



# FIFISH W6 NAVI



Inspection · Measurement · Survey  
Search · Rescue · Recovery

**Maritime ROV**

# Survey & Inspect · Rescue & Recovery Maritime ROV

## FIFISH W6 NAVI

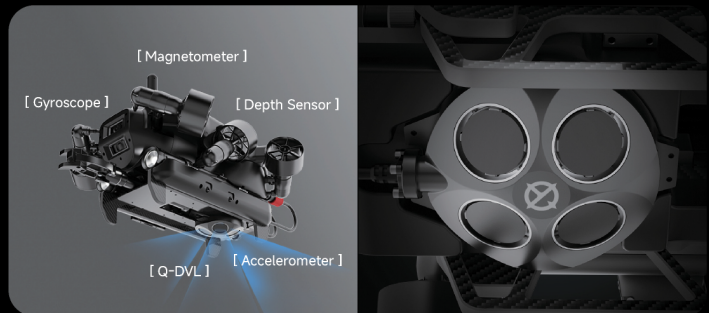
FIFISH W6 NAVI is an Maritime ROV designed for search and rescue applications, reaching depths of 350 meters with powerful propulsion and stability in strong currents. Its modular design and multiple port interfaces allow for quick component replacement and accessory switching, ensuring efficient, precise, and reliable operations.



## Advanced Underwater Navigation

### U-INS | Underwater Inertial Navigation System

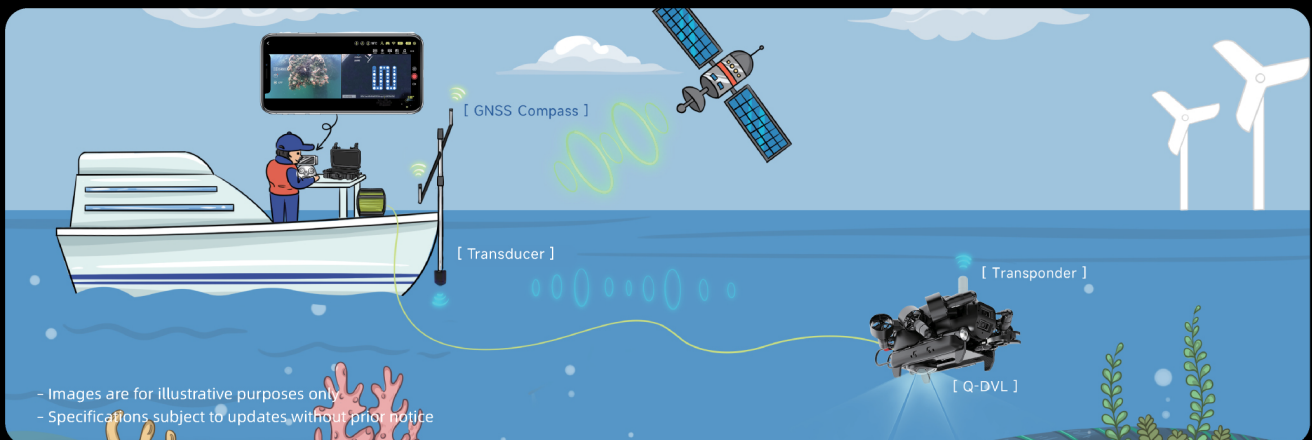
Leveraging QYSEA's AI algorithm for enhanced functionality, W6 NAVI integrates multiple internal sensors to enable relative station locking, navigation planning, path tracking, and bathymetric surveys for underwater inspections and missions.



## Advanced Global Positioning

### U-QPS | Underwater Quick Positioning System

U-QPS2 is a software and hardware ecosystem that delivers a detailed map of the W6 NAVI's real-time position, POI recordings, dynamic dive paths, and precise subsea mission planning, enhancing control and operational capabilities for the ROV pilot.



\* The GNSS Compass, Transducer & Transponder for global positioning is a separate add-on for W6 NAVI

# Enhanced Stability for Missions

## Q-DVL | Station Lock Hovering

FIFISH W6 NAVI's built-in Q-DVL is an adaptive and intuitive system, locking the ROV position underwater and precisely returning to its locked position against interferences and challenges from the underwater work environments. Execute and deliver inspections with exceptional stability, smoothness, and precision.



Altitude Locking



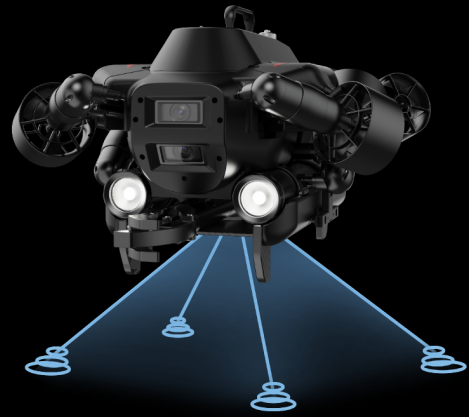
Bathymetric Mapping



Altitude Tracking



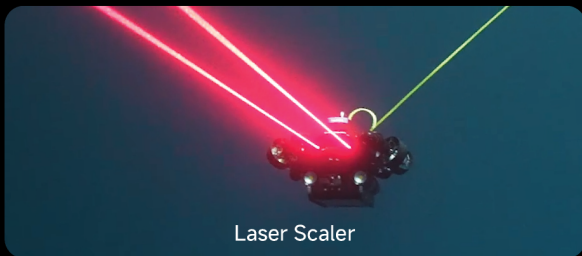
Downward Collision Avoidance



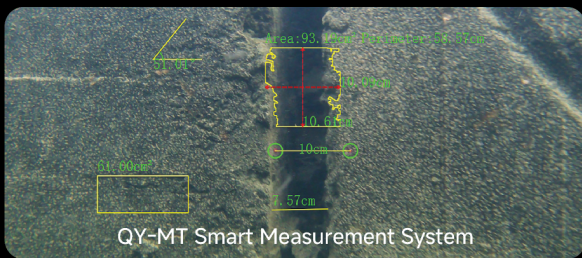
# Intuitive Measurement Tools

## QY-MT | Smart Measurement System

W6 NAVI's built-in laser scaler, paired with QYSEA's measurement software, enables precise measurements essential for search and rescue operations. It measures length, width, area, perimeter, and angles with millimeter accuracy, allowing professionals to identify structural defects, log data, and conduct evaluations that enhance rescue efforts and ensure safety.



Laser Scaler

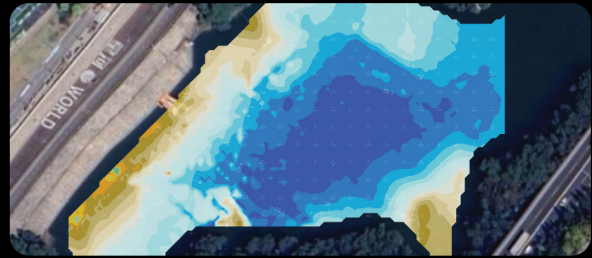
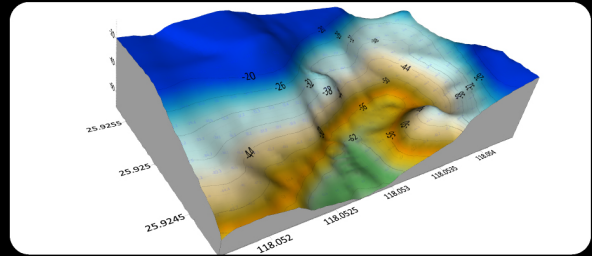


QY-MT Smart Measurement System

# Precise Mapping Systems

## QY-BT | Intelligent Seafloor Mapping

FIFISH W6 NAVI's integrated Q-DVL provides stable maneuverability and precise measurements for underwater mapping, crucial for search and rescue operations. Operators can set automated paths to capture seabed depths, export data, and generate 2D/3D maps, enabling rapid assessments and enhancing situational awareness in emergencies with post-processing software.



# Identify Objects & Landscapes with Advanced Sonar Imaging (Optional)

2D imaging sonar equipment can be integrated into the W6 NAVI, enabling operators to scan and inspect underwater environments in dark and turbid conditions. This technology provides detailed visual data of surrounding seabed areas, enhancing situational awareness and facilitating effective navigation and operations in rescue scenarios with great stability and efficiency.



## Dual 4K Camera System

FIFISH W6 NAVI's Dual 4K Camera System offers an ultra-wide field of view, enhancing inspection efficiency and providing operators with a complete underwater picture. Its comprehensive capabilities, coupled with FIFISH's patented software, facilitate extensive data collection, benefiting professional organizations and teams.

### 4K Dual Camera System

**Pixels:** 12 Megapixels

**Video resolution:** 4K UHD

**Lights:** 12,000 Lumen LEDs

**Lens:** Ultra-Wide FOV Lens

**Vertical FOV:** 100°

**Horizontal :** 166°

**ISO:** 6400 (Max)



## Q-Motor | Compact Powerhouse Motor

QYSEA's Q-Motor is a double closed-loop induction motor system, offering autonomous control, strong depth resistance, and improved energy efficiency. Its six-motor configuration, supported by intelligent algorithms, provides highly stable and smooth mobility for ROV users.



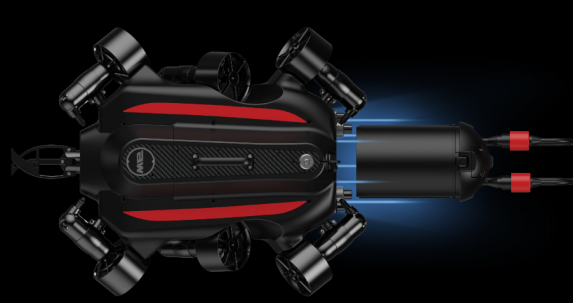
## AI Vision Lock

QYSEA's self-developed Vision Lock, available through the FIFISH APP, is a pioneering feature that keeps subjects securely in focus. Using Dead Reckoning navigation, the FIFISH W6 NAVI precisely determines object positions and delivers stabilized, real-time adaptive visual locking.

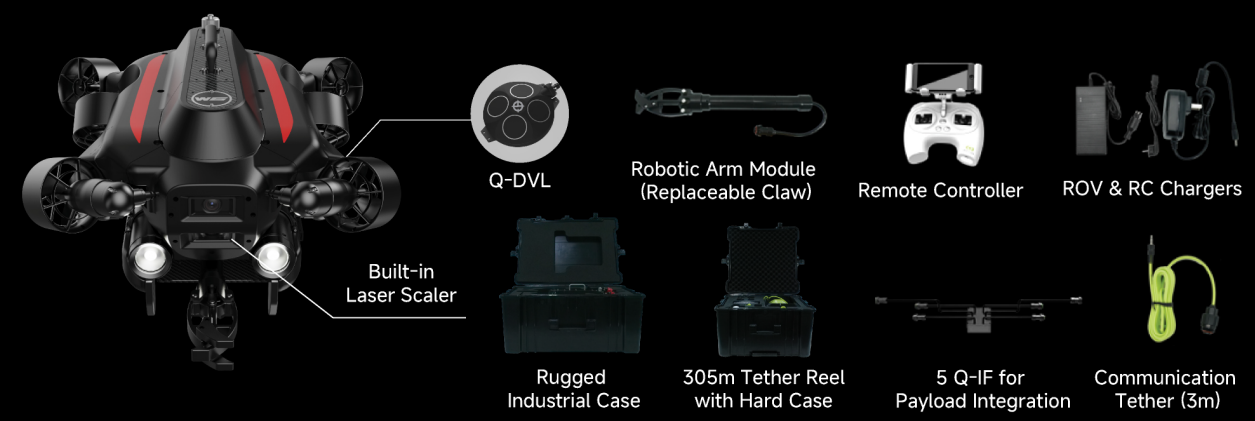


## Removable Lithium Battery

FIFISH W6 NAVI is equipped with a 388.8Wh removable battery that can be replaced at any time, enabling extended underwater operations. The battery supports a quick charging mode, reaching 70% charge in just one hour.



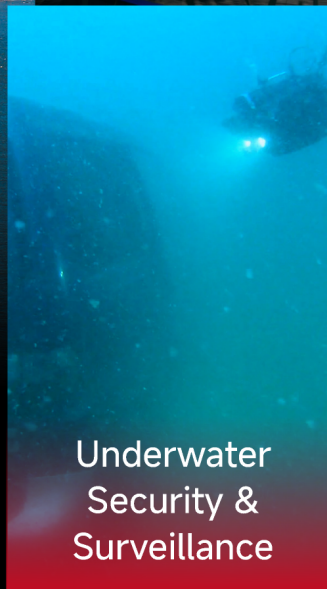
## W6 NAVI Standard Package



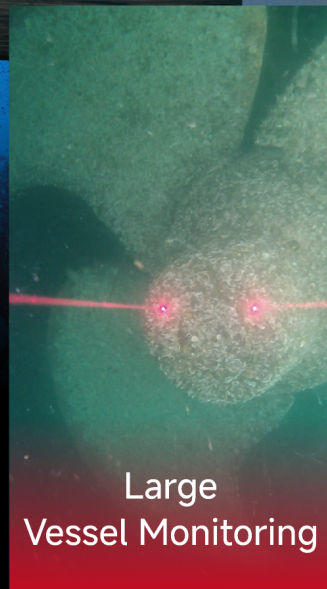
# Application Scenarios



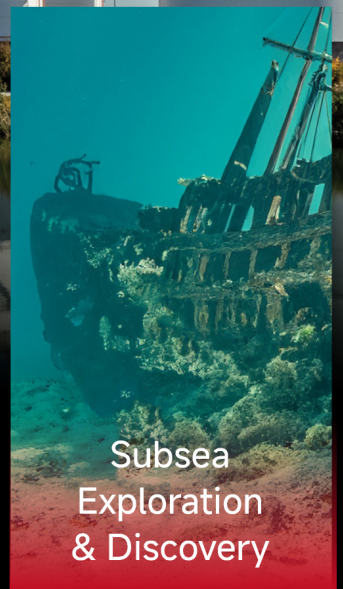
Search & Recovery  
Survey Missions



Underwater  
Security &  
Surveillance



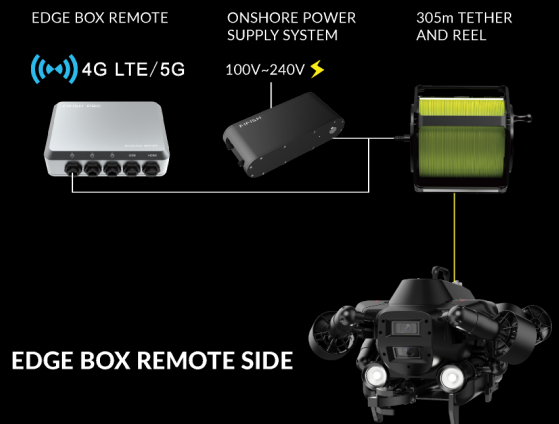
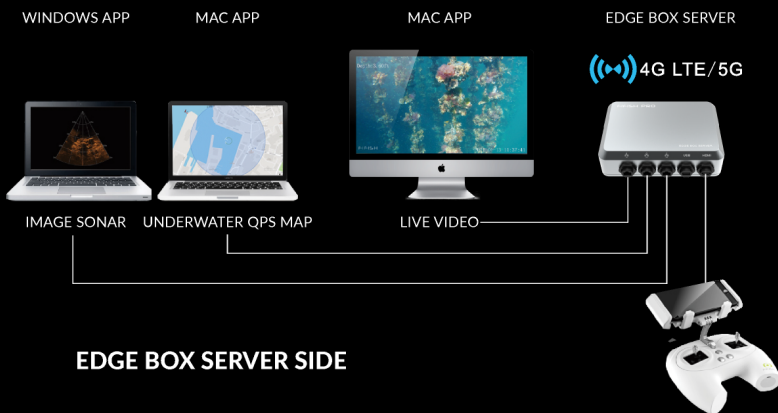
Large  
Vessel Monitoring



Subsea  
Exploration  
& Discovery

# Add-on Accessories

Remote System Control [4G/ 5G/ Broadband Network]



# W6 NAVI Specifications

## ROV

Dimensions	710mm(l) x 490mm(w) x 339mm(h)	
Weight	23.4kg	
Depth Rating	350m	
Payload	10kg	
Speed	>3 Knots (>1.5m/s)	
Propellers	6 Propellers, Hard Anodized Aluminum Alloy	
	6 Degrees of Freedom	
	Movement: left & right, up & down, forward & backward, 360° yaw, 360° pitch, 360° roll	
Operating Temp.	-10 °C ~ 60 °C (Operational Temp. Range)	
Power	1-4h (Dependent on Work Environment)	
	388.8Wh Capacity	
	Quick Charging: Full Power in 1.5h (Actual Charging Speed May Differ)	
Navigation	Underwater Inertial Navigation System (U-INS)	

## Sensors

Downward DVL	Detection range: 0.1m-100m	Station Lock & Collision Avoidance
Gyroscope	±0.1°	Posture Lock: ± 0.1° pitch angle or ± 0.1° roll angle, in any direction
Accelerometer	±0.1°	
Magnetometer	±1°	
Depth Sensor	Suspension within ±1 cm	Depth Lock
Temp. Sensor	±1°	Smart Measurement
Laser Scaler	Wavelength: 660nm (Red)	
	Type: Dual Spot Laser	
	Distance: 10cm Apart	

## Q-DVL (Distance/Speed Sensor)

Dimensions	130mm(l) x 154mm(w) x 34.5mm(h)
Weight	840g in Air, 550g in Water
Velocity Resolution	0.1 mm/s
Communication	100-BaseT Ethernet & Serial (UART 921600 Baud)
Min. Altitude	10cm
Max. Altitude	100m

## Robotic Arm

Grip Strength	20kgf
Supply Voltage	10V-26V
Max. Current	3A
Grip Size	125mm

## Charger

ROV	Input: 100-240 V, 50/60 Hz, 3A MAX
	Output: 25.2V = 6A * 2
Controller	Input: 100-240V, 50/60 Hz, 0.5A MAX
	Output: 5V = 3A

※ Specifications are subject to change without prior notice. Please contact QYSEA for detailed parameters.

## Camera

Quantity	Dual 4K Camera System
Sensor	1/2.3" CMOS
Pixels	12MP
Aperture	f/2.5
Field of View	Above Water: 166° / Underwater: 96°
Focus Range	0.3m-∞
Shutter Speed	5-1/5000 Second
Burst Shooting	1/3/5/10 Frames
ISO	100-3200 (Auto/Manual)
White Balance	2500K-7500K (Seawater/Freshwater, Auto/Manual)
Exposure Comp.	-3.0 EV to +3.0 EV (Auto/Manual)
Photo Resolution	4:3 = 4000 × 3000 / 16:9 = 3840 × 2160
Photo Format	JPEG, DNG
Video Resolution	4K UHD: 25/30 fps
	1080p FHD: 25/30/50/60/100/120 fps 720P HD: 25/30/50/60/100/120/200/240 fps
Video Encode	H.264
Video Format	MP4
Stabilization	Electronic Stabilization (EIS)
Color System	NTSC & PAL
Internal Storage	Built-in Storage(128GB*2 Standard, Upgradeable to 256/512GB*2)
AI Functions	Vision Lock

## Lighting

Brightness	6000 Lumen LED * 2
CCT	5500K
Beam Angle	120°
Brightness Levels	3

## Controller

Wireless Network	5GHz WiFi: 802.11a/n/ac
Usage Time	Up to 4 hours
Download Format	FAT32 & EXFAT (256GB Max. Storage Support)
HDMI Output	HDMI Box Required

## Tether Spool

Cable Length	305m
Tensile Strength	200kgf
Cable Diameter	6mm
Tether Weight	Neutral Buoyancy (Underwater)

## Port Interface

Quantity	4
Material	Stainless steel 316
Interface	24V @ 5A ETHERNET, UART
Adjustable Power	Adaptive Voltage Range for External Add-on Accessories
Secure Plug	Self-diagnostic Tests & Leakage Prevention

Connect with QYSEA



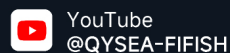
QYSEA Website



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