensor DM reduced by -2. Ship cannot make or break Sensor Locks and gunners suffer DM-2 to missile lock attempts.

*Third Hit:* Sensors disabled. Gunnery missile lock attempts suffer DM-6.

**Weapons**

Each hit disables one weapon in a given location:

|  |  |
| --- | --- |
| 2D | Location |
| 2-9 | Turret hit |
| 10-11 | Bay hit |
| 12 | Main gun hit |
| If there are no bays or main guns, disable turret weapons instead.  Multiple hits on the same weapon (not just turret) destroy the weapon. Additional hits on a destroyed weapon are transferred to other randomly determined weapon systems | |

## Repairing Damage

Jury-rigged systems repaired using the **Damage Control** action will fail within 1D hours. After that, the system requires full repairs. Throw Engineering/EDU 8+ to fully repair a damaged system; this takes 1D hours and requires 0.02 tons of spare parts per ton of repaired system. A successful throw returns the system to operational status. A failed throw may be repeated but will require additional spare parts.

Spare parts cost Cr100,000 per ton, and may be stored in the ship's cargo bay.

Multiple engineers may work on repairs simultaneously, provided that each works on a different system. Alternately, multiple engineers may work on the same repair using the Aid Another rules.

Replacing a destroyed system requires a shipyard and costs 2Dx10% of the system’s original cost.

# Starship Encounters

Space is indeed vast, however most travel between stars will happen in well-defined regions of solar systems: jump points, near gas giants, and near stations and smuggler caches. Thus, there are opportunities for random encounters. We present a simple set of rules to help GMs generate and develop space travel encounters for itinerant merchants, smugglers, pirates, and their ilk. These encounters can be used to spice up an adventure with something unexpected or can serve as the structure of the entire adventure, depending on the GM’s preference.

## System Types

Each system has a traffic and safety level that determines how likely and how dangerous an encounter might be. Below are eight system types. We encourage GMs to come up with their own system types for their campaigns.

**Middle of Nowhere**: Nothing ever happens here, and why would it? This system is too far off the space lanes, or too poor, to attract much attention.

**Bandit Territory**: this backwater is home to pirate raiders and other criminals. Unfortunately, the system is not important enough to send a patrol ship to deal with the problem.

**Going Concern**: These prosperous systems are happy to engage in legal trade. There are regular naval patrols, and healthy levels of traffic.

**Rail Head System**: This system is either a free port, or on the frontier. Either way, there is a lot of economic opportunity here: trade is plentiful, as is crime.

**Wild West System**: There is little law and order in these busy systems, but enough valuable trade happens to make travelling here worthwhile, for the very enterprising, foolhardy, or desperate.

**Capital**: These systems are perfect examples of peace, security, and prosperity. Capital systems are usually the busiest in the sector and their space lanes are heavily patrolled. There is a lot of money to be made here, but most free-spirited traders will resent the high taxation that is the price for peace and prosperity.

**Bazaar**: Traders’ paradises, Bazaar worlds have everything to offer ambitious entrepreneurs. Nearly anything is available to be bought or sold in a Bazaar. There is just enough law and order here that pirates, and other criminals can’t operate openly.

**Hive of Scum and Villainy**: A free-for-all of corruption, iniquity, crime, and opportunity. Laws in these systems, when they are enforced, exist to maintain a thin veneer of civilization for the purposes of encouraging trade.

## Encounter Generation Procedure:

**1. Determine if there is an Encounter by rolling on the appropriate System column of the Encounter Table.**

**2. Determine the Encounter Range.**

**3. Determine NPC Reaction Result**

### Ship Encounter Table

A (P) in the entry notes that this ship is willing and able to turn pirate should the PC vessel be an opportune target. The NPC Reaction Roll (below) should give the GM more guidance as to how to play an opportunistic pirate.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 2D | Middle of Nowhere | Bandit Territory | Going Concern | Railhead | Wild West | Capital | Bazaar | Hive of Scum & Villainy |
| 2 | - | - | - | - | - | - | - | - |
| 3 | - | - | - | - | - | Research | Scout | Salvage |
| 4 | - | - | - | - | - | Yacht | Yacht | Salvage (P) |
| 5 | - | - | - | Scout | Trader (P) | Trader | Salvage (P) | Trader |
| 6 | - | - | Trader | Trader | Trader | Trader | Trader (P) | Trader (P) |
| 7 | - | Salvage (P) | Liner | Liner | Liner | Liner | Trader | Trader (P) |
| 8 | Trader (P) | Trader (P) | Yacht | Trader (P) | Salvage (P) | Salvage | Liner | Liner |
| 9 | Salvage | Scout (P) | Scout | Scout (P) | Research | Patrol | Patrol | Pirate |
| 10 | Patrol | Pirate | Patrol | Patrol | Scout | Warship | Pirate | Research |
| 11 | Scout (P) | Scout | Salvage | Salvage | Pirate | Yacht | Research | Yacht (P) |
| 12 | Trader | Patrol | Patrol | Research | Patrol | Scout | Scout | Scout |

## Ship Descriptions:

Encounters need not be limited to the ship types described below. GMs should feel free to develop their own encounter tables for their most often visited systems and substitute the appropriate ship types accordingly.

|  |  |
| --- | --- |
| Ship Encountered | Description |
| Scout | Small ubiquitous ships transporting information or something more tangible. |
| Salvage/Miner | Common system ships that locate raw or recyclable materials and extract them. Grimy and unglamorous. |
| Research | Advanced ships with high tech toys, staffed with bored crew and science nerds. |
| Yacht | A plaything for the very wealthy. Usually unarmed and filled with luxuries. Some are very advanced. |
| Liner | Large ships designed to haul large numbers of passengers. Some are little more than glorified long-haul buses, while others are spectacularly opulent cruise ships. |
| Merchant | A class of ships encompassing free traders hopping from system to system, to large corporate freighters hauling bulk cargoes on the space lanes. |
| Patrol | Smaller military or police vessels that keep the peace and discourage piracy. |
| Warship | Dedicated combat vessels, including small battlegroups. |
| Pirate | This represents a full-blown pirate or privateering warship: a corsair or other heavy gunboat dedicated to piracy. |

## Encounter Frequency and Range

The GM should roll for encounters whenever the PCs enter a new system, or new region in a system. For example, when transiting from a mainworld to a system’s gas giant, roll when the ship arrives at the gas giant.

To determine the Encounter Range, the ship’s sensor operator should make a Computer/EDU 8+ roll, modified by ship’s sensor capabilities, the active or passive stealth capabilities of the encounter, the background radiation levels, and anything else the GM might want to include. Roll 1D and add the Effect of the roll. This is the number of hours at 1G thrust that it will take to intercept (or be intercepted by) the encounter, with a minimum of 6 minutes (one Space Combat Round).

## Reaction Roll

The table below includes standard NPC Reactions on a 2d6 roll. As well, we have included some examples of likely attitudes and actions for each Reaction result to help as GM prompts. Remember to use common sense and interpret the NPC Reaction roll in the context of the specific encounter. The NPC Reaction roll should drive much of the initial interaction between the PCs and the encounter. GMs are encouraged to use the NPC Reaction Roll to differentiate between otherwise similar encounter results and keep the players guessing.

**NPC Reaction Table (Roll 2D)**

|  |  |  |  |
| --- | --- | --- | --- |
| 2D | Result | Attitude | Possible Actions |
| 2 | Hostile | The NPC will immediately attack (roll Morale), or actively spoil whatever plans the PCs have. | Attack, interfere, escape, flee. Whatever the PCs are doing, this NPC is against it. If the PCs are obviously more powerful, the NPC will leave. |
| 3-5 | Unfriendly | The NPC will do anything short of outright hostile action. They are unhelpful and untrustworthy. | Avoid, insult, lie, misdirect, mislead, waste time. The NPC is unwilling to resort to direct action. |
| 6-8 | Indifferent | The NPC is uninterested in helping or hindering the PCs. | Any socially acceptable neutral action. The NPC will act in a socially predictable or wary manner. |
| 9-11 | Friendly | The NPC is cooperative and friendly. | Chat, offer limited help, give information. The NPC will not act against the PCs. |
| 12 | Helpful | The NPC is interested in helping or cooperating with the PCs fully. | Aid, support. The NPC will join the PCs' cause with very little convincing. |

# World Generation

Countless worlds await the hardy adventurer or intrepid explorer. This chapter provides quick and simple rules for generating worlds and subsectors of space with several worlds in them.

## Star Mapping

These rules greatly abstract astrography by using two-dimensional star maps to represent three-dimensional space. The standard map is a *subsector*, 8 hexagons wide and 10 hexagons long. Each of those hexagons represents a parsec (3.26 light years), which is roughly the size of one solar system. 2 by 2 subsectors form a *quadrant* of 16x20 hexagons, and 4 by 4 subsectors (2 by 2 quadrants) are a *sector* of 32 by 40 hexagons. Blank subsector, quadrant, and sector maps are readily available for free on-line; a blank subsector map is supplied here.

[insert blank subsector map page.

When randomly generating a subsector, a world is normally present in each subsector hexagon on a throw of 4+ on 1D. If a world is present, it has a gas giant in its system on a throw of 5+ on 2D. Gas giants are important for exploration as they allow accessible frontier refueling. The Referee is free to increase or decrease the target number to represent denser or sparser regions of space but remember: ships must have a star at each end of their jump, so a very sparse region of space might represent an unpassable boundary for lower tech interstellar civilizations.

## World Creation

The process of creating worlds in Cepheus Deluxe involves making a series of 2D roll and applying modifiers based on the planetary characteristic being generated. It is important to retain the rolled value, after all modifiers, for use with other characteristics. For example, the Size roll is used as a modifier for both the Atmosphere and Hydrographics rolls for the world.

**Details of the mainworld in a system are determined using the following procedure:**

1. Roll World Size
2. Roll Atmosphere, use the Size rating as a modifier
3. Roll Hydrographics, use the Size rating as a modifier
4. Roll Population
5. Roll Government, use the Population rating as a modifier
6. Roll Law Level, use the Government rating as a modifier
7. Roll Starport, use the Population rating as a modifier
8. Roll Tech Level, use all the above characteristics as modifiers
9. Determine Trade Codes, use all the above characteristics as modifiers
10. Determine Bases, use the Starport rating as a modifier
11. Apply any Allegiances, trade lines etc. based on the setting
12. Develop the world using everything above and your imagination.

Using random rolls to develop a world can create some very unusual, or even impossible, characteristic combinations. Most commonly, the world size might not support the other physical characteristics, or the population doesn’t match the habitability of the planet. The Referee should feel free to change any of these as needed, but we certainly encourage trying to figure out an interesting reason for the unusual conditions to exist.

Referees (and others) can use these world-building rules to create the main world, or most inhabited world, in each star system. These rules are not intended to create every planetary body in a given solar system. If the Referee wishes to add further to detail a star system, they could select the characteristics that make sense to them or find an online random system generator to do some of the heavy lifting for creating more details.

This process is designed to produce an interesting mix of worlds as might be found in a frontier subsector. Referees should adjust these rolls, especially the social characteristics of Population, Government, Starport, and even Tech Level to fit the setting they are creating.

### World Size

Throw 2D-2 and consult the following table to determine the world’s Size rating.

Surface gravity is an approximation using Earth standard gravity (9.8m/s2) as one “g”.

**World Size**

|  |  |  |
| --- | --- | --- |
| **Roll** | **Diameter** | **Surface gravity** |
| 0 | Asteroid belt | Negligible |
| 1 | 1600km | 0.05g |
| 2 | 3200km | 0.15g |
| 3 | 4800km | 0.25g |
| 4 | 6400km | 0.35g |
| 5 | 8000km | 0.45g |
| 6 | 9600km | 0.7g |
| 7 | 11200km | 0.9g |
| 8 | 12800km | 1.0g |
| 9 | 14400km | 1.25g |
| 10 | 16000km | 1.4g |

### Atmosphere

Throw 2D-7 and add the world’s Size rating to determine the world’s Atmosphere rating. If a world’s Size rating is 0, the Atmosphere rating is also 0. The Atmosphere rating cannot be lower than 0 or higher than 15.

**Atmosphere**

|  |  |  |
| --- | --- | --- |
| **Roll** | **Atmosphere** | **Survival Gear Required** |
| 0 - | Vacuum | Space suit |
| 1 | Trace | Space suit |
| 2 | Very Thin – Tainted | Breather with air supply |
| 3 | Very Thin | Breather with air supply |
| 4 | Thin – Tainted | Breather |
| 5 | Thin | - |
| 6 | Standard | - |
| 7 | Standard – Tainted | Breather |
| 8 | Dense | - |
| 9 | Dense – Tainted | Breather |
| 10 | Exotic | Breather with air supply |
| 11 | Corrosive | Space suit |
| 12 | Insidious | Space suit, Hostile Environment |
| 13 | Dense – High | Space suit in low altitudes |
| 14 | Thin – Low | Breather with air supplies at high altitudes; no protective equipment necessary at low altitudes |
| 15+ | Unusual | Varies |

**Atmosphere Notes**

**Vacuum:** there is no atmosphere. Organic beings require a space suit to survive.

**Trace:** there is extremely low atmospheric pressure. Operating on the surface requires a space suit.

**Tainted:** an otherwise breathable atmosphere, except that it contains some elements harmful to humans. Breathing this atmosphere without a breather-mask causes 1D damage every 10 minutes.

**Very Thin:** low air pressure; humans require a Breather to condense the atmosphere to a breathable pressure. A very thin – tainted atmosphere uses both the breather's condenser function and filtration function.

**Thin:** low-pressure breathable atmosphere. Requires no protection gear but will be unpleasant for humans who are unused to the thin air.

**Standard:** Terra-like atmospheric pressure and composition. Best environment for humans.

**Dense:** high-pressure breathable atmosphere. Requires no protection gear but will be unpleasant for humans unused to the atmosphere.

**Exotic:** unbreathable by humans but otherwise harmless to them. Humans require an air supply to survive in Exotic atmospheres.

**Corrosive:** this atmosphere causes 1D damage per round to unprotected characters. Will breach a space suit in 2D hours.

**Insidious:** as Corrosive, but powerful enough to breach a space suit within 1Dx10 minutes. A Hostile Environment Space Suit provides protection against Insidious atmospheres for 2D hours.

**Dense - High:** thick N2/O2 atmosphere with deadly pressure at ground level; atmosphere is breathable and habitable at high altitude, such as on tall mountains. At lower altitudes, the pressure causes 1D damage per round to unprotected characters.

**Thin - Low:** a thin atmosphere that is only breathable at low altitudes, where higher atmospheric pressure can support unprotected human life. At higher altitudes, treat as a Very Thin atmosphere.

**Unusual:** left to the Referee’s discretion.

### Hydrographics

Throw 2D-7 and add the world’s size roll to determine the world’s Hydrographic rating. The following DMs apply. A planet’s Hydrographic rating cannot be below 0 or exceed 10. Multiply the rolled value by ten to determine the percentage of the world’s surface that is covered by water. For example, a planet with a Hydrographics rating of 2 would have 20% of its surface covered by water.

**Hydrographics DMs**

|  |  |
| --- | --- |
| **Condition** | **DM** |
| Size 0 or 1 | Hydrographics must be 0 |
| Atmosphere 0, 1, A, B, or C | DM-4 |
| Atmosphere E | DM-2 |

### Population

Throw 2D-2 to determine the world’s Population rating. This represents the order of magnitude of the world’s population. For example, Population 3 is thousands of inhabitants, Population 7 is tens of millions, and Population 9 is billions of inhabitants. The maximum Population is 10 (tens of billions of inhabitants) per world, except for extreme cases at the Referee's discretion.

Apply the following DMs:

**Population DMs**

|  |  |
| --- | --- |
| **Condition** | **DM** |
| Unbreathable Atmosphere | DM-2 |
| Standard Atmosphere | DM+3 |
| Standard, Tainted Atmosphere | DM+1 |
| Thin or Dense Atmosphere | DM+1 |
| Hydrographics 0 and Very Thin or lesser Atmosphere | DM-1 |

### Government

Throw 2D-7 and add the world’s population rating to determine its Government type, as described below. Worlds with a Population rating of 0 have no Government.

**World Government**

|  |  |
| --- | --- |
| **Roll** | **Government** |
| 0 - | None |
| 1 | Corporation |
| 2 | Participatory Democracy |
| 3 | Self-Perpetuating Oligarchy |
| 4 | Representative Democracy |
| 5 | Technocracy |
| 6 | Captive Government |
| 7 | Balkanized |
| 8 | Civil Service Bureaucracy |
| 9 | Impersonal Bureaucracy |
| 10 | Charismatic Dictator |
| 11 | Non-Charismatic Dictator |
| 12 | Charismatic Oligarchy |
| 13 | Religious Dictatorship |
| 14 | Religious Autocracy |
| 15 + | Totalitarian Oligarchy |

**None:** no government. Small family or loose clan structure if there is any population at all.

**Corporation:** rule by a corporation or other commercial enterprise.

**Participatory Democracy:** direct democratic rule by the entire population.

**Self-Perpetuating Oligarchy:** a small, self-contained group of people are in control.

**Representative Democracy:** republican rule by elected officials.

**Technocracy:** rule by unelected experts and professionals.

**Captive Government:** the government on the world answers to an external authority.

**Balkanized:** several governments and cultures exist on the same world. 21st century Terra is an example.

**Civil Service Bureaucracy:** government by agents selected for their relative competence.

**Impersonal Bureaucracy:** government by complex agencies insulated from the population.

**Charismatic Dictatorship:** governed by a single leader who enjoys popular support.

**Non-Charismatic Dictatorship:** governed by a single ruler who lacks popular support.

**Charismatic Oligarchy:** rule by a select group or organization enjoying popular support.

**Religious Dictatorship:** governed by a religious organization.

**Religious Autocracy:** rule by a single religious leader.

**Totalitarian Oligarchy:** governed by a clique controlling every facet of the population's lives.

### Law Level

Throw 2D-7 plus the Government rating to determine the world’s Law Level, as described below. This represents how strict the world’s laws are and how stringently and widely they are enforced. If the world’s Government rating is 0, then its Law Level is also 0. The Law Level should never be less than 0 or greater than 10. Note that worlds that lack a population also lack a Law Level.

**Law Level**

|  |  |
| --- | --- |
| **Roll** | **Commonly Forbidden Weapons** |
| 0- | Lawless. All weapons allowed. Candidate for Amber Zone status. |
| 1 | Poison gas, explosives, undetectable weapons, weapons of mass destruction |
| 2 | Portable energy weapons (unless mounted on ships) |
| 3 | Heavy Weapons |
| 4 | All automatic weapons |
| 5 | Personal concealed weapons |
| 6 | All firearms except for shotguns and stunners. Carrying weapons is discouraged. |
| 7 | Shotguns. |
| 8 | All bladed weapons, stunners. |
| 9 | Any weapons outside one’s residence. Candidate for Amber Zone status. |
| 10+ | Highly restrictive government. All weapons forbidden. Candidate for Amber Zone status. |

### Starport

Most inhabited worlds have starports which greatly facilitate travel and interstellar commerce. Many worlds will have more than one starport, but only the best starport is usually listed. Throw 2D-7 plus the world’s Population rating to determine the Starport Class, as detailed below. Worlds without a population will lack a starport unless the Referee chooses to place one as part of the setting.

**Starport Table**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Roll** | **Class** | **Description** | **Best Fuel** | **Annual Maint.** | **Shipyard** | **Possible Bases** |
| 2- | X | No Starport | None | No | None | None |
| 3-4 | E | Frontier | None | No | None | None |
| 5-6 | D | Poor | Unrefined | No | None | Scout |
| 7-8 | C | Routine | Unrefined | No | Can perform reasonable repairs | Scout |
| 9-10 | B | Good | Refined | Yes | Can construct non-jump-capable craft | Naval, Scout |
| 11+ | A | Excellent | Refined | Yes | Can construct starships | Naval, Scout |

**Class A starports** comprise the finest and most extensive interstellar infrastructure there is. These ports have the best of everything: vast construction yards capable of manufacturing and repairing all types of starships, docking facilities for nearly any size of vessel, and amenities for travelers, traders, and crew alike. Class A ports always have extensive orbital facilities. Naval bases and occasionally Research and Scout bases may also be present.

**Class B starports** are good quality ports with construction facilities capable of manufacturing system ships. Additionally, these facilities can perform annual maintenance on starships. Class-B starports almost always have an orbital facility associated with them. They are well-equipped for handling interstellar trade and shipping. Naval, Research, and Scout bases may be present.

**Class C starports** are the ‘standard’ starport. They have reasonably good ground facilities and may have an orbital port depending on the volume of trade present. Class-C ports can perform most repairs on starships, but they do not have significant construction capability. Scout or Research bases may be present.

**Class D starports** have minimal landing facilities, and no orbital facilities. There are usually a few buildings, but no significant structures supporting visiting ships. Scout bases may be present.

**Class E starports** are very primitive: they are little more than a designated clear area and a marker beacon. If the tech level supports it, there may be landing lights.

**Class X starports** are not starports. There are no facilities, and no designated landing spots. Any visitors to the world must determine their own safe landing area.

**A note on orbital facilities:** Class A, B, and sometimes C starports include both ground and orbital facilities, with regular shuttle service between them. This allows ships with Standard or Distributed hull configurations to use the starport. Class D and E starports lack orbital facilities. Class X starports are not actually facilities.

### Tech Level

Throw 1D, modified by all applicable DMs, to determine the world’s Tech Level, as discussed in the Equipment chapter. A world’s Tech Level cannot be below 0. On a world that enjoys significant interstellar trade, the Tech Level denotes local manufacturing capacity, but higher TL gear should be available at double cost. On isolated worlds, the lack of interstellar trade means that nearly all technology present on the world will conform to the world’s Tech Level. The DMs below can end up generating some high Tech Levels. It is strongly recommended that the Referee limit the maximum TL possible; usually TL 15.

Note that worlds with no Population also lack a Tech Level.

**Tech Level DMs Table**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Rating** | **Starport** | **Size** | **Atmosphere** | **Hydro.** | **Population** | **Gov.** |
| 0 |  | +2 | +1 | +1 |  | +1 |
| 1 |  | +2 | +1 |  | +1 |  |
| 2 |  | +1 | +1 |  | +1 |  |
| 3 |  | +1 | +1 |  | +1 |  |
| 4 |  | +1 |  |  | +1 |  |
| 5 |  |  |  |  | +1 | +1 |
| 6 |  |  |  |  |  |  |
| 7 |  |  |  |  |  | +2 |
| 8 |  |  |  |  |  |  |
| 9 |  |  |  | +1 | +1 |  |
| 10 | A: +6 |  | +1 | +2 | +2 |  |
| 11 | B: +4 |  | +1 |  | +3 |  |
| 12 | C: +2 |  | +1 |  | +4 |  |
| 13 |  |  | +1 |  |  | -2 |
| 14 |  |  | +1 |  |  | -2 |
| 15 |  |  | +1 |  |  |  |
|  | X: -4 |  |  |  |  |  |

Humans and human-like aliens require a minimal technological level to live on certain worlds. If a world’s Tech Level is below the minimum required for survival on that world, increase it to the minimum value.

**Minimum Tech Levels Table**

|  |  |
| --- | --- |
| **Conditions** | **Minimum TL** |
| Hydrographics 0 or 10, and Population 6 or higher | 4 |
| Atmosphere 4, 7, or 9. (Thin-Tainted, Tainted, or Dense Tainted) | 5 |
| Atmosphere 3- (Very Thin or less), or 10, 11, 12, 15 (Exotic, Corrosive, Insidious, or Unusual) | 7 |

### Trade Codes

Use the following table to determine the world’s Trade Codes from the world’s characteristics. The Trade Codes are important for generating Purchase and Sale prices as used in the Speculative Trade chapter. If a planet fulfills *all* the characteristics listed in a row below, then it gains the Trade Code for that row. Apply all Trade Codes for which the world qualifies. For example, a planet with Atmosphere 5, Hydrosphere 7 and Population 4 would *not* gain the Agricultural Trade Code (it would need a population between 5 and 7) but would gain the Garden and Non-Industrial trade codes.

**Trade Codes Table**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Classification** | **Code** | **Size** | **Atmo.** | **Hydro.** | **Pop.** | **TL** |
| Agricultural | Ag |  | 4-9 | 4-8 | 5-7 |  |
| Asteroid | As | 0 | 0 | 0 |  |  |
| Barren | Ba |  |  |  | 0 |  |
| Desert | De |  | 2+ | 0 |  |  |
| Non-Water Fluid Oceans | Fl |  | A+ | 1+ |  |  |
| Garden | Ga |  | 5, 6, 8 | 4-9 | 4-8 |  |
| High Population | Hi |  |  |  | 9+ |  |
| High Technology | Ht |  |  |  |  | C+ |
| Ice-Capped | Ic |  | 0-1 | 1+ |  |  |
| Industrial | In |  | 0-2, 4, 7, 9 |  | 9+ |  |
| Low Population | Lo |  |  |  | 1-3 |  |
| Low Technology | Lt |  |  |  |  | 5- |
| Non-Agricultural | Na |  | 0-3 | 0-3 | 6+ |  |
| Non-Industrial | Ni |  |  |  | 4-6 |  |
| Poor | Po |  | 2-5 | 0-3 |  |  |
| Rich | Ri |  | 6, 8 |  | 6-8 |  |
| Water World | Wa |  |  | A |  |  |
| Vacuum | Va |  | 0 |  |  |  |

**Agricultural:** a world with an environment fit for large-scale agricultural production. Agricultural worlds require Thin, Standard, or Dense Atmospheres, Tainted or not, Hydrographics of 40% to 80%, and populations between the hundreds of thousands and tens of millions.

**Asteroid:** an asteroid belt devoid of life but rich in minerals. Asteroids require Size of 0.

**Barren:** an uninhabited world with Population 0.

**Desert:** a world with a significant atmosphere but no surface water. Desert worlds have an Atmosphere of Very Thin or denser, including Tainted version, and Hydrographics of 0%.

**Fluid Oceans:** a world with seas of liquids other than water, such as methane or more complex hydrocarbons. Fluid Ocean worlds have an Atmosphere of Exotic or worse, and Hydrographics of 10% or higher.

**Garden:** a perfect world for Terran (or similar) life. This world is populated enough for agricultural production, but with a population small enough to avoid significant ecological disruption. Garden worlds have breathable Thin, Standard, or Dense Atmospheres, 40% to 90% Hydrographics, and Populations ranging from the tens of thousands to the hundreds of millions.

**High Population:** a world with a Population of billions (or more!) of residents.

**High Technology:** an advanced world capable of interstellar-era technology. A world with a Tech Level of 12 or higher.

**Ice-Capped:** a world where surface water exists as ice deposits, usually near the poles. Ice-Capped worlds have an Atmosphere of Trace or None and Hydrographics of 10% or more.

**Industrial:** a world dedicated to massive-scale industrial production, often at the expense of the environment. Industrial worlds have an Atmosphere of None, Trace, or Tainted and Populations of billions or more residents.

**Low Population:** an outpost or other sparsely-populated world. The world has a Population of a thousand or fewer people.

**Low Technology:** a primitive world with pre-industrial technology. These worlds have a Tech Level of 3 or less.

**Non-agricultural:** a world incapable of feeding its population by regular agriculture. Societies here may use synthetic food, hydroponics, and other techno-agricultural methods, but the people usually rely heavily on agricultural imports. Non-Agricultural worlds must have an Atmosphere of Very Thin or less, Hydrographics of 30% or less, and a Population of millions or more.

**Non-industrial:** a world lacking a significant industrial base. Non-Industrial worlds must have a Population between ten thousand and a million people.

**Poor:** a marginally-habitable world. Poor worlds have an Atmosphere between Very Thin and Thin, including Tainted versions, as well as having Hydrographics of 30% or less.

**Rich:** a comfortable world with a breathable atmosphere and no overcrowding. Rich worlds have an Atmosphere of Standard or Dense—never Tainted—and a population between one million and one hundred million people.

**Water world:** a world completely or almost completely covered by water. Water worlds have Hydrographics of 100%

**Vacuum:** a world with no atmosphere. Vacuum worlds are larger than 1600 km and have no Atmosphere.

### Bases

Some systems have naval or scout bases. Others are pirate havens. Bases can help establish the subsector’s politics. For example, naval bases tend to appear along borders or on important core worlds, while scout bases are established near borders or on an open frontier. While the method below generates random bases, we strongly suggest the Referee might also place their own bases according to their vision of the setting.

A **Naval Base** is a military base or depot serving an interstellar navy. Naval craft can refuel and resupply at a naval base. On an independent world, a Naval Base indicates significant local naval might. Naval bases exist on worlds with Class A or Class B starports on a throw of 8+.

A **Research Base** is a facility dedicated to expanding the boundaries of known science. Corporations or governments often establish research stations to study interesting phenomenon. Often these bases are placed on out-of-the-way worlds to avoid prying eyes, or to contain the damage if something goes wrong. Research bases are present in systems with Class A, B, or C starports on a 2D roll of 10+; DM-2 for Class A starports.

A **Scout Base** is an exploration and communications outpost operated by a scout service. A scout base on an independent world represents well-organized exploration capabilities and efforts. Scout bases exist on worlds with starport Class D or better on a throw of 7+; DM-1 for a Class C starport, DM-2 for Class B starport, and DM-3 for Class A starport. Player characters with detached-duty Scout Ships can obtain fuel and repairs for free at scout bases.

A **Pirate Base** harbors raiders, corsairs, and other criminals. This is usually a small independent bandit hideout, but sometimes governments tolerate the existence of such bases to encourage raids against enemy shipping. A pirate base exists in a system without a naval base or a Class-A starport on a throw of 12+.

The following table lists shorthand codes for bases present in a star-system.

**Base Codes**

|  |  |
| --- | --- |
| **Bases** | **Code** |
| Naval Base | N |
| Pirate Base | P |
| Research Base | R |
| Scout Base | S |

### Travel Zones

Most worlds are nominally civilized, though dangers can still lurk even on the safest core world. However, some worlds are far more dangerous than most. Interstellar organizations such as the Navy, the Scout Service, and the Explorers’ Society issue travel warnings regarding these treacherous worlds. Such warnings take the form of travel zones.

A world marked as an **Amber Zone** is unsafe for off-worlders. It might have a hostile environment or a particularly dangerous government; it might be experiencing a period of instability and strife. It could be run by criminals or could be filled with dangerous xenofauna. The Referee should mark worlds as Amber Zones if they have dangerous atmospheres (Corrosive or worse); unstable governments 0, 7, or 10 or higher; or a law level of 0 or 9+. The Referee may also designate worlds as Amber Zones for other reasons.

A **Red Zone** world is deemed so dangerous it is forbidden for non-military vessels to visit. The navy interdicts such worlds to prevent unauthorized landings. Marking worlds as Red Zones is left entirely up to the Referee’s discretion. The Referee should usually use this designation sparingly.

### Allegiances

Depending on the setting, worlds may be independent, or may belong to a larger interstellar polity. Or it could be vacillating in its allegiances. Examples of interstellar states run the gamut from very loose confederations to mighty empires. The referee should mark the borders of such polities on the map, and note any sub-divisions (districts, provinces, duchies, etc.) within the borders.

## Communication and Trade Routes

Interstellar governments always try to establish lines of regular communication between their member worlds. As well, commercial activity will create regular trade routes that connect viable trading worlds in a given subsector. Such connections should encompass only some of the worlds in the subsector. There should also be some unconnected, less frequently visited worlds for characters to explore. The Referee should indicate Communication and Trade routes on the subsector map.

**Communication Lines** should connect any two worlds with Class A Starports, as well as Class B Starports, with any naval bases, using the shortest possible routes. These represent the main arteries of interstellar administration and naval activity. Thus, they enjoy highly frequent military and civilian courier and passenger services. Distances should not exceed the Jump capability of the highest TL world in the communication network.

**Trade Routes** represent strong and profitable commercial ties. There are a few criteria that two worlds need to meet to establish a Trade Route between them:

1. the pair of worlds have at least one Trade Tag that appears in the same rows of the following table;

2. the two worlds are within 4 hexes of each other;

and 3. it is possible to connect the two worlds by a series of Jump-1 or Jump-2 routes.

If the pair of worlds meets the above three criteria, then a trade route connects them. The Referee should mark any trade routes in the subsector on the map. The specific effects of a communication or trade route are left to the Referee. However, systems connected by to trade routes are usually high-traffic systems for the purposes of speculative trade.

**Trade Routes**

|  |  |
| --- | --- |
| **First End Point** | **Second End Point** |
| High Tech or Industrial | Asteroid, Desert, Ice-Capped, Non-Industrial |
| High Population or Rich | Agricultural, Garden, Water World |

## World Presentation

Once a world’s characteristics have been developed, the following format can be used. See Appendix B for an alternate way to present the world information called the Universal World Profile (UWP).

*(World),* located in hex *(hex number)* of the *(name)* subsector, has a diameter of *(diameter)* km and a surface gravity of *(gravity)* g. The atmosphere is *(atmosphere type)*. The surface is covered with *(hydrographics)*% water/fluid *(select one)*. The world has *(population)* citizens governed by a *(government type)*. The government imposes a Law Level of *(law level)* restricting *(law level restrictions)* weapons. The average technology is (tech level). Trade is supported with a Class (starport class) starport and (bases) bases. The world has the following trade codes *(trade codes)*. *(add details, history, or other setting specific information)*.

# NPC Presentation Format

Below is the default NPC stat bloc for Cepheus Deluxe.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Character | STR | DEX | END | INT | EDU | SOC | Lifeblood | Stamina |
| Basic Description |  |  |  |  |  |  | 2x(END+Athletics skill) | END |
| List Skills here | | | | | | | | |
|  | | | | | | | | |
| List important equipment, weapons (with damages), and armor (with protection) here. | | | | | | | | |

# Xenofauna Encounters

Many worlds bear life, and this creates ecosystems, food chains, and the creatures that populate them. Interstellar visitors entering such alien ecosystems encounter xenofauna – alien animals. The latter respond in a manner dictated by their instincts, from flight, to indifference, to trying to eat the hapless adventurer.

Alien beasts vary greatly; however, basic ecological functions show great similarity between worlds. There are four basic categories of animals, based on diet: herbivore, omnivore, carnivore, and scavenger. Each category has sub-categories depending on how the animal gets its food. The following animal generation system creates alien animals based on their ecological function, rather than their form. The animal’s exact form is up to the referee.

We encourage the referee to be creative and modify animals they might already know about, as they see fit. For example, poison and venom are common in the natural world here on Terra and would most likely be common on other words; the referee may give an animal a venom based on the poison rules later in this chapter. More radical variations of known creatures are also possible and encouraged. For example, the referee may devise a predator hunting by spitting thorns at its prey at high speed. In this case, they may decide that the animal’s attack will resemble a rifle. Psionic animals are also a possibility. Do not let the tables restrict you – they are merely tools to provide a baseline.

## Animal Generation Process

Follow these steps to generate xenofauna.

1. Choose the animal’s habitat terrain and roll for its movement type.

2. Determine the animal’s ecological niche and subtype.

3. Determine size, stamina, lifeblood, and damage.

4. Determine weapons, armor, and base speed.

## Terrain and Ecosystem

Terrain and the local ecosystem affect the types of creatures inhabiting them. Use the following table to determine the animal’s mode of locomotion. The result provides DMs for later tables based on terrain. Roll 1D and consult this table for the animal’s method of movement: A for Amphibious, F for Flying, S for Swimming, and W for Walking. The numbers following the movement type are further DMs to the animal’s size.

**Terrain and Movement**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Terrain and Ecosystem | Subtype DM | Size DM | 1 | 2 | 3 | 4 | 5 | 6 |
| Clear | +3 | - | W | W | W | W | W+2 | F-6 |
| Plain or Prairie | +4 | - | W | W | W | W+2 | W+4 | F-6 |
| Desert | +3 | -3 | W | W | W | W | F-4 | F-6 |
| Hills | - | - | W | W | W | W+2 | F-4 | F-6 |
| Mountain | - | - | W | W | W | F-2 | F-4 | F-6 |
| Forest | -4 | -4 | W | W | W | W | F-4 | F-6 |
| Jungle | -4 | -3 | W | W | W | W | W+2 | F-6 |
| Broken Ground | -3 | -3 | W | W | W | W | F-4 | F-6 |
| Swamp or Marsh | -2 | +4 | S-6 | A+2 | W | W | F-4 | F-6 |
| Beach or Shore | +3 | +2 | S+1 | A+2 | W | W | F-4 | F-6 |
| Riverbank | +1 | +1 | S-4 | A | W | W | W | F-6 |
| Shallow Sea | +4 | +1 | S+4 | S+2 | S | S | F-4 | F-6 |
| Open Ocean | +4 | -4 | S+6 | S+4 | S+2 | S | F-4 | F-6 |
| Deep Ocean | +4 | +2 | S+8 | S+6 | S+4 | S+2 | S | S-2 |

## Animal’s Niche and Subtype

Choose one ecological niche for the animal, as desired or as required by an encounter table. The niches are Carnivore, Herbivore, Omnivore, or Scavenger. Throw 2D on the following table to determine the animal’s subtype. Subtypes also determine the creature’s speed, as detailed later in this chapter. The numbers in parentheses are the numbers of animals encountered per pack (or random encounter). If there is no number, only a single creature appears,

**Animal Niche Table**

|  |  |
| --- | --- |
| 2D | Animal Niche |
| 2 | Scavenger |
| 3 | Omnivore |
| 4 | Scavenger |
| 5 | Omnivore |
| 6 | Herbivore |
| 7 | Herbivore |
| 8 | Herbivore |
| 9 | Carnivore |
| 10 | Carnivore |
| 11 | Carnivore |
| 12 | Carnivore |

**Animal Subtypes**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 2D | Herbivore | Omnivore | Carnivore | Scavenger |
| 1- | Filter (1D) | Gatherer | Pouncer | Carrion-Eater (2D) |
| 2 | Filter | Eater | Siren | Reducer (1D) |
| 3 | Intermittent | Gatherer | Pouncer | Hijacker (1D) |
| 4 | Intermittent | Eater (2D) | Killer (1D) | Carrion-Eater (2D) |
| 5 | Intermittent (1D) | Gatherer | Trapper | Intimidator(1D) |
| 6 | Intermittent | Hunter | Pouncer | Reducer |
| 7 | Grazer | Hunter (1D) | Chaser | Carrion-Eater (1D) |
| 8 | Grazer (1D) | Hunter | Chaser (3D) | Reducer (3D) |
| 9 | Grazer (2D) | Gatherer | Chaser | Hijacker |
| 10 | Grazer (3D) | Eater (1D) | Killer | Intimidator (2D) |
| 11 | Grazer (4D) | Hunter (1D) | Chaser (2D) | Reducer (1D) |
| 12 | Grazer (5D) | Gatherer | Siren | Hijacker |
| 13+ | Grazer | Gatherer | Chaser (1D) | Intimidator (1D) |

Carrion-Eater (vulture): scavengers who wait for all other threats to disperse before eating. Gain DM+1 to surprise rolls.

Chaser (wolf): carnivores who chase and exhaust their prey.

Eater (army ant): omnivores who eat anything they encounter, including adventurers.

Filter (earthworm): herbivores who pass the environment through their bodies and draw essential nutrients from it.

Gatherer (chimpanzee): omnivores who collect and store food. Gain DM+1 to surprise rolls.

Grazer (antelope): herbivores who move from food source to food source and spend a majority of their time eating.

Hijacker (lion): scavengers who steal the kills of others through brute force.

Hunter (baboon): omnivores who are opportunistic predators when easy prey presents itself.

Intermittent (elephant): herbivores who do not devote their entire time to searching for food.

Intimidator (coyote): scavengers who establish their claim to food by intimidating other creatures.

Killer (shark): carnivores with a raw, frenzied killing instinct.

Pouncer (cat): carnivores who stalk and ambush their prey. Gain DM+3 to surprise rolls.

Reducer (vermin): scavengers who devour any source of food, including remains left behind by other scavengers.

Siren (angler fish): carnivores who use a lure to attract prey. Gain DM+3 to surprise rolls.

Trapper (spider): carnivores who use traps to capture their prey. Gain DM+3 to surprise rolls.

## Animal Size, Stamina, Lifeblood, and Damage

For each creature, throw 2D for size, applying any size DMs from the Terrain and Movement table. Size determines the creature’s Lifeblood, Stamina, and damage. As for sentient beings, Stamina and Lifeblood indicate how much damage the animal can take. Throw for two numbers as indicated on the table. The first number is Stamina; the second is Lifeblood. The damage column modifies the amount of damage dice the animal’s attacks inflict. See the animal weapons table for the baseline damage. For example, if a weapon causes 2D damage by default but the “Damage Modifier” column indicated -1D, this animal’s weapon will only cause 1D damage. The entry “x2”, on the other hand, will modify the damage to 6D. If the table reduces a weapon’s damage dice to zero, and each attack causes only 1 point of damage.

**Animal Size**

|  |  |  |  |
| --- | --- | --- | --- |
| 2D | Weight (kg) | Stamina/Lifeblood | Damage Modifier |
| 1- | 1 | 1/1D | -2D |
| 2 | 3 | 1D/1D | -2D |
| 3 | 6 | 1D/2D | -1D |
| 4 | 12 | 2D/2D | - |
| 5 | 25 | 2D/3D | - |
| 6 | 50 | 2D/4D | - |
| 7 | 100 | 2D/5D | - |
| 8 | 200 | 3D/5D | +1D |
| 9 | 400 | 3D/6D | +2D |
| 10 | 800 | 3D/7D | +3D |
| 11 | 1600 | 3D/8D | +4D |
| 12 | 3200 | 4D/8D | +5D |
| 13 | 5000 | 4D/9D | +6D |
| 14 | 10000 | 5D/10D | x2 |
| 15 | 15000 | 5D/12D | x2 |
| 16 | 20000 | 7D/14D | x3 |
| 17 | 25000 | 7D/15D | x4 |
| 18 | 30000 | 8D/16D | x4 |
| 19 | 35000 | 9D/17D | x5 |
| 20+ | 40000 | 9D/18D | x6 |

## Animal weapons, armor, and base speed

Throw 2D on the following table to indicate the animal’s natural weapon and base damage. DM+8 for carnivores; DM+4 for omnivores; DM-6 for herbivores. Animals with two different weapons attack twice. A +X after a weapon’s name indicates a positive DM to attack throws.

**Animal Weapons**

|  |  |  |
| --- | --- | --- |
| 2D | Weapons | Damage |
| 1- | Hooves | 2D |
| 2 | Hooves and Horns | 2D/2D |
| 3 | Horns | 2D |
| 4 | Hooves and Teeth | 2D/2D |
| 5 | Horns and Teeth | 2D/2D |
| 6 | Thrasher | 3D |
| 7 | Claws | 2D |
| 8 | Teeth | 2D |
| 9 | Claws and Teeth | 2D/2D |
| 10 | Claws+1 | 2D |
| 11 | Stinger | 3D |
| 12 | Teeth+1 | 2D |
| 13 | Claws+1 and Teeth+1 | 2D/2D |
| 14 | Claws+1 and Stinger+1 | 2D/3D |
| 15 | Claws+2 | 2D |
| 16 | Teeth+2 | 2D |
| 17 | Claws+2 and Teeth+2 | 2D |
| 18 | Claws+2 and Stinger+2 | 2D/3D |
| 19+ | Projectile | As Weapon |

Throw 2D-7 on the following table to determine the animal’s armor rating, adding the number you rolled on the size table as a positive DM. Further DM+4 for herbivores; DM+2 for scavengers; and DM-2 for carnivores. Flyers suffer an additional DM-2 on this table.

**Animal Armor**

|  |  |
| --- | --- |
| 2D | Armor |
| 1- | 0 |
| 2 | 0 |
| 3 | 0 |
| 4 | 1 |
| 5 | 1 |
| 6 | 2 |
| 7 | 2 |
| 8 | 3 |
| 9 | 3 |
| 10 | 4 |
| 11 | 4 |
| 12 | 5 |
| 13 | 6 |
| 14 | 7 |
| 15 | 8 |
| 16 | 9 |
| 17+ | 10 |

Animal Movement Speed

Finally, consult the following table to determine the animal’s movement speed. The table generates speed multipliers; multiply this by 10 (a human’s average walking speed) to get the animal’s speed in meters per combat round.

**Animal Movement Speed**

|  |  |  |
| --- | --- | --- |
| Type | Speed Multiplier | Minimum Speed (in m/action) |
| Carnivore |  |  |
| Chaser | 1D-2 | 20 |
| Killer | 1D-3 | 10 |
| Pouncer | 1D-4 | 10 |
| Siren | 1D-4 | 0 |
| Trapper | 1D-5 | 0 |
| Herbivore |  |  |
| Filter | 1D-5 | 0 |
| Grazer | 1D-2 | 20 |
| Intermittent | 1D-4 | 10 |
| Omnivore |  |  |
| Eater | 1D-3 | 10 |
| Gatherer | 1D-3 | 10 |
| Hunter | 1D-4 | 10 |
| Scavenger |  |  |
| Carrion-Eater | 1D-3 | 10 |
| Hijacker | 1D-4 | 10 |
| Intimidator | 1D-4 | 10 |
| Reducer | 1D-4 | 10 |

## Animal Reactions

The animal’s ecological subtype influences its reaction in encounters with people, such as colonists and adventurers. When characters provoke an animal, or simply enter the territory of a more aggressive species, throw 2D and consult the following table. An entry of “Attack 6+” and “Flee 3-”, for example, means that if the reaction roll is 6 or more the animal will attack, and if it is 3 or less, it will flee. If the roll is between these numbers, the animal ignores the characters until provoked again.

**Animal Reactions**

|  |  |  |
| --- | --- | --- |
| Type | Attack | Flee |
| Carnivore |  |  |
| Chaser | Will attack if the animals outnumber the characters. | 5- |
| Killer | 6+ | 3- |
| Pouncer | Attacks if it has surprise. | Flees if surprised. |
| Siren | Attacks if it has surprise. | 4- |
| Trapper | Attacks if it has surprise. | 5- |
| Herbivore |  |  |
| Filter | 10+ if possible | 5- |
| Grazer | 8+ | 6- |
| Intermittent | 10+ | 4- |
| Omnivore |  |  |
| Eater | 5+ | 4- |
| Gatherer | 9+ | 7- |
| Hunter | 6+ if larger than at least one character. 10+ otherwise. | 5- |
| Scavenger |  |  |
| Carrion-Eater | 11+ | 7- |
| Hijacker | 7+ | 6- |
| Intimidator | 8+ | 7- |
| Reducer | 10+ | 7- |

# Appendix – The Universal World Profile (UWP)

The Cepheus Engine and most compatible OGL 2D6 Sci-Fi games use a shorthand method to easily record planetary data. This encoding uses pseudo-hexadecimal codes (as given below) for the numbers 10-16.

**Pseudo-Hexadecimal Notations**

|  |  |
| --- | --- |
| Rating | Letter |
| 10 | A |
| 11 | B |
| 12 | C |
| 13 | D |
| 14 | E |
| 15 | F |
| 16 | G |

A UWP is a string of hexadecimal numbers presenting basic information about a world in eight digits.

It lists the world’s characteristics in the following order:

1. Starport type.
2. World size.
3. Atmosphere.
4. Hydrographics.
5. Population.
6. Government.
7. Law Level.

-dash-

1. Tech level.

# Appendix - Cheating Death!

Death needs not be final! In advanced societies, technology permits, at a significant economic cost, to attempt and bring the dead back to life.

## Cyborg Conversion

Beginning at TL9, advanced technology can repair even a dead body, replacing dead tissues with chromium and steel. Extremely invasive cybernetics can bring a dead or dying person back to life if their brain remains relatively intact and the body is not overly mangled. Only the best hospitals offer this treatment, typically requiring many physicians, nurses, and technicians to perform.

Cyborg conversion costs MCr6. As part of the conversion, any additional cybernetic implant may be installed at 75% of list price, since the massive cyber-surgery makes such installation easier. Note that dead bodies decompose with time and cyborg conversion cannot restore anyone who has been dead for over a month. However, a cryoberth can preserve a body indefinitely, so long as it remains functional. When performing cyborg conversion, the head surgeon makes a Medicine/INT 10+ throw. The result of the surgery depends on the Effect of this Medicine check, as shown on the table below.

**Cyborg Conversion Results**

|  |  |
| --- | --- |
| **Effect** | **Result** |
| -6 | The character cannot be revived even with advanced cybernetics and remains dead. Nothing further can bring the character back to life. |
| -5 | The cyborg arises from the dead but is violently and irreparably insane due to faulty wiring and programming. The character awakens and attacks everyone next to them with murderous rage. The character cannot be subdued and later repaired. They must be terminated. |
| -2 to -4 | The procedure fails. Further cyborg conversion or bio reconstruction attempts can be made, but at a DM-2 and double the cost. Negative DMs and cost multiplication are cumulative for repeated attempts, e.g., a third cyborg conversion attempt after failing twice will suffer DM-4 and will cost four times as much. |
| -1 | The character returns to life with 1 point of Lifeblood! However, their body did not recover well from the cybernetic implantation process, which causes severe side effects. Roll 1D6: 1-2, the character loses their memory; 3-4, the character is only partially alive and suffers from cybernetic mismatch; 5-6, the character will occasionally suffer from sudden and unexpected fits of murderous rage. See below for descriptions of these states. Further surgeries and healing attempts follow the standard healing rules. |
| 0 | The character returns to life with 1 point of Lifeblood, though they still bear marks of their terrible injury. Roll 1D6: 1-2 the character suffers from partial memory loss; 3-4, the character will have severe recurring nightmares; 5-6, the character will undergo a profound personality change. Further surgery and healing follow the standard healing rules. |
| 1 to 5 | The character returns to life with 1 point of Lifeblood and will recover fully with proper medical care. However, they suffer moderate damage due to imperfect cyber-implantation. Roll 1D6: 1-2, the character will be sickly; 3-4, the character suffers physical characteristic loss; 5-6, the character suffers from shaking. Further surgery and healing follow thestandard healing rules. |
| 6+ | The character is lucky and awakens with full Lifeblood and Stamina and no perceptible side effects. No further healing required! |

|  |  |
| --- | --- |
| **General DMs: Apply any relevant modifiers to all cyborg conversion attempts.** | |
| **Circumstance** | **DM** |
| TL9 and TL10 | DM-2 |
| TL14+ | DM+2 |
| Per previous cyborg conversion | DM-2 |
| More than 24 hours have passed since the character’s death | DM-1 |
| More than one week has passed since the character’s death | DM-3 |
| More than a month has passed since the character’s death | Automatic failure |
| Character’s body was cryogenically preserved and thawed out | DM-2 |

**Cyborg Conversion Side Effects**

Here is a list the effects of the various side effects caused by less-than-perfect cybernetic conversions.

**Cybernetic Mismatch:** The character is neither alive nor dead, and teeters constantly on death's door. They are kept alive only by cybernetics, whilst simultaneously suffering from cybernetic rejection. The character suffers DM-2 to all throws and only has half of their movement rate: in most cases, 5 meters per action. Every month, the character must roll END 8+ or die from cybernetic rejection.

**Memory Loss, Full:** The character suffers from complete amnesia, though they retain basic life skills and partial adventuring skills. Halve the character's EDU score, rounding down to a minimum of 1. Also, for **each** skill, throw INT 6+ or lose one level of the skill; a skill at level-0 reduced in such manner is lost.

**Memory Loss, Partial:** The character loses part of their memory but retains a general idea of their identity, as well as most skills. The character loses 1d3 points of EDU to a minimum of 1. Randomly choose **one** of the character’s skills that are at level-1 or higher: reduce it to level-0.

**Personality Change:** The character retains their memories. However, their personality has changed dramatically and profoundly. The player and Referee should negotiate this change. We suggest using some of the random NPC motivation tables found in the Social Encounters chapter to guide the process.

**Physical Characteristic Loss:** The character did not heal properly and now suffers from reduced abilities. Roll 1D: 1-2, the character loses 1d3 points of Strength; 3-4, the character loses 1D3 points of Dexterity; 5-6, the character loses 1d3 points of Endurance. The affected characteristic cannot be reduced below 1.

**Recurring Nightmares:** The character suffers from traumatic memories of their otherwise lethal injuries. They suffer from negative emotions and severe recurring nightmares every night. In addition to being wildly unpleasant, these nightmares prevent healthy sleep. The character suffers from severe insomnia, leading to constant Fatigue. At the Referee’s choice, this may be mitigated by stimulants – which, in turn, may be addictive.

**Sickly:** The character's body did not fully heal from the lethal trauma it suffered, as well as the cybernetic conversion. Their metabolism is now far weaker. Halve the character's Stamina score, rounding down to a minimum of 1. The character also suffers DM-2 to all rolls made to resist disease, poison, radiation, or any other biological effect.

**Shaking:** The character's cybernetic neural wiring and servos are not well-calibrated. They suffer from constant hand tremors, causing a DM-1 to skill and characteristic throws, as well as any other throws requiring steady hands.

**Sudden Murderous Rage:** The character awakens normally, but the cybernetic systems will develop critical and dangerous glitches. Whenever the Referee wishes, the character must throw INT 8+ or END 8+ (whichever is better) or fly into a murderous rage lasting 2D combat rounds, doing their best to kill any living or mechanical being in reach. After this violent break, they will return to normal and will not remember anything from their rage. We recommend that the possibility of a Sudden Murderous Rage might come up every week, or month, or whenever the character is under high stress situations, and something related to their trauma occurs. Referees are not encouraged to be particularly merciful…

## Bio Reconstruction

At Tech Level 16, extremely advanced medical technology can perform miracles unimaginable by less advanced societies. By applying cutting-edge biotechnology, an advanced hospital or laboratory can grow back a dead body and restore it to full function. The only requirement for Bio Reconstruction is that the dead character's brain must be preserved in an intact enough state. This allows for the scanning of the brain’s neural pathways for imprinting in the new body. Bio Reconstruction is a monstrously expensive process, and it requires an advanced and full-scale hospital with access to the best scientific facilities and a large crew of experts in medicine and biology. Unlike cyborg conversion, however, this process is far less invasive and has a better chance of success.

The procedure costs MCr60 – as much as a small starship. In most cases, a patron of some sort will fund the procedure, usually in return to massive favors owed by the reborn subject. Note that dead bodies decompose with time and even this advanced method of bio reconstruction cannot restore a person dead for over a year; a cryotube can, however, preserve a body indefinitely. When performing the bio reconstruction, the head scientist makes a Medicine/EDU 10+ check. The result depends on the Effect of this Medicine check, as shown on the table below.

***Bio Reconstruction Results***

|  |  |
| --- | --- |
| Effect | Result |
| -6 | The attempt to revive the character failed, and no further attempts will succeed. The character is dead. |
| -5 | The procedure fails. Further Bio Reconstruction attempts may be made, but at DM-2 and double the cost. Negative DMs and cost multiplication are cumulative for repeated attempts, e.g., a third Bio Reconstruction attempt after failing twice will suffer DM-4 and will cost four times as much. |
| -4 to -1 | The character returns to life with 1 point of Lifeblood but suffers biological degradation. They will require 1D weeks of rest after emerging from the vat. Roll 1D: 1-4, the character loses their memory; 5, the character suffers from an incurable malignant illness; 6, the character will suffer from progressive dementia due to faulty brain reconstruction and imprinting. Further surgery and healing follow standard rules. |
| 0 | The character returns to life with 1 point of Lifeblood, though not perfectly so. Roll 1D: 1-2 the character suffers from partial memory loss; 3-4, the character's appearance changes radically; 5-6, the character undergoes a profound personality change. Further surgery and healing follow standard rules. |
| 1 to 5 | The character has been regenerated to 1 point of Lifeblood and will recover normally with medical care. Roll 1D for side effects: 1-2, the character suffers from a significant but non-debilitating disfigurement; 3-4, the character's appearance changes partially; 5-6, the character undergoes a physical characteristic change. Further surgery and healing follow standard rules. |
| 6 or more | The character is lucky and awakens with full Lifeblood and Stamina, and no perceptible side effects. |

|  |  |
| --- | --- |
| **General DMs: Apply any relevant modifiers to all bio reconstruction attempts.** | |
| **Circumstance** | **DM** |
| Per previous successful cyborg conversion | -2 |
| Per previous successful bio reconstruction | -1 |
| More than a week has passed since the character’s death | -1 |
| More than one month has passed since the character’s death | -3 |
| More than a year has passed since the character’s death | Automatic failure |
| Character’s body was cryogenically preserved and thawed out | -2 |

**Bio Reconstruction Side Effects**

These are the various side effects and problems caused by partially successful Bio Reconstructions:

**Appearance Change, Radical:**The character looks like a completely new person and is unrecognizable by anything short of a genetic test. Even the fingerprints change. The exact details of this change are up to the Referee and player.

**Appearance Change, Partial:** The character looks similar to their old self, but not exactly so. People who know the character may attempt to recognize them on a successful INT 6+ throw. Other details and consequences of this change are up to the Referee and player.

**Disfigurement:** The character suffers a terrible disfigurement that no surgery may correct. It is not debilitating but is ghastly to look at and incurs DM-2 to any skill or characteristic throws related to diplomacy or persuasion. However, the character gains a DM+2 to any roll related to intimidation. The character is also easily recognizable.

**Malignant Illness:** Faulty genetic reconstruction causes a persistent, incurable malignancy in the character's body. Halve all physical Characteristics and round down to a minimum of 1. Furthermore, each month the character must throw END 8+ or die from the illness. Bio reconstruction, cyborg conversion, or any other procedure cannot restore a character who died in such a way. This is a good opportunity to tie up any loose ends from the character's previous life. They are living on borrowed time.

**Memory Loss, Full:** The character suffers from complete amnesia, though they retain basic life skills and partial adventuring skills. Halve the character's EDU score, rounding down to a minimum of 1. Also, for **each** skill, throw INT 6+ or lose one level of the skill; a skill at level-0 reduced in such manner is lost.

**Memory Loss, Partial:** The character loses part of their memory but retains a general idea of their identity, as well as most skills. The character loses 1d3 points of EDU to a minimum of 1. Randomly choose **one** of the character’s skills that are at level-1 or higher: reduce it to level-0.

**Personality Change:** The character retains their memories. However, their personality has changed dramatically and profoundly. The player and Referee should negotiate this change. We suggest using some of the random NPC motivation tables found in the Social Encounters chapter to guide the process.

**Physical Characteristic Change:** The character's new body grows differently than the last one. Roll 2D three times and assign the values to the three physical characteristics, STR, DEX, and END, as desired.

**Progressive Dementia:** The character's brain was not properly restored and will deteriorate with time. Each month, the character loses 1d3 points of INT and 1d3 points of EDU. When any of these characteristics reaches zero or below, the character falls into a vegetative state and will die within 1D months. If both fall below zero on the same month, the character suffers a stroke and dies immediately.

# Appendix - Aliens

Grand interstellar drama often calls for sentient aliens. Unlike the unfathomable alien life of a hard-science universe, the following three species follow common space-opera tropes. They are humanoid, reminiscent of Terran animals, and in one case – inspired by pop-culture UFO lore. These aliens are close enough to humans to be playable without much work.

Under these rules, aliens use the same careers as humans do, but have alien traits that set them apart from humanity.

For more detailed alien species and cultures, as well as advanced alien character generation, we recommend our grand space-opera setting: *These Stars Are Ours!* available from Stellagama Publishing in PDF and print-on-demand formats.

***Grays***

Short in stature but intellectually powerful, the gray aliens are a staple of science fiction and popular culture. Common lore has them flying in saucers and abducting people for horrific scientific experimentation. All grays are biologically female. They reproduce asexually, each daughter being a clone of her mother with minimal variation. Curiosity drives the grays and they value rationality; they are excellent scientists and strategists. They are, however, poor fighters, and prefer to use technology and the slave races they have subjugated to fight their battles.

Grays have the following traits:

* Injured or sick grays require a medical facility (or tools) of TL10 or better, otherwise they suffer DM-2 to any related medical throws.
* Grays do not need to acclimatize to low-gravity environments.
* At character generation, grays roll 1D for STR and 1D for END, but 3D for DEX and INT.

***Reptiloids***

These warm-blooded reptile-like aliens bring the might of the monitor lizard and the agility of the gecko to the stars. Males are taller and stronger than humans, while females are human-sized. Civilization transformed the male reptiloid’s murderous territorial instincts into a less destructive, but always present, competitive streak. A male reptiloid lives and dies for glory - constantly proving his mettle to his peers and vying for higher spots in his social pecking order. Females, on the other hand, consider the big picture issues important to reptiloid tribal society: government, commerce, and technical development. The males, and to a lesser degree the females, are excellent warriors, though many try their hand in commerce (and piracy!) as well.

Reptiloids have the following traits:

* See twice as far as humans in low-light conditions.
* DM+2 to all Athletics throws to climb. May cling to walls and ceilings on a successful throw of Athletics 8+ per round of clinging.
* Reptiloids do no suffer hourly damage from hot weather exposure up to 50°C.
* Males enjoy a +1 bonus to STR and a penalty of -2 to INT; females enjoy a +1 bonus to EDU and a penalty of -2 to STR. This cannot bring INT or STR to less than 1.

***Insectoids***

The Insectoids were once the pests living in the detritus of another more advanced civilization. But that civilization fell, and the Insectoids soon thrived in their precursors’ ruins. Opportunistic and hardy, these bug-folk quickly learned how to bring their world’s old masters’ technology back to life. This has enabled them to skip many millennia of cultural evolution. They are expert tinkers, peddlers of trinkets, and boundless opportunists. Terrans may deride them as space cockroaches, but still enjoy their trade and diplomatic neutrality, nonetheless.

Insectoids have the following traits:

* Fast-growing. Start their career at the age of 10 and start aging after their third term, at the age of 22. May use career tables for up to 5 terms.
* 2 points of natural armor. Non-cumulative with worn armor heavier than Jack.
* Insectoids do not need to acclimatize to low-gravity environments.
* -2 penalty to EDU. This cannot bring EDU to less than 1.
* DM+2 to any throw to avoid poison or disease; DM+2 to any throw to cure an insectoid from a poison or a disease.
* As an action, an insectoid may throw Athletics 6+ to jump 6m in any direction.

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