

The Solus-LR Autonomous Underwater Vehicle (AUV) is a comprehensive vehicle for performing long range, multi-month autonomous missions. The vehicle is designed for port to port missions including surface and subsurface surveillance (acoustic or magnetic), traditional geophysical survey, or search and survey.

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



## About Us

Cellula is a world leading engineering solutions company specializing in the turnkey design and production of subsea robotic systems used around the world.

Our dedicated team of highly-skilled engineers, designers, and technicians based in Vancouver, Canada, has extensive experience in projects that require integrated mechanical, electrical, hydraulic, and software elements in underwater environments.

## Contact Us

For inquiries about the Solus-LR, please contact us:

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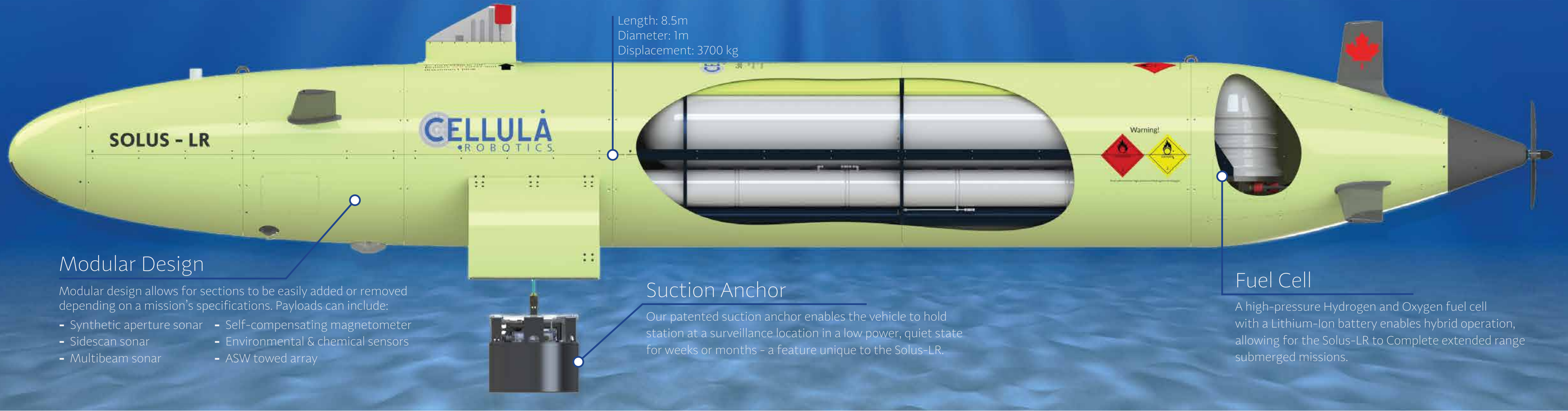


# Solus Long Range

AUTONOMOUS  
UNDERWATER  
VEHICLE

[cellula.com/solus-lr](http://cellula.com/solus-lr)





Length: 8.5m  
Diameter: 1m  
Displacement: 3700 kg

## Modular Design

Modular design allows for sections to be easily added or removed depending on a mission's specifications. Payloads can include:

- Synthetic aperture sonar
- Sidescan sonar
- Multibeam sonar
- Self-compensating magnetometer
- Environmental & chemical sensors
- ASW towed array

## Suction Anchor

Our patented suction anchor enables the vehicle to hold station at a surveillance location in a low power, quiet state for weeks or months - a feature unique to the Solus-LR.

## Fuel Cell

A high-pressure Hydrogen and Oxygen fuel cell with a Lithium-Ion battery enables hybrid operation, allowing for the Solus-LR to Complete extended range submerged missions.



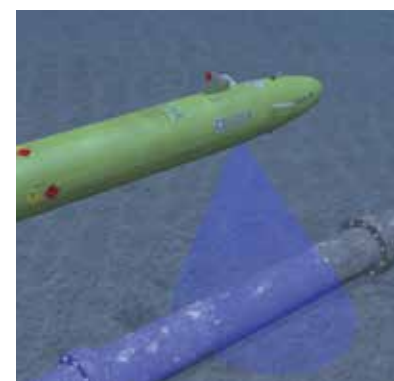
## SURFACE & SUBSURFACE SURVEILLANCE

When at anchor, Solus-LR operates in a quiet mode with the fuel cell shut down for long periods of time. With minimal acoustic emissions, Solus-LR is able to hold station in currents up to 2m/s, covertly listen for a range of targets, and communicate back to base if a defined signature is observed.



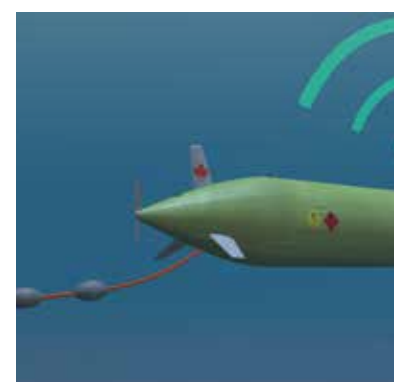
## PAYLOAD DEPLOYMENT

Solus-LR can be loaded with a payload package to be deployed from its bay doors. A variable buoyancy system (VBS) is used to offset up to 50kg of payload mass when deployed.



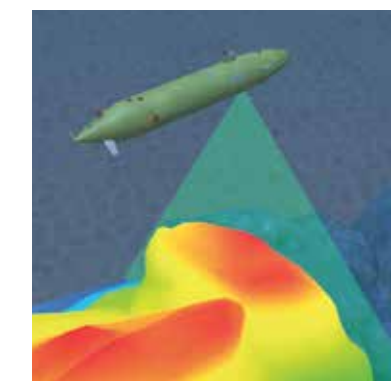
## PIPELINE & OIL FIELD SURVEYING

By utilizing survey sensors such as a multibeam sonar and sub-bottom profiler, Solus-LR becomes capable of inspecting underwater pipelines and cables, improving productivity compared to using a ROV or lower range AUV options. An integrated Cathodic Protection sensor can be used for surveying anodes on a pipeline.



## ANTI-SUBMARINE WARFARE

Solus-LR can be used to safely deploy anti-submarine warfare (ASW) barriers using a low-frequency towed array. If a defined signature is observed during a mission, Solus-LR can communicate to headquarters and switch to an active mode to further locate the target.



## GEOPHYSICAL SURVEY

Solus-LR is capable of surveying subsea areas and terrain using its sidescan sonar and magnetometer. A bathymetric chart of the target area can be generated using multibeam sonar, and analyzed for terrain features, slope angles and surface roughness.



## PORT-TO-PORT MISSIONS

The Solus-LR can be launched and recovered from boat ramps and docks, eliminating the need for vessels and saving your company money on expensive ship time.