

IMOTUS-1

[Hovering]

AUTONOMOUS
UNDERWATER
VEHICLE



The Imotus family of hovering autonomous underwater vehicles (HAUVs) is based on a fully scalable, sensor agnostic core platform. These vehicles enable inspection and monitoring missions in a variety of environments, from confined space to open waters, over long periods of time.

The Imotus architecture is inherently modular and flexible. Through reconfiguring the HAUV's arrangement of sensors and actuators, a wide variety of mission objectives can be accomplished using one platform.



- 150 msw depth (standard)
- 3000 msw depth (optional)
- 6 DOF maneuvering
- 12 hour battery life



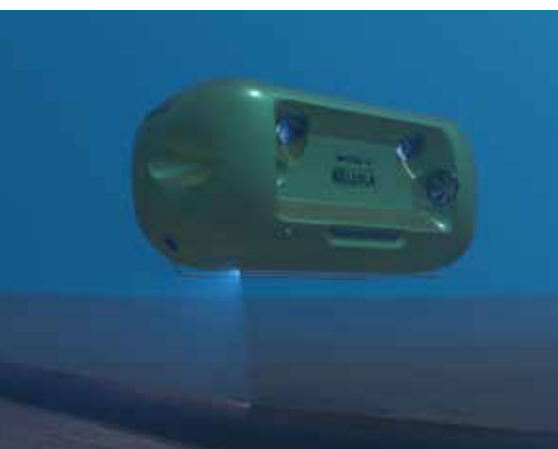
CONFINED SPACE TANK INSPECTION

Imotus can map and navigate through flooded and confined complex environments, such as offshore oil platform legs or aboveground storage tanks, with no prior knowledge of the space required. This provides faster, safer, and more cost-effective inspections compared to using a conventional ROV.



SHIP HULL INSPECTION

Imotus is able to perform in-service ship hull inspections, without requiring the ship to enter a dry dock. Inspections can include corrosion detection, security checks for smuggled or unidentified objects, or biofouling. These inspections can keep the ship in service longer and allow for predictable scheduling of maintenance.



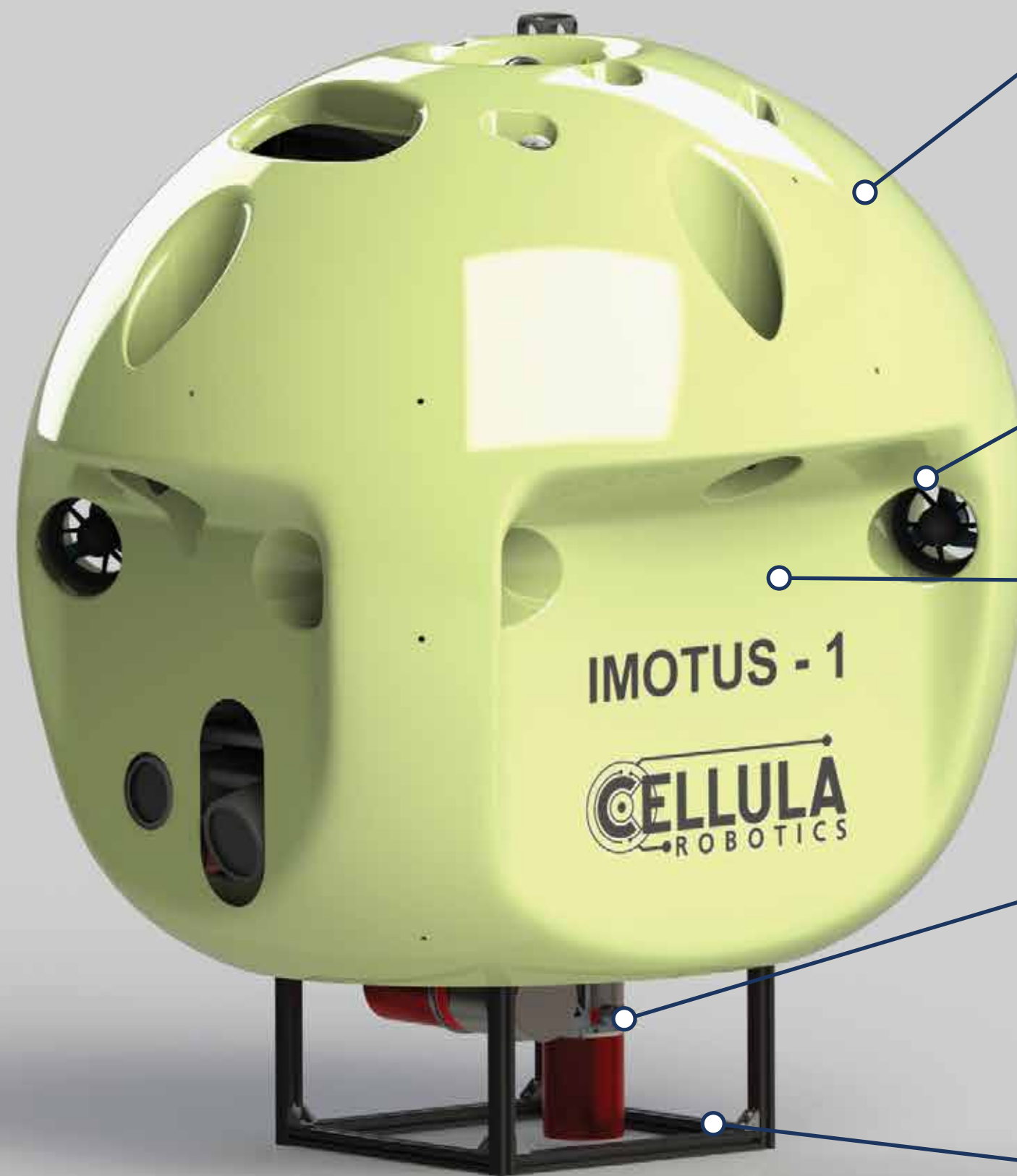
OPEN WATER AND SUBSEA SURVEILLANCE

Using visual, acoustic, and trace chemical sensors, Imotus can perform 24/7 monitoring of subsea infrastructure, such as production equipment, pipeline terminations and jumpers. Anomalies are reported to the remote monitoring station within hours, increasing the security and lifespan of your equipment.



VERTICAL PROFILING

Existing vertical profiling technologies are limited by the lack of lateral freedom; the 8 vectored thrusters on the Imotus enable 6 degrees-of-freedom while profiling in open-water. This allows for sampling in areas that would be difficult to set up regular vertical profilers in, such as hydrothermal vents and undersea volcanic plumes.



Snag Resistant Shell

Imotus is designed to be snag resistant for use in complex enclosed spaces. If the optional fiber optic umbilical becomes snagged, Imotus can autonomously cut it and follow a safe route to the extraction point for recovery.

Redundant Thruster Design

The vectored thruster design allows Imotus to carry out its mission, even if two thrusters have malfunctioned.

Reconfigurable Design

Imotus is inherently reconfigurable, allowing the core technology platform to be used in a wide variety of applications.

SLAM Navigation

No prior knowledge is required to operate in confined spaces. Imotus is able to simultaneously map and navigate within the workspace.

Subsea Charging and Data Transfer

An optional docking station allows Imotus to be permanently deployed at a work site. Inductive power transfer allows recharging when docked and a blue-light modem provides real-time, high bandwidth communications.

About Us

Cellula Robotics Ltd. is a proudly Canadian, privately owned, world-leading marine technology company focused on revolutionizing underwater security through advanced Autonomous Underwater Vehicle (AUV) systems.

Headquartered in Burnaby, British Columbia with additional offices on the East Coast of Canada and the United States, Cellula employs over 80 dedicated professionals, including highly skilled engineers, designers, and technicians.

Cellula Robotics Ltd. is driven by a mission to redefine the paradigm of underwater security. By harnessing the potential of cutting-edge AUVs, we aim to change the way the world approaches subsea security. Driven by innovation and industry knowledge, we are committed to crafting sustainable solutions for the defense, mineral exploration, and energy sectors. Our hydrogen fuel cell-powered long range AUVs address evolving demands, propelling us towards a greener future.

Our unyielding commitment to quality is evident through our ISO 9001:2015 Quality Management System that not only underscores our dedication to excellence but also reflects our ability to consistently surpass the expectations of our clients.

Contact Us

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