



Autonomous Underwater Vehicle with unmatched capability!

The **i3XO EcoMapper™** is an Autonomous Underwater Vehicle (AUV) data collection platform, unmatched in its flexibility and capability. Its intuitive design allows you to generate high-resolution maps of water quality, water currents, bathymetry, and sonar imagery

without a workboat or associated staff. YSI EXO sensors measure at a continuous interval for missions ranging from 8-12 hours long. Once deployed, the EcoMapper communicates while on the surface and acquires a GPS fix at waypoints identified in the mission plan.

But that's just the beginning of the i3XO EcoMapper capabilities:



Built-in moisture detectors with fail-safe emergency buoyancy system for asset recovery



Li-Ion batteries allow long run-time and quick recharge



Undulation through the water column provides data in both the horizontal and vertical planes



Bow with integrated sensor package includes YSI's water quality sensor bulkhead, and depth sounder



Near-coastal operating depth – bays, rivers, lakes (to 328 ft depth)



Options to measure up to 8 water quality parameters, bottom mapping, and water profiling



YSI.com/ecomapper

SPECIFICATIONS #E50 Rev. A



Additional Features:

Small size for easy deployment by one person

Rugged, lightweight carbon fiber and marine-grade aluminum construction

Intuitive mission-planning software for quick and easy survey design and execution

i3XO Specifications

| | |
|--------------------------------------|---|
| Dimensions | Length: 60-85 in, Standard; Tube Diameter: 5.8 Inches; Weight: 59-85lbs, Standard |
| Depth Rating | 100m (328 ft) |
| Endurance | 8-14 hours at 2.5 knot speed; configuration dependent |
| Speed Range | 1-4 knots (0.5-2.0 m/s) |
| Communication | Wireless 802.11g Ethernet standard (Iridium optional) |
| Antenna Mast | Navigation Lights, with IR and Visible LEDs (programmable strobe) |
| Tracking Internal Data Log; Software | Programmable Resolution |
| Navigation | Surface: GPS (WAAS corrected). Subsurface: RDI Doppler Velocity Log(DVL), 81M range, depth sensor and corrected compass |
| Software | Vector Map: Mission Planning and Data Viewing Sonar Mosaic: Processes sonar records for overlay to Vector Map Bathymosaic: Creates GeoTiff images of a side scan records and KMZ files for Google Earth Underwater Vehicle Console (uvc) : Operation, run, mission, remote control |
| Energy | 800 WHrs of rechargeable Lithium-Ion batteries, (swappable section) |
| Onboard Electronics | Intel Dual Core 1.6 GHz N2600 processor with MS Windows embedded; Up to 512 GB solid state drive for data storage |
| Propulsion System | 48V Servo Controlled DC Motor with 3-blade cast bronze propeller |
| Control | Four independent control planes (Pitch/ Yaw Fins) |
| Charging | 24V External Connector with USB 2.0 supports |
| Sonar Side Scan | Tritech Starfish. Single frequency 450kHz |
| Communications | Surface: 2.4 GHz telemetry radio for Handheld Remote; and/or Iridium with cloud based tracking software |
| Handheld Remote Controller | Touch screen based remote with joystick for surface control (300 meter + range) |
| Acoustic Pinger | Underwater locator beacon |
| Rugged Transit Case | With custom foam inserts for Iver3, includes collapsible AUV field stand |
| Field Rugged Operator Console | Getac for mission planning, operating and data viewing |
| GPS Compass Stand | High accuracy, land based AUV calibration tool |
| Object Advance Sounder | Imagenex 852 forward looking echo sounder in AUV bow |
| Other Options | Iver3 Spares Kit. Swappable Battery Section w/ tail |



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