

# iBoat BS12

Android-powered Multi-function USV

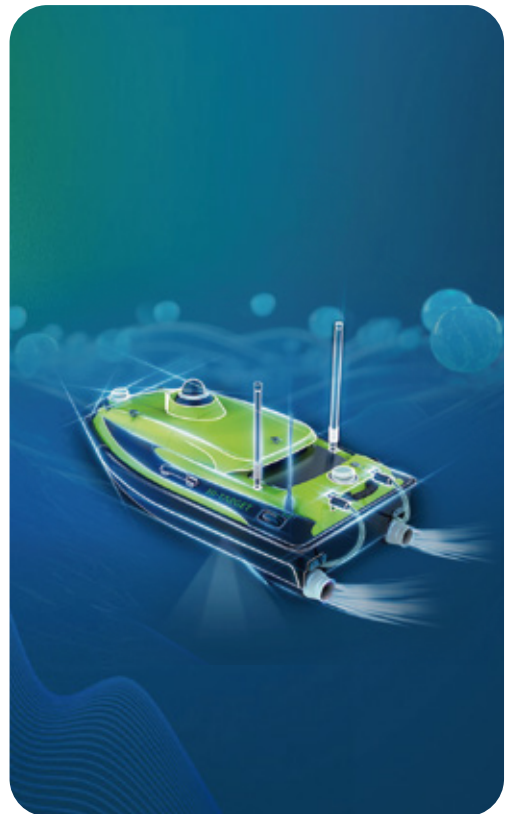


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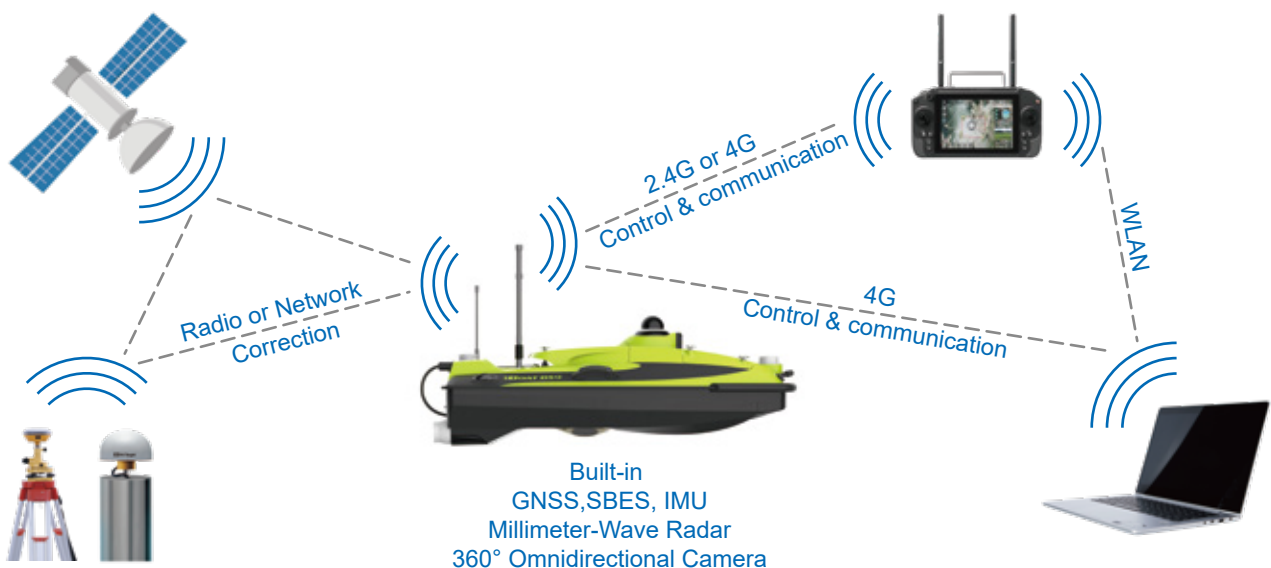
The iBoat BS12, a visionary creation by Hi-Target, emerges as the embodiment of sophistication and simplicity, expertly designed for effortless operation across a multitude of applications.

Engineered with the latest CFD technology and boasting a sleek carbon fiber and Kevlar hull, the iBoat BS12 is as tough as it is elegant. Its corrosion-resistant construction ensures durability in even the harshest conditions. Matched with the newly developed boat control system and a robust battery, it achieves a remarkable top speed of 6 m/s, all while maintaining stability in tumultuous waters. For precise navigational accuracy, the integrated IMU offers sub-meter positioning capabilities when losing satellite signals.

This autonomous vessel is your ultimate partner for a wide range of tasks, offering compatibility with leading devices such as ADCP, side-scan sonar, dual-frequency sounder, multi-parameter water quality meters, and more. Whether you require precise current measurements, bathymetry, underwater surveys, or water quality assessments, the iBoat BS12 stands ready to meet your every need.



## WORKING PRINCIPLE





# FEATURES

## Revolutionized Control System



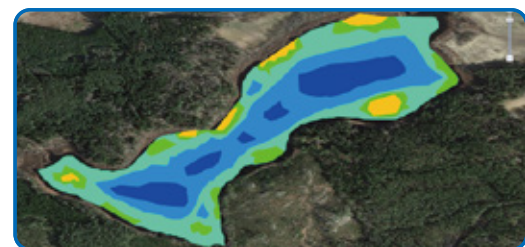
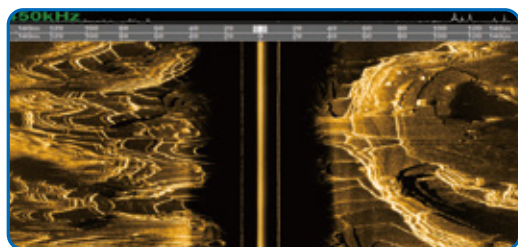
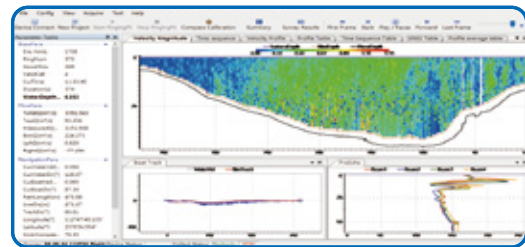
- Real-time position and bathymetry data backup
- Easily import and plot tracks for seamless navigation
- Trajectory tracking and hovering with adaptive water flow
- Get collision and shallow water warnings for added safety
- 2.4G and 4G dual-channel connectivity makes no limitation on control distance
- USV configuration and data collection can be all done in the software

## Seamless Integration and Expansion

- IMU module to compensate for positioning accuracy
- Millimeter wave radar for collision prevention
- 360° Omnidirectional camera for recording photos and videos
- Both GNSS and bathymetry data can be input to ADCP or SSS to improve their accuracy.
- Exceeds IHO special order, CHS exclusive order & USACE New Work



# APPLICATIONS



## Vehicle Specifications

Hull dimension (L × W × H)	1185 mm*593 mm*397 mm
Weight	25kg (No Battery)
Max Load	25kg
Material	Carbon fiber (optional Kevlar) , Rubber Bumper
Anti-wave & Wind	3rd Wind Level & 2nd Wave Level
Waterproof	IP67
Indicator light	Two-color light
Camera	360° omnidirectional video
Anticollision sensor	Detection distance 10-30 meters
Propeller	2*Brushless Propeller
Direction control	Veering without steering engine
Maximum speed	6m/s
Battery endurance	One battery 4.5h with 1.5m/s, total 2 batteries

## Controller

System	Android System
Software	Hi-Survey Boat
Control range	1.3km on 2.4GHz; Unlimited on 4G

## GNSS Performance

Satellite system	GPS, BDS, GLONASS, Galileo
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

## Built-in Single Beam Echo Sounder

Depth range	0.15m - 200m
Accuracy	±0.01m + 0.1% × D (D is the depth of water)
Frequency	200 kHz
Beam angle	5±0.5°

## Software

Hi-Survey Boat (Android controller)	Mission planning
	Vessel Monitoring
	Coordinate conversion
	Bathymetric data acquisition
	Bathymetric data download
HiMAX (Windows system)	Bathymetric data processing
	Bathymetric data correction
	Bathymetric data export

## Expandable Sensors

Acoustic Doppler Current Profiler
Single Beam Echo Sounder
Side-scan Sonar
Multi-parameter Water Quality Meter



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