

SEAWARD SURVEYOR 1130S

Model: SWT-USV-1130S



Seaward Surveyor 1130S is a compact carbon-fiber survey USV integrating singlebeam bathymetry, autonomous navigation, and multi-sensor expansion for underwater topographic survey, hydrological survey in small to medium-sized waters.

Endurance
4 hours @ 2 m/s

Payload Capacity
30 kg

Maximum Speed
5 m/s

- Applications**
- * Hydrographic Survey
 - * Underwater Topographic Mapping
 - * Underwater Structure Survey
 - * Dock Wall Survey
 - * Bridge Scour Monitoring

- Key Features**
- * Multi-purpose USV platform
 - * Monohull anti-roll design
 - * Large moon pool cabin
 - * 50 kg payload capacity
 - * 6-hour endurance at 2 m/s

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Remote Control Range

Up to 2.5 km point-to-point

Hull Size

1500 x 775 x 510 mm

RTK Positioning Accuracy

Hori. ± 8 mm + 1 ppm /
Alt. ± 15 mm + 1 ppm

Echosounder Depth Range

0.1–300 m

Sensor Expansion Capability

Internal moon pool design supports rapid integration of MBE, SSS, ADCP, and water quality sensors for flexible survey missions.



Highly Integrated & Easy Operation

Simplifies field bathymetry work with a highly integrated system, allowing operators to complete singlebeam surveys easily using only one remote controller.



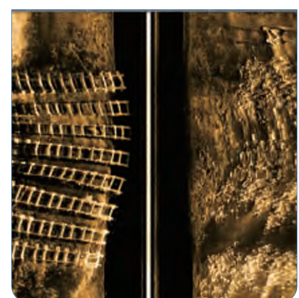
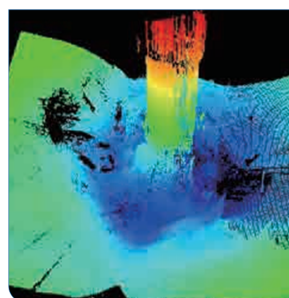
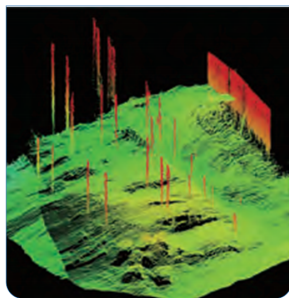
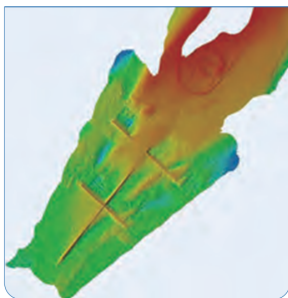
Powerful Propulsion & Anti-Entanglement Design

High-speed ducted thruster enables stable operation in strong currents, while the detachable design helps prevent entanglement from weeds, fishing nets, and floating debris.



Lightweight Carbon-Fiber Hull

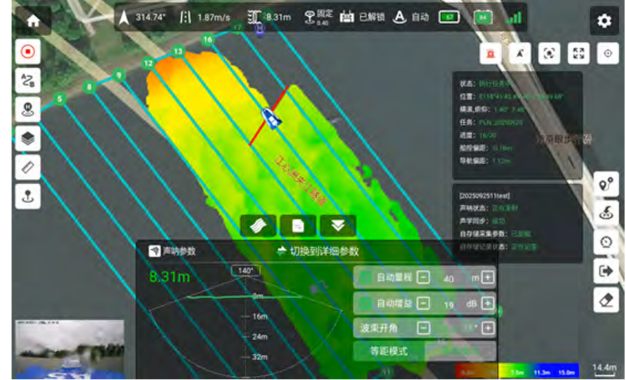
The hull is made of pure carbon fiber through one-piece molding, offering high strength with an ultra-light 4 kg hull weight.



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HxSurvey Master Android Software

Integrated Android-based software for USV control, navigation, singlebeam sounding, route planning, real-time video display, and GNSS/depth data recording, supporting DXF and KML import for efficient hydrographic survey operations.



System	Item	Parameter
Ship	Size	1130 × 630 × 430 mm
	Hull weight / Load	4.0 kg / 30 kg
	Hull materials	Pure carbon fiber die-casting molding
	Ship design	Trimaran design, low center of gravity, low resistance, stable navigation
	Navigation light	Equipped / integrated navigation lighting
Power	Cruise	4 hours @ 2 m/s; additional battery packs can increase endurance
	Maximum speed	5 m/s; adapts to maximum flow velocity up to 3.5 m/s
	Thruster	Ducted thruster; easy disassembly and replacement
	Battery	8S, 35AH lithium battery, replaceable
Safety	Obstacle avoidance	360° video obstacle avoidance
	360° Camera	Automatic switching between daytime and night vision functions
	IP rating	IP67 for the entire ship and remote control
Comm.&Control	4G Comm.	Unrestricted distance; real-time transmission of sounding, positioning, ADCP, side scan and other data
	Operating mode	One-click switch between manual and automatic cruise modes
	Home	Low battery / loss of contact auto-return; single-point or multi-point route home
Controller	Remote control dist.	Point-to-point 2.5 km maximum
	Screen	Android 13 system; 7" screen, optional 10"
	Memory	256GB storage space
High precision positioning device	RTK GNSS	4-constellation satellite positioning system, 1408 channels; optional single Beidou system Heading: 0.1° (1 m baseline) RTK (RMS): Hori. ±8 mm + 1 ppm; Alt. ±15 mm + 1 ppm PPP (RMS): Hori. 5 cm; Alt. 10 cm
Echosounder	SBE	Standard equipped with singlebeam echosounder; supports optional dual-frequency echosounder 200 kHz: 0.1–300 m, beam angle 6.5°, accuracy ±1 cm + 0.1%h, resolution 1 cm 24 kHz optional: 1–1000 m, beam angle 26±1°, accuracy ±10 cm + 0.1%h, resolution 10 cm
	HxSurvey Master Android Software	One-click connection to all sensors; ship control and echosounder parameter settings Displays analog/digital depth, speed, coordinates, GNSS status and ship position Imports DXF/KML maps or navigation plan lines; supports manual drawing, parallel and area lining Real-time camera video display; records GNSS and depth data for post-processing