

# SUEX

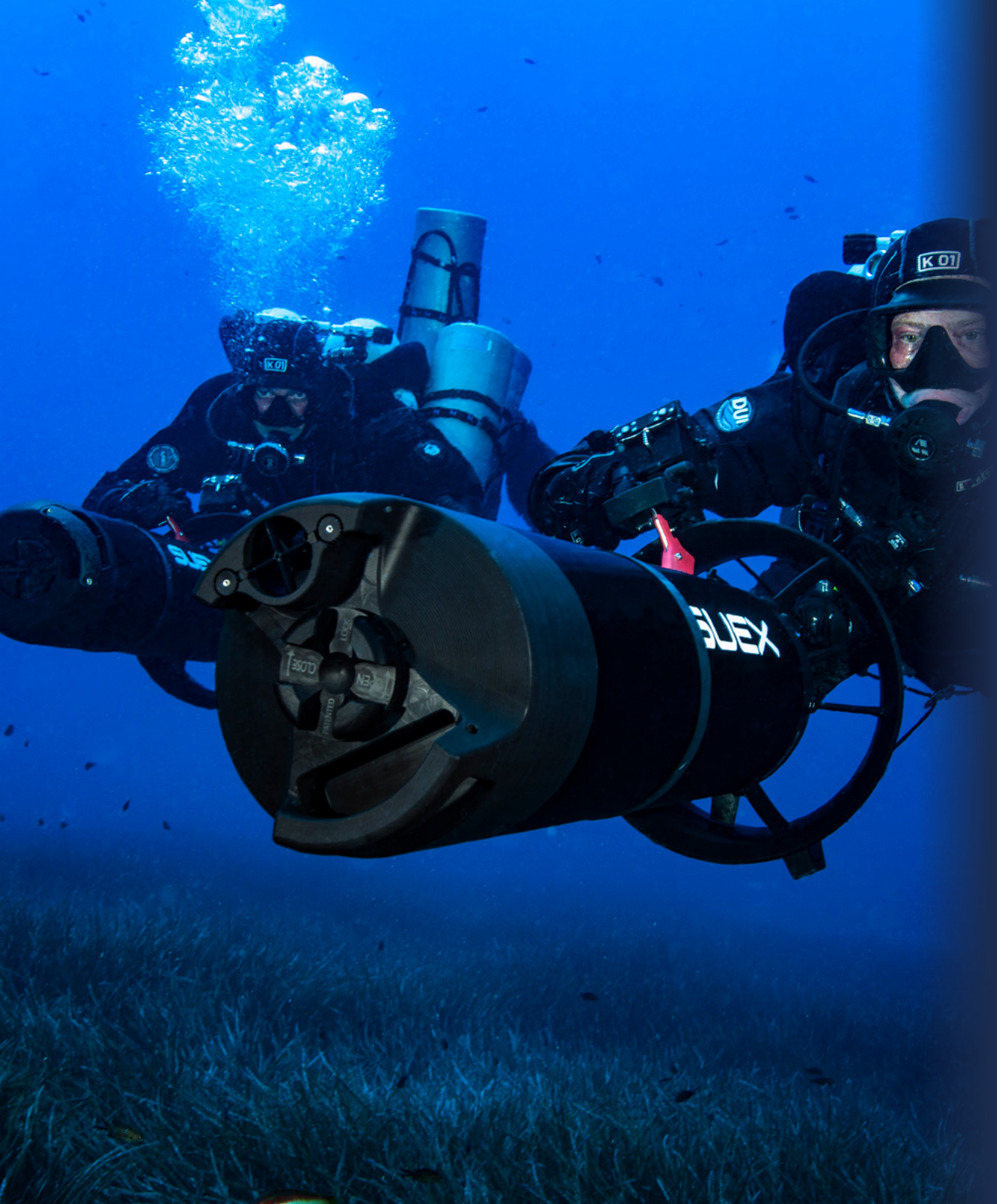
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# ▶ DRIVE

DIVER REMOTE INFORMATION VIEW





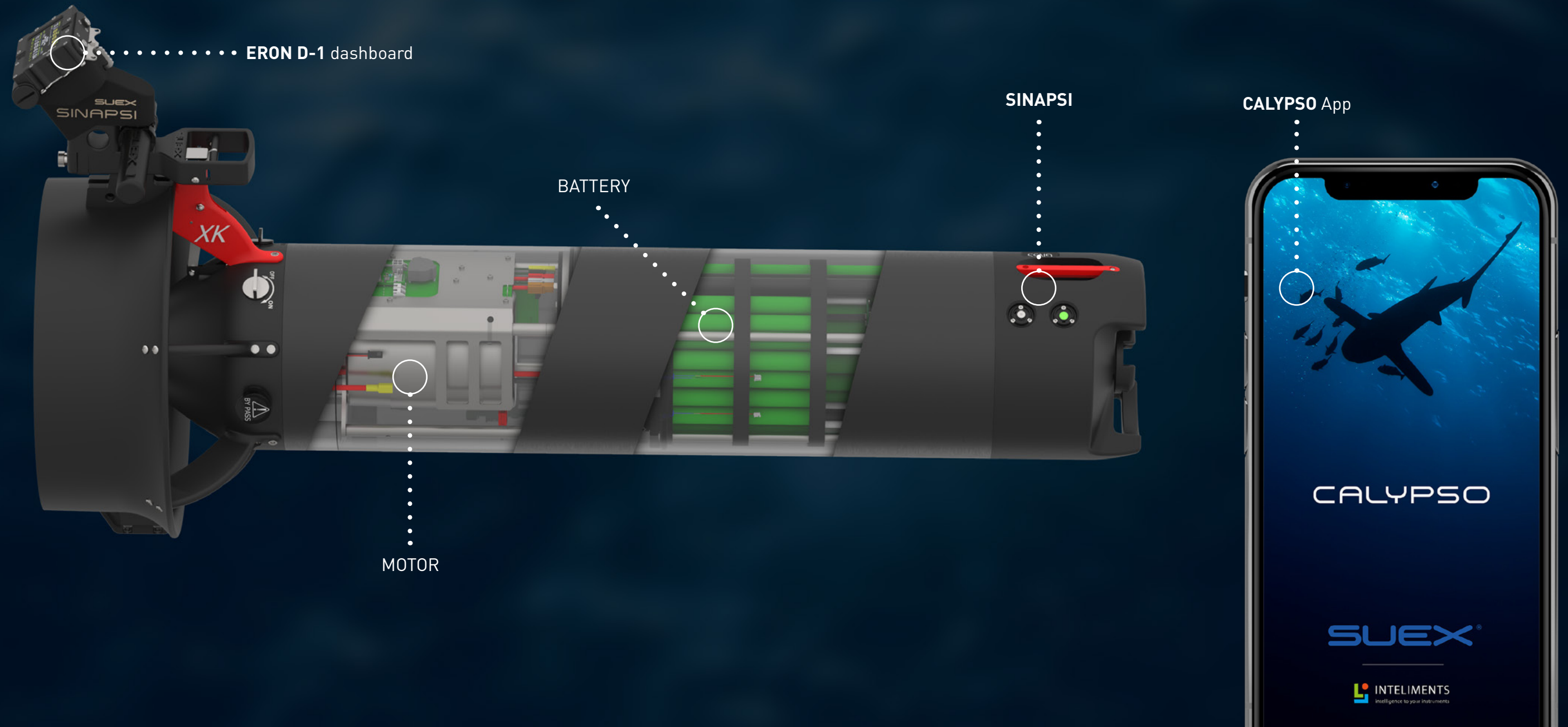
# DRIVe

**DRIVe - Diver Remote Information View**, is an integrated system that includes the following devices:

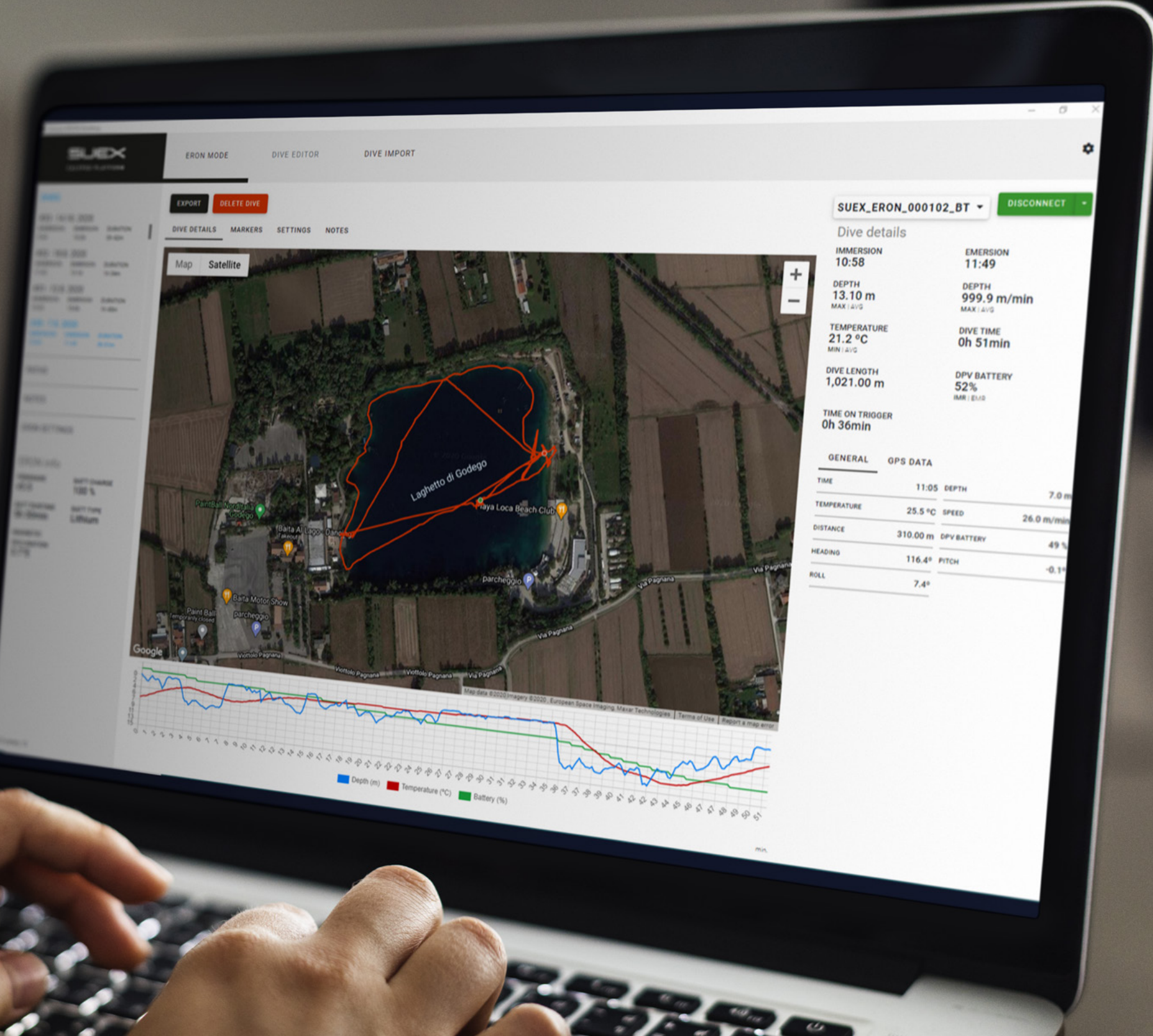
- **DPV** (Motor and Battery)
- **ERON D-1** dashboard
- **SINAPSI** nose
- **CALYPSO** App and Windows PC App

This system provides the Suex diver with detailed information in the pre, during and post dive phase.

# ELEMENTS







# APPLICATIONS



Diver Navigation



Exploration Dive



Cave Diving



Science & Research



Underwater Archeology

# PHASES

DRIVE is a state-of-the-art system for planning underwater navigation with the Suex DPV and collecting data during and after diving.

Thanks to this innovative system all the devices of the Drive system provide the user with strategic information for management, safety and fun during their dives.



## PRE DIVE

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In the pre-dive phase, thanks to the Calypso application, it is possible to:

- Check the health status of the battery and its charge level.
- Adjust the acceleration ramp of the motor.
- Plan a route between waypoints using the App on smartphone and / or PC.
- Plan a “return” home navigation route via GNSS system.





# DIVE PHASE

During the dive the diver has access to:

- General dive data (depth, bottom time, resettable average depth, temperature).
- General information on the li-ion battery status during navigation including the state-of-charge (SOC) and residual runtime in minutes based on current draw.
- Compass Navigation.
- Dead Reckoning navigation when paired with the Sinapsi Nose.
- Functions to insert position markers during the dive.



# POST DIVE

Once the dive is complete, the user can:

- Download the dive data (dive time, depth, temperature, DPV li-ion battery status) to the smartphone App and / or PC.
- Review a detailed dive log which also includes battery use synchronized with dive time.
- Using the Calypso or PC application, view the geo-localized path covered underwater that can be exported in Csv and Kml formats.
- Create a database of all dive logs including geolocated navigation data.
- Recreate new routes using the saved navigation routes and / or recorded markers.



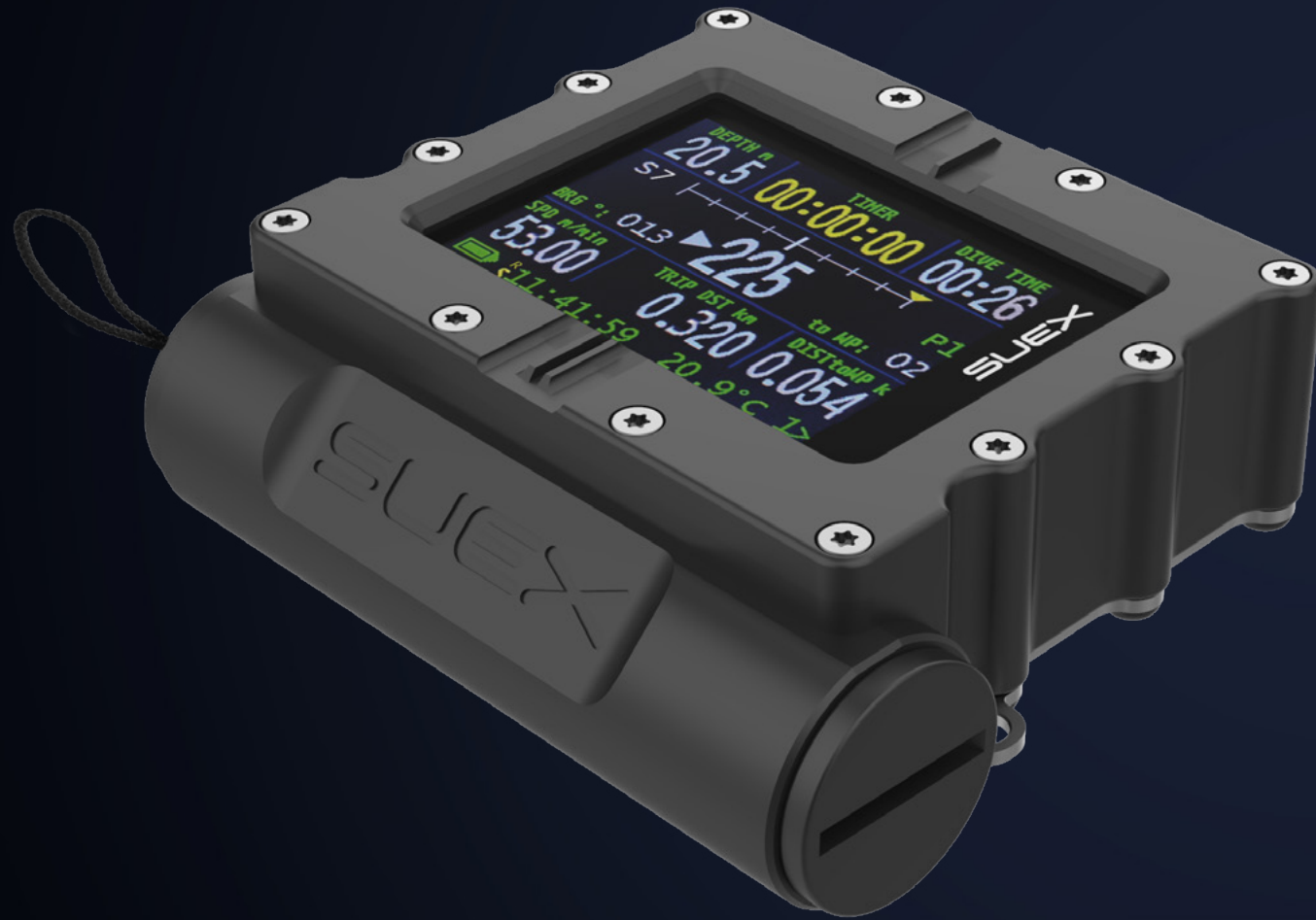


# ERON D-1

D A S H B O A R D



## ERON D-1 dashboard



The ERON D-1 Dashboard can be installed on all SUEx models with three levels of operation depending on the scooter model:

### ERON D-1 BASE

Available for all SUEx models.

Eron displays and logs dive time, depth and heading.

### ERON D-1 FULL

Specific for the XJ-S and XK models, expands the capability of the ERON which, in addition to encompassing all the features of the BASE mode, also offers the possibility of having a complete data analysis of the DPV.

### ERON D-1 EXTENDED

For models equipped with SINAPSI (i.e. XJ-S and XK). Extended performs exactly like the FULL mode, with additional data relating to dead reckoning navigation plus GNSS function on the surface pre and post dive.



# ERON D-1 dashboard

## DPV MONITOR

- Wireless DPV data receiver
- DPV and wrist mounting
- One touch functions activation
- Minutes of Residual DPV Burntime at actual speed
- DPV Battery state of charge
- DPV Instant fuel consumption

## NAVIGATION

- Heading
- Waypoints
- DPV customized compass settings
- Latest generation AHRS
- Proprietary fusion firmware
- DPV Speed through the water\*
- DPV travelled Distance through the water\*
- GNSS\*

## BOTTOM TIMER

- Depth
- Max Depth
- Average Depth
- Ascent speed
- Stop Watch
- Water Temp
- Editable Notes Pages
- Logs



\* Function available only with SINAPSI nose.



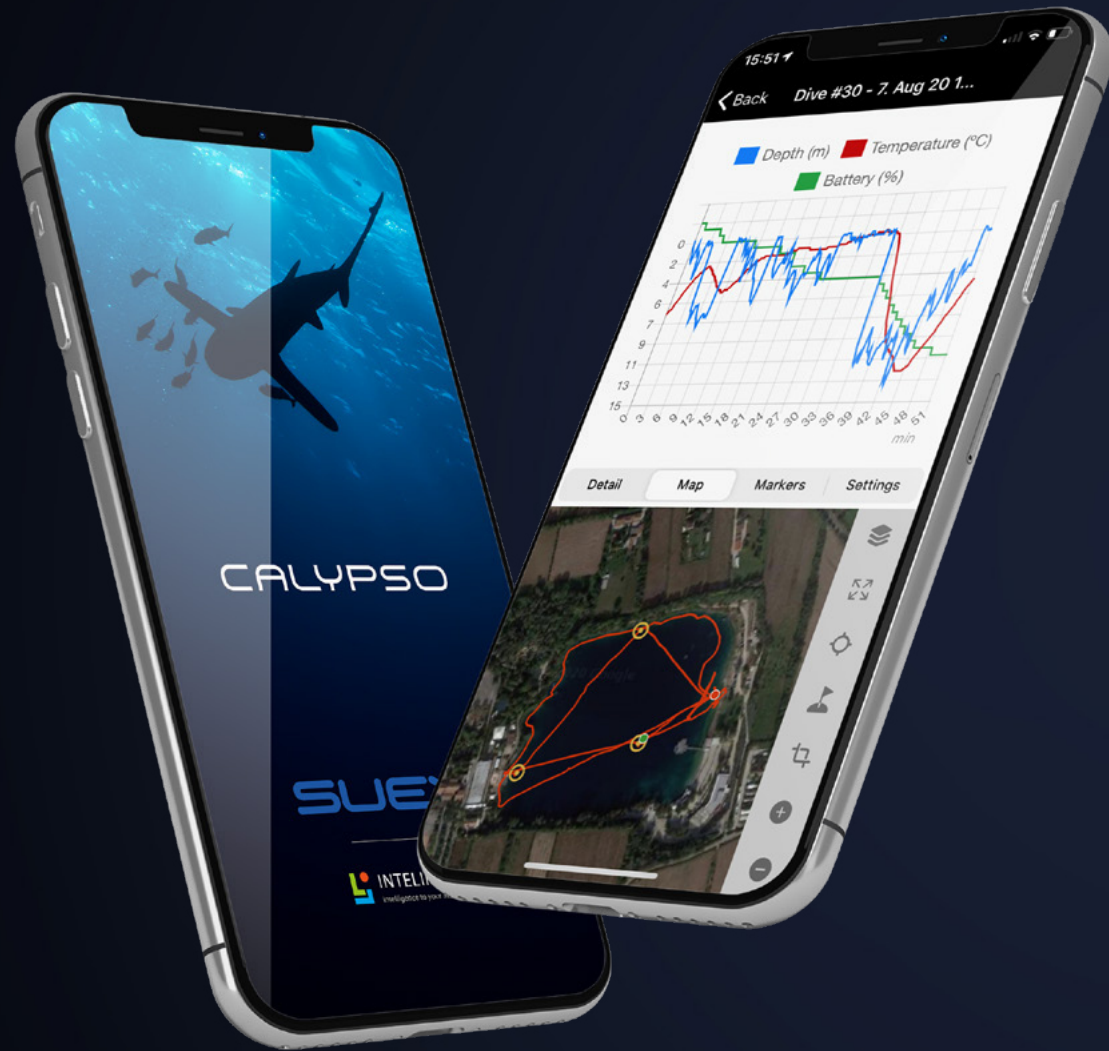


# CALYPSO

A P P



## CALYPSO app



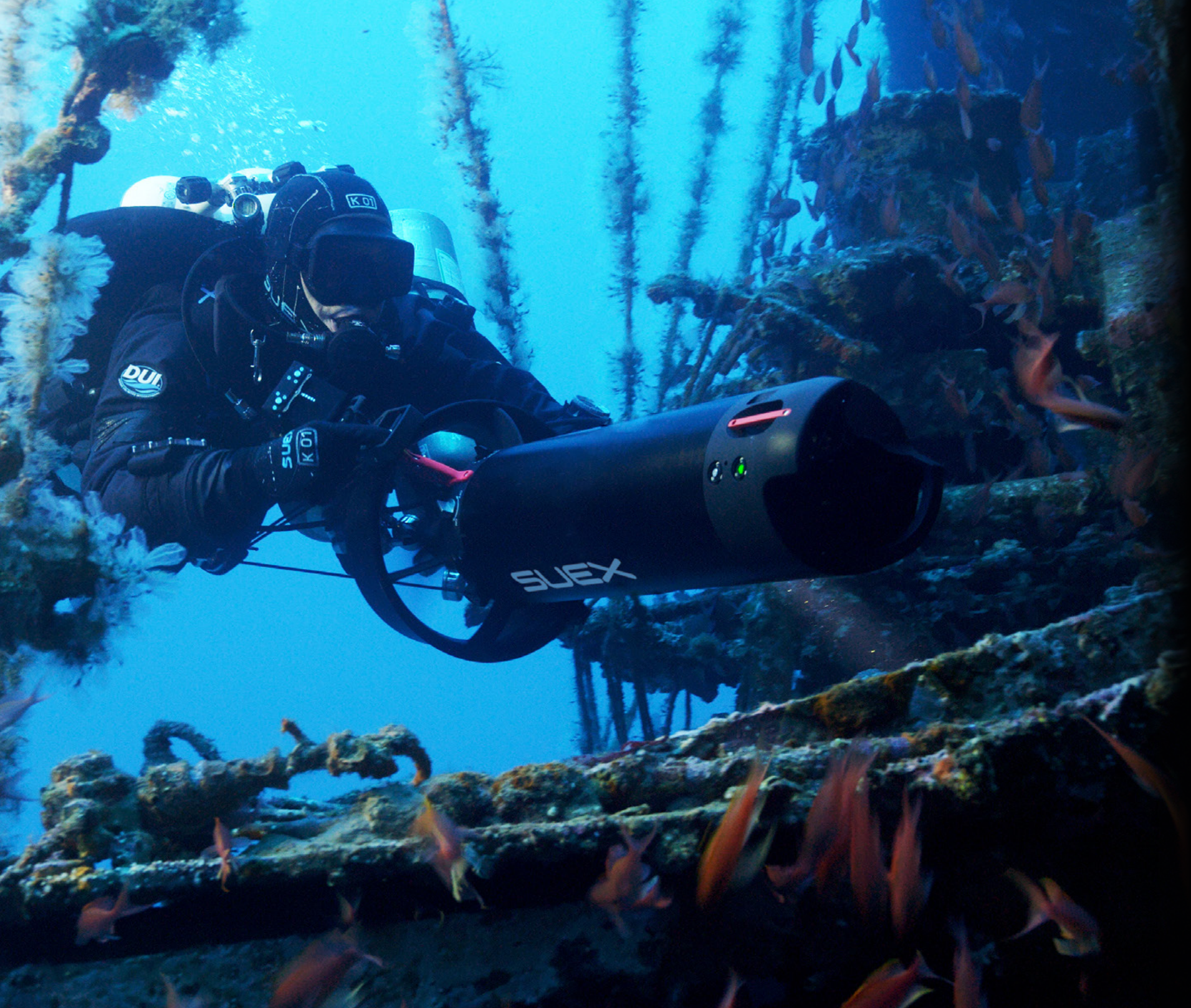
Calypso, available for Android and iOS devices, improves the navigation experience and provides the diver with useful information on the DPV by recording essential data before and after the dive.

Compatible with the entire SUEX scooter line, the Calypso app also interacts wirelessly with the Eron D-1 dashboard.

## FEATURES

- Collect and view DPV motor data.
- Collect and view DPV li-ion battery data.
- Plan a route with waypoints.
- Download the dive data (time, depth, temperature, battery charge status) synchronized with the navigation data.



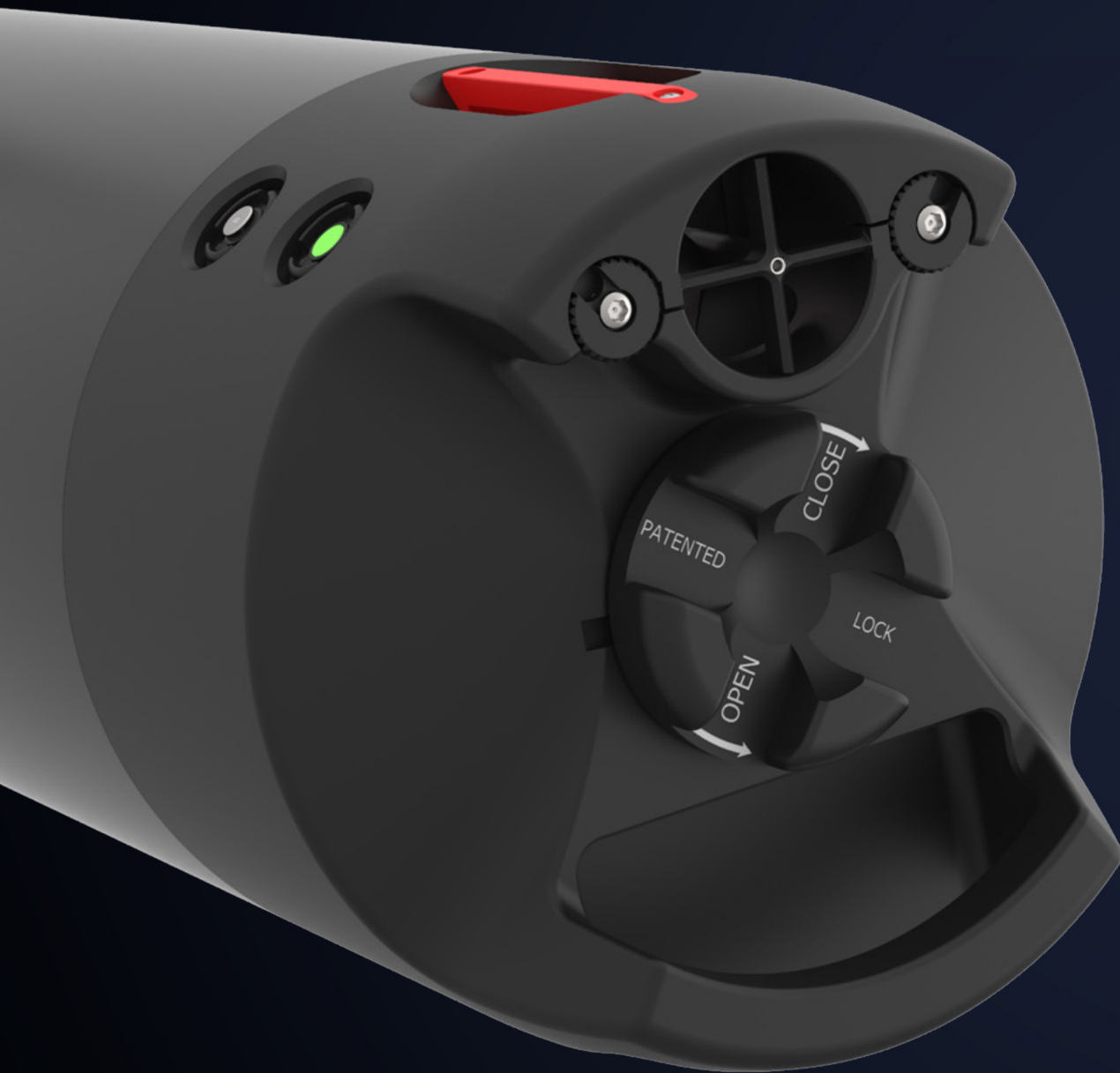


SINAPSI

N O S E



## SINAPSI nose



SINAPSI is a special navigation nose that replaces the standard nose and is equipped with sophisticated electronics that makes it possible to receive and process underwater navigation data captured with the DPV.

The SINAPSI project took years of increasingly sophisticated research, including many tests and trials to optimize the system using the most current and exciting technological solutions.

SINAPSI is available for the XJ-S and XK models and when combined with ERON D-1 completes the EXTENDED mode of the Eron Dashboard.





SINAPSI nose



SINAPSI



This sophisticated, yet intuitive tool makes it possible to expand exploration capabilities thanks to the following unique features:



**ROUTE PLANNING VIA SMARTPHONE AND PC APPLICATION**

- Navigation planning for routes connecting up to 3 waypoints + home position.
- PC software and phone app with cartography.
- Data analysis of numerical dive logs: graph and cartography.
- Dive log post-processing and export in the most used formats (CSV and KML).



**GNSS POSITIONING – HOME POSITION**

Acquisition and use of the GNSS position for:

- Establishing the starting point of the planned route.
- Memorizing the departure and return point (HOME).
- Recalculating the route for subsequent waypoints when the GNSS signal is re-acquired during navigation.



**DEAD RECKONING**

Dead Reckoning is navigation by estimated position, unlike navigation by compass angle (heading), provides the estimated position in real time and consequently the correct angle for reaching the next waypoint.



**PLANNING OF “ON THE FLY” ROUTES**

Option to set infinite routes before and during navigation.



**NAV FILTER**

Option to set the “reactivity” of the compass on three levels.



**HEADING QUALITY INDEX**

This Index provides the accuracy of the heading angle in real time and adjusts/degrades in conjunction with environmental changes. Indicates confidence in the accuracy of the compass and the need for calibration.



**COMPASS CALIBRATION**

The two-step calibration system is able to compensate for hard-iron and soft-iron distortions to obtain optimal heading accuracy in every situation.



**QUALITY OF THE COMPASS CALIBRATION**

At the end of each Calibration step, the quality of the calibration is displayed and stored.





**CALIBRATION OF THE ODOMETER**

Automatic in-water odometer calibration system.



**PRECISE COURSE ANGLE IN ALL POSITIONS**

Heading is not negatively affected by pitch and roll movements.



**USE OF MULTIPLE SCOOTERS**

Thanks to the unique Suex wireless system, during the same dive it is possible to use the same ERON on different DPVs. This feature allows the diver to log on the same Eron different portions of the dive executed with different Suex DPVs



**THE SUEX DPV MOTOR DOES NOT AFFECT THE HEADING**

Heading is not affected by the DPV motor magnetism.



**DISTANCE AND SPEED MEASUREMENT**

Speed measurement system by means of a robust, efficient user-adjustable odometer incorporated into the DPV which is not influenced by the DPV propeller suction and independent of the speed of the DPV.



**COMPASS NAVIGATION AND REVERSE ROUTE**

Navigation by Compass Course and Reverse Course.



**RECEIVING DATA**

The system, in addition to navigation data, provides diving data (time / depth / temperature) and DPV data such as State of charge of the battery and residual runtime in minutes.



**WIRELESS SYSTEM**

All connections of the navigation system are wireless. This guarantees reliability due to the absence of cables and connectors.



**IOS, ANDROID AND PC APP**

App for Route planning, Log download and storage.



**BATTERY**

User replaceable and easily available, standard batteries that provide about 40 hours of navigation use (refer to the manual for more details).



# COMPATIBILITY

The DRIVe system includes a wide range of devices capable of connecting with the respective models.

Below we propose an explanatory table of the different connection methods between devices and respective models.

	CALYPSO App		
	MOTOR	BATTERY	ERON D-1 Dashboard
SEVEN	●		●
VR - X	●	●	●
VR - T	●		●
XJ - T	●		●
XJ - S	●	●	●
XK	●	●	●

ERON D-1 Dashboard			SINAPSY Nose
BASE	FULL	EXTENDED	
●			
●			
●			
●			
	●	●	●
	●	●	●





SUEX

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