

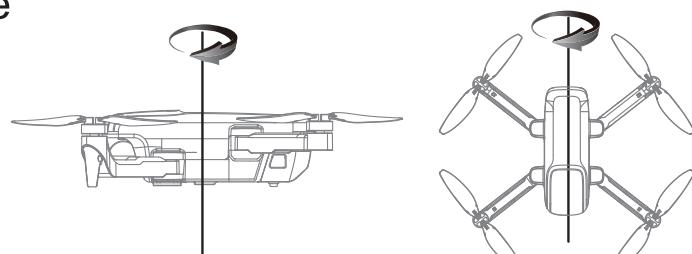
## Step 4: Compass Calibration

### 1) Compass horizontal calibration

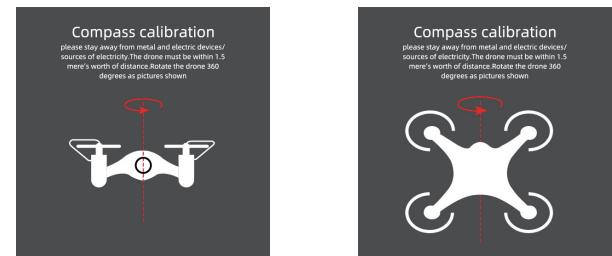
Pick up the drone at a height of 1.5 meters from the ground and rotate it horizontally 3 times. When the horizontal calibration is successful, the Green Lights flashes slowly and the Red Lights is solid, the remote control will make a "Beeps" at the same time.

### 2) Compass Vertical Calibration

① No need to put the drone back on the ground, rotate the drone 360° for 3 times in the vertical direction. Note the head of the drone is facing downwards or upward at this time

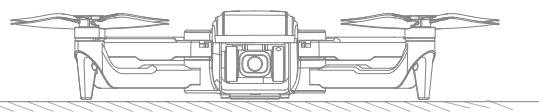


② When the vertical calibration is successful, the Green Lights are solid, and the Red Lights are flashing alternately.



**Notice: It's a must to have the right compass adjustment first each time you start the drone, or it can't work normally.**

## Step 5: Gyroscope Calibration



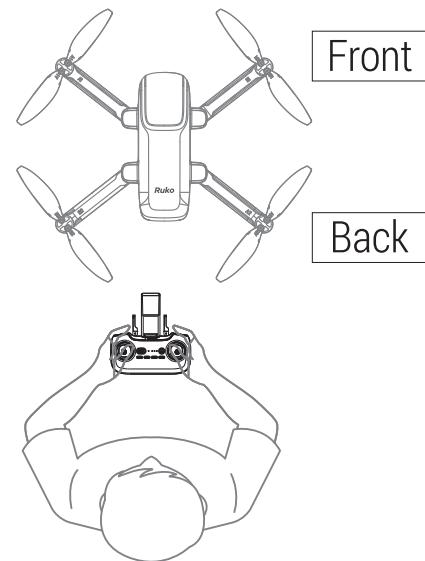
- 1) After the calibration of the compass, drone should be placed on horizontal ground.
- 2) Push the right joystick into 5 o'clock position for 2-3 seconds
- 3) When the gyroscope calibration is successful, the Green Light changes from fast flashing to solid, the Red Light flashes slowly, the transmitter emits sounds "Beeps" at the same time.

## Step 6: GPS Searching

- 1) The drone and the remote control will automatically search for GPS signals after successful frequency matching.
- 2) It takes 1-2 minutes to search for GPS signals, depends on the environment. It is recommended to use the drone in an open area to get a strong GPS signal. When the blue indicator of remote control is solid means the searching GPS successfully.
- 3) During flight, DO NOT turn off GPS signal (Do not long press GPS mode button, otherwise GPS will turn off), the drone would fly unsteadily, or lose the direction or will be lost completely.

## Step 7: Operate Drone to Take Off and Land

- 1) After Drone finish the GPS searching, the drone is ready to fly.
- 2) Push the joystick inward into the 5 & 7 o' clock position for 2-3 second to unlock motors. Operate the joystick again to stop motors.
- 3) In the default mode, the left joystick will control the drone to rise or fall, rotate to the left or right.



## 4.3 How To Fly Indoor

**Recommend to practice flying outdoors for beginners at the beginning. Improper flying indoors can easily destroy the drone and may cause damage.**

Step 1: Power On The Drone

Step 2: Power on Remote Control, and Push the left joystick into 6 o' clock position the and let go.(Refer to Step 2 in Outdoor Flight)

Step 3: Compass Calibration( Refer to the Step 5 in Outdoor Flight).

- 1) Compass horizontal calibration
- 2) Compass vertical calibration

Step 4: Gyroscope Calibration ( Refer to page 15).

Step 5: Long Press  to turn off GPS until the blue indicator light is off.

Step 6: Operate Drone to Take Off and Land. (Refer to Step 7 in Outdoor Flight).

# 5. PRODUCT FUNCTION PROFILE

## 5.1 Follow-Me

The Follow Me function activated will follow the GPS in your smart phone to follow you wherever you will follow the GPS in your smart phone to follow you wherever you go.

- 1) Click the GPS Follow Me  on the APP or press Follow Me  button on the controller to enter the GPS Follow Me mode.
- 2) Operate the Follow Me function with an effective radius of 3 to 50 meters best.
- 3) Operate Follow Me button again to exit the GPS follow function.

### Notice:

Please pay attention that there should be no obstacles between the operator and the drone to ensure the unobstructed signal of the drone, and the control distance should not be too far to prevent the signal from lost.

## 5.2 Return to Home (RTH)

The return to home(RTH)function, which is only valid in GPS mode brings the drone back to the take-off Home Point. There are three ways for the U11 Pro drone to return home: Smart RTH, Low Battery RTH, and Fail connection RTH.

### 1) Smart Return to Home

Press the Return to Home  on your remote control, or tap the RTH  on the APP, the remote control will sounds "Beeps". The drone will automatically return to the take-off position. Press the button again to stop Auto RTH.



### About Return Height

- ① If the height of the drone is less than 20 meters, the drone will first rise to 20 meters before returning.
- ② The return altitude of 20 meters is the default setting. If you want to modify the return altitude, you can set it in the APP.

### 2) Low Battery RTH

When the drone battery is low, the drone will automatically return home. There are two levels in low battery RTH mode. The drone cannot be controlled during the automatic return process.

- ① When returning home on the first level of low battery, the drone will automatically fly back to the sky above the take-off point and stay in the sky. At this time, the battery has some remaining power, and you can continue to operate the drone again, but the distance will be restricted, and cannot fly very far.

② When the second-level low-power return, the drone battery is very low. the drone will automatically land, the return process cannot be canceled, and the drone is out of control.



Notice: The remote control sounds "DE DE DE DE" and App will remind the low battery to return to home.

### 3) Fail Connection Return to Home

If the drone loses connection with the remote control, it will automatically return to home after 5 seconds and land at the take-off point. If you successfully reconnect with the remote control during the return process, the drone will stop returning and you can control the drone again.

Notice: U11 Pro drone is not equipped with obstacle avoidance. So please do not power off the remote control when the drone is flying.

## 5.3 Encircling Flight

In outdoor GPS mode, tap  to enter this function, and the transmitter will make a "beeps" sound. You can set the drone's orbiting radius. After the setting is completed, the drone will fly in a circle with the current position as the center.

## 5.4 Speed Mode Switch

- 1) Medium speed default
- 2) Press the "H/L" button, the transmitter will sound "Beeps" 3 times to enter high-speed mode "H".
- 3) Press it again, the transmitter will sound "beeps" to enter low-speed mode "L".
- 4) Press it again, the transmitter will sound "beeps" 2 times to enter medium speed mode "M".

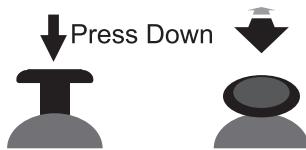


## Notice:

Recommend switching High-Speed Mode when flying in windy.

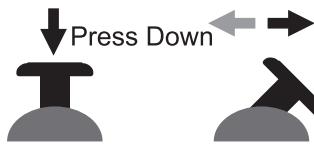
## 5.5 Trimmer Under No GPS

When the drone is used indoors(No GPS Mode), the drone has a drift problem during flight, we can adjust the flying altitude of the drone. Keep pressing  beep once, and you will enter the trim mode.



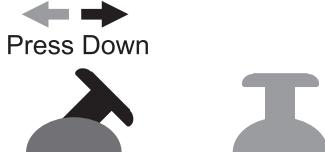
### Forward / Backward Trimmer

When flying, if the drone tilts forward, push the left stick down and push the right stick down. Otherwise push it up



### Left / Right Tilts Trimmer

When flying, if the drone tilts to the left, push the left stick down, meantime push the right stick to the right. Otherwise push it to the left.



### Left / Right Rotates Trimmer

When flying, if the drone head rotates to the left, push the right stick down, meantime push the left stick to right. Otherwise push it to the left.

# 6. APP OPERATION INSTRUCTION

## 6.1 Download the Ruko GPS Application

- 1) Search for "Ruko GPS" in the Apple or Android App Store and download the application.
- 2) You also can scan the QR code to download the application.

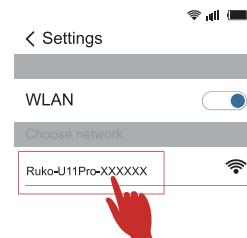


Download on the  
App Store

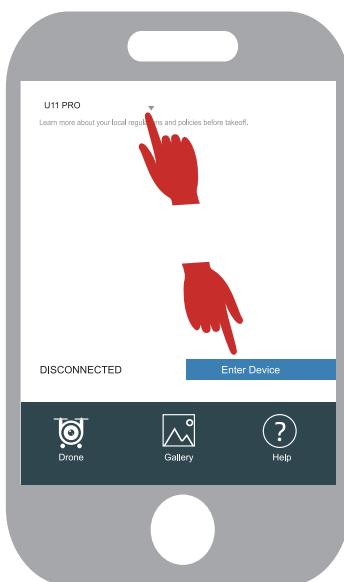


Get it on  
Google Play

## 6.2 Pairing Your Device with The Drone

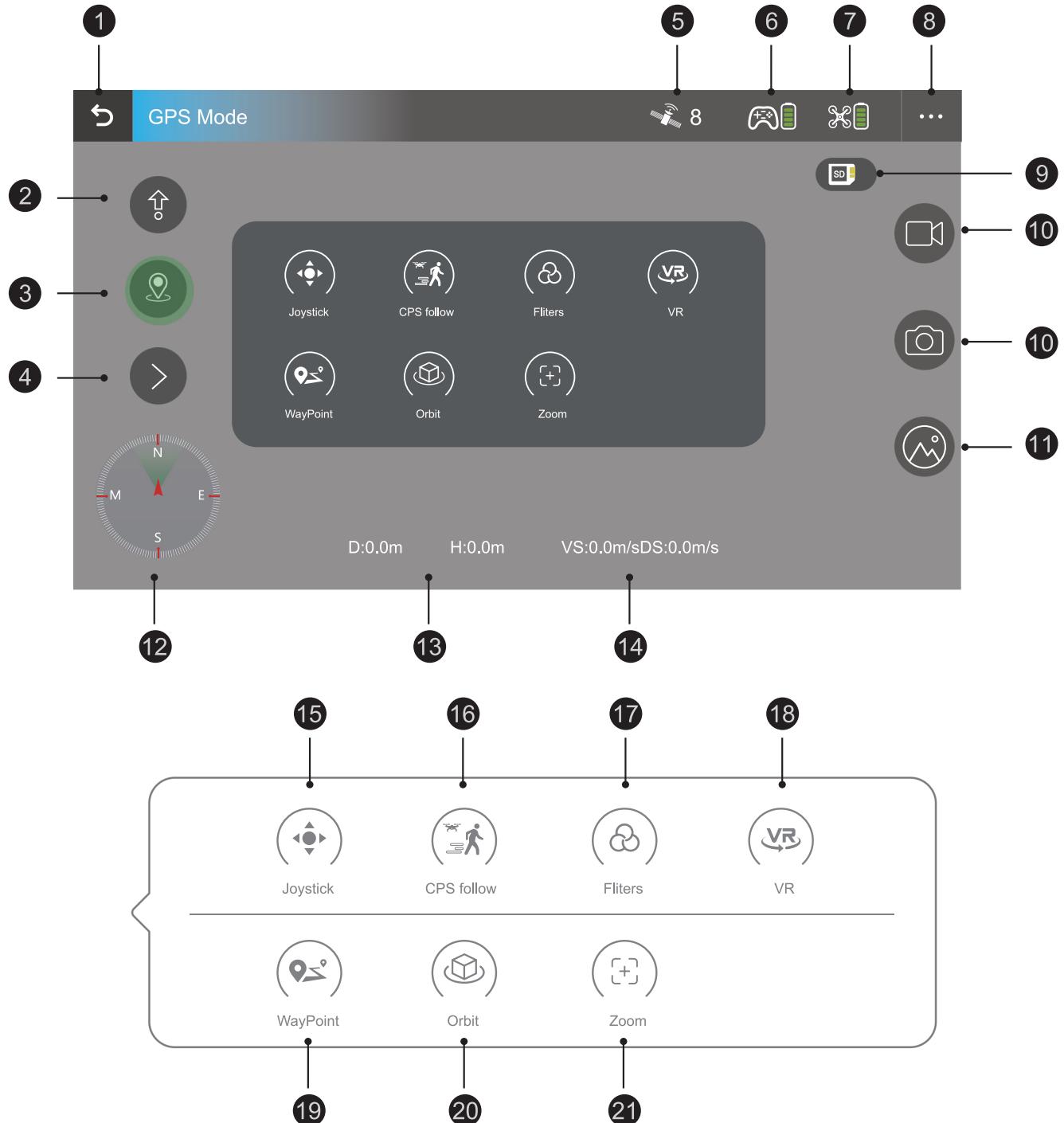


- ① Insert the battery and power on drone and controller
- ② Place the drone on horizontal ground
- ③ Connect Wi-Fi "Ruko-U11-Pro-XXXXXX"



- ④ Select "Go Flying". When you can see the live video on the APP means the pairing is successful.

## 6.3 App Introduction

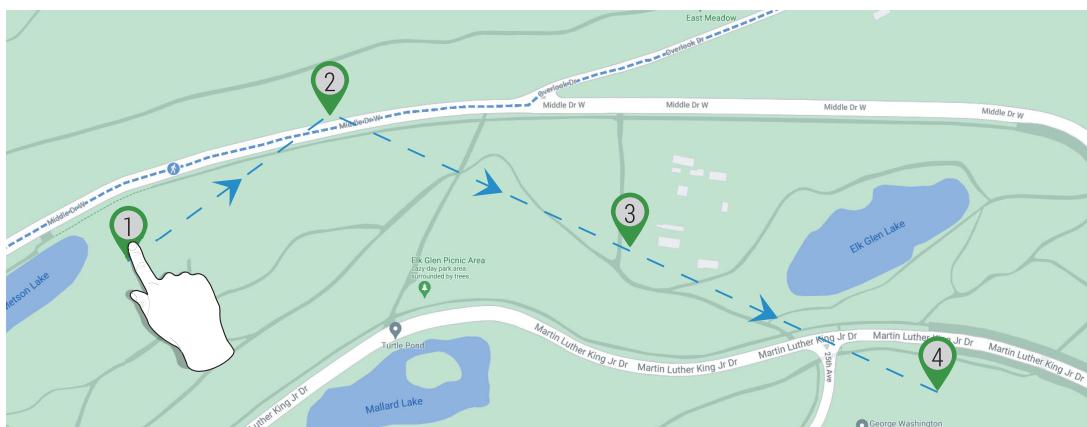


- ① Homepage ( ): Tap this icon to return to the main menu.
- ② One Key Take Off/Landing ( ): After unlocking the motor, tap this icon once, the drone will automatically take off, click this icon again, the drone will automatically land.
- ③ Return to Home ( ): It's the same functions as ( ) on the remote control, tap this icon, the drone will return to the recorded take-off point. Tap again to exit.

- ④ More Function (  ): Tap to display more functions menus.
- ⑤ GPS Signal (  ): Displays to the current GPS signal strength.
- ⑥ Remote Control Electricity (  ): The Real-time display of the current remaining battery level of the controller.
- ⑦ Electricity of Drone Battery (  ): The Real-time display of the current remaining battery level of the drone
- ⑧ Setting (  ): Tap the icon to enter the setting interface, setting for flight height/ distance and return altitude, etc.
- ⑨ SD Card (  ): Display the SD card (not included), click to format the SD card.
- ⑩ Shutter (   ): Tap to start shooting photos or recording video.
- ⑪ Gallery (  ): Tap to view photos and videos after captured.
- ⑫ Map compass (  ): Tap the Map to switch between Camera View and Map View.
- ⑬ Distance/Height(meters) (  D:0.0m/H:0.0m ): Display the flying distance and altitude of the drone.
- ⑭ DS/VS (  VS:0.0m/sDS:0.0m/s ): Display the flying speed(DS), rising and falling speed(VS) of the drone.
- ⑮ Joystick (  ): It is the functions same as the joysticks of remote control.
- ⑯ GPS follow (  ): The drone will follow the mobile phone (signal emission source)to move, the effective distance is 3-50 meters, GPS needs to be turned on, and this function cannot be used indoors.
- ⑰ Filters (  ): Set the camera to shoot special effects, 6 special effects selected.
- ⑱ VR (  ): Match with VR glasses (Not included) to watch 3D images in real-time.

- ⑯ Route Planning (📍): Set the flight waypoint of the drone, up to 21 flight points can be set.
- ⑰ Flying around (📦): The drone takes the current location as the center and performs a circle flight. The maximum flying radius that can be set is 30 meters.
- ⑱ Zoom (➕): Adjust the camera angle.

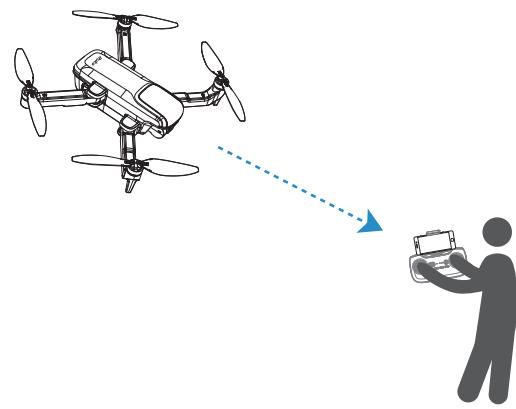
## 6.4 Route Planning



Click📍 to enter the route planning function, open and zoom in on the map, click the flight point on the map with your finger, and set the flight trajectory of the drone. After the settings are completed, the drone will fly according to the set flight points. Up to 21 fight points can be set. Click the icon again to exit the route planning function.

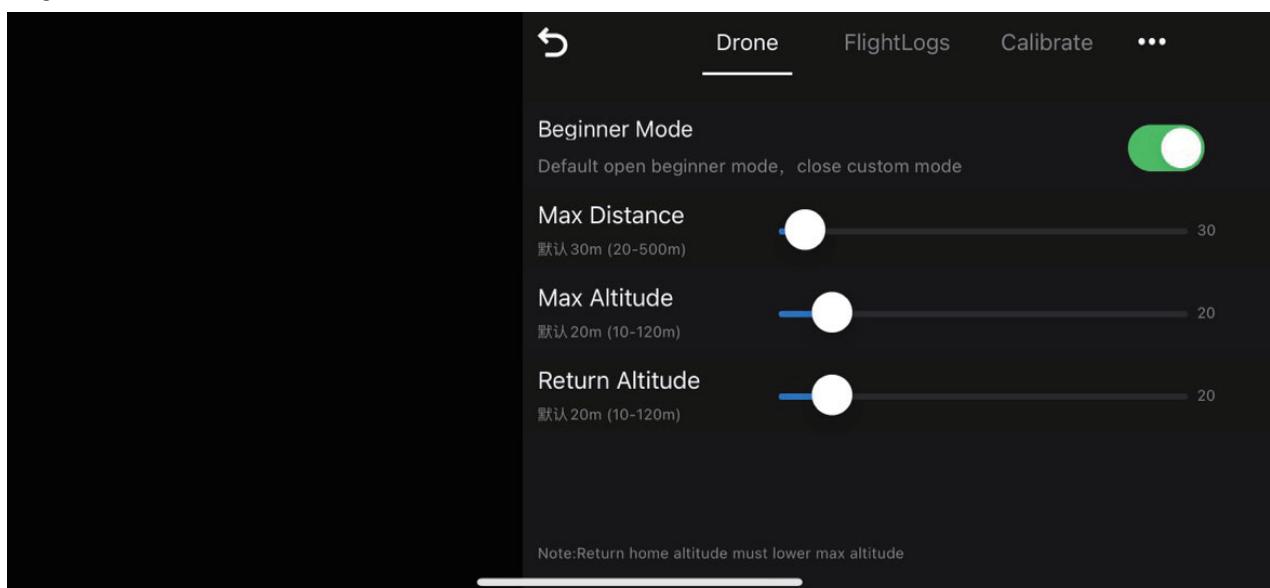
## 6.5 GPS Follow

On the outdoor GPS mode, the drone can locate the mobile phone signal source by GPS and move with the location of the mobile phone, with an effective radius of 20 meters max. Tap the GPS follow (  ) on the APP or press the (  ) on transmitter to enter the GPS follow mode, operate it again to exit the GPS follow function. Please pay attention that there should be no obstacles between the operator and the drone to ensure the unobstructed signal of the drone, and the control distance should not be too far to prevent the signal Lost.



## 6.6 Setting the Beginner Mode

Click Settings (  ) to enter the settings interface. You can set the drone's flight distance, flight altitude, and return altitude, and you can also turn on or off the Beginner Mode. The default Beginner Mode is on. After the Beginner Mode is turned off, the flight distance can be adjusted.



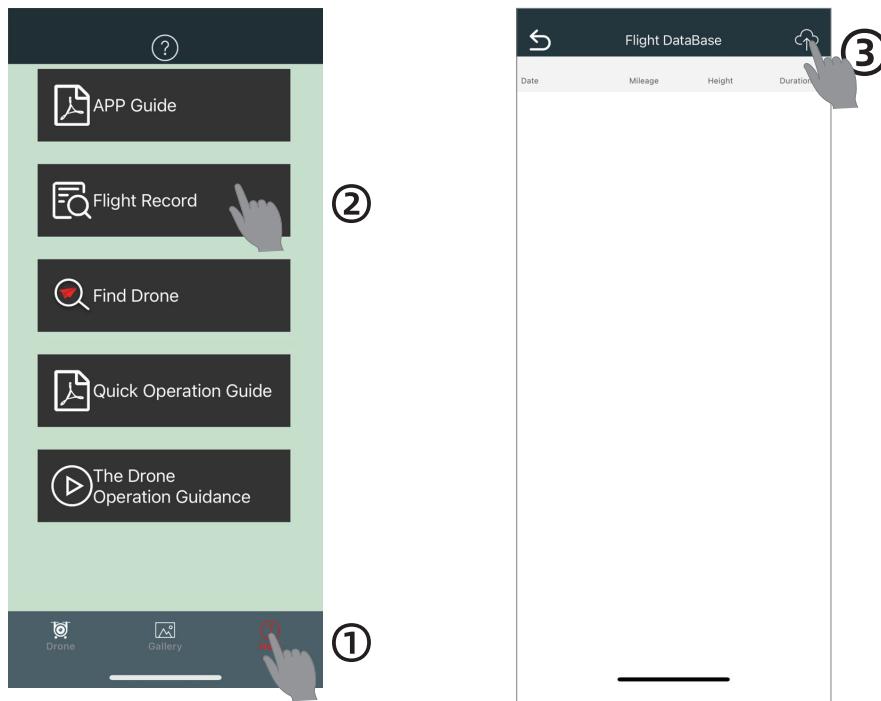
## 6.7 How to Fine Lost Drone



If the drone fails to return due to unexpected reasons during the flight, please return to the homepage, tap (  ), select the "Find Drone" (  ) to view the location of the drone on the map. The "Find Drone" function can be used to find the last position of the drone.

## 6.8 Download Flight Record

Return to homepage, click (  ) to enter Flight Record (  ) function, you can see the flight record of the drone, click (  ) to download the record.



## 7. **WARNING**

- 1) There is important information contained in this package and instruction manual, please keep it for future reference.
- 2) You have the responsibility to make sure that this model of aircraft won't cause injury to others' bodies or cause any damage to property.
- 3) Please operate strictly as shown on the instruction manual when debugging or assembling this aircraft. Please pay more attention to keep a 1-2 meters distance between the user and the aircraft when flying or landing.
- 4) Ruko and distributors won't be responsible for any incorrect operation, which may cause loss or damage, or injury to the body.
- 5) Children ages 14 and up should use this product under the guidance of an adult. This product is **FORBIDDEN** to be used by children under 14 years old.
- 6) Please correctly assemble and use this product as shown on the instruction manual or packing instruction. Some parts should be assembled by an adult.
- 7) Small parts are included with this product, Please place it beyond the reach of the children to avoid a **CHOKING HAZARD** or parts being mistakenly swallowed.
- 8) Playing on the road or near high traffic areas is strictly **FORBIDDEN** so as not to cause an accident.
- 9) Please dispose of the packing material timely so as not to cause injury to children.
- 10) Please DO NOT disassemble or re-equip the aircraft as it may cause a breakdown of the aircraft during flying.

- 11) Batteries in the battery compartment of the charger should be inserted into the designated power source which has the same logo as the product.
- 12) Built-in rechargeable 3.7V lithium polymer battery included in the transmitter.
- 13) When charging the battery, please conduct it under the surveillance of an adult. Please also keep it far away from any combustible object when charging. Please keep this aircraft within eyesight when charging.
- 14) Please DO NOT make it short-circuited or squeeze the battery so as not to cause an explosion.
- 15) DO NOT mix the Li-ion battery with a different type of battery.
- 16) Please DO NOT make the battery short-circuited or decompose the battery or throw the battery into the fire; DO NOT place the batteries near the high temperature or heated area(such as near the fire or near the electric heating device).
- 17) The drone should be kept far away from any other electric compliance or equipment as far as possible or kept far away from the place where having the magnetic object nearby may cause interference with each other.
- 18) Please keep a safe distance from the high-speed rotating rotor so as not to cause twists or danger of being wounded or being cut.
- 19) Engine will heat up. Please DO NOT touch it to avoid being burned or injured.
- 20) Please DO NOT close this product to your ear as it may cause injury to your hearing.
- 21) Only fly in authorized areas. Refer to the Local Regulations & Flight Restrictions for more information.

- 22) DO NOT touch the electrolytes in damaged batteries, it may injure your skin or eyes
- 23) DO NOT disassemble or pierce a battery in any way or it may leak, catch fire, or explode.
- 24) Keep the batteries out of the reach of children and animals.



**WARNING:** Product should only be used by adults and children 14 years older. Adult supervision required for children under 14 years of age.

**WARNING:** Charging of the aircraft battery must be supervised at all times by an adult. Unplug the battery when fully charged, DO NOT over-charge the battery.

## 8. SPECIFICATIONS

U11 PRO SPECIFICATIONS		
Drone	Mode	U11 Pro
	Weight (Including Battery)	278g/10.80 OZ
	Dimensions (L x W x H)	Unfolded: 23x110.5x6cm
		Folded: 15x10x6 cm
	Max Rise Speed	2m\s
	Max Down Speed	1.6m\s
	Max Horizontal Flight Speed (Windless Conditions)	3m/s(Low Speed)
		6m/s (Default Speed)
		8m/s(High-Speed)
	Max Flight Height	120m eters
	Max Flight Time	About 25 Minutes
	Wind resistance	4 Level ( $\leq$ 7m/s)
	Operating Temperature Range	0° to 40°C
	Operating Frequency	5.725 ~ 5.825 GHz
	Transmit Power	<24dbm
Camera	Satellite Systems	GPS / GLONASS
	Controller Range of Camera (Up and Down)	About-90°TO+0°
	Equivalent Focal Length	2.5M
	Focus Range	Fixed-focus
	Resolution of Photo	Phone: 3840x2160P
		SD Card: 2048x1152P
	Resolution of Video	Phone: 1280x720P
		SD Card: 2048x1152P
	Photo Format	JPG
	Video Format	MP4
	Supported SD Cards	Micro SD card(CLass10) 32G
	Max Operating Distance	500 meters
	Operating Temperature Range	0° to 40°C
	Capacity	1200mAh
	Operating Voltage	3.7V
	Charging Time	About 2.5 hours
	Using Time	About 18 hours
	Mobile Device Holder	4.7" to 6.5" Smart Phones

5G Trans- mission	Operating Frequency	5.725 ~ 5.825 GHz
	Supported Transmission Protocol	802.11a; 802.11n20;
	Video Transmission Frame Rate	25FPS
	Max Image Transmission Distance	300-500 meters
	Real-time image transmission	720p/25fps
Drone Battery	Capacity	1900 mAh
	Voltage	7.6V
	Battery Type	Li-polymer
	Power	15W
	Charging Time	About 2.5 hours
Charging Cable	Charging Temperature Range	0° to 40°C
	Input	100V to 240V, 50/60Hz, 0.5A
	Output	5V/1.5A or 5V/2A or 5V/3A
APP	Rated Power	≤15W
	APP Name	Ruko-GPS
	Mobile Device System Version	≥ iOS 9.0/ Android 5.0

If you have any questions about this product, please contact Ruko by sending a message to [Rukofunnytoys@gmail.com](mailto:Rukofunnytoys@gmail.com)

 +86 19925221959 ( Available from 9 pm to 6 am)

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[www.rukotoy.com](http://www.rukotoy.com)

FCC Warning:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

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