

# MARS

## Marine Autonomy Research Site

*Keweenaw Peninsula, Upper Michigan*

### What is the MARS test bed?

The Marine Autonomy Research Site (MARS) in Michigan's Keweenaw Peninsula is the world's first freshwater site for testing autonomous surface and subsurface vehicles/vessels and related technologies.

The site, managed by Michigan Technological University's Great Lakes Research Center in Houghton, extends in a 30-mile radius from the waterfront campus, encompassing Lake Superior coastline and inland waterways.



### Why test autonomous technologies at the MARS?

Michigan Technological University has been a leader in marine-based surface and subsurface autonomy for over 10 years. This includes the design and operation of experimental prototypes and customized commercial models for universities, the private sector, the Michigan State Police, the US Coast Guard and Department of Defense. Autonomous applications include scientific research, underwater surveying, artifact identification, structure monitoring, marine safety, spill response, search and rescue, anti-collision software and sensors. The university has world-recognized expertise and services and associated costs are customizable.

### What the MARS offers:

- Deep water docking
- Testing and evaluation center
- Real-time Kinematic & Virtual Reference Stations, GPS/GNSS technology
- Permanent environmental monitoring stations
- Vehicle/vessel testing & monitoring
- Varied coast & bottom substrates, mixed commercial/recreational traffic
- ABET accredited surveying and engineering programs
- Working relations with US Coast Guard
- Computational facilities
- Licensed mariners
- Conference facilities
- Subject matter experts and support staff

### Who can use the MARS test bed?

The MARS is open to companies, researchers, government labs, universities and other organizations to test the operation, safety and other aspects of autonomous surface and sub-surface vehicles/vessels and related technologies with expert guidance, US Coast Guard guidelines and internationally-accepted best practices.

[Smartshipscoalition.org](http://Smartshipscoalition.org)

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