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Manufacturer:Guangdong Huagulong Technology Co., Ltd.  
Official Website:www.hglrc.com



# **HGLRC A200**

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## **USER MANUAL**

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# Important Notes

1. The high-speed propeller may cause different degrees of damage to yourself or others, so please strictly follow the following requirements during operation:

- a\Don't put your hands inside the shell before the propeller is completely stopped.
- b\Do not operate the Drone Soccer to hit people and animals, and keep away from the crowd when flying.
- c\The propeller may roll the long hair, it is recommended to tie up the long hair or wear a hat when flying.
- d\When removing the protective shell for maintenance, please disconnect the Drone Soccer battery or remove the propeller first.

2. The Drone Soccer is designed to be flown indoors in an enclosed area, if flown outdoors in an empty mine or indoors without protection,the following consequences may occur:

- a\ Impact may lead to damage to the indoor items.
- b\Out of the signal control range of the remote control, it will lead to drone soccer lose control.
- c\The flight distance is beyond the range of vision, may lead to incorrect control drone soccer flight back.
- d\Flying outdoors will be affected by the wind to make the operation experience is not

3.serious impact will cause damage to the drone soccer body structure.

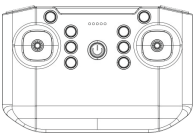
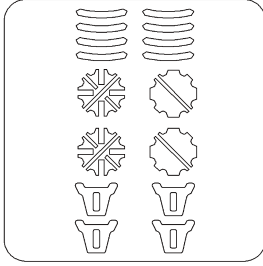
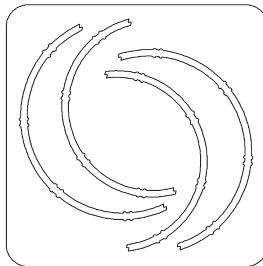
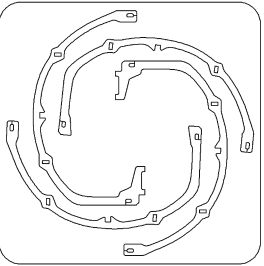
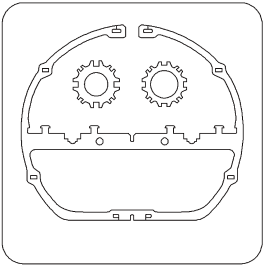
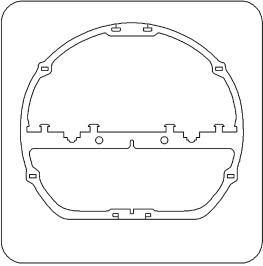
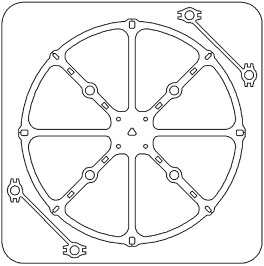
4.During the flight, the high intensity impact may cause the sensor to fail for a short time, and the phenomenon of sudden flying very high and loss of control will occur, please land in time to recalibrate the IMU.

5.The drone soccer can't do one key roll action under low battery.

6.It is recommended that someone is on duty while the battery is charging. If the battery inflation package, it is recommended not to continue to use and charge.

7.The drone soccer can only use 1S (nominal 3.7V) lithium battery.

# Unboxing



Remote Controller\*1



User Manual\*1



Charging cable\*1



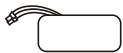
led strip  
(blue/red) \*4



Ppropeller picker\*1  
Cross 1.5 small screwdriver\*1  
Stainless steel tweezers black flat  
round head Anti-static ESD-13



Flight controller\*1



450mAh battery\*1



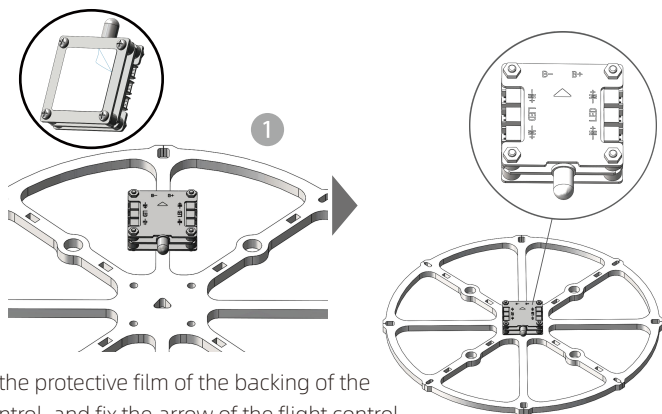
Propellers\*8



Motor\*4

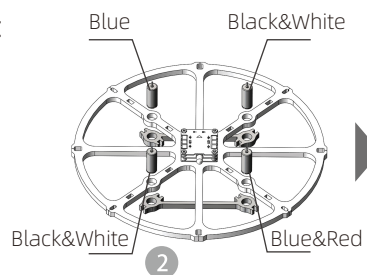
# Assembly

Step 1:

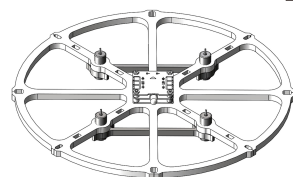


Tear off the protective film of the backing of the flight control, and fix the arrow of the flight control in the same direction as the arrow of ①.

Step 2:



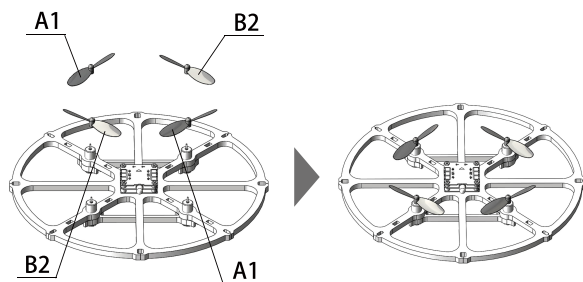
Insert the motor wire color corresponding to the motor into the corresponding position of the frame, and fix the ② set into the bottom of the motor.



Plug the motor cable into the corresponding socket of the flight control.

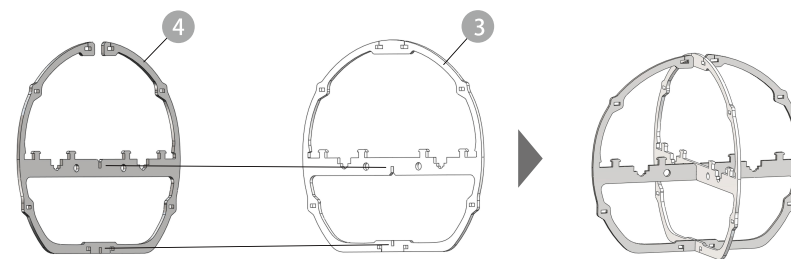
-	M	+
Blue		Red
Black		White

Step 3:



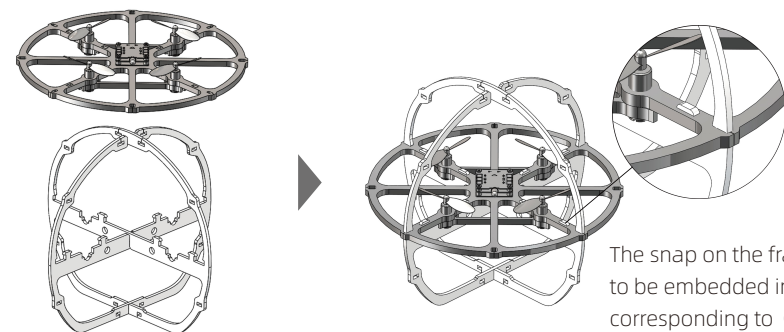
Install the motor according to the corresponding serial number on the propeller.

Step 4:



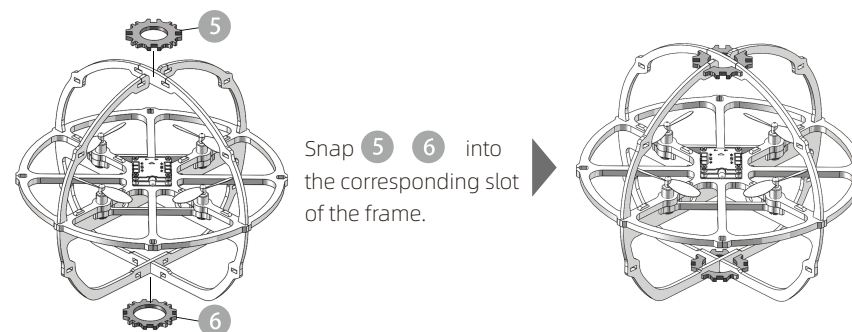
Insert the slot of ④ into the corresponding slot of ③.

Step 5:



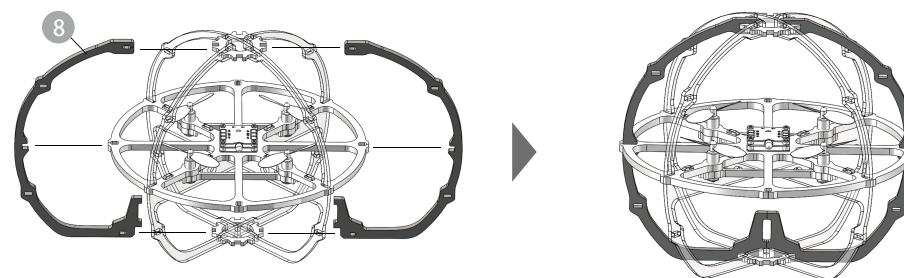
Push the frame body from the side of the cross frame kit and embed it into the cross frame kit.

Step 6:



Snap ⑤ ⑥ into the corresponding slot of the frame.

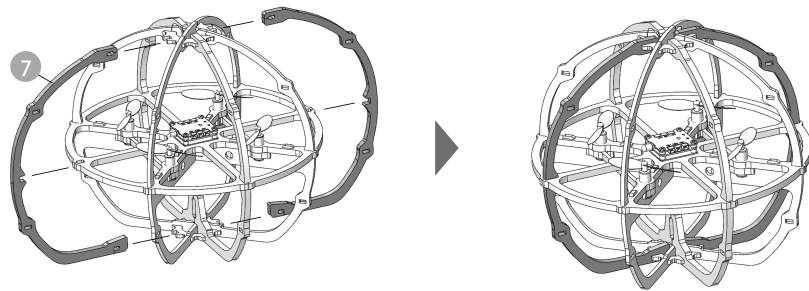
Step 7:



Snap two ⑧ into the corresponding slots of the frame separately.

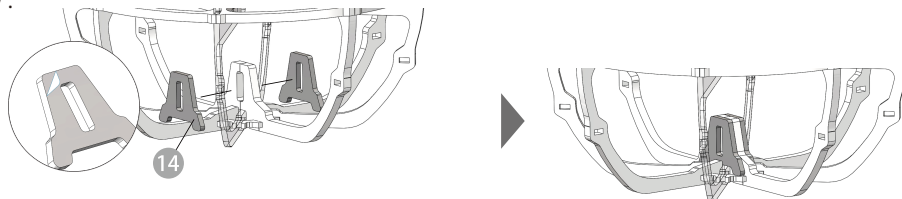


Step 8:



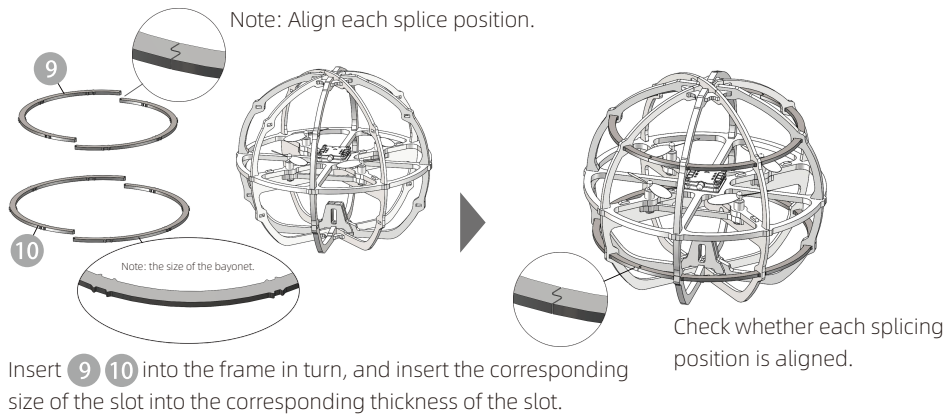
Snap two **7** into the corresponding slots of the frame respectively.

Step 9:

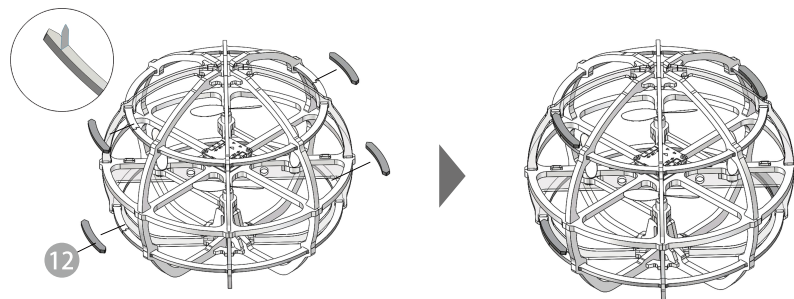


Peel off the protective film of **14** backing and put **14** on the corresponding position of the rack in the figure.

Step 10:

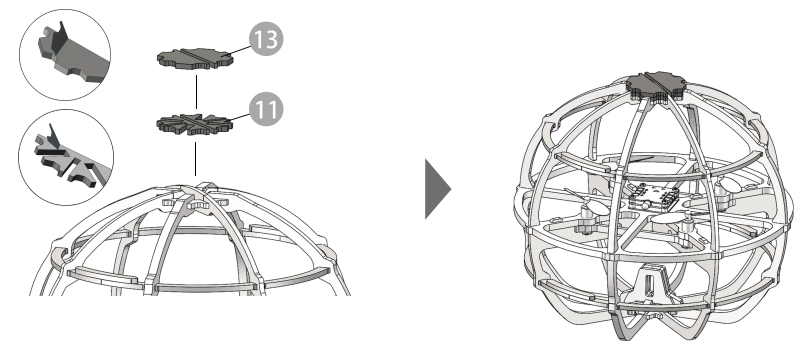


Step 11:



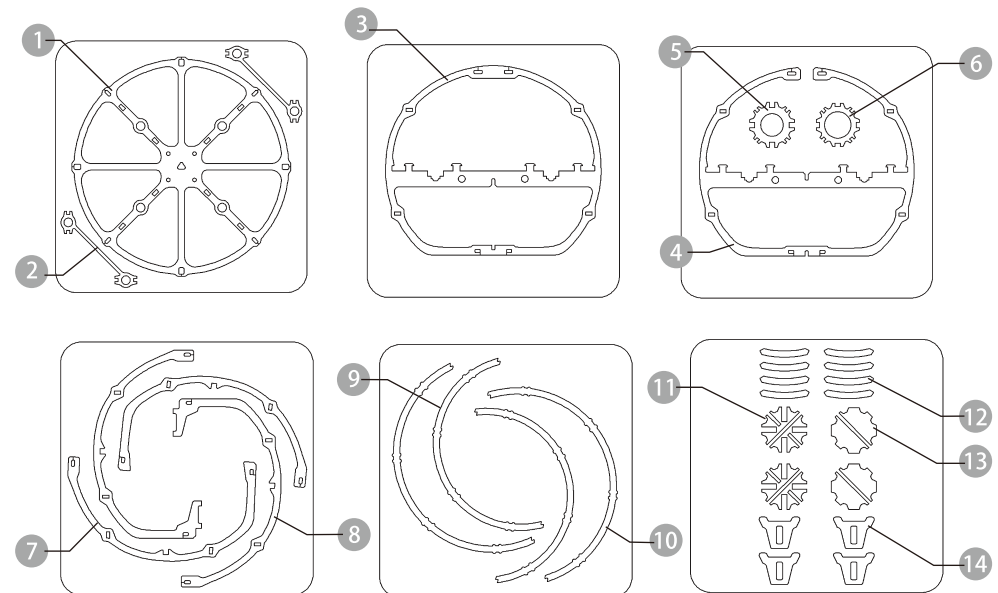
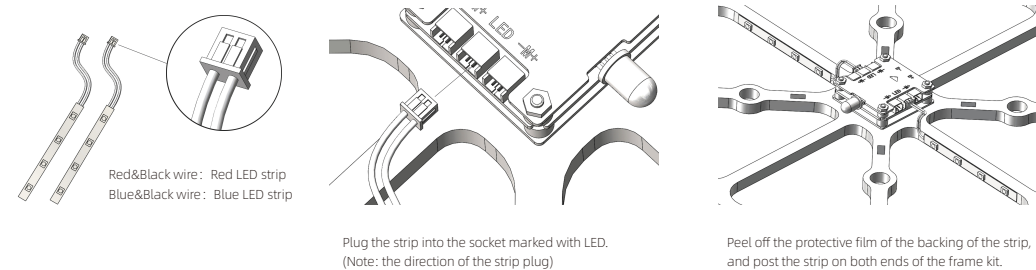
Tear off **12** backing protective film, and stick **12** to the corresponding position of the frame in the figure.

Step 12:



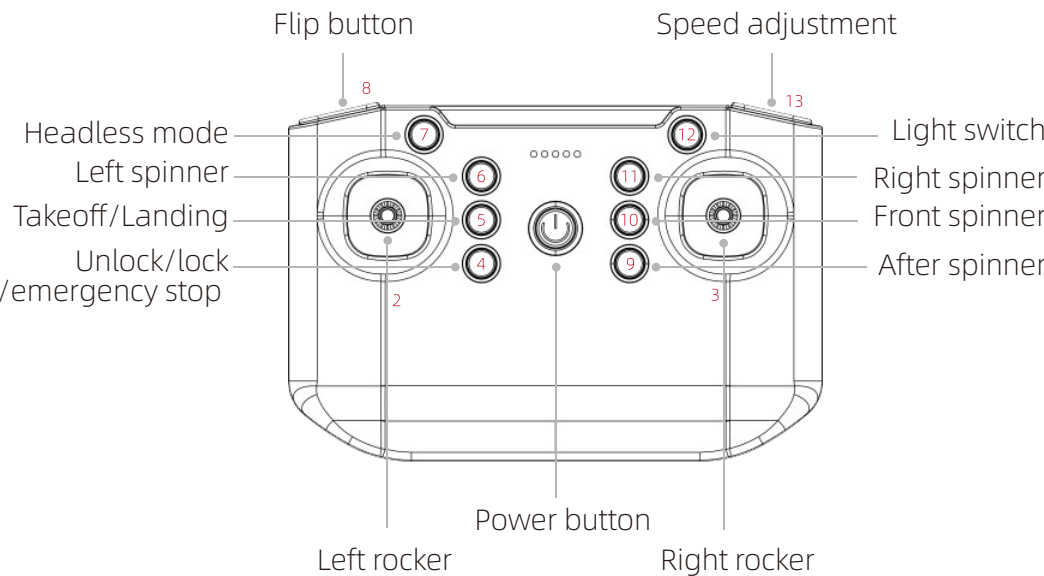
Tear off **11** **13** backing protective film, and stick **11** **13** to the corresponding position of the frame in the figure.

## LED strip installation



# Equipment function and flight operation

## Remote control panel and switch description

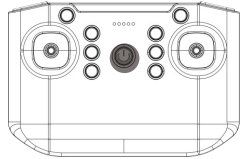


Serial number	Name	Annotation
01	Power button	Start up button
02	Left rocker	Controls ascent and descent, as well as left and right steering of the nose
03	Right rocker	Control forward and backward, and pan left and right
04	Unlock/lock/emergency stop button	Unlock, the propeller rotates, and if there is an accident during the flight, you can short press "emergency stop" button
05	Takeoff/Landing button	Short press one button to take off and land
06	Front spinner	Drone moves left
07	Headless mode button	Short press, the front and rear lights of the flying ball will flash slowly at the same time (the headless mode cannot last for a long time)
08	Flip button	After pressing the flip button, control the right rocker can flip in the corresponding direction
09	After spinner	Drone moves backwards
10	Front spinner	Drone moves forward
11	Right spinner	Drone moves to the right
12	Light switch	Each time you press it, the LED on the center control board changes color in a cycle (three colors)
13	Speed adjustment	The remote control buzzer sounds once for slow speed, twice for medium speed, and three times for fast speed

# Equipment function and flight operation



## Flight operation method



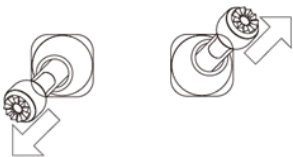
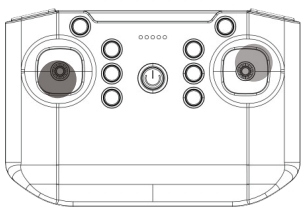
### STEP.01

Switching sequence and battery replacement

Press the remote control switch before flight, then install the battery and plug in the power supply.  
Change the battery midway don't need to close the remote control.  
After the flight, disconnect the soccer drone battery and then close the remote control.

**Point out:**  
Turn off the remote control during flight or automatically due to insufficient power of the remote control, which will cause the soccer drone to get out of control.

**Suppose the battery power of the remote control is inadequate, In that case, the remote control will issue a "loud" alarm.**  
soccer drone level 1 low voltage alarm (lack of power), and the taillight flashes three times in a second.  
soccer drone level 2 low voltage alarm (lack of power), the taillight flashes three times in a second, can not continue to fly and cannot be unlocked again.



### STEP.02

Remote Control Pairing

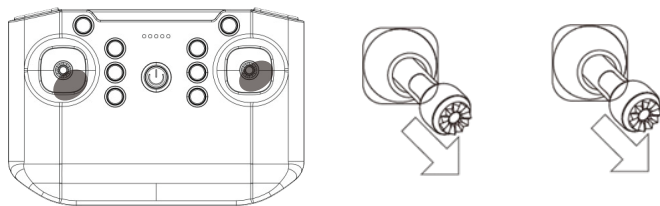
As shown in the figure, the remote control is turned on, the soccer drone is powered on, the front and rear indicator lights are flashing at the same time, the left and right remote control is pulled to the position shown in the figure at the same time to start the frequency, the front and rear lights stop flashing, and the prompt sound issued by the remote control indicates the success of the frequency.

**Point out:**  
The factory was paired successfully before ship, There is no need to pair again.  
If the remote control is turned off and the drone soccer is not power off, If there are other remote controllers that are pairing and the distance is relatively close, they may be paired. If this happens, you need to re-pair.

# Equipment function and flight operation

## STEP.03

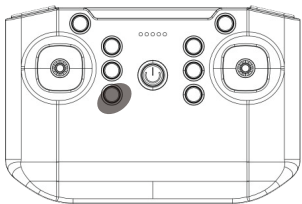
IMU calibration



IMU calibration is recommended before each flight. Place the drone soccer horizontally, move the left and right rockers to the lower right corner as shown in the picture, enter IMU calibration, the tail light of the drone will flash quickly and wait for 3 seconds, the remote controller will emit a beep, and the tail light will stop flashing, and the calibration is over.

## STEP.04

Motor unlock



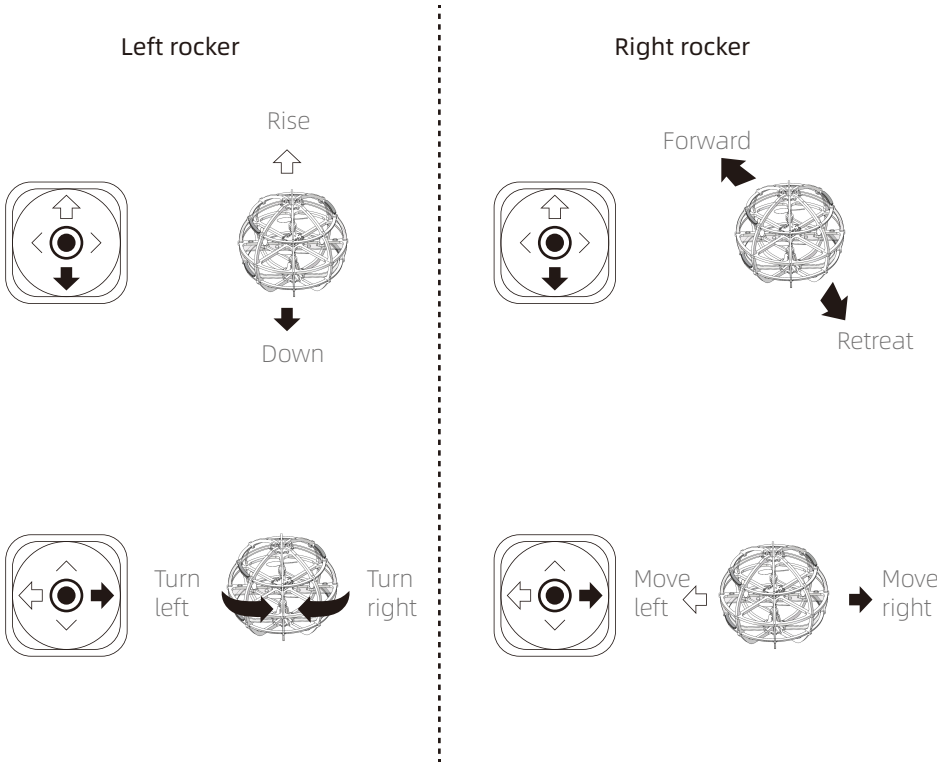
unlock button, the motor starts and starts to rotate, push the throttle rocker to take off.  
Tips: Be sure to take off under the condition of ensuring safety!

# Equipment function and flight operation



## STEP.05

Direction control operation



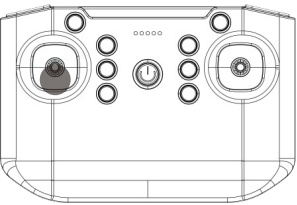
The remote control defaults to the left hand throttle mode, the left rocker controls the flight altitude and yaw direction, the right rocker controls the forward and Retreat and move left and right flight.

# Equipment function and flight operation

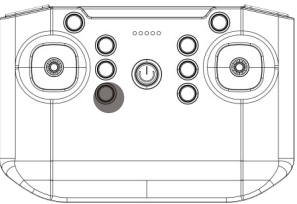
3 ways to stop the motor:

## STEP.06

Downtime operation



A. In the height setting mode, pull the throttle bar (left rocker) to the end for more than 2 seconds, and the motor stops and automatically locks.



B. short press the remote control emergency stop button @, the soccer drone is forced to lock the motor, please use this method carefully, such as emergency shutdown in the air, the drone will fall freely, the shell is easy to damage.

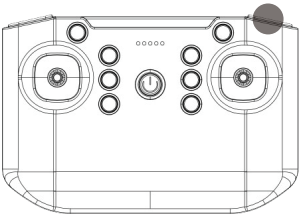
# Equipment function and flight operation



C. The overall tilt angle of the drone soccer is greater than 90°, and the motor will automatically stop. This situation occurs when the drone soccer flying attitude changes greatly after a severe collision, which can be avoided by flying skills.

## STEP.07

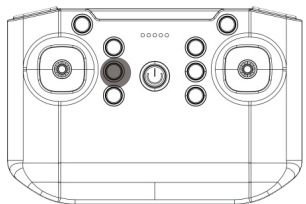
Three speed adjustment



During the flight, you can change the flight speed through the speed adjustment button ③ on the remote control, accompanied by voice prompts.

- One beep: low speed
- Two beeps: medium speed
- Three beeps: high speed

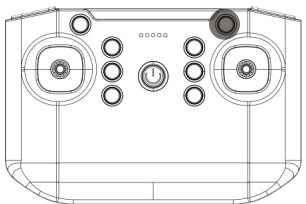
## Equipment function and flight operation



### STEP.08

One-button take-off and landing mode

Unlock the motor first, and then short press the one-button take-off and landing button ⑤, the remote control is accompanied by a prompt sound, and the soccer drone will automatically take off and hover at a relative height of about 1 meter. Press the one-button take-off and landing button ⑤ again, the remote control is accompanied by a prompt sound, and the soccer drone will automatically land and lock the motor in the current position.



### STEP.09

Change the light color

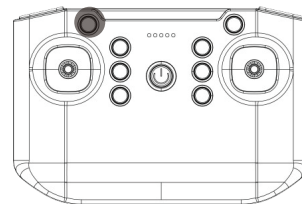
There is a blue/red/green variable LED light under the center cover of the soccer drone. Short press the light change button @ on the remote control to change the color of the light repeatedly.

## Equipment function and flight operation



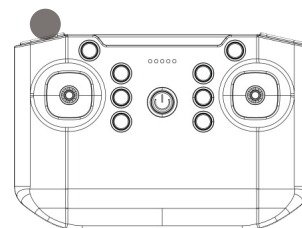
### STEP.10

Headless mode



Headless mode refers to the direction of the last IMU calibration before takeoff. The forward direction and left and right direction of the rocker in headless mode are determined by referring to the forward direction.

The headless mode cannot last for a long time. Short press the headless mode button ⑦ on the remote control to enter and exit repeatedly.



### STEP.11

Flip mode

The drone soccer can perform forward, backward, left and right tumbling. First short press the flip button ⑧ on the remote control, accompanied by a beep, and then operate the right rocker, the forward direction is to flip forward, the backward direction is to flip backward, the left translation is to flip to the left, and the right translation is to flip to the right.

After each flip, the flip button needs to be pressed again for the next flip.

# Handling of common problems

Question	Reason	Approach
Remote control won't turn on	The battery is not inserted according to the correct polarity indication	Check to make sure that the batteries are inserted according to the positive and negative poles indicated in the battery compartment
	Remote control battery is dead	Replace new battery
	Poor contact of the power button of the remote control	Check or replace
Can't start the Drone	The remote is not turned on	Long press the power button of the remote control f or 3-5 seconds to turn on the Drone
	Soccer Drone battery is not plugged in	Insert the battery correct
	The effective remote control distance is exceeded	Make sure to fly within a radius of 100 meters
	The remote control and the speed dome are not linked	Re-bind
	The Drone is still powering up and initializing	Wait for the initialization to end, the tail light doesnt flash
Can't control the Soccer Drone but can change color by pressing the LED light switch	The remote control is not set to the left and right hand throttle mode	Reset
Can't unlock	The rocker is not in correct position	Reset remote control
	The stroke of the joystick of the remote control is wrong	Check and recalibrate travel
Can't set height	Altitude hold mode not turned on	Turn on fixed height mode
	Barometric altimeter damaged	Repair
	Excessive impact leads to failure of fixed height	Put the plane horizontally and do IMU calibration again
Jumping to the top when fixed height mode	The plane vibrates too much	Check Propeller, center support, protection ring and shell are damaged, and whether the screws are loose
Flight jitter (bad flight status)	Propeller Damaged	Check and replace
	Screw loose	Tighten
	Center bracket damaged	Check or replace
	The protective ring is damaged	Check or replace
Takeoff Drone auto circle around	The Propeller are seriously damaged or the propeller are installed in the wrong position	Check or replace
The motor does not turn	Motor damaged	Replace the motor
	ESC damaged	Replace the ESC board
Takeoff is uneven	Levels have deviated	Drone laying flat for IMU calibration

# Handling of common problems



Question	Reason	Method
LED tail light does not change color	Remote control LED toggle switch contact problem	Check or replace
Headless mode doesn't work	Remote control headless mode switch contact problem	Check or replace
The Drone cant ascend	Wrong assemble Propeller	Install propeller correctly
	The Drone is low on battery	Replace the battery of the drone
The remote control makes a beeping sound	The remote controller is low on battery	Replace the battery of the remote control
	The Soccer drone is low on battery	Replace the battery of the soccer drone
The Propeller cant stop when the Drone lands on the ground	Throttle stick is not pulled to the bottom for more than 2 seconds	Pull the throttle stick to the end and hold it for more than 2 seconds
How to switch between left and right Throttle	Normal is left throttle is used. If you need the right throttle mode, When the remote control is turned off, first press and hold the speed switch button, and at the same time press the power button to start the drone	

## Specification

Size: 200\*200\*180mm  
weight: 44 grams  
Standard take-off weight: 60 grams  
Max take-off weight: <100g  
Max flight time: >5 minutes  
Standard Li battery: 450mAh 1S  
Flight control radius: <100 meters  
Height limit: 10 meters

## Fight training

For more operation training videos, please visit the official account or the official website [www.hglrc.com](http://www.hglrc.com).

## Recreation and sports

For more cool gameplay and competitive rules, please visit the official account or official website [www.hglrc.com](http://www.hglrc.com).