

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

For inquiries, please contact us:

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SOLUS-XR

[XL-Range Autonomous Underwater Vehicle]

PROVEN, TRUSTED
AUTONOMY

cellula.com



Removable Payload Modules

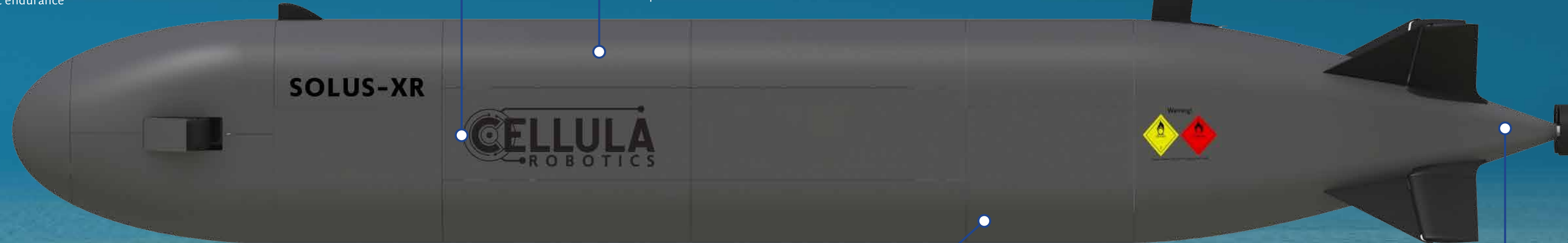
The forward and aft 2500 L payload modules can be field swapped for mission re-configuration. Payloads can include:

- Winch-deployed thin line towed arrays
- Deployable payloads
- Li-ion batteries to increase sprint endurance
- Seafloor suction anchor

Length: 12 m
Cross-section: 1.7 x 1.7 m
Displacement: 25500 kg (depending on configuration)
Range: 5000 km
Endurance: over 45 days
Sprint speed: 8 kts
Transport in a standard ISO 40' container
Port to port missions

Retracting Communications Mast

The mast can be retracted as necessary to reduce drag while submerged.

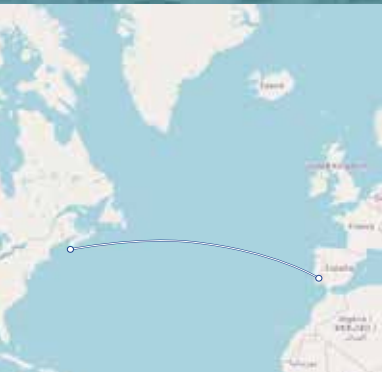


Extreme Range AUV

Solus-XR is powered by redundant hydrogen fuel cells providing a submerged range of over 5000 km at 3 kts.

Maneuvering

Deployable thrusters and dual buoyancy engines provide hovering capabilities.



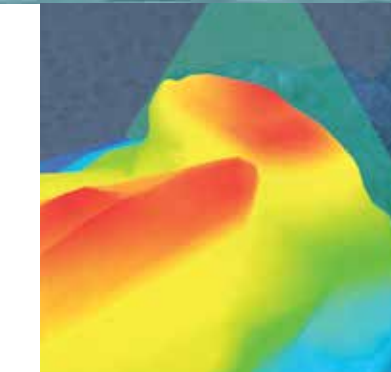
PERSISTENT SURVEILLANCE

Solus-XRs can deploy multiple listening stations to complement ASW missions. Data from the listening stations can be downloaded and processed onboard to feed into Solus-XR's adaptive mission engine.



ASSET INTEGRITY INSPECTION

Solus-XR can provide critical infrastructure protection for subsea telecommunication and power cables. Autonomous tracking with optical and magnetic sensors allows for regular inspection and change detection.



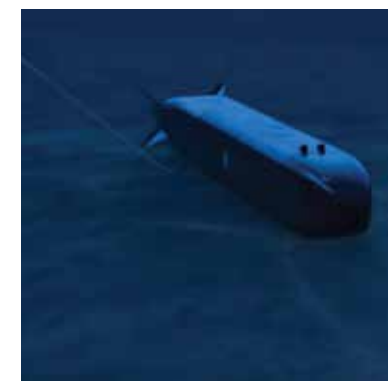
RAPID ENVIRONMENTAL ASSESSMENT (REA)

Covertly forward deployed, Solus-XR can collect wide area sea floor bathymetry with Synthetic Aperture Sonar, complemented with magnetics, CTD and acoustic measurements of the battle space.



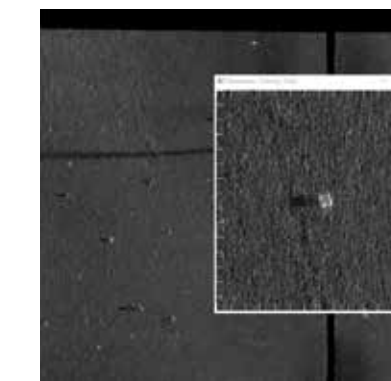
PAYLOAD DELIVERY

Covert and at significant standoff from launch, Solus-XR can deploy sensors or equipment from either of Solus-XR's large payload modules. A variable buoyancy system manages any change in mass.



ANTI-SUBMARINE WARFARE

When fitted with a winch, Solus-XR can deploy thin line arrays to detect and localize submerged targets. A low frequency sound source can be used to modify the acoustic profile of Solus-XR, providing a range of detection responses for battle space shaping.



MINE COUNTERMEASURES (MCM)

As an extension to REA, Solus-XR can be tasked with wide area survey and autonomous artificial object detection. Countermeasures can be deployed against identified targets.



Solus-XR is Cellula's next generation, fuel cell powered extra-large uncrewed underwater vehicle (XLUUV) designed for port to port, lightly supervised missions over long ranges.

Solus-XR is designed to be deployed solo or in fleets to provide a persistent at-sea capability with inter-vehicle communications and adaptive missions.

Solus-XR is built using an ultra-reliable and cost effective commercial AUV survey core architecture, with the ability to carry defence or commercial payloads in its large removable payload modules.

- 2000 km base range
- Able to hold station in low powered mode
- High energy density hydrogen fuel cell