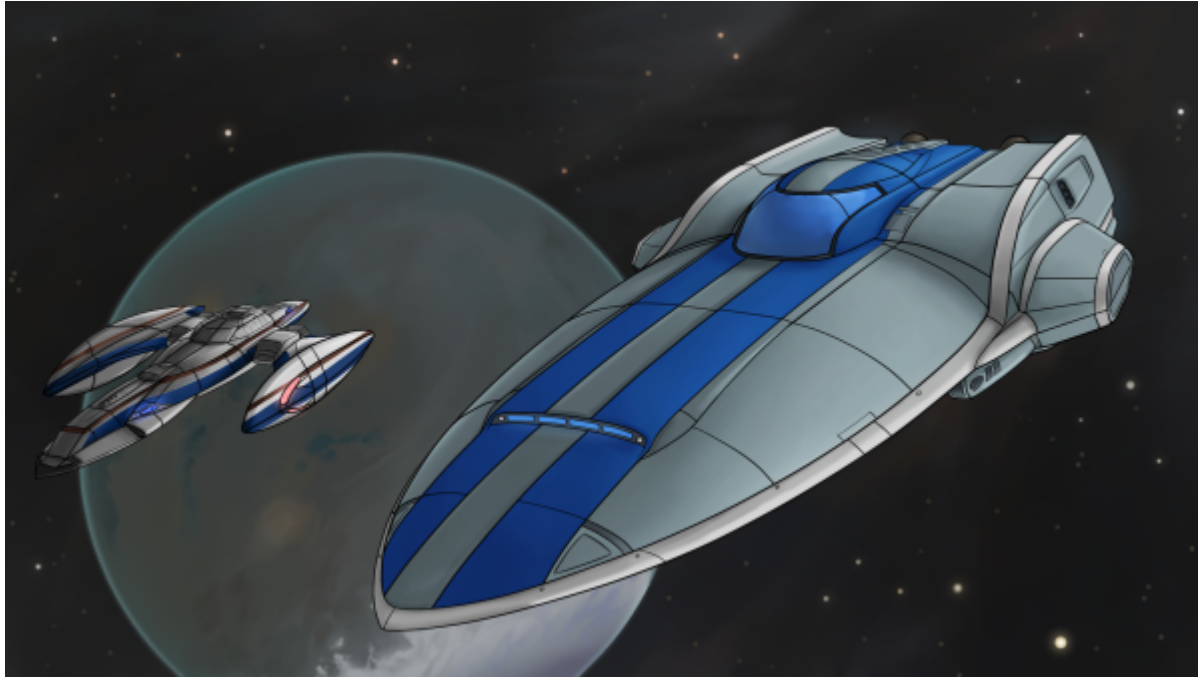


Midori EX-40 Exploration Yacht

The Midori EX-40 is a custom modification of the [Princess Class Yacht](#) with a focus on exploration.



History

In [YE 40](#) professional explorer Midori-sensei took a [Princess Class Yacht](#), due to its low cost and ease of maintenance in the field, and extensively modified it for an expedition. The expedition itself was not noteworthy, but after its completion, Midori-sensei made a limited run of the customized ships for people who expressed interest in the design. The design saw some popularity in the amateur explorer community.

In [YE 45](#), Midori-sensei published the modification process, allowing anyone with access to a Princess Class and a sufficient maintenance facility to create their own.

Description

The Midori EX-40 is based on the [Princess Class Yacht](#), and has many similarities. However, with extra room devoted to exploration gear, the ship is slightly less luxurious than the standard Yacht. Instead, it gains additional utility features. It has better landing capabilities and sensor equipment, but it is even more poorly equipped for combat than the original.

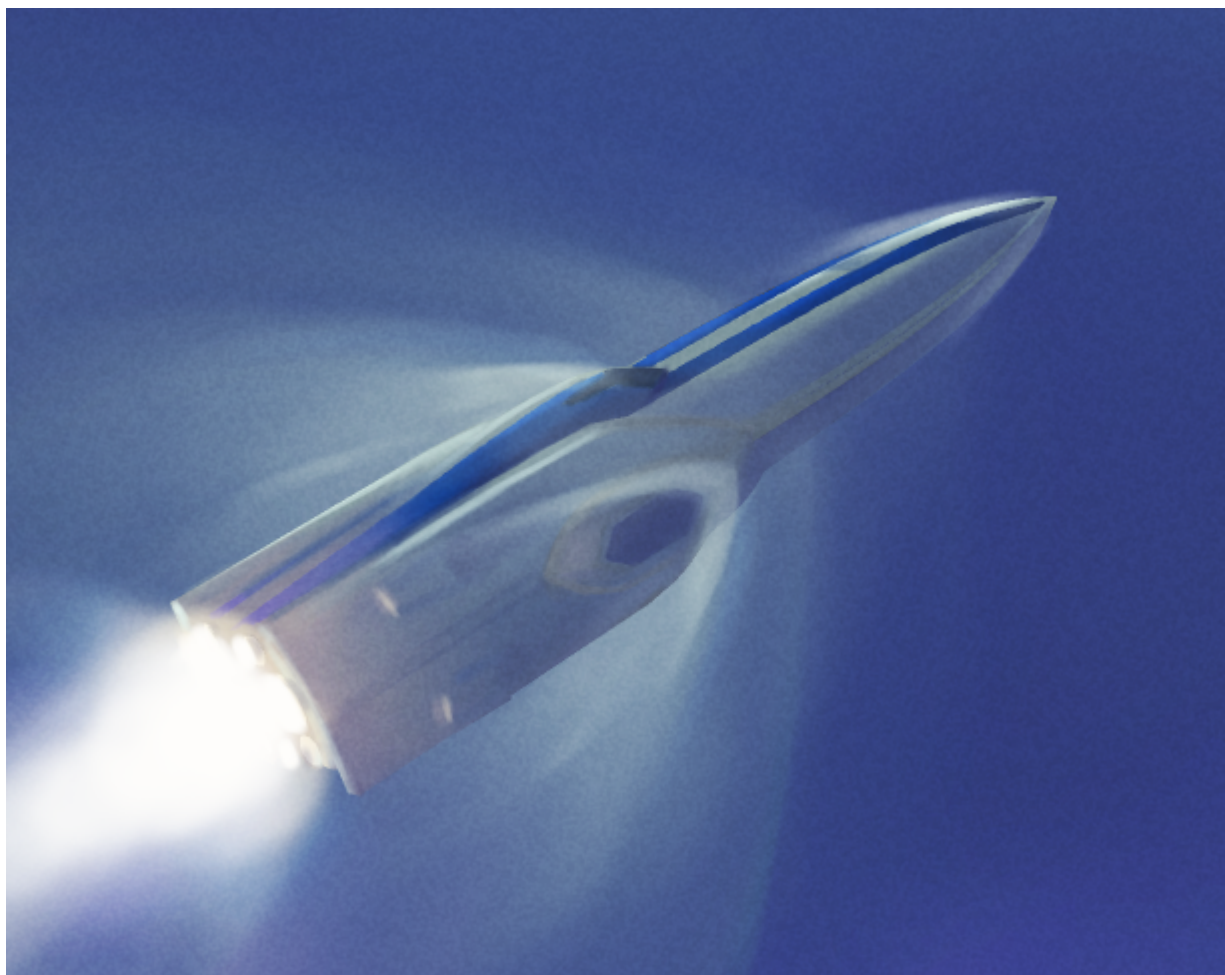
Mission Specialization

This ship is for private citizens who want to experience the thrill of exploration. Like going to a national park to experience wilderness, one can take the Midori EX-40 to a nearby uninhabited planet and visit untamed lands.

- Easy to maintain
- Easy to pilot
- Fast

Appearance

Like the [Princess Class](#), the Midori EX-40 has a long, narrow teardrop shape, reminiscent of a blade on the fore half. The teardrop shape blends into a flanged thruster block on the aft half. Docking booms extend to port and starboard, and a dome shaped bridge section is on the dorsal side. Slung under the docking booms are a pair of weapon pods.



Statistics and Performance

The Midori EX-40 is roughly equivalent to the [Princess Class](#) in performance. An original limited edition Midori EX-40 will likely cost several times more than a standard [Princess Class](#) due to its rarity, however, making the modifications personally is much less expensive.

General

General Statistics for the Midori EX-40	
Year Introduced	YE 40 (limited), YE 45 (public)
Class/Nomenclature	OI-Y1-1B
Alternative Nomenclature	Midori EX-40 Custom Hime
Designers	Midori-sensei
Manufacturer	Origin Industries
Fielded By	Civilian Use
Range	Indefinite, 1 year without in-situ resource utilization
Maintenance Cycle	1 year
Lifespan	Indefinite, with proper maintenance
Pricing	67,500 KS and up

Passengers

Crew: 3 operators are recommended, 1 is required.

Maximum Capacity: There are accommodations for 10 to 12 people. Modest temporary accommodations can be set up for an additional 10 people. About 200 people can fit aboard in an emergency, but the ship would be extremely cramped.

Dimensions

- Length: 100 meters (328 feet)
- Width: 45 meters (148 feet)
- Height: 16.5 meters (54 feet)
- Decks: 4 (3 meters each)

Propulsion and Range

- Continuum Distortion Drive: 14,200c
- Hyperspace Fold Drive: .5ly/min
- Sublight Engines: .42c
- Range: 1 year constant travel
- Lifespan: indefinite, with proper maintenance

- Refit Cycle: yearly

Damage Capacity

DRv3 Tier: (Light Starship)

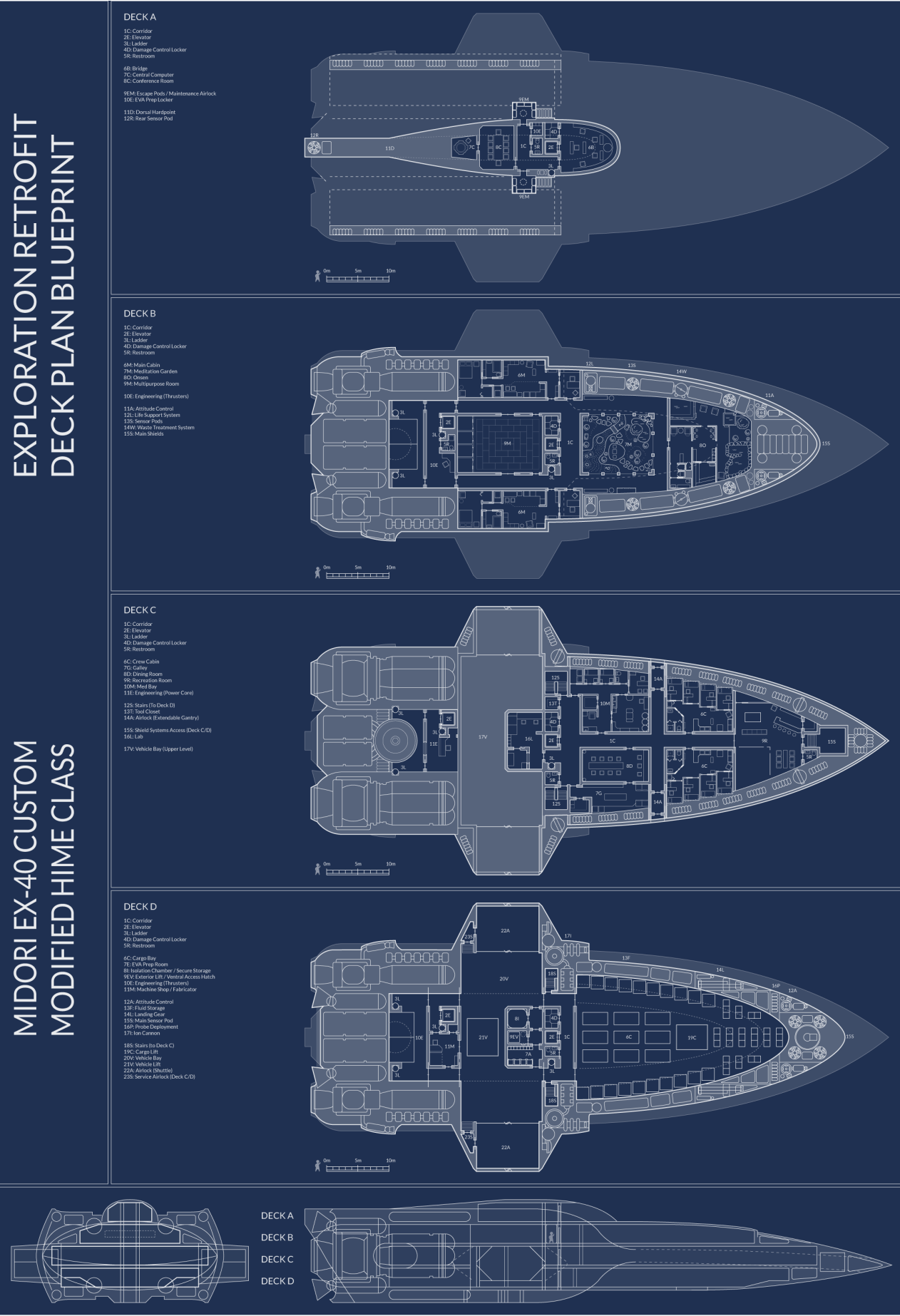
As an [unarmored](#) civilian craft, the EX-40 takes damage at one tier worse than its rating.

Inside the Ship

The EX-40 has a drastically different interior layout than the [Princess Class](#).

Deck Layout

The EX-40 is a four-deck vessel. It is equipped with facilities for long duration voyages and planetary excursions.



Compartment Layouts

In addition to specialized compartments, each deck has a centrally located damage control locker, restroom, corridors wide enough to pass others without making room; and access to other decks via a central lift, an engineering lift in the aft compartments, and multiple access ladders.

Deck A

The upper deck is focused around command, administration, and operations.

Bridge

Some models feature a drastically reworked bridge layout, while others only have the altered exterior form.

Escape Pod Bay

Aft of the bridge are two airlocks, 1 port and 1 starboard, each with 6 [Type 43 "Ikigai" Escape Pods](#). The pods are mounted on a rail that loads them into a launching mechanism in sequence. These airlocks also have exterior hatches for performing maintenance.

A small closet with EVA equipment is directly adjacent.

Conference Room

Added behind the bridge to coordinate between command and the entire crew. This addition pushed some of the other Deck A facilities aft-ward.

Deck B

This deck is focused around the upper tier living quarters and recreation facilities.

Main Cabins

Smaller and less luxurious than the cabins on the [Princess Class](#), they still feature all the basic amenities. An open living room and kitchenette, laundry, bathroom with large tub, bedroom, and attached office.

Meditation Garden

While on a long voyage into space, it is a place to calm the mind and experience some of the tranquility of nature. Climate controls can imitate a variety of weather conditions inside. It can also be repurposed as a garden for growing food in a pinch.

Onsen

One luxury not featured in the original [Princess Class](#) is an extensive onsen area. With space for changing and washing, three different temperature baths, a sauna room, and massage chairs. There is small laundry and storage area for things like towels.

Multipurpose Room

Made to be quickly reconfigured for different functions. It can act as a gym, a sparring area, a place to conduct ceremonies, or a place to house unexpected passengers at a moderate level of comfort. Large storage compartments on one side hold the different supplies needed for each configuration.

Deck C

The deck is focused on crew quarters and more practical operations.

Crew Cabins

The maximum crew of eight is divided into two blocks, each with their own small kitchenette, living room, laundry, and bathroom. Every crew member has their own small sleeping quarter with work desk and storage closet.

Galley and Dining Room

While the different cabins have some kitchen equipment, if someone wants to prepare a proper meal, they can use the professional quality galley. It has walk-in cold storage, multiple ovens, decent working space, and a wide assortment of implements. The attached dining room can comfortably seat the entire standard crew complement.

Recreation Room

At the end of the crew cabin area is a rec room. Smaller than on the original [Princess Class](#), it still has a bar, table for various games, a theater system, and a small scale volumetric system.

Medical Rooms

The medical center isn't as extensive as the one on the [Princess Class](#), but it is focused more toward treating serious injuries. There is a fully equipped primary treatment room for big operations. But for most smaller problems there is a more accessible first aid station. It has its own dedicated storage and sanitation area, a couple of cramped recovery beds and an office reserved for a doctor, should the crew complement include one.

Gantry Airlock

An extendable umbilical gantry helps facilitate docking with small craft when the vehicle bay is full, or the other craft are too large to fit inside.

Science Lab

Although many amateur explorers do not make full use of it, Midori-sensei included a functional science lab, with a focus on sample analysis.

Deck D

This deck is focused around the more industrial requirements.

Cargo Bay

The cargo bay has an additional dedicated cargo lift, crane, and [scalable graviton beam projector](#), making it somewhat more cramped than the original [Princess Class](#).

Vehicle Bay

Running from Port to Starboard, it is narrower in the center than the sides and only smaller vehicles can pass through the entire length.

Machine Shop and Fabricator

Just aft of the vehicle bay is a small machine shop for repairs and the fabrication of replacement parts in the field.

EVA Prep Area

A dedicated prep room has lockers for personal gear and several larger pods that can house small scale power armor. As this is not a military ship, there is no dedicated armory, each crew member maintains their own equipment. A receptacle next to the exterior lift can send samples directly to the science lab. An armored storage room with an internal climate control system can be used to store potentially hazardous materials, and decontamination equipment can be employed in case of exposure to environmental hazards, though most amateur explorers won't need them. Sometimes the secure storage doubles as a brig.

Ship Systems

Armored Hull and Hull Integrated Systems

The EX-40 is constructed of a [Durandium Alloy](#) frame with a thin Durandium hull. This provides little to no protection against military weapons, but the light weight aids the ship's slower than light speed.

Computers and Electronics

The original EX-40 still uses the original [Destiny AI "Knight" Suite](#), though there are additions for better [SYNC](#) compatibility.

Emergency Systems

- [Type 43 "Ikigai" Escape Pod](#) x12
- Airtight bulkheads: All four decks and different compartments are separated by airtight bulkheads, and can be sealed off in case of damage. This makes the removable maintenance panels heavier than usual.

Life Support Systems

Environmental recycling system: The ERS system is very similar to that of the [Princess Class](#). New system filters can be fabricated in the machine shop.

Propulsion

FTL Propulsion: [Continuum Distortion Drive](#)

Hyperspace Fold Drive: The fold drive remains the same basic system as on the [Princess Class](#), although the placement and power supply components have been moved to allow easier maintenance

access. Make sure that all systems are disconnected before attempting maintenance.

STL Propulsion: The EX-40 leaves the [Princess Class's](#) Ion engines largely untouched, except for a few minor, more modern components. The ship's responsiveness at slower than light speeds remains a selling point.

Modular Docking Hardpoint

Aft of the bridge, the dorsal spine was reinforced to allow docking with a mothership. The default configuration is for the [Tanya-Class Expeditionary Heavy Cruiser](#), but can be reconfigured to accept other ships instead at a maintenance facility.

Shield Systems

The EX-40 makes some modifications to the [Princess Class's](#) shield systems. Although the output isn't any higher, it has better distribution compared to its predecessor's fore-heavy arrangement, at the cost of taking up more internal volume.

Weapons Systems

- [Ionic Pulse Cannon](#) x2 – [Damage Rating \(Version 3\)](#) Tier 10 (Light Anti-Starship)

The EX-40 modifies the standard fixed mount ionic pulse cannons with a variable convergence point mount. They gain better accuracy, especially at close range, at the expense of reduced heat dissipation and rate of fire.

Vehicle Complement

Shuttles

The standard configuration holds two [Onset Shuttles](#) inside the docking boom airlocks, but there are two additional landing pads in the vehicle bay, if not taken up by ground vehicles. This is lower than the Princess Class's carrying capacity of five shuttles, but Midori-sensei focused on ease of maintenance rather than capacity.

The hangar bay doors are just barely large enough to accommodate the [Onset Shuttle](#), but any shuttle smaller than 10 meters (33 feet) long and 5.5 meters (18 feet) tall can fit, such as the [Ge-T2-1E "Kuma" Medevac Shuttle](#).

Some EX-40 users have noted that if they fly a small craft in nose first, they can fit a shuttle up to 15 meters (49 feet) long by taking up two landing pads. However, this makes it impossible to close the inner

airlock doors, and is not a recommended usage.

Ground Vehicles

The vehicle lift can support any vehicle smaller than 6 meters (20 feet) by 5 meters (16 feet), such as the [Extended Wheelbase LSTV](#). However, larger vehicles such as the [Sagasu ATV](#) can disembark through the hangar bay doors.

OOC Notes

[icekatze](#) created this article on 2023/04/02 21:53.

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This was approved by [Andrew](#) on 2023/04/07¹⁾

¹⁾

<https://starmy.com/roleplay-forum/threads/midori-ex-40-custom-hime.70333/#post-437040>

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