



**MARITIME
ROBOTICS**

Enabling ocean
space autonomy



The Mariner X

Uncrewed Surface Vessel (USV)

The highly customizable payload platform built for offshore and coastal applications.

The Mariner X

THE MARINER X USV is a versatile vessel with enhanced endurance and payload capacity for advanced offshore and coastal operations. Its cutting-edge technology and design offers a truly modular USV with its leading autonomous functionalities and highly customizable back deck for mounting and integrating a wide range of payloads.

UNIQUE PAYLOAD CAPABILITIES

The Mariner X can carry and integrate a variety of payloads, depending on the application. The back deck has a railing system that allows for **easy mounting of custom payloads**. With two actuated moonpools, and two dedicated fixed-sensor positions, the Mariner X ensures high-quality data collection. The advanced **navigation and control system** enables seamless integration, communication, and situational awareness between the various payloads, the USV, and the operator.



BUILT FOR THE FUTURE

The hull is made of high-density polyethylene, offering a durable and **near-maintenance free construction** capable of withstanding harsh weather conditions. The Mariner X has a robust design, maximizing stability and providing optimal conditions for data acquisition. The Mariner X has a **large fuel capacity** allowing the vessel to operate up to 25 days without refueling. The vessel's core hardware and delicate equipment is housed in a temperature controlled radome, protected from harsh weather conditions.



SAFE NAVIGATION TOWARDS AUTONOMY

The Mariner X can execute autonomous and remote-controlled operations. The Maritime Robotics **Autonomous Navigation System** is tightly integrated with sensors and payload systems. It captures essential information, enabling **safe execution and oversight** of every operation. It can be controlled remotely or autonomously, according to a predefined mission plan. The vessel is equipped with a backup propulsion system, ensuring safe navigation.



OFFSHORE monitoring and surveying

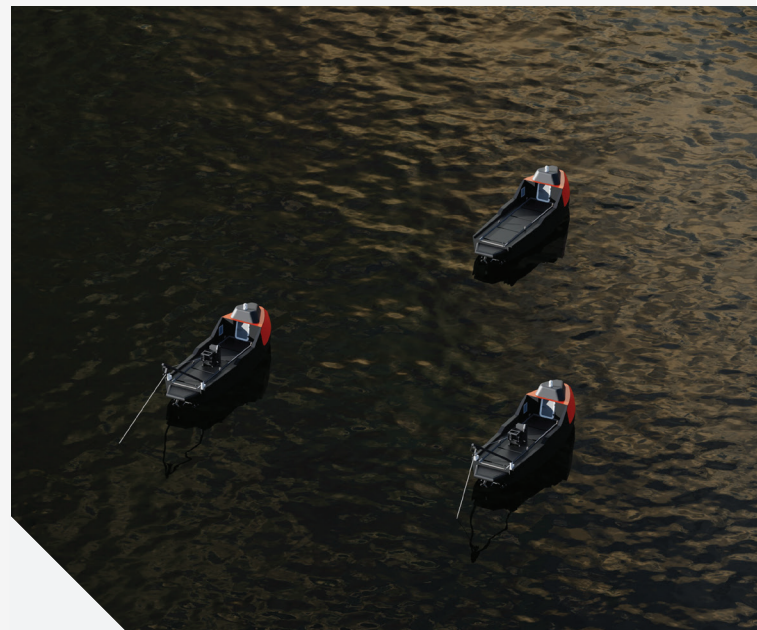
The Mariner X can be used for patrolling and monitoring offshore structures such as pipelines, platforms, and wells. It can integrate payloads like high-resolution cameras, sonar systems, and other sensors to collect high-quality data in real-time.

ROBOTS helping robots

The Mariner X can serve as a support vessel for Autonomous Underwater Vehicles (AUVs), Remotely Operated Vehicles (ROVs) or other robotic systems. It can for example carry and deploy AUVs for underwater exploration and research. The large back deck and rail attachment system allow for the mounting of various Launch and Recovery Systems (LARS).

FORCE multiplier

The Mariner X can act as a force multiplier in larger fleets, enhancing the capabilities of the fleet without significantly increasing costs. It can carry additional equipment, supplies, or sensors that may not fit on other vessels. Additionally, the Mariner X can access areas that are unsafe for manned operations.





Feature	Description	Standard	Add-on
Dimensions (LxWxH)	9000 mm x 2500 mm x 3000 mm	✓	
Dry weight	4000 kg	✓	
Draft*	600 mm	✓	
Hull material	High Density Polyethylene (HDPE)	✓	
Propulsion	Hamilton Jet HJX29 and Yanmar 4LV230 with redundant twin electric pods	✓	
Standard fuel tank	2000 liters	✓	
Bow thruster	Standard for precise slow speed navigation	✓	
Power systems	12VDC, 24VDC and 230VAC	✓	
Back deck dimensions (LxW)	5280 mm x 2020 mm	✓	
Moonpool wells	2	✓	
Fixed sensor positions	2	✓	
Launch and recovery	Industrial remote control for launch and recovery	✓	
Fuel capacity*	Up to 25 days	✓	
Back deck capacity*	1200 kg	✓	
Speed alternatives*	14 kts max 8 kts efficiency 4 kts survey	✓	
Sea State (Beaufort Scale)*	4 for survey 6 for transit 7 for survival	✓	
Autonomous and remote-control	Maritime Robotics Autonomous Navigation System	✓	
Vehicle Control System	VCS Rugged Laptop	✓	
Standard situational awareness	Camera / AIS class B / Radar	✓	
High-bandwidth communication	LTE (4G)	✓	
Additional communication links	MBR / Starlink		✓
Enhanced situational awareness	Maritime Robotics SeaSight / AIS class A / VHF		✓
SeaCapture	Tightly integrated data capturing software		✓
External control	Ability to navigate using 3rd party software		✓
Formation mode	For operating several Maritime Robotics USVs in formation		✓
Rack Mount VCS Computer	For fixed installations		✓
Gyro stabilizer	Seakeeper		✓
Payload mounting system	Moonpool Elevator or Fixed Gondola		✓
Winch	Autocast SVP winch		✓
Various payload integrations	Additional systems and sensors for survey, support, monitoring and surveillance		✓

* Depending on conditions and payload integrations.

Enabling ocean **space autonomy**

Maritime Robotics is a **leading supplier of autonomous navigation systems and uncrewed platforms**, enabling ocean space access through autonomy. The company **delivers innovative solutions** world-wide, facilitating safe and cost-effective ocean operations that significantly reduce CO₂ emissions.

Since 2005, Maritime Robotics has been developing and supplying **autonomous and remotely operated systems and platforms for ocean operations** including marine mapping and surveying, met-ocean data acquisition, harbor security, research, and ROV-support to global industry professionals. The company is in Trondheim and Vanvikan, where an experienced team with access to every aspect of the supply chain is ensuring global success.

