

HydroBoat 1500

Multibeam USV



The HydroBoat 1500 is a versatile, intelligent USV that can perform underwater topographic surveys of lakes, rivers, and reservoirs by carrying the HydroBeam M4 Portable Multibeam Echo Sounder system. Equipped with a high-precision GNSS receiver and IMU for position and orientation, the HydroBoat 1500 ensures sub-meter accuracy even when satellite signals are blocked. It features a lightweight and robust hull with IP67-waterproof, as well as four powerful thrusters on the sides that enhance mobility and flexibility, allowing it to easily adapt to diverse aquatic environments and efficiently complete underwater terrain surveys.



Exceptional Payload Capacity

Accommodates up to 60 kg of payloads with a through-hull design to adapt to various surveying tasks.



Intuitive Androic

Simplify operations with the user-friendly SLHydro USV software, featuring route planning, boat control, and status monitoring features.



Unlimited Range Transmission

Experiences 4G and 2.4G dual-channel control and communication for limitless reach and real-time data collection, even from the office.



V

Uncompromising Safety

Navigate with confidence thanks to a 360° omnidirectional camera, millimeter wave radar, double-layer anti-sink hull, and shallow water hovering capabilities.



Dual-Frequency Echo Sounder



Side Scan Sonar







Multibeam Echo Sounder



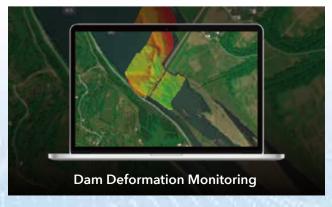
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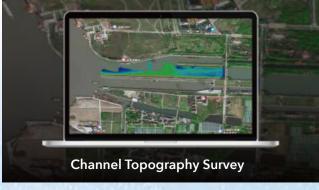
Applications with Multibeam Echosounder











Specification

	Vehicle Specifications			
Hull dimension (L \times W \times H)	Monohull: 1528*694*494 mm, Trimaran: 1528*1034*494 mm			
Weight	40kg(No Battery)			
Max Load	60kg			
Material	Carbon ber, Rubber Bumper			
Anti-wave & Wind	4th Wind Level & 3rd Wave Level			
Waterproof	IP67			
Indicator light	Two-color light			
Camera	360° omnidirectional video			
Anticollision sensor	Detection distance 10-30 meters			
Propeller	4*Brushless Propeller			
Direction control	Veering without steering engine			
Maximum speed	5.7m/s			
Battery endurance	Two batteries 4.5h with 1.5m/s, total 6 batteries			
	Controller			
System	Android System			
Software	SLHydro USV			
Control range	2km on 2.4GHz; Unlimited on 4G			
	GNSS Performance			
Satellite system	GPS, BDS, GLONASS, Galieo			
RTK Positioning accuracy	H: ±8mm + 1 ppm RMS V: ±15mm + 1 ppm RMS			
Heading accuracy	0.2° @1 m baseline			
INS accuracy	2.1°/h, <1m/20s			
Refresh Rate	200Hz			
	Software			
SLHydro USV	Mission planning, Vessel Monitoring			
	Coordinate conversion			
	Bathymetric data acquisition			
	Bathymetric data download			
	Expandable Sensors			
	Multi Beam Echo Sounder			
Acoustic Doppler Current Profiler				
	Single Beam Echo Sounder			
	Side-scan Sonar			
	Multi-parameter Water Quality Meter			



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