



The first **affordable** micro-AUV  
Deployed with **confidence**

-  Reliable and efficient
-  Unique navigation technology INX
-  Operable in any offshore conditions
-  Multiple payloads
-  Easy to use



Environnemental  
Monitoring



Oceanography  
Hydrology



Marine  
Biology

## YUCO, the carrier

*"YUCO is the world's only off-the-shelf micro-AUV range operable in all types of coastal waters. It combines exceptional performances and low maintainability."*



### Affordable and highly precise marine navigation embedded

YUCO makes a difference thanks to its INX<sup>©</sup> solution (Intuitive Navigation eXperience) offering accurate navigation without requiring external elements (s.a. acoustics positioning systems) through unique in-house marine dedicated navigation algorithms.

In **YUCO Scan** version, with integrated DVL, INX<sup>©</sup> navigation is even more accurate.

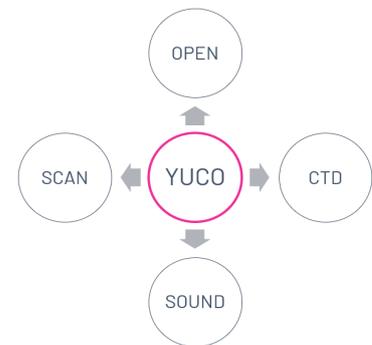
Thanks to INX<sup>©</sup>, calibration is as simple as pressing a button via the SeaPlan interface.

### Multiple payloads

With a unique design where the dry body section is common to all micro-AUV of the **YUCO** range, Seaber is the only company in the world to offer a range of ready-to-ship micro-AUVs with a flexible payload offer.

**YUCO-CTD**, **YUCO-Sound** and **YUCO-Scan** are off-the-shelf micro-AUV ready calibrated and can be delivered in a short period of time.

The integration of **YUCO-Open** or specific payloads is facilitated with a single element fitted on the front-end of the equipment. Should you wish to integrate your own payload, **YUCO** comes with an open interface with dedicated support and user community.



### Easy to use and access to data

**YUCO** can be deployed from the shore, a pontoon or a vessel deck. Thanks to its compact size, a single operator can operate **YUCO**.

Mission programming and data recovery is done via a WiFi interface with modern and intuitive GUI mission planner.

Its embedded batteries provide energy for a full day of operation. It can be recharged after the mission making it ready for another deployment the next day. Batteries can be recharged during data recovery and **YUCO** AUV being programmed on the SeaPlan interface.

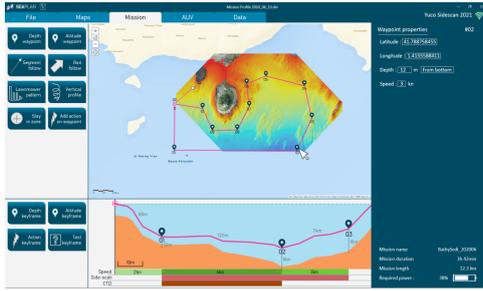
### Unique and rugged design

Based on their extensive experience, the Seaber team have developed a range of micro-AUVs with an optimized bio-inspired design. **YUCO** elements have a unique, robust and « zero leak » design. For example fins can be removed and replaced as a spare part without the risk of leaks.

Thanks to its rugged though light design, fishnets can be used to recover **YUCO**.



# YUCO, the carrier



## Mission planning

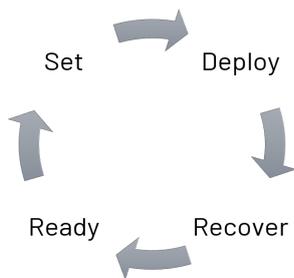
SeaPlan is a powerful and modern GUI that offers programming flexibility, intuitiveness and ease of use. A great type of navigational segments and patterns can be programmed and the activation of payload can be flexibly chosen. **YUCO's** programming offers unique navigation modes dedicated to specific payloads such as « shutdown surfacing », ideal for CTD and PAM.

The SeaPlan interface is accessible via WiFi for access through different platforms. **YUCO** can also be recharged while being programmed.

## Surface communication and recovery using RELOC

**YUCO** is equipped with a complete antenna system for surface communication: GPS, GSM, Iridium, and UHF. GSM can be used for coastal applications, while Iridium is used for long-range status. **YUCO** also communicates with RELOC via UHF up to 5km range.

An optional underwater pinger, a powerful embedded flashlight and the signature pink coating makes therecovery of **YUCO** safe and quick.



## Easy transportation and maintenance

Thanks to the no-need-to-open dry section and embedded rechargeable batteries, **YUCO** micro-AUVs are very easy to maintain.

**YUCO** can be supplied with two types of high capacity rechargeable batteries. For longer endurance, we recommend the certified Lithium ion battery option. Alternatively, the NiMH battery option offers an easy transportation by any means.

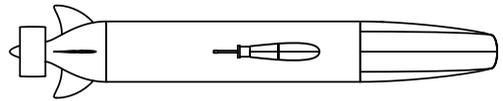
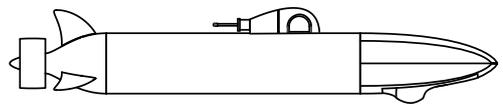
Finally, the **YUCO** set with transporting case and accessories weighs less than 20kg.



# Payloads

## Common features

- Length : 75 cm + nose section (23 to 31.5 cm)
- Tube Diameter : 12 cm
- Weight : 9.5 kg
- Depth Rating : 300 meters
- Endurance : 1 up to 10 hours at speed of 2.5 knots
- Speed Range : 2 to 5 knots (0.5 to 2.0 m/s)



## YUCO-CTD



CTD sensor, by RBR

Availability:  
Order from Q1 2021  
Delivery from Q3 2021



Depth rating: 300 meters

Length: 98 cm

Diameter: 12 cm

Speed: 2 to 5 knots

Weight in air: 9.5 kg

Endurance: 10 hours at 2.5 knots

Conductivity	Temperature
Range: 0-85mS/cm	Range: -5°C to 35°C
Initial accuracy: ±0.003 mS/cm	Initial accuracy: ±0.002°
Resolution: 0.001 mS/cm	Resolution: 0.00005°C
Typical stability: 0.010 mS/cm per year	Time constant: ~1s (standard), ~0.1s (option)
	Typical stability: 0.002°C per year

## YUCO-Sound



Underwater noise recorder,  
by RS Aqua

Availability:  
Order from Q1 2021  
Delivery from Q4 2021



Depth rating: 300 meters

Length: 98 cm

Diameter: 12 cm

Speed: 2 to 5 knots

Weight in air: 9.5 kg

Endurance: 10 hours at 2.5 knots

Acoustic payload specification	
Analogue bandwidth: 160 kHz	Maximum Sensivity: -165dB Re 1 V/μPaz
ADC: 24 Bits Stigma Delta	Sampling rates supported: 2 kHz to 384 kHzA
Dynamic Range: 110 dB (full bandwidth)	Up to 4TB internal removable SD card storage
Configurable Gain: 0dB - 45 dBz	Configurable recording, schedule and duty cycling

# Payloads

## YUCO-Scan



DVL, by Waterlinked



Scan, by starfish

Availability:  
Order from Q1 2021  
Delivery from Q1 2022



Depth rating: 300 meters  
Length: 106.5 cm  
Diameter:  
Speed: 2 to 5 knots  
Weight in air: 10.5 kg  
Endurance: 6 hours at speed of 2 knots

DVL	Scan
Frequency: 1 Mhz	Frequency: 450 kHz
Max altitude: 50 meters	Horizontal Beam Width: 0.5°
Max velocity: 2.6 m/s	Vertical Beam Width: 60°
Velocity resolution: 0.01 mm/s	Range: up to 100m (328ft) per channel

## YUCO-Carrier

Availability:  
Order from Q1 2021  
Delivery from Q3 2021



Depth rating: 300 meters  
Length: 98 cm  
Diameter: 12 cm  
Speed: 2 to 5 knots  
Weight in air: 9.5 kg  
Endurance: 10 hours at 2.5 knots

YUCO open platform ready to integrate your specific wet-payload. AUV nose part adaptation on request

## YUCO-Accessories



Transporting case



RELOC tool

## Contact

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Take your measurement further

