



# Solus-Lite Autonomous Underwater Vehicle

CELLULA ROBOTICS LTD.

## KEY FEATURES

READY FOR DEVELOPMENT / UPGRADABLE TO SOLUS-MR & SOLUS-LR /  
IHO COMPLIANT



# Solus-Lite

## Autonomous Underwater Vehicle

Solus-Lite Autonomous Underwater Vehicle (AUV) is a flexible and modular development platform. The vehicle's large payload volume and straightforward interface provides an advanced starting point for clients to incorporate and develop their own unique equipment and experimental payloads.

### Payload Interfaces

1500 L flooded payload volume with interfaces:

- NAV data
- NTP time synchronization
- Ethernet, serial, analog & digital I/O
- Backseat driver interface
- CAD models of interfaces

### Applications

- OEM AUV platform for startups
- Development platform for payloads and energy systems
- Testbed for machine learning and AI
- Technology demonstration
- Marine research



### Standard Configuration Specifications

#### AUV SPECIFICATIONS

- **Depth Rating:** 1000, 3000, or 6000 m
- **Range:** 25 km
- **Speed:** 2 m/s (4 kts)
- **Length:** 5.6 m
- **Diameter:** 1 m
- **Weight:** 1400 kg
- **Max Ascent/Descent Angle:** 45°
- **Terrain Following:** At altitudes > 3.5 m

#### OPTIONAL FEATURES

- **Comprehensive support package:** spares, support equipment, software, training, and post-processing.
- Belly pack
- Payload deployment
- Suction anchor
- Pop-up buoy
- LARS

#### ENDURANCE/ENERGY

- **Endurance:** 5 hrs at 1.5 m/s (3 kts)
- 4.5 kWh lithium-ion batteries (swappable)
- 4 hour charge time
- Can be easily upgraded to Solus-MR or Solus-LR for higher endurance

#### SOFTWARE

- Mission planning tool
- Performance analysis tool
- Backseat driver
- Option for on-shore piloting

#### NAVIGATION

- **INS/DVL:** Sonardyne SprintNav 300, 500, 700
- **Navigation Accuracy:** 0.04%, 0.02%, 0.01%
- **OAS:** Imagenex Delta-T
- GNSS System

#### COMMUNICATION

- **Acoustic Communication:** Sonardyne AvTrak 6
- **Surface Communication:** 2.4 GHz radio
- **Acoustic Positioning:** Sonardyne Ranger 2
- **Satellite Communication:** Iridium

### Benefits

- ✓ **Ready for deployment.** Solus-Lite comes with proven navigation and control systems. The AUV is ready for client payload integration.
- ✓ **Upgradable to Solus-MR & Solus-LR.** Solus vehicles can be easily upgraded as missions demand to account for additional payloads and needs for increased endurance.
- ✓ **IHO compliant.** Solus-Lite has a navigation solution that meets IHO standards for hydrographic surveys.

