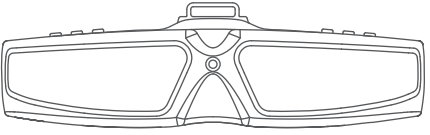
GHOSTDRONE 2.0

EHANG VR GOGGLES

OPERATING MANUAL



EHANG

GHOSTDRONE 2.0 created by EHang, Inc.

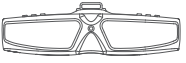
Disclaimer

Before using EHang VR goggles, please read the operating manual carefully and familiarize yourself with the operations, warnings and applications. Please avoid improperly installing antennas, using non-proprietary charger or gimbal. EHang shall not bear any liability or responsibility of the damage of the VR goggles, the gimbal, the camera, the copter or any other related accessories or the accidents arised from improper use.

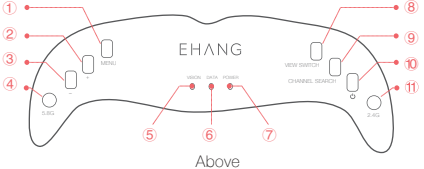
Introduction

EHang VR goggles features data and real-time video transmission functions. While wearing the goggles, users can easily see real-time image through head tracking as well as adjusting pitch angles of the camera which is attached on GHOSTDRONE 2.0.

Packing List

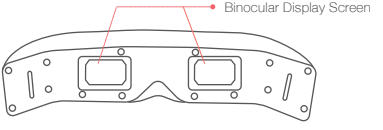
 VR Goggles*1	5.8G Antenna*1
2.4G Antenna*1	USB Cable*1
VR Goggles Carry Case*1	Goggles Cleaning Cloth*1

Diagram

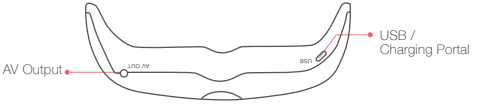


Above

① Menu
② Up
③ Down
④ 5.8G Antenna Interface
⑤ Vision Signal
⑥ Data Signal
⑦ Power Indicator
⑧ Copter/ Front Camera
⑨ Channel Search
⑩ ON/OFF
⑪ 2.4G Antenna Interface



Back



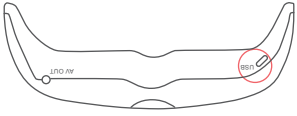
Bottom

Specifications

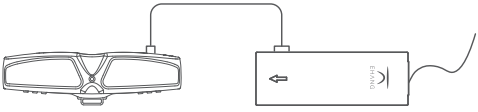
Communication	Bluetooth /Wi-Fi + 2.4 GHz data transmission + 5.8 GHz video transmission
Weight	255 g
Power	4.5 W
Charging Voltage	DC 5 V
Battery	3.7 V 1500 mAh
Image Size	800*480
Interpupillary Distance	63 mm
Battery Life	about 60 min

Charging the Goggles

Please use EHang USB cable for charging. It takes about 3 hours to fully charge the goggles.When charging through a USB adapter, the required input current is 500 mA or higher.



Bottom



Charging VR Gogles (with power adapter)

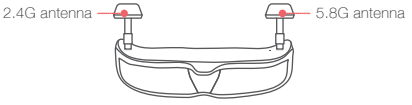
Note: VR goggles can also be charged with EHang power adapter for GHOSTDRONE 2.0. VR goggles and smart flight battery can be charged with power adapter at the same time.

Power Indicator Status:

Charging: Slow Flashing
Fully Charge: Off

Instructions

1. Install 5.8G antenna and 2.4G antenna to the corresponding antenna interfaces;

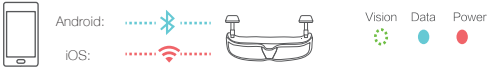


2. Press and hold the power button to turn the VR goggles on. Power indicator displays solid red.DATA signal indicator flashes blue.

3. Bluetooth / Wi-Fi Connection

1) Android version: Launch the App to search for Bluetooth connection. Once the connection is established, the DATA signal indicator will display solid blue.

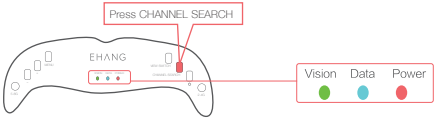
2) iOS version: Turn the iPhone's Wi-Fi switch on. Once the Wi-Fi connection is established, launch the App, then the DATA signal indicator will display solid blue. And confirm Wi-Fi connection in App.



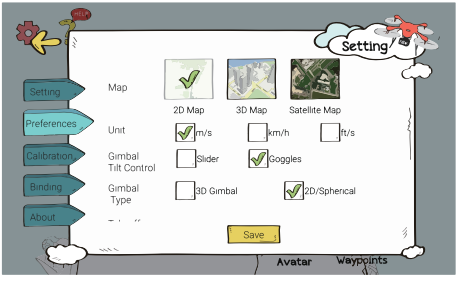
4. Tap "Bind" in the App, then turn on the GHOSTDRONE 2.0, data will be showed on the App interface once binding successfully.

5. Press CHANNEL SEARCH button to automatically search for the right channel. Vision signal indicator turns solid green from flashing when connection is successfully established.

Note: If the image is not clear enough, press CHANNEL SEARCH button to search again.



6. Choose 'Goggles' in settings in App before flight.



7. Put on the VR goggles, the gimbal can be controlled to adjust the pitch angle by looking up or down. Thus users can adjust the camera angle.

8. Press and hold the power button to turn off the VR goggles if not in use.

Note:

1. Press VIEW SWITCH button to switch from video transmission mode to front camera. Users can watch the front view through the front camera. To switch back to video transmission mode, press this button again.
2. After automatically searching the channel successfully, the channel will be recorded and no need to search again next time.
3. It is normal to observe some white noise on the screen.

Menu Settings

The parameters in the menu have been correctly set to general settings before delivery. Adjust only when necessary.

When turning the goggles on, press the MENU button to enter the menu. Press “+” or “-”button to move up or down to choose the parameter for adjustment. Press the MENU Button again to select the parameter. Adjust the parameter with the “+” or “-” button. Press MENU Button again to exit.

B	6	Brightness
S	10	Saturation
C	8	Contrast
CH	17	Current 5.8G Channel (Adjustable)
CH	SRCH	5.8G Automatically Search Channel
RESET DATA		Reset to Factory Settings
CONNECT ON		Connection Status
ANGLE +-90		Head Tracking Angle
CH NUM 32		Frequency Band
EXIT MENU		Exit Menu

Note:

(1) After entering menu, if no further command is given in 2 seconds, the menu will disappear.

(2) If unbale to find a clear channel, please enter into Menu to change the frequency band or switch between CH NUM 32 or CH NUM 5 and try researching.

Indicator Lights Instructions

Power Indicator	●	Power On
	◌	Battery life⩽30%
	◌	Charging
	O	Power Off/ Fully Charged
Data Signal Indicator	◌	Searching for Bluetooth
	●	Bluetooth/ Wi-Fi Connects Successfully
	O	Power Off
Vision Signal Indicator	◌	Image Transmission Mode On
	●	Searches Channel Successfully.
	O	Power off/ Switch to Front Camera

Legend

◌ High Frequency Flash

● Solid

◌ Low Frequency Flash

O Off

Note: DATA indicator light of Android version VR goggles shows the Bluetooth connection status; DATA indicator light of iOS version VR goggles shows the Wi-Fi connection status.

Warnings

1.Keep the smartphone and the VR goggles within 3 meters when using the goggles.

2. Use the goggles in widely open space. Avoid using it in dangerous areas (such as near cliffs.)

3. Those have eye diseases are not suggested to used the VR goggles.

4. It is suggested not to wear the VR goggles contantly for over 90 minutes.

5. When the battery life of the goggles is less than 10%, it is not suggested to keep using it. Please charge before using it again.

6. Please get familiar with the Menu and the buttons' functions before using the VR goggles.

7. Do NOT use the goggles in direct sunlight (Please use the goggles in less than 30 minutes if you have to use in direct sunlight)

8. Do NOT dissemble or damage the case of the goggles.

9. Do NOT pierce or damage the adjustable headband.

10.Do NOT leave the battery on combustibles or unattended when charging for a long time.

11.Do NOT bend the antennas of the goggles. If the antennas are damaged due to improper use, EHang will not offer complimentary maintenance.

Storage Instructions

1. Please store the goggles at a room temperature.

2. The goggles must be stored in places away from children, water, fire especially heat.

3. Do NOT discard batteries in general household waste. Damaged or unusable goggles batteries must be disposed in containers specially reserved for this purpose. When disposing of batteries, follow appropriate local guidelines and regulations.

Warranty

Strict quality control will be conducted before delivery. Please read the manual and get familiar with the operations before use. 6 months' warranty is guaranteed for problems not caused by users' improper use. Removal of the products' manufacturing label will be regarded as waiver of warranty. We will not offer complimentary maintenance if the label is removed or damaged. But limited warranty is still provided.

Contact Us

Business Hour: Monday – Friday 10:00 A.M – 6:00 P.M (PST)

Customer Service Phone: +1 650-533-8554 / 888-800-7056

Customer Service Email: support@ehang.com

EHang, Inc. reserves all right to interpret this warranty.

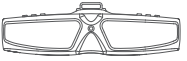
免责声明

使用 VR 眼镜前，请仔细阅读说明书，了解具体使用步骤及注意事项。了解产品的使用方法及应用范围。若出现产品使用方法错误，天线安装不正确或采用的电源输入、参数与说明书所标性能参数不符等现象，均属使用不当。因使用不当而造成的 VR 眼镜、飞行器及周边连接件的损坏，或非 VR 眼镜本身质量问题产生的损坏所导致的财产和人身的损害，本公司均不承担任何责任。

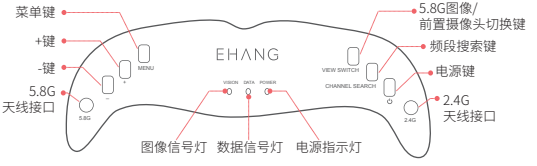
■介绍

亿航 VR 眼镜具有数据传输和实时图像传输功能。用户操控 GHOSTDRONE 2.0 拍摄时，可通过 VR 眼镜的头部追踪功能，实时看到空中拍摄图像，同时可以调节拍摄角度。

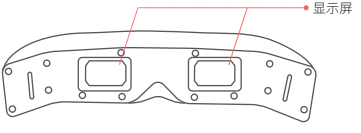
■清单

 VR眼镜*1	5.8G天线*1
2.4G天线*1	USB线*1
眼镜盒*1	眼镜布*1

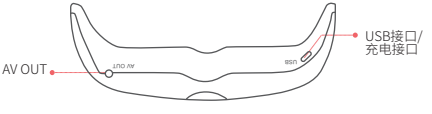
结构图



VR眼镜顶部



VR眼镜背面



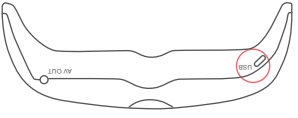
VR眼镜底部

参数

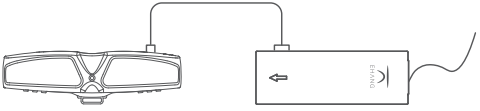
通讯	蓝牙/Wi-Fi+数传频率2.4 GHz+图传频率5.8 GHz
重量	255 g
功耗	4.5 W
充电电压	DC 5 V
电池	3.7 V 1500 mAh
图像尺寸	800*480
瞳距(IPD)	63 mm
满电连续使用时长	约60 min

充电

请使用亿航专用USB线进行充电。通过USB线连接电脑直充情况下，充满电时间约3小时。若使用充电头连接USB充电，电流不可低于500 mA。



VR眼镜底部



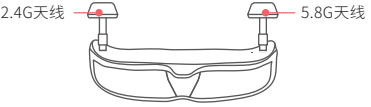
充电示意图
（使用电源适配器）

注：可使用亿航专用电源适配器连接 VR 眼镜充电。电源适配器可给 GHOSTDRONE 2.0 智能飞行器和 VR 眼镜同时充电。

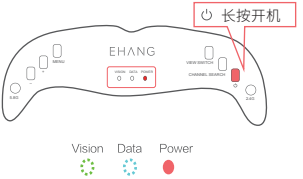
Power指示灯状态
充电中：慢闪　满电：熄灭

使用说明

1. 安装5.8G天线和2.4G天线到对应的眼镜天线接口。



2. 长按电源键打开VR眼镜，此时POWER灯红色常亮，DATA灯呈蓝色闪烁状态。



3. 蓝牙 / Wi-Fi连接

1）Android版：打开App搜索蓝牙进行连接，连接成功后DATA灯呈蓝色常亮状态；

2）iOS版：打开手机Wi-Fi，连接Wi-Fi成功后，打开App，DATA灯呈蓝色常亮状态。再在App里确认连接Wi-Fi。

4. 在 App 里选择对频，然后给飞行器通电，对频成功后界面会有数据返回。

5. 短按CHANNEL SEARCH键自动搜索频段，搜索成功后VISION灯由绿色闪烁变为绿色常亮。

注：如果搜索图像不清晰可以再按自动搜频重新搜索。

6. 在 App 里选择设置，勾选眼镜。

7. 戴上VR眼镜，抬头低头可控制云台俯仰，调整拍摄角度；

8. 使用结束后，长按电源键关闭VR眼镜。

注：

1. 短按VIEW SWITCH按钮，可关闭图传模式，启动眼镜的前置摄像头观看前方图像，再次短按可恢复图传模式。
2. 自动搜索频段成功后频段会被记录，下次使用无需重新搜索。
3. 本产品出现轻微雪花属于正常现象，请放心使用。

■菜单设置

注：参数在出厂前已按常规设置好，如非必要用户可忽略。

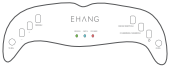
开机后短按MENU键可进入菜单，按“+”“-”键可上下移动选择需要调整的参数，再按菜单键可进入调整状态，同样通过“+”“-”键进行调整。调整完毕再次按M键可退出调整状态。

菜单列表及对应功能：

B	6	亮度
S	10	色彩饱和度
C	8	对比度
CH	17	5.8G当前频段显示（可选）
CH	SRCH	5.8G自动搜频
RESET DATA		参数重置为默认参数
CONNECT ON		连接状态
ANGLE +-90		眼镜头追角度范围
CH NUM 32		频段
EXIT MENU		退出菜单

注：（1）进入菜单后，若2秒内未执行下一步操作，菜单会自动消失；
（2）若无法搜索清晰频道时，请进入菜单修改频段数，切换CH NUM32或CH NUM 5，再尝试搜索。

■指示灯说明



Vision Data Power

Power 电源指示灯	红色常亮	开机
	红色快闪	电量≤30%
	红色慢闪	充电中
	熄灭	关机 / 充满电
Data 数据信号灯	蓝色闪烁	蓝牙搜索中
	蓝色常亮	蓝牙 / Wi-Fi连接成功
	熄灭	关机
Vision 图像信号灯	绿色闪烁	图传模式开启
	绿色常亮	频段搜索成功
	熄灭	关机 / 切换为前置摄像头图像

指示灯状态

快闪　慢闪

常亮　熄灭

注：安卓版 DATA 灯显示蓝牙连接状态；iOS 版显示 Wi-Fi 连接状态。

■使用注意事项

1. 使用时，手机与 VR 眼镜的距离需保持在 3 米以内。

2. 建议在周边比较开阔的地方使用眼镜，避开危险地区（如悬崖边上）。

3. 不建议有眼疾人士佩戴 VR 眼镜。

4. 建议连续佩戴使用 VR 眼镜时间不要超过 90 分钟。

5. 当眼镜电池电量低于 10% 时，不建议继续使用。请充电后再使用。

6. 使用前请熟悉眼镜调节菜单以及按钮的说明。

7. 请勿在阳光直射下长时间使用眼镜（该状况下建议使用时间少于 30 分钟）。

8. 禁止以任何方式拆卸或者破坏眼镜外壳。

9. 禁止以任何利器刺穿或者损坏绑带。

10. 禁止将眼镜置于易燃物上充电或在无人看管的情况下长时间充电。

11. 禁止用外力掰眼镜天线的方向，在非正常使用下一经损坏，亿航不再提供免费保修。

■存放注意事项

1、建议眼镜放置在常温下保存。

2、必须放置在远离小孩、水源、火源的地方储存，尤其远离热源。

3、因为眼镜有内置电池，所以请勿将眼镜当做日常垃圾处理，损坏或者无法使用的眼镜应该放置在特殊的制定用途的容器中或者返修。眼镜属于电子电器垃圾，请按照当地的处理方法进行回收处理。

售后说明

产品出货前会经过严格的检验，请用户在阅读并熟悉操作后再使用。非人为问题 6 个月内保修。如有撕毁产品出厂标识，亿航默认为放弃保修，但可以提供有偿维修。

联系我们

官网：www.ehang.com
官方微信：EhangUAV
官方微博：亿航智能无人机

服务邮箱：service@ehang.com
售后热线：400-8000-881
服务时间：周一至周五 9:30-18:30

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