MARES
AUTONOMOUS UNDERWATER VEHICLE

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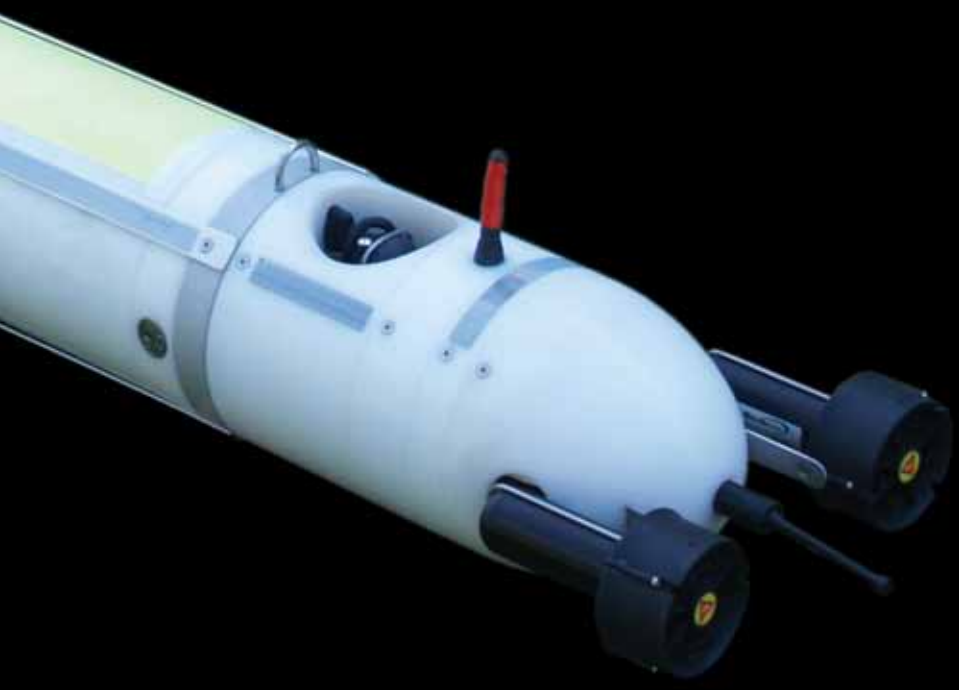

MARES
AUTONOMOUS UNDERWATER VEHICLE

Developed by OceanSys (INESC TEC and FEUP), MARES - Modular Autonomous Robot for Environment Sampling is an autonomous vehicle used in underwater operations. This robot can be easily configured and its modular structure allows it to carry a large variety of sensor packages. MARES can be used for different applications such as environment monitoring, underwater inspection and mapping, and surveillance. An acoustic positioning system makes it possible to georeference collected data. This device has been used regularly since 2007 in environmental monitoring operations.

MAIN FEATURES

Modular construction with reconfigurable sections
Spare ports to accommodate additional payload sensors
Robust and safe, with fully shrouded moving parts
Operates in confined spaces - able to ascend/descend on the vertical
Hovering in the water column - station keeping and close inspection
4 degrees of freedom (surge, heave, yaw, pitch)
Autonomous operation with simple mission definition
Rechargeable Li-Ion batteries
Low maintenance
Compact and lightweight - easy transportation and deployment

SPECIFICATIONS

Length: 1.6 m
Diameter: 20 cm
Weight: 32 kg
Maximum depth: 100 m
Horizontal speed: 0-2 m/s, variable
Vertical speed: 0-0.5 m/s, variable
Autonomy/range: 10 hrs / 40 km
Typical sensors: CTD, sonar, turbidity, fluorescence, video camera

INESCTEC
TECHNOLOGY & SCIENCE
ASSOCIATE LABORATORY
PORTUGAL

CAMPUS DA FEUP
R DR. ROBERTO FRIAS 378
4200 - 465 PORTO
PORTUGAL

T +351 222 094 000
F +351 222 094 050
www@inescporto.pt
www.inescporto.pt

COMPETE
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