WHAT WE DO
WITH
SALES AND SERVICES
The Navigator of Unmanned Surface Vehicles
About USV

USV (Unmanned Surface Vehicle) is a remote control or autonomous intelligent water surface robot which is able to fulfill multiple tasks. It is modular design with multiple function and safe replacement for human's work.

Autonomous Navigation & Intelligent Obstacle Avoidance
- Autonomous Navigation Control system with intellectual property right
- GNSS autonomous navigation due to obstacle avoidance technology and advanced navigation algorithm

Intelligent Control Terminal
- Base Station—Map download, Mission planning and monitoring, Survey data acquisition, Boat control
- Remote Controller — Manual control, Mission and boat status

Hull Material
- Composite material of carbon fiber, fiberglass and Kevlar fabric
- Separated cabin design; Water Proof, Anti-sinking, Anti-Capsizing

Green Energy
- High Capacity lithium polymer battery
- Long endurance and safely packed

Data Communication
- Long distance radio communication
- Real time data and video transmission

Multi-Mission Platform
- Universal Data interface, power supply and mechanical structure
Autonomous Standardized Water Sampling & Monitoring

Automatic water samples taking with tubing pump and compatible with different brand water quality sonde.

Water Quality contour map
ESM30

Autonomous water sampling and monitoring boat

Autonomous water sampling and monitoring boat is plus version of sampling boat by adding online monitoring function with ability to integrate multi-parameters probe. Mostly applied in lake, river, estuary and coastal area. It brings great efficiency in surface water quality monitoring and mapping.

- Sampling capacity: 4 x 1.8L
- Data Transmission: 5km & Video Transmission: 2km
- Top Speed: 1.5m/s
- 3.5 hours
- 31 kg
- Height: 43cm
- Width: 75cm
- Overall length: 115cm

- Automatic Multi-point water samples taking and water quality monitoring
- Each sample’s volume is configurable between 0–1800ml
- Able to integrate with water quality probe for online monitoring
- Parameters such as, Temperature, PH, DO, Conductivity, Turbidity, Chlorophyll, BGA, Chloride, Nitrate etc.
- Water quality monitoring data output and mapping
- Video monitoring and ultrasonic obstacle avoidance
Remote control boat with **ADCP**

- SONTEK ADCP
- RDI ADCP
- Linkquest ADCP
CL20 & CL40Y

Remote control hydrology measurement boat

CL20 & CL40Y are designed for water discharge measurement and hydrographic survey. It is compatible with different brand ADCP and single beam sonar, like RDI, Sontek, Linkquest and etc. The boat is maneuverable with compact design, which makes it easily be operated by just one person. It could also be carried on the back of a SUV or a trunk. The maximum speed can reach 5.5m/s and 2km control range, so that the boat is suitable for most water current environment.
Survey more & Save more

Autonomous Hydrographic Survey Vehicle
ME40

Autonomous hydrographic survey boat

Autonomous survey platform ME40 is designed for hydrographic survey with great efficiency. By replacing conventional workboat, autonomous platform is able to acquire bathymetry data without time-consuming and human safety risk. Mission planning, navigation control and real-time data acquisition are integrated in one package software, providing maximum efficiency to surveyors.

- Data Transmission 2km & Video Transmission 2km
- Top Speed 5m/s
- 4 hours
- 33 kg
- Height 37cm
- Width 71cm
- Overall length 163cm

- Mission planning and autonomous survey
- Existing GNSS instrument can be installed
- Data acquisition integrated in USV software
- Customized option for other instruments
- Maximum 5m/s speed
- Excellent performance in shallow water
Big payload, Great Stability

Flexible payload installation and meets costal application
ME70 & ME120

Autonomous survey platform

Autonomous survey boat ME70 & ME120 is medium size platform designed for hydrographic survey in harbor and coastal area. With catamaran design and flexible payload for instruments, ME70 & ME120 was developed to provide surveyors and Service Company with multi-mission work in harbors or inland waters. Navigation control and real-time data acquisition are easily operated at base station computer. ME70 & ME120 is also a universal deployable platform to execute other mission like water quality monitoring and harbor surveillance.

- Mission planning and autonomous survey
- 60Kg/25Kg(ME120/ME70) payload for flexible instrument options
- Applied in river or coastal area
- Customizable for various equipment (Muti-parameter probe, CCTV camera, ADCP, Side Scan sonar and etc.)
Multi functional

Hydrographic Survey Platform
M40

Autonomous survey platform

Autonomous survey boat M40 is a medium size platform designed for hydrographic survey in coastal area and deep ocean water. With modular catamaran design and flexible payload for instruments, M40 was developed to provide high performance survey with multi beam sonar and difficult kinds of hydrographic and monitoring instruments in ocean.

- Data Transmission 5km & Video Transmission 2km
- Top Speed 6Kn (3m/s)
- 6 hours
- 400 kg
- Height 150cm
- Width 190cm
- Overall length 330cm

- 80kg payload, Compatible with multi-beam sonar
- Automatic lifting system, fully protect the transducer
Maximum survey efficiency in **OCEAN**

1. Precisely GPS navigating & autopilot
2. Automatic Identification System (AIS) to identify target
3. Equipped with Obstacle Avoidance Radar, Sensing Camera, Obstacle Avoidance Sonar, ensuring sailing safety & anti-corrosion both on the surface & underwater
M80B Autonomous survey platform

M80B unmanned survey boat platform was designed to meet high requirement in hydrographic and oceanographic survey, the stabilization wing offers the best stability in ocean environment with minimum size of the boat. M80B platform is able to deploy and integrate with variety of instruments such as multi beam sonar, side scan sonar, sub-bottom profiler, gravimeter and magnetometer, water quality sensors etc. Autonomous navigation and obstacle avoidance provide efficient and safe operation.

Recommend Deployed Equipment

<table>
<thead>
<tr>
<th>NO.</th>
<th>Description</th>
<th>Model/NO.</th>
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<tbody>
<tr>
<td>1</td>
<td>Signal Beam Echo Sounder</td>
<td>Oceon echopac EV100 / EV100</td>
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<td></td>
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<td>Hasing HY601 / HY62</td>
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<td>South S50-18</td>
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<td>2</td>
<td>Multibeam Echo Sounder</td>
<td>Reson 120</td>
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<td>Oceon MB1 / MB2</td>
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<td>3</td>
<td>ADCP</td>
<td>Sontek NS55 / 500</td>
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<td>PDI Rulate / In depth</td>
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<td>Nortek</td>
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<td>4</td>
<td>Side Scan Sonar</td>
<td>Beijing Hainan Huawei 5400U</td>
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<td>5</td>
<td>Forward-looking Sonar</td>
<td>BlueView MA01</td>
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<td>Kongsberg 100</td>
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<td>6</td>
<td>Onsite Multi-Parameter</td>
<td>HACH 255 / MS5</td>
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<td></td>
<td>Water Quality Instrument</td>
<td>YSI/HEXO Series</td>
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<td>Saliba XRF / XRFPP</td>
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Application Case

Demo in Sontek workshop, Greece.

CL40Y equipped with Sontek M9 in Poland.

ESM30 monitoring water quality in Melbourne, Australia.

ESM30 demo in Florida, USA.
ME40 performs bathymetry survey job in a tailing dam pond in Peru.

ME70 survey the bed of island.

M80 during offshore survey.

Underwater exploration with Side scan sonar.