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Traveller is a game of the far future, and nothing gives the game that futuristic feeling as well as robots do. Here are over one hundred official robot designs, at your fingertips and ready for use in any **Traveller** campaign. Also included are some additional robot design notes, as well as descriptions of new skills, sensors, devices, and weapons to use in your own robot designs.

The 101 Robots

There are basically three reasons why a particular robot might appear in this book. One reason for a robot to be chosen for inclusion is its common use in the Imperium or bordering areas. Examples of this would be many of the cargo bots and the Zhodani warbots. A few of these robots are not innovative or otherwise unusual, but the higher probability of encountering them warrants their places in this book.

Other robots are included in this book to demonstrate the flexibility of the robot design system from *Book 8: Robots.* Some of these robots are described in two or three versions, and their descriptions discuss the design tradeoffs. Examples of these are the Tukera Traders and the Ship Shepherds.

A third group of robots is included just because they are interesting in one way or another, whether or not they are commonly encountered in **Traveller**. Some of these robots are highly intelligent (or quite unintelligent). Others have devices or software installed that are not normally associated with robots. Others emphasize some facet of life at high tech levels.

Types of Robots

A variety of means to categorize robots exists. For this book, we grouped robots according to the following definitions:

Dumbots: The robot has an intelligence of 4 or less. If the robot falls under any other category, however, it is not a dumbot.

Utility Robots: The robot has an intelligence greater than 4, but no more than one skill has a level of 2.

Assistants: The robot has an intelligence of 5 or greater, and it has two or more skills at level 2 or greater or has at least one skill at level 3.

Expert Robots: The robot has some skill at level 4.

Law Enforcement and Security Robots: The robot fulfills some role in the legal system.

Warbots: The robot is routinely used on a battlefield.

Medical Robots: The robot is used in medicine.

Pseudobiological Robots: The robot is configured as chassis 6. If a robot fits into one of the last four categories, it is not

considered as belonging to one of the first four categories.

Within each category, the robots are ordered by tech level.

The Robot Descriptions

The descriptions in *101 Robots* follow the standard Universal Robot Profile format described in *Book 8: Robots*. The first line of each URP contains the codes for the robot's chassis size and configuration, power supply, locomotion, head and other appendages, brain hardware and software, and apparent characteristics. For the exact meaning of the URP codes, see *Book 8.*

Included in the URP is a summary of other pertinent data, including the price, weight, fuel capacity, duration, tech level, thrust, chassis damage points, armor type, appendages, sensors, devices, weapons, and application programs.

Following the URP summary is a description of the robot. For the most part, the descriptions are straightforward, but in a few instances, the descriptions are taken from news articles or even advertisements for the robots. Many of the descriptions include special information dealing with the game.

Robots in Society

Robots become technologically feasible in **Traveller** at tech level 12, and at this tech level, characters will begin to encounter robots in their day-to-day activities. The economic advantages of robots over humans increase until at tech level 13, robots can be found in businesses, fancier hotels and restaurants, and many private homes. At tech level 14, this trend starts to reverse itself, until at tech level 15 one can judge the exclusivity of an establishment by its human (or sentient) help.

ROBOT DESIGN: ADDITIONAL CONSIDERATIONS

Master/Slave Robots

The master/slave configuration of robots is a common one, particularly for industrial robots, dumbots, and Hiver and K'kree robots. Many warbots also have master/slave capabilities.

There are two types of networks possible: those with a single master and multiple slaves, and those with multiple masters and multiple slaves.

To determine how many robots can be tied together in a single master/multiple slave network, add the intelligence of the master and the intelligence of the slaves together. Divide this number by 2, and the result gives the number of possible slaves in the network. The master must have a minimum intelligence of 3. (The slaves may or may not have a brain themselves.)

In the multiple master/multiple slave network, each robot is simultaneously a master and a slave. The advantage of this system is that large problems (particularly those spread over a wide geographic area) can be worked on by several robots at once. Any robot in such a network must have a minimum intelligence of 3. Examples of this configuration can be found in the Weather Control Robot and the Ship Shepherd Robots.

Many warbots are configured in a multiple master/multiple slave network, in order to provide external brain backups. In case one robot's brain is damaged, it can use the processing power of one of its co-robots to continue operating.

If a slave is using a skill from the master's brain, the effective intelligence of the slave robot is the master's intelligence minus 1. If the master is controlling any number of slave robots, the effective intelligence of the master is also its own intelligence minus 1. (Note in particular that this affects every robot in a multiple master/multiple slave configuration.) If a slave is using

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Robot Designs.......Gary L. Thomas, Robert Parker, Nancy Parker, Joe D. Fugate Sr. Robot Illustrations.....Joe D. Fugate Sr., Robert Parker, Rob Caswell Introductory Material...Gary L. Thomas, Joe D. Fugate Sr. Cover painting by Joe D. Fugate Sr. Copyright ©1986 Digest Group Publications. Portions copyright ©1986 Game Designers' Workshop. All Rights Reserved. Printed in the USA. **Traveller** is a registered trademark of Game Designers' Workshop. The trademark is used with permission.

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a skill it has, its own intelligence is the effective intelligence.

Electronic Circuit Protection Effects on Combat

When a robot has electronic circuit protection, its weight and cost increase by a factor of 1.5. When you calculate hit and destroy values for the robot, multiply the chassis values by the same factor of 1.5. When the robot takes a hit, ignore the hit if it is the first hit on a particular component, and count the hit as a chassis hit instead. The second hit on a component is "unprotected" and counts normally.

Retractable Appendages

Heads and arms on a robot can be retractable, as long as the storage space within the body of the robot is accounted for in the design process. The volume required for the head, for the purposes of the game, is the same as its internal volume. The volume required for an arm or tentacle is equal to 0.5 liters per kilogram. For example, a retractable light arm takes up 2.5 liters from the robot's chassis volume.

Multiple Heads

Robots can be designed with multiple heads, as long as the total head volume does not exceed 40% of the chassis volume. For example, a robot could have three rotating heads, each having a volume of 10% of the chassis volume, giving a total additional volume of 30%.

Multiple Power Plants

The gap between fuel cells and fusion power plants is wide, and there are many circumstances where an intermediate amount of power is desired. In these cases, the robot can be constructed with more than one power plant, giving a total power supply equal to the sum of the individual power outputs.

For example, a robot with three Type 6 fuel cells would have a total power supply available of 270 kw at tech level 12. Remember to count the fuel consumption of each plant when computing the robot's operating time.

"Plug-in" Robots

A robot may not have any power supply, particularly if it is a fixed unit that just plugs into a wall (such robots must have power interfaces, of course). To indicate in the URP that a robot has no internal power supply, put an "x" in the appropriate positions (power supply and batteries). In this book, the Assembler Robot is an example of this.

Touch Sensors

All robot arms are built with an appropriate standard amount of tactile feedback, i.e., the fingers have a normal amount of touch sensitivity without including separate "touch sensors" in the robot. The touch sensors on the design list refer to sensors for the robot's body. This explains why the power, weight, and cost for touch sensors are multiplied by the chassis size to determine the actual values.

Hidden Costs of Software

When designing a robot, it is all too easy to look over the list of skills and be misled by the apparently inexpensive costs for software. Putting vast amounts of programming into a robot can have an expensive side effect: the robot's brain jumps in price. Remember that every time a program takes "only" two units of space, the brain must increase by that amount. If the software is CPU-resident, the costs can increase quite rapidly. Furthermore, excessive skill levels can require that even more CPU'or storage space be allocated, because robot brains are limited in the same way that sentient brains are for the number of skills allowed. The total levels of skills can not exceed the sum of the robot's intelligence and education.

If you do insist on a vast amount of software, the easiest way to increase the number of allowable skills is to increase the amount of standard storage. For an example of this technique in use, see the Hiver Bruiser Robot in this book.

How to Use This Book for Robot Encounters

The index lists all of the robots from the encounter tables found in *Book 8: Robots*. If you are using *Book 8*, you can instantly find an example of any robot by finding its name in the index.

Many of the robots in this book are not appropriate for "random" encounters, but referees are encouraged to use these robots in preplanned adventure settings.

NEW DESIGN FEATURES

New Skills

Performer: The robot can perform in front of an audience and hold the audience's interest, using whatever related "talent" skill applies (such as musical). The skill level represents the "population" level of the audience that the robot is qualified to perform for: skill level 1 means audiences up to 10, skill level 2 means audiences up to 100, etc. Requires emotion simulation.

Musical: The robot can use and play a variety of musical instruments. If the robot has a voder, this skill also gives the robot the ability to sing. Performer skill is needed if the robot is to play or sing in front of an audience.

Cinematography: Gives the robot the ability to use a camera (still, 2D video, or 3D holographic) in a manner beyond simply recording what it sees. The robot will seek out good camera angles, compose for maximum interest, and so on. Skill level 1 is sufficient for the robot to be used as a "newsreel" camera operator, while skill level 3 allows the robot to be used as the camera operator in a full-scale movie production.

Agriculture: The robot can properly plant and harvest crops, match the crop to the environment, and maximize crop yield through the use of fertilizers, planting techniques, hydroponics, and so on. Higher skill levels increase the robot's ability to cope with harsh and difficult crop growing situations.

Janitorial: The robot can properly clean and maintain living and working areas, doing routine sweeping, mopping, dusting, polishing, vacuuming, and scrubbing. Higher skill levels allow the robot to work faster and still maintain quality.

Athletics: Gives the robot an understanding of athletic activities and how to perform them. Higher skill levels confer a more in-depth understanding of athletics and a greater ability to critique specific activities.

Lab Tech: Enables the robot to understand and perform basic laboratory operations such as working with chemical substances or using lab equipment. Higher skill levels provide a greater precision when working in the lab and a greater understanding of more exotic or complicated lab equipment. *Meteorology:* Provides the robot with an in-depth understanding of weather patterns and weather prediction. Higher skill levels also allow the robot to practice weather control: skill level 2 allows the robot to perform primitive weather control, while skill level 4 gives the robot expert weather control ability.

Terraforming: The robot can plan and execute macro-level terrain alteration. Skill level 1 permits local terraforming (less than one full hex on a world map), skill level 2 allows terraforming an entire hex, and skill level 3+ provides the ability to execute multi-hex terraforming projects.

Biology: Allows the robot to recognize and categorize living organisms both familiar and unfamiliar. By observing the lifeform, the robot may discern the lifeform's characteristics, ecological classification, and potential hazards to other lifeforms. This skill also permits the robot to estimate the potential uses of the lifeform (e.g., whether the organism is commercially valuable, whether it can be eaten). Higher skill levels allow the robot to form proper conclusions with less detailed knowledge of the organism's physical structure.

Physics: Provides the robot with an in-depth understanding of force, energy, and its effects on matter. This allows the robot to discern what force may have affected an object, what caused an unknown phenomenon, or to categorize an unknown energy source. The robot may also provide an estimate of what application of force or energy will be needed to have the desired affect. Skill level 3+ permits the robot to form proper conclusions about a phenomonen which it did not personally observe (e.g., what caused a 100-year old crater).

Chemistry: Allows the robot to analyze chemical compounds or to synthesize new chemical compounds from old ones. Chemistry skill requires access to proper equipment in order to be used. Higher skill levels improve the robot's ability to find trace elements in an analysis, or to synthesize complex compounds (such as drugs or crystaliron). Chemistry skill applies only to inanimate matter, not living organisms.

Genetics: Genetics is treated as a combination of biology and chemistry skill, with the chemistry involving living matter instead of inanimate matter. Genetics allows performing laboratory chemical analysis of living organisms (see chemistry skill), or laboratory biolgical study of living organisms (see biological skill). Skill level 3+ allows attempting to synthesize new forms of living matter, which may include cloning.

Forensic: Allows the robot to gather and interpret evidence available at the scene of a crime or accident. Skill level 1 confers basic detective skills, level 4 is an expert investigator.

History (specify major race): Provides the robot with a vast knowledge base containing historical details about a specific major race's region of space. History has no skill level since it is always put in storage and never put in the CPU.

Psychology (specify race): Allows the robot to diagnose and treat behavioral abnormalities. The robot may be able to elicit certain reactions or predict an individual's behavior in advance. Use in conjunction with the reaction table for the specified race. Requires emotion simulation.

Architect: Allows the robot to plan and design structures, from buildings and bridges, to starports and entire cities. Higher skill levels allow producing a more reliable plan in a shorter time.

Construction/Fabrication: This provides the robot with the know-how needed to efficiently build the structure designed by an architect. Higher skill levels allow the robot to work faster and more efficiently, while still maintaining quality.

New Sensors, Devices, and Weapons

Environment Sensor Package: An array of sensors for sensing the environment immediately surrounding the robot. Includes: temperature, moisture, and pressure sensing.

Active Audio Sensor (SONAR): Allows the robot to use reflected sound waves in a fluid to locate and track objects.

Neural Activity Sensor: Provides the robot with the ability to remotely detect lifeforms (by sensing brain wave activity) out to a range of 250 meters.

Molecular Analyzer (Sniffer): Gives the robot the ability to perform a chemical analysis search for as little as 1 part per 10 million of the compound being sought. Each analysis is time consuming, however, and takes an average of 1 hour.

Sandcaster: Provides a mini-sandcaster for use as a defense against starship laser fire in a zero-G environment.

Microspotlight: A small, precise version of the spotlight.

Surgical Laser: A precision laser welder/cutter that is much more exacting than a laser welder.

Financial Package: Gives the robot a built-in safety deposit box for credit notes, a set of debit/credit card readers for common cards, and special money handling hardware.

Music Synthesizer: A specialized multivoice unit that accurately imitates a wide array of musical tones and instruments.

Agricultural Package: Provides an array of plant tending implements.

Gauss Pistol, ACR, Accelerator: These weapons are equivalent to the corresponding weapons in Book 4: Mercenary.

Description	Space	Price(CR)
Performer†	3	300
Musical	6	500
Cinematography	2	400
Agriculture	4	300
Janitorial	2	200
Athletics	3	400
LabTech	2	400
Meteorology	4	500
Terraforming	4	500
Biology	8	500
Physics	8	500
Chemistry	8	500
Physical Sophontology (specify race)	6	600
Genetics	10	1200
Forensic	5	800
History (specify major race)*	10	500
Psychology (specify race)†	12	1200
Architect	6	400
Construction/Fabrication	2	400

* Cannot be put in CPU: can only be put in storage NEW DEVICES

Device	Power	Wt(kg)	Price(Cr)
Sandcaster	5.0	14.0	1250
Microspotlight	0.3	0.3	150
Surgical laser	2.5	5.0	10000
Financial Package	1.0	4.0	1000
Music Synthesizer	10.0	15.0	5000
Agricultural Package	7.5	50.0	750
Mass Sensor (grav shielded)	20.0	10.0	10000
NEW SENSORS			
Sensor	Power	Wt(kg)	Price(Cr)
Environment Sensor Pkg	4.0	4.0	1500
Active Audio Sensor (SONAF	3) 5.0	20.0	5000
Neural Activity Sensor	4.0	10.0	40000
Molecular Analyzer (Sniffer)	30.0	25.0	50000
NEW WEAPONS			
Weapon	Power	Wt(kg)	Price(Cr)
Gauss Pistol	2.5	1.5	1000
ACR	2.5	4.0	1500
Accelerator Rifle	2.0	3.0	1200

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Dumbots

Dumbots are robots with intelligence of 4 or less. These robots are among the most commonly encountered within the Imperium, because they are cheap and efficient at their jobs. They usually have only one or two skills at proficiency level 1 or 2, but occasionally a dumbot will have a skill level of 3.



Front View

1. ANIMAL CARE ROBOT

522xA-F2-JL112-M622 Cr90,100 140kg Fuel=34.9 Duration=7.3 days TL=12 23/58 (mesh) 1 Lt arm, 1 med arm 1 Head (15%) Basic sensor pkg (eyes: +1 lt inten,+1 pass IR) Voder Radio (distant range) Medical instrument pkg Body/Snub pistol Medical-2, Body/Snub Pistol-2

The Intect AF-390 animal care robot is programmed to feed and tend a variety of creatures, regardless of the environ- mental conditions in which they live. The AF-390 is often found in research labs, zoos, and occasionally agricultural installations. The animal care robot can also assist in tracking and recovering any animals which escape, using its heightened vision and its LSV-64 snub pistol.

The pistol uses tranquilizer ammunition; the robot's programming permits it to estimate the size and metabolism of the target and automatically adjust the dosage of these darts.

Generally, an installation will have several of these robots, which communicate over their radios with one central computer. This master unit can give them special instructions for the treatment of certain animals. The AF-390 can also inform such a central computer of animal escapes or other intruders.

The medical instrument package included in the AF-390 is used for veterinary work.



30xx0-04-LB000-MF11 Cr47,700 155kg Fuel=(external power) Duration=(unlimited) TL=12 10/25 (no armor) 4 Med tentacles 2 Eyes, touch sensors Power interface, brain interface 4 Lt laser welders (in tentacles) Mechanical tool pkg

The Naasirka SS1 assembler robot has no power plant, no locomotion, and a very limited brain, yet it is one of the most common robots used within the Imperium. For less than Cr50,000, a factory owner can install an SS1 and replace one or two human workers. Reconfiguring an entire assembly line can be expensive in the initial cash outlay, but over the years the accrued savings can be considerable.

Robots have other advantages over human workers in assembly tasks: robots are willing to work 24 hours a day, perform repetitious tasks without becoming bored or sloppy, and never strike or take sick leave as long as they are well maintained. One added expense for the industrialist is the hiring of robotics engineers, who must instruct these robots and keep them in good condition.

SS1 robots are typically fixed in their locations, with dedicated power lines and brain interface cables. From a central location, the engineers can reprogram a whole factory at once.



3. BARTENDER ROBOT

22xxA-01-CC111-6521 Cr67,800 30kg Fuel=(external power) Duration=(unlimited) TL=12 4/10 (mesh) Twin track unit suspension 1 Lt arm 1 Eye, 1 ear Financial pkg Power interface Video display (2D) Steward-1

Rolling back and forth behind its counter, the MNF-350 bartender knows just enough to keep its customers happy. With its steward-1 skill and light arm, it is capable of mixing any concoction requested. The financial package software can instantly convert any standard exchange units used in the vicinity and compute the correct change. The financial package hardware, on the other hand, is set up to receive most standard forms of payment, including Imperial credit notes, financial transfer cards, and the local currency.

The robot's memory can keep track of the entire inventory of the establishment, while remembering "favorite recipes" of the regular customers. At the owner's discretion, the MNF-350 can also be programmed to grant credit to regulars. Without emotion simulation, this bartender is not adept at listening to cus- tomers' woes, but like other dumbots, it performs its functions proficiently and cheaply.

A few optional features are available for this robot. If a customer is inebriated to the point of not being able to pronounce his order clearly, the robot can be programmed not to serve him any more drinks and in some cases can even call a taxi for him.



4. CARGO HANDLER ROBOT 716xB-N2-GC111-R421 Cr75,200 480kg Fuel=75.3 Duration=7.8 days TL=12 56/140 (mesh) 1 Head (40%) 2 Hvy arms Basic sensor pkg, voder Cargo Handling-3

The tech level 12 cargo robot provides an excellent example of the economics of using robots. Docks, airports, spaceports, and starports all have irregular traffic flows, but when cargo needs to be loaded or unloaded, time is money. At the same time, keeping extra personnel on hand for the busy times can be wasteful during slack periods.

A cargo robot like the Intect D1-B described here is an ideal solution to this problem. Sentient workers may cost an employer upwards of Cr20,000 a year for an eight-hour shift. Other costs to an employer could include taxes, retirement plans, vacation pay, and the expense of training new employees.

A cargo robot, on the other hand, can work three shifts a day and requires no fringe benefits other than fuel and regular maintenance. At this rate of savings, the robot pays for itself in little more than a year. If taken care of, the robot has a useful life of up to 40 years.

The cargo handling skill of this robot is excellent; it is efficient in its use both of time and space.



5. DESKBOT

35xx0-03-LP223-JC45 Cr204,300 50kg Fuel=(external power) Duration=(unlimited) TL=12 10/25 (mesh) 3 Lt arms Basic sensor pkg, voder Program interface, power interface Video recorder (2D) Video display (2D) Administration-2, General Language-2 Emotion Simulation

The Naasirka Z-16 is typical of many administrative dumbots, often called "deskbots". Designed without power plant or locomotion, the Z-16 can handle most simple administrative tasks with a minimum of sentient interference.

For example, many Travellers' Aid Society Hostels have installed Z-19 deskbots to perform guest registration tasks. (The Z-19 is a tech level 15 version of the Z-16. Other than a higher intelligence because of the more advanced brain hardware, the designs are similar.) Guests are satisfied, both because the Z-19 is often more efficient than sentient help, and also because its emotion simulation programming can greet visitors in a courteous way.

In many office applications, the Z-16's three light arms can be very handy, particularly where "paperless" systems have not yet replaced "paper shuffling" systems. Deskbots are often used as stenographers, despite their high cost for such a purpose, because many high-level administrators are not proficient in the use of data-entry devices. Deskbots, with their transcription abilities and instant feedback, serve well in this regard.



6. HEAVY AGROBOT

805xD-02-5M002-RF03 Cr22,200 340kg Fuel=234 Duration=27.9 TL=12 Thrust=1000kg 70/175 (no armor) 2 Hvy arms Basic sensor pkg Brain interface Radio (distant range) Hvy farming pkg Cargo Handling-2, Grav Vehicle-1

The agrobot is one reason that populations have been able to expand to so many marginal worlds. This large open-frame robot has little if any intelligence, yet it capably performs its duties, tending the food supply for literally billions of sentients.

Equipped with an ultra heavy duty grav module, the Odyssey 500 agrobot can travel anywhere on a world's surface while carrying several hundred kilograms of supplies. A variety of peripheral devices enable it to plow, irrigate, plant, weed, and harvest crops. In fact, turned loose in an appropriate area, an agrobot can clear ground and tend it by itself through the entire growing cycle. This ability explains why agrobots are so often carried on colonization ships.

One agrobot can tend about 4 square kilometers, depending on the crop and planetary conditions. Radio communication is used to relay instructions and other information back and forth between a far-ranging agrobot and its home base. Typically, an agrobot will return to its home base only to refuel, or to carry supplies to and from the fields.



The popular Intect Model AJ-62 is found on many Imperial worlds.



8. ZERO-G HYDROPONIC FARMER ROBOT 330x0-04-DB101-6F11 Cr79,200 40kg Fuel=20.4 Duration=8.5 TL=12 10/20 (mesh) 4 V lt arms Basic sensor pkg Zero-G maneuver pkg

Agriculture-2

Both large and small orbital complexes and other small closed ecologies need food supplies for their inhabitants, and this food can be supplied in a number of ways. Whatever the size of the complex, most supply their own food rather than import it.

Large orbital complexes may have large or small world populations beneath them. If the world population is small, this is generally because the planet's surface is uninhabitable. If the world's population is large, it generally indicates that the world's resources are already stretched to the limit in supplying the needs of those inhabitants.

Again, when the orbital complex's population is small, it may be a research station, far from any regular supply route.

For this reason, most orbital complexes have some food production facilities (or "farms", as they were once called at lower tech levels). Since artificial gravity is expensive, these areas of a complex are usually weightless. (This also frees the production facilities from the effects of geotropic growth, and allows more control over the crop.)

For these farms, the TB-29B is ideal. Inexpensive and reliable, this robot has a skill of hydroponics-2, enabling it to properly tend a hydroponic farm. Its zero-G maneuver package is all that it needs for locomotion, at a cost of only Cr2,000.



Side View

9. MINI COURIER ROBOT 21x0A-01-3B000-2501 Cr19,600 21kg Fuel=(batteries) Duration=2.1 hrs TL=12 4/10 (mesh) 1 V lt arm 1 Eye, 1 ear Power interface Radio (distant range)

The 927S mini courier robot is designed for light office use; it is ideal for transporting light materials back and forth between different offices and desks. Material carried typically includes papers, file folders, holocrystal cartridges, and memos.



10. ORCHARD AGROBOT 432xF-03-9M003-4F03 Cr95,600 90kg Fuel=15.7 Duration=3.3 TL=12 Thrust=200kg 16/40 (mesh) 3 V It tentacles Basic sensor pkg Brain interface Grav Vehicle-1, Cargo Handling-1

The Naasirka 3B2 was originally developed on a world where the existing machinery was not up to the burden of extensive tree farming and harvesting. Once perfected, versions of this robot spread widely through the Imperium. Within Naasirka itself, the extensive testing period is still remembered in the epithet used occasionally for the machine, "dumtreebot".





Front View

11, MECHANIC DUMBOT

825xB-02-LP113-P636 Cr111,700 500kg Fuel=120.9 Duration=14.4 TL=12 70/175 (mesh) 2 Med arms 1 Eye (+1 lt inten), 1 ear, voder Spotlight (visual spectrum) Program interface Lt laser welder Mechanical, electronic, metalwork tool pkgs Electronic-3, Mechanical-3, Gravitics-3

The garage mechanic robot can maintain most vehicles, whether run by internal combustion or gravitics. Its program interface enables it to select the information module appropriate to the vehicle it must repair. The vehicle's owner can tell it, with a restricted vocabulary, what is wrong, or it can conduct a complete inspection and diagnose the problem itself. 12. UNDERSEA HARVESTER ROBOT D24x0-04-KM101-W513 Cr84,500 610kg Fuel and Oxygen=2919.7 Duration=45.1 TL=12 600/1500 (mesh)
4 Hvy arms
1 Eye, sonar
Spotlight (visual spectrum)
Aqua maneuver pkg
Environment sensor pkg
Hunting-3

A real boon to worlds with large oceans teeming with edible sealife, this robot harvests the sealife with a high efficiency. Its ability to find and catch seafood is almost uncanny considering its low intelligence and low level software. This efficiency is largely due to 3 factors.

First, the robot's sensors are excellent, allowing it to spot its prey with accuracy. Second, the robot is hunting fish in their own element. Third, the robot can hunt for extended periods if necessary, because its fuel supply will last about 45 days. The fuel storage is segmented, so that as fish are caught they can be stored in empty sections of the tanks. This hold is refrigerated.



13. CARGO HANDLER ROBOT

321xA-L2-CC111-N531 Cr76,500 110kg Fuel=5.6 Duration=1.5 TL=13 13/31 (mesh) 2 Med arms Head (25%) Basic sensor pkg, voder Spotlight (visual spectrum) Cargo Handling-1

The Naasirka JP-3 is quite ordinary in all of its features. It uses wheels for locomotion, as did simple carts at the lowest tech levels. Its sensors and devices are plain, using its voder only for emergency purposes. Its limited brain allows it only a cargo handling skill level of 1. But this robot is important enough to be included in this book, because it is perhaps the most common robot encountered by characters who travel in space.

Naasirka's marketing efforts have succeeded in placing this robot everywhere a ship cargo handler is desired.



14. ADVANCED CARGO HANDLER ROBOT 723xD-N4-LP114-RF36 Cr96,100 370kg Thrust=1000kg Fuel=74.5 Duration=12.4 TL13 50/140 (mesh) 2 Hvy arms, 2 lt tentacles Head (40%) Basic sensor pkg, voder 2 Spotlights (visual spectrum) Program interface Radio (distant range) Cargo Handling-3, Extra Language-3, Grav Vehicle-2, Security-1

Here is another cargo robot, this one with some advanced features, a better brain, and a variety of software, but of course at a higher cost. Different uses and site sophistication determine which model might be used.

The ANH-Q1 uses one ultra heavy duty grav module for locomotion, giving the cargo bot 1,000 kg of thrust with a total weight of only 370 kg. With its two heavy arms, it can thus handle cargos safely up to about 600 kg in mass. Its light tentacles take over when smaller, more fragile cargo needs to be loaded.

The brain in this unit is much more sophisticated than is necessary for a simpler cargo robot, but it does have its advantages. The JP-3 described above must be programmed by someone with robotics skill. The ANH-Q1 can be instructed in its tasks by almost any employee. With the extra language software, the employee can even speak another language.

Cargo handling-3 gives this cargo bot a skill level just below that found in expert systems. A shipowner can be sure that every cubic millimeter of hold space is used efficiently if this robot loads the ship. The robot's security programming insures that precious cargoes can be loaded (and watched over) with equal efficiency.

The ANH-Q1 has been configured with a lot of extra brain storage. This allows it to store shipping schedules, bills of lading, and cargo manifests easily. The storage capacity can also be used to load additional software for special-purpose applications. The program interface makes this data transfer process almost automatic.



15. RECREATIONAL RIDING ROBOT 854x6-L0-GM115-J633 Cr86,000 310kg Fuel=285.8 Duration=39.7 TL=13 88/219 (mesh) 6 Legs Head (25%) Basic sensor pkg (eyes: +2 lt inten; ears: +2 extra sen) 2 Spotlights (visual spectrum) Acoustical speaker Radio (distant range) Recon-2, Survival-1, Fire Fighting/Rescue-1, Hunting-1 Emotion Simulation

The Myran R1b riding robot is the ultimate in high-tech recreational all terrain vehicles. The robot has all the advantages of an intelligent pack animal (like the rhurta of Ideshe) without any of the disadvantages (daily feeding, annoying digestive wastes, or fatigue).

The R1b is extremely intelligent, with simulated emotions —which makes the robot more like a recreational companion than a simple "beast of burden".



16. SERVANT VALET ROBOT (K'kree) 953x4-52-LL212-P942 Cr193,800 330kg Fuel=384 Duration=59.8 TL=13 105/263 (mesh) Head (5%) 4 Legs 2 Med arms 2 Eyes, 2 ears, voder 1 Olfactory sensor (+1 extra sen), touch sensors Odor emitter Valet-2 Emotion Simulation

It is all too easy to see aliens as humans in funny suits, but this mistaken view obscures a correct understanding of alien behavior. The role of this robot, for example, is quite different among the K'kree than a similar human-contoured robot would be among humans.

The K'kree are a gregarious race, with complex social interactions between members of a herd. Among many humans, the ownership and use of a valet robot would be a sign of higher social status, but among the K'kree, the exact opposite is the case. An important K'kree would use another K'kree as valet; the use of a robot for the purpose would betray an inability to influence other family members.

(An exception to this, of course, would be the case of a small family group, or one in which illness or war depleted the number of members.)

Once this cultural difference is understood, we can look at the valet itself. Contoured as a K'kree, with four legs and two arms, this unit is much larger than a valet robot would be in human space. The K'kree do not see this size as a disadvantage, but rather point to the fact that it allows the robot to operate for 60 days between fuelings. If the robot operates typical valet hours, it could run for several months at a time.

The odor emitter on the valet is used mainly to mask its own odor, rather than to artificially perfume the air around it. The odor used is up to the owner, but it should be noted that there is no attempt to make the valet smell like a real K'kree. Artificial flavors for this are not "genuine" enough for the K'kree's sensitive nose; natural flavors would be out of the question.



Side View

17. TOUR GUIDE ROBOT

531xC-00-AM110-5B33 Cr86,500 90kg Fuel=30.5 Duration=8.5 TL=13 20/50 (mesh) 1 Eye, 1 ear, voder Acoustical speaker Spotlight (visual spectrum) Radio (distant range) Holodisplay (TL13)

The tour guide sphere may be found in almost any city popular with tourists. Made by Naasirka, it can operate both indoors and outdoors but is not usually used in old ruins or rough terrain. Its education holds a large fund of information solely about its territory, but its intellectual capacity is insufficient to raise its lectures above a standardized and somewhat tedious level.



Front View

18. TRASHBOT (Zhodani)
401xE-02-BL103-NF32 Cr86,800 110kg
Fuel=14.8 Duration=4.1 TL=14 Thrust=400kg
16/40 (no armor)
2 Mdm arms
Basic sensor pkg, voder
Janitorial tool pkg
Cargo Handling-2, Janitorial-2, Grav Vehicle-1

This trashbot is used by the Zhodani nobility. Wandering around an office, it continually picks up waste and stores it in a trash receptacle that it carries with it. When full, the robot dumps it at a local disposal location, then returns to its trash patrol.

The janitorial tool package can instantly shred any material fed into it. This ability makes this robot ideal for security applications, and it can be found in many Zhodani government offices.



19. PET ROBOT

05x34-A0-5B001-0731 Cr61,800 26kg Fuel=(batteries) Duration=2.9 TL=15 1/3 (mesh) 4 Legs Head (10%) Basic sensor pkg, audio speaker Emotion Simulation

The furred petbot is an endearing little creature, with many advantages over living pets. It never creates a mess, or jumps up on the table, or sheds, or otherwise misbehaves.

Although without any useful skills, at one thing it excels: it snuggles up to its master or mistress and purrs or groans with pseudoemotional pleasure. With its intelligence of 3, it is capable of learning many tricks to amuse its owner.



20. PRIVATE EYE ROBOT 13x3F-01-00000-4F00 Cr105,400 27kg Fuel=(batteries) Duration=3.6 hrs TL=15 Thrust=100kg 1/3 (mesh) 1 Lt tentacle (retractable) 1 Eye, 1 ear Acoustical speaker Power interface Slave unit Radio (distant range) Automatic pistol

The F6 private eye is a popular brainless model deployed in many installations where security is a concern. Inexpensive and mobile, these small robots meet a real need.

The radio/slave unit is tied to a control panel operated by a sentient guard, who can direct the robot to any location and orientation within range. Video screens on the control panel allow the guard to see whatever the robot sees and to hear whatever the robot hears.

Operating such a control panel is a skilled task, increasing in difficulty as the number of robots controlled increases. A careful guard will halt (that is, hover) one robot in mid-air before he attempts to maneuver another.

Some locations require more active measures, and for these a number of peripheral devices are available at extra cost. One popular addition is a visual spectrum spotlight, which augments the abilities of the visual sensor.

Another device often installed is an automatic pistol, which can be accurately aimed by the guard from his remote station. A light tentacle can be installed to provide a simple fetching and carrying capability.

This robot is also sometimes used by another class of independent entrepreneurs for quite a different purpose. Imagine the shock of a pedestrian on a tech 15 world as he is suddenly greeted by an F6 robot, hovering quietly in front of him.

With the automatic pistol trained on the quarry, the robot's audio speaker voices a simple request: "Your money or your life!" Once the victim has dropped his wallet, the robot grabs it in its tentacle and whisks back to its illicit operator.

Thus criminals can rob from the safety of their homes, at distances up to 5km away. Naturally, law enforcement agencies respond to this threat in various ways, which need not be detailed here.

Utility Robots

Utility robots have higher intelligence than dumbots, but their highest skill level is never greater than 2. Utility robots can be found in almost every environment, whether in office buildings, on farms, under the sea, or in the vacuum of space.



21. ROADBOT (Solomani)

D17xB-58-MP225-WD55 Cr543,000 2,970kg Fuel=1718.9 Duration=95.5 TL=12 630/1575 (mesh) 8 Med arms Head (5%) 4 Eyes (+1 tele, +1 lt inten, +1 pass IR, +1 act IR) Basic sensor pkg, magnetic, mass sensors 12 Spotlights (visual spectrum) Program interface Laser welder Metalwork tool pkg Construction/Fabrication-2, Cargo Handling-1, Demolition-1, Survey-1

The FR-12 Roadbot is a specialized construction robot used for the building of roads. It can, with very little modification, be used for laying pads and building supports for magnelift and monorail right of ways.

This robot is found mainly in the Solomani Rim and Solomani Sphere where the use of gravitics is not as advanced as would be usual elsewhere. However, the Imperium has on rare occasions lent such robots to tech 6 through 11 worlds when an extreme state of emergency has dictated the rapid building or rebuilding of roads to ease and speed the recovery from the emergency. This is a very unusual occurrence.



22. DESKBOT

31xx0-00-LM223-2753 Cr187,400 30kg Fuel=(external power) Duration=(unlimited) TL=13 10/25 (mesh) 1 Eye, 1 ear, voder Power interface, brain interface Video recorder (2D), video display (2D) Financial pkg Steward-1, Administration-1 Emotion Simulation

The Star Servants H2X deskbot is one of the real workhorses in the deskbot market. Its full command capability and varied packages make it a very flexible and useful deskbot.

The H2X-4 model has been especially useful in the hotel business. In the TAS hostels, some 20% use this robot as their front desk and communications operator. The H2X-4 does have an extra communications package not listed for the bare bones, generic model usually shown in Star Servants' deskbot catalog. Other models are found in offices throughout the Imperium.

The desk robot may be found acting as receptionist in offices, hotels, museums, and schools throughout the Imperium. It is usually tied into a building communication system so it can announce callers (or call security if something is wrong). It carries extensive information on its job internally and can obtain other information from computers elsewhere in the building. Hotel deskbots have key and money storage in built-in vaults and can process credit cards as well as make change. Most deskbots are plugged into ordinary power outlets, but some have battery power for six hours' operation in the event of a power failure. The high cost of this robot's brain reflects its need to communicate with the public in natural language.





Front View

23. LIBRARIAN ROBOT

552x2-L2-NT323-FB7F Cr359,600 150kg Fuel=12.2 Duration=2.5 TL=13 26/63 (mesh) 2 Lt arms Head (25%) Basic sensor pkg (ears: +1 extra sen), voder Program interface Radio (distant range), video recorder (2D) Instruction-2, Administration-1 **Emotion Simulation**

Don't ask the Evix library robot an open-ended question. For some reason, a quirk in this machine's basic programming has given it a compulsion to lecture whenever it is given an opening. Other than this minor quirk, it is a helpful library assistant. Even though originally designed in 1050, the reliability and usefulness of this design have not diminished over the years. Very few modifications have been made in newer models outside of exchanging the original powerplant for a more up-to-date, efficient one. The new robots are just as pedantic as the older ones.

24. COACH ROBOT

552x2-A2-MM323-NA83 Cr310,500 170kg Fuel=54.2 Duration=11.3 TL=14 22/55 (mesh) 2 Med arms Head (10%) 2 Eyes, 2 ears, touch sensors Athletics-2, Instruction-1 **Emotion Simulation**

"Do you want to learn a new sport, brush up an old one, or do you need a referee? Maybe you need a coach for your school, hospital, or industrial recreation. If the answer to any of the above is yes, then you need Nogaali's Coachbot."

This robot can be programmed with the rules for 10 or 12 sports. It cannot play at a high level of competence, but it is good at coaching you and improving your form.

25. CONSTRUCTION ROBOT

C0AxD-NJ-LE112-ZF51 Cr366,000 5,200kg Fuel=1486.5 Duration=41.3 TL=14 Thrust=15000kg 560/1400 (mesh) 18 Hvy arms Head (40%) 4 Basic sensor pkgs 20 Spotlights (visual spectrum) Slave unit Radio (distant range) 4 Janitorial, 4 metalwork, 4 carpentry tool pkgs Grav Vehicle-1, Construction/Fabrication-1

One of the big advantages of the Hedron LV5 construction robot is the elimination of the need for cranes, construction air/rafts, or other lifting devices. The LV5 can pick up any needed part and fasten it into place. After the job is done, these robots can also do the major cleanup before leaving the jobsite.



26. LAB TECHNICIAN ROBOT 624x2-A7-LL211-MF52 Cr187,000 220kg Fuel=69 Duration=9.6 TL=14 33/83 (mesh) 6 Lt arms, 1 v lt tentacle Head (10%) 1 Eye (+1 pass IR), 1 ear, 1 olfactory sensor (+1 extra sen), magnetic, radiation sensors Acoustical speaker Program interface Lab Tech-1

Every scientist needs his lab assistant, and what better assistant could he have than the IA-4690-LSY lab technician from Solens? This robot is factory equipped with most of the sensors needed for experiments and standard laboratory safety procedures, yet costs less than the average secretary robot—a most impressive package.

353x2-L2-MM223-CC73 Cr203,800 160kg Fuel=9.7 Duration=1.6 TL=14 12/30 (mesh) 2 Lt arms Head (20%) 2 Eyes, 2 ears, voder, touch sensors Brain interface Administration-2, Valet-1

Emotion Simulation

Fondly known as the mini-secretary by most of its owners, the UV-49-4901 line of contoured but diminutive secretaries have been especially popular with businesses, particularly manufacturers that keep their offices open for more than one standard shift. The robot's flexibility and ability to learn make them very helpful. Even during off shifts, when everyone else has gone home from the offices, this secretary can keep on working, updating files, taking orders, receiving and posting messages, and performing many of the clerical tasks that are necessary to keep a business running smoothly.







28. BARTENDER ROBOT 553x2-A2-LM223-NA63 Cr182,700 190kg Fuel=53.7 Duration=8.9 TL=14 22/55 (mesh) 2 Med arms Head (10%) 2 Eyes, 2 ears, voder Psychology-1, Steward-1 Emotion Simulation

Makhidkarun's sympathetic bartender robot has an eminently bendable ear. Besides programs for serving drinks, handling payments and cleaning the premises, he possesses a basic pychology program, primarily geared for listening. His emotion simulation program is full of understanding phrases. If the situation seems to call for real help, the robot can come up with logical suggestions. If a customer becomes belligerent, however, this robot is more than strong enough to bounce him.

Referee: This robot can be used as a source of rumors in an adventure.

29. STARPORT MECHANIC ROBOT 753xE-F3-LL115-PF52 Cr158,800 310kg Fuel=44.5 Duration=7.4 TL=15 Thrust=2400kg 46/115 (mesh) 1 Lt arm, 1 hvy arm, 1 v lt tentacle Head (15%) Basic sensor pkg (eyes: +1 tele), magnetic, radiation sensors Spotlight (visual spectrum) Brain interface Lt laser welder Mechanical, electronic, metalwork tool pkgs Engineering-2, Grav Vehicle-1, Electronic-1, Mechanical-1, Gravitics-1

The Star Servants Model 63MEK49 starport mechanic is a heavy duty grav-powered model, capable of mending or replacing entire sections of hull. Its tentacle contains microscopic vision and a tiny spotlight for working inside control panels.



30. GENERAL WORK ROBOT

622xA-N2-LP227-J877 Cr234,000 195kg Fuel=87.9 Duration=18.3 TL=15 42/104 (mesh) 2 Lt arms Head (40%) Basic sensor pkg (eyes: +1 tele, +1 lt inten, +1 pass IR; ears: +1 extra sen) Magnetic, radiation, mass, neutrino sensors Acoustical speaker Spotlight (visual spectrum) Power interface, brain interface, program interface Radio (distant range) TL15 holo recorder (3D) Lt laser welder Mechanical, electronic tool pkgs Holodisplay (TL 15) Steward-1, Electronic-1, Mechanical-1, Fire Fighting/Rescue-1, Gravitics-1, Communications-1 **Emotion Simulation**

Sharurshid has manufactured the Mashkuliid line of robots in one form or another for over 900 years. All of these robots have been up-to-date, all-round workbots and the latest of these is no exception. The BPD8-72 Mashkuliid is equipped with an unusually complete set of sensors, devices and interfaces that allows it to adapt to just about any work situation. It cannot handle heavy loads, but other than that it suffers few limitations as to the nature of job that it can take on.

Sharurshid not only sells these robots; they also form an important part of its robotic workforce, at times so much so that one is reminded of the original derivation of Mashkuliid: *Mashek* =work; *Kakuliid*=slave or peasant worker.

31. GENERAL WORK ROBOT (MILITARY SPEC) 622xA-N2-LP22B-J877 Cr364,600 330kg

Fuel=87.9 Duration=18.3 TL=15 63/158 (cloth) 2 Lt arms Head (40%) Basic sensor pkg (eyes: +1 tele, +1 lt inten, +1 pass IR; ears: +1 extra sen) magnetic, radiation, mass, neutrino sensors Acoustical speaker Spotlight (visual spectrum) Power interface, brain interface, program interface Radio (v distant range) Counter ECM TL15 holo recorder (3D) Lt laser welder Mechanical, electronic tool pkgs Obscuration device Holodisplay (TL15) Electronic circuit protection Steward-1, Survival-1, Electronic-1, Mechanical-1, Tactics-1, Recon-1, Fire Fighting/Rescue-1, Cargo Handling-1, Gravitics-1, Communications-1 **Emotion Simulation**

In response to growing tensions along several Imperial borders, Sharurshid has started marketing a military version of its latest Mashkuliid robot, called the Janizary YV-50981. This robot has all the features of the Mashkuliid models plus ECM protection and military software. Although a recent product in this form, it has so far proven itself to be as valuable in the military as it has in civilian situations.

Assistant Robots

Assistant robots have more intelligence and better skills than utility robots, but are not as skilled as expert robots. Assistant robots often perform functions that are hazardous, or which take place in unpleasant environments. Other assistants are used because they can inexpensively replace sentient workers.



32. RASHUSH ORIGINAL ROBOT

653x2-A2-NP226-N856(A) Cr297,400 210kg Fuel=79.3 Duration=13.2 TL=12 33/83 (mesh) 2 Mdm arms Head (10%) Basic sensor pkg, voder Steward-3, Valet-3, Medical-1, Fire Fighting/Rescue-1, Instruction-1 Emotion Simulation

An operating replica of Naasirka's original Rashush can be found in the famous "Hall of Robots" on Shudusham (the home of the Shudusham Robotics Conference which meets once every 10 years.). The original Rashush was first produced in -2008 (during the Rule of Man). Because of Naasirka's aggressive marketing strategy, use of the Rashush valet robot spread rapidly.

The old Rashush is surprisingly intelligent for a tech level 12 design—its intelligence of 5 raises it above the ranks of those robots commonly called "dumbots". Because of this, the Rashush could easily be instructed by an average layman who did not possess robot operation skill. Compared to the modern Rashush line, the old Rashush design was relatively cheap: a mere Cr290,000. The single biggest factor contributing to the Rashush's low price: it used a fuel cell power plant instead of the batteries used by the modern Rashush designs.



Side View

33. STARPORT MECHANIC ROBOT 726xB-N4-LN114-LF24 Cr101,000 460 kg

Fuel=54.7 Duration=5.7 TL=12 56/140 (mesh) 2 Lt arms, 2 lt tentacles (retractable) Head (40%) 4 Eyes, 2 ears), voder 2 Spotlights (visual spectrum) Program interface Lt laser welder Mechanical, electronic tool pkgs Engineering-3, Electronic-1, Mechanical-1, Gravitics-1

One of the most interesting of the frontier area robots is Tukera's 232-BHR-7 starport mechanic. This robot is unique for a single chassis robot in that it can work on two repair jobs at once if they are in the same area, or, if two sets of hands are needed on the same job, the two sets of hands can cooperate.

This robot was not designed for doing heavy hull repairs or lifting. Instead it was designed for doing delicate work inside control consoles and smaller machinery inside a starship.



34. CONSTRUCTION ROBOT 926xD-04-JM113-VF33 Cr91,700 610kg Fuel=237.9 Duration=24.8 TL=13 Thrust=2000kg 100/250 (mesh) 4 Hvy arms Basic sensor package, voder 2 Spotlights (visual spectrum) Radio (distant range) Mechanical tool pkg Mechanical-3, Grav Vehicle-1, Construction/Fabrication-1

The Naasirka V100 medium construction robot is not as proficient as a heavy construction robot for large buildings with heavy components, but it is an excellent robot assistant for building a house or a small commercial building.

35. ROGUE COURIER ROBOT 552x2-L2-NM323-FB83 Cr421,500 230kg Fuel=66.4 Duration=13.8 TL=13 24/60 (combat armor) 2 Lt arms Head (20%) Basic sensor pkg Laser pistol General Vehicle-3, Laser Pistol-2, Survival-1

Experiments with synaptic processing can lead to unfortunate results if sufficient care is not taken. At tech level 13, reliable operation cannot be guaranteed at synaptic processing levels exceeding 15%.

This sad example of technology gone astray used 25% synaptic processing. Six prototypes were constructed, and all six developed "robot psychoses" because of the excessive synaptic units used in their brains.

The scientists involved in the project were lax in following standard robotics experimentation procedure, which would have been to test the brains independently before installing them in armed units. The results were tragic.

All six robots, set loose on what the scientists called "real test missions", went on a rampage that continues to this day. Two of the robots have since been recaptured and destroyed, but four of them still operate independently, following no human orders.

These robots have been implicated in a number of crimes, including fuel theft, vehicle theft, starship hijacking, armed robbery, murder, and interstellar flight to escape prosecution.

Robot owners, of course, are held legally responsible for their robots' actions. The technicians who constructed these machines are now safely under lock and key. From time to time, another crime is committed by one of the four robots still at large. When this happens, the scientists are retried under the new charges and their sentences are extended.

The scientists who built these wayward machines were funded by a research grant administered by the Imperial Navy. The negative publicity resulting from this experiment caused a decrease in funding which seriously hampered some very promising ongoing research by other roboticists.





36. WORKER MASTER ROBOT (K'kree) 712xB-50-MQ215-A568 Cr250,200 190kg Fuel=51.4 Duration=10.7 TL=13 42/105 (mesh) Head (5%) Basic sensor pkg, voder Master unit Radio (distant range) Electronic-3, Mechanical-3, Engineering-2, Security-2, Fire Fighting/Rescue-2

Inig'xk Corporation makes utility maintenance robots for the Two Thousand Worlds. Most of their designs are small "herds" of a master and several slaves. This masterbot can be in charge of electric system maintenance, firefighting, police work, public transportation maintenance, or just about anything else a city manager needs done. Each job has its own group of slaves.

37. WORKER SLAVE ROBOT (K'kree)

321xA-04-00000-6E00 Cr23,000 80kg Fuel=3 Duration=19.2 hrs TL13 10/25 (mesh) 4 V It arms Basic sensor pkg (ears: +1 extra sen), magnetic sensor Slave unit Radio (distant range) Electronic tool pkg Odor emitter

These cylindrical slavebots keep their "herd" together by odor while working on electrical systems. Three of them can be commanded by one master unit. Most K'Kree power cables are underground to avoid spoiling the wide open landscape, and are located in conduits large enough to admit these workers.



Fuel=(external power) Duration=(unlimited) TL=13 4/10 (mesh) Power interface Master unit Radio (distant range) Steward-3

The waitress master unit is the brains for the slaves below. It is merely a box with radio communications and brains, using plug-in power.

39. WAITRESS SLAVE ROBOT

553x2-A2-00000-F900 Cr7,300 160kg Fuel=80 Duration=13.3 TL=13 22/55 (mesh) 2 Lt arms Head (10%) 2 Eyes, 2 ears, voder Slave unit Radio (distant range)

Naasirka's waitress robots can be found in many high-tech restaurants across the Imperium. They are contoured to resemble attractive women because market research indicated that customers preferred such service. The actual waitress units are quite brainless, being controlled by a master unit out of sight in the kitchen. The master unit can control 3 slave units and transmit their orders to the chefs.



40. LAB TECHNICIAN ROBOT

623x2-A7-LL211-MF52 Cr186,600 200kg Fuel=79 Duration=13.2 TL=14 33/83 (mesh) 6 Lt arms, 1 v lt tentacle Head (10%) 1 Eye (+1 pass IR), 1 ear, 1 olfactory sensor (+1 extra sen), magnetic, radiation sensors Acoustical speaker Lab Tech-3

Naasirka's Labtech886 can be programmed for any type of laboratory, including areas too dangerous for humans. Its olfactory sensor is in fact a "sniffer" capable of identifying chemical molecules precisely. Its multiple arms enable it to carry out the tasks of several humans at once.



41. HOSTILE ENVIRONMENT SURVEYOR ROBOT

B19xD-NA-NQ327-TF88 Cr1,059,200 6,270kg Fuel and oxy=308.1 Dur=10.7 days TL=14 Thrust=7000kg 420/1050 (combat armor) 10 Hvy tentacles (retractable) Head (40%) 2 Basic sensor pkgs (eyes: +4 tele, +4 lt inten, +4 pass IR, +4 act IR; ears: +4 extra sen), voder Touch sensors (+1 extra sen), 2 magnetic, 2 radiation, 4 mass, 2 neutrino sensors 4 Spotlights (visual spectrum) 2 Radios (continental range) Extensive counter ECM TL14 holo recorder (3D), electronic circuit protection Laser rifle, 2 RAM auto grenade launchers, 2 Gauss rifles Survival-3, Grav Vehicle-2, Forward Obs-2, Recon-2, Weapon Handling-3, Survey-3, Prospecting-1

When originally designed, this combination of warbot and survey robot was greeted with scepticism by most Scouts but, as the OSF-4 Survey Commando proved itself over and over in the field, the scepticism changed to gratitude for making the life of a Scout a little easier and much more survivable.

42. TAXI ROBOT

21xx0-00-LL221-1862 Cr177,100 15kg Fuel=(external power) Duration=(unlimited) TL=14 4/10 (mesh) 2 Eyes, 2 ears Power interface Radio (distant range) Financial pkg General Vehicle-1

Naasirka makes the taxibot found almost everywhere in the Imperium. The taxibot's vehicle skill is appropriate to the vehicles used on a particular planet; the robot can be mounted rigidly in its vehicle, with electronic connections to the controls. It is not a talkative cabbie, and in fact has no voder. Its financial package handles all forms of payment and requires no tipping. On planets with centralized traffic control, the taxibot will be a slave unit.







43. UNDERSEA MINER ROBOT (Solomani)

B37xB-04-LB101-V441 Cr420,300 1,510kg Fuel and Oxygen=653 Duration=4.0 TL=14 200/500 (combat armor) 4 Hvy arms 6 Eyes, magnetic, mass sensors 4 Spotlights (visual spectrum) Aqua maneuver pkg 2 Laser welders Metalwork tool pkg Prospecting-3

Panstellar's model 21B underwater mining robot was designed to prospect the oceans of Terra and has been exported all over the Solomani Sphere. An onboard densitometer and prospecting skill make this robot independent of any prior seafloor sampling. Heavy arms have drill and shovel attachments and can set explosives to break ore free. The miner usually tows ore barges which have independent flotation devices to take them up to floating refineries when full. Note that because of the lack of available oxygen underwater, the huge fuel space of this robot can only keep it below for 4 days at a time.

44. RASHUSH MODEL 2 65x22-A2-MP326-JC85 Cr982,200 250kg Fuel (batteries) Duration=8.8 hrs. TL=14 33/83 (mesh) 2 Lt arms Head (10%) Basic sensor pkg (eyes: +1 lt inten; ears: +2 extra sen; olfactory: +1 extra sen) Voder, touch sensors (+extra sen), taste sensor Power interface Radio (distant range) TL14 holo recorder (3D) Steward-3, Valet-3, Instruction-2, Medical-1, Fire Fighting/Rescue-1 Emotion Simulation

The Rashush Model 2 is Naasirka's "cheap" Rashush model, coming in at just under 1 million credits. The Model 2 is considered by some to be "the poor man's Rashush".

The Model 2 shares many general characteristics with the more expensive Rashush Model 1 (see the Rashush Model 1 under Expert Robots). While the Model 2 is not an expert valet, it is fully qualified as a valet-3. The Model 2 is still quite intelligent, with a rated intelligence level of 8.

Like the Model 1, the Model 2 runs on batteries instead of a fuel cell. Naasirka plays up the implied safety of batteries versus fuel cells in its advertising for the modern Rashush line by claiming that their robots are "the safest robots in existence". Naasirka's marketing strategy apparently works, since the Rashush robots are among the most commonly encountered battery-powered household robots anywhere in the Imperium.



45. VACUUM STATION REPAIR ROBOT 504x0-03-LN113-PA54 Cr106,200 280kg Fuel=13.5 Duration=1.9 TL=14 20/50 (no armor) 3 Med arms 2 Eyes (+1 tele), touch sensors (+1 extra sen) Spotlight (visual spectrum) Power interface Zero-G maneuver pkg Radio (continental range) Laser welder Mechanical, electronic, metalwork tool pkgs Electronic-3, Mechanical-3, Zero-G Movement-2

With many starship lines going increasingly toward unmanned, automated stations for refueling dumps and emergency stations, Nichols Manufacturing designed and built the 7017-AR repairbot to help maintain those stations. This robot not only keeps the stations in good repair, but can also help with a limited amount of repairs on a starship.



46. PLANETARY RESCUE MASTER ROBOT 716xD-N4-MM323-RF93 Cr344,400 330kg Fuel=132.3 Duration=13.8 TL=15 Thrust=1000kg 56/140 (mesh) 2 Lt arms, 2 hvy arms Head (40%) Basic sensor package, voder, touch sensors, magnetic, radiation, mass, neutrino sensors Acoustical speaker Spotlight (visual spectrum) Aqua maneuver pkg Master unit Radio (regional range) Laser welder Medical instrument pkg Fire Fighting/Rescue-3, Medical-1, Grav Vehicle-1

The planetary rescue robot master can find and rescue persons anywhere on land or undersea. Most high-tech, high population worlds in Core sector have at least one available. With two heavy arms and two light arms, it can lift a large vehicle or break it open to extract injured persons. It has only medical-1 capability and first aid equipment, but its gravs can transport the injured quickly to a hospital. The master can control up to four slaves to assist it in search patterns and major excavations. 47. PLANETARY RESCUE SLAVE ROBOT 616xD-N4-00000-RF61 Cr39,800 310kg Fuel=130 Duration=13.5 TL=15 Thrust=1000kg 42/105 (mesh) 2 Lt arms, 2 hvy arms Head (40%) Basic sensor pkg, voder, touch sensors, magnetic, radiation, mass, neutrino sensors Acoustical speaker Spotlight (visual spectrum) Aqua maneuver pkg Slave unit Radio (regional range) Laser welder Medical instrument pkg

Rescue slaves have all the physical capabilities of the rescue master, but they rely entirely on the master's brain. A master and four slaves can lift the debris of a fallen building and stabilize it from the inside while victims are carried to safety. The units are operative in up to 2,000 meters of water, which makes rescue and salvage operations possible anywhere on a continental shelf on most worlds. In order to raise a ship or submarine, they must carry down extra grav units, since their own surplus thrust is insufficient for any but the smallest ships.



521xF-00-MQ222-5F88 Cr392,000 80kg Fuel=11.3 Duration=3.1 TL=15 Thrust=300kg 2 Eyes (+2 tele, +2 lt inten, +2 pass IR), 2 magnetic, 2 radiation, 2 NAS sensors

The Makhidkarun TP21 surveybot probe is one of the handiest of the probes available to the Imperial Scout Service. With it the scouts can increase many fold their ability to cover and survey the ground of the particular planet under study. This robot is capable of working on its own to a certain extent, and

For special sweeps, it can also be slaved to an air/raft, or to a ship. When in this mode, it transmits its data directly to the main computer of the master vessel.

Expert Robots

Expert robots have high skill levels, and they usually have a high intelligence to match. In most cases, the expert robot is skilled at only one thing. In this sense, experts are just dumbots with a higher skill level.



49. AGRICULTURAL SLAVE ROBOT

D19xD-08-00000-YF00 Cr271,800 4,600kg Fuel=2170 Duration=75.3 TL=12 Thrust=4000kg 600/1500 (mesh) 8 Hvy arms 2 Eyes 4 Spotlights (visual spectrum) Power interface Slave unit Radio (v distant range) 8 Agricultural pkgs

Agricultural slave units have heavy arms to which the necessary tools for the day's task can be attached (without outside help). They are, therefore, plows, cultivators, sprayers of insecticides and weed killers, and harvesting combines in one machine. Lighter robots with more manual dexterity must be used for crops which require pruning or tying, or which are very easily crushed in harvesting and packing. Spotlights enable the units to work around the clock and the robots have fuel enough for nearly three months. Use of these agrobots has tripled the amount of land under cultivation on several low-population agricultural worlds.

50. AGRICULTURAL MASTER ROBOT

41xx0-00-NM222-4693 Cr439,300 20kg Fuel=(external power) Duration=(unlimited) TL=12 16/40 (mesh) Power interface Master unit Radio (v distant range) Video display (2D) Agriculture-4, Grav Vehicle-2

The agriculture master unit can handle four slaves in any land farming application. It has extra grav vehicle skill to enable it to keep all four slaves moving independently without errors or collisions. One master unit with a set of slaves can farm up to 10 square kilometers with minimal human decision-making input.



51. BOXER ROBOT

556x2-L2-ML201-LA32 Cr292,300 670kg Fuel=2.9 Duration=7.2 hours TL=12 36/99 (combat armor) 2 Hvy tentacles Head (20%) 3 Eyes, electronic circuit protection Close Combat-4

Robot boxing is just one of many growing spectator sports involving robots. The Orycole Model 169 described here is an excellent example of an entrant in the 700 kg weight class. More complex robots could be built for this class, but it must be remembered that most robots on the losing side are destroyed, so cost is an important factor in the design.

The Model 169 has two special-purpose heavy tentacles. One of these tentacles ends in nothing more than a heavy bulb, hardened so as to do the most damage when striking its opponent. The other tentacle ends in a heavy-duty gripping appendage, designed to hold on to an opponent; the powerful contraction of this "hand" can crush metal if given the chance.

Three recessed eyes are provided, since an eye can be rendered useless with a single well placed blow, and a blind robot is an easily defeated robot.

On worlds where gambling is legal, huge sums of money are won or lost from betting on robot duels lasting only seconds. This robot does not carry much fuel, both for safety's sake and because long-term operation is unnecessary.



52. CARGO HANDLER MASTER ROBOT

646xB-M4-LM221-V543 Cr187,000 540kg Fuel=7.4 Duration=18.5 hours TL=12 41/101 (mesh) 4 Hvy arms Head (35%) 2 Eyes, 2 ears, voder 2 Spotlights (visual spectrum) Master unit Radio (distant range) Cargo Handling-4

One of the earliest robot designs still in general use in the Imperium today is the ZV-3663 Biraakid cargo multibot. This robot was also one of the first to succesfully use the multibot concept of a master robot, supervising and assisting several slave robots. Originally designed and manufactured by the now defunct Sharad Kiir Robots Company, when the company closed down this design was taken over by Naasirka along with several others.

Although this model is considered to be thoroughly obsolete, Naasirka still manufactures and distributes it on more primitive worlds. However, on most worlds with modern robots this model has been superceded by newer cargo handlers.

53. CARGO HANDLER SLAVE ROBOT

646xB-M4-BB000-V301 Cr12,000 530kg Fuel=30.5 Duration=3.2 TL=12 41/101 (mesh) 4 Hvy arms Head (35 %) 2 Eyes, 2 ears, voder 2 Spotlights (visual spectrum) Slave unit Radio (distant range)

The ZV-361 cargo slavebot contains an excellent sensory package, but it merely passes the information along to the master robot of the team for processing. The usual number of these slaves handled by the master robot is two.



54. PROSPECTOR ROBOT 706xE-N2-LP003-RF16 Cr81,800 350kg Fuel=43.7 Duration=4.5 TL=12 Thrust=1200kg 42/105 (no armor) 2 Hvy arms Head (40%) Basic sensor pkg, voder, magnetic, radiation, mass sensors Radio (continental range) Video recorder (2D) Prospecting-4, Pilot-2, Grav Vehicle-1

The "Belter's Partner" can fit inside the bridge of a Seeker ship, from where it can fly the ship while the human crew is occupied. The robot can also function outside the ship, moving under its own power and collecting valuable data about an asteroid belt or planet's surface.

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55. CAMERA OPERATOR ROBOT

432xF-02-LM221-6F53 Cr274,000 100kg Fuel=10.5 Duration=2.2 TL=13 Thrust=200kg 16/40 (mesh) 2 V It arms 3 Spotlights (visual spectrum) Program interface Radio (distant range) 2 TL13 holo recorders (3D) Holodisplay (TL13) Cinematography-4, Grav Vehicle-1

430xF-02-LM221-6F73 Cr274,000 50kg Fuel=30.5 Duration=12.7 TL=15 Thrust=200kg 16/40 (mesh) 2 V It arms 3 Spotlights (visual spectrum) Program interface Radio (distant range) 2 TL15 holo recorders (3D) Holodisplay (TL15) Cinematography-4, Grav Vehicle-1

The 476-INLAV camera robot is a journalist's best friend. The small, grav-powered robot can go where no human can go, recording an event from close up.

The robot also finds some use in advertising and motion pictures. The newer model is smaller and smarter at a slightly higher price.

56. EXPERT CHEF ROBOT

522xA-L4-JF111-LB31 Cr75,900 130kg Fuel=37.9 Duration=7.9 TL=13 24/60 (mesh) 4 Lt arms Head (20%) Basic sensor pkg, touch sensors, taste sensor Power interface Steward-4

Makhidkarun's Model 777 Cordon Bleu expert chef is programmed to prepare the delicacies of hundreds of humaninhabited worlds. His steward program also keeps an inventory of supplies and orders fresh foods as necessary. While he can operate on a fuel cell, he also has a power interface to save fuel when working near outlets. Many of these chefs do their own marketing to choose meats and produce for daily specials. The services of the Cordon Bleu line of robots are, of course, expensive, but the robots are far less temperamental than human culinary artists, and they can work with four hands at once, which people often wish they could. The robot costs about two to three years wages for a human chef.



58. COURIER ROBOT

553x2-L2-LC111-FB51 Cr170,300 380kg Fuel=62.5 Duration=10.4 TL=14 36/90 (combat armor, reflec) 2 Lt arms Head (20%) 2 Eyes (+1 pass IR), 2 ears, voder, 1 olfactory sensor (+1 extra sen) Radio (continental range) Extensive counter ECM Obscuration device, electronic circuit protection Security-4

Spinward Specialties, one of the newest robot manufacturers in the Spinward Marches, specializes in contoured chassis courier robots such as this one, unarmed but heavily armored.

Quoting a Spinward Specialties advertisement: "The R3A courier can handle it! No matter what the job, the circumstances, or the cargo, the R3A courier can handle it.

"Item: A bank on Pretoria used an R3A to transport bank credit cards between its main office and its branch locations. Four would-be hijackers attacked it with a variety of weaponry, including two A41 submachineguns. The R3A radioed for police assistance, and the perpetrators were apprehended. No loss of cargo resulted; the R3A itself needed only a new wax job.

"Item: A jeweler on Carthage leased an R3A to carry rare coins to a customer halfway around the world. An electronics wizard attempted to jam the robot's circuits, using a technique he had found successful on many other couriers. The R3A was unaffected by his interference, and when authorities arrested him (thanks to the R3A's notification) a large cache of stolen gems was recovered from his apartment.

"Item: A businessman on Urnas had just bought an R3A, and was walking it out to his air/raft. The courier's ultra-sensitive olfactory sensor detected a bomb planted in the vehicle by one of the businessman's competitors. The businessman's life was saved, and he bought six more R3A couriers.

"If you have material that just has to get there, get an R3A --from Spinward Specialties, the courier experts." 57. ADMINISTRATION ROBOT (Aslan) 32xx0-A4-NP325-LF85 Cr330,500 50kg Fuel=(external power) Duration=(unlimited) TL=14 11/28 (mesh) 4 Lt arms Head (10%) Basic sensor pkg Power interface, program interface Video recorder (2D), video display (2D) Administration-4, Legal-2, Trader-2, Extra Language-1 Emotion Simulation

This standard model of adminbot is used in several "female" positions in Aslan society. Its programming allows it to aid in running schools, farms, industries, or shops. Sometimes this model is used as supercargo on starships to handle buying and selling within the Hierate. Its extra language is usually Galanglic, but it does not speak. All communications are printed on video display or hardcopy. More advanced models are available that can move and that can talk using a voder.



Front View

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59. MUSICIAN ROBOT 631xA-08-NL213-GF72 Cr200,400 130kg Fuel=54 Duration=15 TL=15 30/75 (mesh) 8 V lt arms 2 Eyes, 2 ears (+2 extra sen), voder Acoustical speaker, music synthesizer Performer-4, Musical-4 Emotion Simulation

A concert by a few of these performers was once billed as "the music of the spheres". This robot can produce a complete range of timbres with its built-in synthesizer. With its musicquality voder and acoustical speaker, it can fill a concert hall with the sound of a full orchestra or provide soft chamber music in a noble's home.



60. WEATHER CONTROL ROBOT D46xE-F0-MP102-TF55 Cr379,400 1,300kg Fuel=3,916 Duration=101.3 TL=14 Thrust=4000kg 1035/2588 (mesh) Head (15%) 2 Eyes (+2 pass IR), 2 environment sensor pkgs 8 Power interfaces, master unit, slave unit Radio (continental range), electronic circuit protection Meteorology-4, Grav Vehicle-2

Many societies achieve some degree of weather control at tech level 8; at tech level 14 the Chion V automates the process. A team of these robots can insure that a world's temperature, precipitation, atmospheric pressure, and windspeed are optimal for the world's population.

Several devices on this robot are custom-designed for weather control applications. The robot has a volume of 3000 liters, making it one of the largest robots currently used in any application. This size allows the robot to carry large quantities of chemical catalysts for dispersion into a world's atmosphere.

The enormous size also provides room for three hydrogen fuel cells, producing a total power supply of 405 kw. With this amount of power and the custom power interfaces, the Chion V can actually start or stop lightning storms, as desired. The electronic circuit protection in this robot protects it from the effects of operating in such storms.

The master/slave interface and the radio enable a team of Chion V robots to work together. Weather control is such a delicate process that adequate results are difficult to achieve unless several robots cooperate over a wide area.



61. PROFESSOR DESKBOT

610x0-00-PR322-899A(L) Cr602,300 60kg Fuel=67.7 Duration=28.2 TL=15 30/75 (mesh) 1 Eye, 1 ear, voder Power interface program interface Holodisplay (TL15) Instruction-4 Emotion Simulation

The profbot has all but eliminated classroom learning on some worlds. It comes with interchangeable modules for different subjects and different levels of ability. Slave extensionals supply laboratory equipment and sports skills for instructing the student. The robot can be interfaced with a library for updating.

Families which must travel a great deal often provide for their children's education with a profbot. Anyone seeking to learn a new skill on a starliner can rent the services of this teaching computer from the ship's library.

62. RASHUSH MODEL 1

65x32-F2-MR32A-JD9B Cr2,226,100 380kg Fuel=(batteries) Duration=(unlimited) TL=15 35/86 (mesh) 2 Lt arms Head (15%) Basic sensor pkg (eyes: +2 tele, +2 lt inten; ears: +2 extra sen; olfactory: +1 extra sen), voder.

voder, touch sensors (+extra sen), taste sensor Power interface Radio (distant range) TL15 holo recorder (3D) Electronic circuit protection Valet-4 Steward-3 Instruction-3 Medical-2 Extra Language-2 Fire Fighting/Rescue-2 General Vehicle-1 Close Combat-1 Security-1 **Emotion Simulation**



The Rashush Model 1 is Naasirka's top-of-the-line model Rashush. The Model 1's programming qualifies it as an expert valet. Associated abilities such as steward, instruction, firefighting/rescue, and medical skill round out the Rashush Model 1 and add to its utility. The robot's intelligence of 9 enables it to adapt to situations not explicitly covered by its programmed skill set.

The Model 1 is quite popular in households throughout the Imperium, despite its price tag of over 2 million credits. Many wealthy households have at least one Rashush Model 1, and a surprising number of not-so-wealthy households also own a Model 1.

Naasirka bills the Rashush Model 1 as "the safest household robot in existence" because of its battery power supply. While the batteries do remove all hazard of any fuel cell explosion (although with any high-tech fuel cell this hazard is minimal), they account for fully one-half of the 2 million credit price for the robot.

The batteries limit the robot to an operating duration of only about 12 hours, but in an urban setting this is rarely a problem —the robot has a power interface and plugs itself into an energy outlet at regular intervals to maintain its energy level. A full recharge takes about 3 hours.

Naasirka's marketing strategy obviously works, because the Rashush Model 1 is encountered frequently in the Imper ium.



63. TRANSLATOR ROBOT (Hiver) 554x2-L2-QQ325-FDB9 Cr444,700 270kg Fuel=57.7 Duration=8.0 TL=15 24/60 (mesh) 2 Lt arms Head (20%) 2 Eyes, 2 ears, voder, 1 olfactory sensor, touch sensors (+extra sen) Extra Language-4, General Language-4, Communications-4, Instruction-4 Emotion Simulation

The Hiver race excels at communication, and this robot is the technological culmination of that ability. The "Demosthenes" model is used especially for interspecies communication, in particular between Hivers and humans.

The robot is in fact contoured in human form rather than Hiver, in order to put sensitive humans more at ease.

Hiver robot brains are more advanced (tech level 16) than those of any other extant race. The phenomenal intelligence of this robot is a great help in translating the nuances of human and Hiver language. Not only can the robot translate (and learn) languages with facility, but it can also perform all of the functions of a communications officer.

The Demosthenes' instruction skill can be used in regular speech to produce better explanations of alien concepts; it also has the side benefit of making its output more interesting than it might otherwise be.

The only consideration preventing more widespread use of this robot is its price. This high cost results from its contoured chassis configuration, but the Hivers are unwilling to give this up. The Hivers do not construct pseudobiological robots, because they believe them to be economically unviable, but despite the added cost of contoured robots, the Hivers think they are worth it because of their "familiar" look. With the addition of emotion simulation software, this robot can seem very "human" indeed, despite its lack of expensive detail.

The Demosthenes is used most often by Hiver emissaries and traders.



66. TUKERA TRADER W-3 ROBOT

410xF-00-PP314-4F85(8) Cr437,400 40kg Fuel=15.4 Duration=6.4 TL=15 Thrust=100kg 16/40 (mesh) Basic sensor pkg, voder Brain interface Video display (2D) Legal-4, Trader-4, Grav Vehicle-1 Emotion Simulation

The W-3 is the latest in the Tukera Trader line. This robot is identical to the W-2, but for Cr75,000 additional it has the ability to learn over its expected useful life of 80 years. Starting with an education of 5 (almost 6), its synaptic storage gradually organizes itself to provide additional "insights", ultimately increasing the education to 8 (almost 9). This is not a rapid process; on the average, each point increase takes a little over five years.

Tukera Lines no longer manufactures the W-2, and all of these are being replaced by the newer models as local budgets allow.

64. TUKERA TRADER W-1 ROBOT

41xx0-00-NP313-4985 Cr331,200 30kg Fuel=(external power) Duration=(unlimited) TL=15 16/40 (mesh) Basic sensor pkg, voder Brain interface, power interface Video display (2D) Legal-4, Trader-4 Emotion Simulation

Tukera Trader is the name given to a line of robots developed by Tukera Lines to provide expert assistance for commercial applications. A comparison of three of these robots is instructive in several robot design considerations.

The Tukera Trader helps keep the books in the black by giving expert advice on the relative values of commodities on different worlds. The original model, the W-1, was manufactured by Miino Robotics, a wholly-owned subsidiary of Tukera Lines. Cost of the robot was kept down by designing it as an immobile unit without a power supply. The W-1 was actually installed in a number of Tukera starship cargo holds at one time.

Trader-4 skill gives this robot a way to predict the value of a cargo once it is transported to another world. Legal-4 ability insures that all transportation and tariff regulations are fulfilled. Emotion simulation enables the W-1 to haggle with sentients. It all sounds great, but the robot was an unqualified disaster. For the reasons why, look at the the Tukera Trader W-2 robot.

65. TUKERA TRADER W-2 ROBOT 410xF-00-PP314-4F85 Cr363,200 40kg Fuel=14.2 Duration=5.9 TL=15 Thrust=100kg 16/40 (mesh) Basic sensor pkg, voder Brain interface Video display (2D) Legal-4, Trader-4, Grav Vehicle-1 Emotion Simulation

This robot, the Tukera Trader W-2, replaced the W-1 in all applications. If one studies the URP information for these two experts, the difference between the two is immediately apparent. The W-2 is self-powered and self-propelled, using a simple light duty grav module for locomotion. The software and brains of the two machines are identical, except for the grav vehicle application program in the W-2.

Tukera Lines found that the W-1 could not function efficiently from inside a starship. Without the opportunity to directly view warehouses and to talk with sentients "on location", many learning opportunities were missed, and it was impossible for the W-1 to make full use of its trader-4 skill.

The W-2 was an immediate success, and can still be seen at most starports serviced by Tukera Lines. Today, in fact, W-2 units often specialize, so that a large, busy starport may have several of the units, one dealing only in agricultural goods, one handling the trade in industrial goods, another dealing in raw materials, and so on.





67. ARTISAN ROBOT (Hiver)

512x4-55-LM222-5F83 Cr204,700 300kg Fuel=26.3 Duration=5.5 TL=16 21/53 (mesh) 5 V It tentacles Head (5%) Basic sensor pkg (eyes: +2 tele), touch sensors (+extra sen) Spotlight (visual spectrum) Program interface TL15 holo recorder (3D) Lt laser welder Mechanical, metalwork tool pkgs Forgery-4, Mechanical-1

At over Cr200,000, the artisan robot is not designed by the Hivers for private use, but rather for professional art production facilities. The robot can be thought of as being in the same class as any other expert mechanical robot.

The artisan first uses its telescopic eyes to examine an item; the eyes are tied into the holographic recorder, so a complete three-dimensional description of an object can be placed in the robot's brain storage. The artisan can then use its dexterous tentacles and specialized tool packages to reproduce the item. The robot's expert skill supplements these appendages to make an exact duplication possible.

Besides their legitimate uses, these devices are popular with an entirely different class of citizen. Artisan robots are sometimes used by criminals for forgery purposes. The robot's attention to detail, coupled with its assured confidentiality, makes it the perfect "mob" employee. 68. SHUTTLE PILOT ROBOT
501x2-L2-RS327-NCDD(Q) Cr5,620,300 190kg
Fuel=29.72 Duration=8.3 TL=16
25/63 (no armor)
2 Med arms
Head (25%)
Basic sensor pkg (eyes: +2 tele; ears: +2 extra sen), voder, taste sensor
Radio (continental range)
TL15 holo recorder (3D)
Grav Vehicle-4, Ships Boat-4, Engineering-4, Gravitics-4, Communications-4, Ship Tactics-4
Emotion Simulation

A special project by the scientists of the University of Regina, the SURD T-23x robot is not likely to be on the market for some time. This robot is at the cutting edge in Imperial robotics today. Having shown itself to be a flexible yet reliable shuttle pilot under most ordinary circumstances, it is now undergoing testing to see how it adapts to more critical situations. One of the main concerns is that the high amount of synaptics (68 out of 113 units) not tip over into a robotic neurosis when under pressure.

^{101 Robots} Law Enforcement and Security Robots

Law enforcement and security robots are reliable, expendable guardians. They can be found both in public and private use, ensuring that valuables are safe from plunder. Legal experts also fall under this category.



69. INTERROGATION ROBOT

533xF-02-LM113-BF23 Cr156,900 140kg Fuel=22.3 Duration=3.7 TL=12 Thrust=200kg 20/50 (mesh) 2 Lt tentacles Basic sensor pkg, voder Spotlight (visual spectrum) 2 Power interfaces Radio (distant range) Video recorder (2D) Medical instrument pkg Obscuration device Odor emitter Video display (2D) Acoustical speaker Body/Snub pistol Interrogation-4, Grav Vehicle-1 Emotion Simulation

The Intect GXLT-452 interrogation robot is very patient, very persistant, and untiring in its pursuit of answers from subjects. The robot is capable of administering truth drugs or of using more forceful persuasion, although it usually doesn't need to get physical to get results. Judicious use of lights, noise, or smells is frequently sufficient to do the job. But if the subject insists on being uncooperative, then the robot is capable of getting very nasty.



Front View

70. SECURITY ROBOT 726xA-02-LM213-L833 Cr298,000 530kg Fuel=17.7 Duration=1.8 TL=12 60/150 (cloth, reflec) 2 Lt arms Basic sensor pkg (eyes: +2 lt inten, +2 act IR; ears: +2 extra sen) Radio (distant range) Laser carbine Electronic circuit protection Security-3, Laser Carbine-2, Infantry Ground Combat-1

The ICAM Technology AN-427 maximum security robot is programmed to patrol all areas of a sensitive installation, seek out unauthorized intruders, and destroy them. The robot is intelligent enough to recognize authorized personnel, and not to harm them. The AN-427 can also operate in concert with other robots (via its built in radio) and can instantaneously share information with them—thus avoiding costly tactical errors while pursuing an intruder.



71. LAW ENFORCER ROBOT

756x2-54-PR225-LF5A Cr232,800 440kg Fuel=70.1 Duration=7.3 TL=12 63/158 (cloth, reflec) 2 V It tentacles, 2 med tentacles Head (5%) Basic sensor pkg (eyes: +2 tele, +2 pass IR; ears: +2 extra sen), voder 2 Spotlights (visual spectrum) Program interface Radio (distant range) Electronic circuit protection Weapon Handling-4, Security-3, Tactics-2, Interrogation-1 Emotion Simulation

This patrolman is one that won't get so bored on the beat. In fact, it can keep patrolling for a week at a time before it needs a break for maintenance and fuel.

This law enforcer is not good for extremely subtle detective work, but is just great for routine surveillance and patrols. It is also good for more dangerous arrests, frequently saving the lives of sentient officers.

Because of the importance of this role, this robot is less integrated and more modular than many. If the robot gets shot and a particular module is damaged, it can frequently be kept going via its radio and program interface. Then, when its mission is complete, only the specific modules affected will have to be replaced.

An imposing 2.5 meters tall, this robot does not mount any specific weapon, but instead has weapon-4 skill, which is programmed among any combination of weapons carried by the robot, according to the wishes of the law enforcement agency deploying the robot.



72. SUPER GUARD ROBOT 856xE-04-PQ226-VF59 Cr389,100 770kg Fuel=147.6 Duration=15.4 TL=12 Thrust=800kg

105/263 (cloth, reflec) 4 Hvy arms Basic sensor pkg (eyes: +2 tele, +2 lt inten, +2 pass IR; ears: +2 extra sen; olfactory: +1 extra sen), voder Radio (v distant range) Counter ECM Gauss rifle Electronic circuit protection Tactics-3, Close Combat-3, Gauss Rifle-3, Security-3, Grav Vehicle-1, Fire Fighting/Rescue-1

The Dover-Gabe Model 9 "Super Guard" is a popular security/ guard robot in the Imperial Core. The Super Guard's large, imposing, grav-propelled headless torso is very effective in making would-be thieves think twice before breaking in. Dover-Gabe designed the Super Guard specifically to be "unfriendly and unbecoming: in other words, a potent deterent".

The robot's Gauss rifle mounted on one arm (operated at a skill level of 3) puts some teeth into the robot's deterrent abilities. The other three heavy arms can easily subdue any trespasser.

The Super Guard, well armored against a deliberate attack by a knowledgeable opponent, is often the robot of choice for protecting an establishment's more important facilities.




73. COURTROOM GUARD ROBOT (Solomani) 633xF-05-NN325-RF84 Cr432,900 200kg

Fuel=56.1 Duration=9.4 TL=14 Thrust=240kg 20/50 (mesh) 1 V It arm, 1 It arm, 2 med arms, 1 hvy arm Basic sensor pkg (olfactory: +1 extra sen) NAS sensor TL14 holo recorder (3D) Holodisplay (TL14) Interrogation-2, Security-2, Legal-2, Weapon Handling-1 Emotion Simulation

The courtroom guard and lie detector robot is found only on a few Solomani worlds, where use of the robots has sparked bitter controversy. If the robot served only as a bailiff, there would be little opposition, but when the robot uses its neural activity and metabolic sensors to judge whether a witness is telling the truth or not, many people object.

In one celebrated trial, the judge was giving his final instructions to the jury when the robot declared that the judge was lying. The judge held the robot in contempt and had it jailed for a week. Use of the robot is optional in a given case.

74. TRAFFIC SLAVE ROBOT

622xE-52-00000-JF00 Cr19,000 80kg Fuel=97.5 Duration=20.3 TL=15 Thrust=400kg 32/79 (mesh) 2 Lt arms Head (5%) Basic sensor pkg, voder Brain interface Slave unit Radio (distant range) Video recorder (2D) Automatic pistol

The traffic slavebot is not in itself a true robot, but in combination with the central traffic control computer, it makes an excellent traffic controller. On some high tech worlds, this combination has done more to prevent accidents and keep traffic moving smoothly than any other method to date.



75. HIGH SECURITY GUARD ROBOT

654x2-A2-PR329-NBBB(L) Cr2,017,100 710kg Fuel=95.8 Duration=13.3 TL=15 50/124 (combat armor) 2 Med arms Head (10%) Basic sensor pkg (eyes: +1 tele, +1 lt inten, +1 extra sen; ears: +1 extra sen), voder, touch sensors (+extra sen) Radio (distant range) Extensive counter ECM TL15 holo recorder (3D) Obscuration device Laser carbine FGMP-15 Electronic circuit protection Infantry Ground Combat-5, Security-3, Hunting-3, Extra Language-2, Interrogation-2, Close Combat-2, Laser Carbine-2, FGMP-2 **Emotion Simulation**

If you are seriously thinking about trying to steal Imperial secrets from one of the high level archives or intelligence centers, start thinking even more seriously about not trying it. Sensitive information and machinery vital to the security of the Imperium is usually guarded by a formidable mix of Imperial marines and high security robots like this one. With its sophisticated array of sensors, software, and weapons, this is a robot that you don't want to meet other than socially. If you do manage to evade it initially, it will seek you out. Like the fabled RCMP of early Terran history, this robot always "finds its man" or whatever sentient might have committed the crime.



76. LEGAL EAGLE ROBOT

553x2-02-NQ324-FDB8 Cr411,500 220kg Fuel=46.5 Duration=7.75 TL=15 22/55 (mesh) 2 Lt arms Head (10%) 2 Eyes, 2 ears, voder, touch sensors Program interface Administration-4, Interrogation-2, Bribery-1 Emotion Simulation

"If you have to argue against the Makhidkarun X1DF-A attorney, you will have to refute its premises, not its logic. After all, with a computer for a brain, its logic is usually impeccable. Another thing to keep in mind is that you can't wear it out. The best thing to do is to keep your legal precedents straight and challenge it on its premises." (excerpt from *Vland Legal Encyclopedia*, 8th Edition.)

77. SHIP SHEPHERD ROBOT

822xF-01-NR222-PFAA Cr1,530,600 760kg Fuel=189 Duration=39.5 TL=15 Thrust=2000kg 105/263 (combat armor, reflec)

1 Hvy arm 1 Eye 4 Spotlights (visual spectrum) Master unit, slave unit Radio (continental range) Extensive counter ECM Electronic circuit protection Grav Vehicle-4, Cargo Handling-4

The Naasirka Ship Shepherd is found in military depots and larger orbital starports. The example described here is the military-spec unit.

The shepherd floats among ships in orbit, keeping them in their respective places by gentle nudges. The heavy arm is used to magnetically "grip" a ship that needs adjustment. The shepherds work in concert by means of their master and slave units. Hundreds (or even thousands) of ships at a time can be safely parked by a corps of shepherds.

78. ARMED SHIP SHEPHERD ROBOT 823xF-01-NR225-PFAA Cr2,205,900 780kg Fuel=179 Duration=29.8 TL=15 Thrust=2000kg 105/263 (combat armor, reflec) 1 Hvy arm 2 Eyes (+2 tele, +2 lt inten), magnetic, radiation, neutrino sensors 4 Spotlights (visual spectrum) Master unit, slave unit Radio (continental range) Extensive counter ECM FGMP-15, sandcaster Electronic circuit protection Gunnery-4 (FGMP), Gunnery-4 (Sandcaster), Grav Vehicle-4, Ship Tactics-4, Fleet Tactics-4

At military installations, the Naasirka Ship Shepherds are assisted by these armed units. The armed shepherd's powerful sensor array allows it to detect enemy ships in time to use its offensive and defensive capabilities effectively.

The armed shepherd is equipped with a sandcaster and an FGMP-15, and it has the brains to use both at a skill level of 4. A knowledge of ship and fleet tactics is also standard with this model. The armed and unarmed versions look identical from any distance.

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Side View

Warbots have changed the face of modern warfare forever. Many of these robots are expert systems, capable of subtle tactical planning. Others are cheap dumbots or drones, useful only as long as they last in a pitched battle.



79. MILITARY RECON ROBOT

746xE-A3-LQ115-DF29 Cr250,700 480kg Fuel=29.1 Duration=3.0 TL=12 Thrust=800kg 66/165 (cloth) 3 V It arms Head (10%) Basic sensor pkg (eyes: +2 tele, +2 lt inten, +2 pass IR, +2 act IR; ears: +2 extra sen), voder, magnetic, radiation, mass, neutrino sensors Program interface 2 radios (continental range) Extensive counter ECM Video recorder (2D) 2 Obscuration devices Laser pistol Electronic circuit protection Forward Obs-4, Recon-4, Tactics-1, Laser Pistol-1, Grav Veh-1

For the military commander who has everything that he wants except up-to-date field intelligence, Makhidkarun makes the TK91 Reconbot. This robot is equipped with everything needed for this type of mission.

The TK91 has an extensive sensory package with supporting software, ranging from telescopic vision and light intensification, to neutrino sensors for locating and analyzing high energy sources in the area. In addition to this hefty sensory package comes an ability to fight its way out of tough situations if necessary, using its tactical and weapon handling skills. All in all, it is a very impressive package.



80. EXPERIMENTAL INFANTRY ROBOT 553x2-A2-PP323-N975 Cr524,900 480kg Fuel=29.5 Duration=4.9 TL=13 33/83 (combat armor) 2 Med arms Head (10%) Basic sensor pkg (eyes: +1 lt inten) Radio (continental range) Counter ECM Obscuration device Automatic pistol Laser carbine Electronic circuit protection Tactics-3, Close Combat-3, Infantry Ground Combat-3

This tech level 13 warbot (infantry) was an experimental robot in the early Third Imperium. This robot did see some limited battlefield action at one time, but many felt it was too unreliable and too costly for the job that it did. Despite the best efforts of scientists of that day, many Imperial military analysts maintain that an army built around warbots is a liability rather than an asset on the battlefield. A human or other sentient can do its job more efficiently and less expensively.



Side View

81. HEAVY WARBOT (Zhodani)

745xE-F2-EP006-RF25 Cr338,000 690kg Fuel=62.2 Duration=7.4 TL=14 Thrust=1200kg 69/173 (combat armor, reflec) 2 Hvy arms (retractable) Head (15%) Basic sensor pkg (eyes: +1 tele, +1 lt inten, +1 pass IR, +1 act IR; ears: +1 extra sen), voder Program interface, radio (regional range) Extensive counter ECM, 2 obscuration devices FGMP-14 Electronic circuit protection FGMP-2, Grav Vehicle-1, Forward Obs-1, Tactics-1, Close Combat-1, Infantry Ground Combat-1

The Chiadle 7500 heavy warbot is designed to hold its own in a full frontal assault involving armored troops with fusion and plasma weapons. Even though the 7500 is expensive, it stands up well in the most demanding battlefield situations.

Besides the obvious offensive uses of the 7500, it works well as a defensive warbot or a forward scout, with its excellent sensors and its two obscuration devices.

The 7500 is surprisingly small in spite of all its capabilities. The oblong half-dome chassis body presents a small frontal profile, thus minimizing the available target area to the enemy. The small rotating head contains the targeting and firing apparatus for the fusion weapon, allowing the main chassis body of the 7500 to remain under cover while firing.

82. LIGHT WARBOT (Zhodani)

22x2F-00-7B002-1F21 Cr48,200 10kg Fuel=(batteries) Duration=40 min TL=14 Thrust=100kg

2/5 (mesh) 1 Eye, 1 ear Radio (distant range) Acoustical speaker Body/Snub pistol Grav Vehicle-1 Body/Snub Pistol-1



The IAD M-2 is light enough to be carried as equipment by a Zhodani commando: in fact, a strength

level 9 psionic can carry an M-2 with him when he teleports. The M-2 is specifically designed by IAD to be a cheap, expendable robot, useful for disrupting enemy troops behind their own lines. The M-2 is useless in frontal assaults against armored troops.

A favorite tactic of Zhodani commandos is to teleport deep into enemy territory, leave several M-2s, and then teleport back to safety while the M-2s raise havoc in an unsuspecting enemy encampment. The M-2s, having performed their task of demoralizing the enemy, are written off as destroyed.



83. MEDIUM WARBOT (Zhodani) 623xE-02-CK004-NF31 Cr158,600 280kg Fuel=78.6 Duration=21.7 TL=14 45/113 (cloth) 2 Med arms Basic sensor pkg, voder Radio (50 km range), extensive counter ECM Laser rifle, electronic circuit protection Grav Vehicle-1, Tactics-1, Laser Rifle-1, Inf Ground Combat-1

The Tliazhashal PP04 series is a popular warbot model, and customized versions of the PP04 are in use throughout the Zhodani Consulate. The PP04 series is solid and reliable, with a good intelligence (as far as Zhodani robots go).

The warbot shown here is a basic PP04 with only a few extra options: tactics skill and a laser rifle. The Tliazhashal megacorporation provides many other variations, depending on the operating environment or type of mission the warbot will be called upon to perform. For details on how PP04 series warbots are used on the battlefield, see *Alien Module 4, Zhodani*.

The base design shown here has 7 kilowatts of power left; other sensors, devices, or weapons may be installed.



84. BATTLE EXPERT ROBOT

511xF-L0-PR328-5FAA Cr990,100 270kg Fuel=5.4 Duration=1.5 TL=15 Thrust=800kg 38/98 (combat armor) Head (25%) Program interface Master unit, slave unit Radio (continental range) Extensive counter ECM Holodisplay (TL15) Electronic circuit protection Tactics-4, Security-4, Infantry Ground Combat-4, Armor Ground Combat-4, Grav Vehicle-1, Forward Obs-1, Demolition-1, Recon-1

The Makhidkarun 5F2PR Commando is mainly used by the Imperial Marines as a recon and demolition robot, but because of its ability to sort out tactical situations and communications, it has been recently been finding an increasing role as an NCO in gravbelt combat drops.



85. DRONE WARBOT (Aslan)

837xD-04-00000-TF00 Cr485,600 1,300kg Fuel=60 Duration=3.3 TL=14 Thrust=2000kg 70/175 (combat armor) 2 Med arms, 2 hvy arms Basic sensor pkg (eyes: +1 light inten) Slave unit Extensive counter ECM SMG Laser carbine FGMP-14 Auto grenade launcher

Because this Aslan warbot is a drone, controlled by a live Aslan from a remote console, there is considerable disagreement among roboticists as to whether this drone is truly a robot.

The machine has no CPU or software, only a very sophisticated remote control system. On the other hand, the fact that these devices have shown very favorable results in confrontations with Zhodani warbots has impressed many to the point of ignoring the technical arguments of the roboticists. "If it is successfully used as a warbot, it is a warbot."



The battle medibot is medic and medevac in one unit. The gravsupported stretcher has an armored cover for its patient, for while some planets abide by rules of war prohibiting attack on medical vehicles, many others do not.

Some battle medibots are equipped to shoot back, with a laser rifle installation. The medibot carries artificial blood and a limited range of medications. It can bandage or suture wounds, but most surgery and body repair must wait until the patient is brought to the surgical hospital.

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87. BRUISER ROBOT (Hiver)

D48xD-NL-PY52L-VFCQ Cr5,067,200 9,100kg Fuel=1527.6 Duration=63.7 TL=15 Thrust=15000kg 1260/3150 (combat armor, reflec) 6 V It tentacles, 6 It tentacles, 6 med tentacles, 6 hvy tentacles (all retractable) Head (40%) 6 Eyes (+6 tele, +6 It inten, +6 pass IR, +6 act IR) 3 Ears (+3 extra sen), voder, 1 olfactory sensor (+1 extra sen), touch sensors (+extra sen), 2 magnetic, 2 radiation, 2 mass, 2 neutrino sensors 6 Spotlights (visual spectrum) 2 Power interfaces, 2 brain interfaces, 2 program interfaces Master unit, slave unit 2 Radios (continental range) Extensive counter ECM 4 TL15 holo recorders (3D) 2 Lt laser welders, 2 laser welders 3 Medical instrument, 3 mechanical, 3 electronic tool pkgs 3 Metalwork, 3 carpentry tool pkgs Obscuration device 2 Odor emitters 4 Holodisplays (TL15) 6 Laser rifles, 2 FGMP-15s, 6 RAM auto grenade launchers, 6 Gauss rifles Electronic circuit protection Pilot-4, Navigator-4, Medical-4, Grav Vehicle-4, Gunnery-4, Electronic-4, Mechanical-4, Engineering-4, Forward Obs-4, Demolition-4, Extra Language-4, Tactics-4, Recon-4, Interrogation-4, General Language-4, Laser Rifle-4, FGMP-4, Grenade Launcher-4, Gauss Rifle-4, Security-4, Survey-4, Fire Fighting/Rescue-4, Gravitics-4, Communications-4, Ship Tactics-4, Fleet Tactics-4 Emotion Simulation

Fact 1: The Hiver race disdains personal violence.

Fact 2: The Hiver race is skilled in building robots.

Result: Hiver warbots are constructed in such a way as to be able to work independently in any military action. The "Bruiser" is an excellent example.

If you paid more than Cr5,000,000 for a robot, you would expect it to be fully equipped, and if you purchased a Hiver Bruiser, you would not be disappointed. The robot described here is a complete model, with all peripherals and programs listed. Most Bruisers have only a partial configuration, depending upon their expected use.

All by itself, a Bruiser is a formidable opponent. Its sensory array is extensive, including most of the sensors typically found on a smaller IISS survey vessel. Its weapons can include laser rifles, FGMP-15s, RAM auto grenade launchers, and Gauss rifles, and its software gives it skill level 4 in each weapon. Its grav modules give it a cruising speed of 450 kph. Combat armor polished to reflec and extensive counter ECM provide for its defense. Even if a hit is taken, most components have backup systems.

The Bruiser's brain is astonishing, with an intelligence of 12 and an education far beyond human or Hiver norms. With its knowledge and its specialized appendages, it can repair almost anything. When it captures prisoners, it can interrogate them. And its fusion reactor and power interfaces are designed to enable it to provide energy for a small city after its capture. Two other items are of particular interest concerning the Bruisers. Odor emitters are installed in Hiver warbots mostly for show. Although there are no present hostilities with the K'kree race, they know that Hiver warbots have odor emitters, and their potential for use annoys them.

The other note about the Bruisers is of interest to Imperial citizens. All Hiver warbots (particularly the Bruiser) are illegal in Imperial space. Importing a Bruiser is a high justice crime.



88. BABY BRUISER ROBOT (Hiver)

330xF-02-9B002-CF31 Cr63,200 50kg Fuel=14.7 Duration=6.1 TL=15 Thrust=100kg 10/25 (mesh) 2 Lt arms (retractable) Basic sensor pkg, voder Spotlight (visual spectrum) Slave unit Radio (regional range) Counter ECM Odor emitter Gauss rifle Gauss Rifle-2, Grav Vehicle-1

As formidable as the Bruiser is, it can't do everything, and its massive size does make it an appealing target to enemy forces. Both of these problems can be solved by taking advantage of this size in an unusual way.

The "Baby Bruiser" is a small warbot capable of burst speeds up to 1200 kph. Outfitted with a Gauss rifle, it is an adequate shot, and its size and speed make it a difficult target to hit. It is otherwise typical of many small warbots, with a minimal brain for locomotion and weaponry software.

But in action, the Baby Bruiser is as intelligent as any robot opponent, and often as intelligent as its sentient opponents, thanks to a little help from above. A Bruiser (typically in orbit) uses its master unit to communicate via radio to the Baby Bruiser's slave unit.

The Baby Bruisers can draw fire from the larger unit, and can also be used to investigate smaller locations where a full-sized Bruiser could not travel.

What's more, the Baby Bruisers can be deployed on a jump ship along with the Bruisers and not require any more space. Nowadays, Bruisers are designed so that up to six Baby Bruisers fit up inside the Bruiser's chassis. In this configuration, the Bruiser does not have as much fuel space, but operating duration is still nearly two standard months.

Medical robots provide a consistently high quality of care at a low cost. The best of these robots are expert systems in their respective fields. Others perform support functions to take care of patients and assist doctors.



89. DENTIST ROBOT

31xx0-03-MM211-CF53 Cr221,200 70kg Fuel=(external power) Duration=(unlimited) TL=13 10/25 (mesh) 3 Lt tentacles 1 Eye (+1 extra sen), 1 ear 3 Microspotlights (in tentacles) Power interface Medical instrument pkg 2 Surgical lasers (in tentacles) Medical-4

The dentist bot is affixed to the arm of a dentist's chair and has most of the tools it needs as appendages. It has not been a particularly popular innovation even though it is usually cheaper than a human dentist; the main problem is patients' emotional discomfort rather than any failure of local anaesthetic. The line was discontinued in 1102.



90. NURSING ASSISTANT ROBOT 653x2-A2-EE112-N831 Cr747,800 10kg Fuel=118.7 Duration=19.8 TL=13 33/83 (mesh) 2 Med arms Head (10%) Basic sensor pkg, voder, touch sensors Medical-1, Janitorial-1

Many hospitals have found that this LSP orderly robot can handle the routine care of patients not critically ill as well as or better than human aides can. Their olfactory sensors help them to detect incipient infections or any lack of cleanliness. They are programmed to report all facts about a patient's condition to the nurse on duty, or chart them as needed. One great advantage is that a robot attendant never injures its back when lifting a heavy patient. Many former aides admit they are glad to be in other jobs now, with more pleasant working conditions, while the robots never complain at all.



92. AMBULANCE ATTENDANT ROBOT 902xE-04-MM223-PF73 Cr210,600 150kg Fuel=406.7 Duration=84.7 TL=14 Thrust=400kg 100/250 (no armor) 2 Med arms, 2 It tentacles 1 Eye (+1 It inten, +1 pass IR), 1 ear, voder Spotlight (visual spectrum) Radio (distant range) Medical instrument pkg Medical-3, Fire Fighting/Rescue-2, Grav Vehicle-1

The ambulance medibot, while of the same type as the battle medic, has a much wider programming for diagnosis and treatment. In addition to traumatic wounds, it might be called upon to revive and support a heart attack victim, or assist at a birth, or treat any other emergency medical needs. The ambulance carries a much wider range of medicines and equipment than the "battle stretcher" alone can manage.



91. HOME CARE ORDERLY ROBOT

553x2-L2-LM324-NA73 Cr312,200 200kg Fuel=61.4 Duration=10.2 TL=14 24/60 (mesh) 2 Med arms Head (20%) 2 Eyes, 2 ears, voder, 1 olfactory sensor, touch sensors Power interface, program interface Steward-1, Medical-1, Valet-1 Emotion Simulation

Quality Care Automation's YIV-77-DR model of home care orderly robots not only takes care of your medical and personal hygienic needs, it can do your shopping, prepare your meals, help you dress, take care of your minor household business, and keep the house clean for you. In addition to everything else, it has a program interface so that it can become a tablegame partner, tell you stories, bring you the news, and otherwise keep you entertained. A real bargain at only Cr312,200, it can also be rented by convalescents for only Cr30 per day.



93. MEDICAL EXPERT ROBOT (Aslan) 522x3-A6-NM322-MF83 Cr331,600 130kg Fuel=22.3 Duration=4.7 TL=14 22/55 (mesh) 6 Lt arms Head (10%) Basic sensor pkg (ears: +2 extra sen), voder Medical instrument pkg Medical-4 Emotion Simulation

The KT-21 is the closest Aslan equivalent to the LSP Robodoc 400, although the KT-21 is not as modern nor as sophisticated. Its six arms can wield a variety of medical instruments at once.

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94. LSP MEDROBOT

613xA-06-NM322-LF93 Cr373,300 260kg Fuel=14.1 Duration=2.4 TL=15 30/75 (mesh) 6 Lt tentacles 3 Eyes (+3 tele, +3 lt inten), 1 ear, voder, 1 olfactory sensor (+1 extra sen), touch sensors (+extra sen) 3 Spotlights (visual spectrum) Video recorder (2D) 4 Medical instrument pkgs Medical-4 Emotion Simulation

The Robodoc 400 is a top-of-the-line medical practitioner, manufactured by Ling Standard Products and marketed throughout the Imperium on tech level 15 worlds. The Robodoc's abilities in medicine are impressive, to say the least.

The Robodoc has three eyes, complete with high-powered magnification, light intensifiers, and spotlights. Using its six light tentacles and its medical instrumentation packages, it has the hardware to perform most major operations without assistance.

Its brain and programming give it the computing power to use this hardware to its full effectiveness. The Robodoc's medical skill is equivalent to that of an M.D. with post-graduate work in a field of specialization. (In most Robodocs, this specialization is in surgical techniques, but some Robodocs specialize in alien biology, psychiatry, gerontology, or other fields.)

With its emotion simulation software, the Robodoc is advertised in trade journals as having an "excellent bedside manner", but the Robodoc's boxy appearance detracts from this feature.

95. "LSP" MEDROBOT (Vargr)

614xA-06-00000-LF00 Cr8,900 230kg Fuel=52 Duration=7.2 TL=15 30/75 (mesh) 6 Lt tentacles 3 Eyes 3 Spotlights (visual spectrum)

At just under Cr375,000, the LSP Robodoc is an expensive appliance, and hospital administrators engage in a variety of practices to cut this cost to a minimum. One way to do this is to form a hospital consortium over an entire world, so that large volume discounts can be had.

Occasionally, though, a budget-weary administrator will try to save money in other ways. Vargr pirates have been known to approach hospitals with "bargain" Robodocs, giving the impression that these LSP-manufactured devices can be had at a special rate because of their origins. (The Vargrs are known to steal them.)

More than one administrator, though, has rued the day that he dealt with these pirates, for pirates they are. As often as not, the robots purchased from them are not stolen Robodocs, but counterfeit Robodocs, barely worth their freight charges. The URP given here is for one of these counterfeits. From the outside, the robot looks identical to the real LSP appliance, but there the similarity ends.

How can purchasing agents be so gullible as to fall for such a trick? First, the Vargr usually do have one genuine Robodoc to demonstrate. Second, administrators are less likely to go to the authorities and admit that they were cheated when they were trying to buy stolen robots.

C22x0-03-MR321-MFAB Cr535,200 380kg Fuel=403.2 Duration=84 TL=15 400/1000 (mesh) 2 Lt arms (retractable)

96. AUTOMATIC MEDICAL BOOTH ROBOT

1 V It tentacles(retractable) 3 Eyes (+1 extra sen), voder, touch sensors Surgical laser, 4 spotlights, 2 microspotlights, financial pkg Medical instrument pkg Medical-4

Throughout the Coreward sectors of the Imperium, the LSP Medibooth can be found in almost any major city. Vland Medical Specialties purchased these bots and continues to service them with enormous financial success.

The booths can give complete physical examinations, diagnose any illness found in textbooks, conduct tests and refer patients to specialists if needed. Office hours are twenty-four hours a day, (or however long a particular planet's day lasts). A visit usually costs Cr15-20, and the booth can handle most injuries not requiring surgery. It will also dispense medications, nutritional supplements, and advice while keeping confidential records of its patients' ills.

It has been noted that persons injured in fights they shouldn't have been in often prefer medibooth treatment because of its impersonality, but the most commonly voiced complaint is the booth's rotten bedside manner. No one has ever won a malpractice suit against a booth, but Vland Medical Specialties carries plenty of insurance just in case.



Front View

Pseudobiological Robots

Pseudobiological robots are still expensive and rare, but they hold a fascination for most sentient races. The creation of "living", thinking beings is a goal that man particularly has sought since his earliest days, as evidenced by Terran, Vilani, and Zhodani myths thousands of years old.





97. ADMINISTRATOR ROBOT (Aslan)

562x2-A2-NP323-NA85 Cr2,579,600 230kg Fuel=36.5 Duration=7.6 TL=14 20/50 (jack) 2 Med arms Head (10%) 2 Eyes (+2 extra sen), voder, 2 ears (+1 extra sen), touch sensors Administration-4, Legal-3 Emotion Simulation

The most recent effort in Aslan robot manufacture is this experimental pseudo-biological administrator. She is not quite good enough to fool the Aslan she deals with, but they feel much more comfortable taking orders from her than from the fixed adminbot most widely used. Areas that still need the most work are the appearance of the eyes and their movement, muscle contours, and skin and fur texture. Emotion simulation programming remains a little stilted, but this is less of a giveaway for the businesslike females than for impulsive Aslan males. 98. GOVERNESS ROBOT
561x2-A2-MP324-FD95 Cr2,523,200 190kg
Fuel=64.7 Duration=18.0 TL=15
22/55 (jack)
2 Lt arms
Head (10%)
2 Eyes, 2 ears, voder, 1 olfactory sensor, touch sensors
Medical-1, Instruction-1, Entertainment-1
Emotion Simulation

The governess robot is designed to raise children up to the age of 7 or 8. Its knowledge of the world is broad rather than deep in order to satisfy a child's questions. Once the child can use a library computer, the governess will direct him to look up answers for himself whenever possible. The pseudobiological softness of a governess answers the child's need for cuddling, but the robotic programming allows for absolutely consistent discipline.

This robot can handle children's games, minor first aid, and some cooking, all with equal ease.



99. SABMIQYS ROBOT

664x2-A4-PQ522-MFE7(P) Cr38,356,000 840kg Fuel=155.225 Duration=21.56 TL=17 50/122 (mesh) 4 Med tentacles Head (10%) 2 Eyes (+2 pass IR), 2 ears, voder, 2 olfactory sensors, touch sensors (+extra sen), taste sensor 2 Power interfaces, brain interface TL17 holo recorder (3D) Electronic circuit protection Admin-4 Emotion Simulation

These pseudo-biological robots call themselves the "Egya Ks", and refer to their long dead creators as the "Gya Ks". The exact meaning is uncertain, but it is believed the robots name for themselves translates roughly as "the sons of Gya Ks." The disaster on Sabmiqys occurred around -8000, roughly 1000 years after the Vilani discovered jump drive.

The Gya Ks had sent out only one sub-light ship to a nearby star system 1 parsec distant, so their space travel technology was far behind their computer/robotics technology.

Imperial Scout researchers have been able to piece together

the tragic events that caused the total demise of all the inhabitants on Sabmiqys. It appears that the sublight ship returned on robot auto pilot, all its passengers dead from an unknown cause. Once the Gya Ks were able to determine the cause for the mysterious deaths, it was too late, for they too were infected with the deadly virus harbored on that ship.

The toxic effect of the virus was nearly symptomless until the very end. Medical scientists frantically looked for a cure global panic struck overnight as millions that were fine one day were dead the next for no apparent reason. The very fabric of Gya Ks society unravelled overnight—bedlam and anarchy prevented the coordination of effort that might otherwise have led to a cure.

The study of the mysterious ship had lasted for 6 months the incubation period of the virus. Once the deaths started, from beginning to end, it was all over in less than 10 days.

The million or so robots left on the world concluded that space travel is of little or no value, and thus have never put any effort into pursuing interstellar exploration.

The parent race, the Gya Ks, are descended from omnivore/ gatherer stock, and were tall, about 2.5m in height, and massed about 100kg. Thin and lithe, with a bumpy, thick, spongy grey hide and no body hair, they had two legs, four tentacle arms with four finger manipulators, and a head with two eyes, four nostril slits, and a wide mouth with over 100 teeth.

The robots that populate the world vary from the highly intelligent pseudo-bios shown here to dumbot servants. The bulk of the intelligent robots are of contoured configuration, resembling the Gya Ks.

The Imperium is divided over the question of whether or not the Sabmiqys robots should even be considered "sentient." Prevailing opinion is that the Sabmiqys robots are not sentient they simply are not biological beings, but artificial imitations, even if they are fairly intelligent.

The Scouts have interdicted Sabmiqys (Antares 2117).

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TELKU

Telku 460x2-L2-MM222-ED73 Cr1,555,440 130kg Fuel=49.1 Duration=20.5 TL=15 16/40 (Jack) Head(10%) 2 Lt arms 2 Eyes, 2 ears, voder, touch sensors Gambling-2 Emotion Simulation

The Shinku University Research Directorate received the Shudusham Conference Medal of Merit for its work on Telku, the first convincing "human" pseudo-biological robot. Telku astonished the robotics community with her small size (the robot is only 1.53 meters in height) and her grace—in almost all her motions she appears entirely human. She spent the year of the conference primarily engaged in two activities: dancing and playing cards. (And for this she was awarded a medal?)

In fact, that these two functions could be performed at all was testimony to several astonishing breakthroughs by the SURD team. Dancing demonstrated the full range of Telku's pseudobiological nature, illustrating her dexterity range of "human" movement in a way that no other activity could.

Long lines of distinguished roboticists formed to play cards with Telku. With her gambling skill, emotion simulation software, and full range of facial expression, she was an enjoyable albeit formidable opponent. Scientists were delighted whether they won or lost.

Despite the success of Telku and subsequent pseudobiological robots, such robots are rarely marketed commercially today. Research models are constructed by a number of firms and university consortia.



AB-101

AB-101,valet 561x2-A2-PM327-FDC3(J) Cr11,970,600 319kg Fuel=78.1 Duration=21.7 TL=15 20/50 (Jack) Head(10%) 2 Lt arms 2 Eyes (+1 light intensify), 2 ears, voder, touch sensors Power interface, brain interface, TL15 holo recorder Lt laser welder Medical—1 Linguistics—1 Vehicle—1 Valet—1 Laser welder—1 Rescue—1 Emotion Simulation

AB-101 is an experimental pseudobiological robotconstructed in 1090 by the well-known roboticist Dr. Theodor Krenstein of the Rhylanor Institute of Technology in the Spinward Marches. Dr. Krenstein calls "Aybee" his "grand experiment in robotic learning".

Dr. Krenstein and Aybee attended the Shudusham Robotics Conference in 1104, where Aybee made quite a stir. While Aybee was not the first convincing pseudobiological robot to attend the Conference (the robot Telku holds that distinction), Aybee exhibited some impressive innovations in robot brain design using heavy synaptic processing.

101 Robots Now . . . from the authors of *Book 8: Robots*

Here under one cover are 101 different robots for use in Traveller games. Every single robot comes with a complete description, an official Universal Robot Profile, and an illustration. You will know what each robot can (and can't) do, what the robot looks like, and what the robot costs.

If you're just starting to design your own robots, this book has more than a hundred examples. If you already have several designs of your own, here are 101 more to add to your campaign.

Whether you're a Traveller player or a referee, 101 Robots gives you all the robots you need to know what life is like at higher tech levels. Robots include—

• Imperial Robots: Designs both common and uncommon that characters can encounter within the Imperium.

• Alien Robots: Robots from all the major races that construct them: Aslan, Zhodani, Vargr, K'Kree, Solomani, and Hiver.

• Warbots: Battlefield robots of all races, designed to search out and destroy the opposition.

• **Dumbots:** The most common robot encountered, good at only one thing, but good enough at that.

• Pseudobiological Robots: At higher tech levels, robots that are "just like the real things".

• Expert Robots: Machines that know as much as sentients, able to perform tasks that take "real intelligence".

• Design System Examples: Robots that show just how to use the robot design system in *Book 8: Robots.*



• Encounter Robots: Robots corresponding to all of the robots from the encounter tables in *Book 8*, for easy-to-play robot encounters.

• Robot Devices, Sensors, and Weapons: Brand new custom devices for use with robots, including complete information on their installation.

• Robot Skills: Additional skills for robot programming, complete with CPU space and cost per level.

• Index: A complete index to all 101 robots.

For Use With Traveller

This module is intended for use with *Traveller*. It requires that you have a copy of the *Traveller* rules, paper, and pencil.

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