

CHASING

FROGM3N
TECHNOLOGIES
CHANGE IS THE ONLY CONSTANT

CHASING M2 PRO **MAX**

Industrial-Grade Underwater ROV



Easy | Powerful

www.frogm3n.com

Contact:

| +971 52 756 3926 | info@frogm3n.com

Address:

Sheikh Rashid Tower, 17.02-E025, Sheikh Zayed Road, Dubai World Trade Centre, UAE

New Flagship model



SCAN ME

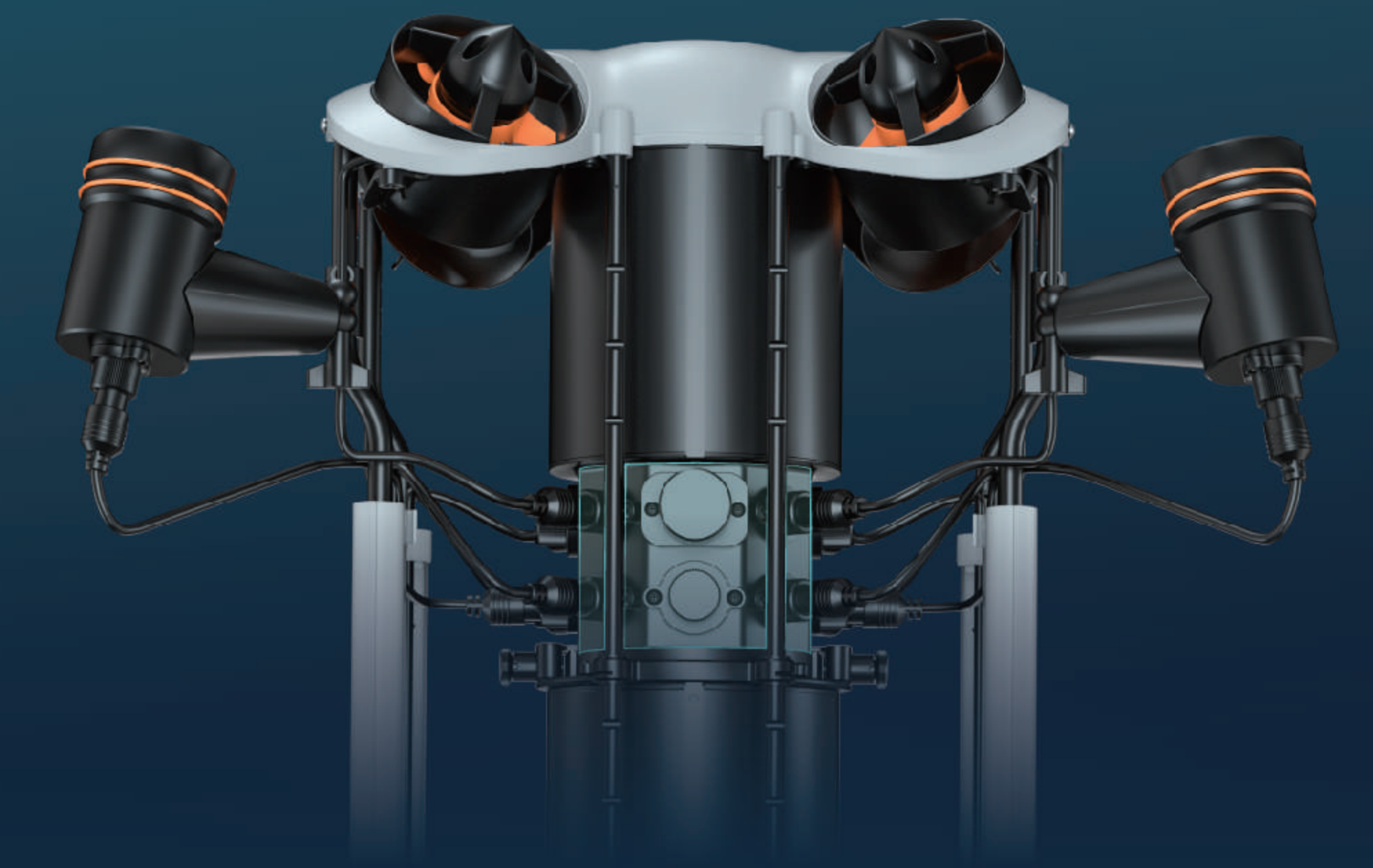
CHASING M2 PRO MAX Industrial-Grade Underwater ROV

CHASING M2 PRO MAX provides more user-friendly, professional and reliable underwater operation solutions for various industrial applications, such as underwater emergency rescue, hull and dock inspection, aquaculture inspection, water conservancy and hydropower inspection, and scientific exploration and environmental protection inspection.



Five Ports Integrated Simplifies the Installation Of Multiple Accessories

The docking station is built into the control cabin, simplifying the installation of multiple accessories. The new layout of the five reserved ports supports up to five accessories at a time.



More Than 20 Innovative Chasing Accessories and Third-party Hardware Can Be Installed for Extensions.



Easy

- Convenient to disassemble/assemble the accessories
- Easy to operate
- Portable and simple in storage

Powerful

- Attach 5 accessories at a time
- Meet the needs of different application scenarios
- Enable 24/7 missions without failure

Easy and Convenient Assembly and Disassembly

The quick accessory assembly and disassembly technology allows you to install accessories on the ROV by combining the slide-in mounting platform and the ROV support rod, which is convenient, reducing the time and effort spent on assembly and disassembly.



CHASING Shore-Based Power Supply System (C-SPSS) Enables 24/7 Missions

CHASING Shore-based Power Supply System (C-SPSS) features a battery compartment design for easier installation and an increased output of 1,500W, ensuring continuous operation and no power-off when the ROV works at full power.

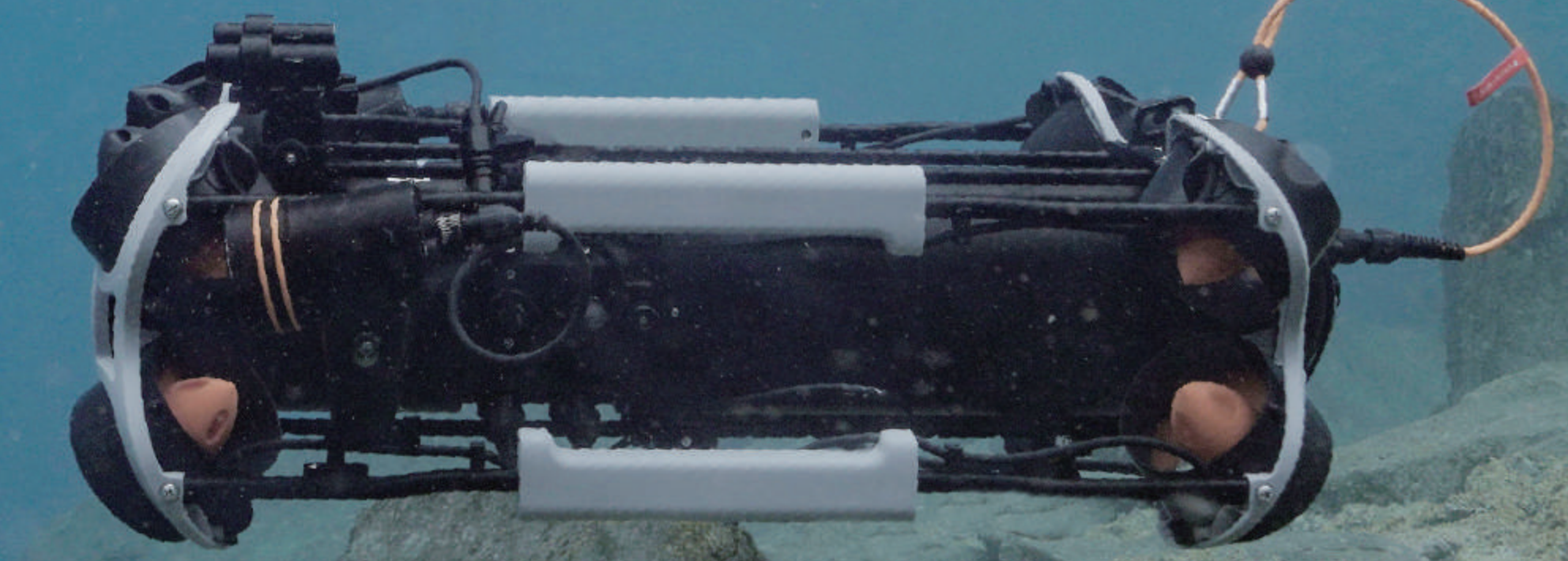


200 Meters Depth Rating for A Broader Range of Operations

Combining with different lengths of tether cables, it can work in a broader range and meet more needs of underwater applications.

Diving depth
200M

Maximum movement radius
400M



CHASING C-MOTOR 2.0 Enhances Power and Reliability

The ROV is equipped with eight vectored thrusters and second-generation anti-stuck motor (C-MOTOR 2.0) with a design of new materials, innovative technology and fluidization, which have 30% more power, giving the ROV an enhanced anti-stuck performance and making it more reliable and easier to clean.

30% ↑
Increased power



4k+electric Image Stabilization F1.8 Aperture

4k

4k video

12M

12 megapixels

EIS

EIS

F1.8

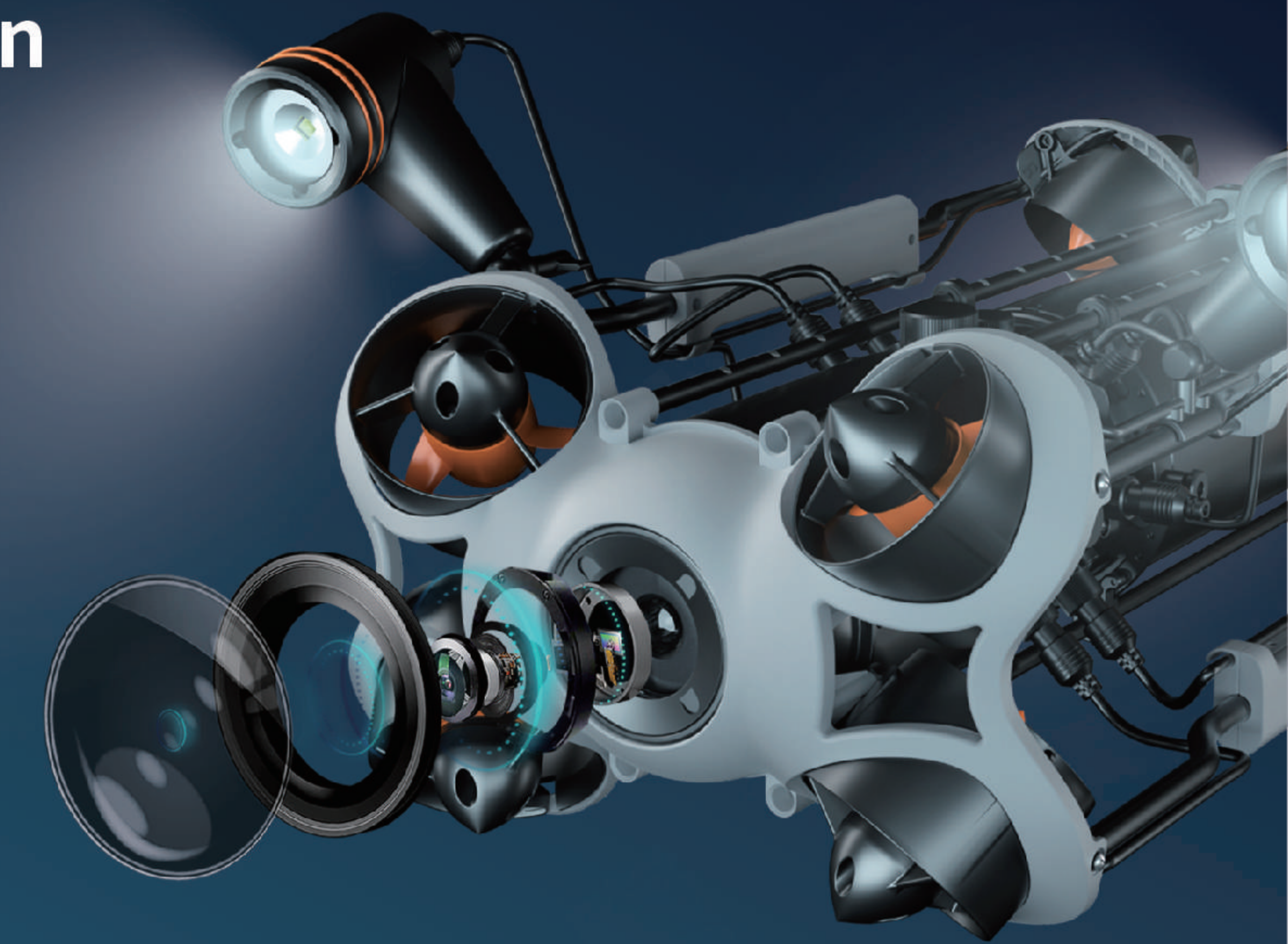
F1.8 aperture

150°

150° field angle

1/2.3

1/2.3 CMOS



External Floodlights Illuminate Every Detail

Two external floodlights can provide a sum of 8,000 lumens illumination and achieve the best beam angle at 150°, which can resolve the visual interference caused by the reflection of floating debris. This feature also allows stepless adjustment of brightness in the range of 0-100%, allowing you to illuminate each detail in the underwater environment as needed. The floodlights can work folded or unfolded underwater, meeting various needs for complicated underwater application scenarios.



Unfolded



Folded



Removable SD Card, Download Anytime and Anywhere

The built-in 128G SD card is removable, allowing users to use their own SD card of different capacities (up to 512G).



Applications in Underwater Emergency Rescue

Industry Overview:

Underwater rescue, also known as waterside rescue, is a rescue job that is highly sudden, time-critical, technique-demanded, difficult and risky. Underwater rescue is normally performed by professional divers. Since the underwater conditions are complicated and the drowning people have poor competence of self-aid and are prone to lose their consciousnesses, it is a time-critical, heavy-duty and dangerous task to salvage drowning people or valuables. The most difficult and time-consuming task of underwater rescue and salvage is to investigate the landform and detect the depth of waters, breadth of water surface, water flow direction, water velocity, water turbidity and so on. With the assistance of CHASING M2 PRO MAX, you can shorten the investigation time for underwater emergency rescue, quickly determine the rescue and salvage plan, and provide supports to the rescue team.



Applications in Hull Inspection

Industry Overview:

Hull inspection is to verify that the ship technically meets the requirements of relevant laws, regulations and specifications so as to guarantee the safety of ship operation and prevent against possible damage to the marine ecosystem. In order to maintain the awarded classification society certification, the ship shall be subject to the following series of inspections as required: annual inspection, intermediate inspection, in-dock inspection, special inspection, etc. In general, the most difficult, time-consuming and expensive inspections are conducted on the underwater parts of the ship, for example, check whether the propeller blades are damaged, the marine organisms attached to the hull, the hull corrosion, and damage to the anti-fouling coating. CHASING M2 PRO MAX can enable the ship owners and shipping companies to significantly reduce the operating costs and safety risks and improve the manpower efficiency.



Accessory Solution

- CHASING M2 PRO MAX
- CHASING Grabber Arm 2
- Blueprint Oculus Imaging Sonar
- CHASING USBL KIT
- CHASING Control Console
- CHASING Shore-based Power Supply System



Value of the Solution



Diving depth 200M, Maximum movement radius 400M. Two external LED floodlights can provide a sum of 8,000 lumens illumination and achieve the best beam angle at 150°, preventing visual interference during underwater search and rescue.



Blueprint Oculus Imaging Sonar, provides collection of image data in turbidity areas.



A CHASING Grabber Arm 2 can be installed to clamp, drag and salvage the target objects.



A USBL Underwater Positioning Kit installed can precisely locate and identify the position and range of search in real time.



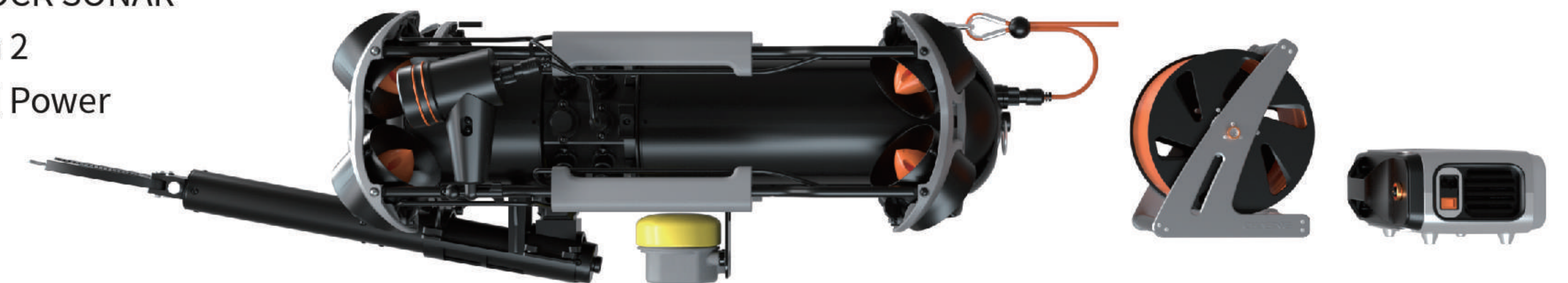
A CHASING Control Console is optionally provided with a 13.3-inch screen which is clearly visible under strong light and suitable for watching of many people at the same time.



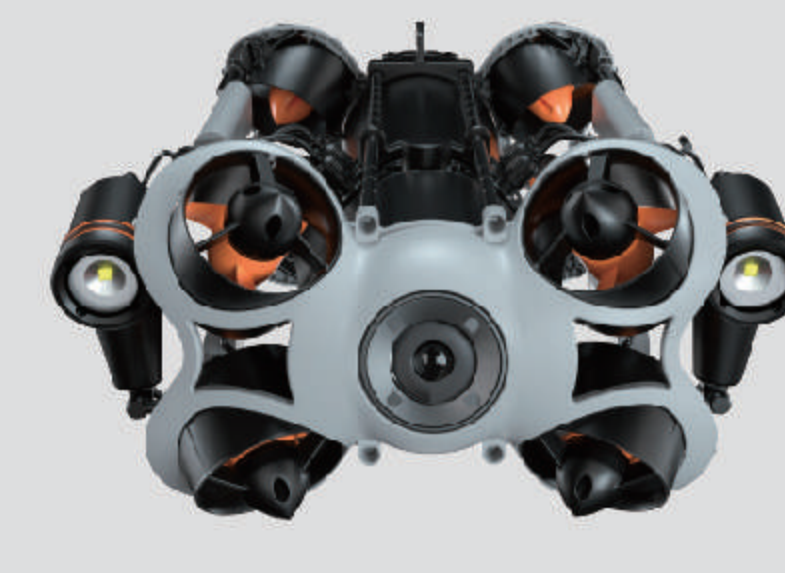
CHASING Shore-based Power Supply System (C-SPSS) is optionally assembled to satisfy the needs of 24/7 underwater search and rescue.

Accessory Solution

- CHASING M2 PRO MAX
- CHASING DISTANCE LOCK SONAR
- CHASING Grabber Arm 2
- CHASING Shore-based Power Supply System



Value of the Solution



Two external LED floodlights can provide a sum of 8,000 lumens illumination and achieve the best beam angle at 150°, meeting various needs for complicated underwater application scenarios, presenting clearer real-time images for hull inspection.



A CHASING DISTANCE LOCK SONAR with an anti-collision feature can reduce the difficulties in ship inspection.



A CHASING Grabber Arm 2 can be installed to remove the objects attached and entangled at the propeller and other parts



A CHASING Shore-based Power Supply System (C-SPSS) is optionally available to satisfy the needs of long-time inspections in full coverage.

Applications in Aquaculture Inspection

Industry Overview:

The aquaculture industry is one of the agricultural production sectors, in which humans breed aquatic animals in the waters available for farming with aquaculture technologies and facilities in accordance with the ecological habits of the farmed objects and the requirements for the environmental conditions of the waters. In the application scenarios of the aquaculture industry, fishery owners usually need to check the fishing net damage, cages and dead fish on an irregular and frequent basis. As a result, fishery owners often need to make appointment with commercial divers or hire fishery divers to inspect the above conditions in detail. CHASING M2 PRO MAX can supersede divers and carry out inspection works for fishery owners, reducing labor costs, ensuring the frequency of inspections and extending the inspection area, etc.



Applications in Water Conservancy and Hydropower Inspection

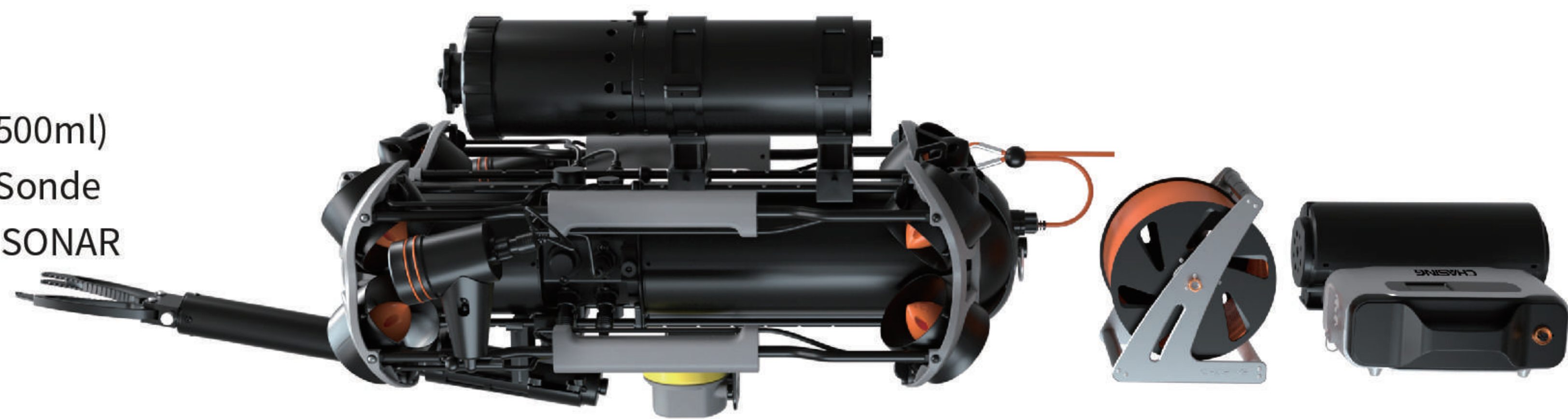
Industry Overview:

The walk-around inspection of water conservancy and hydropower dams is featured by comprehensiveness, timeliness and intuitiveness. Staff are required to identify the hidden safety hazards through regular walk-around inspection and checking, prepare repair plans in time to maintain the dam to operate safely. In the application scenarios of water conservancy and hydropower inspection, staff usually works out whether there are hidden safety hazards in the dam through data transmission and conversion by underwater sensors in combination with dam body observation. The existing inspection solutions are time-consuming and inaccurate, making it impossible to accurately identify damage to the underwater dam sections and potential safety hazards. CHASING M2 PRO MAX can provide accurate and complete dam inspection solutions for water conservancy and hydropower inspection to guarantee the safe operation of water conservancy and hydropower dam.



Accessory Solution

- CHASING M2 PRO MAX
- CHASING Grabber Arm 2
- CHASING Water Sampler (500ml)
- CHASING Multiparameter Sonde
- CHASING DISTANCE LOCK SONAR
- CHASING Shore-based Power Supply System



Value of the Solution



Diving depth 200M, Maximum movement radius 400M. Two external LED floodlights can provide a sum of 8,000 lumens illumination and can work folded which is suitable for cage inspection.



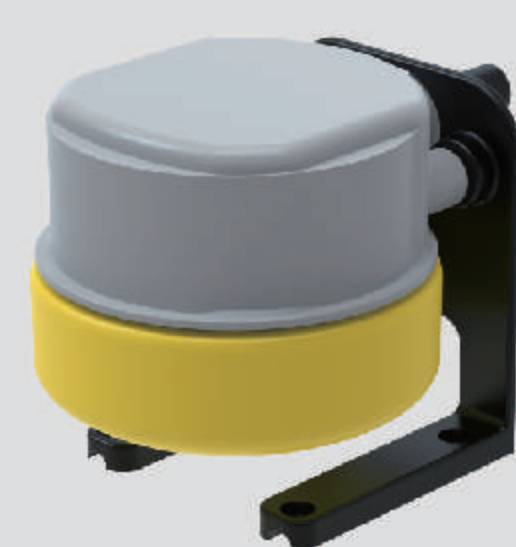
A CHASING Grabber Arm 2 can be installed for fast salvage of dead fish and foreign objects to the shore.



A CHASING Water Sampler (500ml) can real-time record PH, dissolved oxygen, turbidity, conductivity, salinity and collect other data of aquaculture water quality.



A CHASING Multiparameter Sonde can sample and test the water quality of aquaculture waters.



A CHASING DISTANCE LOCK SONAR can be arranged with a fixed inspection distance from the cages, featuring automatic avoidance and automatic cage inspection.



A CHASING Shore-based Power Supply System (C-SPSS) is optionally available to execute 24/7 missions and satisfy the needs of long-time inspections in full coverage.

Accessory Solution

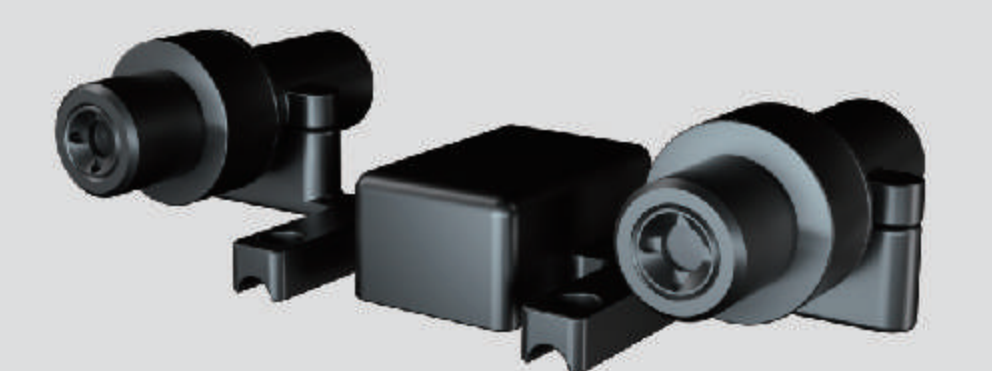
- CHASING M2 PRO MAX
- CHASING DISTANCE LOCK SONAR
- CHASING LASER Scaler
- CHASING USBL KIT
- CHASING Shore-based Power Supply System



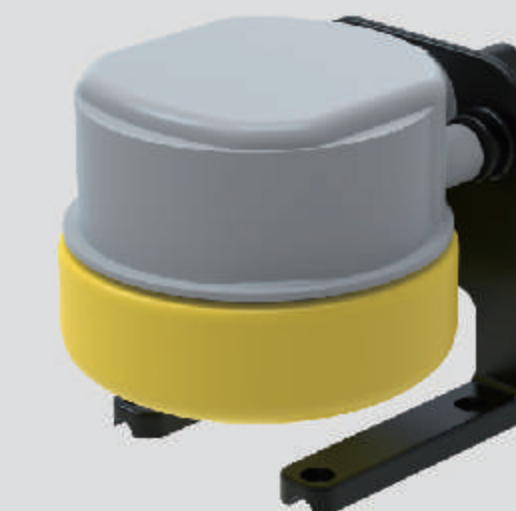
Value of the Solution



CHASING M2 PRO MAX is equipped with two external LED floodlights can provide a sum of 8,000 lumens illumination and achieve the best beam angle at 150°, providing clearer real-time images for water conservancy and hydropower inspection.



A CHASING LASER Scaler can be mounted to record the size of cracks in the dam precisely.



A CHASING DISTANCE LOCK SONAR can be arranged with a fixed inspection distance from the dam, featuring automatic avoidance and automatic dam inspection.



A USBL Underwater Positioning Kit can be equipped to precisely locate the hidden safety hazards.



A CHASING Shore-based Power Supply System (C-SPSS) is optionally available to execute 24/7 missions and satisfy the needs of long-time inspections in full coverage.

Applications in Scientific Exploration and Environmental Protection Inspection

Industry Overview:

With continuous climatic deterioration worldwide, the existent environment of underwater creatures and plants has been paid more attentions from major organizations. Researchers need to record the growth of underwater creatures and plants with underwater observation equipment and make investigation and survey based on the specimens. The inspection of underwater sewage pipes is additionally included in the key concerns of the industry inspection to protect the habitations of underwater creatures and plants. Any leakage, rupture or breakage of the pipe will affect the water quality. In scientific exploration and environmental protection, divers are usually required to dive into the water to make observation and recording for a long time. With conventional inspection solutions, the inspection will take a long time and some places with longitudinal and horizontal stands cannot be inspected. CHASING M2 PRO MAX can to a great extent save the inspection time, reduce the inspection cost, increase the inspection coverage area, and improve the accuracy of the inspection report.

Accessory Solution

- CHASING M2 PRO MAX
- CHASING Grabber Arm 2
- CHASING Water Sampler (500ml)
- CHASING Multiparameter Sonde
- CHASING WaterLinked DVL Mounting Kit
- CHASING DISTANCE LOCK SONAR
- CHASING USBL KIT
- CHASING Shore-based Power Supply System



Value of the Solution



The ROV's posture can be changed in operation so as to inspect the narrow places.



A CHASING Grabber Arm 2 can be installed to sample the observed objects.



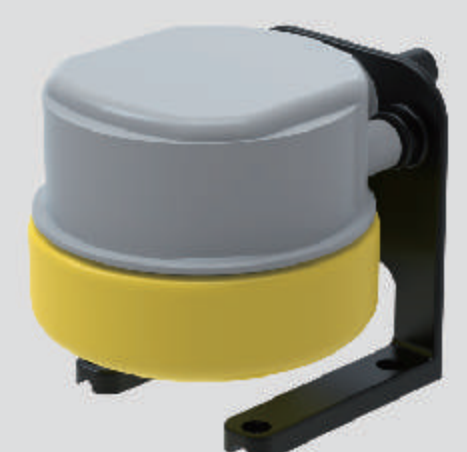
A CHASING Water Sampler (500ml) can sample water quality in scientific exploration area at fixed points.



A CHASING Multiparameter Sonde can sample and test the water quality in scientific exploration area.



A CHASING WaterLinked DVL Mounting Kit can be mounted to enable positioning and directional observation of the objects under scientific exploration.



A CHASING DISTANCE LOCK SONAR can be arranged with a fixed inspection distance from the sewage pipes, featuring automatic avoidance and automatic pipe inspection.



A USBL Underwater Positioning Kit can precisely locate the pipe breakage.



A CHASING Shore-based Power Supply System (C-SPSS) is optionally available to execute 24/7 missions and satisfy the needs of long-time inspections in full coverage.

ROV

SIZE	608x294x196mm (Excluding the floodlight)
WEIGHT	≈8kg
MAXIMUM DEPTH	200m
PULL (FORWARD/DRIFT UPWARDS/TRVERSE)	5.7/4.0/3.6kg
MAXIMUM BATTERY LIFE	>4h
BATTERY	302.4Wh
OPERATINGTEMPERATURE	-10°C~45°C

Camera

CMOS	1/2.3 inch
APERTURE	f/1.8
FOCAL LENGTH	0.3m~∞
ISO RANGE	100-6400
FIELD OF VIEW	150°
MAXIMUM IMAGE RESOLUTION	12M
IMAGE FILE TYPES	JPEG/DNG
	UHD:3840*2160 (4K) 30fps
NORMAL VIDEO	FHD:1920*1080 (1080p) 30/60/120fps
SLOW MOTION VIDEO	720p:8x (240fps) / 1080p:4x (120fps)
TIME-LAPSE VIDEO	4K/1080p
VIDEO MAXIMUM STREAM	60M
VIDEO TYPE	MP4
MICRO SD CARD MEMORY	128G

Sensor

IMU	Three-axis gyroscope acceleration / compass
DEPTH SENSOR	< ±0.25m
TEMPERATURE SENSOR	< ±2°C

LED Lights

BRIGHTNESS	2 x 4000lm
COLOR TEMPERATURE	5000K~5500K
CRI	85
DIMMING	Three adjustable

E-Reel

SIZE	296x189x279 mm
WEIGHT	3.5kg
MAX STORAGE LENGTH	200 meters
BATTERY CAPACITY	4800mAh
NUMBER OF CYCLES	>300 times
RUNTIME	30 times
WIPING SPEED	3 gears
TAKE-UP SPEED (200M)	Fast Speed 220s ; Low speed 9min
OPERATING TEMPERATURE	-10°C~45°C
CHARGING TIME	2H (12V) /4H (25.2V)

Remote Controller

SIZE	160x155x125mm
WEIGHT	685g
BATTERY CAPACITY	2500mAh
BATTERY LIFE	≥6H (Depend on working condition)
WI-FI	Wi-Fi support
HDMI	Support
USB	Support
PHONE/TABLET CLIP	Maximum support 10 inches

Adapter

ADAPTER	8A /25.2V
ROV CHARGING TIME	2.5H
REMOTE CONTROLLER CHARGING TIME	2H

Main Components



ROV



E-Reel



Remote Controller