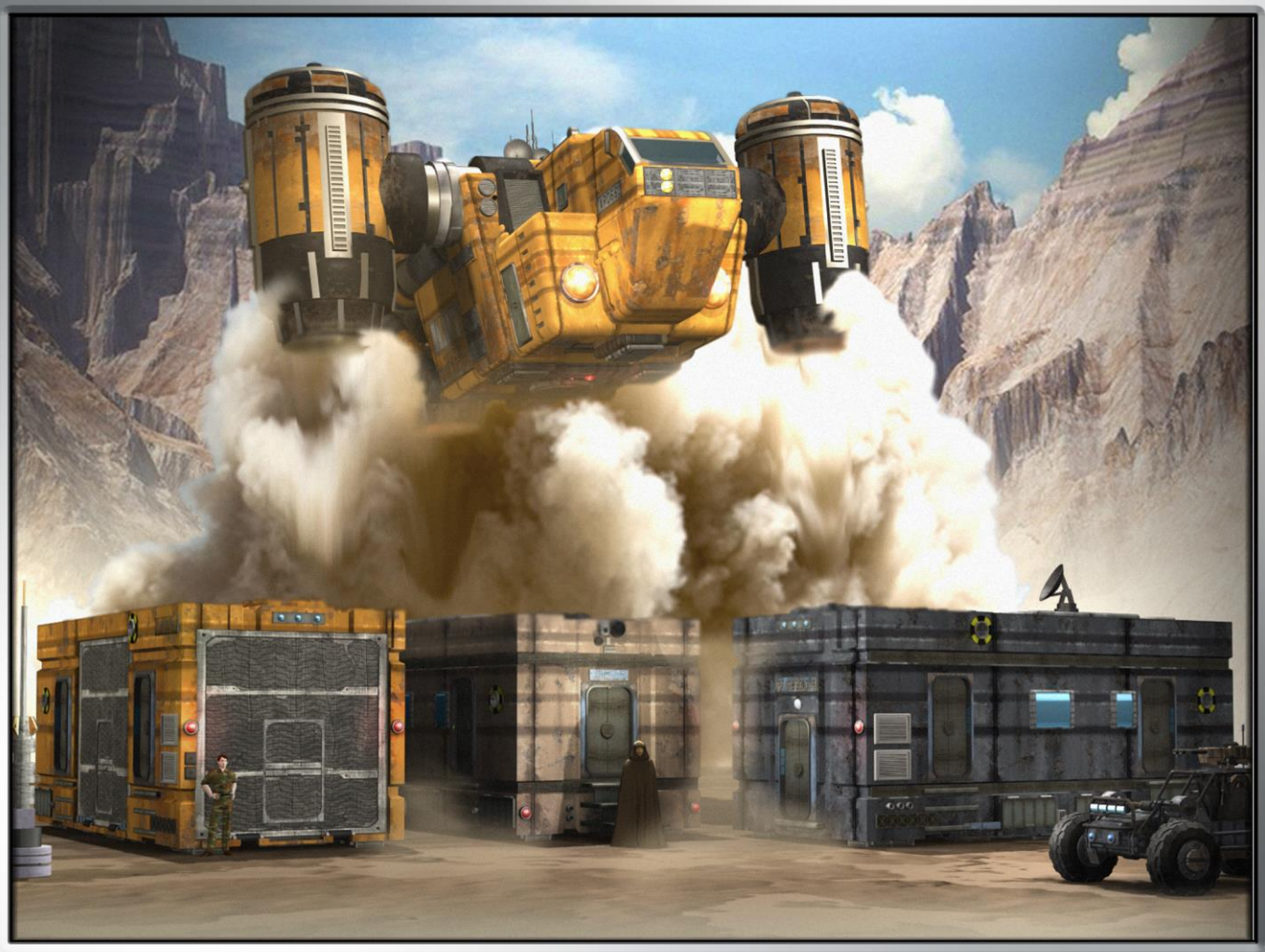
FUTURE ARMADA

DELUXE STARSHIP DESIGNS



COLONY PODS

AND TRI-TOAD

20B

Uses the Open Game License to present familiar stats for ship & crew.

OGL

SCI-FI

Future Armada: Colony Pods

by Ryan Wolfe of 0 hr: art & technology
0-hr.com

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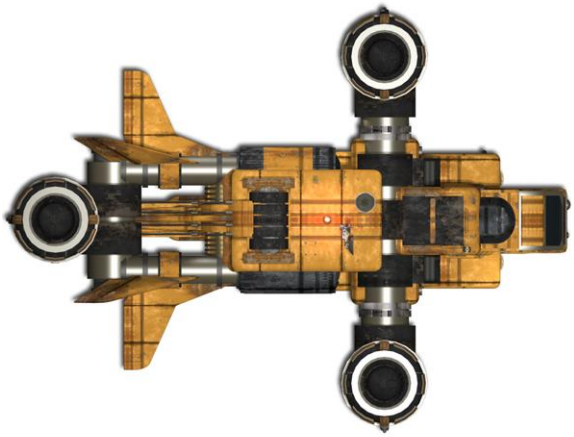
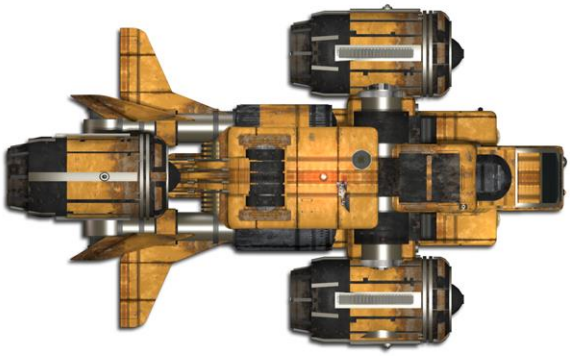
Overview

A few years back, the R&D division at Hyperion Manufacturing & Transport found another market for the ubiquitous HMT cargo containers. These containers have become the standard in modular cargo – allowing freight (and passenger) containers to be hauled efficiently by a wide variety of ships and vehicles. With the new "Colony Pods", the containers can now also serve as permanent, cheap housing.

This document presents a handful of pods developed specifically for this purpose, though other pods can also be mixed in as desired. It also presents a variant ship design created to carry and place these (or any other) HMT containers.





On the maps each square is equivalent to 5 feet unless noted otherwise. They can instead be interpreted as 1.5 or 2 meters if that will work more easily for your game system of choice.

Colony Pods

There are many different types of HMT 337 compatible containers, from empty metal boxes to passenger transports to deluxe hotel-like suites. Described here are a set of prefabricated units for a modular colony or base.

Each container is 35 feet long, 15 feet wide, and 15 feet high, taking up 75 displacement tons of space. The bottom of the container has simple landing skids. Both top and bottom have electromagnetic plates to help with alignment and stability, as well as couplings to attach to external power and life support systems (to conserve or recharge the container's systems).

Most of these habitable containers are built with the living space floor level about 4 feet above the ground. The crawlspace beneath this contains power, temperature regulation, and water/sewage systems. There are also basic atmospheric filters and scrubbers. While the pods are air tight and pressurized for space travel, they are not designed to be permanently deployed in vacuum or extreme environments without additional support facilities. For outposts larger than a few pods it is standard procedure to attach external power and water supplies to supplement the onboard systems regardless. The pods do not have artificial gravity generators or long-term air supplies.

For their given perimeter, these containers have a large number of doors. There is one on each end and two on each side. All are study pressure doors meant to withstand vacuum. These are in the same place on each container and designed to match up. Each has a retractable collar which can form an air tight seal with another. Once in their permanent location, it is typical to remove one of the doors altogether. Other doors will often be locked semi-permanently to allow for more useful interior space. An indicator near the opening mechanism denotes weather a door is unlocked, locked, or blocked (meaning there is furniture or something similar permanently obstructing the far side – or it is an exterior door without stairs in place).

Five of the side doors are at "floor level", which is about 4 feet above the ground. There are retractable stairs on the exterior of the pod that make it easy to use the doors. These can be collapsed into a ramp if desired. The sixth door, at the back end of the container, is at ground level in accordance with HMT standards. Inside the pod are a few stairs leading from the living space floor down to this back door. The containers are designed to allow this door to be slid up to floor level if needed. The transom area can be relocated (with proper tools) to the bottom of the door and a floor panel can be laid over the stairs. This modification is done when the sixth door needs to line up with a door that is not at ground level. More often than not, however, it is easy enough to match up low doors or just leave the low doors as exits to the outside.

Because the side and front doors of a colony pod will match up with the front door on any HMT 337 container, a colony can make use of any existing pod – it is not limited to just the configurations presented here. The "Office", "Prisoner Transport", and "Medical Bay" from the Sherpa document could all be useful in a fledgling colony (with the Prisoner Transport serving as a jail).

Around the edge of the pod narrow skirt panels near the ground can be slid down to prevent vermin from getting beneath the pods (as there is often a few inches of clearance from the landing skids depending on how soft the ground is). These skirts, as well as a couple of other bands higher up, are made of a conductive material insulated from the rest of the pod. They can be selectively electrified (at varying levels) to further deter unwanted guests.

All windows in these pods are equipped with pull-down metal shutters. These add some security but are mainly intended for privacy as sometimes when pods are placed against each other you can end up with a window looking from one room of a house into another.

Studio Apartment

This pod (a box intended for permanent habitation is usually called a pod rather than a container) is designed as a stand-alone dwelling for a single person. It can serve as housing for two with the addition of a larger (or bunk) bed.

The bed room contains a closet and workstation as well as the bed and dresser. The main room is divided into a video lounge – with an overstuffed couch on one side and a large screen mounted on the opposite wall – and a kitchenette. The bathroom includes a shower. The back end of the container holds a small storage room on one side and a food storage unit on the other.

Bedrooms

Two sleeping chambers take up the majority of this container. Designed with families in mind, the larger room is equipped with a pair of bunk beds (or a triple bunk) by default while the small, more private room has a single larger bed. Like the Studio Apartment, the forward room contains a closet and workstation and the bathroom is equipped with a shower.

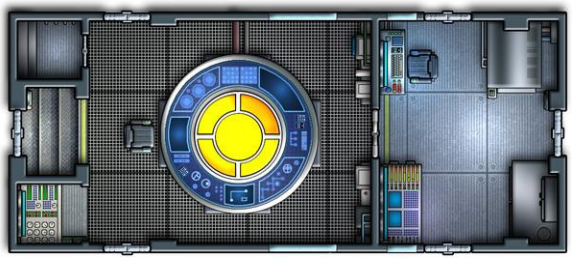
At the aft end of the container are two small storage rooms. There are no lounge, kitchen, or eating areas in this pod as it is meant to be mated up with at least one other pod to fulfill these needs.

Kitchen & Living Room

This pod is almost always connected to other living quarters. It provides a spacious kitchen with a large dining table and all of the amenities. Along one wall is a counter with a built in sink, food refrigeration unit, and stove/oven. The storage rooms at the back end of the pod have separate temperature controls so they can serve as pantries or freezers.

The front end of the container is a living room or lounge. It holds an overstuffed chair, couch, and video entertainment unit.

Generator



A self-contained gravitic fusion reactor is the centerpiece of this container. Even though the reactor is a refurbished model from Hyperion's shipyards, this is still a very expensive pod. A single generator can power a large town, though colonies will sometimes have a second reactor as a backup or if power requirements are severe (as for colonies in a vacuum or other extreme conditions).

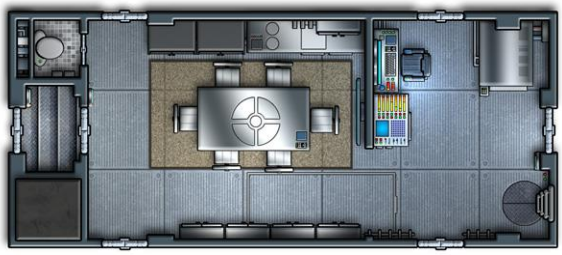
Solar power is a popular option for many colonies and this pod layout can also represent an energy storage and regulation node for such a system. The solar panels themselves would cover a large area nearby and be connected to this pod (and the colony power grid) via cables.

This same map could be used to represent a shield generator as well since the interior is the same, though the pod itself would have a large antenna/dish array on the roof or nearby. There are several types of shields and protective fields available. Many colonies can benefit from basic radiation shieling. Others may require protection from micrometeorites (much as starships do) and still others might find it worth the expense to install ECM screens or military grade protection.

The main room of this pod contains the reactor, capacitor, or shield generator and its primary diagnostic and control systems. There is a supply closet filled with tools and parts against the back wall. The other room contains secondary controls and utility systems. This area can be used to monitor the colony-wide power grid and other systems. There is a laundry unit here as well.

Note that this pod has the usual "crawlspace" jam packed with environmental and other systems beneath the floor. The area is completely filled by these systems and the additional equipment needed to support the generator and its hook ups.

Utilities

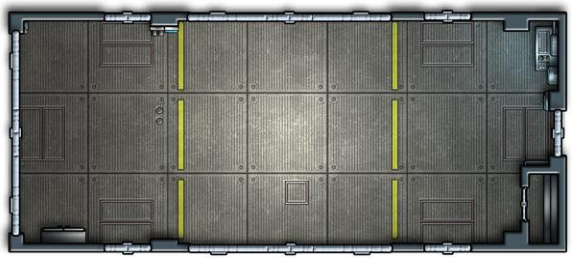


Originally designed as a Connector without stairs (though stairs can come up into the pod if the floor panel is removed), this pod was further developed to serve as a general utility room. At the font end is a laundry unit, work station, and small fabrication station. The central part of the chamber has a work table (also good as a conference or gaming table as it has a built in holographic projector) and more general equipment which can make this area anything from a machine shop to an electronics work room to a kitchen. Cupboards and storage cabinets line the walls.

At the back end of the pod is a tiny restroom. The rear exit in this pod is built to function as a small air lock and decontamination chamber, though it is still perfectly usable as a normal means of egress to the outside or an attached container.

Like the original Connector Pod, this pod has a ladder and hatch in one corner – allowing access to similar pods above and below, or just to the roof. It also lacks windows and homey décor but is built to serve as an external wall for an outpost if needed. The Utility Pod is a very popular option for connecting earlier models of HMT 337 containers as the side doors allow for efficient layouts and the versatility of the room complements just about any structure.

Garage

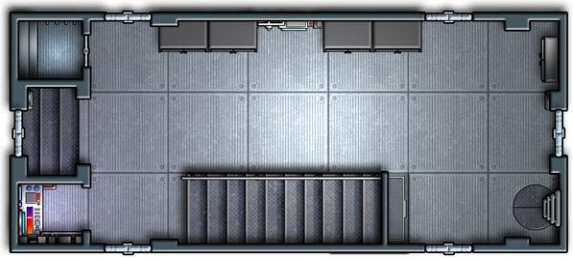


Unlike the other Colony Pods, this one has its floor level with the ground. There are very minimal environment and power systems built into the roof, but they do little more than open doors and turn on the lights. The purpose of this container is to store a vehicle or act as a cargo hold. The ceiling is 13 feet high. The three garage doors are 13 feet wide as well. Like the smaller doors these are reinforced and secured with the idea that this pod may form the outer wall of an outpost or colony. The large garage doors have smaller doors inset. These can mate up with the doors on other containers but must be at ground level.

Because the floor is at ground level, each human-sized door has a set of collapsible steps built into the floor in front of it. With the proper tools and about half an hour of work, the small doors can be repositioned and the stairs raised up so the doors will match up with the floor level common in the other Colony Pods. Often though, pods can be arranged so that the stairs down to ground level in the other pods mate up with the lower doors in the Garage Pod.

The two large garage doors opposite each other allow this container to function as an ad hoc gatehouse. This is pretty typical if a colony is laid out with a wall of garage and connector pods as its perimeter.

Connector



The purpose of this container is to attach to and allow easy access to other pods. It also provides some additional storage and can be used as living space if needed, though the bare metal walls and lack of windows makes it a bit unwelcoming.

These units along with the “garage” pods are designed to form the perimeter wall of most outpost designs and so they are built to be more study than comfortable. The walls and doors have extra reinforcement and all exterior access points can be secured. It isn’t too difficult for a human to climb the side of one of these pods, but they do effectively block most wildlife an vermin. Colonies which need more security will often string razor wire along the top edge or electrify bands of exterior plating to deter guests.

Another function of the connector pod is to facilitate the construction of multi-story modular housing. In one corner is a ladder connecting hatches in the floor and ceiling. A metal stairway serves the same function, though utilizing removable panels rather than hatches in the floor and ceiling. If there is not another connector pod above or below, then these hatches and panels are kept locked (unless access to the roof of the pod is desired).

This pod does have the usual systems underneath the floor, though they are the minimum required to maintain the interior environment. Because all of the colony pods can connect to one another a single-story layout does not necessarily need any connector pods. They are still useful, however, for allowing easy access to the “roof” of the colony or the top of an exterior wall composed of containers.

Sample Layouts

There are an infinite number of possible layouts using the Colony Pods – and keep in mind that other HMT containers can be added into the mix as well. A few sample layouts are provided here.

Medical Clinic

On this page are two sample structures. The first (on the left) is two stories high. This layout demonstrates how to use the old HMT containers, from issue #13 of *Future Armada*, with the new connectors. This building is a small hospital or medical clinic with offices and a surgery bay on the first floor and recovery beds on the second. The garage could store an emergency vehicle. On the upper floor, the utility pod is used as a lab and the kitchen is used to prepare food for patients. The lounge is used by medical personnel or as a waiting room.

The hollow space in the middle of the building would likely be filled up with support equipment and storage tanks. A third story could be added if desired, though higher than that could lead to stability issues. Any exterior doors on upper levels would be permanently locked and signed.

Family House

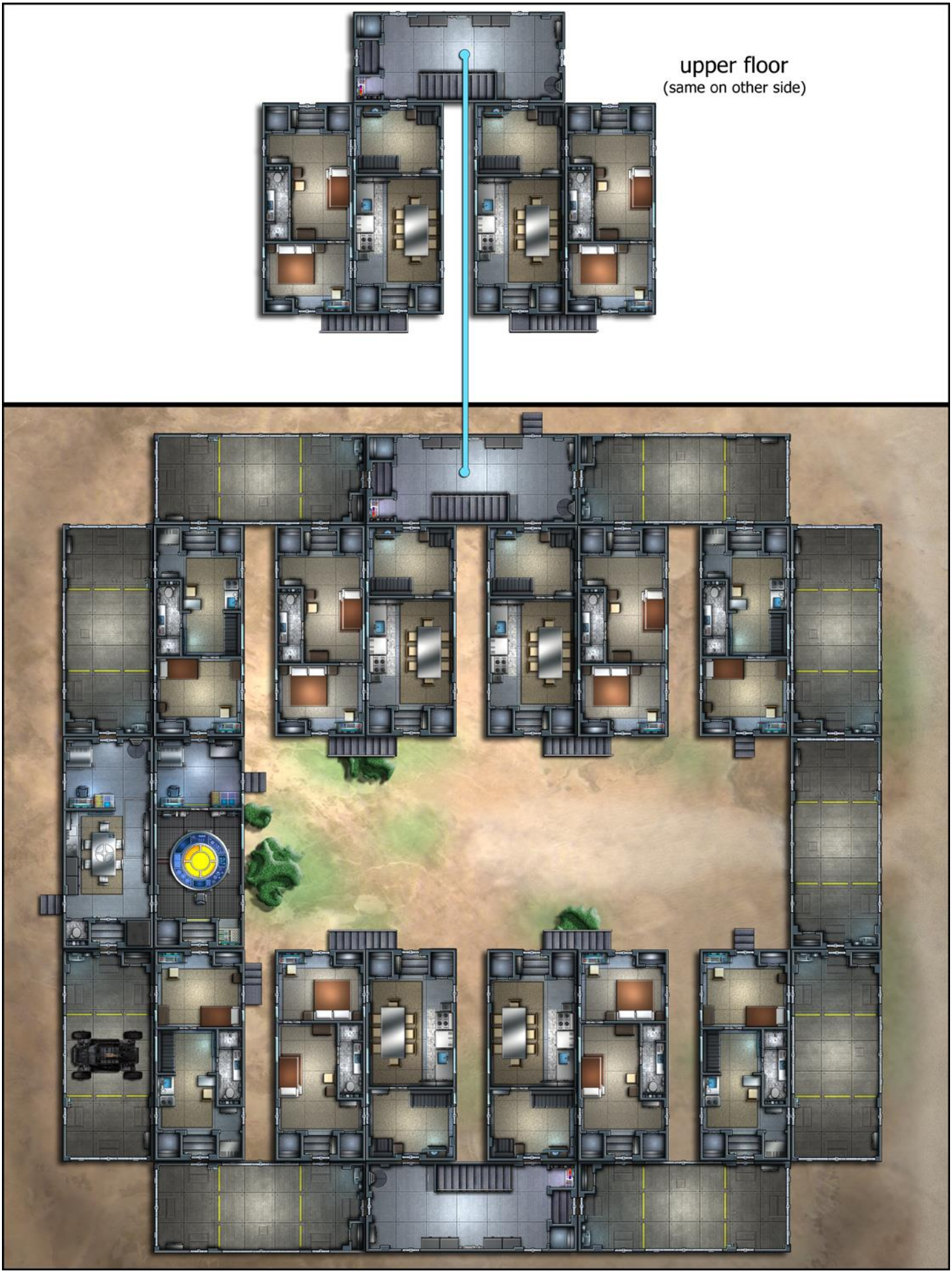
The structure on the right side of the image is a typical “house” build out of Colony Pods. It can comfortably hold a family of 4 or 5 and the inner courtyard can be used as a garden or safe play area.

Twelve Household Outpost

On the following page is a larger outpost. It is laid out defensively, using Garage and Connector Pods as an exterior wall (and another Garage Pod as a gatehouse). At ground level there are four studio apartments and four family units (a Bedroom Pod and adjacent Kitchen/Lounge), with another four family units on the second floor. Each of the ground level dwellings has an attached garage for storage.

Note that the Connector Pods are public areas, much like the hallways in an apartment building would be. This outpost has its own power generator. The utility room next to it is also part of the outpost infrastructure (rather than being considered part of any dwelling).

Any of the family dwellings could be replaced with legacy HMT containers if desired. This could be done add a clinic, offices, or jail to the outpost, for example.


upper floor
(same on other side)

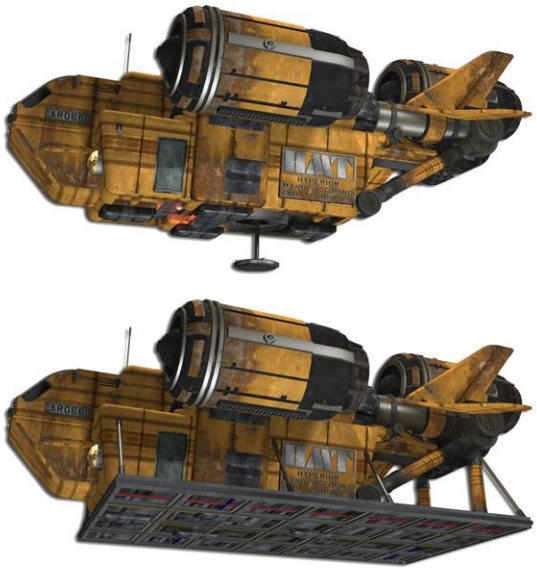
The Tri-TOAD Variant

The Anura-class military transport was developed to quickly deploy and recover a platoon of troops or recon team and vehicle on the battlefield. Known more commonly by the acronym T.O.A.D. (Transport for Omniphibious Advanced Deployment), these sturdy craft employ massive, rotating engines for high-G vertical take off and landing. The armored Toad hull is designed to land on anything from solid ground, to swamp, to calm water; and can maneuver in space or atmosphere with equal agility. Facilities are provided to support a crew of up to four for an extended period of time. The engines are almost completely self-contained, having just the fuel feed and rotational couplings embedded in the main hull.

Because of the power-over-efficiency design, spartan interior, and deafening operational noise, the Anura-class has not been widely adopted for civilian use. Hyperion Manufacturing & Transport is the only major civilian contractor to employ these ships, and that only in frontier worlds far from regulations and oversight.

In order to construct an outpost built of HMT containers, precise placement is needed. The common Sherpa-class freight haulers are excellent at moving and placing containers but cannot place or retrieve a container from between or next to other containers. In order to do this a ship cannot have any structural elements or engines in the space in front, back, or to either side of a container. In other words, the hauling ship has to be entirely above the container it is placing or retrieving.

The TOAD variant 3 was thrown together with this in mind. More commonly called a Tri-TOAD because of its triple engines, this ship has an extremely powerful electromagnet embedded in its belly. Coupled with the magnetic systems on the roof of an HMT 337, this allows the Tri-TOAD to securely haul containers. The electromagnetic disc is on a reinforced cable attached to a powerful winch system and the ship's frame. While this set up allows for a high degree of precision and can easily place a pod up against others, it only allows the Tri-TOAD to carry one pod at a time.



To more quickly move a large number of pods to a construction site another system was developed. This modification involves attaching a massive electromagnetic plate to the bottom of the Tri-TOAD. The plate is bolted to the underside of the ship and stabilizers are attached to the sides to help keep everything level. When powered up this plate can securely adhere to the roof of a container and allow the Tri-Toad to carry it off. The plate is large enough to completely cover four HMT 337 containers placed next to each other. It can carry more if they are allowed to extend beyond the perimeter of the plate but this is only advised in low-gravity situations where the decreased coverage (and thus decreased holding power) is not an issue.

Maneuverability and speed are severely limited when carrying multiple pods though this is somewhat offset by the addition of the third engine. Also because of this additional engine, the range of the ship is less than its predecessors.

Note that the guns have been removed from the ship, though the smoke screen capability remains. The anti-gravity generators have been upgraded so that the ship can hover for short periods with minimal thrust (and so minimal engine wash being directed downwards towards the placement site).

TOAD v3

Progress Level	7	**Size**	Gargantuan (-4 size)
Type	Ultralight	**Tactical Speed**	3,500 ft. (7 squares)
Subtype	Transport	**L x W x H**	80 x 62 x 31
Defense	11	**Tonnage**	373
Flat-footed	9	**Targeting Bonus**	+0
Autopilot	-	**Crew**	3 (trained)
Hardness	40	**Passenger Capacity**	1 (plus 12 in bay)
Hit Dice	15d20 (300 hp)	**Cargo Capacity**	30 register tons in bay
Initiative	+4	**Grapple Modifier**	+8
Pilot's Class Bonus	+3	**Base Purchase DC**	52
Pilot's Dex Modifier	+2	**Restriction**	Restricted (+2)
Pilot's Attack Bonus	+2	**Grappling Systems**	None
Engines	Particle Impulse Engine, Thrusters	**Armor**	Neutronite
Sensors	Class IV sensor array	**Communications**	Mass transceiver

Defense Systems	improved damage control (2d10), light fortification, radiation shielding
Weapons	none

Attacks	none
Attack of Opportunity	none

TOAD v3

10 ft

TOAD V3

SIDE

BACK

10 ft

Interior Areas

The interior of the Toad v3 is identical to the version 1 ship.

Cockpit

The cockpit is functional but not fancy. There are seats for the pilot and co-pilot and a good forward field of view through the large canopy.

Operations

This area has a station for a single operator to monitor communications, sensors, and electronic counter measures as well as engineering functions. There is an exit hatch in the starboard wall and a hatch in the floor which leads to the lounge below.

Quarters

The aft end of the top deck is a low-ceilinged cabin with bunks and lockers for four. A ladder leads up to an exit hatch in the ceiling and life support systems are accessible on the aft wall.There is a small restroom facility with a toilet and a sink – the latter having a detachable faucet to serve as a hand-held shower.

System Access

At the forward end of the lower deck is a cramped area that allows access to the sensor and guidance equipment in the nose of the ship. Belt fed ammunition for each mass cannon is also loaded here. The remaining space is used as a general storage closet.

Lounge

This large room contains a table, bench, and large video screen. A weapon rack and food & beverage dispenser are built into the bulkhead. Doors on either side allow access to the outside and a ladder leads up to the operations area. Note that the Toad does not have an air lock, though sections of the ship can be individually pressurized.

As with the other furniture on board, the fixtures here are bolted in place. While the seats at the table can rotate and slide, they cannot be moved from their rail along the side of the table. This area is meant for use by the crew but can also be employed to carry additional troops or gear.

Bay

The cargo bay is big enough to easily hold a vehicle or platoon of armored soldiers. Three equipment lockers along either wall can store additional gear. Most of the rear wall is a ramp which can be quickly dropped to allow for rapid deployment.

The Toad's engines can be set to generate a hot, white smoke capable of obscuring normal and IR vision. Though it dissipates quickly, it can provide cover for troops as they disembark.

Typical Crew

Smart Ordinary 1 / Dedicated Ordinary 2

CR 3; human; HD 1d6+2d6; HP 11; Mas 10; Init +2; Spd 30 ft; Defense 14, touch 14, flatfooted 12 (+2 Dex, +2 class); BAB +1; Grap +1; Atk +1 melee (1d3, unarmed), or +3 ranged (2d8, laser pistol); AL ConFed;
SV Fort +2, Ref +2, Will +3; AP 1; Rep +2;
Str 10, Dex 14, Con 10, Int 12, Wis 11, Cha 10

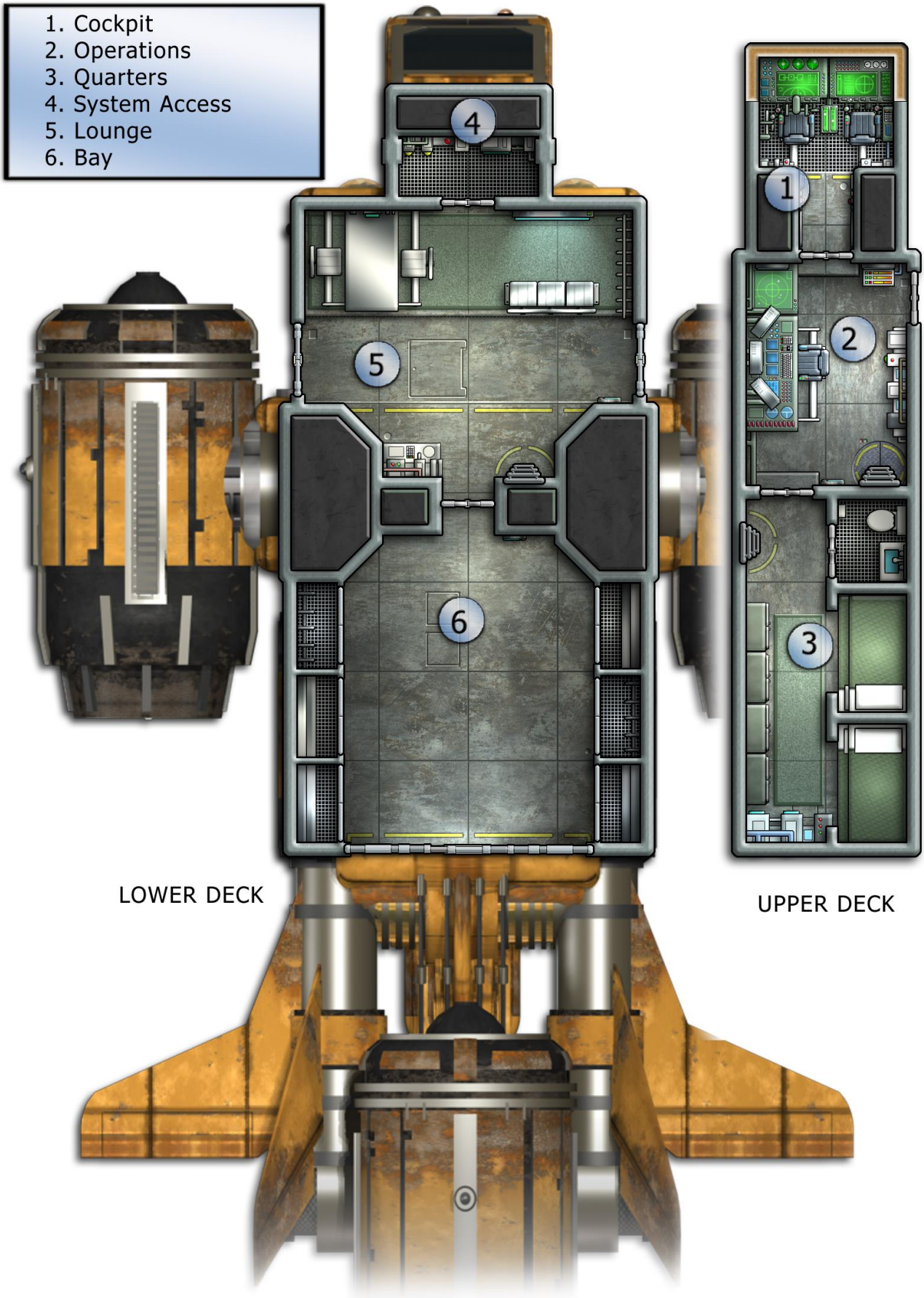
Occupation: Military (Navigate, Pilot)

Skills: Computer Use +4, Craft (Electronic) +5, Craft (Mechanical) +4, Craft (Structural) +4, Knowledge (Physical Sciences) +4, Knowledge (Popular Culture) +4, Knowledge (Tactics) +4, Knowledge (Technology) +4, Navigate +4, Pilot +4, Profession +4, Repair +4, Research +4, Spot +4, Treat Injury +4

Feats: Personal Firearms Proficiency, Simple Weapons Proficiency, Armor Proficiency (light), Starship Operations (Ultralight)

Possessions: Light Combat Armor, Laser Pistol; Wealth +6

1. Cockpit
2. Operations
3. Quarters
4. System Access
5. Lounge
6. Bay



LOWER DECK

UPPER DECK

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