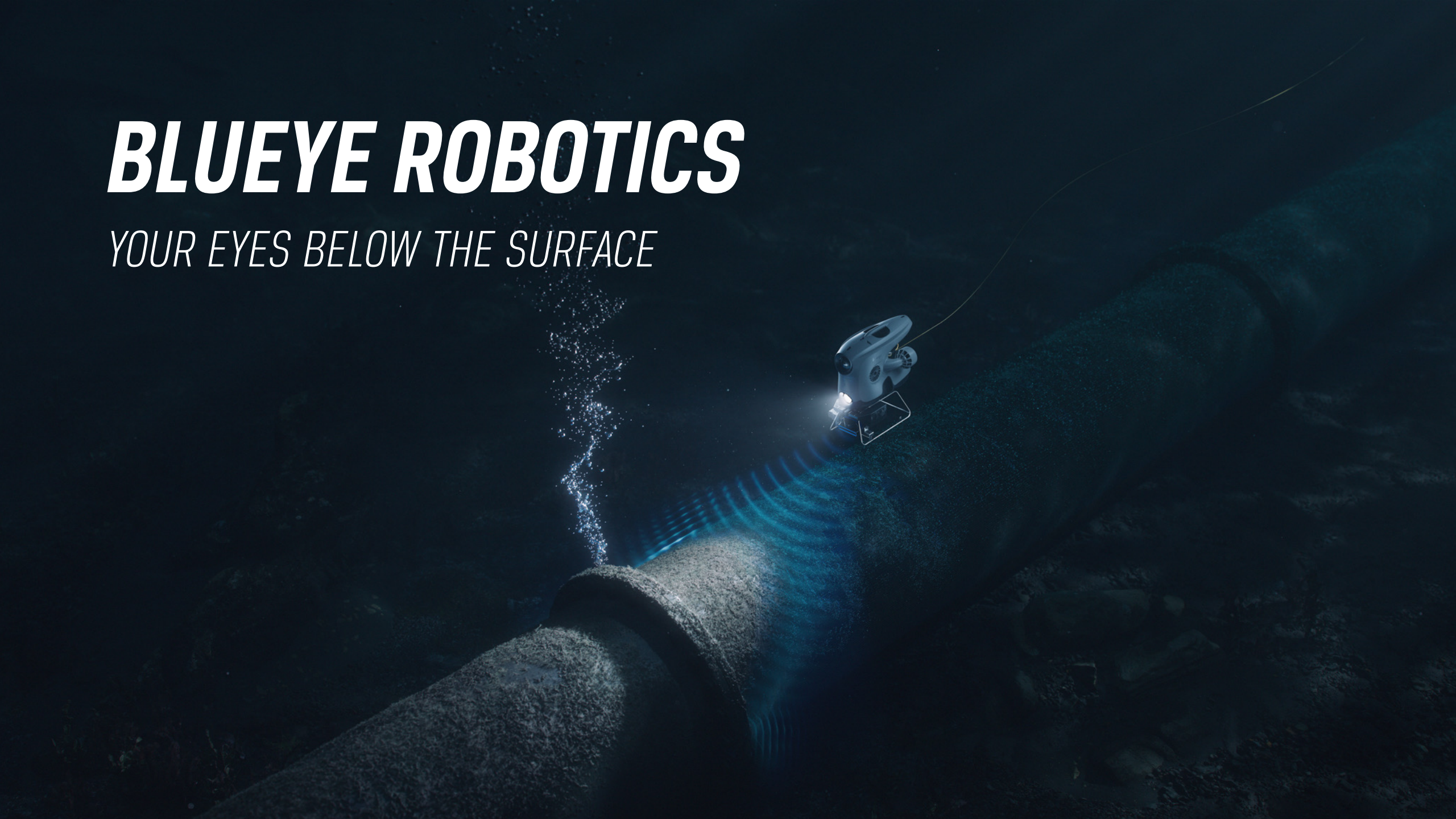
BLUEYE ROBOTICS

YOUR EYES BELOW THE SURFACE

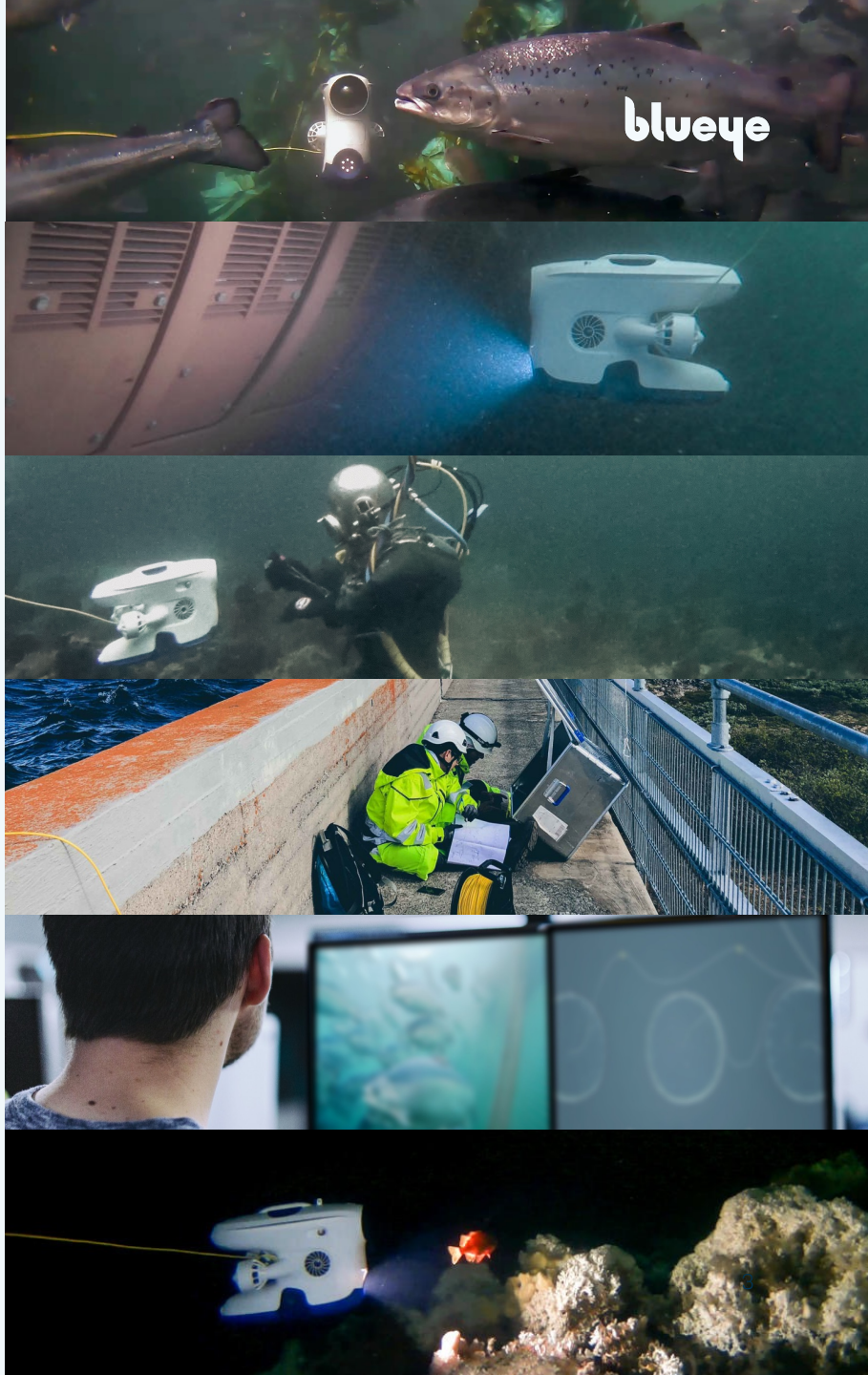


MEET THE TEAM BEHIND BLUEYE ROBOTICS

- Spin-off from the Centre for Autonomous Marine Operations and Systems (AMOS) at NTNU.
- A passionate team of **20+ international experts** in various fields such as software, cybernetics, mechanical- and industrial design, underwater robotics, marketing, and business development.
- Development, design, testing, production, support, and service **in Norway**.
- Supplied over **1300 ROV systems** across over **60 different countries**.

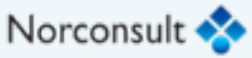
OUR INDUSTRY EXPERIENCE

- Aquaculture
- Marine Research
- Shipping
- Defence and Military
- Port Inspections
- Dam inspections
- Construction
- Search & Rescue
- Offshore Oil & Gas
- Cruise and tourism
- Inspection Sevices



blueye


OCEANEERING


Norconsult


HURTIGRUTEN


JOTUN


MÆRSK


Torvald
Klaveness


SUISSE-ATLANTIQUE


Statkraft


MOWI


PORT OF
LONGYEARBYEN
SPITSBERGEN


equinor


RS(+)


NORWAY
ROYAL
SALMON


TechnipFMC


Multiconsult


Grieg
Seafood®


SALMAR


LERØY


UNITED STATES
NAVY


INCHCAPE
SHIPPING SERVICES


FRONTLINE

BLUEYE / *MADE IN NORWAY*

- Our underwater ROVs are **designed, developed, tested, manufactured, and supported** in Norway.
- Our manufacturing partner is the Norwegian company, Inission, with over 20 years experience in manufacturing **high-tech** electronic and electro-mechanical components for **harsh environments**.
- Norway and Trondheim have a **strong position** internationally within the blue economy and the sea. That legacy is a great advantage to have when entering the international market.
- The feedback we often get from international customers is that they **trust Norwegian quality and design**.
- With the **Blueye X3 ROV** and all the opportunities it brings along, Blueye can compete against the most prominent players in the world.

Photo: Kajsa Selnes

BLUEYE / PROVEN CAPABILITY TO DELIVER HIGH VOLUMES

- Although being a young company Blueye has a **proven track record** of delivering high-volume orders to its customer base.
- We hold **large quantities of inventory** to secure short delivery time to our customers.
- We manufacture in large batches and are able to **scale up** production to match larger orders.
- Blueye is in a strong financial position and has **no issues** with delivering **large quantities** within a **short time frame.**

Photos: Kajsa Selnes

UNDERWATER ROV MARKET

HOBBY DRONE | **MINI ROV – INSPECTION ROV CLASS 1 & 2** | **WORKING ROV CLASS 3 & 4**

WHAT HAVE WE EMPHASIZED IN DEVELOPMENT?

EASE OF USE

- Software that works seamlessly with hardware
- Wireless connection on the surface
- Maintenance and service
- Training needs

STABILITY

- Spatial awareness
- High-quality video/image
- Control and handling

INDUSTRY TOOL

- Professional degree
- Reporting and easy file transfer
- Possibilities for sensors and accessories

SUPPORT & SERVICE

- Quick support
- Help Center
- Remote diagnostics

DEVELOPED AND PRODUCED IN NORWAY

BLUEYE USER INTERFACE

PHYSICAL DESIGN AND HANDLING

The ROV design is hydrodynamic and self-stabilizing for performance in rough environments. Robust plastic and rubber protection.

The dimensions are 485 x 257 x 354 mm (LxWxH). It weights 8,6kg.

The photo to the left show how easy it can be carried and operated by a single person, for example in/out of MOBs.

SYSTEM USED IN BOTH ARCTIC AND TROPICAL ENVIRONMENTS

- The ROV can operate in temperatures between -5 to 40°C. The system is resistant to temperatures between -10 °C and 40 °C during transportation and storage.
- Blueye have clients in over 60 countries. The Blueye ROVs has been as far as to the North Pole and in warmer countries such as Oman and Mauritius.
- The photo to the right is taken at the North Pole. Researchers used two ROVs to carry a hyperspectral camera.

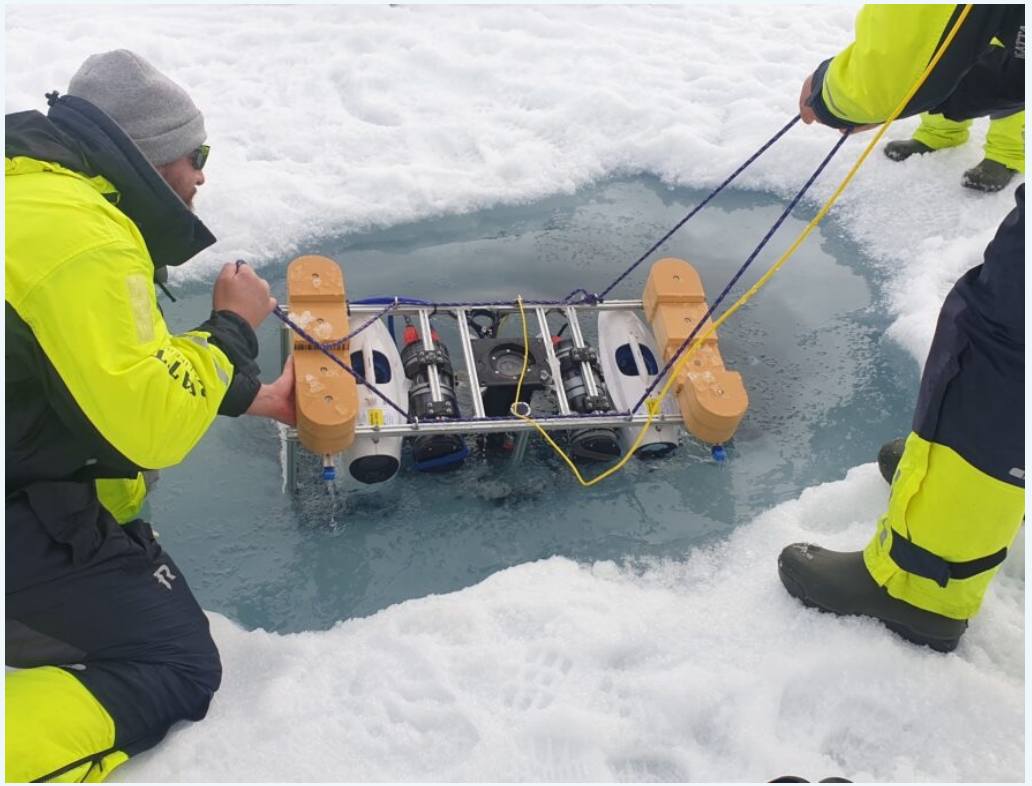


Photo: NPI / ntnu.no

Blueye ROV
Stable design.
Easy to control and handle.
Deployed in minutes.
Great video quality.
Made in Norway.

Tether & Reel Case
Light and robust tether.
Minimal drag force.
100 KG breaking strength.

Surface Unit
Wireless router.
Installed inside Reel Case.
Battery powered.
Allow multible connections.

Blueye App
Controls the ROV.
iOS and Android compatible.
Built in reporting feature.

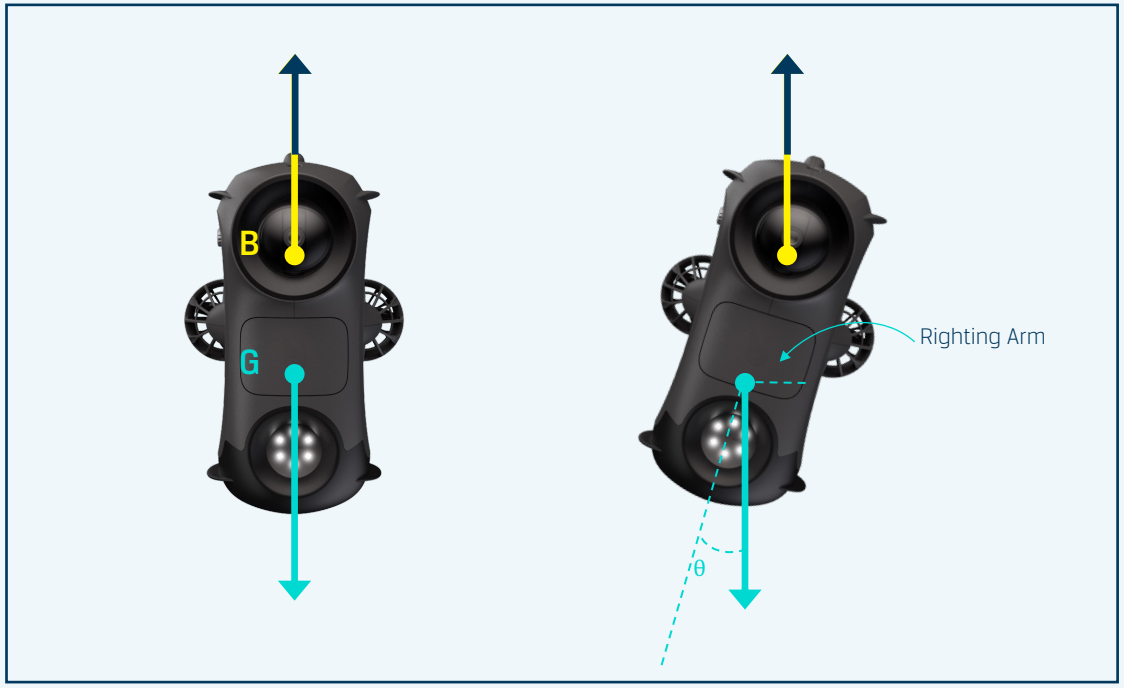
Wireless Controller
Battery powered.
One-man-operated.
User-friendly.

Live-stream
Extra set of screens.
Watch the dive remotely.
Stream to Teams meetings.
Watch in the Observer App.

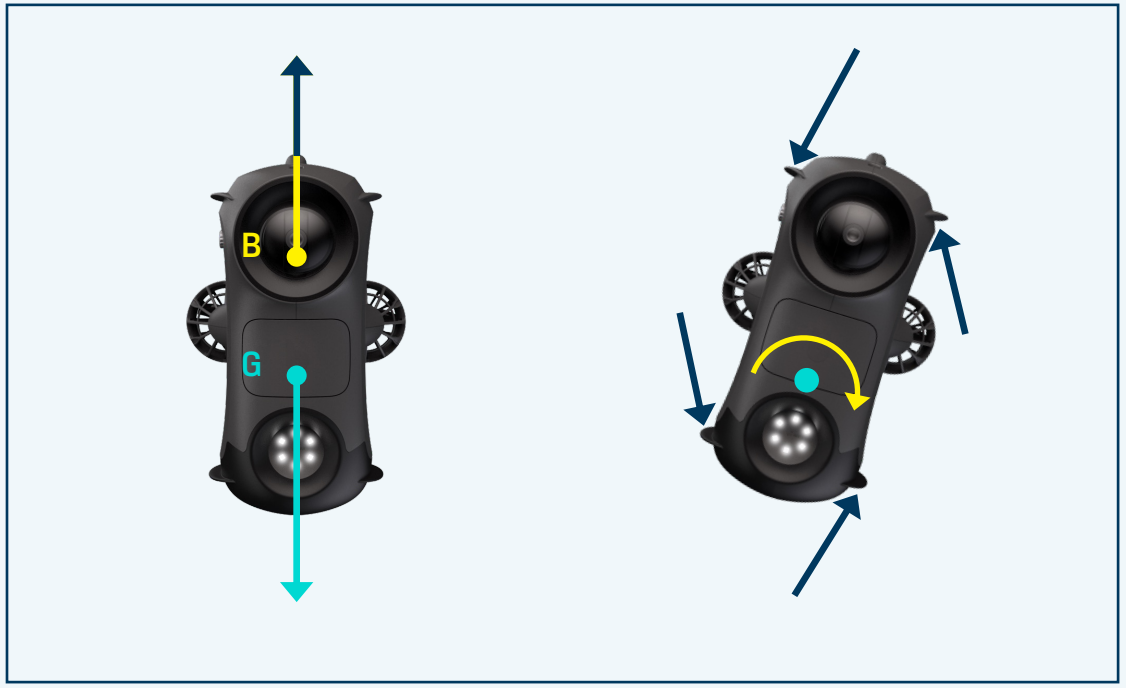
THE BLUEYE ROV SYSTEM

MECHANICALLY STABLE DESIGN

STATIC STABILITY



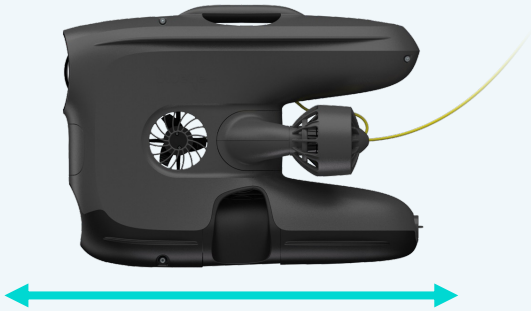
DAMPING ROLL WITH FINS



Righting moment = BG* sin(θ) * Bouancy force

MANEUVERABILITY

UP & DOWN
(Vertical)



FORWARD & BACKWARD
(Horizontal)

DIRECTION
(Heading)

SIDEWAYS
(Pan)

CONTROLLER / *XBOX or Rugged Controller*

- One of Blueye's design principles is to utilize well established technology to create the best possible user experience.
- The Blueye ROVs are controller by a Blueye App on either an iOS or Android smart device. One can choose to control the ROV directly via touch on the smart device screen or using an external controller.
- The Xbox controller option has a rechargeable battery and a phone clip compatible for iOS and Android devices.
- The Rugged Controller includes a Samsung Tab 5 and weather resistant.

APPLE VISION PRO

Configure a **virtual control center** using the Apple Vision Pro with multiple screens showing sonar imagery, maps, mission planning, reference documents, or your dive plan.

The screens can be anchored in 3D space and you can move around with the headset and interact with the physical world.

- Compatible with the Blueye App and the Blueye Observer app
- The Blueye App runs directly on the headset. Connect an Xbox Controller or other compatible controllers to operate the drone.

BLUEYE PRODUCTS AND ROV SYSTEM

HARDWARE

Blueye ROVs
Exceptional user experience, hydrodynamic design, and fully certified. 4 powerful thrusters, HD camera, up to 5 hours battery time and 1000 ft/305 m depth rating.

Blueye Charger
Fully certified custom made charger, allowing for charging of battery inside the drone, or externally for spare batteries.

Blueye Battery
Custom 99.5 Wh*/212 Wh battery pack providing up to 2h/5h operational time. Fully certified and safe smart battery.
*allowed as carry-on luggage on airplanes.

Blueye Surface Unit
Battery powered, waterproof Wi-Fi router, with custom communications protocol to allow for network communication over a long, thin tether. Fully certified.

Blueye Reel with tether
Tether reel with a custom-molded plastic disc to fit a Blueye Surface Unit onto an off-the-shelf cable reel. Fits with all tether lengths available for Blueye ROVs.

Blueye Smart Connectors
Connectors for plug and play external equipment. Includes a circuit board containing metadata about the connected equipment, allows Blunux to start software modules automatically.

ACCESSORIES

Zarges Aluminum Transportation Case
Customized Zarges transportation case with wheels. Foam inset fitted for a Blueye underwater drone, tether reel, and accessories.

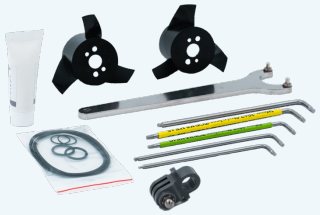
Blueye Protective Case
Customized hard case for different external equipment compatible with the Blueye X3. Foam inset fitted for the specific equipment to ensure protection during transport.

Off-the-shelf controller
Choose between a wide range of off-the-shelf controllers to control the Blueye underwater drone.

SPARE PARTS AND TOOLS

Replacement tether
Easily swap an old tether out with a new in different lengths. 100kg breaking strength.

Replacement thruster
Extra thrusters with propeller available for replacement. Comes with tools.



Toolkit
A small set of necessary tools are complemented in the drone package.

BLUEYE X1 *UNDERWATER DRONE*

The ultimate tool for professionals. Quick and user-friendly inspection of your assets below the surface.

Camera
TILT

Excellent
SUPPORT

Multiple spectators
OBSERVER APP

Depth
1000 FT

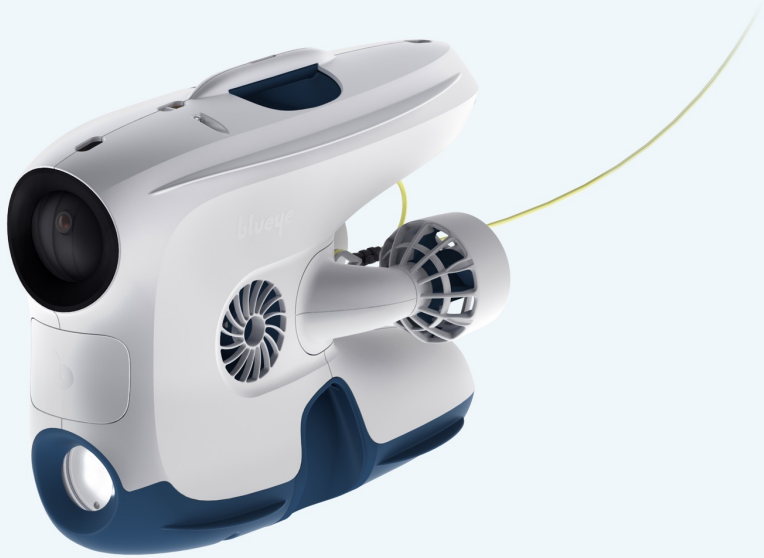
Battery
5 HOURS*

Live streaming
to MS Teams

Fully
CERTIFIED

Self-
SERVICEABLE

1x
GUEST PORT



THE BLUEYE X3 ROV

3x
GUEST PORTS

Camera
TILT

Multiple spectators
OBSERVER APP

Depth
305 M

Battery
5 HOURS*

Live streaming
to MS Teams

Fully
CERTIFIED

Excellent
SUPPORT

Self-
SERVICEABLE

TECHNICAL DETAILS

FULL HD/TILT CAMERA

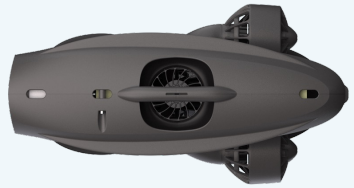
Tilt the camera up or down for more effective and high-quality inspections

POWERFUL LED LIGHT

3300 lumens allow you to dive into the dark with optimal color reproduction at 90 CRI.

THIN TETHER

Durable and replaceable tether that creates minimal drag.



UNDER 9 KG

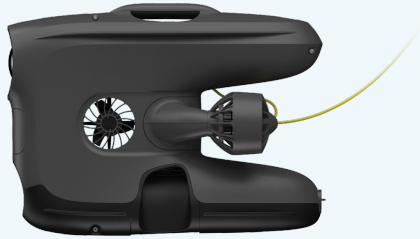
Low weight which makes the drone easy to operate by just one person.

3 KNOTS FORWARD SPEED

Drive in difficult conditions. Handles power up to 2 knots.

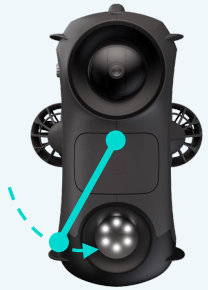
BOTTOM DIVING

Smart placement of engine nozzles makes this possible without damaging the sight or the drone



305 M DEPTH RATING

Robust tool pressure tested to withstand many and frequent dives.



SELF-STABILIZING DESIGN

As well as automatic direction and depth functions.

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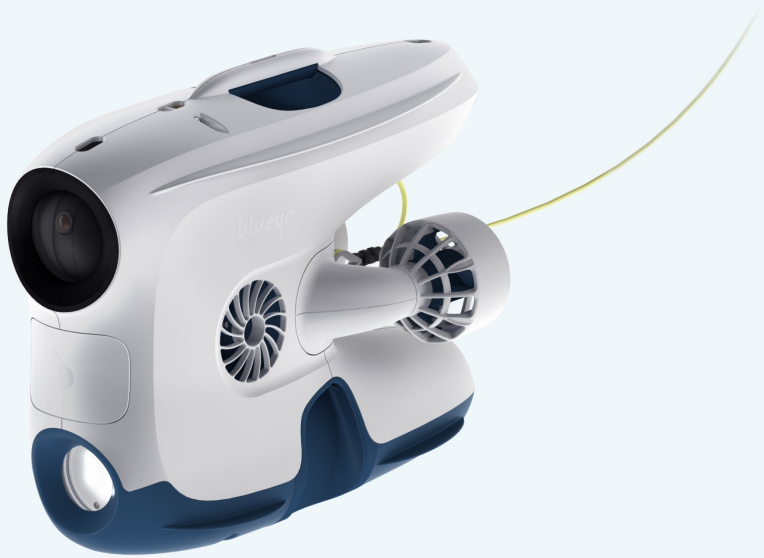

THE BLUEYE X3 ROV

3x
GUEST PORTS

Camera
TILT

Multiple spectators
OBSERVER APP

Depth
305 M

Battery
4 HOURS*

Live streaming
to MS Teams

Fully
CERTIFIED

Excellent
SUPPORT

Self-
SERVICEABLE

COMPARING THE MODELS

	PIONEER	X1	X3
CE certified	Yes	Yes	Yes
Depth rating	150 m / 492 ft	300 m / 1000 ft	300 m / 1000 ft
Storage capacity	64 GB	256 GB	256 GB
Light	3300 lumen	3300 lumen	3300 lumen
Light colour rendering index	70	90	90
HD Camera with high light sensitivity	Good	Good	Excellent
Tiltable Camera		Yes	Yes
Guest ports (external peripherals)		Yes - one	Yes - three

X3 TECHNICAL DETAILS

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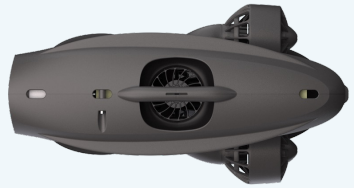

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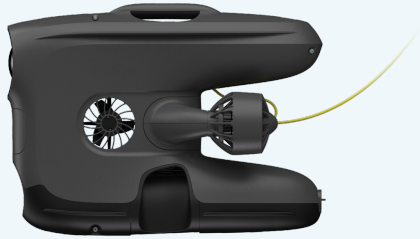

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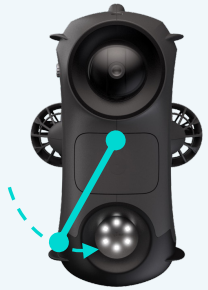


SELF-STABILIZING DESIGN

As well as automatic direction and depth functions.

APPS & SOFTWARE

INTRODUCTION TO THE BLUEYE APPS AND SOFTWARE SOLUTIONS

THE BLUEYE SOFTWARE STACK

The Blueye Software Stack consists of these core components:

- **Blueye App:** iOS and Android app to control and configure the drone and surface unit.
- **Blueye Observer App:** iOS and Android app allowing multiple spectators to view the video stream.
- **File Transfer App:** macOS, Windows, and Linux applications allow users to download media files to their computers.
- **Blunux:** The internal code name for the operating system running on the drone, consisting of a control system, logging and telemetry, embedded firmware, video streaming, and much more.

We built our software stack to be easily upgradeable to make sure you benefit from improvements and new developments in the future.

Software icons:

Blueye App

Blueye Observer App

File Transfer App

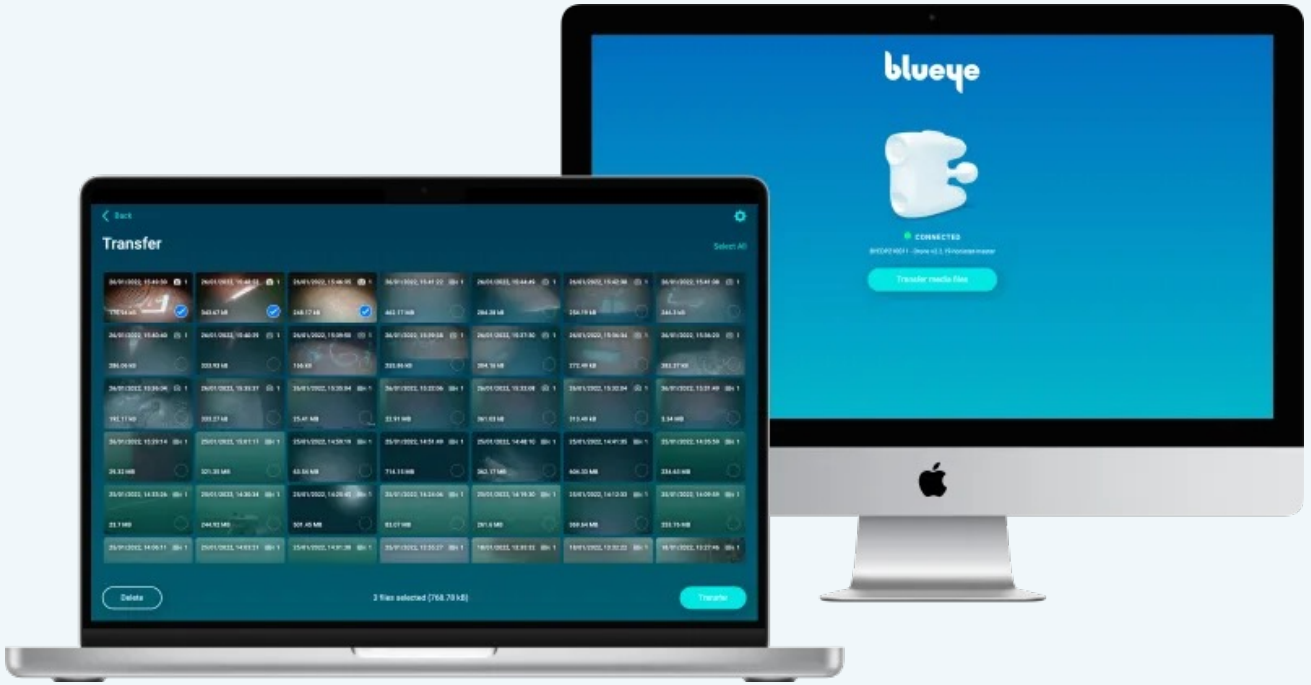
Blunux

THE BLUEYE APP

- We have designed the **drone system to be controlled** from the Blueye App, installed on your iOS or Android device.
  - The app also works on a macOS computer running M1 or M2 processors.
  - Free download from AppStore and Google Play.
- The Blueye App **connects the drone, Surface Unit, and remote controller** together (via Wi-Fi and Bluetooth). There is no need for additional programs or equipment that typically requires external power.
- The app has many functionalities, in addition to controlling the ROV. It provides software updates for the drone, shows you connectivity and battery statuses, and allows you to transfer dive footage and create reports.

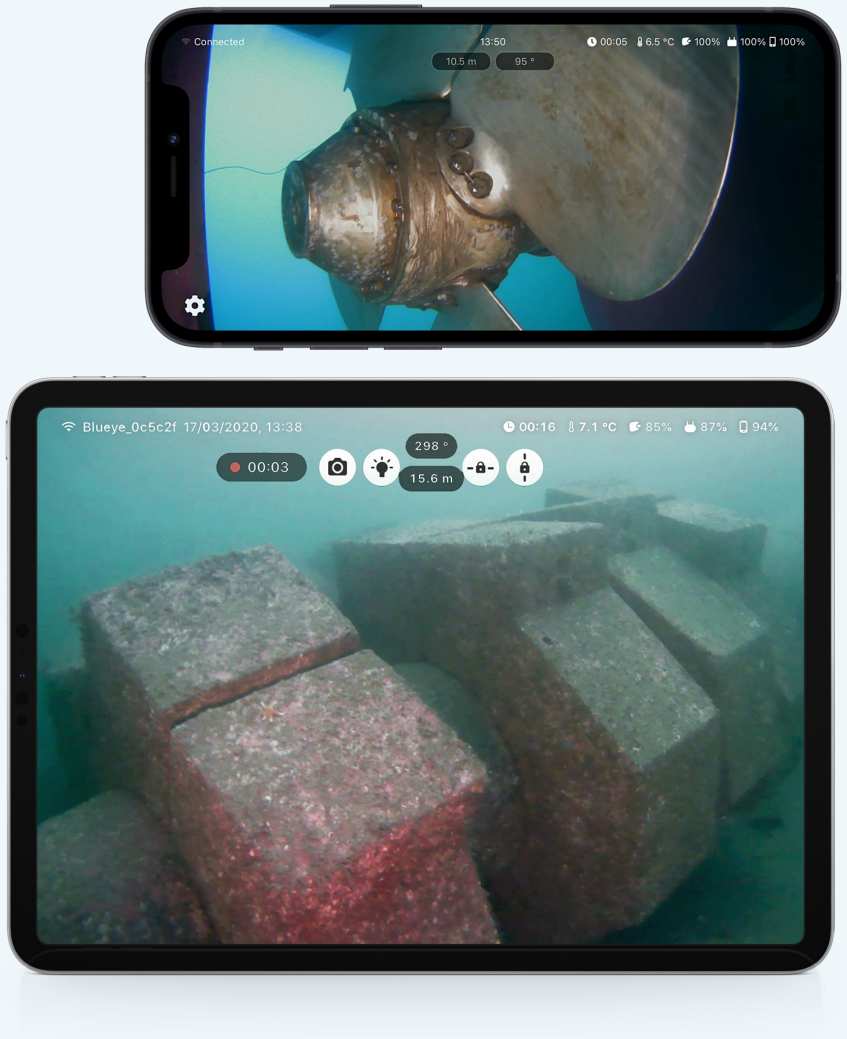
THE FILE TRANSFER APP

- Transferring video and images from the drone can either be done in the Bueye App or on a computer using **the Blueye File Transfer app for Windows and macOS.**
- Transfer media files from ROV to computer:
  - Download and install the Blueye File Transfer Desktop App.
  - Turn on the drone and the surface unit and connect the computer to the Surface Unit Wi-Fi.
  - Open the Blueye File Transfer Desktop App, click the "Transfer media files" button, and choose which files to download on your computer.
  - Click on the icon in the top right corner to change any settings before starting the transfer.
  - Make sure to turn off the drone and the Surface Unit after you are done transferring your files.



THE OBSERVER APP

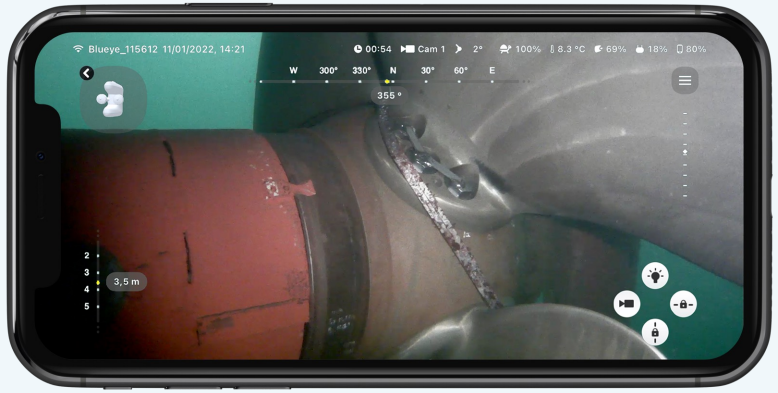
- The Blueye Observer App is a lightweight companion to the full Blueye App used to control the drone. It allows multiple spectators to connect to the ROV, join the dive and watch the live video feed.
- It has a limited set of features and only displays the video feed and key telemetry data from the drone. It's intended to **allow multiple users to view the video stream** at the same time.
- You can download and install the Blueye Observer app on your mobile device from the App Store or Google Play.

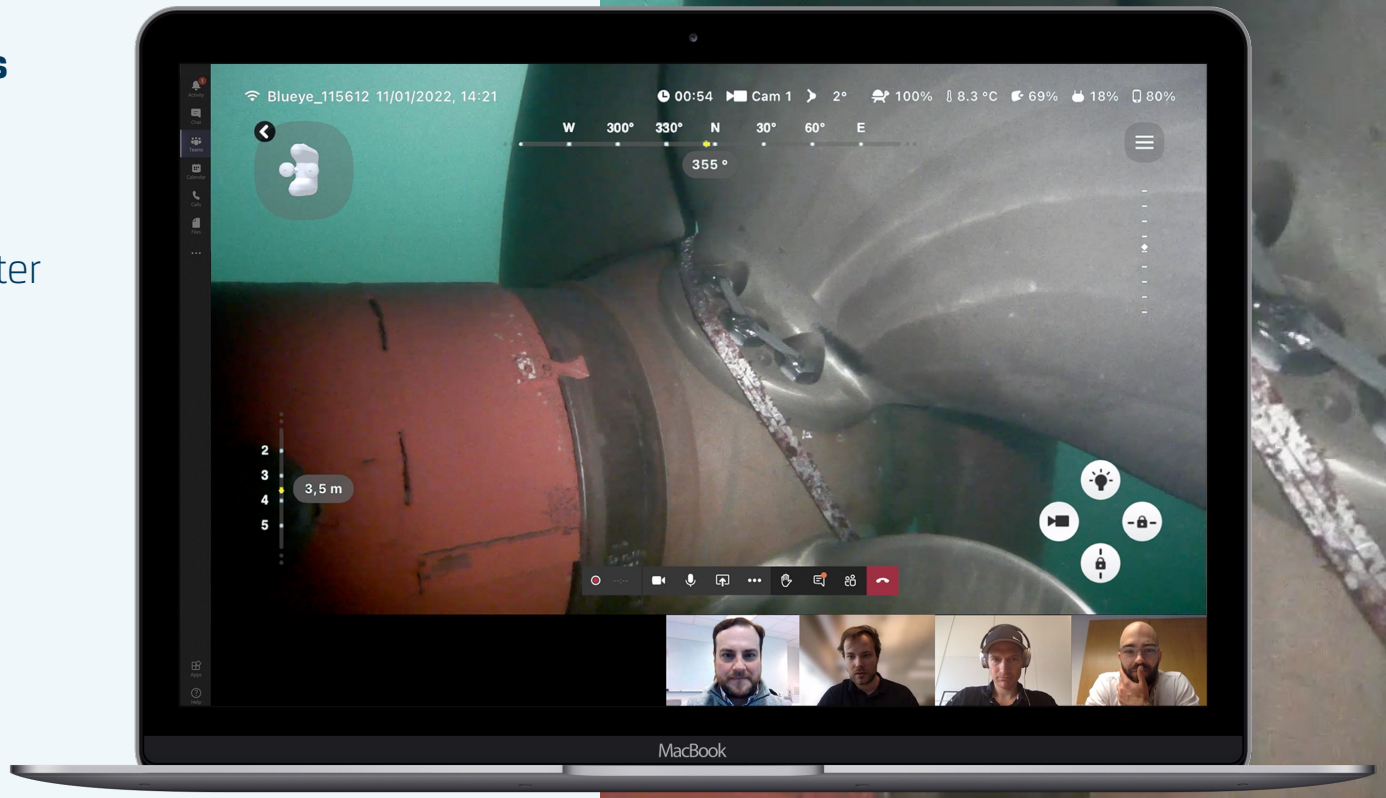


LIVE STREAM IN TEAMS MEETINGS

Perform inspections and **share live** underwater footage safely and efficiently with **remote experts and stakeholders** using Microsoft Teams.

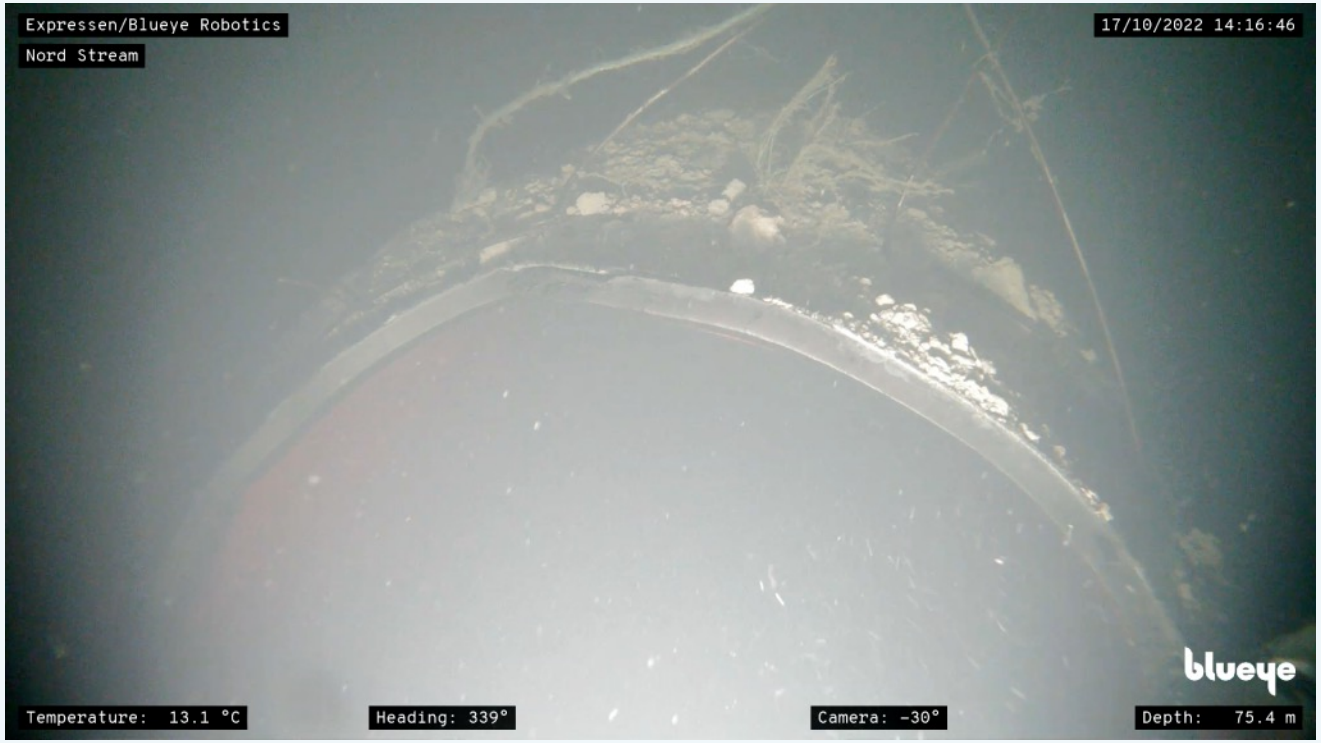
Participants can **communicate with the operator** and among each other. **Record the meeting** for later reference.





CAPTURING FOOTAGE / *VIDEO & PHOTO OVERLAY*

While diving you can capture still images or record video footage. You can also choose to add overlay with dive information to the recording/image.

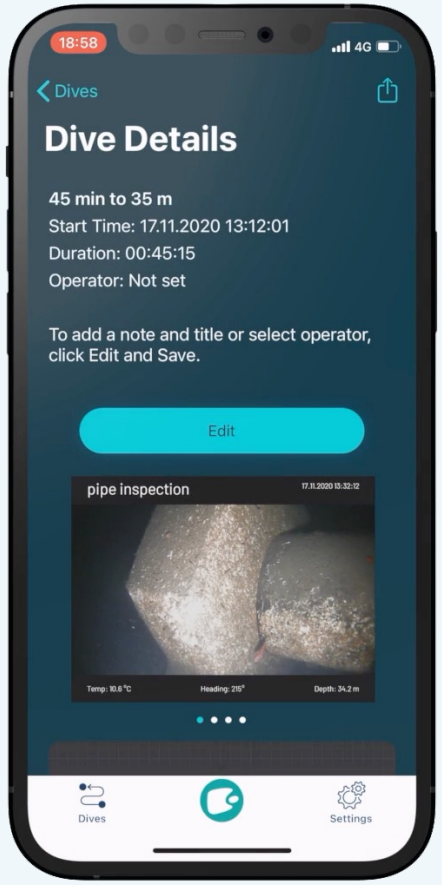


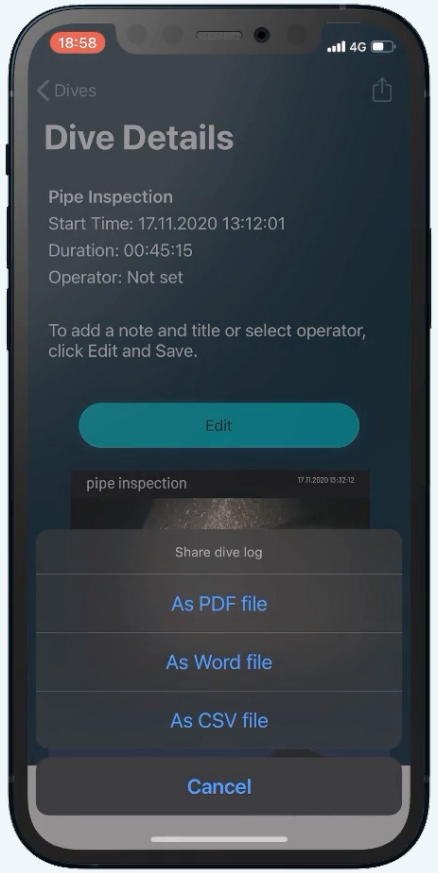
SYNC AND SHARE DIVE LOGS AND REPORTS

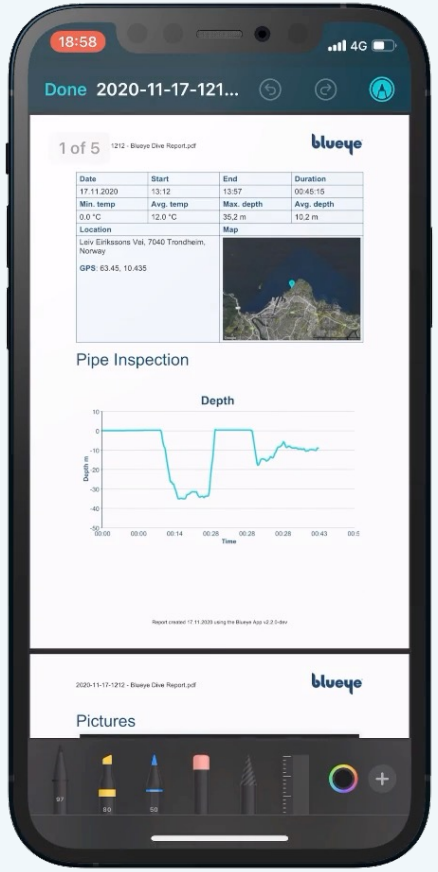
1. **INSPECT**
   Complete your inspection.
   Check the Dive Details.

2. **EXPORT**
   Export the dive data as PDF, Word and CSV file.

3. **SHARE**
   Edit and customize as needed. Save and share directly.



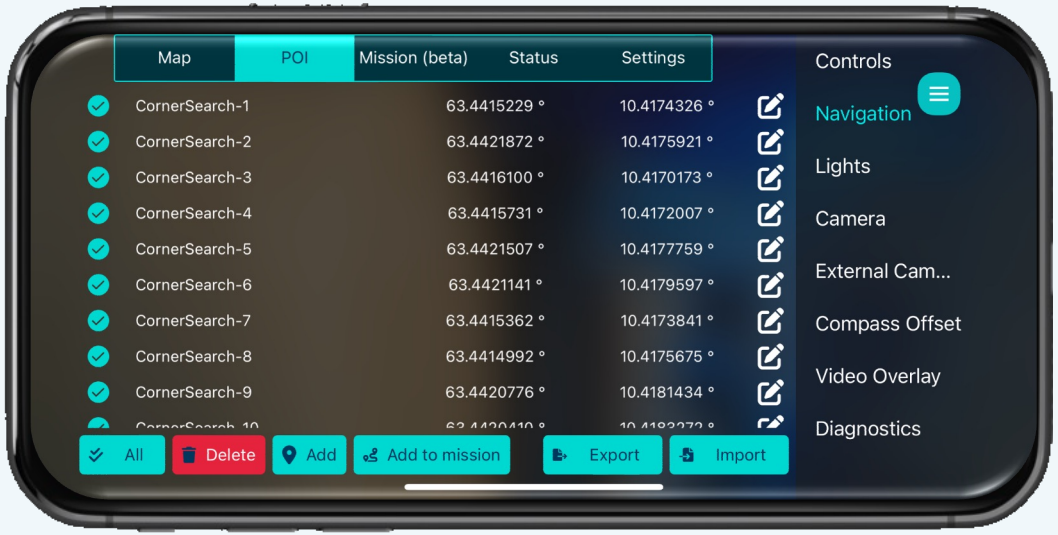


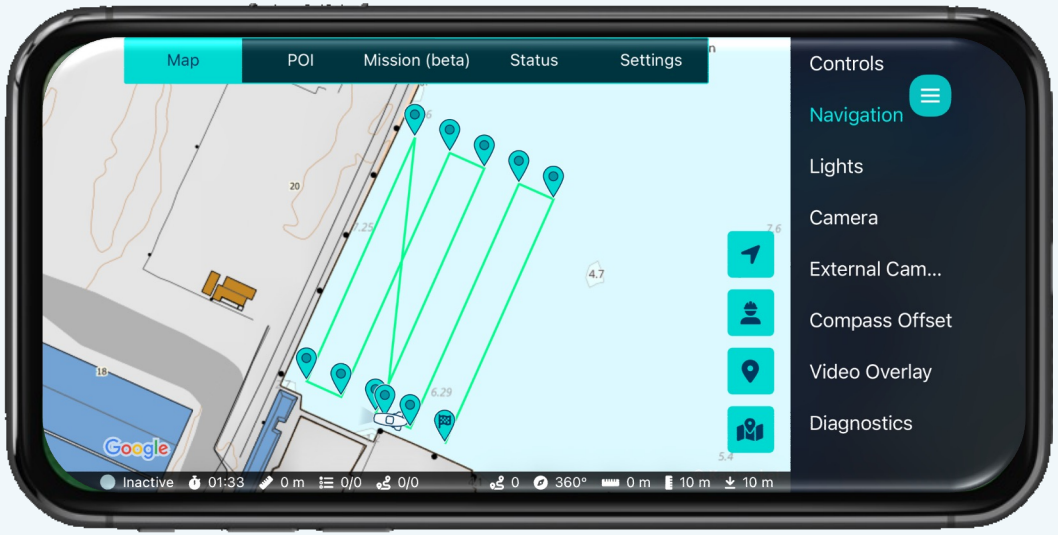


MISSION PLANNING

The mission planner is a module within the Blueye app that allows you to create a list of instructions that will be executed automatically on the ROV. The currently supported commands are **go to waypoint**, go to **depth**, **wait**, **take pictures** based on distance or time interval, or **start and stop recording**.

You can upload a series of POIs or set waypoints directly in the app.





POIs and waypoints are only available if a positioning system is connected.

DIVE LOGS AND DATA IMPORT/EXPORT

Dive details such as depth, temperature, duration, battery consumption, etc, are logged automatically in the Blueye app. These logs can be shared as a PDF, Word or CSV file.

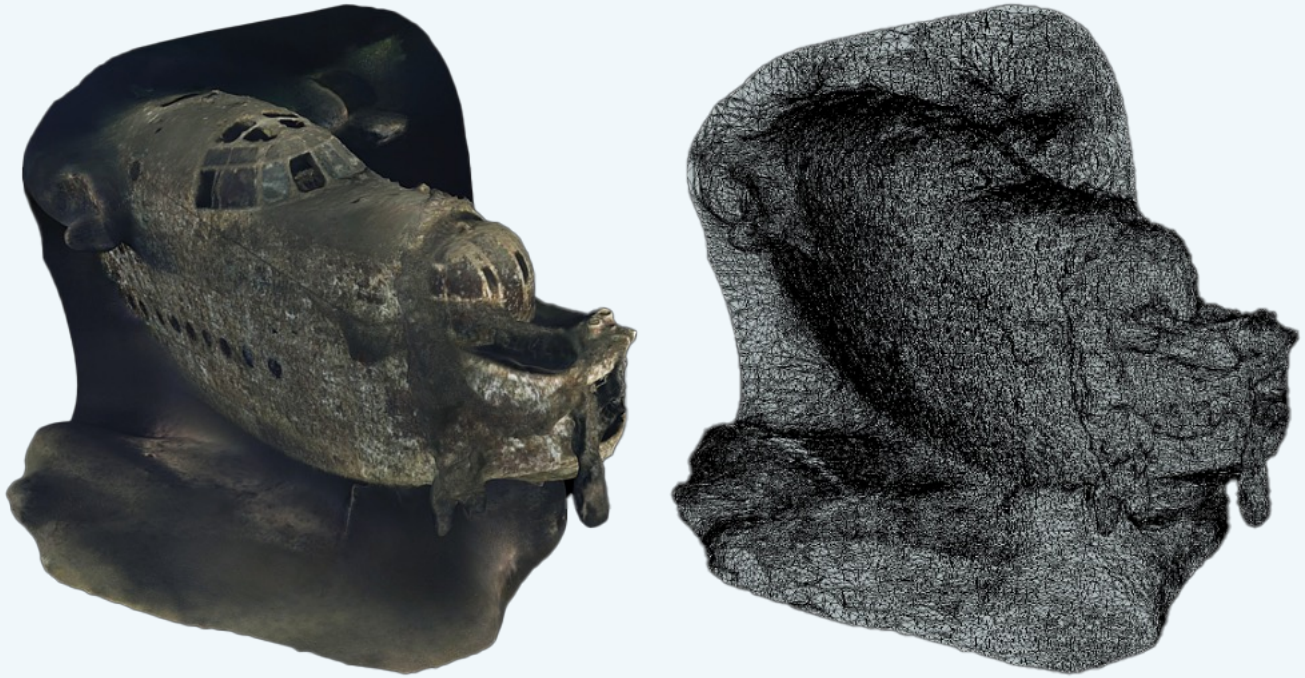
- Media files in .jpg and .mp4.
- Positioning data as KML and KMZ files.
- Multibeam recordings can be exported directly from the Blueye app as .mp4/.mov/PNG.
- Coordinates for Points of Interests (POIs) can be imported in the Blueye apps Mission Planner as a .csv file.

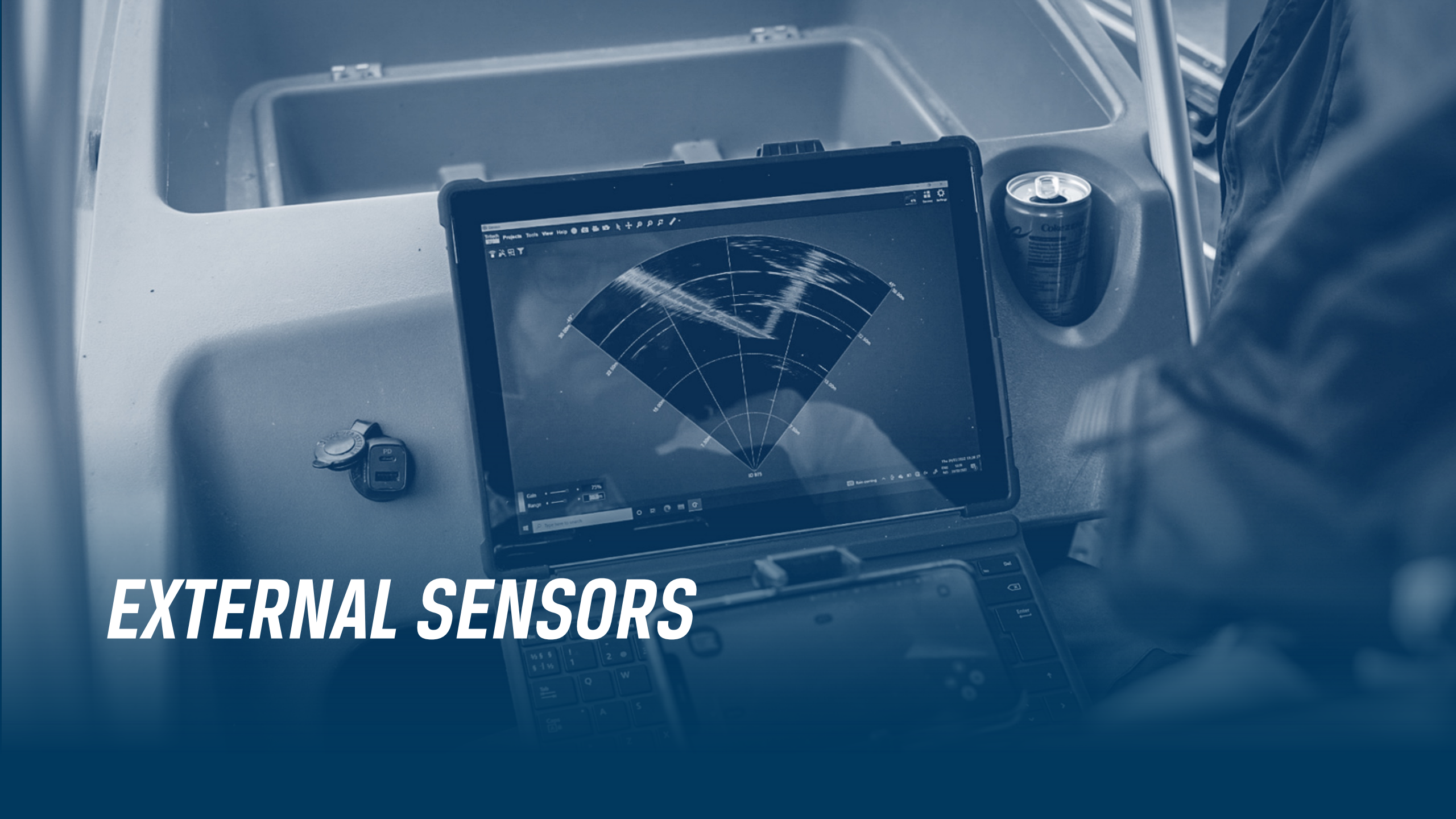
3D PHOTOGRAMMETRY

- Creating a 3D model using Blueye ROVs by utilizing the imu, depth and camera angel data from the ROV.
- Dive log from the ROV include data to create 3D photogrammetry models using third party software*.

*Program to create 3D Photogrammetry models are not included.

Read more about creating 3D models





EXTERNAL SENSORS

BLUEYE X3 / *COMPATIBLE WITH EXTERNAL EQUIPMENT*

Sonars: Extend your visual range and find your way in murky waters. Ideal for navigation, obstacle avoidance, and target identification.

UT sensor: Measure and collect steel thickness data with UT sensors. You can also generate reports containing the collected data from the inspection.

Positioning systems: Explore more of the subsea world with full confidence. See the ROV location and log of where you have been.

Grippers and manipulators: Extend the capability of the ROV to pull wires and ropes, collect samples or recover objects below the surface.

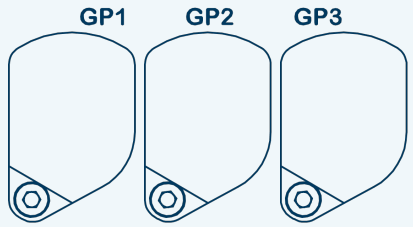
External camera & light combo: Add another camera with light to your Blueye with this mountable external camera & light combo, fully integrated with the Blunux OS and Blueye App.

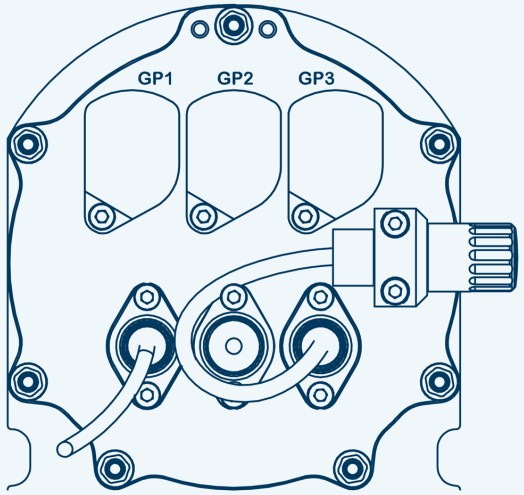
Environmental sensor: Measure and collect water quality data with multiparameter sondes. You can also generate reports containing the collected data from the inspection.

THE X3 GUEST PORTS

- Guest Ports allow for (3) accessories
- Support up to **8 communication protocols**. (Ethernet, USB 2.0, I2C, PWM, UART, RS232, RS422, RS485)
- Guest ports are **Blueye smart ports** – the ROV understands what is connected automatically, and the Blueye App will change the UI for the equipment you connected.
- Guest Ports gives you **endless possibilities!**

THE X3 GUEST PORTS



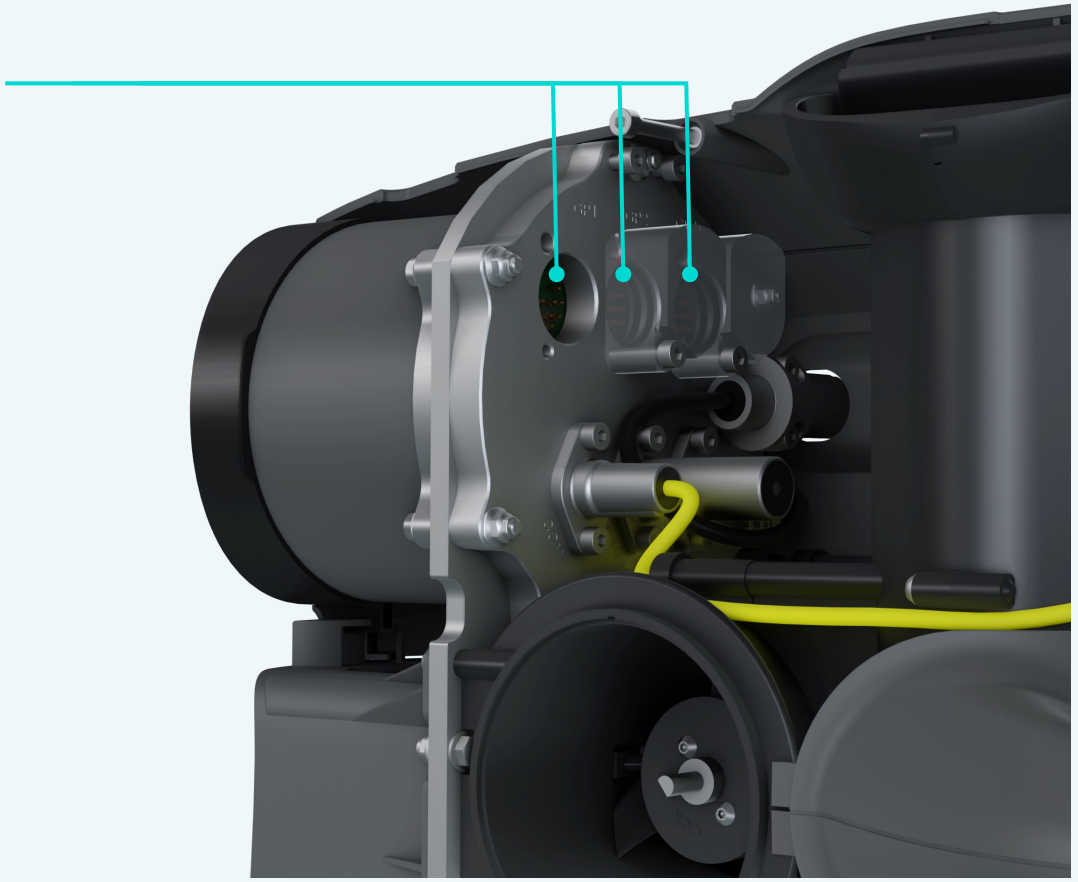


COMMUNICATION

All: Ethernet, RS232, I2C, PWM, UART
Port 1: RS485, RS422
Port 3: USB 2.0

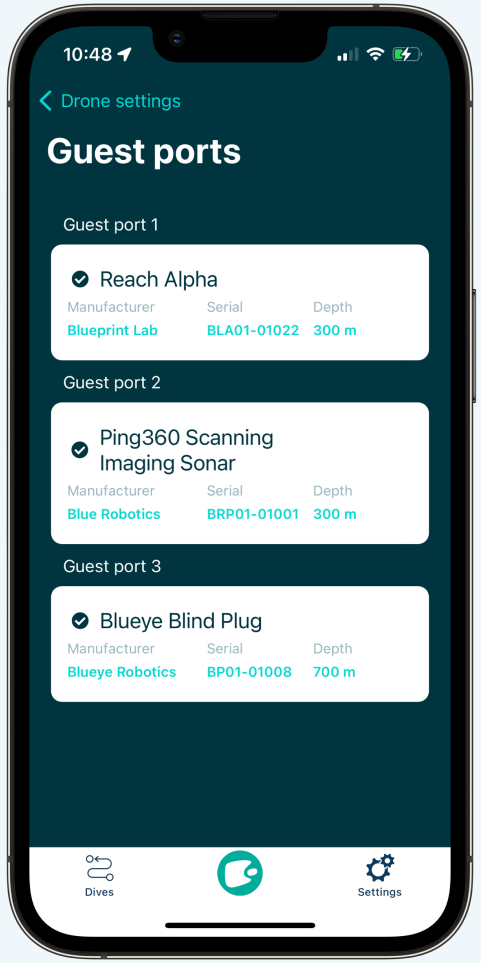
POWER

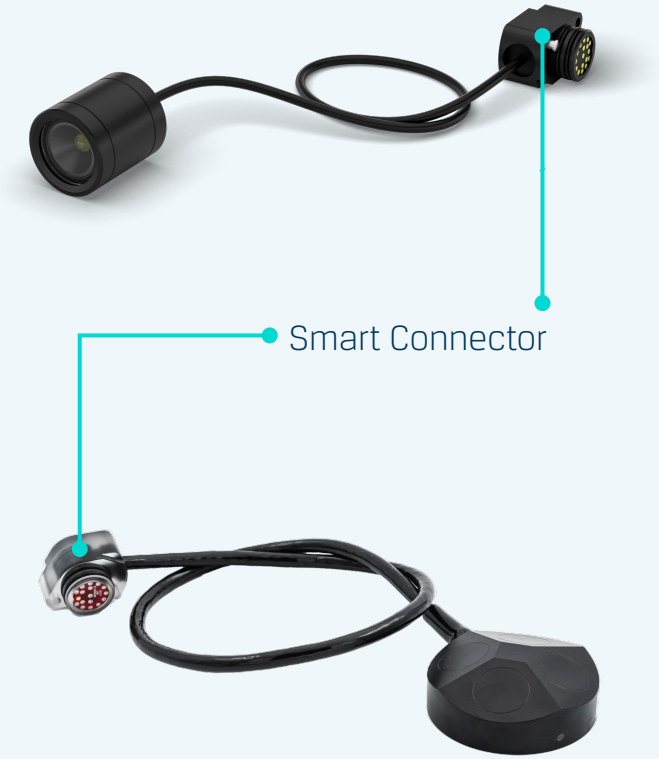
5 V at 2.1 A
Battery at 7 A
20 V at 2 A



THE BLUEYE SMART CONNECTORS

- The various external equipment has a Blueye Smart Connector that you connect to the compatible guest post.
- The smart connector includes a circuit board containing metadata about the connected external equipment. This allows the Blunux operating system to **start the necessary software modules automatically.**
- **The Blueye App will adjust the user interface** depending on the equipment, for example, changing the controller layout if a gripper is connected or warning the user if the connected equipment is reaching its depth limit.
- Connected equipment will show up under "Settings" in the Blueye App. Additional information, such as manufacturer, depth rating, and serial number, is also listed.





GRIPPERS

THE NEWTON GRIPPER

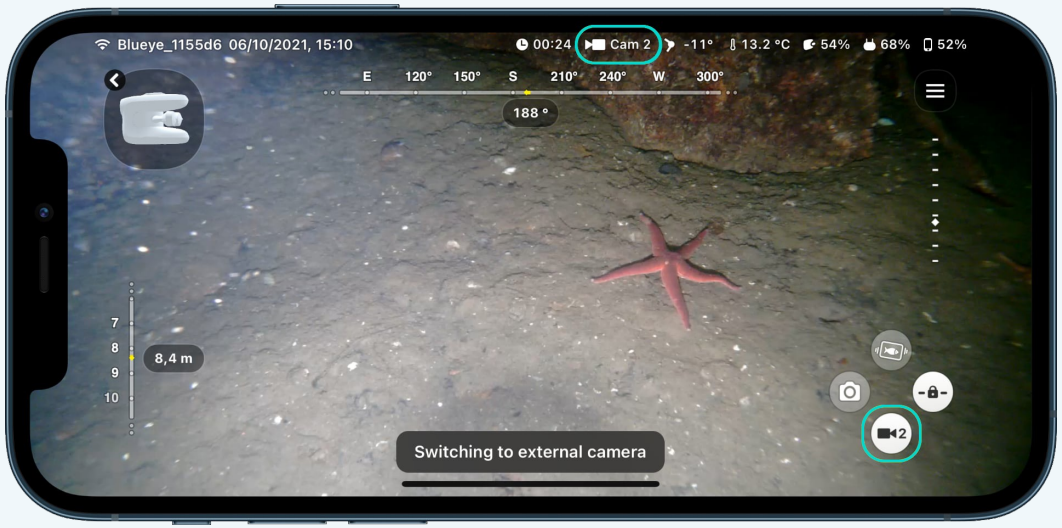
- 1-axis (open/close)
- Competitive pricing
- Read more:
  https://www.blueye.no/produkter/newton-gripper

THE REACH ALPHA GRIPPER

- 2-axis (open/close & rotate)
  Fine control over grab force and speed
- Premium build quality
- Multiple end-effectors
- 100kg grip strenght
- Read more:
  https://www.blueye.no/produkter/reach-alpha-to-akse-gripeklo

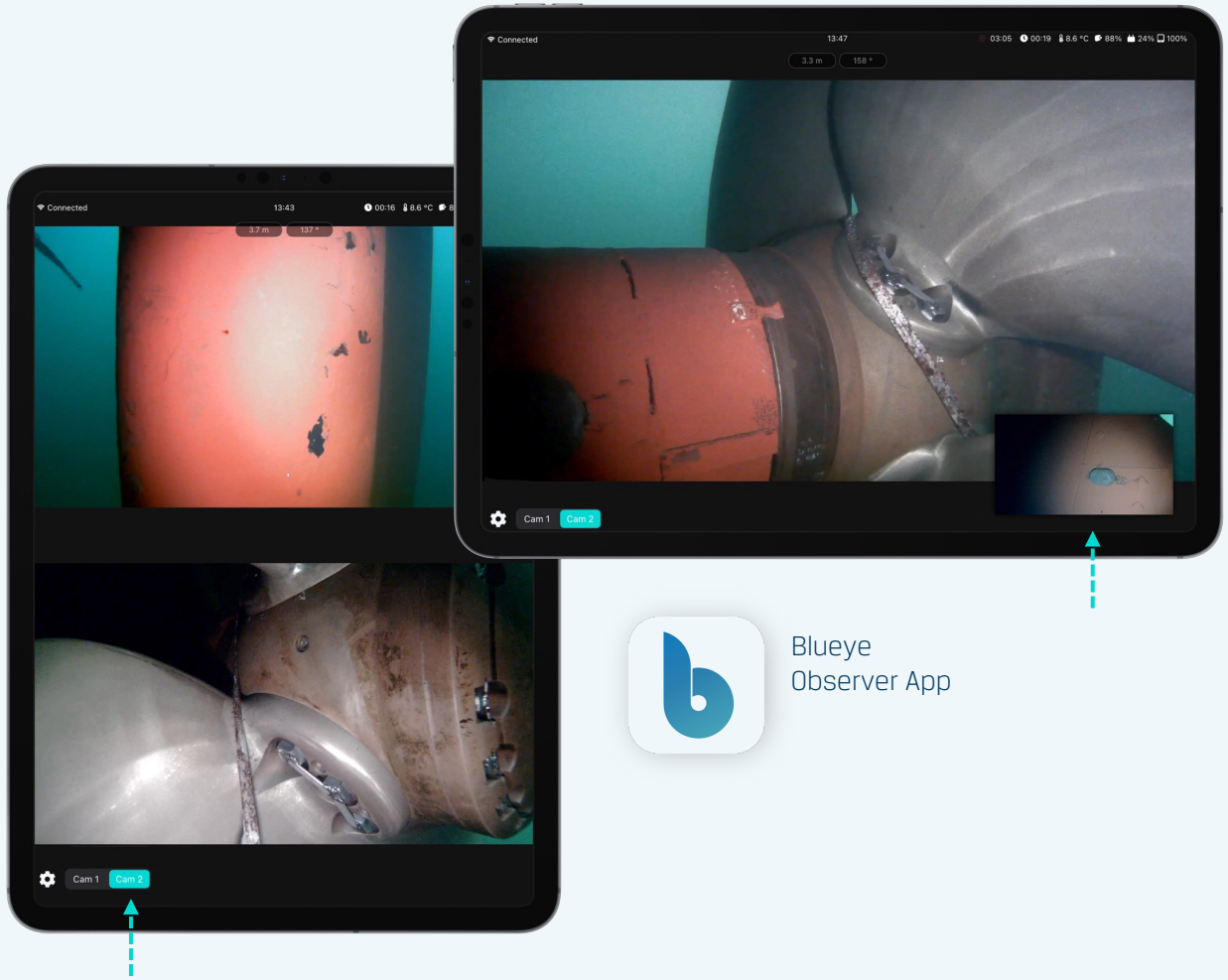
BLUEYE EXTERNAL CAMERA

- The Blueye external camera makes it possible to simultaneously **have two streams of video**.
- The camera is **compatible with guest port 3** (GP3) and can be mounted in numerous ways depending on your use case.
- The camera is integrated with the Blunux software, so you can easily **switch between the internal and external** cameras inside the app.
- When diving, **the camera icon** will indicate whether you're viewing the main camera (1) or the external camera (2).
- Any **camera settings** such as Exposure, White Balance, and Hute will be applied to both cameras.



BLUEYE EXTERNAL CAMERA

- The drone will capture still pictures and record video from **both cameras at the same time**. The external camera records in the same bitrate used for the video stream, while the main camera always records in 14 MBit.
- When using **the Observer app on iOS**, you will be able to view both the main camera and the external camera simultaneously. The two video streams will be in picture-in-picture mode if the device is in a landscape orientation or side-by-side when in portrait orientation.
- When **downloading media files** using the Blueye App or the Blueye File Transfer app**, a small icon** is added to the thumbnail to indicate if the file is captured by the main camera (1) or the external camera (2).



BLUEYE EXTERNAL LIGHTS PAIR

- You can add up to two External Lights to one X3. If you have two lights connected to the drone, **they will operate in tandem**.
- The Blueye Lights Pair **share one smart connector** and works as if you have to separate external lights. They work in tandem, and unless you adjust the settings in the dive menu, they will, by default, follow the intensity of the main light.
- The Blueye Lights Pair is **compatible with all three guest ports**.
- We recommend mounting the light pair underneath the ROV, to get some distance to the camera. If the light is too close to the camera, it can create backscatter from the light reflecting in particles and worsen your visibility when diving.

LASER SCALER

Adding a laser scaler onto the ROV enables the measurements of objects below the surface all the way down to 300 meters.

The highly visible 3mW green lasers are operated through the Blueye app.

The laser is fitted onto the Blueye ROV by using an universal aluminum mount.

- 100mm apart between the two laser points
- Max depth: 300m

CYGNUS ULTRASONIC THICKNESS GAUGE

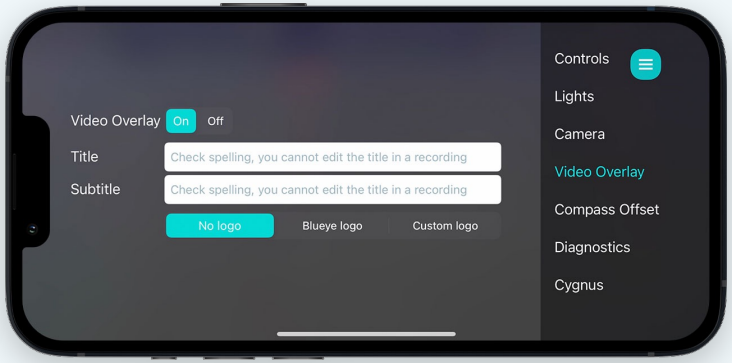
The Cygnus Ultrasonic Thickness Gauge measures the thickness of underwater surfaces without the need for divers or dry docking. This thickness gauge is a great tool for NDT, UWILDs, and other inspections.

CYGNUS ULTRASONIC THICKNESS GAUGE

Our Cygnus integration allows for you to **display live readings** in the Blueye app without additional software.

Choose what **material type to inspected** in the Cygnus settings. The material selection can be done any time during a dive.

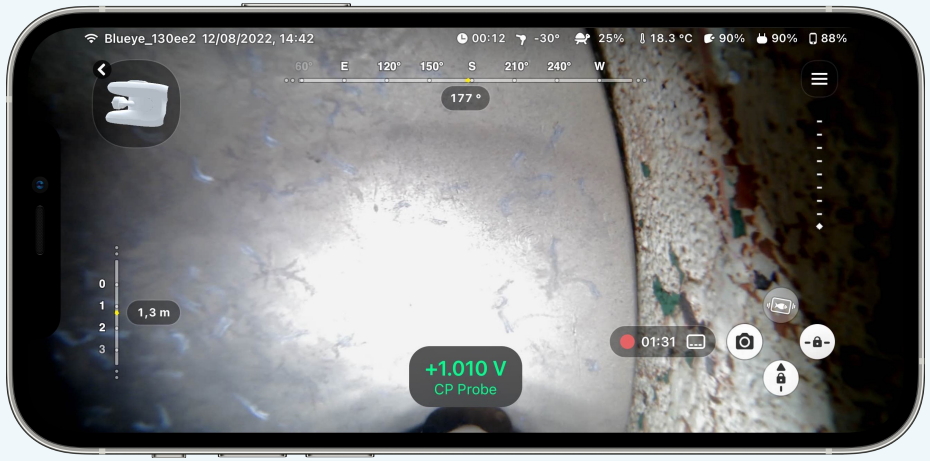
You can also choose to store/display the thickness **measurements on a video recording**, by simply turning on the video overlay in the App.



OCEAN TOOLS CATHODIC PROTECTION PROBE

The CP probe measures the cathodic protection levels applied to protect certain structures.

Integrated with the Blueye X3 ROV, live readings can be displayed in the Blueye app without additional software.



SONARS

SONARS HELP WITH:

- Navigation in Murky Water or Large, Open Spaces
- Identification of Key Targets
- Situational awareness

MULTIBEAM SONAR

Gives a wide angle 3D view in the direction the sonar is pointed.

360-SCANNING

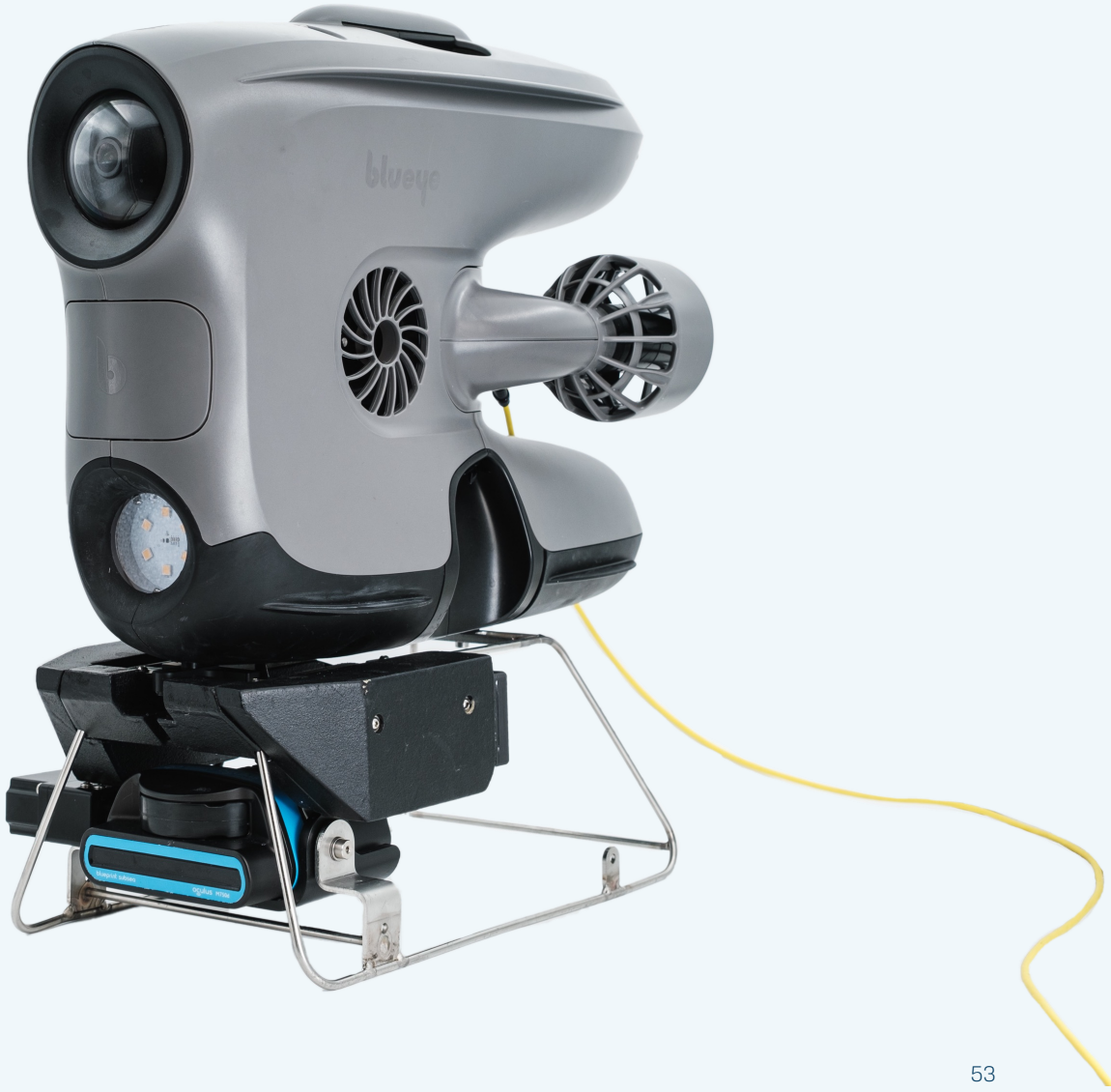
Works like a radar, scans 360 degrees in same level as the underwater ROV.

OCULUS M750D MULTIBEAM

The Oculus M750d multibeam sonar from Blueprint Subsea is an excellent sensor helping the operator navigate, identify objects and increase situational awareness under the surface. It's mounted to the X3 via a skid including a servo allowing for +/- 30° adjustment of the sonar angle in the Blueye app.

- *Operation frequency:* 750kHz / 1.2MHz1
- *Range:* 120m / 40m
- *Horizontal Aperture:* 130° / 130°
- *Vertical Aperture:* 20° / 20°
- *Range resolution:* 4mm / 2.5mm

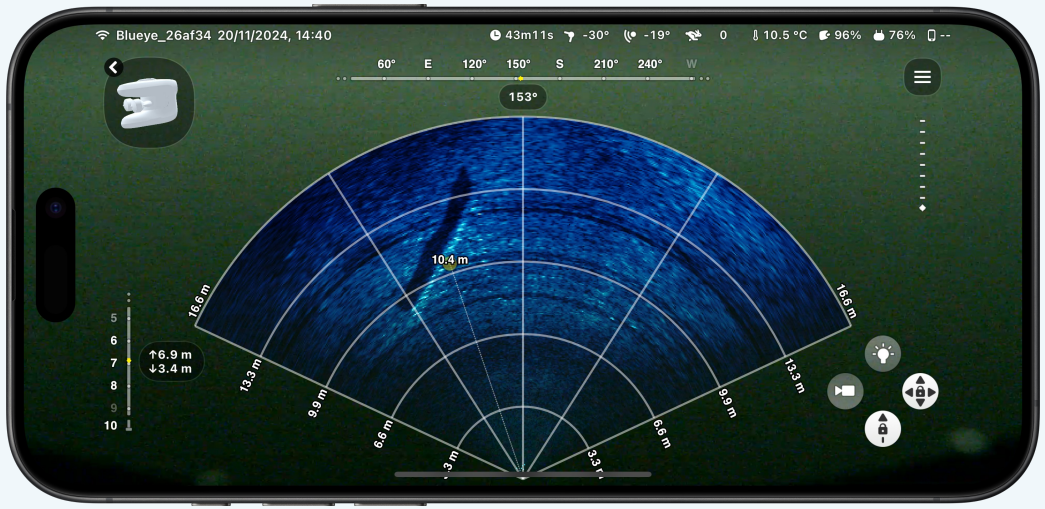
The Oculus M3000d, M1200d and M370s is also compatible with the Blueye X3.



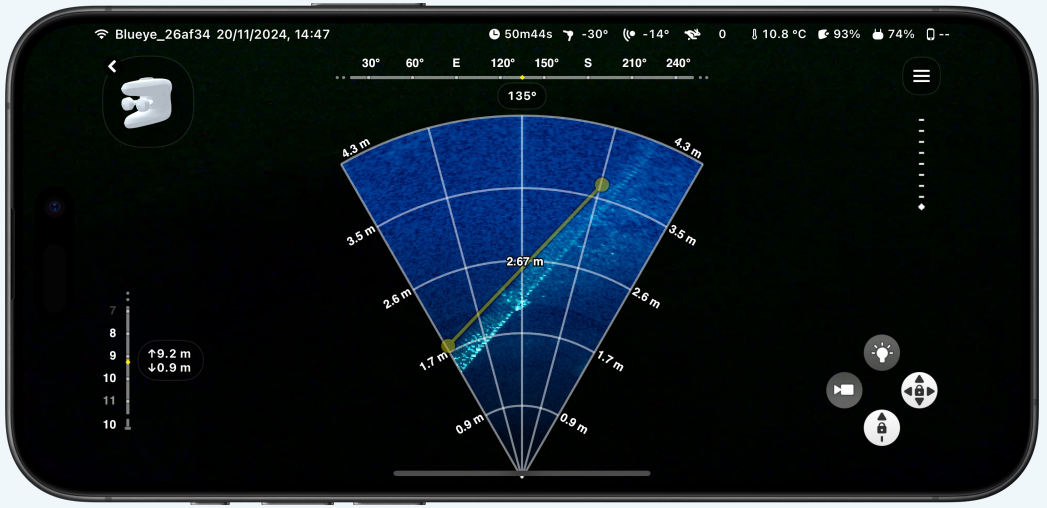
IN-APP MULTIBEAM SONAR VIEWER

A multibeam sonar viewer is fully integrated into the Blueye app, removing the need for 3-party software running on a secondary device.

The sonar viewer allows you to **measure objects** using touch, **adjust gain and range**, **record** and capture visuals, and **export files** for further data processing.



Sonar viewer in the Blueye app: distance measurement from the ROV.



Sonar viewer in the Blueye app: distance measurement of an object.

AQUA TROLL 500 MULTIPARAMETER SONDE

The Aqua TROLL 500 from In-Situ is an excellent sensor for the seamless collection of several essential water parameters. Choose between **14 different sensors to measure water quality**, where 4 sensors can be connected and measured simultaneously. For example pH/ORP, oxygen, temperature and conductivity.

We have integrated In-Situ's software into the Blueye system, so that you can see **direct readings of several parameters in the Blueye app**. After the dive, explore interactive graphs of all the water parameters in the dive log. Export data as CSV for further analysis. Combine the Aqua TROLL 500 with a DVL or UGPS to link parameters to the drone's position.

Aqua TROLL 500 fitted on the Blueye X3. Data parameters integrated in the Blueye App.

Different sensors available.

IMAGENEX 831L Pipe Profiling Sonar

The Imagenex pipe profiling sonar scans in 360 degree pattern to capture the profile of a pipeline.

- Use the PipeSonarL software to produce a 2D profile of a pipe or tunnel up to 12 meters in diameters. During inspection this allows you to see the ovality of the pipe, detect defects or measure sediment build up.
- The DVL A50 can be combined with the PipeSonarL software to act as a cable counter, giving you the data you need to produce a 3D model of the pipe.

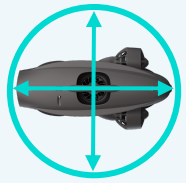
Medusa Radiometrics Gamma-Ray Sensor

The Medusa Radiometrics MS-100 SUB underwater gamma-ray counter is a CsI-crystal-based gamma-ray detector system intended for deep-water use, for instance in pipeline inspection applications in which a radioactive source is placed on one side of a pipe and the sensor on the other side.

The radiation seen by the sensor is a measure for e.g. the filling of the pipe. Other applications are of course also possible.

WATERLINKED DVL A50

- The DVL A50 **from Water Linked** is the world's smallest Doppler Velocity Log. A DVL is a sensor that **provides velocity measurements** by sending sound waves towards the sea bottom and analyzing the echoes.
- DVL A50 is **compatible with all three Guest Ports** and is mounted onto the X3 using the Blueye steel skid.
- With the DVL you get some new control modes in the app, such as; **Station Keeping that locks** the ROV's position in the water and **Auto-altitude** that makes it possible to maintain a desired distance to the seabed while diving at different depths.



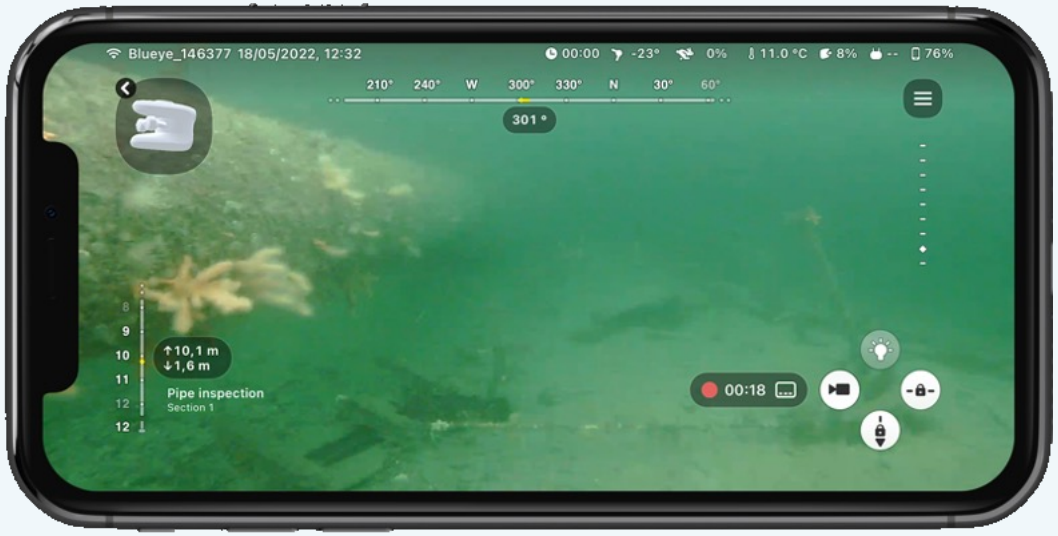
Position hold
(station keeping)

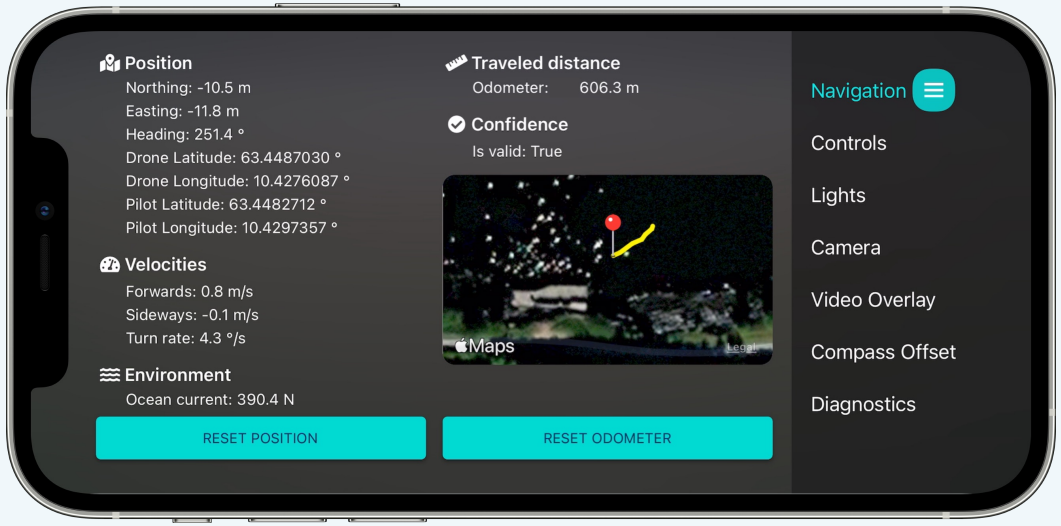
Altitude hold
(auto-altitude)

WATERLINKED DVL A50

The DVL integration display both the **distance to the seafloor and to the surface** in the Blueye App, without additional software.

The navigation menu in the Blueye App provides an overview of **detailed diagnostics** and a **map showing the location of both the pilot and the ROV**. This is to make sure you have a good starting point for the dead reckoning position estimate.





GPS ANTENNA

The typical use case for the GPS is to **recalibrate the ROV's position showing on the map during a dive**, so you can ensure you know where you are heading and areas you have covered accurately.

- Provide GPS position when the ROV is at the surface, which can be used with mission planning or see where the ROV is on a map.
- Use the top-side GPS position when resetting the DVL for better underwater navigation.
- A GPS can be combined on one Blueye Smart Connector with the DVL.

SUPPORT, SERVICE & MAINTENANCE

BLUEYE SUPPORT, SERVICE & MAINTENANCE

- Established company with over 1,000 ROVs shipped to over 50 different countries. Our engineers provide support for all of these ROVs via direct contact with the customer, software updates via the Blueye app, as well as by keeping our online Help Center up to date with articles, videos, and other relevant content.
- By following our maintenance instructions, servicing by Blueye will not be necessary unless significant damage occurs. Typical wearing parts such as cables, thrusters, and propellers can be purchased directly from Blueye and can be replaced by the customer himself. Instructions are available in our online Help Center.
- Permanent employees carry out service and repairs at Blueye. Any service on external equipment such as grabbers, sonars, or other sensors can be carried out by the relevant supplier but will be organized by Blueye.
- New ROV shipments are carried out weekly. Full "drone service" is productized and well incorporated.

BLUEYE TECH TEAM

The Blueye Technology Team consists of **10 highly talented engineers** with a diverse skillset covering electronic and mechanical hardware design and engineering, software development ranging from low-level firmware to mobile apps and cloud solutions, and engineers with experience in manufacturing, logistics, and rapid prototyping.

Most of the **core team** responsible for designing and developing the Pioneer, Pro and the X3 model are **still part of the company**, with more than **35 years of combined Blueye-experience**.

BLUEYE TECH TEAM

Some team members are considered **industry experts** with over 15 years of professional experience in their field, while others have **earned their stripes** starting as summer interns, before joining as full-time employees after finishing their degrees at NTNU.

Most of the team contributes significantly beyond their primary area of expertise, such as logistics, support, sales, marketing, and operations.

BLUEYE TECH TEAM

Jonas Follesø
Chief Technology Officer
September 2016

Rune Hansen
Lead Mechanical Engineer
November 2015

Sindre Hansen
Low-level Systems Engineer
August 2017 (Intern 2017)

Juan Pablo Pino Bravo
Software Engineer
August 2023 (Intern 2023)

Johannes Schrimpf, Ph.D.
Lead Systems Integration Engineer
January 2017

Joachim Reiten Arntzen
Senior Laboratory Engineer
November 2016

Andre Marquardt
Senior Mechanical Engineer
May 2017

Alexander G. Vedeler
Senior Software Engineer
July 2017 (Intern 2017)

Håvard Syslak
Embedded & Electronics Engineer
August 2025 (Intern 2024)

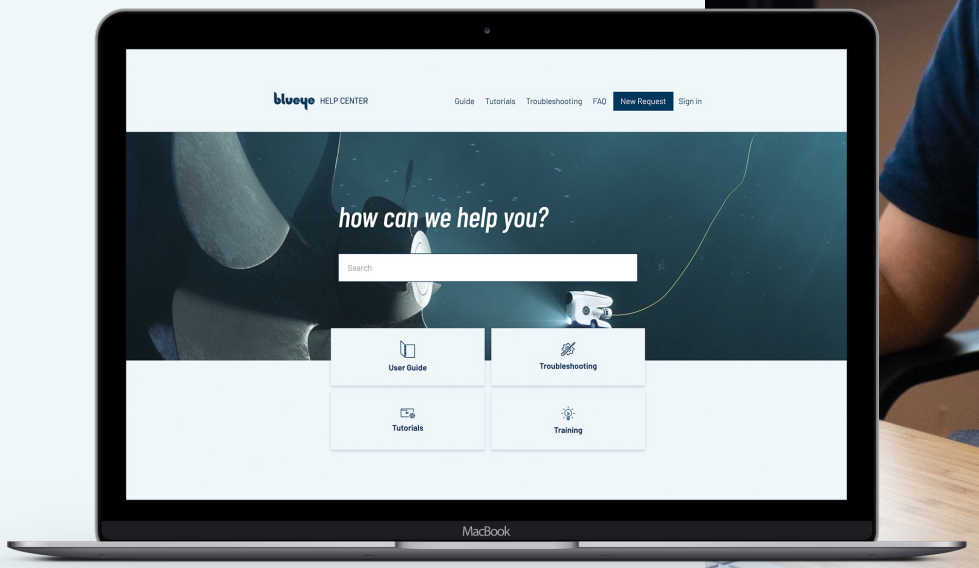
Andreas Viggen
Senior Software Engineer
August 2016 (Intern 2015)

BLUEYE HELP CENTER

- Articles, video tutorials and help for troubleshooting
- Online and continuously updated by the Blueye team

Visit the Blueye Help Center

https://support.blueye.no/hc/en-us



YOUR EYES BELOW THE SURFACE