

# UPair 2 Ultrasonic 3D+4K

Manual Book



V1.0

# Content

- Product Profile** .....3
  - Introduction.....3
  - Main Features .....3
- Aircraft**.....4
  - Aircraft Profile.....4
  - Aircraft Diagram.....4
  - Parameters.....5
  - Auto-return Home.....5
  - Flight Data .....6
  - Flight Mode.....6
  - Propellers.....7
- Battery** .....7
  - Introduction.....8
  - Parameters.....8
  - Basic Fuctions And Charging.....8
- Remote Controller** .....9
  - Remote Controller Profile .....9
  - Remote Controller And Real Time FPV.....10
  - Using The Remote Controller.....10
  - Charging The Remote Controller .....12
  - Operating Aircraft.....12
  - Smart Return Home Button .....13
- Camera** .....13
  - Camera Profile .....13
  - Camera SD Card Interface.....14
- Gimbal** .....15
  - Gimbal Profile.....15
- UPAIR APP Main Screen**.....15
  - Connecting To A Mobile Device.....16
  - Camera Interface .....16

Basic Setting.....	18
Camera Interface Setting.....	19
Flight Route Planning.....	19
Follow Me Mode.....	20
Calibrating The Compass.....	21
Point Of Interest.....	21
Smart Battery Information.....	22
<b>Precautions.....</b>	<b>22</b>
Fly Safe.....	22
Pre-flight Checklist.....	23
Flying Reminder.....	23
Basic Flight.....	23
<b>Frequently Asked Question (FAQ).....</b>	<b>24</b>
<b>A Thank-you Letter.....</b>	<b>25</b>

## Product Profile

This part is introduce the main features of the UPAIR 2 4k/3D Drone, the method for assembling the Aircraft and lists of components of the Aircraft and the Remote Control.

### Introduction

The UPAIR 2 4K/3D Drone consists of the Aircraft, Remote Control, Gimbal Camera ,Light stream,and a matching UPAIR APP. The flight control system is integrated within the aircraft's fuselage, and the visual positioning module/light stream and the removable gimbal are placed at the lower part of the fuselage. You can control the camera's pitch by using the UPAIR App on the mobile device, and the low-latency HD digital images transmission component is designed to transmit long-distance real-time images.

### Main Features

The 4k/3D is equipped with a 3-axis stabilization gimbal, a 7 Bohr 110-degree micro-distortion camera, a MN34120 main image sensor, a 16-megapixel camera capable of capturing 25-frame 4k HD video, and two 3D cameras for capturing images with 3D effects. Insert a memory card with 3D images into the VR glasses to experience the stereoscopic picture. The model has applied the newly-developed flight control system, and added the new optical flow module and ultrasound module, which can make the aircraft precisely hover indoor and bring you much more flight experience. 3km Wi-Fi image transmission and 3km Remote control distance, Real-time high-definition image and uplink and downlink data can be displayed on the UPAIR2 APP device.

The UPAIR 2 4k/3D Drone is installed with the high-capacity lithium battery. Combined with the high efficiency power system, its maximum duration of flight can achieve 24 minutes.

# Aircraft

This chapter will describe the composition of the aircraft, as well as features.

## Aircraft Profile

The main components of the UPAIR 4k/3D Drone are the flight controller, the image transmission system, the positioning and navigation system, the visual positioning system, the power system, and the battery.

The aircraft's main functions will be introduced in details as follows.

## Aircraft Diagram



- [1] Propellers
- [2] Motors
- [3] Red LED Indicator (head of the aircraft)
- [4] Landing Gear
- [5] Damping Ball
- [6] Gimbal
- [7] Camera



- [8] Green LED Indicator (Rear of the Aircraft)
- [9] Battery Power Button
- [10] Antennas (Built-in)
- [11] Battery Power Level Indicator
- [12] Image Transmission Antenna (Built in)

\* Aircraft indicators: The red indicators indicate the front of the aircraft. The green indicators indicate the tail of the aircraft.

### Parameters

Weight(including the Battery, Gimbal, Camera)	1350g	Max. Ascending Velocity	3.5m/s
Max. Descending Velocity	2.2m/s	Max. Tilt Angle	28°
Flight Time	24 Min.	Max. Horizontal Velocity	8m/s
Propellers	9450	Operating Temperature	0°C~ 40°C
Motors	2212	GPS Module	GPS/GLONASS

### Auto Return Home(RTH)

The UPAIR 4K/3D aircraft features the Auto Return Home (RTH) function. When the controller loses communication with the aircraft or the aircraft is at low power, the aircraft will automatically initiate the Auto Return Home (RTH) function and fly back to its home point with automatic landing. There are three available ways of returning: One-key RTH, Low-voltage RTH, Unsafe RTH.

GPS		Description
Home Point	more than 11 Stars	Before the takeoff, when the GPS signal reaches more than 11 stars for the first time, it will be recorded as the return point of the aircraft's current voyage.

\* The RTH system does not support obstacles recognition, and you try the best to operate the aircraft in an open field.

\* There is a time difference in searching GPS signals according to user's location. The cold boot will cost 2 minutes or so, and the warm boot 30 seconds.

\* During an auto-flight, like auto-return, auto-landing, or follow-up mode, etc., you can activate the flight mode by using the flight mode joggle switch on the left of the remote control to avoid bad situation like crashing into barriers, or falling into a river, etc.

### One-Key RTH

By pushing the one-key RTH joggle switch on the controller backwards or starting it manually through the UPAIR APP to trigger the one-key return, the aircraft will go back to you. If you want to regain control during RTH, they can do so by just switching the mode.

Description of RTH Mechanism:

When the aircraft's current flight height is lower than 15m, it will firstly ascend to the height of 15m, and then horizontally return to the home point, and descend; When the aircraft's current height is higher than 15m, it will directly and horizontally return to the home point and descend.

### Smart low-battery RTH:

UPAIR 2 adapts smart battery,when battery power is too low,it will return to the home point.

### Losing communication RTH

When the GPS signal is normal, and the aircraft has automatically recorded the home point, if the radio signal (the remote control's signal) is interrupted for more than 3 seconds, the flight control system will take control over the aircraft and make it return to the home point. If the radio signal recovers during the RTH process, the aircraft will stop and hover. Then, you can take control over the aircraft again by using the remote control.



### Flight Data

4K/3DDrone is equipped with the “Black Box”, and all relevant flight data will be recorded in the SD card within the flight control system.

### Flight Mode

Position Hold: Use the GPS module or the Optical Flow Module to drive the aircraft's precise hovering. Altitude Hold: When the GPS is invalid, or the signal is lost, the altitude hold mode can be enabled to make the aircraft fly at a fixed altitude. Headless Mode: The aircraft will record the

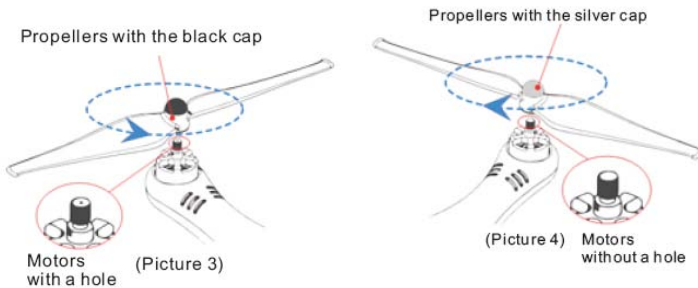
direction of its head when it takes off, and after it enters this mode, no matter where the head points at, the front direction is still the direction of the head when it takes off.

## Propellers

4K/3D aircraft use 9450 propeller, the propellers feature black or silver-colored caps, each representing a different direction of rotation.

1. Attaching the Propellers: Find the motors that have a hole, attaching the propellers with black cap onto them and rotating tightly counter-clockwise. Attach the propellers with silver cap onto motors without a hole and rotate them tightly clockwise.

2. Detaching the Propellers: Please hold the motor on one hand, then rotate the propeller in the unlock direction to loosen it.



\* Make sure that the black and silver propellers are installed on the right motors; otherwise, the aircraft cannot take off normally. Please manually tighten the propellers, and tighten them firmly; otherwise, an accident may happen. Since the blade is thin, be careful not to get hurt

\* Please use the original UPAIR propellers, the propellers must correspond to the exact aircraft model.

\* Propellers are easily consumed, if necessary, please purchase one additionally.

\* Ensure the propellers are in good shape, tightly attached before flight. Deformed or broken propellers should be replaced.

\* Maintain a safe distance once the motors and the propellers start spinning in order to avoid any injury.

## Battery



[1]Charging Interface

[2]Box Clip

[3]Power Switch

[4]Battery Level Indicator



## Introduction

The UPAIR2 smart battery is upgraded to a capacity of 5100mAh, a large capacity battery with a voltage of 15.2V, and has a memory function. The battery uses a new high-voltage board battery cell and uses a power core management system to provide abundant power for the aircraft. The smart battery must be charged by UPAIR official charger.

## Parameters

Type	Lithium Batter	Charging Time	2.5~3 Hours
Capacity	5100mAh	Charging Environment Temperature	0°C~40°C
Nominal Voltage	15.2	Discharging Environment Temperature	-10°C~40°C

## Basic Features And Charging

Turn on battery: When battery is off , first press the power button for once, then press and hold the power button for more than 2 seconds to turn on the battery. When the battery is turned on, the battery indicator (green) shows the current battery level.

Turn off battery: When battery is on, short press the power button for once, then press and hold the power button for more than 2 seconds to close the battery. When the battery is turned off, the battery indicator is off.

Check the battery level: In the battery off state, short press the battery switch once to view the current battery power.

## Charging The Battery:

1. The battery charger must be connected to the AC power supply (100-240V, 50/60Hz) first. If necessary, please use the power adapter.

2. When the battery is turned off, connect the battery to the UPAIR charger.

3. The battery level indicators will show the level status as the battery is charging.

4. When fully charged, the battery level indicators will go off, remove the battery from the charger after that.

5. The battery will become hot after flight, do not charge it immediately, wait until it cools down before charging it.

6. The optimal charging temperature range of the battery is from 0 to 40°C. If it is beyond the temperature range, please do not charge the battery.

7. The intelligent aircraft's battery and the remote control's battery can be charged simultaneously, but their charging times are different.

**Tips:**

\* Before you attach the battery or detach it from the aircraft, please make sure the battery is turned off. Please do not attach and detach the battery when the battery is turned on.

\* Charge the Intelligent aircraft's battery only with the original UPAIR charger, other chargers may cause damage to the UPAIR Drone, such damage will not be covered by the UPAIR after-sale service.

## Remote Controller

This section describes the remote controller and how to operate it.

### Remote Controller Profile

The 4K/3D controller consist of Digital Command Transmission and Image Transmission. The digital transmission part works in the 2.4Ghz and realizes full-band random frequency hopping communication with strong anti-interference. . And integrated camera function and Gimbal operation function button, the controller and aircraft built-in 2.4G controller receiver have been successfully matched. The graphic transmission part works in the 5.8Ghz frequency band to receive image signals from the aircraft and output to the terminal display device.

Compliance version: 4K/3D controller meets FCC standards at the same time.

Control mode: The controller defaults to the US hand according to the control habits (see the "Manipulating the aircraft" section below).

## Remote Controller And Real-Time FPV

Battery Voltage	11.1V	Controller operating frequency	2.4GHZ
		Image Transmission frequency	5.8GHZ
Controller Antenna Frequency	2.4GHZ 5.8GHZ	Controller communication distance	About 1km
Battery Capacity	1500mAh	Image Transmission Communication Distance	About 1km

## Using The Remote Controller

1.The Remote Control's Components:



2. Function Buttons

(1) Power on/off: By pressing it, you will hear a voice prompt.

Operations	Detailed Steps
Power-on Operation	Press the button once to display the remaining battery power level, and it will go off after 2 seconds; if you press it again and hold for 3 seconds before the LED indicator goes off, it will be powered on, and all LED indicators will be on.
Power-off Operation	Press the button once to turn on all LED indicators. After 2s, the battery power level display will recover. If you press it again and hold for 3 seconds before the LED indicator goes off, it will be powered off, and all LED indicators will be off.

(2) One-key RTH: By pressing it, you will hear a voice prompt.

Operations	Detailed Steps
Activate One-key RTH Mode	Press the One-key RTH button once and all LED indicators will be on; release it and press it again within 2s to activate One-key RTH Mode. Upon activation, all indicators will flicker, and you will hear a voice prompt.
Cancel One-key RTH	During the RTH process, press the RTH button again, all indicators will be off and the RTH process ends.

(3) One-key Take-off: By pressing it, you will hear a voice prompt.

Operations	Detailed Steps
Operate One-key Take-off Mode	Press it and hold for 3s, and all indicators will be on during this process with the accelerated pace. When you hear a long voice prompt, the One-key Take-off mode will be triggered.
Aircraft is during a flight	By pressing it, you will hear the same voice prompt without triggering the one-key take-off mode.

(4) Photo Button: By press it, the voice prompt will sound. Press it once to take a photo.

(5) Recording: By pressing it, you will hear a voice prompt.

Operations	Detailed Steps
Start	Press Recording once to start the recording process.
End	Press Recording once to stop the recording process.

(6) Gimbal Pitch Control Roller: The absolute position-type potentiometer control shall be applied, and the impeller shall be rotated to adjust the Gimbal's pitch angle.

(7) Contrast switching wheel:

Rotary camera control with rotary encoder control

(8) Flight Mode 3-Gear Switch:

Adjust the switch to change the Flight Mode. Available Flight Modes include: 1. Altitude Hold 2. Position Hold 3. Headless Mode

(9) Emergency Stop:

1. During the normal flight, press down three buttons (RTH Button, POWER Button, and Take-off Button) on the control panel simultaneously to trigger an Emergency Stop with corresponding voice prompts (one long sound and two short sounds).

2. Canceling the Emergency Stop: After Emergency Stop is triggered, press down Photo and Recording simultaneously to cancel Emergency Stop, and the voice prompt will disappear.

## Charging The Remote Controller






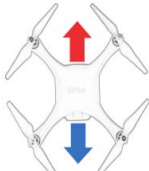
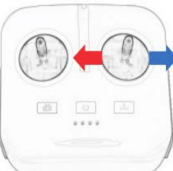
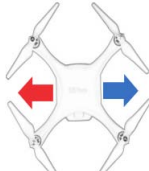
Use only the original UPAIR charger. The charger with dual heads is available for charging the aircraft's battery and the RC battery. Charge the RC battery by connecting the RC battery with the charger in the corresponding plug.

The charger can be used to charge the aircraft's battery and the Remote Controller Battery at the same time, but their charging times are different. It will take about 2.5 ~ 3 hours to fully charge the aircraft's battery, and 1.5 hours for the Remote Controller battery. If you use it to charge the aircraft's battery and the Remote Controller battery, at the same time, the charging time will be longer.


## Operating The Remote Controller

The default factory setting follows the American standards. The present manual takes example from the American best practices of explaining how to operate an aircraft by using the controller:

Remote Control(American Standard)	Aircraft/Switch	Altitude Hold/Position Hold/IOC Mode
-----------------------------------	-----------------	--------------------------------------

		<p>Push up the stick on the left to make the aircraft ascend. Push down the stick on the left to make the aircraft descend.</p>
		<p>Push the stick on the left leftward to make the aircraft rotate counter-clockwise. Push the stick on the left rightward to make the aircraft rotate clockwise. The aircraft has a maximum rotating angular velocity of 200°/s.</p>
		<p>Push up the stick on the right to make the aircraft fly forward. Push down the stick on the right to make the aircraft fly backward.</p>
		<p>Push the stick on the right leftward to make the aircraft fly leftward. Push the stick on the right rightward to make the aircraft fly rightward. The aircraft has a maximum tilt angle of 30°.</p>

## Smart Return Home Button

Press the RTH  button and then hold for above 2s, the RTH indicator will flicker with the voice prompt, and activate One-key RTH Mode. Upon activated, the Aircraft will return to the nearest home point recorded. When the aircraft can only return, you cannot control the aircraft by using the remote control. However, by changing the position of three deflector rods on the left, you can gain control over the aircraft again.

1. When the aircraft's current flight height is lower than 15m, it will firstly ascend to the height of 15m, and then horizontally return to the home point and descend;
2. When the aircraft's current height is higher than 15m, it will directly and horizontally return to the home point and descend.

# Camera

## Camera Profile

The UPAIR 2 4K/3D Camera has a 1/2.3 CMOS Panasonic Image Sensor and can capture 16-megapixel images at most. Equipped with the low-distortion lens and the BLF, it can effectively promote the picture quality.

The UPAIR 2 4K/3D Camera can record up to 4K,2K,2.7K videos at 30 frames per second, and 1080p HD videos at 60 frames per second, and you can set the Camera's resolution through UPAIR APP. Please refer to UPAIR APP Camera Setting Diagram for details. Camera Features: It can record up to 4K videos.

Please refer to the "UPAIR APP" camera diagram for details.

Camera features: It can realize high-quality picture shooting and recording of true 4K, and can also switch to 3D image shooting mode to take photos and images of specific 3D effects.

Function Items	Parameters	Function Items	Parameters
4k Video Resolution	4K: 3840*2160 2.7K: 2704*1524 2K: 1920*1080	Picture Resolution	16M (4640*3480) ; 12M (4000*3000) ; 8M (3264*2448)
Video Resolution under 3D model	3840*1080	Picture Resolution under 3D model	3840*1080
Compatible Storage Card	Micro SD Card (64G at most), and C10 Card are recommended.	Camera features	Can switch between 4K recording and 3D recording
Supply Voltage	USB 5V	Operating Temperature	-20~+80°C
Video Format	MP4	Operating Humidity	30%~80%
Picture Format	JPG	Storage Temperature	-40~+150 °C
Image Shooting Mode	Single-picture Mode	Lens	7 Bohr 110Degree Micro Distortion
Main Image Sensor	MN34120, 16-megapixel 1/2.3•	Digital signal processor	Hisilicon

## Camera SD Interface

The UPAIR 2 4K/3D Drone supports Micro SD Card (64G at most). As the Camera is required to quickly

read and write HD video data. Please use the Micro SD Card above Class10 or UHS-1 to guarantee the normal video recording.

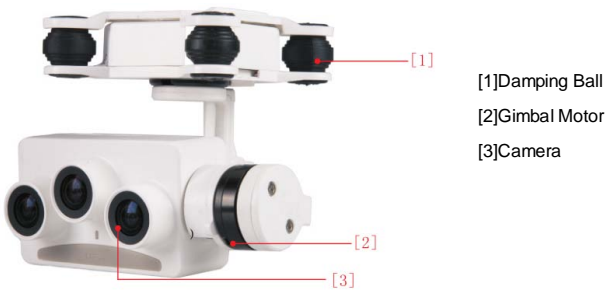
## Gimbal

### Gimbal Profile

4K/3D gimbal is powered by the Aircraft's Battery ,as a 3-axis high-precision gimbal that provides a steady platform for the 4K/3D Camera,and during a flight you can use the gimbal dial on the controller to tilt the camera within  $-90^{\circ}\sim 10^{\circ}$  (pitch) .

Angle control precision of the gimbal is  $\pm 0.1^{\circ}$ ,user can shoot stable videos and photos by using the "Shooting""Recording" buttons on the remote controller.

Angle control precision	$\pm 0.1^{\circ}$	Rotational Range	Pitching $-90^{\circ}\sim 10^{\circ}$
-------------------------	-------------------	------------------	---------------------------------------



\*Please do not insert or pull out the SD card while the aircraft battery is still on.And please make sure the battery is open when you want to copy the data.

\*Please do not insert or pull out the gimbal while the battery is still on,otherwise,the gimbal or the flight controller will be damaged.

## UPAIR APP Main Screen

This part introduces the UPAIR APP which is specially designed for UPAIR Drone Camera. You can control the 4K gimbal and camera by clicking the APP, including controlling the Picture and Video Shooting and Setting the flight parameters. In order to support the HD images transmission, you are



suggested to install the APP on a tablet device or a large-screen mobile phone in order to achieve the best visual experience.

## Connecting To A Mobile Device

**IOS System:** Your mobile phone is connected with the remote control by with an USB cable. A Prompt Box will pop up in your phone, you shall click TRUST (otherwise, the connection fails) and then enter Phone Settings -> Personal Hot-spot Activate Hot-spot (Personal Hot-spot Connection on the top of your phone's screen). In this case, your mobile phone will be successfully connected with the aircraft. \* "Enter Camera" Button in gray means the inactive status. \* When your mobile phone is successfully connected with the aircraft, "Enter Camera" Button will turn blue, and you can click to activate the button. **Android System:** 1. Turn on the remote control.2. Connect your mobile phone with the remote control via the USB interface by using the USB Cable.3. Enter the Phone Settings interface and check to enable the USB Network Sharing.4. After the network sharing is successfully enabled, you can then enter the APP.

## Camera Interface

Via the camera screen, you can set various parameters related to the camera and the viewing of 4K real-time HD videos and pictures. In the Camera interface, the full screen video will display by default, and the real-time mapping window will display on the lower left corner. By sliding the blank space on the screen upward and downward, you can enter the full screen display mode, and only the mapping can be displayed as follows:



[1] Connection status

[2] H:N/A (1) When GPS is not positioned, it will display the altitude; (2) When GPS is positioned, it will display the distance from the home point.

[3] D:N/A Distance from Home • Distance from Mobile Phone.

[4] GPS Signal Icon:shows the current strength of the GPS signal.

[5] Battery Level Indicator: The battery level indicator provides a dynamic display of the battery level.

[6] Press Camera Icon to shoot a photo, following the single photo shooting pattern.

[7] Recording: Tap once to start recording video.

[8] General Settings

[9] Return Button: Press it to go back to the Home page.

[10] Follow-me Mode: When the aircraft has taken off, click it, then the Follow-me Mode starts.

[11] Flight Route Planning: When the current status of the aircraft is unlocked, the function can be used, refer to the detailed introduction.

[12] Map Thumbnail

[13] One-key RTH Mode: Click to return to the recorded home point.

[14] One-key Take-off Mode: When the aircraft takes off, the Take-off Button will serve as a Landing Button. When the aircraft is flying indoors, only the unlocking function can be enabled; if it is flying outdoor, the aircraft will automatically hover at the height of 3m. (Take-off Button, Landing Button)

[15] H.S: Horizontal Velocity

[16] V.S: Vertical Velocity

[17] V.C: Remote Control Voltage

## Basic Setting

Click to enter the Setting interface; Basic Settings, Camera Settings and Remote Control Settings on the left side, and detailed parameters settings on the right side.



Item	Default	Limits
Height Limit	30m	10-400m
Distance Limit	30m	10-800m

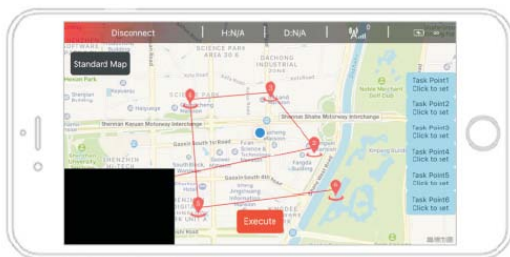
## Camera Interface Setting



Item	Default	Limit
Video Settings	4K/30fps	4k/30fps 2.7k/30fps 2k/30fps
Photo Settings	8M	16M (4640 × 3480) 12M (4000 × 3000) 8M (3264 × 2448)

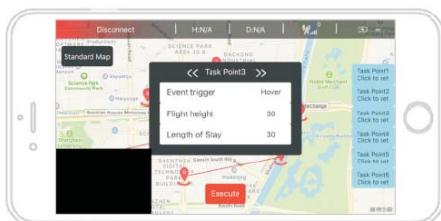
## Flight Route Planning

On the Camera Screen, click "Position Hold" button to activate the Flight Route Planning. Enter the page, zoom in the map, the first task point is the default location of the aircraft. The sequence number is 1, task is take-off. Click any point of the map, it shows the image below:



When you make enough task points, you can click the Settings button at the bottom of the list to set the corresponding task point. In the middle of the screen, a Settings menu will show with the following items:

1. No. of task point,
  2. Stay time after reaching the task point,
  3. Action after reaching the task point,
  4. flight altitude after reaching the task point.
- You can click the left/right arrow on the top of the screen to switch among different items. Please refer to the below image:



## Default Parameters

Item	Parameters Scope	Default
Task points time	1-250 s	30s
Task point expected Height	1-250 m	30m
Tasks	<ol style="list-style-type: none"> <li>1、 Departure point</li> <li>2、 Landing point</li> <li>3、 Hover</li> <li>4、 Start Recording</li> <li>5、 Stop Recording</li> <li>6、 Shooting images</li> </ol>	Hover

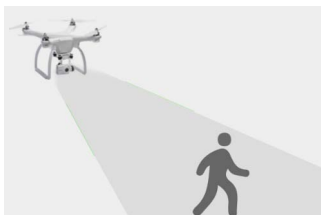
Notes:

1. This function can only be entered when the aircraft is unlocked.
2. The first mission point is the current location of the aircraft, and the locked event is take-off.

3. When the map is scaled, the coordinates of the latitude and longitude of the point of the mission will not change.
4. After starting the flight route planning, the Execute button will change into a Stop button. Upon confirmation, remove all points on the map and the line, exit this function and go back to the camera screen.
5. Click real time video to get back to camera.

## Follow-Me Mode

You can start the "Follow-me" function through clicking the "Follow me" button on the APP. After starting up successfully, the aircraft will fly up to 10 meters above the ground. Then, Follow the flyer and keep a certain distance for follow-up flight.



Precautions:

- \*The Follow-me function can only be activated after the aircraft takes off;
- \*Ensure that the aircraft power is sufficient and start flying more than 3 meters above the ground;
- \* This function only can be used after turning on the GPS is and GPS is positioned successfully;
- \* The aircraft has no obstacle avoidance function, please pay special attention to the flight environments. Ensure that there is no obstacle around the aircraft, and be always ready to control the aircraft manually in case of emergency;
- \* When using the Follow-me Mode, you are required to comply with local laws and regulations;
- \* After exiting the Follow-me Mode, the aircraft will hover in place and you can continue operating the aircraft.

## Calibrating The Compass

The compass calibration function can be enabled to calibrate the aircraft's flight stability. During the calibration process, please place the aircraft as shown below. When the arrow icon turns blue, rotate the aircraft counter-clockwise. After this direction is successfully calibrated, the APP will automatically skip to the next direction. Please repeat such operations and thoroughly complete the calibration process.



Notes: \*It is recommended to use the compass calibration as less as possible if the aircraft work properly.

\*When calibrating halfway, it would be better not to exit too soon.\*Failure in calibrating will cause drone to become locked, think twice before doing it.

## Point Of Interest

The Upgrade of Flight Route Planning: During a flight task, the head of the aircraft will always point at the set Point of Interest.★ represents the point of interest. Press the icon for a while and then move to change the point of interest (prior to the execution of a task).



## Smart Battery Information

C1, C2, C3, and C4 represent the battery voltage of each battery.

## Remaining Battery

The remaining battery power represents the percentage of smart battery's remaining battery power, and the progress bar represents the battery's remaining battery life.



## Precautions

This part introduces the Flight Environment Requirements, Pre-flight Checklist and Flying Reminder.

Before use, please read this manual carefully and operate the drone in accordance with the following instructions.

### Fly Safe

- 1、 Fly in open area,avoid the controller being affected by base stations、 Subway station, High-way station, airport, high voltage line,and so on, to avoid crashing;
- 2、 When ready to flight, please ensure that no one is within 10 meters radius of the takeoff-landing area and keep away from other unsafe factors.(Such as obstacles、 crowds、 high voltage power lines、 trees、 bodies of water);
- 3、 Do not exceed 20 minutes in continuous flight time ,to avoid overheating of the motor and burning of components, resulting in crashes.

### Pre-flight Checklist

1. Before the flight, make sure all drone parts work properly. Do not take off the drone if the drone parts are missing or defective.
2. Mount the propellers according to the manual, make sure all propellers are firmly installed, avoid damages if the propellers falling off the drone during the flight.
3. Check if the remote-control battery and the flight-intelligent battery are fully charged, make sure the propellers, batteries, camera have been firmly installed, check if Micro-SD card or TF card has been inserted.
4. During take-off the drone, please power on the remote control, then start the aircraft.



## Flying Reminder

The UAV flight is restricted by many countries, before take-off, please understand and comply with the relevant laws and regulations. Please make sure the drone lands smoothly. When close to the ground, ensure that the aircraft hovers, ensure the ground level, let the aircraft descend to the ground slowly.

1. Please do not operate the aircraft in restricted areas or no-fly zones under relevant laws or regulations, etc.
2. Please do not operate the aircraft when you are in poor mental state (such as intoxication).
3. Please keep the aircraft, accessories, and components out of reach of children. In case a child swallows any accessories or components, take the child to a doctor immediately.
4. If the aircraft is to be left idle for a long period, please remove the battery, place the aircraft in an environment free from dampness, moisture, mold, avoid exposing to strong sunlight, and out of electron magnetic interference. Do not knock down, disassemble or repair the aircraft yourself. GTEN is not responsible for any damage resulting from such actions.

## Basic Flight

1. Choose an open space that meet flying conditions, place the aircraft on a flat surface, and face the user in the tail direction.
2. Install the blade in the correct way as described above. install smart battery.
3. Turn on the controller switch and turn on the aircraft's smart battery (note that the order is normal, reverse order, affecting signal reception).
4. Start the motor: When the aircraft is turned on, perform a high-level self-test. After the self-test is completed, the outer octagonal or inner octagonal mast can be operated to start the motor.
5. Official flight, slowly push the throttle rocker, let the aircraft take off steadily. At the end the flight, pull the left throttle stick to the lowest position and wait for the motor to turn off before releasing the rocker.
6. After turning off the motor, first turn off the aircraft power switch, then turn off the controller switch.

## Frequently Asked Question (FAQ)

This part offers the basic solutions of problems that may occur during the normal use of the aircraft.

1. Why does the remote control emit beeping sounds? It means the remote control is out of power, please fully charge the remote-control battery before use.

2. How long do the flight battery and the RC Battery need to be charged? Normally, the charging time for the aircraft

3. Why does the FPV screen show black, while there is flying data shown on the FPV screen? Make sure the flight battery is turned on. Please try to remove 4 Damping Ball of the gimbal, check if the gimbal camera and the aircraft connection plugs are loose, you can unplug them, then reconnect, and remount the gimbal.

4. Why the flying time does not meet the description? As the common rules in drones' industry field, the flight time test is under hover status. The flying time in theory would not be the same as the actual flying time.\*In case of any questions or concerns, please feel free to contact us: E-mail: [contact@gl0dr.com](mailto:contact@gl0dr.com); Tel.: +001 888-853-2218 +86-0755-26413259

## A Thank-you Letter

Thank you very much for your order of the UPAIR 2 4K drone. Please follow the manual to use this product properly. This product and The Intellectual Property Right of the Manual Belong to UPAIR, without the authorization from UPAIR, no organization or individual is permitted to reprint, copy or distribute any contents of this manual in any forms. If you have any questions or problems when using this product, please contact UPAIR authorized distributors or the UPAIR customer service.\* This manual might be updated. You can download the newest version at: [www.UPAIRdrone.com](http://www.UPAIRdrone.com).

# UPAIR



## Company Details

**Shenzhen Jitian Innovation Technology Co.,Ltd.**

**Office Address:** 8th floor, TCL Building ,Nanshan Technology Park ,Nanshan District , Shenzhen ,

**Factory Address:** 10th - 11th floor , 1st Building, HengChangRong High-Tech Park , No.128 ShangNan Eastern Road,Bao'an District, Shenzhen

**Website:** <http://www.upairdrone.com>

**Tel.:** +86-0755-86523509

**E-mail:** [contact@g10dr.com](mailto:contact@g10dr.com)