



The ISE EXPLORER Autonomous Underwater Vehicle (AUV) collects **IHO compliant data** at a rate of **750 to 1100 km per week** of ship time with all sensors operating and is the most modular and maneuverable AUV in the world today. The modular design of the EXPLORER enables it to carry multiple payloads in its spacious, swappable, and customisable payload section.



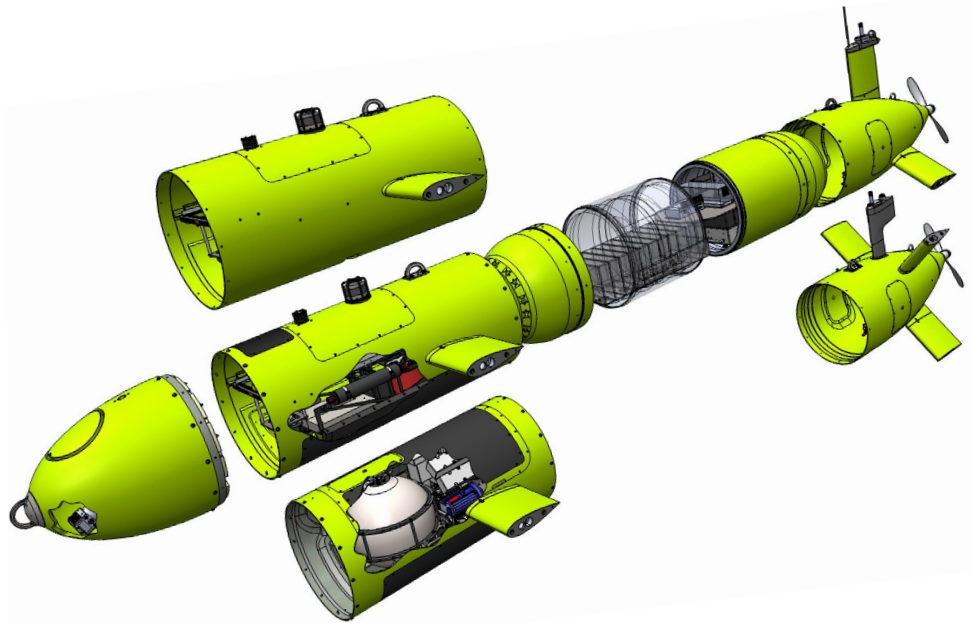
## APPLICATIONS

- Hydrographic Survey
- Pipeline Inspection
- Mine Countermeasures (MCM)
- Route Survey
- Ocean Science
- Environmental Monitoring



## INDUSTRIES

- Oil & Gas
- Commercial Survey
- Mining
- Defence
- Scientific Research



## PAYLOADS

The EXPLORER can be equipped with any sensor designed for use on an AUV. These include:

- Multibeam Echosounder (MBES)
- Sidescan Sonar (SSS)
- Sub-Bottom Profiler (SBP)
- Synthetic Aperture Sonar (SAS)
- Laser Scanner
- HD Still and Video Camera
- Magnetometer
- CTD, pH, pCO<sub>2</sub>, CH<sub>4</sub>, DO, Turbidity, Nitrate, and other chemical sensors

## FEATURES & CAPABILITIES

These are the features that have built into the EXPLORER to ensure our customers achieve great results:



**FAST CHARGE:**  
< 3h on deck, eliminates  
battery swap risks

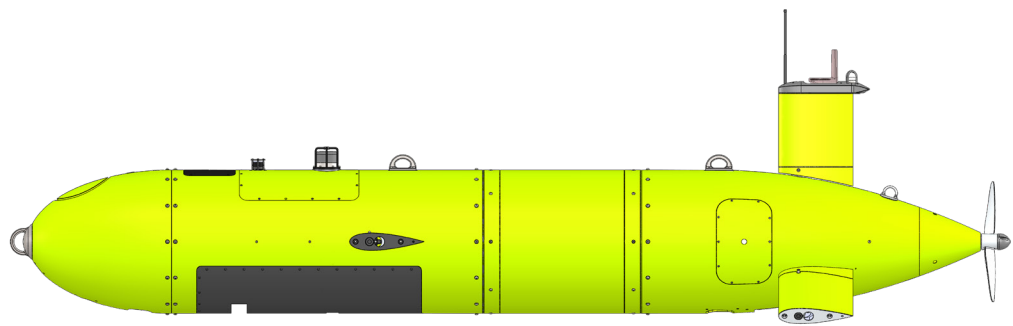
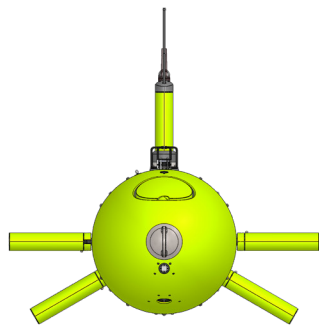


**SWAPPABLE:**  
modular, upgradable,  
payload section



**IHO COMPLIANT DATA:**  
compatible with any  
post-processing tool

- Industry leading autonomy and fault management
- **5m turn radius & roll control:** no time wasted with huge turning allowances or waiting for roll oscillation to subside
- **>45° dive/ascent:** increases survey time, minimizes INS drift
- **In mission Data sampling** and QC by operator
- **Automatic USBL/LBL** position correction
- **Upgrade range:** Battery modules can be added to increase available power
- **Five LARS Options:** Stinger, Docking Head, A-Frame, Nose Lift, Fully Containerized operations
- **Belly pack:** for piloting close to the support vessel
- **Under ice operation:** Variable ballast, >50km homing, gate-way buoy compatible, in-water charging & data



## SPECIFICATION

### AUV PERFORMANCE

- Depth Ratings: 3000 m, 6000 m\*
- Range: 120—450 km\*\*
- Endurance: 24—85 hrs\*\*
- Survey Speed: 0.5—2.5m/s
- Maximum Ascent/Decent Angle: >45°
- Turning Radius: 5 m
- Terrain Following: 1.5m+ altitude

### WEIGHT AND DIMENSIONS

- Length: 4.5—7.5 m\*\*
- Diameter: 0.74 m
- Weight: 620—1700 kg\*\*\*

### ENERGY

- Energy Capacity: 18—48 kWh\*\*
- Charge Time: <3 hrs
- Battery: Lithium Ion, shippable by Air, sea or land

\*Others available upon request

\*\* Depending on quantity of battery banks and survey payloads operating

\*\*\* Based on selected options

### STANDARD NAVIGATION AND COMMUNICATION EQUIPMENT

- INS: iXblue PHINS\*
- DVL: Teledyne RDI Workhorse Navigator\*
- Depth Sensor: Paroscientific Digiquartz
- OAS and terrain following: Imagenex Delta-T Multibeam
- GPS: Differential
- Acoustic Communication: Sercel MATS 3G\*
- Surface Communication: UHF radio (WiFi) and Iridium
- Acoustic Positioning: iXblue USBL or SLBL system\*
- Emergency Equipment: Drop weight and strobe light

### SOFTWARE AND COMPUTERS

- ISE Automated Control Engine (ACE) modular, upgradable, field proven, multiplatform software
- Onboard Data Storage and Processing Computer
- Backseat Driver: Allows customer payload integration, soft-ware development, and data processing

### PAYLOADS

Common sensors integrated with the EXPLORER:

- EM2040 • R2Sonic 2022 & 2024 • EM2000 • Reson 7125-C • ET 2205 SSS/SBP
- ET 2200-M SSS/SBP • Kraken InSAS • OFG mag-netometer • Cathx camera & laser
- 2G camera & laser • SBE49 CTD