# **GHOSTDRONE 2.0**

# EHANG Play App Manual



### **CHVNQ**

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### WARNINGS

Before flying, please consult flight documentation from the International Civil Aviation Organization (ICAO) and Federal Aviation Administration (FAA) regarding unmanned aircraft operation. The user is responsible for his or her actions and any ensuing consequences. Users are hereby advised that they are liable for the use of the GHOSTDRONE and any and all liability is solely theirs. Please fly responsibly.

1. If you are flying your GHOSTDRONE 2.0 for the first time, please fly it in an open area in order to experience its various functions safely.

2. DO NOT fly in restricted air zones.

3. DO NOT fly near obstacles, people, power lines, trees, above waters or any other environments which are not safe for flying.

4. The copter may not fly properly near tall buildings and metal structures due to GPS interferences.

5. DO NOT fly in or around congested electromagnetic (EM) environments. The copter must be kept at least 200 m (656 ft.) away from strong EM source to operate properly. EM interference can cause a loss of communication with the copter and result in damage to properties or hurting other people.

6. DO NOT fly the copter in adverse weather conditions, including extreme temperatures, heavy snow, strong wind, storm or fog.

7. It is recommended to always retain line-of-sight with the copter during flight. Losing sight of the copter may result in accidents.

8. GHOSTDRONE is not suitable for use by children under 14 years of age. Adult supervision is required if the copter is operated by children.

9. Please make sure your mobile device, VR goggles, and the copter have sufficient battery before flying.

10. Stand clear of the copter (at least 5m or 16 ft.) with its head facing away from you when ready to fly.

11.Compass must be re-calibrated if the icon A in the App points at a significantly different direction then the copter's actual orientation. If the difference persists after calibration, please choose a new environment for flying.

12. To avoid injury, DO NOT approach or touch the propellers or motors while they are spinning.

13. Keep the VR goggles within 3 meters(10 feet) from you during flight. DO NOT put the VR goggles on the floor or in the pocket. If the VR goggles is not near you, you may lose connection with the copter.

14. Please keep an eye on the copter's battery shown on the App interface. We strongly suggest land the drone when the battery is low.

15. Please tap Hover button in case of any emergencies. The copter will stop moving and hover at its current position. If it fails to hover, please secure your personal safety first.

16. For your safety, Avatar Mode will be unlocked after you have flown in Touch-to-go Mode for 3 times. It is important for you to familiarize yourself with the Avatar manual mode to ensure flight safety. In Avatar manual mode, the copter flies only using gyroscope, accelerometer and compass, other sensors are not used in this mode. This mode is safe but users need to control every movement of the copter. If you are flying Avatar manual mode for the first time, to ensure precise manual operation, please fly the copter in open area and only use this mode when the copter is 30 meters(100 feet) above the ground.

### **Pre-flight Inspections**

#### **Check Battery Life**



Smart Flight Battery: Press the circular button on battery once to light up the LCD screen to check the battery percentage.

VR Goggles: Press and hold the power button on the VR Goggles until all indicator lights are lit to turn on the goggles. Look into the VR goggles to find its battery percentage on the bottom right hand corner of the screen. To turn off the VR Goggles press and hold the power button until all indicator lights are off.

G-BOX: Press the power button once to turn on the G-BOX. The indicator light indicates the battery level of the device. As battery level goes low, the lights will turn off one by one from left to right. Press and hold the power button until all lights are off to turn off the G-BOX.

Smartphone: Please check your smartphone battery level before each flight.

#### **Check Propellers**



Please check if the propellers are properly installed before every flight by tightening the propellers again using your hands. Please pay attentions to any damages on the propeller, broken and deformed propellers cannot be used for flying operations.

### App Download 🕹

#### Where to find?

Option 1 Visit official website www.ehang.com to download EHANG Play App Option 2 Search and download EHANG Play Android version in Google Play Option 3 Search and download EHANG Play iOS version in App Store

### System Requirements

Android: Android 4.1 or above. iOS: iOS 8.0 or above.

Note: Please visit: www.ehang.com to download EHANG Play App Manual and learn how to use the App.



### Connect to GHOSTDRONE 💢





## 2

#### iOS: Connect to Wi-Fi



Power on the VR goggles/ G-BOX. Tap "Wi-Fi connection settings" and search for the Wi-Fi starting with "Ehang" . The Wi-Fi password can be located at the bottom of the VR goggles or the sides of the G-BOX.

#### Android: Connect to Bluetooth



Power on the VR goggles/ G-BOX. Search for the Bluetooth and connect by tapping on its name.





Once Wi-Fi/ Bluetooth is connected. Turn on the GHOSTDRONE: Click once and then click and hold the power button to turn on the battery, until the indicator light is on.







### View Album 📃

To view the videos and photos, go to "Album" page and tap the "Camera" tab on the top of the page. Click the "Connect" button below. The Wi-Fi SSID of the camera will start with "EHangCam" and the password is **12345678**. After connecting to the Wi-Fi, you can view all the videos and photos you took with the spherical camera.

Note: Please keep the drone on to power the camera.



# Profile Page - "Me" 💄

You can check your flight records as well as edit your personal information in the "Me" page.



Note: For iOS users, click "Signature" to edit. For Android users go to  $\blacksquare$  .

#### Edit profile 🧉

<	Edit profile	Save	
Profile Photo		>	Click to edit Profile picture
Name		ehang >	Click to edit Nickname
Gender		Female >	Click to edit Gender
Region		China >	Click to edit Country/ Region
Date of Birth		2016-9 >	Click to edit Date of Birth

### Sidebar Menu 💳

Click  $\equiv$  in the top-left corner to view the sidebar menu, which includes flight settings, camera settings, compass calibration, gimbal calibration and firmware update of drone, gimbal and camera.

	GHOSTDRONE 2.0		=
#	Flight Settings		
۲	Camera Settings		
0	Calibration		9
-	Gimbal calibration		
*	Drone update	3.1.13	
a	Gimbal update	1.3.316	
•	Camera update	2.24	

### 1. Flight Settings

		< Flight Settings			Satellite Map
		Basic Settings			3D Map
		Maps	2D Map >	-	5390
m/s	•	Units	km/h >		Allen
km/h 🗸					Front-off
mph		Lights	All-on >	-•	All-off
Santitius	•—	Gimbal Sensitivity	Sensitive >		
Smooth		Gimbal Pitch Control	VR goggles >	-•	Phone
		Speed And Height Settings			VR goggles 🗸
Speed in GPS Mode		Return Height	15m >		Drag the slider to change the return height
	•	Speed	>		10 meter 50 meter
Current : 20km/h		Flight limits			Current : 15m
Speed under manual mode		Flight Height Limit	120m >		
Speed Slow Fast					Drag the slider below to set max flight height.
By selecting "Fast", you may increase the risk of flight accidents. Please be cautious.					
					Current : 120m

#### **Basic Settings**

a. Maps: Choose from Satellite map, 3D map and 2D map.

b. Units: Choose from Km/h, m/s, mph.

c. Gimbal Pitch Control: Choose "Slider" to control the gimbal pitch by the slider on the screen; choose "VR Goggles" to control the gimbal pitch by moving the VR Goggles up and down.

d. Lights: Choose from All on, Front off and All off.

#### Speed and Height Settings

e. Return Height: The drone will ascend/descend to the return height when returning to home. Please select wisely according to your flying environment.

f. Speed under GPS Mode: Drone performs stable flights with the assistance of good GPS signals. You can choose from Slow, Moderate, Fast and Very Fast. Speed under manual mode: As no GPS assistance is involved, you need to control the speed and attitude of the drone by constantly adjust your wrist. Wind may adversely affect the performance of the drone. You can choose from Slow and Fast. Please only switch to Fast Mode after you get familiar with Slow Mode.

### 2. Camera Settings

	< Camera Settings		
	Photo Settings		
12M	Photo Resolution	12M >	
8M		12111 /	high 🗸
	Photo Quality	high >	medium
Auto 🗸	ISO	Auto >	low
100			
400	Video Settings		4k 24fps
800	Video Parameters	2.7k 30fps >	4k 30fps
1600			2.7% 24/ps
bigh	Video Quality	high >	1080P 25/ps
modium	Auto Record upon Takeoff		1080P 305s
mean			1080P 1200ps
low	General Settings		
	Format Camera		

### 3. Compass Calibration

Compass calibration is needed when the heading of drone nose deviates greatly from the direction your smartphone points to.

Follow the steps below to calibrate the compass: (a) Calibrate smartphone compass. (b) Calibration drone compass horizontally. (c) Calibration drone compass vertically. (d) Complete calibration.



Note: Please try again if great deviation still remains after the first calibration.

### 4. Gimbal Calibration



### 5. Firmware Update

We'll keep updating the firmware of drone, gimbal, camera, etc. Tap the corresponding item to update when the latest version is available.

### Let's practice

Follow the steps mentioned before to connect your drone, VR Goggles/ G-BOX and app. Then click ⑦ on the up right corner of home screen to watch the tutorial videos and read manuals. Only begin flying Ghostdrone 2.0 after you have a comprehensive understanding of it.



### 2. Practice Avatar Mode 🏈



## How to Fly 🛹

Tap Select Flight Mode to enter the selection menu.



### 1. Touch-to-Go Mode

Click Touch-to-Go to enter the control interface for this mode.



#### 1 Current Status

- 2 Connection status of Bluetooth or Wi-Fi
- 3 Connection status of GHOSTDRONE
- 4 Number of satellites
- 5 Smart flight battery level
- 6 Horizontal distance to drone
- 7 Current altitude of GHOSTDRONE
- 8 Current flight speed
- 🧿 Flight time
- 1 Settings

- 1 Video/ take photo
- Heading of GHOSTDRONE
- 3 Throttle control
- 👍 Land
- 👌 Return
- 6 Follow-me
- η Hover
- GHOSTDRONE locations & Waypoint indicators
- Micro control
- Slide to take off

return Land

The green line indicates the flight time remaining before the drone returns. The yellow line indicates the drone's remaining battery life before it auto lands. The red line indicates the remaining time before the power runs out completely.

Note: Volume buttons of the cellphone can be used to take photos/videos:

"+" button: Click to take photo

"-" button: Click to start or stop video recording

### 😑 Glossary

- Take photo/video: click the camera icon to take photo; click the camera recorder icon to start/ stop recording.
- Heading of GHOSTDRONE: Slide to the left, the GHOSTDRONE will turn counter clock-wise; slide to the right, the GHOSTDRONE will turn clock-wise.
- Land: Click the button and the GHOSTDRONE will land, not returning to where it took off. Please avoid crowd, buildings and water.
- Auto return: GHOSTDRONE will return to its takeoff point, while maintaining the return height. Please set the proper return height.
- Follow-me: GHOSTDRONE will follow you when the "Follow-me" function is activated. When the function is activated the GHOSTDRONE will keep its current distance with you wherever you go. GHOSTDRONE does not have obstacle avoidance, please be aware of the surroundings.

- Emergency Hover: GHOSTDRONE will stop and hover at its current location.
- GHOSTDRONE locations & Waypoint indicators: Tap anywhere on the map, a icon will appear, tap again on the icon to confirm the command and the GHOSTDRONE will fly to its target location. The white dotted line indicates the flight path.
  - 💡 Takeoff location 💧 Drone indicator 🎋 Destination
- Micro Control: The red triangle A indicates the headings of the GHOSTDRONE. Micro control flies the GHOSTDRONE in a headless configuration, the drone will fly according to the direction of how you drag the red circle. GHOSTDRONE will move to the same direction as you drag regardless of where its head is currently pointing.

### 2. Avatar Mode 🏈

Note: For your safety, Avatar Mode will be unlocked after you have flown in Touch-to-Go Mode for 3 times.



- Current Status
- Connection status of Bluetooth or Wi-Fi
- 3 Connection status of GHOSTDRONE
- 4 Number of satellites
- 5 Battery level
- 6 Horizontal distance to GHOSTDRONE
- Current altitude of GHOSTDRONE
- 8 Current flight speed
- 🧐 Flight time
- 🕧 Take photo/ video

- 1 HUD (Heads Up Display)
- 😢 Emergency Hover
- ( Land
- 1 Return
- 5 Follow-me
- 16 VR Mode
- Throttle control
- 8 GHOSTDRONE locations & Waypoint indicators
- 😰 Manual mode/ GPS mode

#### Explanation

- Attitude indicator: Attitude indicator shows GHOSTDRONE' s relation to the horizon. Red triangle indicates the headings of GHOSTDRONE.
- Emergency Hover: When emergency situation occurs, you can tap on the Emergency Hover button to stop GHOSTDRONE from colliding into obstructions. Tap once, the background of the button turns red and emergency hover is activated. Tap again to dismiss emergency hover.
- VR mode: tap to enter interface of VR mode, details could be found in the introduction of VR mode on the next page.
- Manual/ GPS mode: Under Manual mode, the tilting angles of GHOSTDRONE are completely controlled by the tilting angles of the cellphone. When the cellphone is held flat, GHOST-DRONE may drift horizontally as a result of wind and gust. Under GPS mode, the tilting angles of GHOSTDRONE will increase along with tilting angles of the cellphone, however, once the max speed is reached it will not increase any more. When the cellphone is held flat, GHOSTDRONE holds its position with assistance of GPS locating system. It is highly recommended for new users to use the GPS mode for safety concerns.

### 3. Waypoints Mode 🖄

Enter the control interface of this mode, set a flight route on the map and tap Go, the drone will start a flight following the preset route. To reset the flight route, just tap the Hover button.



- 1 Current Status
- 2 Connection status of Bluetooth or Wi-Fi
- 3 Connection status of GHOSTDRONE
- 4 Number of satellites
- 5 Smart flight battery level
- 6 Horizontal distance to drone
- Ourrent altitude of GHOSTDRONE
- 8 Current flight speed
- 9 Flight time
- O Settings

- 1 Video/ take photo
- Heading of GHOSTDRONE
- (3) Throttle control
- 👍 Land
- 🌀 Return
- 🌀 Follow-me
- Hover
- (8) GHOSTDRONE locations & Waypoint indicators
- Micro control
- 2 No-fly zone

### 4. Smart Shoot Mode 🔨

This mode includes 6 kinds of flight: Vertical pull-up, Rotating Lift, Side track, Selfie, Orbit and Follow-me.



Main interface



Drone vertically ascends, and automatically hovers at 100m in height.

a



Drone rotates while vertically ascending, and automatically hovers at 100m in height.



3 Drone heads leftward or rightward horizontally, and automatically hovers when reaching 200m in horizontal distance.







Drone ascends following an oblique line. Please keep an eye on the surrounding environment, and do not hesitate to tap the Hover button when the drone reaches an appropriate height. Tap on the map to set a point of interest (drag the icon to your target point for more precise setting). Then tap Start Orbit, the drone will start orbitting the preset point. Drone follows behind a targeted moving subject. Since the drone is not able to automatically avoid obstacles yet, please always keep an eye on the surrounding environment.

Note: It is highly recommended to select an open area when flying the Smart Shoot Mode. In case of emergency, tap the Hover button immediately and secure your personal safety.

#### 5. VR Mode 숙

Click the icon above to enter VR mode where you can control your drone effortlessly without looking at your cellphone screen.

Control gestures are as below.

- (1) Slide up to increase GHOSTDRONE' s altitude.
- (2) Slide down to decrease GHOSTDRONE' s altitude.
- (3) Double tap to trigger emergency hover, and double tap again to dismiss hover.
- (4) GHOSTDRONE's flying is still controlled by the tilting of your cellphone.

Note: Please hold your cellphone flat when you do not want the drone to preform maneuvers.







When the drone is returning, double-tap the screen to hover the drone or activate Avatar control. When the drone is landing, double-tap the screen to hover the drone or activate Avatar control. Press and hold the screen to temporarily activate Avatar control.



#### Smart Auto Return Home

GHOSTDRONE 2.0 has the smart auto return home function. The drone will calculate if the current battery life is enough for it to return to return location depending on its current distance away from the return location and other factors. When returning, the GHOSTDRONE 2.0 will fly back and hover 10 meters(30 feet) above return location.

#### Battery Management System (BMS) Warnings

The battery management system (BMS) will issue a warning when there is a malfunction of the flight battery, please follow the instructions on your App and return and land the GHOSTDRONE immediately.

### **CHVNQ**

Guangzhou EHang Intelligent Technology Co., Ltd.

#### **Contact Us**

Business Hour: Monday – Friday 9:00 A.M – 5:00 P.M (PST) Customer Service Phone: +1 650-533-8554 / 888-800-7056 Customer Service Email: support@ehang.com

If there are any updates to the quick start guide in the future, please see the latest version on official website: www.ehang.com/download/

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