⊗ qysea

Enterprise-grade Advanced Inspection ROV

AR Measurement Systems | Distance & Altitude Locking | Automated & Intuitive Inspections

FIFISH PRO V6 PLUS

Intelligent Underwater Inspection & Measurement Expert

iF DESIGN AWARD 2020

⬦ GOOD DESIGN AWARD 2019

Enterprise-grade Advanced Inspection ROV

Upgrade & Operate at the Commercial Level

FIFISH PRO V6 PLUS FEATURES

150m Max. Depth	**3** Knots Max. Speed	**-10~60°C** Temp. Range	**4-6** Hours Dive Time Dependent on Task

◻ AI Vision Lock

QYSEA's self-developed Vision Lock function is a pioneer technological feature through the FIFISH APP. Vision Lock unleashes a range of intuitive capabilities that keep your subjects securely in focus. By utilizing the Dead Reckoning navigation process, the FIFISH ROV accurately determines the positions of objects and delivers highly stabilized movements to adaptively lock onto subjects in real-time.

AI VISION LOCK

◻ Intelligent Distance & Altitude Lock

The Distance Lock and Altitude Lock sonar systems measure the forward distance and the downward altitude, relative to the ROV's position, in real-time. Through these intelligent and adaptive systems, the difficulties are reduced in more complex operations, and various inspections are delivered more efficiently and accurately.

Distance Lock   Altitude Lock   Smart Collision Avoidance   Terrain Scan

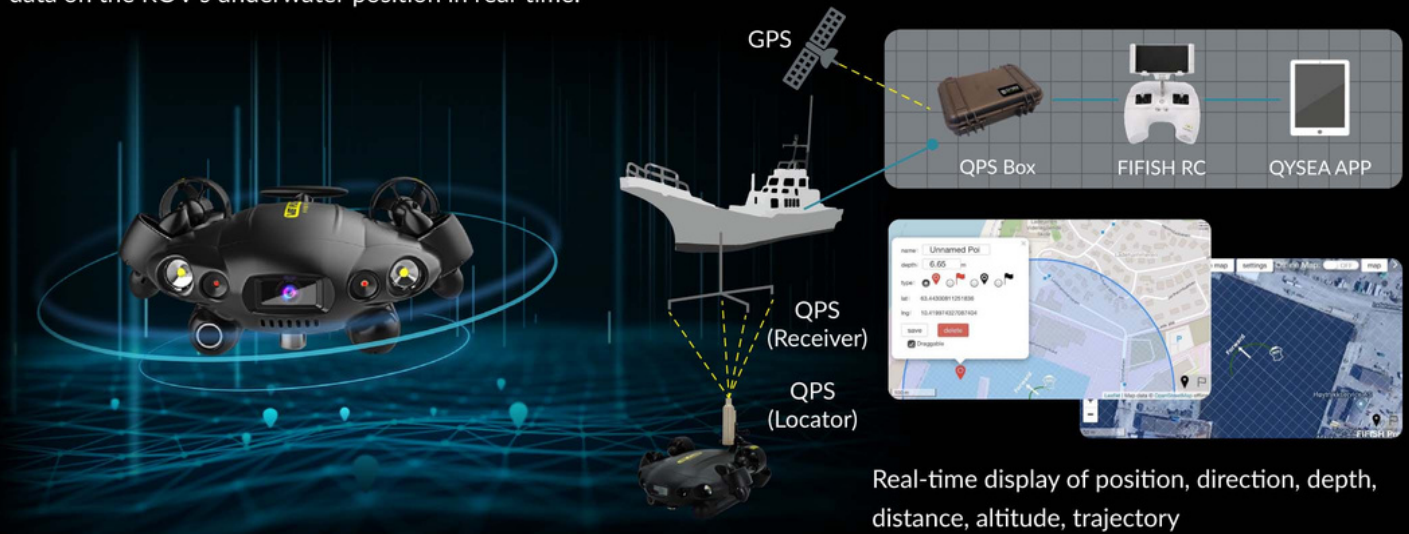## ◻ Onshore Power Supply System (OPSS)
[Optional Add-on]

Explore and work at greater distances with ease. The OPSS is a simultaneous operating and charging system delivering enhanced operation lengths and uninterrupted diving sessions.
Fast charge your underwater robot wherever your tasks take you, with multiple protection and safety mechanisms against leakage, discharges, and overheating for worry-free operations.

IP67 Rated

IP67 Rated
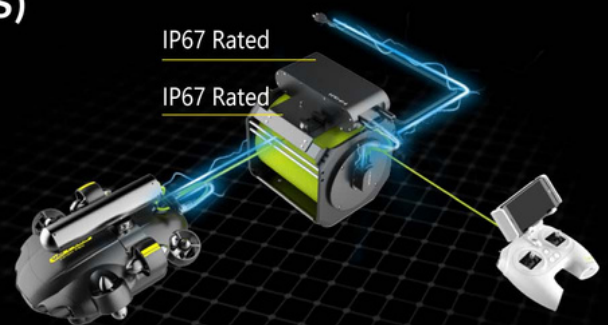
■ U-QPS [Optional Add-on]
Real-time Underwater Location Tracking

Utilizing the QYSEA patented Underwater Quick Positioning System (U-QPS), operators can identify, track and record data on the ROV's underwater position in real-time.

GPS

QPS Box   FIFISH RC   QYSEA APP

QPS (Receiver)

QPS (Locator)

Real-time display of position, direction, depth, distance, altitude, trajectory

■ AR Ruler | Adaptive Measurement System

Measure objects underwater with optimal precision. QYSEA's patented AR Ruler system delivers a measurement precision of ±1cm. Utilizing both machine vision and traditional laser measuring methods, gather accurate, self-adaptive, and visualized data of object measurements through the FIFISH APP.
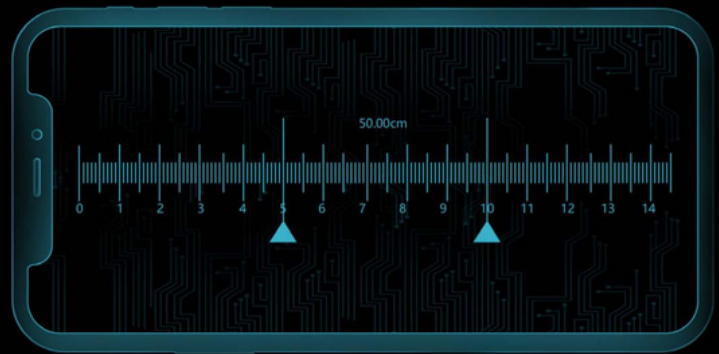
■ Laser Scaling System

Utilizing a reliable method of detailed inspections and assessments, achieve accurate measurements of the sizes of underwater objects, pits, cracks, fish, and more with QYSEA's high-precision laser.

■ Q-Motor | An Innovative & Powerful Motor System within a Compact Build

QYSEA's self-developed Q-Motor is a double closed-loop induction motor system that achieves autonomous control, strong depth resistance with high stabilization, as well as improved energy efficiency. The six-motor system arrangement utilizes intelligent algorithms to actively adapt to its surroundings, delivering highly stable and smooth mobility for its ROV users.

■ 4K High Definition & Low Noise Imagery
Ultra-Bright 6000 Lumen LED Lights

The V6 Plus's combination of its ultra-high-definition camera and powerful lighting system produces outstanding images that illuminate its surrounding underwater environments, transforming the dark spaces into bright as day.

Lights off

Lights on

166°		4K	DNG			5500K	F2.5
166° Field of View	240 FPS Slo-mo Filming	4K Ultra HD Camera	DNG Format Support	12 Megapixel Resolution	6000 Lumen LED Lights	5500K Color Temperature	f/2.5 aperture

■ VR Intelligent Head Tracking

FIFISH PRO V6 PLUS applies unique sensory controls that provide the user with a truly immersive underwater experience from the ROV's first-person perspective. Through the smart VR goggles, take the QYSEA patented full 360° directional and posture control of the drone simply by rotating the head. This intelligent feature is accurate, easy to use, and a breakthrough in underwater exploration.

■ Complete Freedom of Movement

The V6 PLUS's patented thruster system delivers 6 degrees of freedom, providing mobility in all directions, as well as full rotations in 360° pans, tilts, and rolls. FIFISH's Posture Lock™ feature secures the drone's angle in any direction of your choice, as you move and film across the waters.
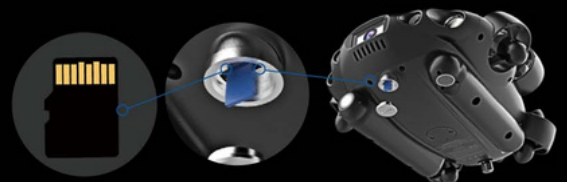
Omnidirectional Movement
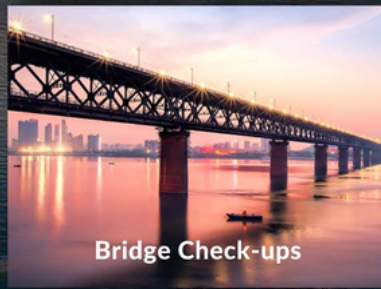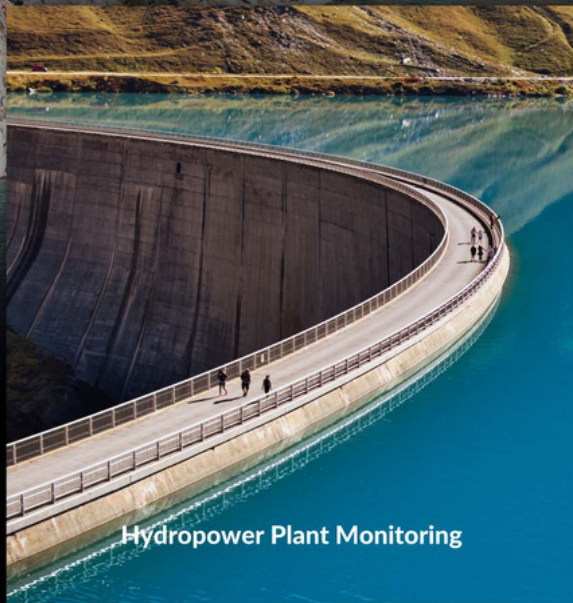
Posture Lock™ Function

Depth Lock Feature

■ Built-in SD Card Slot
Efficient Storage & Transfer

With a built-in memory slot, the microSD card can be easily inserted and removed from the FIFISH PRO V6 PLUS to transfer videos and images. The V6 PLUS ROV and its packages come standard with a 128GB memory card, delivering ample storage space for high-definition films and visuals.

■ Application Scenarios

Hydropower Plant Monitoring

Bridge Check-ups

Aquaculture & Mariculture

Underwater Pipeline Inspections

Ship & Port Maintenance

■ Accessories

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

WINDOWS APP	MAC APP	MAC APP	EDGE BOX SERVER

4G LTE/5G

IMAGE SONAR   UNDERWATER QPS MAP   LIVE VIDEO

EDGE BOX SERVER SIDE

EDGE BOX REMOTE	ONSHORE POWER SUPPLY SYSTEM	200m TETHER AND REEL

4G LTE/5G   110V/220V

EDGE BOX REMOTE SIDE

Robotic Arm

Water Sampler

Compass Ruler

Q-Camera

Salinity Sensor

Dissolved Oxygen Sensor

pH Sensor

Underwater GPS (U-QPS)

Onshore Power Supply System

IP67 Rated

IP67 Rated

Controller Sunhood

Hard Case For Tether Reel

Adaptor (For iOS)
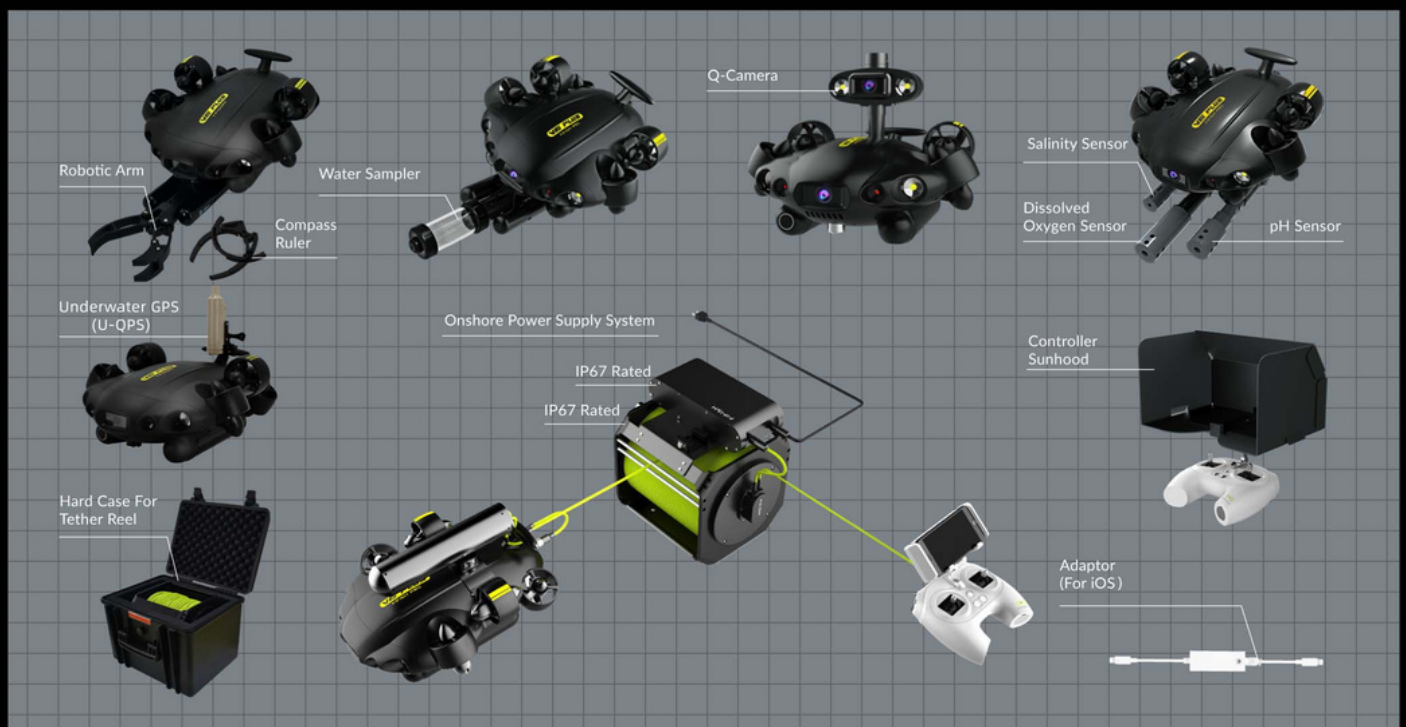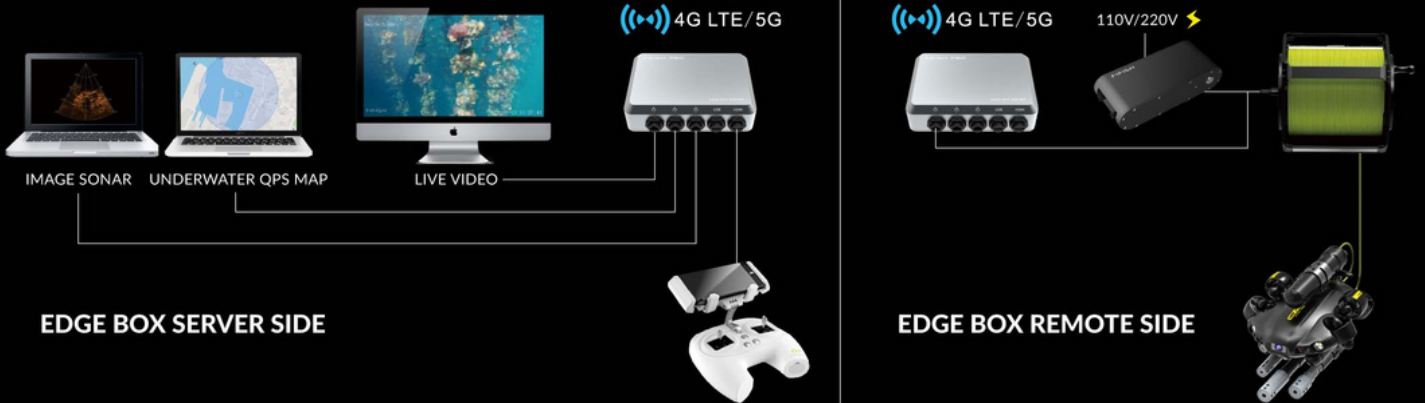
※ Product specifications & accessories are subject to change without notice. Please contact QYSEA and its partners for more details.

FIFISH PRO V6 PLUS   Specifications

■ ROV

Dimensions	383mm x 331mm x 158mm
Weight	5kg
Thrusters	6 Thrusters (FIFISH Q-Motor Technology)
Maneuverability	6 Degrees of Freedom
	Movement: left & right, up & down, forward & backward
	Rotation: 360° pitches, 360° rolls, 360° yaws
Posture Lock™	Lock the ± 0.1° pitch or roll angle, in any direction
Hovering	Keep the ROV suspending in ± 1 cm
Speed	Maximum 3 knots (1.5 m/s)
Depth Rating	150M
Temperature Range	-10 °C ~ 60 °C (14 °F ~ 140 °F)
Battery	Dive Time: 4-8 Hours (Depending on usage scenario)
	Rated Capacity: 14,400mAh / 156Wh
	1- Hour Quick Charge
	Charge Voltage: 12.6 V
	Li-ion Panasonic 21700
Sensor	Accelerometer，Gyroscope，Electronic Compass
	Temperature Transducer
	Depth Transducer

■ LED LIGHTS

Brightness	6000 Lumen LED
CCT	5500K (Correlated Color Temperature)
Beam Angle	120°
Levels	2 Brightness Levels

■ CHARGER

ROV	Input: 100-240V, 50/60 Hz，3.0A MAX
	Output: 12.6V ⎓ 10A
RC	Input: 100-240V, 50/60Hz，0.5A MAX
	Output: 5V ⎓ 3A

■ DISTANCE/ALTITUDE LOCK SONAR SYSTEM

Detection range	0.5 - 6.0m
Precision	+/-5cm

FIFISH V6 Plus Web Page：https://www.qysea.com

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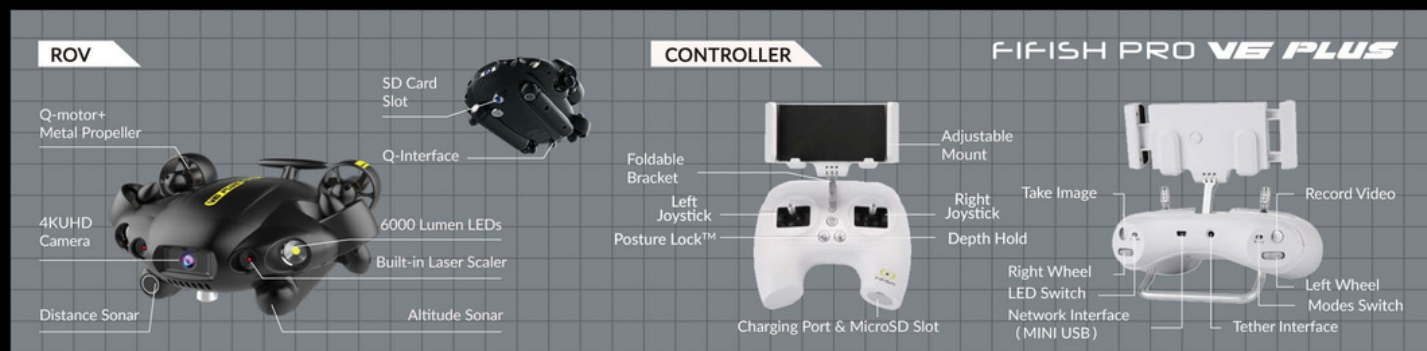
■ CAMERA

Sensor	1/2.3" SONY CMOS
Pixels	12MP
ISO Range	100-6400 In Auto / Manual
Lens	Field of View: 166°
	Aperture: f/2.5
	Minimum Focusing Distance: 0.4 m
Shutter Speed	5~1/5000 Second
Burst Shooting	1 / 3 / 5 / 7 / 10 Frames
White Balance	2500K-8000K
Exposure Comp.	- 3.0 EV ~ + 3.0 EV
Photo Resolution	4:3: 4000 x 3000
Photo Format	JPEG, RAW (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 Format	MPEG4- AVC/H.264, HEVC/H.265
Stabilization	EIS (Electronic Image Stabilization)
Colour Encoding	NTSC & PAL
Storage	Pluggable, 128GB standard, support up to 512GB

■ CONTROLLER

Wireless	5GHz WiFi,11a,n,ac
Battery Life	Up to 4 hours
SD Card Support	MicroSD Card FAT32 & EXFAT Format (to 128GB)
HDMI Output	QYSEA HDMI Output Box

■ ROBOTIC ARM （optional）

Size	140mm
Grip	10kgf
Supply Voltage	9~12V
Maximum Current	3A

■ LASER RULER

Laser Tube Type	Spot Laser
Wavelength	650nm（Red）
Scale Length	12cm

■ TETHER

Length	200m standard （100m/300m optional）
Breaking Force	100 kgf
Tether Diameter	4.0mm

■ COMPONENT BREAKDOWN

ROV
- Q-motor+ Metal Propeller
- SD Card Slot
- Q-Interface
- 4KUHD Camera
- 6000 Lumen LEDs
- Built-in Laser Scaler
- Distance Sonar
- Altitude Sonar

CONTROLLER — FIFISH PRO V6 PLUS
- Foldable Bracket
- Left Joystick
- Posture Lock™
- Adjustable Mount
- Right Joystick
- Depth Hold
- Charging Port & MicroSD Slot
- Take Image
- Record Video
- Right Wheel
- LED Switch
- Network Interface (MINI USB)
- Left Wheel
- Modes Switch
- Tether Interface