



Innovative Underwater Drones for a Range of Nordic Industry Applications

Safe and Effective Year-round Monitoring, Discovery and
Maintenance in, around and under the water.

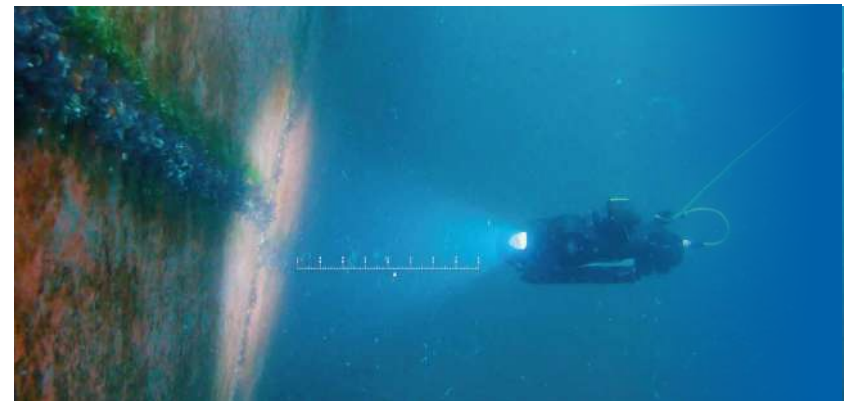
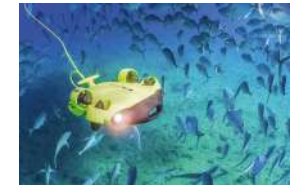
An innovative range of drones with advanced tools and features.

Flexible, robust, and adaptable for a range of industrial and scientific uses. QYSEA's drones are easily transportable and transported by one person. Simple and intelligent units which are highly maneuverable underwater, with swappable battery or onshore power. Ideal for harsh weather and difficult operating conditions.

Our enterprise-grade ROVs are ideal for the Nordics.

QYSEA FIFISH underwater robots are suitable for all water conditions:

- + Under ice work (Air temperature: -100C to -150C, Water temperature: 20C to 30C)
- + Offshore and inshore
- + High or low visibility use
- + Industrial quality with proven robustness
- + Available Nordics stock and support



World's first Sea-to-Air integrated drone by QYSEA & KDDI

About QYSEA


QYSEA Technology was founded in 2016 to push the boundaries of the global underwater robotics industry, empowering ocean exploration and discovery. Created by experts originally based at Fortune 500 companies including Microsoft, DJI, Huawei, and Foxconn, the organization now holds over 100 global patents that are utilized across the QYSEA range of innovative solutions. In partnership with KDDI we have launched the world's first Sea-to-Air integrated drone.

Adaptable solutions for a range of applications

With a range of effective add-ons for each model – ensuring full application fit.

100m


FIFISH V6



- + Portable design
- + Outstanding water imagery

4000 lumens LED lighting
Battery Life: 1 to 6 hours
Speed: 3 knots


FIFISH V6s



- + Fully powered robotic claw
- + Underwater research, search, rescue, inspections and operations

4000 lumens LED lighting
Enhanced battery – 1.5 to 6hrs
Speed: 3 knots

FIFISH V6 EXPERT




- + Professional, Compact
- + High-performance
- + Multi-functional Tools

Battery life: 1.5 to 6 hours
On-shore power supply
Speed: 3 knots

100m


FIFISH PRO ZEN1



- + Robust cinematic ROV
- + Compatible with DSLR
- + Real-time camera adjustments
- + VR controlled shooting
- + Expandable accessories
- + Strong carbon fiber housing

150m

FIFISH V6 PLUS




- + Intelligent measuring system
- + Sonar array system-distance
- + Altitude lock
- + Multiple, expandable tools

6000 lumens LED lighting
Battery life: 1.5 to 6 hours
Speed: 3 knots

350m

FIFISH V6 W6



- + Industrial-class
- + Smart ROV platform
- + 2D sonar + 3D map imaging
- + Dual 4K Camera
- + Customisable payloads

12000 lumens LED lighting
8 hours operational time
Speed: 4 knots

Simple to use and safe for underwater work and exploration

Our flexible range of innovative underwater robots are:

- + Flexible, robust and adaptable for both industrial and consumer use.
- + Easily transportable and operated by one person.
- + Simple and intelligent units which are highly maneuverable underwater
- + Safe underwater work – replacing divers or monitoring diver safety
- + Swappable battery or onshore power.

Impressive payload flexibility

Select from an impressive range of tools to assist with:

- + Observation + Measurement + Manipulation
- + Water Quality Sampling + Navigation and Underwater Positioning



- ✓ **World's first 360° omnidirectional robot**
- ✓ **Innovative, patented Q** - motor stabilization
- ✓ **Dual 4K UHD camera** – live 4K feed to surface
- ✓ **Sonar Array System**
(Collision avoidance, path set, position lock)
- ✓ **Sonar 3D mapping / positioning / imaging**

Payload add-ons to enhance industry application

Our range of add-ons have been created to meet the needs of our customers, please talk to us about bespoke requirements for your industry.

Observational Tools



Metal Detector

Scanning Sonars

Q-Camera

Remote Wireless Control System

Sonar Systems

Manipulator Tools



Robotic Arm & Hook

Mort Remover

Net Patch Kit

Fishing Net

Sawing Machine

Measurement Tools



Distance Meter / Altimeter

Compass Ruler

AR Ruler / Laser Scaler

Ultrasonic Metal Thickness Gauge

Quality Sampling Tools



Water Samplers

Water Quality Sensors

4-in-1 Water Quality Sensor

Mud Sampler

Navigational Tools



Ultra-Short Baseline Acoustic Positioning System (USBL)

Underwater Quick Positioning System (U-QPS)

Station Lock Module (DVL)

Enhancement Tools



Onshore Power Supply System (OPSS)

Electric Powered Spool

Waterproof Consoles

Aquaculture

Improve both the livestock environment and operational efficiency

FIFISH underwater robots provide a safe solution for farmers to monitor and assess livestock. Simple to operate and ready to go at any time, they eliminate the need for a diver, reducing human risk and reducing operational costs.

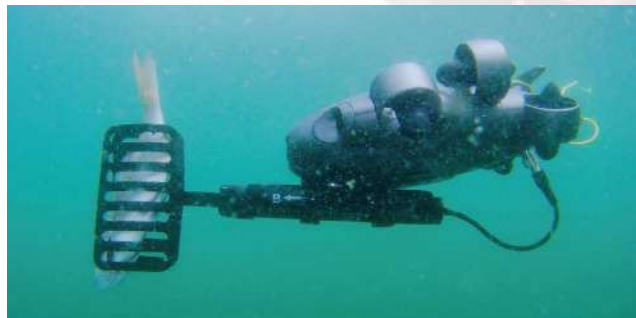
Robots can be controlled centrally, and are equipped with automatic sensing equipment to display underwater depth, monitor temperature and water quality in real-time, ensuring the optimum growth environment for your livestock.

- + Remotely monitor aquaculture areas easily.
- + Analyse fish density and growth.
- + Periodically record and inspect water quality.
- + Inspect nets and cages, and repair.
- + Monitor for diseased or dead fish on the seafloor and remove them.
- + Efficiently manage the fish feeding process

A full range of accessories tailored to aquaculture is available, including mort removal, net patching, water quality measurement, and object retrieval.



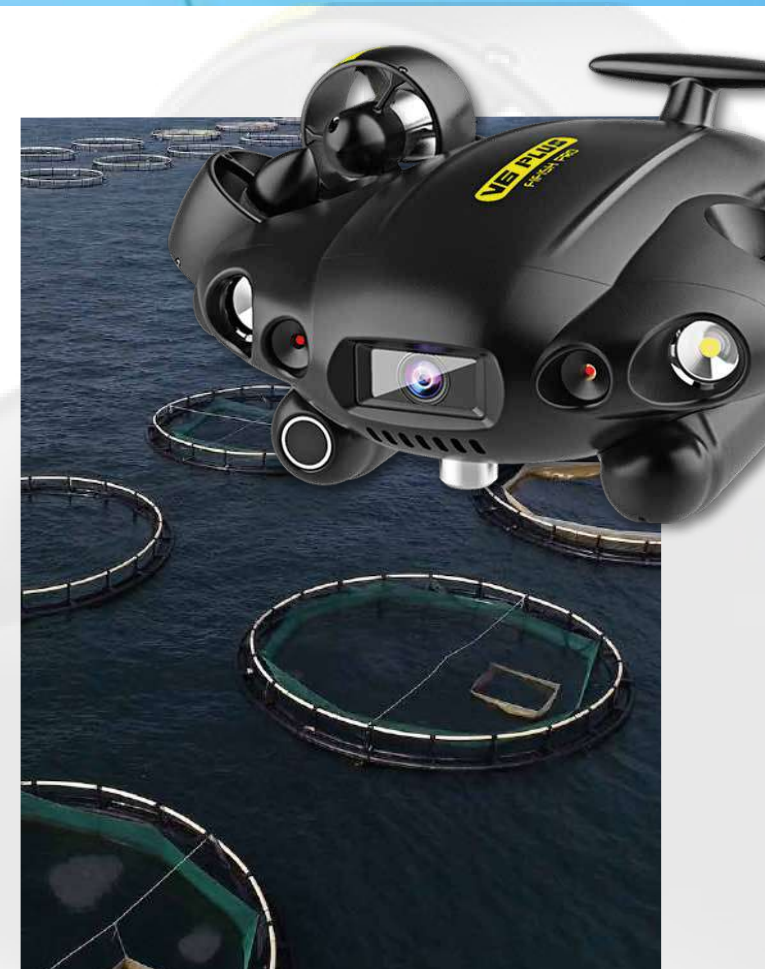
Monitor and assess livestock for the optimum growth environment.



Remove dead fish and bring them back for further analysis (insufficient oxygen, transfer mishaps, etc.).



Inspecting nets and cages



Nets and environment monitored in real-time from a central control centre

Maritime

Perform fleet inspections safely and accurately Improve port operations

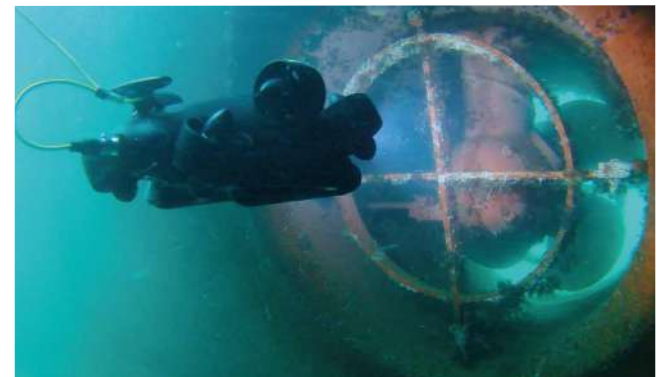
FIFISH underwater robots are highly-capable and well-equipped for port operations, shipyard inspections, and thorough hull check-ups, greatly reducing ship operating costs. With ultra-high-definition imaging you can inspect hulls for marine growth and structural damage and measure underwater objects with precision.

Robots also assist with monitoring ship movement, tracking positionings, and carrying out dock inspections to shorten average ship entry and berthing in port.

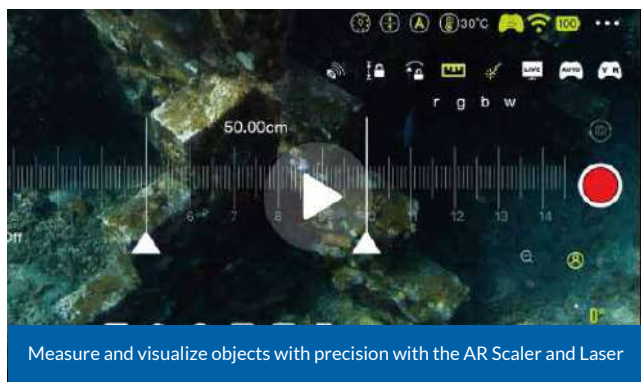
- + Simple and accurate fleet inspections with ultra-high-definition images.
- + Identify damage - broken blades, entangled objects, and other structural damage.
- + Monitor marine growth to minimize fuel consumption.
- + Measure objects underwater with optimal precision using the QYSEA patent AR scaler
- + Integrate U-QPS for accurate real-time coordinates and planning routine dock inspections.

A full portfolio of accessories for maritime use:

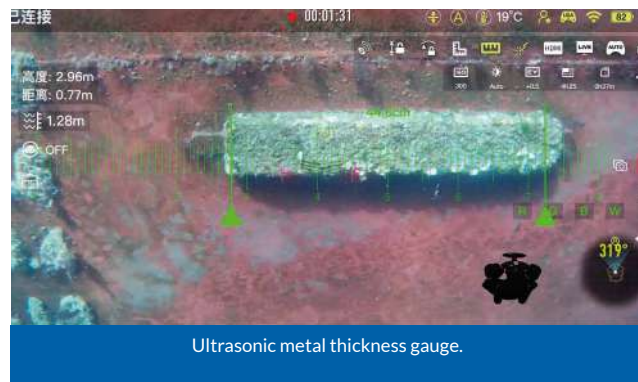
- ✓ AR Scaler, Laser Ruler, Ultrasonic Metal Thickness Gauge
- ✓ Smart sonar and U-QPS positioning
- ✓ Station Lock for complete stability and accuracy during inspections



Check the condition of your shipping fleet with ultra-high-definition images and a full portfolio of measurement tools



Measure and visualize objects with precision with the AR Scaler and Laser



Ultrasonic metal thickness gauge.



Smart sonar for hull path tracking

Offshore Energy

Safe inspection and maintenance of wind farms, platforms, and equipment

Equipped for frequent industrial maintenance and operational work on small and large offshore structures, FIFISH underwater robots offer a smart, agile solution for all conditions encountered offshore, including rough seas and dangerous or confined spaces.

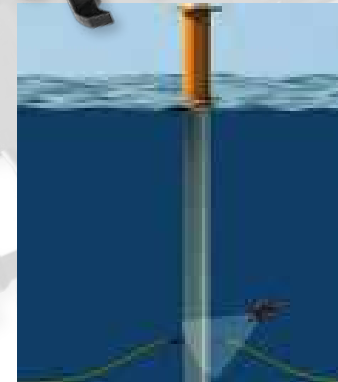
Robots can inspect sites quickly, reaching a depth of 30 meters in 5 minutes, then lock on to a target precisely, keeping the ROV position stable against drifts and currents to carry out inspections with high definition photo and advanced imaging sonar. Maintenance work, such as cleaning sacrificial anodes and re-installing bend restrictor cables, can be carried out with a range of manipulator tools.



- + Detailed inspection of pile foundations, supporting frames, cables, pipelines, pumps, valves.
- + Corrosion detection and welding inspections, equipment testing.
- + Stream team tasks live to improve collaboration and safety.
- + Suitable for rough seas, dangerous and confined spaces.
- + Deep, remote locations up to 350 meters.
- + Stable even in rough seas.

Re-installing bend restrictor towing cables

- 01 A FIFISH V6 is placed through the maintenance hole in the monopile.
- 02 FIFISH W6 places a float and tow rope into a cable hole in the monopile, which is then retrieved by the FIFISH V6 with its robotic claw.
- 03 The tow rope is used to pull the steel cable into the monopile.



✓ Inspecting and assessing monopiles and bend restrictors

✓ Inspecting underwater sections of outriggers and stiffener ribs

✓ Examination of offshore buoys

✓ Checking dustproof boards

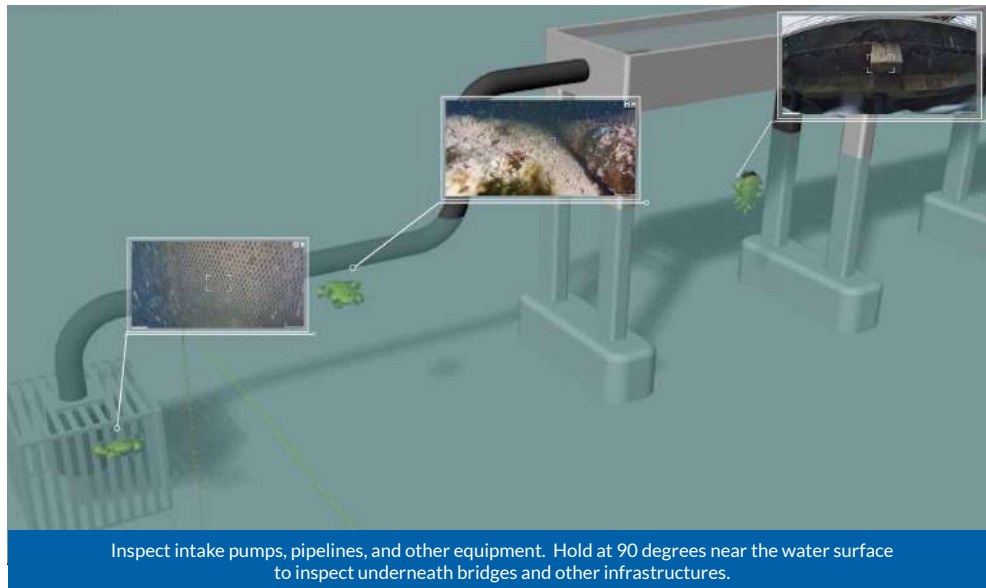


Infrastructure

Assess underwater infrastructures and systems quickly and safely

FIFISH underwater robots are ideal for performing structural and safety inspections on dams, reservoirs, hydropower plants, bridges, submerged cables, and other infrastructure. Reliable, compact and highly maneuverable, with 360° omnidirectional abilities, they can fit easily into the smallest of spaces to perform detailed inspections, measurements and testing in even the most challenging weather conditions.

- + Inspections of dams, hydropower plants, submerged cables and pipelines.
- + All-year round access, even under ice.
- + Inspect assets, quickly, in difficult-to-reach places underwater.
- + Monitor drinking water quality, inspect and clean tanks.
- + Assess and monitor for damaged or cracked pipelines, sewers
- + Conduct underwater check-ups of bridges and subsea platforms.



Accessories suitable for assessing and monitoring infrastructure:

- + UHD imaging
- + Measurement tools
- + Robotic arms
- + Water quality measurement tools

Search & Recovery

Reliable, portable solution for rescue and salvage missions

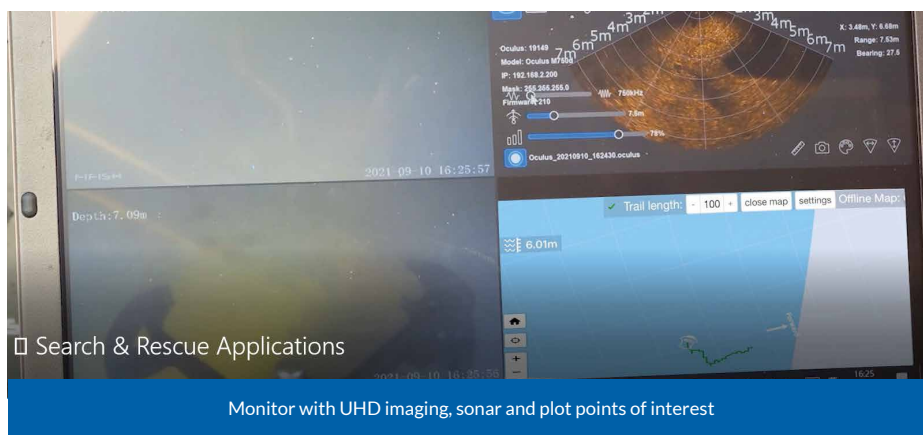
FIFISH underwater robots are portable and reliable to use in a range of search, rescue, and salvage missions. Searching and rescuing missing or drowning persons, identifying and salvaging objects and sunken vehicles.

To ensure the utmost safety, robots can be used to assess environments quickly prior to sending in divers and used to monitor divers throughout the rescue mission. In dangerous water and weather conditions, or tight and difficult-to-reach locations, reconnaissance is carried out in complete safety using high-definition cameras, sonar, and a range of manipulation tools.

- + All-weather underwater reconnaissance (-10OC to -15OC, Water temperature: 20C to 30C)
- + Assess environments prior to sending in divers.
- + Search in high depth, high water pressure, high flow water velocity, and dangerous waters.
- + Find underwater targets with precision and accuracy even in turbid waters, up to 350m depth.
- + Position holding in currents of up to 4 knots for smooth camera footage.
- + Investigate large areas of the seafloor using side-scan sonar.
- + Carry out rescues with confidence and ease.



Search and rescue missing persons



Monitor with UHD imaging, sonar and plot points of interest



- 01 Side scan sonar to create images of large areas of the sea floor
- 02 Receive accurate co-ordinates of ROV position in real-time
- 03 Plot points of interest and targets on map.
- 04 Plan search and rescue paths automatically

Defence & Security

Assess underwater infrastructures and systems quickly and safely

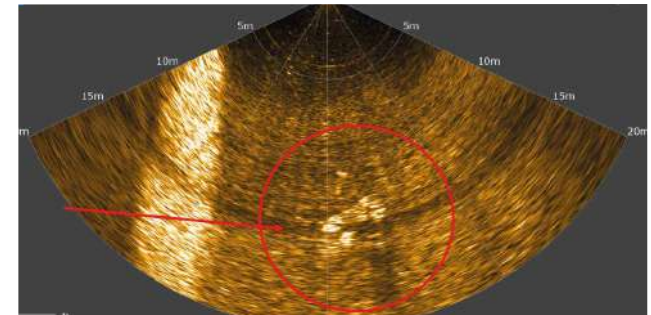
FIFISH underwater robots are highly portable and can be deployed rapidly for underwater missions, search and recovery, law enforcement, underwater monitoring, and underwater crime scene investigations.

Adapt the payload for a wide range of operations, including locating underwater objects with side-scan sonar, retrieving objects, and monitoring rivers and coastlines.

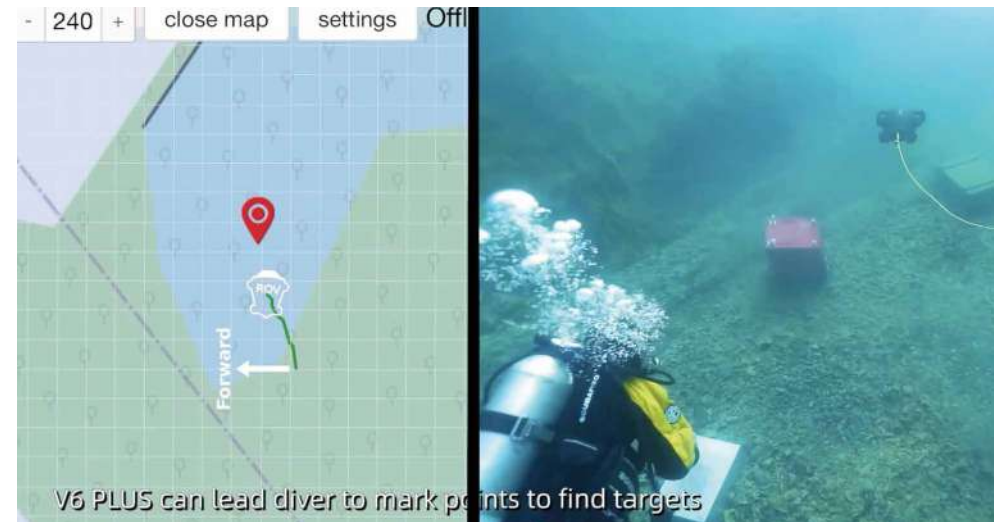
- + Rapid deployment.
- + Reduce the dangers and risk to human operations.
- + Scout and inspect novel environments.
- + Detect and intercept dangerous threats.
- + Investigate underwater crime scenes.
- + Review water boundaries discreetly.

A wide range of accessories are available, including:

- ✓ Sonar and U-QPS positioning
- ✓ Robotic arms and hooks
- ✓ Measurement tools



Investigate in difficult conditions and at night



V6 PLUS can lead diver to mark points to find targets

Identify and plot the target on the map for further investigation

Marine Science

Conduct safe and detailed underwater explorations and education

FIFISH underwater robots enable scientists to conduct detailed underwater scientific explorations and sample underwater environments, safely and efficiently. In addition to ultra-high-definition images, a full range of accessories can be attached quickly for analysis, measurement, and sample collection. The ROV can also act as a diving buddy to provide light and safety whilst underwater.

In education, the FIFISH ROV lets you deep-dive to learn about and discover ocean life and is an essential tool, not only for science, but for STEAM education (bringing science, advanced technology, engineering, arts, and maths together).

- + Environmental and ecosystem monitoring
- + Conduct surveys and analyze data
- + Collect mud samples and other objects.
- + Add your own instrumentation and additional camera.
- + Record videos during field trips for research and education.

Accessories:

- ✓ Measure water quality (dissolved oxygen, turbidity, pH, salinity)
- ✓ Measure temperature
- ✓ Sonar 360o, AR, and side-scan
- ✓ Hydrophone



Bring the underwater world to the classroom



Scan and measure terrain



Identify and plot the target on the map for further investigation

Marine Conservation

Quietly observe and protect the world's important marine habitats

FIFISH underwater robots let you quietly observe and monitor the marine environment, hundreds of thousands of marine species, and the diverse habitats that support them. Monitor any ecological changes, check for pollutants and clean up the environment with a range of collection tools.

Images of the environment and marine creature behavior can be captured in ultra-high-definition video. When you are diving, the FIFISH robot acts as a buddy providing light and checking safety during underwater exploration.



- + Monitor ecological changes and marine environments
- + Efficiently conduct underwater research and assessments
- + Avoid disrupting ocean life.
- + Clean up the environment using collection tools.

Accessories:

- ✓ Measure water quality (dissolved oxygen, turbidity, pH, salinity)
- ✓ Measure temperature
- ✓ Sonar 360o, AR, and side-scan
- ✓ Hydrophone
- ✓ Collect mud samples and other objects.



Cleaning up the environment



Monitoring for ecological changes

Leisure & Exploration

Discover and immerse yourself in an exciting underwater world

FIFISH robots provide a unique opportunity for up-close underwater exploration of wrecks, archaeological sites, as well as observing the behavior of ocean life, from the comfort of dry land or boat. The robots are used by individuals, diving clubs, leisure, and tour companies as a safe way of seeing the wonders of the deep without diving or to ensure safety during a dive.

Take longer and deeper dives to view underwater sites using ultra-high-definition video, attach lighting, and your own camera using sporting camera mounts. You can monitor the robot's dive through VR and manipulate a range of accessories including metal detection and object retrieval.

- + Underwater exploration, without the need to dive.
- + Light up diving sites and monitor diver safety.
- + Check out underwater sites, difficult to get to locations.
- + Discover ocean life and monitor behavior.
- + Investigate shipwrecks and conduct underwater archaeology.
- + Underwater filming, streaming video with 4K clarity.



Explore without the need to dive



Dive wrecks with an ROV dive buddy



Easy to use controls and VR

Film and Photography

Capture film and photographs with 4K clarity for research and cinematic use

User-friendly and ready-to-go solutions for capturing cinematic underwater footage with superb quality. Features noise reduction technology to bring out the vivid and true colors of the ocean to your screen.

We have a range of underwater robots suitable for different requirements. Our PRO ZEN1 is DSLR compatible with real-time camera adjustments from the surface. The PRO W6 delivers 4K UHD imaging at depths of up to 350m. Talk to the QYSEA team for suggestions on the best fit for your needs.

- + HDMI live streaming and video recording.
- + Work alongside the drone, or film without the need to dive.
- + Film completely free with 360o mobility.
- + VR headset controlled shooting.
- + Shoot in cinematic clarity and brightness with slow-motion features.
- + Monitor the safety of scuba divers and photographers.



12 Megapixel Resolution 166° FOV Wide-Angle Lens



4K UHD Camera



6000 Lumen LED Lights



DNG (RAW) Format Support



240 FPS Slo-Mo Capture



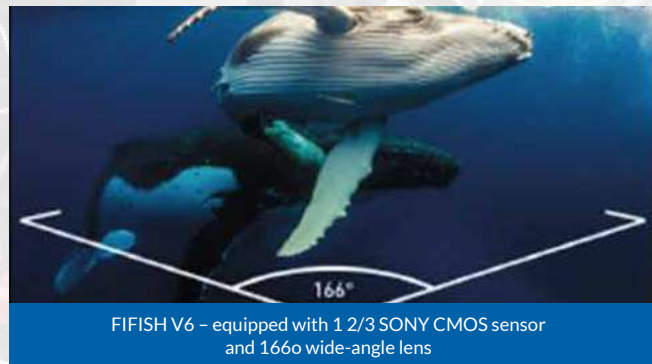
Secure SD Card Slot



Make real-time adjustments to camera parameters onshore



Illuminate objects with 6000 Lumen LED Lights



FIFISH V6 - equipped with 1 2/3 SONY CMOS sensor and 166o wide-angle lens

Would you like to talk to an applications specialist?

Please reach out to the QYSEA Nordics team to get a greater understanding of how a QYSEA underwater drone could meet the needs of your business.

We can arrange local or via-video demonstrations.

We have local stock within the Nordics and support.

Nordics Contact: info@qysea.se | +46 70 740 04 34



Award-winning underwater robots and AI

QYSEA Science & Technology has been developing innovative award-winning underwater robots since 2016 and is a world leader in underwater robotics and AI solutions. With 100 global patents and continued investment in research and development, QYSEA has developed core technologies, including precision 360° control, underwater AR intelligent measurements, object recognition, and underwater obstacle avoidance, to name just a few.

