

Discovery

Unmanned Surface Vehicle



Discovery USV excels in autonomous surveys, monitoring tasks, oil spill response, or other remote sensing projects.

Discovery USV

An electrically driven small autonomous or remote control vessel.

Relatively compact and lightweight, the Discovery is easily transported or shipped to your project's location. The reliable electric motor provides quiet environmentally sensitive operations at a low operating cost.

The Discovery USV's open interior layout allows for a variety of sensors to be installed. Open source ArduPilot provides a versatile, trusted and proven control system. A variety of communication gear can be added to provide real-time sensor data to the control personnel.

Side scan sonar

Forward scan sonar

Salinity sensor

Temperature sensor(s)

Turbidity

Ocean color (chlorophyll)

Pressure

Hydrophone

Lidar

In autonomous mode, the USV is easily controlled and monitored via a Ground Control Station (GCS) that allows for complete pre-route programming and sensor control as well as in-route monitoring or route changes. The GCS can be operated remotely from another vessel or from shore and can also be linked remotely for control through the internet.

Whether it be oceanographic surveys, monitoring tasks, oil spill response, or other remote sensing projects, the USV Discovery can do the job efficiently, effectively and safely.



USV Specifications

The Discovery is constructed of marine grade aluminum. It is powered by an electric 6kW outboard motor with a 48v lithium battery pack. Electronics are powered separately by a 12v battery bank. Solar panels are optional.

Specifications

Overall length	3.33 m (10 ft 11 in)
Width	1.44 m (4 ft 8 in)
Height	0.7 m (2 ft 3 in)
Draft	13 cm (5 in)
Empty weight	145 Kg (320 lbs.) includes motor and batteries
Gross weight	340 Kg (750 lbs.)
Aluminum construction	
Large flexible payload area	
Flat front deck	

Performance

Speed	0-24 km/h (20 kts)
General cruise	4-7 km/h (2-4 kts)
Endurance	10.0 hrs. (standard batteries)
Range	40 NM (standard battery) 80 NM (optional battery)



USV Options

Different missions require different tools and sensors. The Discovery platform is designed to easily adapt to your mission needs.

- ✓ Twin electric outboard motors
- ✓ Additional batteries
- ✓ Solar panels
- ✓ Communication packages
- ✓ Bird sound deterrent
- ✓ Oil spill cleanup tools
- ✓ Radar
- ✓ Sonar packages

We can help provide a solution for your specific remote sensing needs including custom communication packages if real-time monitoring of sensor data is required.

About Us

Otolith Technologies

We focus on developing, manufacturing, and deploying various remote sensing products, specifically designed for remote monitoring and control needs. Our products are developed with the end-user in mind and provide flexibility for meeting user-specific needs.

In 2016 we designed and built the Discovery platform. While sensor capabilities advance rapidly, the Discovery has continued to provide an adaptable and stable sea-worthy platform. Our flagship Discovery is closely followed by our latest product - Lad. Designed specifically for boats, Lad maintains a 24-hour watch on your vessel, alerting you of potential sinking, movement and a host of other early warnings. Using WiFi, cellular, and satellite communications, Lad sends you Alerts from anywhere in the world.

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