



BW Space Pro

• User Manual

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I. Disclaimer and Safety Instructions

• Disclaimer

l. In order to protect the legitimate rights and interests of users, please read carefully the instruction book, disclaimers and safety instructions provided with this product before using it. Please be sure to operate this product according to instruction book and safety instructions, and Youcan Robot (Shanghai) Co., Ltd. owns the right to revise the above items.

2. Once you start using this product, you shall be deemed to have read, understood, recognized and accepted all terms and contents of the instruction book, disclaimers and safety instructions. The user shall only utilize product solely for legitimate purposes and be responsible for their own actions and all consequences.

3. In using this product, you're supposed to strictly comply with including but not limited to requirements we have mentioned in safety instructions. Users shall shoulder all responsibilities and losses caused by the violation of safety instructions, including all personal injuries, accidents, property losses, legal disputes and all other issues that may result in interest conflicts, and Youcan Robot (Shanghai) Co., Ltd shall not bear any responsibility.

4. Youcan Robot (Shanghai) Co., Ltd. shall not be liable for any breach of law directly or indirectly committed by our users.

Safety Instructions

1. Please check the product before use, including but not limited to the durability of the parts, cracks and abrasion of the device body and propeller, battery life, etc. When any abnormal situations are found, please stop using and replace the accessories immediately.

2. Please do not use this product in harsh environments, such as strong wind, heavy rain, thunder, fog, snow, tsunami, low temperature, etc.

3. The product shall not be used in the cases of alcohol drinking, fatigue, seasickness, medicine taken, physical discomfort, etc.

4. In using this product, please keep away from the environment of high electromagnetic interference, such as WiFi hot spots and high-power transmission equipment.

5. In using this product, please ensure your own safety and wear the life jacket (self-provided), and keep away from dangerous areas and dangerous marine life,

such as the tiger shark and the great white shark.

6. When the product gives the low battery notification, you should stop using the device in time. Please do not panic in case of incidents, such as outages, broken ropes, etc. BW Space Pro will automatically come to the surface by buoyancy.

7. Minors shall be accompanied by parents to use products or accessories to avoid dangers.

8. Please do not use this product to take pictures of others or private areas without permission, and do not use this product for reconnaissance, espionage or military activities without authorization.

Please visit www.youcanrobot.com for the latest disclaimer and safety instructions.

II. Product Overview

• Introduction

BW Space Pro is the world's first underwater shooting drone with zoom lens and with 4K UHD fixed-focus camera, leading a new revolution in underwater drone once again. With all merits of previous products, including hovering in the water, one-click for a precise depth, directional straight shooting, auto-adjusting intelligent lighting system, BW Space Pro is upgraded in underwater positions and a new four-motor driven design, making it possible a vertical rise, diving, and tilting upwards and downwards up to 45 degrees. It becomes more stable in motion to get a clearer image and features in more stable signal transmission. The volume of upgraded Pro is only 16 * 12 inch, whose tiny and compact body makes it easier to carry and use. This makes ocean exploration and underwater entertainment a fashionable lifestyle.

• Structure



III. Product List





2







- BW Space Pro Underwater Drone
 Remote Controller
- **3** WiFi Repeater
- 4 Tether Winder
- **5** Charger
- 6 Sealing Lubricant and Sealing Ring

1

3

• WiFi Repeater

WiFi repeater supports wireless signal for underwater drone movement with a maximum transmission distance of 100 meters.

WiFi repeater can NOT operate in the water, so please do not put it into water.



• Instructions of Sealing Lubricant and Sealing Ring

Apply sealing lubricant evenly to the sealing ring of communication/ charging interface and thread before using.

The functions of sealing lubricant:

1. Seal the drone tightly and enhance the waterproof performance;

2. Act as a lubricant, making it easier to access the plug and reduce the loss of the sealing ring;

If the sealing lubricant is not applied, the waterproof depth may not be reached and the sealing ring may be damaged.

The sealing ring is the spare part of the drone connector. When the original sealing ring is damaged, please replace it in time to maintain waterproof.



IV. Charging

· Charging of BW Space Pro and WiFi Repeater

Insert the connector of the charger with 4-pin jacks into the BW Space Pro charging port, the power indicator turns red, indicating that charging is in progress; when the power indicator turns green, it indicates that the charging is complete.



Connect the Type-c cable to the charging port of the WiFi Repeater, start charging, and the red indicator light will turn on; the indicator light will turn ofiE, indicating that the charging is fully charged.



Cautions: When connecting the device, align the jack and turn the nut until it is tightened; when unplugging the connector, unscrew the nut until it can be pulled off.

Please keep the connector dry. It is prohibited to touch the connector front end with wet or sweaty hands.

• Cautions: plugging and unplugging of 4-pin connector

connector.



connector.

V. Preparation

• Download Youcan Dive APP

iOS

Log in to the App Store to download or scan the QR code right to download directly.

 \cdot Youcan Dive APP supports iOS10.3 and above systems.

Andriod

1.Log in to the Google Play to download.

2. Visit www.youcanrobot.com/support or scan the QR code right to download directly.

 \cdot Youcan Dive APP supports Android 6.0 and above systems.

• Connect the equipment

Please open the protecting cover, plug the 4-pin hole connector at one end of the communication tether into the host communication tether socket of BW Space Pro, plug the other end into the WiFi Repeater, and then tighten the connector clockwise.



The Safety Ring greatly reduces the load and stress on the cable connector and can prevent any possible damage to the machine, thus it is mandatory/compulsory to attach the cable securely and correctly onto the Safety Ring located at the end of the machine .





Andriod

• Connect to WiFi

Access the mobile phone WiFi connection interface, select Youcan-****-5G(Recommended) or Youcan-****, enter the password: 12345678.

Open Youcan Dive App

After the WiFi connection is successful, open the Youcan Dive APP, connect the device, select BW Space Pro, enter directly or log in by account. After the connection is successful, slide to the right to unlock, and the boot is successful. At this point, you can use the APP to control the underwater movement and shooting of the drone.



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After the successful boot, BW Space Pro will have the sound of beep which is normal;

• If the APP connection fails, please confirm whether the access permission of the Youcan Dive APP is enabled on the mobile phone:

- Android phone, open "Settings", find "Apps and Services" - "Apps " – "APP info", and turn on the permissions of the Youcan Dive APP(This path is slightly different on different models of mobile phones, please find the correct path according to your mobile phone, and enable access rights for the Youcan Dive APP);

- iOS phone, open "Settings", find Youcan Dive, click "Wireless Data", and enable "Wi-Fi and Cellular Networks" or "Local Network".

- In case of start failure, check the following things:
- If the device is appropriately powered;

- If the jack of the tether is connected to BW Space Pro or WiFi Repeater jack appropriately;

-Access the mobile phone WiFi connection interface and check to see if the device is connected. If the connection fails, reconnect the WiFi Repeater.

• Put the BW Space Pro into water



Important tips

Boot Upgrade: When connected to the device, please perform steps to prevent the drone from being unusable due to incorrect operation, if Youcan Dive APP interface prompts that the boot need to be upgraded. (Note: Please do not disconnect the tether of drone with the WiFi repeater in upgrading; After upgrading, please disconnect the tether in order to restart the device).

Control system upgrade: To continuously optimize the operative performance of BW Space Pro, we will upgrade the control system of BW Space Pro from time to time. When you open Youcan Dive APP, if the screen prompts upgrading, this indicates that the device or software is being upgraded, usually for a duration of about 1 minute. Do not quit from the upgrading. In case of failed upgrading, please exit the Youcan Dive App, unplug the tether and reconnect and restart the upgrading.

Camera upgrade: Youcan Robot will upgrade the BW Space Pro camera system from time to time. If a prompt pops up and requires a camera to upgrade when you enter Youcan Dive APP, BW Space Pro will start downloading the latest camera system and upgrade it. This process may take about 5 minutes. Please do not disconnect the device and keep Youcan Dive under operation in the upgrade.

• Crash

If the APP or Drone crashed or stuck , try the following steps or methods:

When the APP interface is stuck:

Exit the Youcan Dive APP completely and re-enter the APP to connect the drone.

Crash:

1. Click "Disconnect" in the main interface of the APP to disconnect the drone and WiFi;

2.Unplug the tether of the drone and the WiFi Repeater and reconnect the tether;

3. Return to the main interface and reconnect WiFi and the device.

VI. Shut Down and Retrieval

• Shut down

1.Click the "Lock" 🕏 button in the upper right corner of the Youcan Dive APP, and BW Space Pro will pause, unable to move or shoot through the APP.

2.After the communication tether is unconnected to BW Space Pro and WiFi Repeater, the drone is shut down.

Before unlocking the tether, make sure the peripheral area of the interface is dry to avoid short circuit.



• Retrieval

After using, you can steer the BW Space Pro back to the shore or to boat, pull back the tether and drag the drone out of the water.

Before BW Space Pro is placed in the water, make sure the tether is securely connected to facilitate the retrieval after using.

VII . Introduction of Youcan Dive APP

• Main Interface



Connecting Device

When the user uses the device for the first time, choose BW Space Pro, click "Connect the device" to search for and connect to the WiFi Repeater signal. When the user has connected the WiFi Repeater signal, click "Disconnect" to disconnect the WiFi Repeater signal, and the BW Space Pro will not move and shoot through APP control.



Gallery

Browse or manage your photos and video files.

Online mode: Browse photos and videos on your device. You may view,download,delete, images,etc.

Local mode: Browse and manage local pictures and videos that have been downloaded to your phone or tablet without connecting your BW Space Pro.

Device Gallery

\$

g

Personal center

Login name Country Region Mailbox Product model

Youcan Store
Setting
Contact us

I⇒ Log out

6

Personal Center

After the user registration or login, personal information such as user name, country, region, and mailbox, as well as product model, enterprise and other related information will be displayed on the screen.



2 WiFi

察 : BW Space Pro has been successfully connected to the WiFi Repeater signal.

WiFi

★ : BW Space Pro doesn't turn on WiFi signal.

WiFi

The other WiFi signals are connected, rather than the WiFi Repeater signals of BW Space Pro.



3 Temperature

 \approx : Display underwater real-time temperature.



4 Compass

: Shows the direction of the magnetic field of the mobile device.



5 Connection

The connection status between the BW Space Pro and the Youcan Dive APP, which is divided into "device connected" and "device disconnected".



6 BW Space Pro battery life

着 : Display the remaining battery capacity of BW Space Pro.

7 WiFi Repeater battery life

📲 : Display the remaining battery capacity of WiFi Repeater.



8 Device mode

 \Re : Displays the status of the on-hand device, divided into controller mode and viewer mode.

BW Space Pro supports multiple people to connect to the same WiFi Repeater, using different mobile devices to watch real-time image taken by drone. The controller mode only supports one mobile device to control. The viewer mode suggests that up to 3 mobile devices.

9 Lock

• Click the button and BW Space Pro will enter into a lock status and pause.



10 Settings

O : Enter the settings interface to configure the control mode and camera.

1 Steel wheel

() : Control the movement of Forward, Backward, Up, Down, Turn Left and Right.



12 Brightness adjustment

: Manual adjustment: Touch the button to adjust the brightness of the light by sliding the adjustment lever. There are 0~100 levels. The higher the value is, the brighter the light. The 0 level is closed.



B Depth maintenance

(M): Click the button to turn on the Depth maintenance shooting function. The BW Space Pro is fixed at a certain depth in the water, aiming at the person and shooting. It can still move forward, backward, left, right, but unable to up or down. Click the button again to turn off the Depth maintenance shooting function, and the BW Space Pro will return to free motion.

14 Depth

=: Shows the underwater depth of BW Space Pro.



15 Speed

(a): Speed adjustment can be divided into low, medium and high, which means low speed, medium speed and high speed respectively.

16 Pitch range

(-): Through tilting/moving adjustment of the device position, it is able to take -45° to $+45^{\circ}$ angle shots. By clicking on the button, the icon color will turn blue and the adjustment scope area will appear on the screen : slide up to adjust the device's positive pitch angle; slide down to adjust the device's negative pitch angle.

17 Pitch Angle Reset

(b): By clicking on the button, the machine's head posture will be resetted, i.e. the angle of the machine head parallel to the water surface is zero degrees.

18 Zoom (This feature is only available for the BW Space Pro 4K Zoom).

(6X): By placing and spreading two fingers on the screen will enlarge the image; by placing and closing two spreaded fingers on the screen will reduce the image.



19 VR mode

(9): Youcan Dive supports VR devices, users can watch underwater images through VR glasses, making your underwater exploration more immersive.

You can only control the drone with the remote controller in VR mode. Please pay attention to the surrounding environment during using of VR glasses.

20 Photographing

• Click the Photo button to take photos.



21 Recording

• Click the Video button to start the recording. Click the Video button again to stop the recording.



22 live stream

Enter live stream code or push live stream address to platforms to share underwater world shot by BW Space Pro underwater drone.



23 Gallery

Click the button to browse and manage photos and videos.

Control Settings

APP control: Control the movement and shooting of drone with Youcan Dive APP. Stick control: Control the movement and shooting of drone with remote controller.

Button settings: Set the direction in control panels. Please select the mode from mode 1, mode 2, mode 3, mode 4, please refer to Youcan Dive APP for description of each mode.



Steering sensitivity: Set the sensitivity of the machine's steering, from -5 to 5, the higher the value, the more sensitive the steering and the faster the speed.

Depth calibration: Performs depth calibration based on the atmospheric pressure of the current environment in which the drone is located

Machine calibration: Calibrate the machine's gyroscope and magnetometer.

Please follow the steps outlined in the Youcan Dive App to complete the depth calibration and machine calibration.

• Camera settings

Recording resolution: Set the video resolution when recording.

Live video resolution: Set the real-time transmission resolution.

Bit rate: The number of data bits transmitted per unit time during video data transmission. The higher the bit rate, the higher quality of the image.

The high bit rate may cause the lag of the screen. When the screen of real-time stream lags, it is recommended to lower the bit rate appropriately.

Anti-shake: When this function is on, it can reduce the impact of motion that shakes the screen. It is generally off at default.

Exposure: The brightness adjusted by the light-sensitive components. The exposure index needs to be moderate, or the image would be brighter if the index is too high and darker if too low. You can set the automatic gain or manually adjust the gain value.

Image enhancement: Strengthen the detail features of images, improve the image quality, and enrich the image information to meet the needs of special analysis. It is generally off at default. When there is a large amount of water mist, it is recommended to turn on the digital defogging function.

Noise reduction level: The function of noise reduction to reduce the degree of screen noise from low to high intensity. The noise reduction level should be set moderately because the higher of the noise reduction level would make the pictures more blurred and the lower would generate noise to affect the screen preview.

Flip the screen left and right: The image will have left and right mirror changes.

Flip the screen up and down: The image will be flipped up and down.

Daylight anti-flash: The function of anti-strobe. Turn on to avoid the impact of strobe caused by unconventional frequency of lights and light sources.

Infrared filtering: Support the detection of infrared light to meet the monitoring needs of night vision scenes.

Day and night mode conversion: Support automatic switching of day and night scenes. Usually in the daytime mode, the picture presents color without fill light; in the night mode, the picture presents black and white and is filled by infrared light.

Electronic slow shutter: Control the exposure duration to enable the camera to get the proper exposure and capture the dynamic traces in darker scenes.

• General settings

Storage space : Display the BW Space Pro storage information.

Automatically stored photos to local: Since default is off, please slide to the right to turn on this function on, and the photos taken by BW Space pro will be automatically saved to your phone or tablet.

Camera SD card store info: Display the remaining capacity ratio and total capacity of the memory card. Format the SD card, which clears the data information in the SD card.

Local cache info: Displays the size of the data stored on the mobile device. Clearing the local cache frees up storage on your mobile device.

Version Information : Display the BW Space Pro APP version information, Device version information, Camera version information etc.

VIII . Browse and share

• Browse

Click the "Gallery" button to enter the browsing interface and browse photos or videos.

Online browsing: Click the "Gallery" button to enter the browsing interface. "Online" is displayed at the top of the interface, which means that the photos and videos taken by the drone are browsed when the BW Space Pro and the WiFi Repeater are connected.

Download to local storage: Click the "Select" button in the upper right corner of the screen, select the file you want to download, and select single or select all; tap the "Download" button at the bottom of the screen, and the photos and videos taken by BW Space Pro will be stored on your phone or tablet.

Local browsing: Click the "Gallery" button to enter the browsing interface. Select "Local" at the top of the screen to browse photos and videos stored on your phone or tablet.

• Share

Select the photos and videos you want to share in the Gallery (browsing interface), and tap the "Share" button at the bottom of the screen to share the files to various social media.

IX . Photos and Videos Exportation

• Into mobile phone

Select the photos and videos to be downloaded in the "Gallery" interface, click to download, the photos selected will be saved in the mobile phone album. For editing or other purposes, you can export the photos and videos to your computer by connecting your phone and your computer.



• Into computer (only support Windows system computer)

Visit https://www.youcanrobot.com/servicesupport to download the Youcan Assistant software.

Connect the BW Space Pro and WiFi Repeater with tether, search and connect the Youcan WiFi signal on the computer, open the Youcan Assistant and export the photos and videos to computer.

X. Remote Controller



Compatible with BW Space Pro 4K underwater drone

Compatible with BW Space Pro 4K Zoom underwater drone

- GMode: Set the control mode of the drone, and the default is mode 1; press the button once, set the Mode 2, and so on.
- SLock: By default, click the button to lock the drone.
- Home: Press power button for 3-5 seconds, and the remote controller turns on.
- △Low-angle shoot: Set the pitch angle of 0 °~45 °, and the larger the number, the larger the angle. Each time you press the button, the pitch angle increases by 5 °.
- ⊘High-angle shoot: Set the pitch angle of 0 °~-45 °, the smaller the number, the larger the angle. Each time you press the button, the pitch angle increases by 5 °.
- (x) Speed down: Press the button once to shift into lower gear.
- (B) Speed up: Press the button once to shift into higher gear.
- . Charging indicator: Displays the light status when the remote is charging.
- Deft joystick: Control the movement of the machine, consistent with the mode in the APP.
- Right joystick: Control the movement of the machine, consistent with the mode in the APP.
- (v)Image stabilization: Click the button to turn on image stabilization ; Click again to turn off image stabilization.
- A Pair button for phone: used to pair with the smart phone.
- ^[12] Brightness reduction: manually reduce the brightness of the light, and tap the button once to reduce the brightness.

Zoom in: enlarge the image.

(R2) Brightness enhancement: manually increase the brightness of the light, and click the button once to increase the brightness.

Zoom out: reduce the image.

^[1] Photo: Tap the photo buttons to take photos.

(RI) Record: click the button to start recording; click it again to stop recording.

• Using the Remote controller

1 Charging for the Remote Controller

Connect the USB charging cable to the charging port of the remote control, the charging indicator lights up red and flashes slowly, to start charging; the charging indicator lights all light up red and stop flashing, indicating that the remote is fully charged.



2 Connect the Remote Controller and mobile phone

Control BW Space Pro underwater movements and shooting with remote controller. After the quick start step is completed, follow the process below:

1. Connect Smartphone or Tablet

Press the Home+A button at the same time for 3-5 seconds, the Home button will light up in blue, and the remote control will be turned on.

2. In the Youcan Dive APP, select Settings-Control Mode-Remote B, and the connection is successful after the screen pops up a "connection successful".



Please make sure that the Bluetooth function of the mobile phone is turned on before connecting the remote control.

If you are unable to connect the remote, please unpair the all electronic device which have been paired in the Bluetooth settings, then return to the Youcan Dive app to reconnect the remote.

XI. Technical specifications

• Machine

Dimensions	16 x 12 x5 in
Weight	8.5lb
Waterproof Cover	Glass
Operating Temperature	-10~40°C
Max. Speed	3 kts
Max. Rated Depth	328 ft
Max. Flow Speed Resistance	3 kts

• BW Space Pro 4K Zoom: 4K UHD Zoom Camera

Sensor	1/1.8" CMOS
Effective Pixels	8MP
Aperture	F1.4-F2.9
Focus Length	3.8mm-11.4mm
Image Format	JPEG
Video Format	MP4
Max.Video resolution	4K(3840x2160 30fps)
Min. Object Dimension	0.6m (1.9 ft)
Field Angle	D:141°,H:120.1°,V:64.6°
SD Cards Storage	64GB

• BW Space Pro 4K: 4K UHD Wide-angle Camera

Sensor	1/2.7" CMOS
Effective Pixels	8 MP
Aperture	F2.0
Focus Length	4.0 mm
Image Format	JPEG
Video Format	MP4
Max.Video resolution	4K(3840x2160 30fps)
Min. Object Dimension	0.6 m (1.9 ft)
Field Angle	D:108.73°, H:90.84°, V:48.8°
SD Cards Storage	64GB

• Tether

Optional Length	328 ft
Outer Diameter	0.17 in
Buoyancy	Neutral
Breaking Strength	330 kfg
Weight	3.5 lb

• Battery

Rated Capacity	9000 mAh / 97.2 Wh
Battery Life(Normal Use)	2-3 hours
Battery Life(Light Use)	3-5 hours
Charging Time	5 hours
Input	DC12.6V; 2.5A±0.2A

• Thrusters

Configuration	2 Horizontal ,2 Vertical
Max. Forward Thrust	3.0 kgf (6.6 lbf)
Max. Reverse Thrust	2.5 kgf (5.5 lbf)
Max. Power	156 W

• Lights

Lighting Intensity	0-1380lmx2
Color	90-CRI White
CCT Range	2600-3200 K

• YoucanDive APP

iOS Version	Requires iOS 10.3 or later
Android Version	Android version 6.0 or later

Remote Controller

Support Systerm	iOS / Android
Tensile Elongation	2.2-3.3 in
Connection Mode	Bluetooth 2.0 SPP protocol (Android)
	Bluetooth 4.0 BLE protocol (iOS)

• WiFi

Operating Frequency	2.4 GHz / 5.0 GHz
Transmission rate	Max. 300Mbps/2.4GHz
	Max. 433Mbps/5.0GHz
Operating Temperature	-20~55°C
Rated Capacity	2600mAh/28.08Wh
Transmission standard	802.11b/g/n

• 3D Attitude System

YAW	Range -180°~180°, Resolution: 1°
Pitch Range	Range -90°~90°, Resolution: 1°
Roll	Range -90°~90°, Resolution: 1°
Compass	Resolution:1°

XII . Battery Information

1.Make sure to use the special charger provided by Youcan Robot.

2.It is forbidden to place the battery close to the fire and put it into the fire, otherwise it may cause fire or explosion.

3. When charging, the positive and negative electrodes shall not be reversed.

4.Do not cause the battery short circuit.

5.As for the battery, collisions, squeezing, knocking and shaking shall be avoided.

6.Do not dismantle the battery body.

7.Do not immerse the battery in water.

8.Do not use batteries of different manufacturers, types, and modes.

9.Keep the battery out of children's reach.

10.Carry the battery in accordance to the local air transport regulations.

XIII . Safety Instructions

Before using this product, please read all safety instructions first to ensure correct and safe use.



XIV. Contact Us



Website

Wechat

Youcan Robotics(Shanghai) Co.,Ltd.

Website: www.youcanrobot.com Facebook/Instagram/Youtube: YoucanRobot Underwater Drones Customer service: service@youcanrobot.com Telephone: +86 21-20936568

Check the latest version of the User Manual at https://www.youcanrobot.com/ servicesupport.

For after-sales service policy, visit https://www.youcanrobot.com/after-sales. For further information, visit www.youcanrobot.com.





BW Space Pro