



Alpha M3

Emergency Detection USV

Side Scan Sonar + Single Beam + Millimeter Wave | Survey+Search+Emergency



Alpha M3 Emergency Detection USV

The Alpha M3 emergency detection USV is a highly integrated surface robot. With intelligent control, side-scan sonar, single beam echo sounder, RTK, HD camera, and android controller, it can be used for emergency detection, search and rescue, structure detection, hidden tube detection, and more.



Easy Detachable Propeller

When the propeller is entangled with fishing lines and other debris, operators can quickly detach it on site, eliminate the problem, and continue operations.



Side-scan Sonar

Equipped with dual side-scan sonar arrays, and single beam, for clear presentation of vertical 100° underwater side scan sonar images.



Single-person Measuring

Hull size 90 x 50 x 34cm, weight 18kg. Easy to carry by single person. Easy to be packed in car trunk.



Intelligent Obstacle Avoidance

Equipped with millimeter wave radar for obstacle avoidance, 40-meter heading radar sensing, and deceleration within 10 meters to avoid potential dangers.



RTK

Built-in RTK dual antenna positioning and orientation, centimeter-level high accuracy



Single Beam Bathymetry

Built-in 120-meter single-beam depth sounder, the shallowest is 0.2 m



Long Working Time

5 hours working time with 1 battery. 15A fast charging




Speed

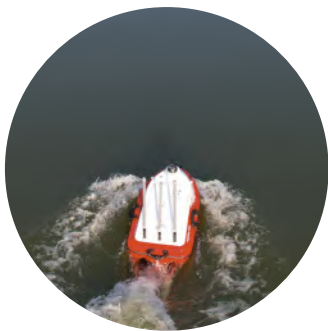
Equipped with dual pump jet thrusters, the maximum speed up to 6m/s

Multifunctional Screen Remote Controller



-  System: Android+Qualcomm 8-core
-  Transmission: Controller+Data+Image
-  Screen: 7" Bright Screen(1920*1080)
-  Working Time: 10h

Typical Application



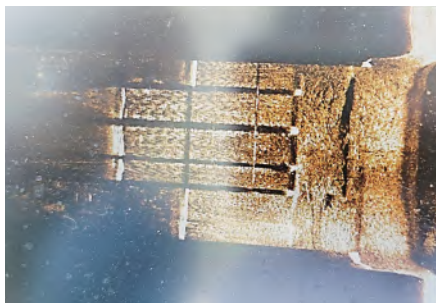
Work scenario



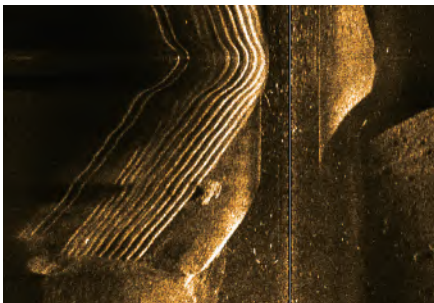
On-site command



Drowning Salvage



Engineering Testing



Emergency Detection



Hidden Pipe Inspection

Professional Set

Hull	×1
Propeller	×2
Intelligent hull control	×1
Built-in RTK	×1
Built-in HD camera	×1
Built-in single-beam	×1
Dual rocker android remote controller	×1
High performance water-proof battery	×1
Millimeter Wave Radar	×1
Battery Charger	×1
Communication antenna	×2
GNSS antenna	×2
Network antenna	×1
Radio antenna	×1
Side-scan Sonar	×2
Side-scan Sonar Control Host	×1
Carrying Case	×1
Life Jacket	×1
Tool kit	×1
Instruction Manual	×1

Customization



Megaphone



Red and Blue Alert Lights



Searchlight

Technical Specification

Physical	Dimension	90×50×34cm
	Material	Polymer
	Design	M-type trimaran
	Weight	18kg
	Max Payload	20kg
Echo sounder	Anti Wind & Wave	Level 4
	Range	0.2m-120m
	Accuracy	1cm±0.1%h (h is the meters of water depth)
	Ping Rate	5Hz
	Beam Angle	8°
Side Scan Sonar	Maximum Slope Distance	75m@900kHz
	Track Resolution	0.07m@20m, 0.17m@50m, 0.26m@75m
	Beam Angle	@V= 50°, @H= 0.2°
Obstacle Avoidance	Video	1080 HD
	Millimeter Wave Radar	Yes
Power	Thruster	DC pump jet thruster
	Propeller	4-piece aviation aluminum alloy paddle
	Protection	Double protection from aquatic plants
	Speed	Cruise 1.5m/s, maximum 6 m/s
	Battery	33.6v, 888wh
	Working Time	4-5h(1.5m/s), customized 8-10h
	Battery Type	Detachable
Position and Orientation	Satellite	GPS: L1C/A, L1C, L1P, L2C, L2P, L5、 BDS: B1I, B2I, B3I, B1C, B2a、 GLONASS: G1, G2, G3、 Galileo: E1, E5a, E5b、 QZSS: L1C/A, L1C, L2C, L5
	RTK	Built-in GNSS receiver
	RTK Accuracy	H: ±(8+1×10 ⁻⁶ D)mm, V: ±(15+1×10 ⁻⁶ D)mm
	Channel	1408
	Orientation	Three-dimensional electronic compass Dual GNSS antenna
Communication	RTK	Built-in radio and 4G network
	Video	2.4GHz
	Remote	2.4GHz
	Control Distance	Unlimited by network, 2km by radio (Typical Environment)

*The above technical parameters are for your reference. The company reserves the right to change the design and planning of the product based on the actual product.

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