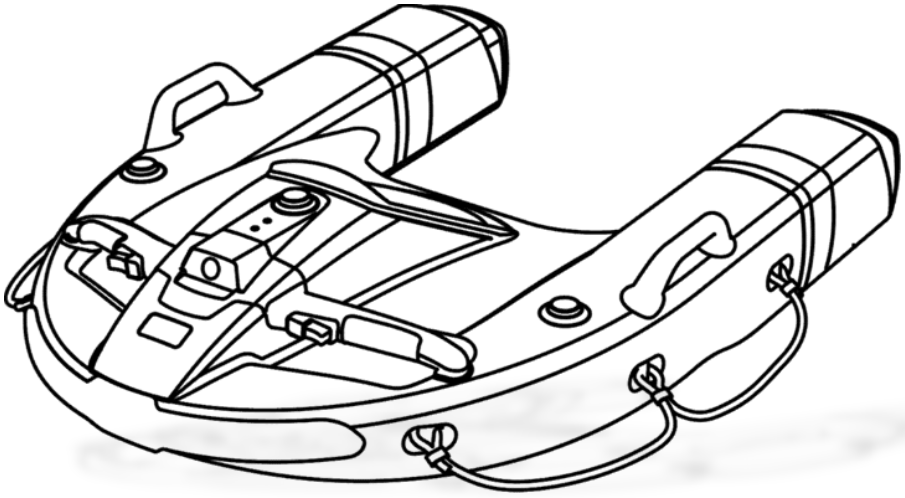
Water Rescue

THE NEXT GEN REMOTE CONTROLLED LIFEBUOY SERIES D3

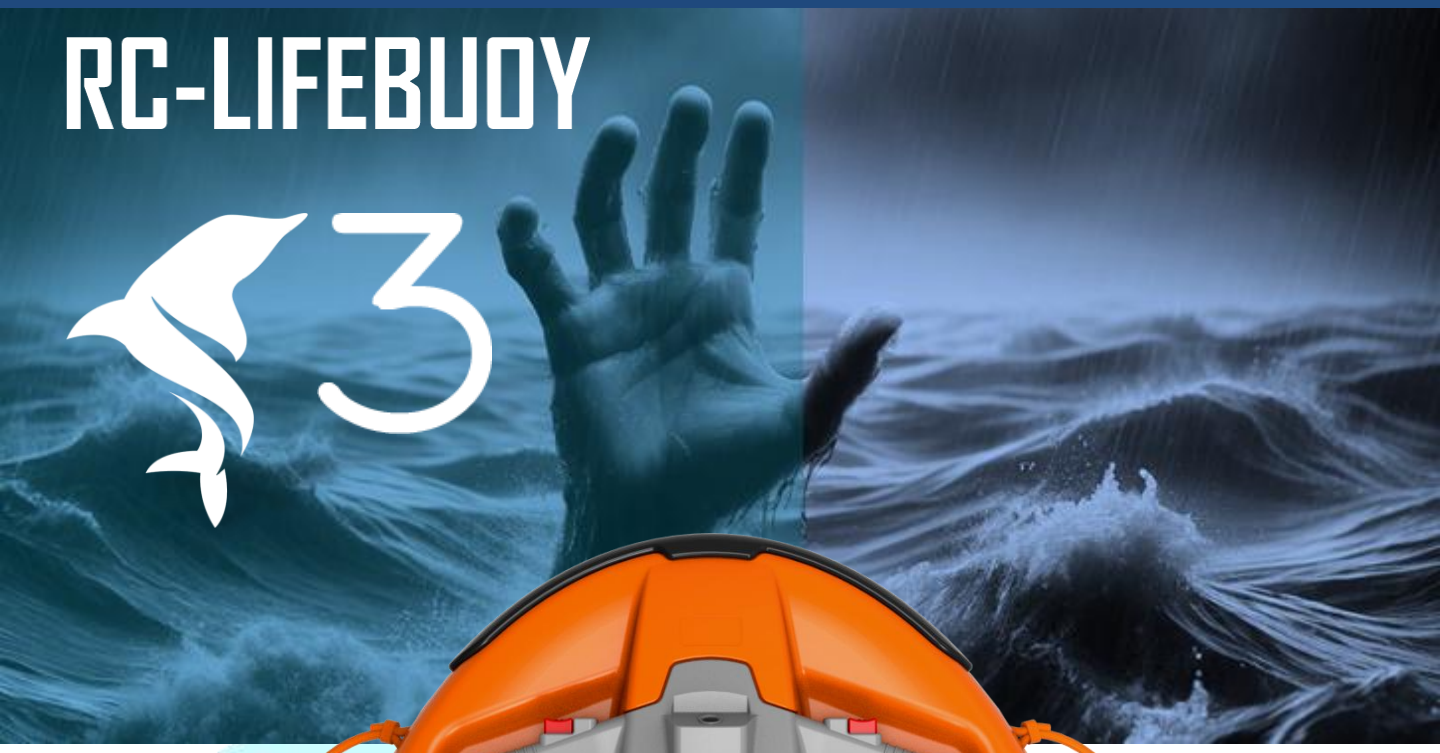
D3 & D3+ (Plus)



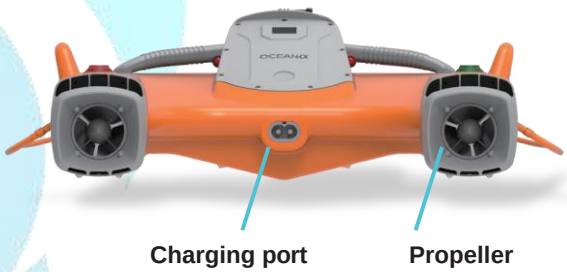
HS CODE 9506290000

www.thrysmar.com

RC-LIFEBUOY



The D3 Series can propel itself to rescue a casualty, faster than any skilled swimmer, while the rescuer can operate it with a remote controller to stay safe and dry.



Key Features	D3 +	D 3
Immediate ON	Yes	Yes
Magnetic Standby Mode	Yes	Yes
Onboard Control	Yes	Yes
Dropping in water	Yes	Yes
OLED Display	Yes	Yes
Dual GNSS	Yes	NA
Auto Return	Yes	NA
Self Righting	Yes	NA
Remote Monitor	Yes	NA

Optional: Loud Speaker, Search light, Charge stand

Dimension: 100 cm (L) x 70 cm(W) x 25 cm(H)
Weight:: 16.75 kg
Hull Material: LLDPE
Waterproof: IP67
Speed: 7 m/s
Endurance max.: 70 min @3 m/s
Control Range max.: 800m (line of sight
Towing capacity: up to 1000 kg

Reliable & safe D3 & D3+

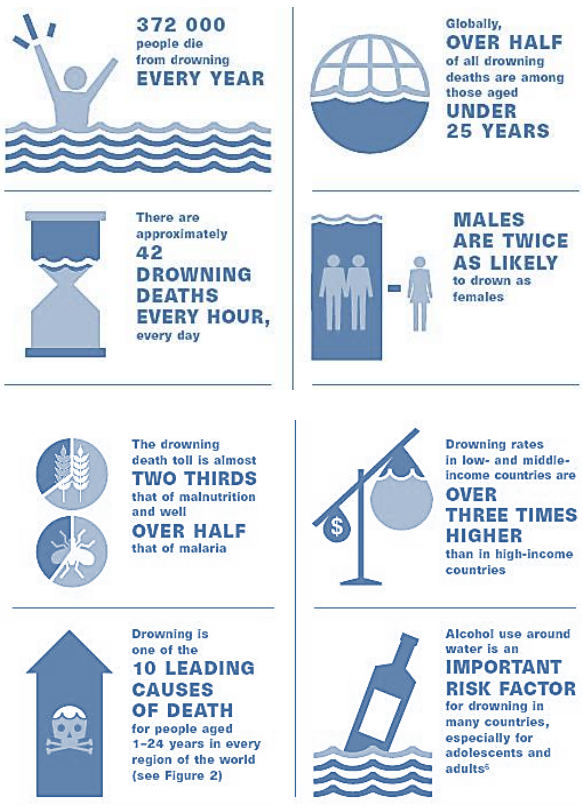
Solves the number one pain point of water rescues – panicking victims and the risk that they represent to another person attempting to rescue them in the water – by offering a remotely navigable, buoyant platform that has lights that can be seen at night and is much more resistant to adverse water conditions than other options.

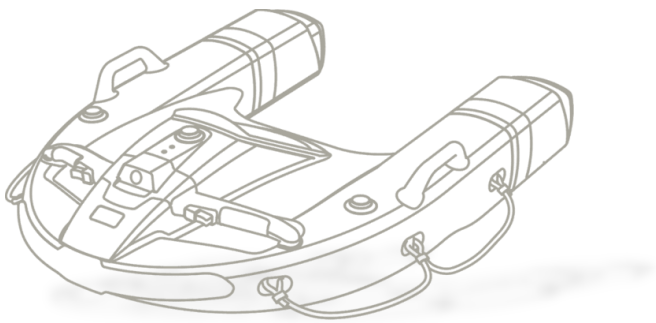
Augments existing vehicular assets such as Zodiacs, jet skis, and other small rescue vessels by decreasing cost and increasing the efficiency of rescue missions.

Supplements existing water rescue equipment such as ropes, rescue lines, and ring buoys with a fast device that offers maximum assistance to swimmers.

The Smart LifeBuoy can operate in harsh environments surrounding offshore platforms, which commonly experience high seas and conditions unfavorable to rapidly deploying manned assets.

Unlike existing indirect rescue systems and assets, the Smart LifeBuoy deploy quickly and directly – reducing the heavy burden of costs (insurance, etc) associated with deploying rescue and recovery operations by platform staff or government response.





Enhancing Swimming Safety with Remote-Controlled Lifebuoys

Swimming is a beloved activity worldwide, enjoyed by people of all ages for its health benefits and recreational pleasure.

However, the inherent risks associated with swimming, particularly in open waters, necessitate robust safety measures.

One innovative solution emerging in water safety is the remote-controlled lifebuoy.

This technology represents a significant advancement in ensuring swimmer safety and reducing the risk of drowning.

The Evolution of Lifesaving Technology

Traditional lifebuoys have been a staple in water rescue operations for decades.

These devices, typically thrown to a distressed swimmer, require the victim to grab hold and wait for manual rescue.

While effective in many scenarios, traditional lifebuoys have limitations, particularly in rough waters, strong currents, or when the swimmer is panicking or unconscious.

Enter the remote-controlled lifebuoy: Developed by professional companies, these modern devices blend the simplicity of traditional lifebuoys with cutting-edge technology, offering a more efficient and versatile approach to water rescue.

Key Features of Remote-Controlled Lifebuoy

1. **Remote Operation:** The remote-controlled lifebuoy allows rescuers to navigate the device directly to a swimmer in distress. This feature is crucial when approaching the swimmer is difficult or dangerous.

2. **High Speed and Maneuverability:** The lifebuoy can reach speeds up to 15 km/h and quickly cover distances, significantly reducing the time it takes to reach a distressed swimmer. Its agility allows it to navigate through waves and currents effectively.

3. **Buoyancy and Stability:** Designed to stay afloat even in rough conditions, our lifebuoy provides a stable platform for swimmers to hold onto. Its robust construction ensures it remains functional even in challenging environments.

4. **User-Friendly Design:** The lifebuoy is intuitive to operate and requires minimal training for rescuers. This accessibility is vital in emergencies where every second counts.

5. **Durability:** Made from high-quality materials, the lifebuoy is built to withstand harsh marine environments, ensuring longevity and reliability in rescue operations.

Enhancing Swimming Safety with Remote-Controlled Lifebuoys

Benefits of Remote-Controlled Lifebuoys

The integration of remote-controlled lifebuoys into water rescue operations offers numerous benefits:

- **Increased Safety for Rescuers:** By reducing the need for rescuers to enter dangerous waters, these lifebuoys minimize the risk to human life during rescue operations.

- **Rapid Response:** The ability to swiftly deploy and navigate the lifebuoy means that distressed swimmers can receive assistance more quickly, increasing their chances of survival.

- **Versatility:** Remote-controlled lifebuoys are suitable for use in various water environments, including oceans, rivers, and lakes, and can be deployed in diverse rescue scenarios.

- **Enhanced Accessibility:** These devices can aid where traditional methods may struggle in crowded or hard-to-reach areas, such as near rocks or piers.

Real-World Applications

Remote-controlled lifebuoys are already making a difference in real-world applications. Lifeguard teams, coastguards, and marine patrols incorporate these devices into their safety protocols.

For instance, during a trial phase, our lifebuoy demonstrated its effectiveness in various rescue simulations, showcasing its potential to save lives where traditional lifebuoys might fail.

Moreover, public awareness campaigns and training programs educate communities on this technology's benefits, promoting broader adoption and integration into safety practices.

Future Prospects

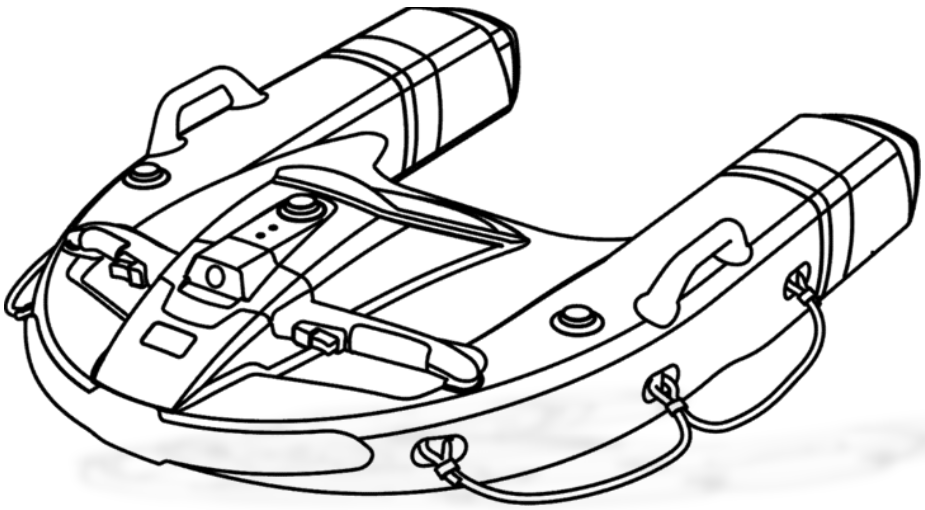
The future of swimming safety looks promising with the continued development and enhancement of remote-controlled lifebuoys. Innovations such as GPS tracking, improved battery life, and AI-driven navigation systems are on the horizon, promising even greater effectiveness and reliability.

As technology evolves, the goal remains clear: to ensure that every swimmer, whether in a pool, lake, or ocean, has access to the best possible safety measures.

Remote-controlled lifebuoys represent a pivotal step toward achieving this goal, embodying the perfect blend of tradition and innovation in water rescue technology.

RC-LIFEBUOY

INTRODUCTION



Reading Tips

Important note

Operation instruction

Vocabulary explanation, reference information

D3 series unmanned surface rescue vehicle is used for rescuing people who have fallen into water in rivers, lakes, reservoirs, coastal areas, and offshore activity areas.

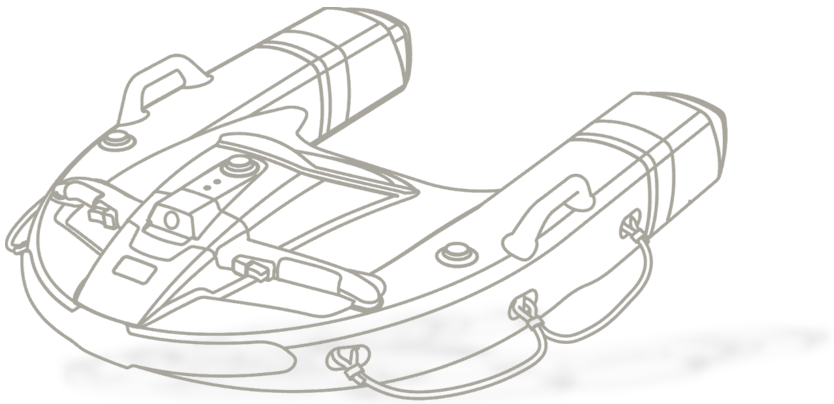
Used to replace traditional circular lifebuoys for active remote rescue of drowning victims, improve the success rate of rescue and ensure the safety of rescuers, and can be used in higher environmental requirements such as ships and airborne scenarios.

D3 series unmanned surface rescue vehicle has two versions, namely "D3 " and “D3+".

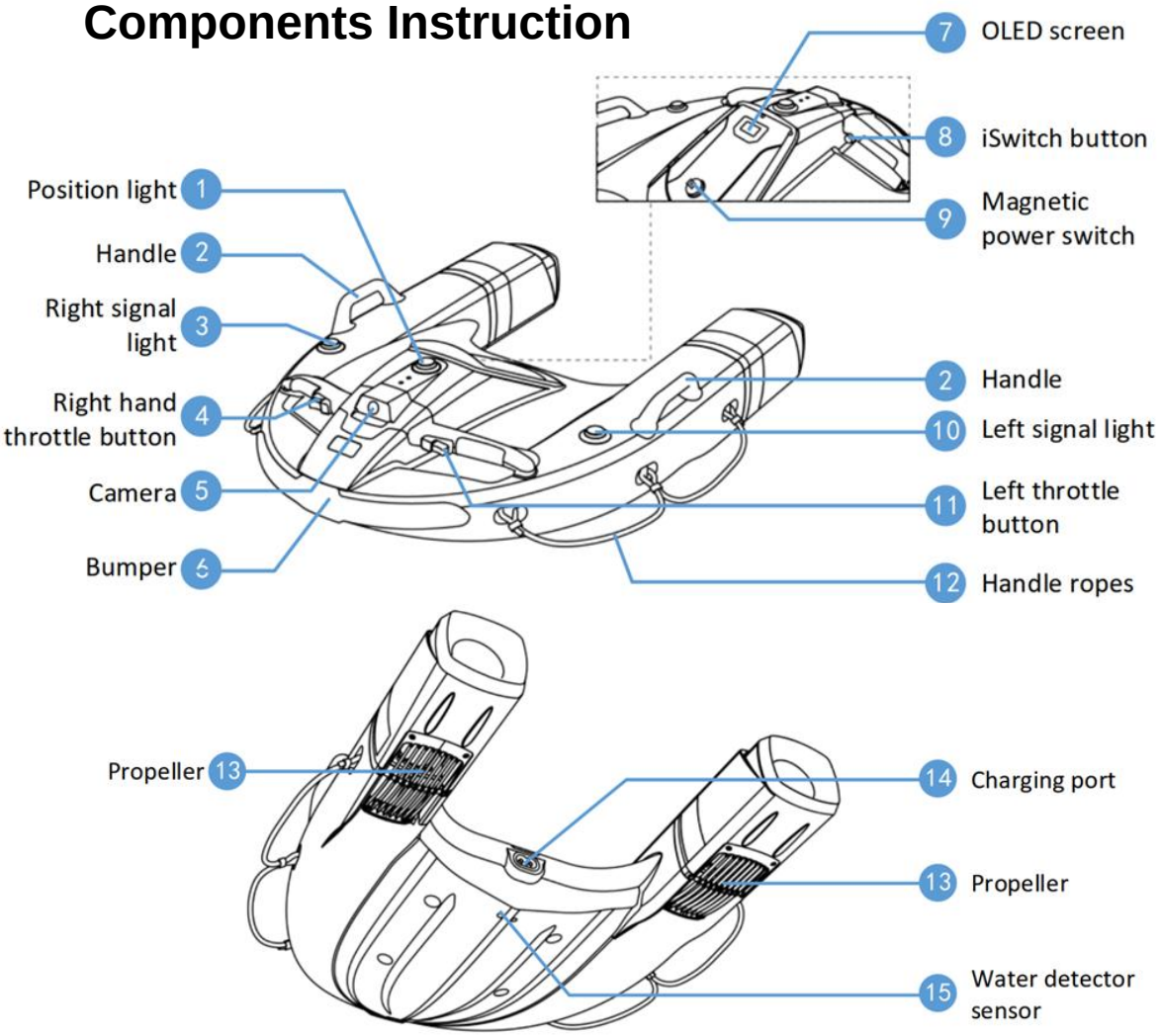
The “D3 " can meet basic rescue scenarios, and the “D3+" is equipped with image transmission cameras, which can implement visual rescue, making rescue scenarios more diverse and accurate.

Key Features	D3 +	D 3
Immediate ON	**Yes**	**Yes**
Magnetic Standby Mode	**Yes**	**Yes**
Onboard Control	**Yes**	**Yes**
Dropping in water	**Yes**	**Yes**
OLED Display	**Yes**	**Yes**
Dual GNSS	**Yes**	**NA**
Auto Return	**Yes**	**NA**
Self Righting	**Yes**	**NA**
Remote Monitor	**Yes**	**NA**

Optional: Loud Speaker, Search light, Charge stand

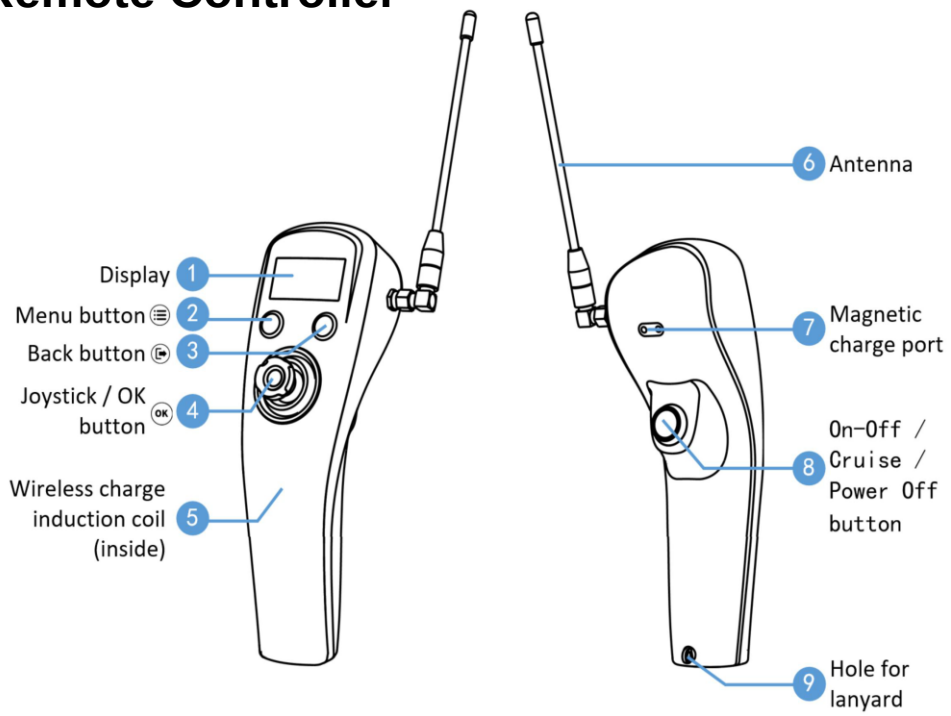


Components Instruction



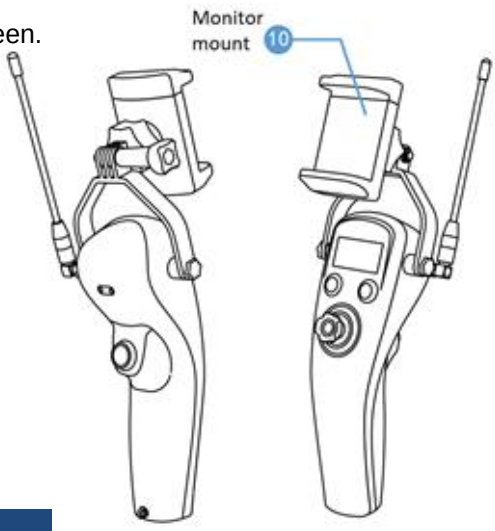
1. Position light: Used for D3 position indication at night
2. Handle: Convenient for personnel to carry and drag.
3. Right signal light: Used for D3 right direction recognition at night.
4. Right throttle button:Driving on the machine can be achieved by manipulating the right throttle button on the handle, as well as awakening D3 with the button.
5. Camera: D3 Plus is equipped with a camera to transmit images back to the remote monitor.
6. Bumper: Effectively prevent damage from collisions.
7. OLED screen: Display basic status information of D3 (including speed, power, battery level, etc.)
8. iSwitch button: Click to wake up the device, quickly press 3 times within 2 seconds to switch between two handed mode or one handed mode, quickly press 6 times for D3 sleep, and press this button to enter cruise control mode when a certain throttle value is given on the left and right throttle buttons.
9. Magnetic power switch: D3can be completely powered off by magnetic adsorption, making it convenient for long-term storage and transportation.
10. Left signal light: Used for D3 left direction recognition at night.
11. Left throttle button: Driving on the machine can be achieved by manipulating the left throttle button on the handle, as well as awakening D3 with the button.
12. Handle ropes: Convenient for rescued personnel to grab D3 from the water.
13. Propeller: Provide power for D3.
14. Charging port: Used to charge D3.
15. Water detector sensor: Used to detect the device's water entry status when D3 comes into contact with the water surface, and the system automatically wakes up.

Remote Controller

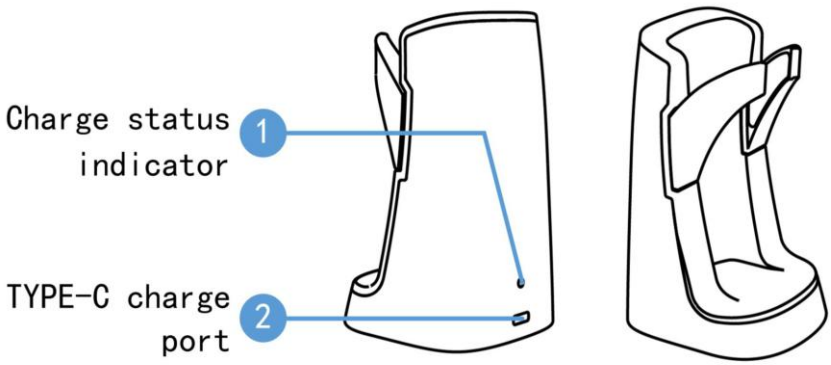


1. Display: Display basic status information of D3 status information.
2. Menu button: Long press the button to enter the menu . The specific menu settings can be found in the remote control settings section for detailed instructions.
3. Back button: Click the button to return to the previous menu and cancel the alarm pop-up.
4, Joystick/OK button: Control the working direction of D3,lightly press down and click to confirm the settings. For specific menu settings, please refer to the remote controller settings section for detailed instructions.
5. Wireless charge coil induction (inside): After inserting the remote controller into the matching wireless charging dock, charge the remote controller.
6. Antenna: Please confirm that the remote control communication antenna is tightened in place before and while operating it.
7. Magnetic charging port: Use the matching magnetic charging cable to charge the remote controller.
8. On-Off/ Cruise / Power Off button: Press this button once to power on the device, set the throttle value, and then click to enter "cruise mode". Quickly press 6 times to power off the device.
9. Hole for lanyard: Can mount anti slip hand ropes.

10. Monitor mount: D3+ can fix the image transmission screen.



Wireless Charging Base of Remote Controller

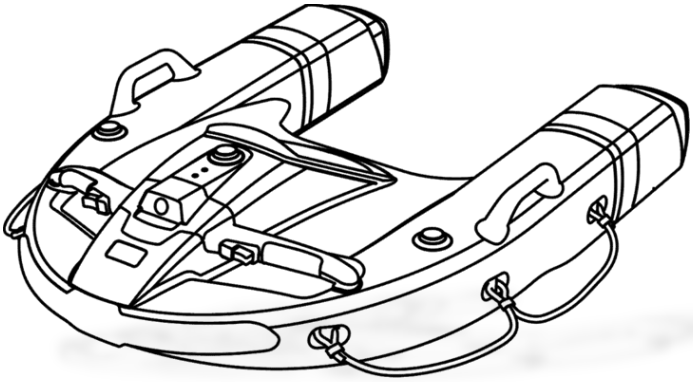


1. Charging status indicator light: The red light is always on when the remote control is not detected and the blue breathing light is on during charging.

2. TYPE-C charging port: Use the matching USB to TYPE-C charging cable to power the charging base.

Remote controller wireless charging base is only available for the **D3+**

Prepare the D3



CHARGING

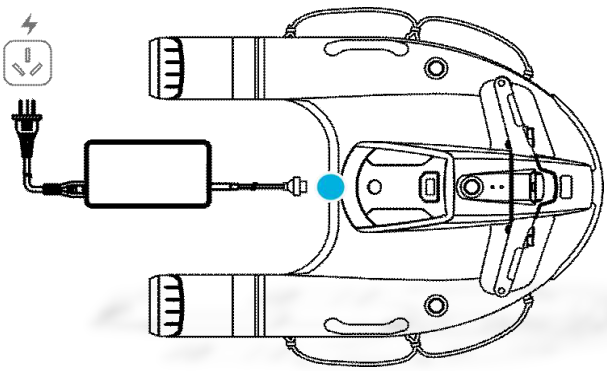
1. Open the packaging box and take out D3 .
Count and verify the product according to the packing list.

2. Remove the magnetic switch seal, remove the magnetic switch, and D3 will automatically power on and start up; Please keep the magnetic switch properly.

3. Before first use, it is necessary to fully charge the D3 rescue robot with a matching charger (output: 25.2VDC/8A) (the battery is set to around 30% at the factory).

4. To prevent ignition, first connect the output terminal connector of the charger to the D3 charging interface shown in the diagram, and then connect to the mains power to charge D3 .
When charging, the magnetic switch must be removed.

5. After the charging, please plug the charging port tightly with protective rubber.



It is prohibited to use unofficial matching chargers to charge D3

Charger indicator light		
LED1	**LED2**	**Status indication**
RED	**RED**	Charging
RED	**GREEN**	Full shutdown

Prepare the D3

- D3 battery can be charged within a temperature range of 5 ℃ to 40 ℃.
If the temperature of the battery is not within this range, the battery management system will prohibit charging. The optimal charging temperature range is 25 ± 3 ℃, and charging within this temperature range can extend the battery's service life.

- After running at high speed, the battery temperature of D3 is relatively high. It is necessary to wait for the D3 battery to drop to the allowable charging temperature range (≤ 40 ℃) before charging.
  The battery temperature can be checked through D3 and the remote control display screen.

- D3 must be kept away from heat and ignition sources during charging.

- Recharge the battery every three months to maintain its activity.

- Perform the normal maintenance process for D3 every 3 months (10 minutes operation on the water).

- For safety reasons, the battery level needs to be kept low during transportation.
  Please discharge before transportation and use normally in water until the battery level is below 30%.

Prepare the Remote Controller

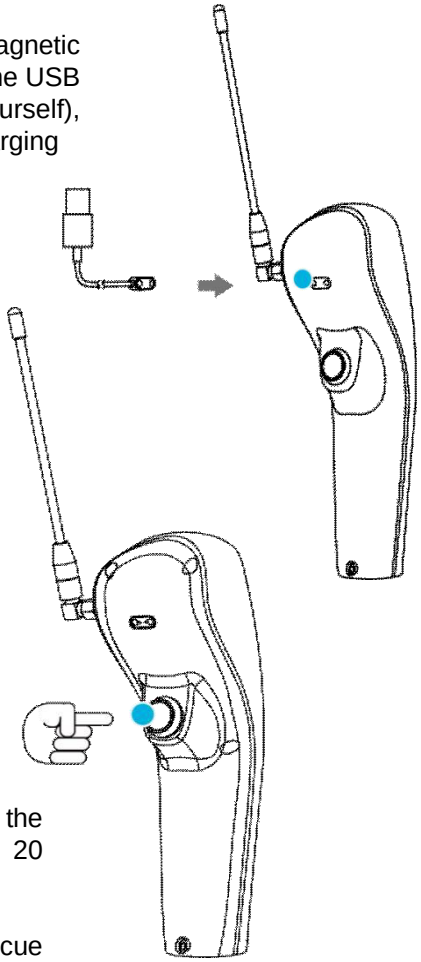
1. Take out the remote controller.

2. The remote controller can be charged using a magnetic charging cable that comes with the remote controller.

3. According to its own needs, D3+ can use two charging methods: matching magnetic suction charging wires and matching wireless charging base.
Please refer to the "Wireless Charging Base of Remote Controller" chapter for wireless charging methods.

Wired magnetic suction charging

Use a matching magnetic charging head to attach to the magnetic charging port on the back of the remote controller, connect the USB port to the adapter (The adapter needs to be prepared by yourself), and it is recommended to use a 5V/2A power adapter for charging



Remote controller on/off

Click the power button which is indicated by the finger in the picture , the remote controller display screen will be turned on, and the remote control will start up normally. After clicking the power button on the remote controller, you can wake up D3 that has been successfully paired with the remote controller and start using it.

If you need to shut down, you can quickly press the button 6 times to turn off the power of the remote controller.

- If it cannot be turned on normally, please connect the remote Controller charger to charge for more than 20 minutes and try turning it on again.

- The remote control is already configured with the rescue robot one by one when it leaves the factory, so do not mix it up when using it. The last three digits of the S/N code on both nameplates are consistent.

Prepare the Remote Controller

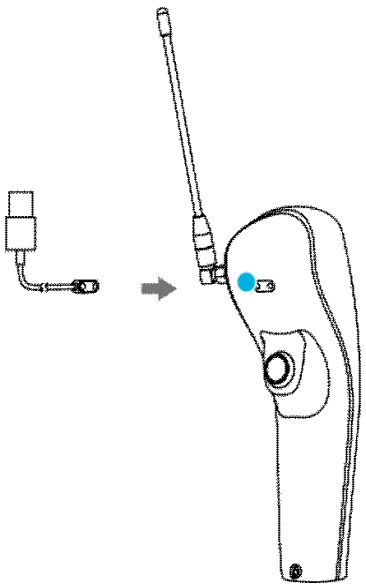
1. Take out the remote controller.

2. The remote controller can be charged using a magnetic charging cable that comes with the remote controller.

3. According to its own needs, D3+ can use two charging methods: matching magnetic suction charging wires and matching wireless charging base.
Please refer to the "Wireless Charging Base of Remote Controller" chapter for wireless charging methods.

Wired magnetic suction charging

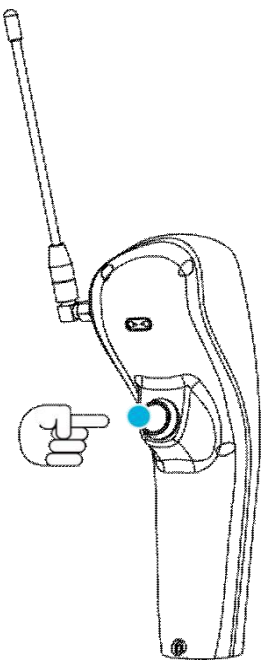
Use a matching magnetic charging head to attach to the magnetic charging port on the back of the remote controller, connect the USB port to the adapter (The adapter needs to be prepared by yourself), and it is recommended to use a 5V/2A power adapter for charging



Remote controller on/off

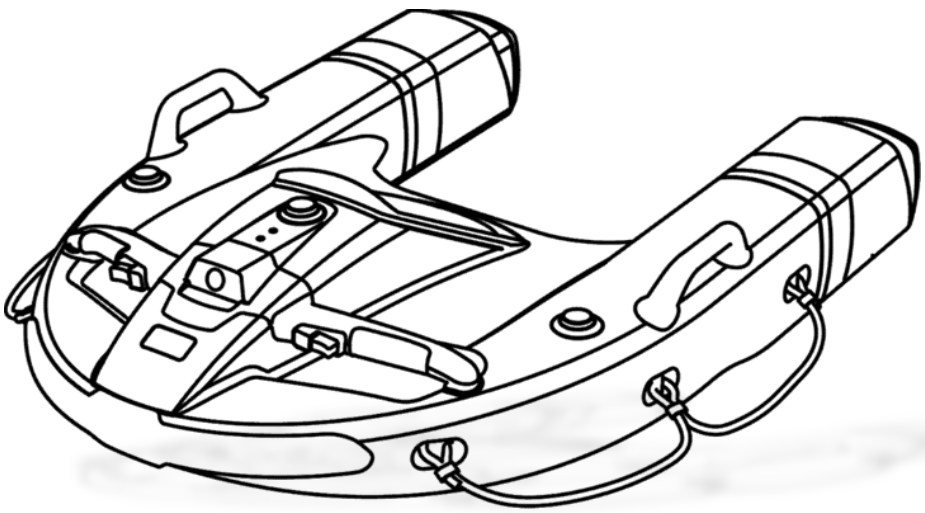
Click the power button which is indicated by the finger in the picture , the remote controller display screen will be turned on, and the remote control will start up normally. After clicking the power button on the remote controller, you can wake up D3 that has been successfully paired with the remote controller and start using it.

If you need to shut down, you can quickly press the button 6 times to turn off the power of the remote controller.



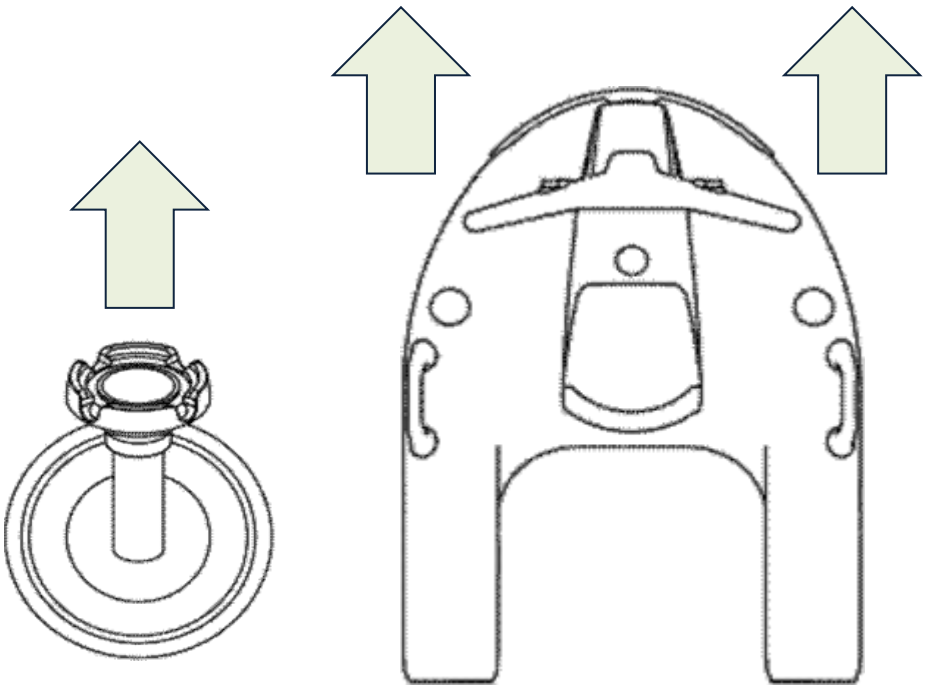
RC-LIFEBUOY

CONTROL D3 & D3+



Control Forward

If you need to control D3 to move forward, gently pull the remote controller joystick forward, and the two propellers provide forward power.



D3 operates at a fast speed in water, with a remote control speed limit of 60% at the factory.

It is recommended to master the control proficiently at this speed before adjusting the remote control speed limit according to the "Remote Control Parameter Settings" section.

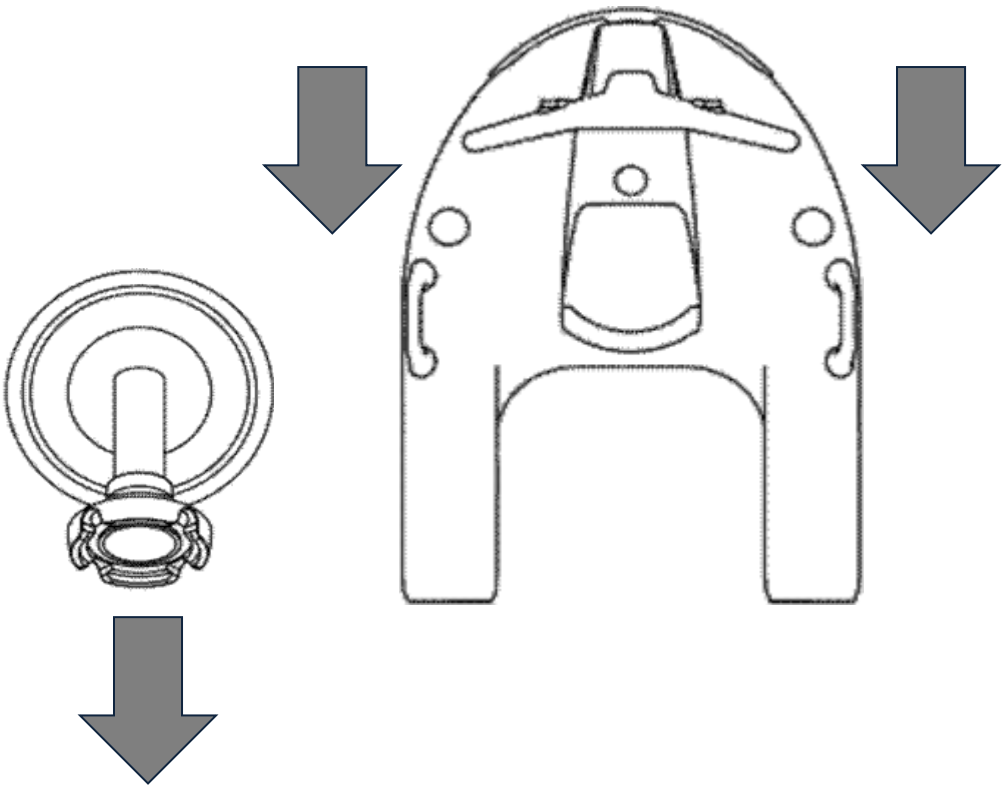
- Before entering the water for use, use the remote controller to gently push the joystick and check if the propellers on both sides are working properly. If it cannot operate normally, please contact your D3 supplier.

- The first use must be practiced in a wide unmanned water area to prevent danger and damage to the D3.

Manually flipping and rewinding

If D3 faces downwards after entering the water, when the self-righting function is turned off, pull the remote control joystick backwards, and D3 provides flipping and centering power through two propellers for manual flipping.

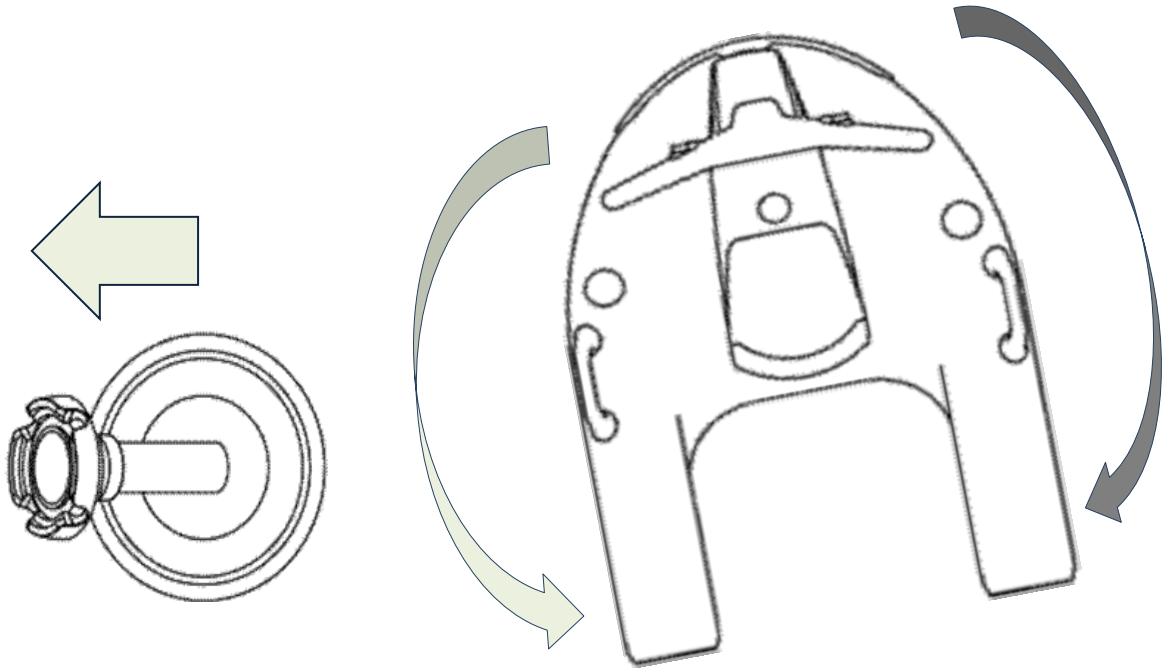
After entering the water normally with the D3 facing upwards, if you need to reverse, you can gently pull the joystick backwards, and the two propellers provide power for the reverse.

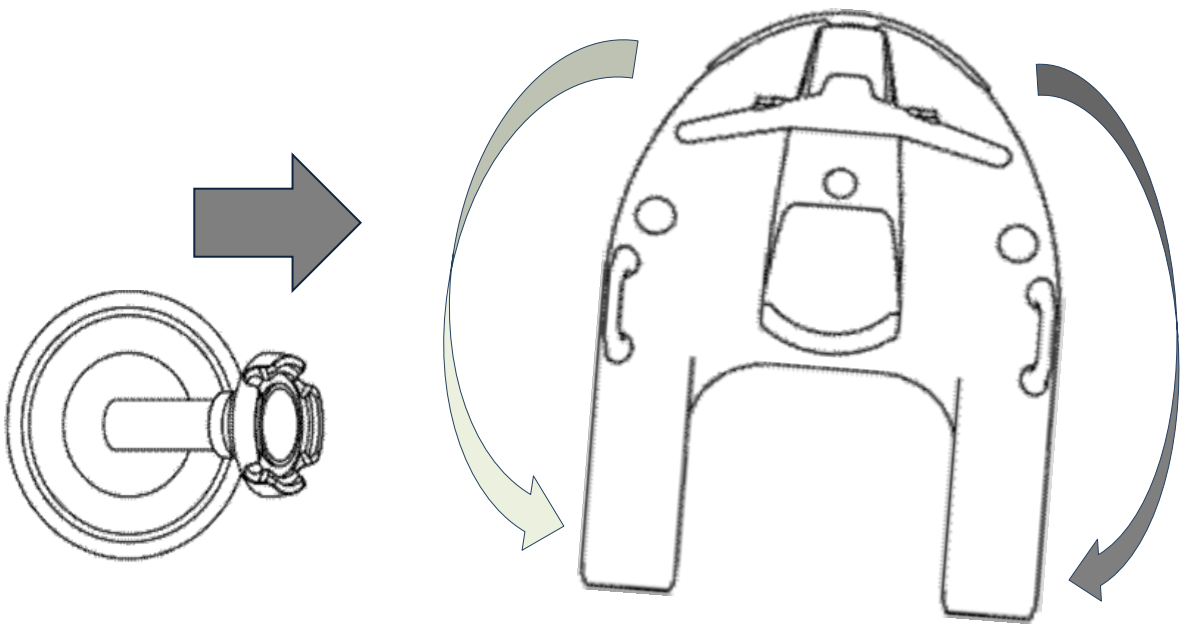


Left and right steering

If you need to control D3 to turn in the left and right directions, you can do by controlling the remote controller joystick to move left and right.

The larger the movement, the greater the turning angle; Moderately increasing the throttle value in the forward direction of the joystick can achieve D3 turning while moving forward.





CRUISE Mode

The cruise mode function allows D3 to lock the current joystick amount on the remote controller and continuously operate the throttle corresponding to the current joystick amount.

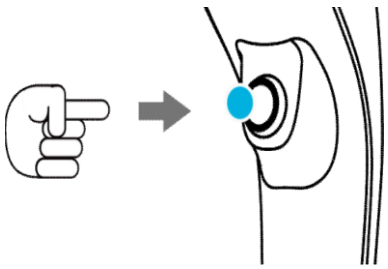
After maintaining the cruise control state, turning the joystick left and right to adjust the left and right direction can free up hands and make long-distance rescue operations more effortless.

Unable to enter cruise mode when the remote controller joystick is not operated

1. Enter cruise mode

For the convenience of D3 controlling, the joystick can be used to control the stable forward speed of D3.

After clicking the back button while pushing the forward direction, D3 can maintain the current speed and continue driving.



2. Exit cruise mode

When D3 is in cruise mode, simply move the joystick all the way back to exit cruise mode.

The onboard control chapter can also only be used to set the cruise mode function of the D3 locally. Please read in detail.

ATTENTION

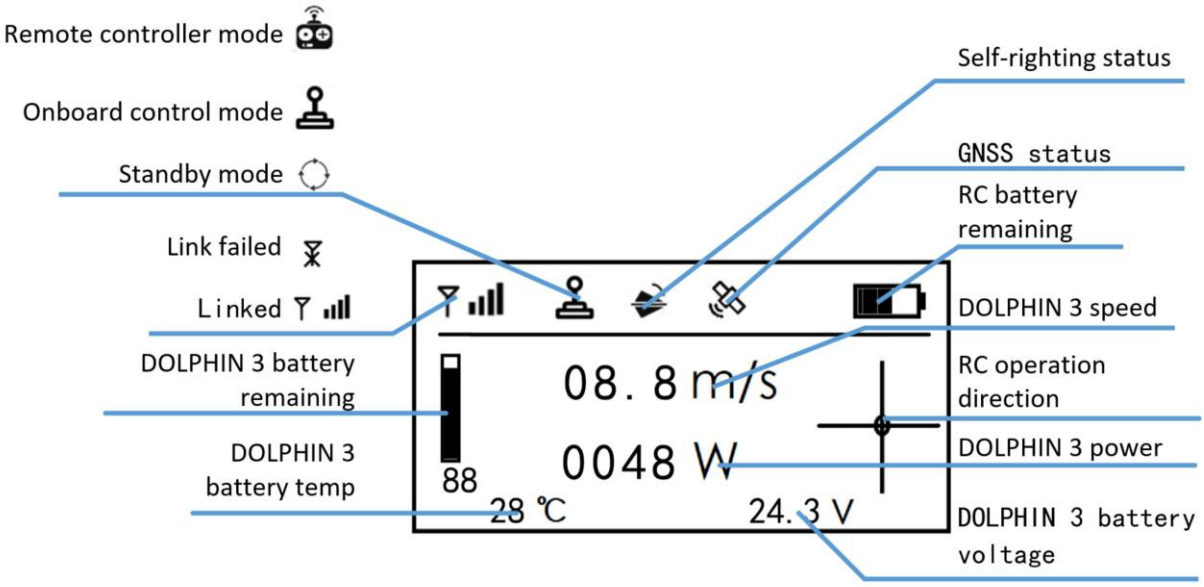
When using a remote controller to control the D3 , it is recommended that the operator should try to stay at a height with a wide field of view to avoid obstruction between the remote controller and the D3 .

Please try to operate the rescue robot within your field of view to avoid accidents such as collisions.

When remote-controlled D3 , the actual remote control distance may vary due to factors such as the on-site environment (base station, signal tower, substation, and etc.).

Please pay attention to operational safety.

Remote controller Interface



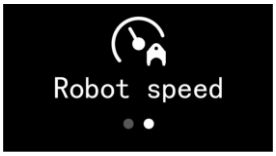
Remote controller settings

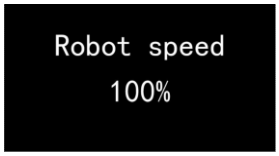
Long press the menu button on the left side of the remote controller, click once, and enter the menu interface. You can select setting options by flipping the left and right joystick.

Speed

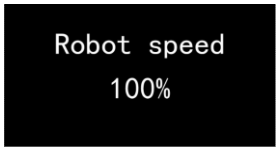
Select "**Speed Settings**" and gently press the ″″ button until you hear a beep to enter the speed settings interface.

After pressing the joystick and clicking to enter the speed setting interface, you can control the speed limit of the robot's local joystick and set the speed remotely with the remote control.
Select "Robot Speed" and press the joystick.
Click to set the local control joystick speed limit percentage.





When driving on board, the maximum throttle speed of the joystick can be limited to 10%~100%.
Press the joystick lightly to confirm and press the return button to exit;



Can limit the maximum throttle speed of the remote controller to 10%~100%, press the joystick lightly to confirm, and press the return button to exit

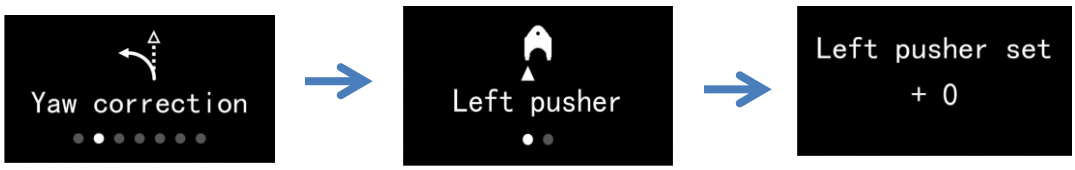
Deviation correction

During the use of D3 , there is a certain probability that the propeller may entangle due to water waste, which may cause an imbalance in left and right power.

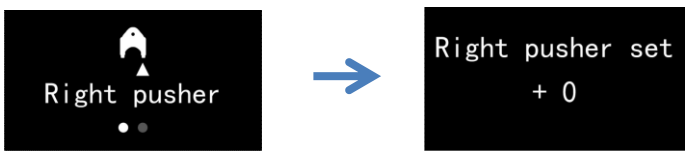
This function can be used for fine-tuning.

Select "Runaway Correction" in the menu, lightly press the joystick until you hear a beep to enter the Runaway Correction interface.

You can set the output ratio of the left and right electric push buttons.



You can set a total of 11 gears from -10 to+10 through the up and down joystick for fine-tuning. Press the joystick lightly to confirm, and press the return button to exit.

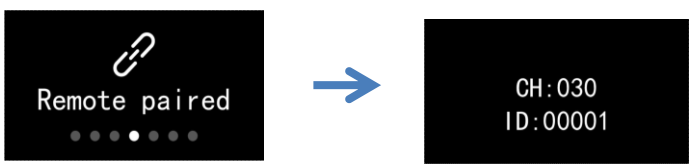


You can set a total of 11 gears from -10 to+10 through the up and down joystick for fine-tuning. After adjustment, gently press the joystick to confirm and press the return button to exit.

Pairing

D3 is already paired with the accompanying remote controller when it leaves the factory. Please be careful not to make any arbitrary settings or modifications.

Select "Remote Controller Pairing" and lightly press the joystick to click to pair the remote controller.



According to the factory configuration channel address information of D3 , set the same channel and ID for the remote controller by moving the joystick up and down.

After confirming that there are no errors, gently press the joystick to confirm and press the return button to exit.

Self-righting

D3 is not enabled by default.

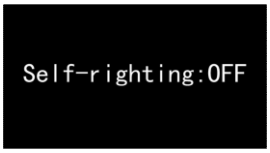
To enable this function, you can use the following settings.

Select the "Self-righting " button in the menu, lightly press the joystick, and click to set the "Self-righting " function ON or OFF

1. Turn **ON** the "Self-righting" function

After activating the "self-righting " function by moving the **joystick up and down**, gently **press the joystick to confirm** and press the **return button to exit.**

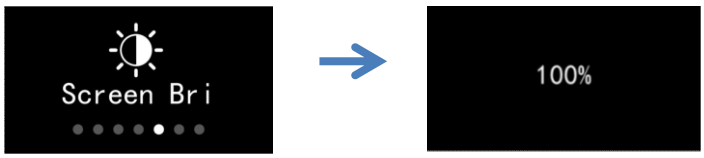
2. Turn **OFF** the "self-righting " function



After turning **OFF** the "self-righting " function by moving the **joystick up and down**, gently **press the joystick to confirm** and press the **return button to exit.**

Screen brightness

Select "**Screen Brightness**" and lightly press the joystick to set the screen brightness.



The screen brightness level can be set by moving the joystick up and down, divided into ten levels: 10%, 20%~100%.

Select the corresponding brightness and lightly press the joystick to confirm.

Press the return button to exit and return to the main interface.

Sleep time

Select the "Dormancy Settings" and lightly press the joystick to click to set the sleep duration.

The sleep time of D3 can be set by moving the joystick up and down.

The range can be set as needed to 0s~900s.

After selecting the corresponding sleep time, lightly press the joystick to confirm, and press the return button to exit.

Version information

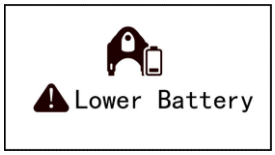
Select "Version Information" and lightly press the joystick to click to view version information

Low battery alarm

When **D3** runs normally until the battery level drops to 20%, the remote controller will prompt the robot with low battery level.

The D3 does not have the low battery return function.

If **D3+** is driving normally in water and GNSS positioning is normal, it will also trigger the low battery **return function**.



Force cancellation of low battery and return alarms

When the battery level of **D3** is below 20% and needs to be continue used, click the return button on the remote controller to cancel the alarm prompt and continue normal control.

When a low battery return has been triggered, the return can be forcibly canceled by moving the joystick backwards to the bottom.

When forcibly canceling the return and continuing to use it, always pay attention to the D3 battery level to prevent it from becoming uncontrollable after running out of battery.

Leakage detection alarm

D3 is equipped with a leak detection sensor.

When internal water ingress is detected, it will prompt on the display screen of the robot body and remote control.

For safety reasons, please stop using it as soon as possible and contact your supplier for maintenance and handling.

D3 Lost and Auto Return

After disconnecting from the remote controller for a period of time when using **D3+** in water, it will automatically trigger a loss of contact and return to the vicinity of the water entry point in a low speed straight line with a fixed preset throttle.

If the water flow rate is too high during use, it is recommended to manually control it to a controllable area after reconnecting with the remote control.

The D3 does not have the function of auto returning after disconnection.

After disconnection, it will stop in its original position and wait for the remote control signal connection to be restored.

ATTENTION

The communication distance between the remote controller and D3 may vary depending on the on-site usage scenario.

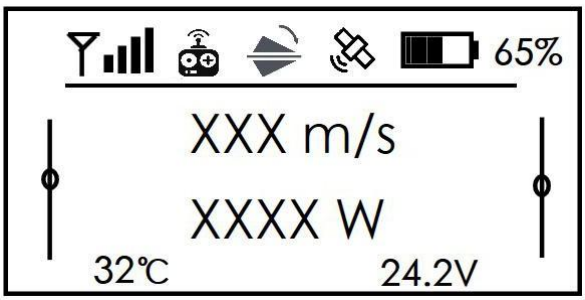
During the lost contact return process, after reconnecting the remote control with D3 , it is recommended to manually control it to a controllable area before use.

During the automatic return process, it is not possible to avoid obstacles automatically. After the remote controller signal is connected, manually takeover will be carried out.

ON BOARD CONTROL USAGE

Onboard control can be achieved by manipulating the D3 onboard joystick.

It is recommended to ensure use when the battery is fully charged (battery level ≥ 60%).



Onboard operation can be separated from the remote controller and used separately with D3 , which can be turned on in the following two ways:

Button wake-up: Click on the joystick button to activate D3 and use it directly in the water.

Wake up after entering the water: Grasp the handle with both hands and gently insert D3 into the water in parallel. The robot sensor will automatically wake up and turn on the device when it detects that it has entered the water.

MOVEMENT & TURNING

The driving direction of D3 Series Lifebuoy is controlled led by the left and right throttle buttons on the joystick.

The joystick controller provides three modes of operation:

1. One handed mode (default): By pressing the corresponding directional throttle button to achieve directional steering, if driving in the forward direction, you need to simultaneously press the throttle buttons on both sides of the D3 control joystick.

If driving to the right direction, you need to control the right throttle to be greater than the left throttle.

If driving to the left direction, you need to control the left throttle to be greater than the right throttle.

2. Two handed mode: You can switch the control mode by pressing the joystick button three times in a row (within 2 seconds), and D3 will play corresponding voice prompts.

In this mode, you only need to press the accelerator button on either side to drive in the forward direction.

3. Cruise mode: In one handed mode and two handed mode, after giving the throttle, click the joystick button to enter the cruise control mode of D3.

Click again to exit this mode.

This control mode requires the remote control to be turned on and kept connected to it.

Please use it with caution.

4. Security protection: For safety reasons, the cruise control set on the robot end can be released by turning the remote control joystick all the way back.

If communication is lost during the constant speed cruise control of D3, the automatic return function will be triggered;

If communication is lost during the cruise control of the D3, the cruise control will be interrupted and navigation will stop.

Precautions for low-temperature use

When using in low temperature environments (-10 ℃ to -5 ℃), make sure the battery is fully charged.

The discharge capacity of the battery will decrease when working in a low-temperature environment.

Please first control the thruster at low throttle to operate and heat the battery.

- In low-temperature environments, it is recommended to preheat the battery to 5 ℃ or above before use, preferably to 20 ℃ or above.

- When preheating, D3 needs to be placed in water and run at low speed (below 3m/s) to prevent damage to the sealing components of the power system and waterproof failure due to not entering water.

TROUBLESHOOTING

Description	Possible Cause	Recommendation
D3 has a Slower underwater navigation speed	Due to safety considerations during initial use, the remote control has set a speed limit	Refer to the D3 Speed Settings section to modify the settings
	For the safety of using lithium batteries, the battery temperature should not be too high. Observe whether the battery temperature in the D3 and the lower left corner of the remote control screen exceeds 60℃, and adaptively reduce the navigation speed as the battery temperature increases.	It is not recommended to continue using lithium batteries if the temperature is too high. After the battery temperature drops, observe if the speed recovers. If it still cannot be restored, please contact your supplier for maintenance.
The communication distance between the remote controller and D3 has significantly shortened	Low battery level of the remote control can lead to a decrease in the transmission power of the remote control	Remote control charging
	Is the remote control antenna installed?	Installing the remote control antenna
	Is there strong interference such as substations in the surrounding area?	Stay away from interference sources or maintain a distance for use
	Internal failure of robot antenna rescue	Contact your supplier for after sales support
D3 is difficult to control and cannot drive in a straight line	The propeller blades are entangled	After the magnetic suction switch is powered OFF, use scissors to remove foreign objects wrapped around the blade
	Check if the shell is damaged due to water ingress	Contact your supplier for after sales support
	Remote control joystick not returned to center	Move the joystick left and right to check if it returns to the center
D3 remote control cannot be turned ON	Long term failure to charge leads to under voltage protection of robot batteries	Use a charger for charging. If unable to recover, please contact your supplier for support
Remote control or robot screen leak warning	Water has entered the shell of the rescue robot, triggering a water leakage alarm function	STOP USING Contact your supplier for support
	Leakage sensor, malfunction, false alarm	

SAFETY INSTRUCTIONS FOR USE

Safety training should be conducted before use, and this product should be proficiently used for emergency rescue in open water areas away from crowds and obstacles.

Emergency scenarios in severe weather or water area with high flow rate, such as strong typhoon, sand dust, snow, rainstorm and other scenarios affecting the line of sight, can be used as appropriate to avoid property losses.

Users are not allowed to use the remote control to control this product in other physical or mental conditions such as alcohol consumption, drug use, drug anesthesia, dizziness, fatigue, nausea, etc.

It is not allowed to throw water at heights without authorization, and it is only used in emergency situations.

If it is necessary to throw water at a height of less than 30m, the throwing point should be away from the crowd and not thrown onto the ground.

After use, the shell and function should be checked in a timely manner.

If the shell is damaged or the function is abnormal, please contact your supplier immediately.

After emergency disposal, the product must be returned to manufacturer for service or designated service provider for confirmation of good product functionality before it can be reused.

Pay attention to the warning label on D3 .

Do not put your hands inside the thruster to avoid cutting your fingers during the rotation of the propeller.

High speed rotating propellers and motors may cause harm to people.

Do not approach rotating propellers and motors.

Before use, the appearance of the casing should be checked for any damage.

D3 casing is damaged. It is strictly prohibited to use it in water to avoid water ingress that may cause the battery to bulge or leak, causing safety hazards. In this case, please contact your supplier immediately.

Without the permission of manufacturer, it is prohibited to disassemble, dismantle or modify this product and related accessories in any way. Otherwise, it may cause fire, electric shock, or personal injury.

It is strictly prohibited to use unofficial parts or accessories. If you need to repair the product or replace accessories, please contact your supplier for support.

Our Company is not responsible for accidents caused by the use of unofficial components or accessories.

SAFETY INSTRUCTIONS FOR USE

Before using the matching charger to charge, make sure the charger is securely grounded. Or use sockets that are correctly installed and grounded according to local regulations.

Improper grounding of equipment may lead to electric shock.

When removing the charging power cord, hold the plug and unplug it.

Do not directly pull the power cord body.

After using D3 in seawater, it is necessary to clean the propeller blades and charging ports of the rescue robot with clean water to prevent metal corrosion. Then store in a cool and ventilated place after air drying.

If you find that the thruster is accidentally entangled with garbage or other foreign objects, please make sure to turn off the remote control and place the magnet at the D3 magnetic switch. After confirming that the equipment is powered off, use tools to carefully clean it.

It is strictly prohibited to reach into the thruster for cleaning to avoid personal injury.

BATTERY SAFETY INSTRUCTIONS

Batteries are strictly prohibited from coming into contact with liquids.

Do not use batteries in rain or humid environments, as this may cause the battery to self ignite or even explode.

It is strictly prohibited to use batteries and chargers that are not officially provided by manufacturer.

It is strictly prohibited to use batteries with bulges, leaks, or damaged packaging.

In this case, please contact your supplier for after-sales support or a designated service provider.

It is prohibited to disassemble or puncture the battery with sharp objects in any way. Otherwise, it will cause the battery to catch fire or even explode.

The liquid inside the battery is highly corrosive. If it leaks, please stay away. If in contact with skin or eyes, immediately rinse with plenty of water and seek medical attention.

After D3 is running at high speed or being used by personnel, the battery is in a high temperature state. It is recommended to wait for the battery to cool to room temperature before charging, otherwise there may be a high temperature protection failure during charging.

The rechargeable environment temperature of the battery is between 5 ℃ and 40 ℃, and the ideal charging environment temperature (22 ℃ to 28 ℃) can significantly extend the battery's service life.

Do not place the battery near a heat source, such as in a car exposed to direct sunlight or hot weather, near a fire source or heating furnace.

If the battery falls or is hit by external forces, there may be liquid leakage and short circuit inside the battery. Do not continue to use it. Place it in a safe and open area, away from the battery until it is completely dry.

Dried batteries should not be reused and should be disposed of properly in accordance with local regulations.

If the battery catches fire, please use a solid fire extinguishing equipment such as **BONPET fire extinguisher for Lithium batteries**.

Bonpet systems

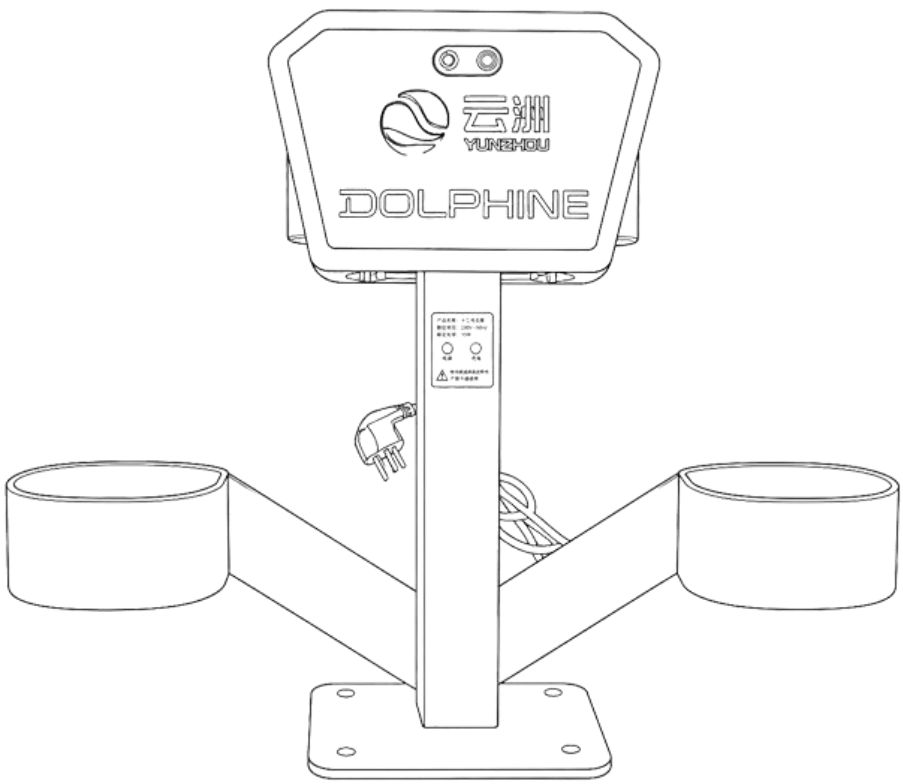
Do not store the battery for a long time after completely discharging it, to avoid the battery entering an over discharged state, which may cause damage to the battery and prevent it from being restored to use.

STORAGE REQUIREMENTS

When D3 needs to be stored indoors for a long time, the matching magnetic switch should be attached to the position of the panel magnetic switch to power off the robot, and ensure that it is charged every six months to prevent battery loss and stored in a temperature range of -5 ℃ to 40 ℃.

D3 must be kept away from flammable and explosive materials, such as lithium batteries, gasoline, lighters, etc., whether stored in packaged or unpackaged environments, which are hazardous materials such as explosion, flammability, toxicity, corrosion, and radioactivity.

Stay away from chemical substances that can cause combustion, explosion, personal injury or property damage under certain conditions during transportation, loading and unloading, production, use, storage, and storage.

STAND CHARGER

Physical	Total Weight Dimension (HxD）	732mmx515.1mm
Environmental	Operating Temperature Storage Temperature Relative Humidity	-10℃to 40℃ -10℃to 70℃ - 5% to 95%
Power Supply	Power Output DC Voltage Output Current Input Voltage	300W 25.2 Vdc 8A 110Vac/220Vac, 50-60Hz