

# OTER UNMANNED SURFACE VEHICLE [USV] COST EFFICIENT AND RISK-REDUCING DATA ACQUISITION





## **OTTER**

The OTTER Unmanned Surface Vehicle (USV) is a turn-key and easily deployable system for seabed mapping and monitoring of sheltered waters

**The OTTER** is the newest member of our USV family. With a footprint of only  $200 \times 105 \times 85 \text{cm}$  and a weight of 95kg, it is an asset that can be easily transported to the survey site in a van and deployed efficiently. Electric propulsion and a tightly integrated bathymetric survey system makes this system a cost-efficient turn-key solution for bathymetric surveys in sheltered waters such as smaller lakes, canals, rivers, ponds and harbour areas.

Maritime Robotics' custom Vehicle Control Station (VCS) allows the surveyor to plan the missions in a maritime chart based Graphical User Interface and also monitor the mission and the data acquisition quality while the USV is underway.

The autonomous future is electric, and the OTTER is equipped with electric thrusters that are powered by 4 powerful and easily interchangeable battery packs. This gives the OTTER a best-in-class endurance for its size. The battery solution is built upon off the shelf componets, providing easy access to spare parts locally, all over the world.

**The OTTER** can carry a variety of customer defined sensors for seabed and environmental mapping. Quality control and monitoring of the sensor performance and coverage area are performed via the Vehicle Control Station (VCS).



#### PRODUCT COMPONENTS



Vehicle Control Station



Bathymetric Mapping System



Specifications



Custom Payloads



Bathymetry

### **01** VEHICLE CONTROL STATION

Sensor and payload data can be monitored in the Vehicle Control Station. Multibeam data, swath width, coverage area, and quality parameters can be displayed in real-time on an intuitive user interface.

#### **02** SPECIFICATIONS

20 hours endurance with 2kts, 95kg total weight, WiFi, 4G and optional long range radio link. Dimensions: 200cm x 105cm x 85cm. The OTTER can be dismantled into smaller components (hulls, mid-section, batteries and payload), so that one person can transport the OTTER to the site of interest.

#### **03** BATHYMETRIC MAPPING SYSTEM

Ultra-compact singlebeam and multibeam sonar systems are available for integration for the OTTER. This makes the OTTER a turnkey bathymetric survey system for sheltered waters.

#### **04** CUSTOM SENSOR INTEGRATION

Sensors such as ADCP, CTD, fluorometers, hyperspectral imager and other environmental sensors canbe easily and cost-efficiently integrated.

#### **05** BATHYMETRY

Repetitive tasks like bathymetry are an ideal task for an automated robotic system. The OTTER performs these tasks without the expense or extensive resources involved in traditional surveys.



#### A LEADER IN UNMANNED SOLUTIONS

Maritime Robotics, developer and supplier of the OTTER, is a leading provider of innovative unmanned solutions for maritime operations and data acquisition. The company develops and delivers Unmanned Surface Vehicle Systems (USV), Moored Balloon Systems (MBS) as well as Unmanned Aircraft Systems (UAS). Our main markets are geophysical surveying, oil & gas, environmental monitoring, and the defence/security market. With technology developed in close collaboration with civilian, governmental and military partners, Maritime Robotics focuses on delivering high-quality system solutions and products that are cost-efficient, reduce HSE risk exposure and are highly deployable, in any conditions.



Brattørkaia 13 B 7010 Trondheim, Norway



info@maritimerobotics.com





