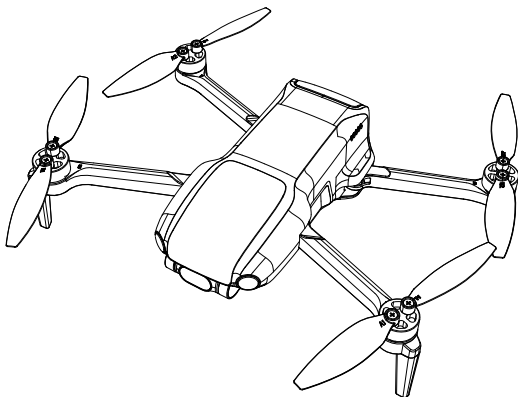




14+
for age

Quick Guide & Safety Disclaimer

v1.0



U11MINI 4K

CONTACT US FOR MORE TECH SUPPORT

 +1 (888)892-0155 | Mon-Fri 7:00AM - 7:00PM (PST)



rukotoy.com

CONTACT US FOR MORE TECH SUPPORT



+1 (888)892-0155 | Mon-Fri 7:00AM - 7:00PM (PST)



+1 (732) 207-0697



Contents

v1.0

Flight Knowledge - - - - - 1-10

Quick Guide - - - - - 11-18

Safety Disclaimer - - - - - 19-32

1. Learning to Fly

There are many steps in the operation of the aircraft, and users need to learn the parameters, settings, and operating procedures of the aircraft.

Learning channels:



manual



quick guide



APP operation
animation



Youtube operation
video



2. Flight Environment and Signal interference

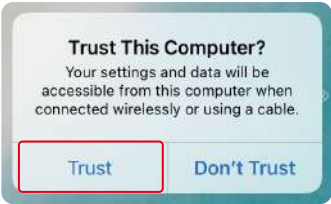
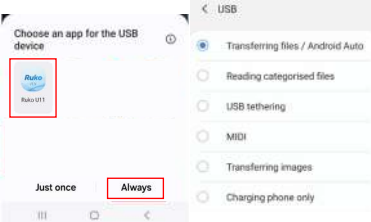
Any radio signal will be affected by obstacle blocking and magnetic interference, the user need to choose an open and unobstructed area without interference.

Interference:

Steps	Consequences	Solutions
5G signal interference (Including remote controller and image transmission)	1. The remote controller cannot control the aircraft. 2. The auto return home function is triggered 6 seconds after disconnection.	1. Wait for the aircraft to return automatically. 2. Change the flight direction or environment. 3. The remote controller is pointed in the direction of the aircraft during flight.
	1. Cannot reach the advertised image transmission distance. 2. Imaging freezing.	
GPS signal interference	1. Unstable flight. 2. Drift away. 3. Unable to use RTH.	1. Manually control the aircraft to a safe area. 2. Stay away from obstacles and interference. 3. Fly higher than the surrounding obstacles.
Compass interference	1. Spinning around. 2. Losing control. 3. Unable to use RTH.	1. Manually land the aircraft. 2. Manually trigger and complete the Compass Calibration. 3. Stay away from metal objects with magnetic field interference sources.

3. Remote Control Connection Settings

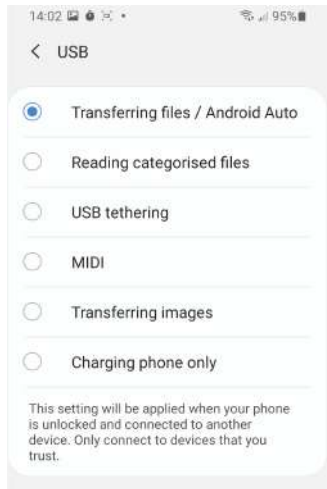
Select an appropriate data cable to connect the remote controller and the mobile phone, when the correct data of the remote controller is connected to the mobile phone, the setting option or prompt will pop up.

Mobile phone system	Permission page	
IOS	 The image shows an iOS 'Trust This Computer?' dialog box. It has a light blue background with rounded corners. The text inside says 'Trust This Computer?' followed by 'Your settings and data will be accessible from this computer when connected wirelessly or using a cable.' At the bottom, there are two buttons: 'Trust' and 'Don't Trust'. The 'Trust' button is highlighted with a red rectangular box.	If you choose other options, the image transmission data of the aircraft cannot be transmitted normally, and the image of the aircraft cannot be seen. Please reconnect the data cable for correct settings.
Android	 The image shows an Android screen with two parts. On the left, a 'Choose an app for the USB device' dialog box is shown with the 'Auto' option selected and highlighted by a red box. On the right, a 'USB' settings menu is shown with 'Transferring files / Android Auto' selected and highlighted by a red box. Below the dialog box, there are 'Just once' and 'Always' options, with 'Always' highlighted by a red box.	



Some USB Settings of Android phones are hidden in the "Developer options", you need to change the "Default USB configuration" to "Transferring files" after opening the developer mode.

(The way to open "Developer options" varies depending on the phone model. You can search Google for details.)



(Example phone: Samsung S9)

4. GPS Signal Searching

GPS signal search depends on the environment.

Searching environment	Searching time	Searching condition	Corresponding situation
Indoor	/	Unsearchable	Cannot fly in GPS mode, must switch to indoor flight mode
Close to buildings, doorsteps, woods, signal tower	About 90 seconds to 5 minutes	1.The search fails. 2. The signal is unstable.	1.Unstable flight 2.Drifting 3.Cannot fly in GPS mode Unable to RTH
Open and undisturbed outdoor area	About 60-90 seconds	Successful search, good signal.	All functions are available.

5. Pairing & Calibration

Please pairing the remote controller and complete the compass calibration according to the following operations.

Steps	Operation procedure	Cautious
Remote Controller Pairing	1. Turn on the aircraft. 2. Turn on the remote controller. 3. Automatically pairing.	The automatically pairing time is about 50 seconds.
Compass Calibration (Strong magnetic interference)	1. Turn the remote controller joysticks to 11 and 1 o'clock. Or click Compass Calibration in the APP. 2. Horizontal rotation calibration. 3. Vertical rotation calibration.	The aircraft will automatically enter the calibration procedure if it encounters a strong magnetic interference before takeoff.
Gyroscope Calibration	1. Turn the remote controller right joysticks to 5 o'clock 2. Autocomplete calibration.	Placed the aircraft on a level ground or landing pad.

6. Battery storage & use recommendations

Please store the battery according to the following table:

Storage recommendations	Details	Cautious
Battery power	50%-60%	Battery bulges may occur if the battery is fully charged for a long time.
Condition	Cool dry place	High temperature (greater than 40 degrees Celsius) and damp storage can damage batteries.

Please use the battery according to the following table:

Use Recommendations	Details	Cautious
Temperature	0°C-40°C	In cold weather (below 0°), power consumption is fast, which will shorten the flight time.
Charging power	5V=2A/3A or QC 3.0 fast charger	1. DO NOT use high-power chargers. 2. DO NOT overcharge. 3. DO NOT charging immediately after flight. 4. The battery has
Charging time	5V=2A/3A charger: about 5 hours QC 3.0 charger: about 3.5 hours PD 3.0 charger: about 3 hours	Auto-Discharging Function, it automatically discharge to approximate 85% of the battery level when it is idle for 2-3days.



Since the battery has Auto-Discharging Function, please remember to charge the battery before each flight.

DO NOT use batteries under the following conditions:

Damp, water damage	Fell, battery impact	Extrusion and deformation	Leakage
--------------------	----------------------	---------------------------	---------



DO NOT use the batteries when it is obviously abnormal to avoid power failure, crash, smoke and fire and other safety events.

7. App does not show what the drone's camera is taking

Types	Consequences	Solutions
No transmission image	The remote control and drone do not pair successfully, and the matching time is about 50 seconds	Automatically complete the matching before entering the APP operation interface
	USB permissions are not set	Please reinsert the cable correctly set the USB Settings option that pops up. Select "Transferring files" for Android phones, and "Trust" for iPhones.
	USB cable not inserted or loose	Insert the RC cable and ensure it is securely installed
Imaging freezing. (during flight)	Signal interference causes the image transmission signals unstable or interrupted	Choose an open area and pay attention to flying skills

8. Flight/Filming Methods

Flying Methods

Flight Programs	Important Notes	Flight Altitude	Return and Landing
First-Time Short-Distance Flight	Open Area	Above Obstacles	One-Key Takeoff and Landing
Long-Distance Flight	1. Open Area 2. Disable Beginner Mode and set flight parameters 3. Point the remote control and phone towards the drone to maintain optimal communication	120 meters	One-Key Return

Special Scenarios

Flight Programs	Shooting Tips	Impact
Weather Selection	Well-lit, Sunny Weather	Low-light weather can affect image sharpness and clarity.
Shooting Angle Selection	Front Lighting	Shooting from a backlit angle can affect image sharpness and clarity.
Lighting Conditions and Adjustments	Adjustable Camera Settings	Strong light will cause overexposure, while low light can result in dim and underexposed images.
Video file selection	Files on SD Card	The highest resolution video files captured by the drone are saved on the SD card for optimal quality.

Weather	Scenarios	Important Notes	Countermeasures
Windy Weather Flight	Coastal Areas, Plains, Mountain Tops, etc.	Small Drones Have Limited Wind Resistance	Flying is prohibited in winds stronger than level 4 or in rainy or snowy weather.
		Pay Attention to Wind Direction, Avoid Long-Distance Flights with the Wind	1. It is possible to fly against the wind; test whether the drone has enough power for flight. 2. Flying against the wind, and returning with the wind, can save energy and ensure safe return.
		In Strong Winds or Against the Wind, Power Consumption Increases, and the Drone May Not Be Able to Reach the Maximum Distance or Return to the Starting Point	1. If the video transmission remains uninterrupted, you can manually lower the flight altitude as needed. 2. Find a safe landing spot to land the drone.
		When the drone lacks sufficient power or the flight speed is too slow to return to the takeoff point in time	1. You can change settings via the app and find a safe return point for landing. 2. When the drone's battery is low, you can cancel the return-to-home function and manually search for a safe landing spot.

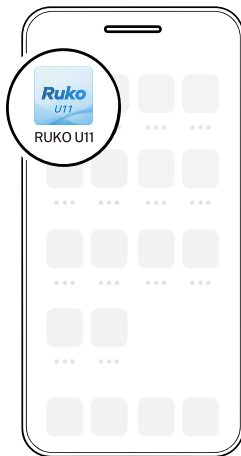
1. Flight Guide

Download App

Q RUKO DRONE



RUKO U11 App

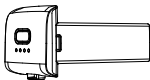


Charge the Batteries

Charger not included



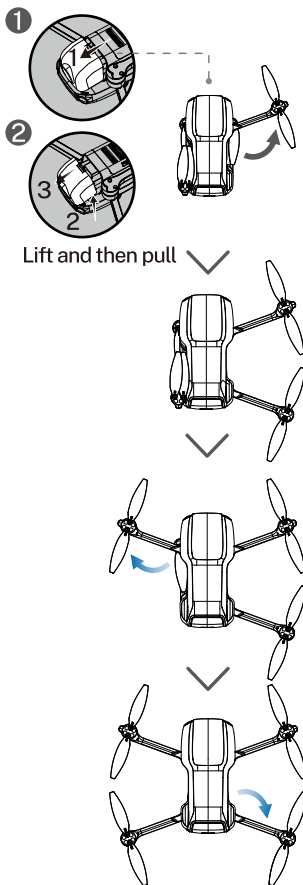
≤18W



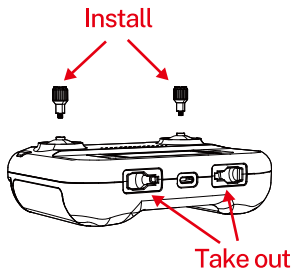
≤15W



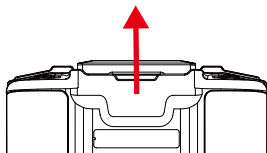
2. Unfold the Drone



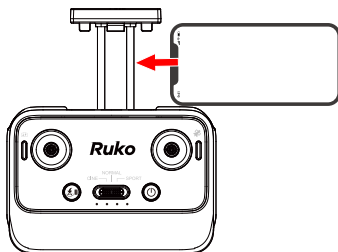
3. Prepare the Remote control



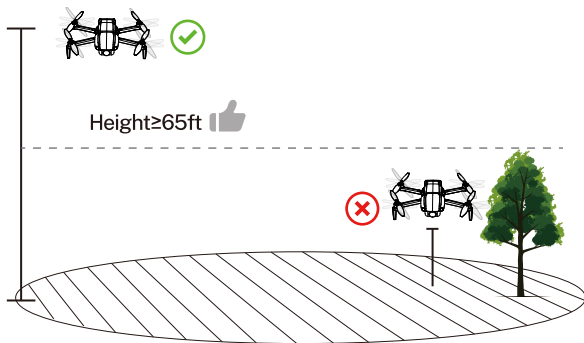
Pull out the holder



Back of remote controller

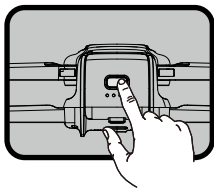


4. Select an Open Flight Area



5. Power on

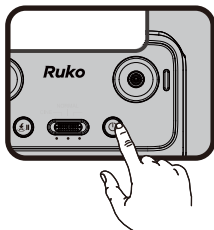
①



- Press and hold the button until the aircraft plays startup sound.



②

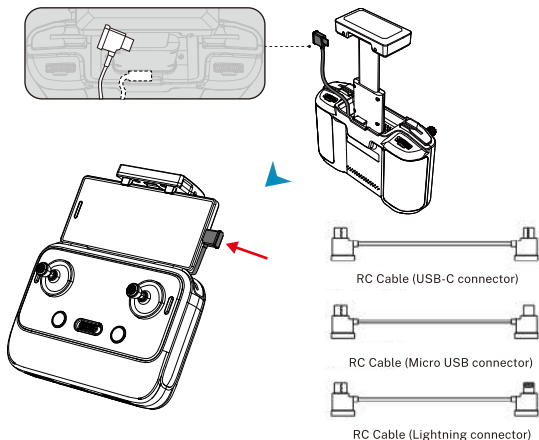


- Press once and long press for 3 seconds to turn on the remote.

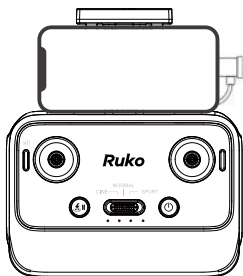


Note: The drone and remote controller linking takes around 50 seconds.

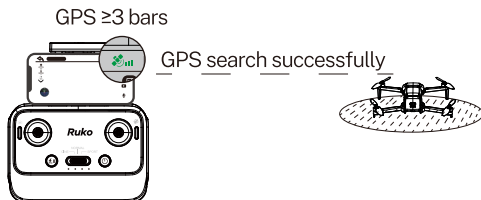
6. Data Cable Connection and Setup



- When entering the APP interface please remember to ALLOW all pop-up permissions.



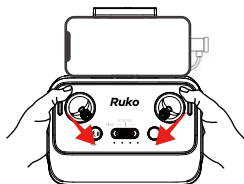
Search for GPS Automatically



- ⚠ Tips: 1. The searching time depends on the flight environment.
2. If unsuccessful, the motors can't be started.

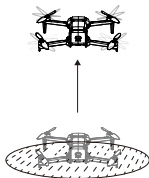
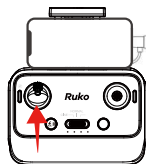
Start the Motors

- Push joysticks to 5 & 7 o'clock position.
(About 2 seconds)



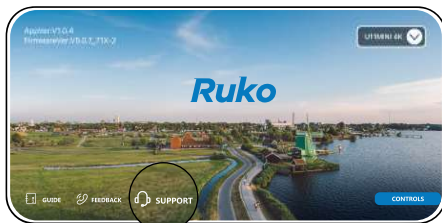
Take off

- Push up the left stick.





NEW TO FLYING DRONES?



Check the Flight Guide in the App



Search “**Ruko U11MINI 4K Quick Start**” on YouTube for First Flight



Scan QR Code for More Tech and Video Support

CONTACT US FOR MORE TECH SUPPORT

Printed in China.

Safety at a Glance

 The Ruko U11MINI 4K is NOT a toy and is NOT suitable for people under the age of 14.

1. Glossary

- The following terms are used throughout the product literature to indicate various levels of potential harm when operating this product:

 Recommend

 Warning

 Hints & Tips

 Reference

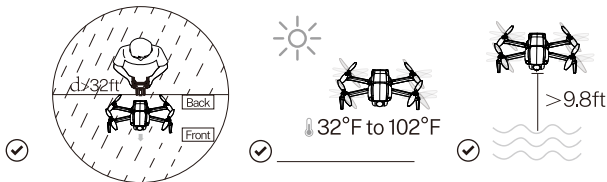
2. Disclaimer and Warning

- This product is **NOT a toy and is NOT suitable for people under the age of 14**. Keep the aircraft out of the reach of children and exercise caution when operating this aircraft in the presence of children.
- This product is a flying camera that offers easy flight when in good working order as set forth below. Read the materials associated with the product before using for the first time. These documents are included in the product package.
- Inappropriate use of the product could result in personal injury or property damage.
- The information in this document affects your safety and your legal rights and responsibilities. Read this entire document carefully to ensure proper configuration before use. Failure to read and follow the instructions and warnings in this document may result in product loss, serious injury to you, or damage to your aircraft.

- By using this product, you hereby signify that you have read this disclaimer carefully and that you understand and agree to abide by the terms and conditions herein. Please be sure to strictly abide by the specification requirements and safety guidelines stated in this document.
- You agree to use this product only for purposes that are proper and in accordance with local regulations, terms and all applicable policies and guidelines Ruko may make available.
- Any personal injury property damage, legal disputes and all other adverse events caused by the violation of the safety instructions or due to any other factor, WILL NOT be Ruko's responsibility.

3. Flight Environment Requirements

- It is suggested to fly in areas below 9000 feet above sea level, choose an open field of 32 feet in diameter outdoor, far away from densely populated areas, residential surroundings and electromagnetic interference sources. Fly in an environment with temperature between 32°F to 102°F and in good weather with clear vision.



- DO NOT use the aircraft in severe weather conditions including strong wind, snow, rain, and fog.
- **Only fly in open areas.** Tall structures and large metal structures may affect the aircraft compass and GPS system. It is recommended to keep the aircraft at least 16ft away from structures.
- Avoid obstacles crowds trees bodies of water and high voltage power lines.

- Avoid areas with high levels of electromagnetism such as areas near base stations, electrical substations, power lines and broadcasting towers.
- Fly with caution when taking off from moving surfaces such as a moving boat or vehicle.
- Keep the aircraft at least 9.8 feet above the water surface when flying over water.
- It is forbidden to fly indoors. Only fly in authorized areas.



⚠ • To learn more about aircraft requirements, please visit the Federal Aviation Administration's aircraft page
<https://www.caa.co.uk/home/>

- Gimbal Camera Guidelines
 - ① Please take off the gimbal cover and peel off the camera protective film before flight.
 - ② Please take off from solid and level surface, don't take off from grass or sand ground.
 - ③ Don't turn on the aircraft when it is on desk or hollow wooden floor. They will amplify the small vibrations into high-frequency vibrations, which will cause the gimbal can't work.
 - ④ Don't interfere with the gimbal by external forces or pick up the aircraft during self-inspection (After Compass calibration, the gimbal will enter self-inspection for 20 seconds).
 - ⑤ The gimbal can't work during the compass calibration. Put the aircraft on a level surface after calibration, then the gimbal will start to work after 10 seconds.

4. Precautions and Maintenance for the Intelligent Battery

- Please fully charge the battery for the first time before using it.
- It is recommended to charge and discharge it once a month, do not store it fully charged, keep 50%-60% of the electricity, the storage temperature is 10-40°C, and the best storage temperature is 19-21°C.
- Water enters the battery and the battery protection board fails, which will cause the battery to not be used normally. Do not use the battery in rain or in a humid environment, as this may cause the battery to self-ignite or even explode.
- If the battery is squeezed, deformed, and dropped from a high altitude, it is forbidden to use it again.
- Prohibition of prolonged high-temperature exposure. The high temperature of the battery will cause the internal pressure of the battery to be too high and cause an explosion.
- If the aircraft has not been used for a month, the battery must be removed to prevent the battery from being in a long-term low-power discharge state.



- Use 5V/3A charging plugs. Fast charging plugs exceeding 5V/3A are prohibited.



USB Adapter
(5V/3.0A)

(Not included)

- ⚠ • It is prohibited to use computer USB, simple USB, and non-original charging cables for charging.



✓ **Original charging cable**

✗ **Computer USB**

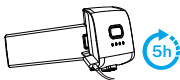


✗ **Non-original charging cables**

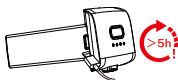


- ⚠ • Please remove the battery in time after the aircraft has landed on low power to avoid battery damage caused by battery over-discharge.

- It is forbidden to overcharge the battery, please remove charging cable in time after fully charged to avoid damage due to overcharge.

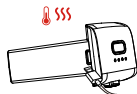


✓ **Charging Time≈5 hours**



✗ **Overcharge>5 hours**

- ⚠ • Please remove the battery in time after the aircraft has landed on low power to avoid battery damage caused by battery over-discharge.



👎 **Overheating warning**

It is forbidden to overcharge the battery, please remove charging cable in time after fully charged to avoid damage due to overcharge.

5. Pre-Flight Checklist

- Make sure to read the manual and watch the guide video before the first flight.
- Make sure that you go outdoor to an open area to operate the aircraft.
- Make sure that the aircraft battery, remote control, and mobile device are fully charged.
- Make sure that the arms of the aircraft are fully extended.
- Make sure the intelligent flight battery is installed firmly.
- Make sure that the propeller is free from damage, aging, deformation, no foreign matter entanglement, and firm installation.
- Make sure that the camera cover was moved before turning on the aircraft.
- Make sure that nothing obstructs the motors.
- Make sure the camera lens and sensor are clean and without stains.

6. Problems You May Encounter

• Flight preparation

① The aircraft direction

Please pay attention to the direction of the aircraft when flying.

The camera direction is the forward of the aircraft.



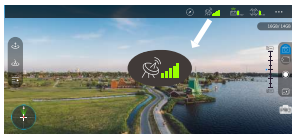
Stay away from People



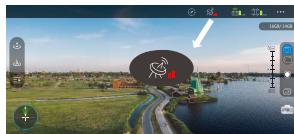
Unfold arms



② Make sure to fly outdoors in an environment with strong GPS signals.



GPS $\geq$ 3 bars



GPS $<$ 3 bars

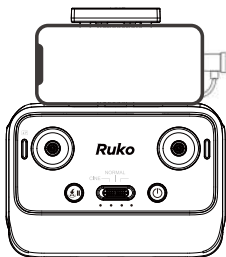
• To Prevent Flying Lost

- ① Keep the aircraft visible for beginner. It is better for beginners to fly the aircraft within a real-time image transmission range on your phone's App for safety.
- ② Keep the drone GPS mode on. During the flight, **DO NOT turn off GPS signal** (Do not long-press  button, otherwise GPS will be turned off), the Aircraft would fly unsteadily, or lose the direction, or will be lost completely.



- ③ Return the aircraft timely. During the flight, if the picture freezes, please RETURN the aircraft first, change to another new environment or check if there is interference around, then connect again.
- ④ Reserve enough power for the drone to return home. When doing long distance flight test, please make sure to reserve enough power for the drone to return, especially in the windy weather, as the battery will be consumed more quickly.

7. Remote Controller Cable Settings



RC Cable (USB-C connector)



RC Cable (Micro USB connector)



RC Cable (Lightning connector)

① Select the appropriate RC cable. Connect one end of the RC cable to the remote controller and the other end to the mobile phone.

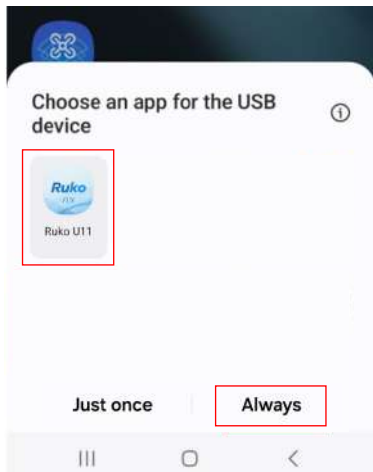
② **ALLOW ALL** pop-up permissions. When you enter the APP CONTROL page and see the image transmission of the aircraft, the connection is successful.

③ The remote controller cannot fast charge the mobile phone. Please check the battery level of the mobile device before use.

④ When your phone has a phone cover, please note whether the data cable can be installed in place.

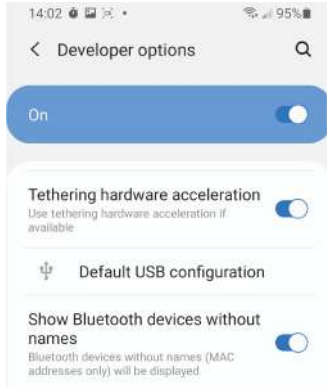
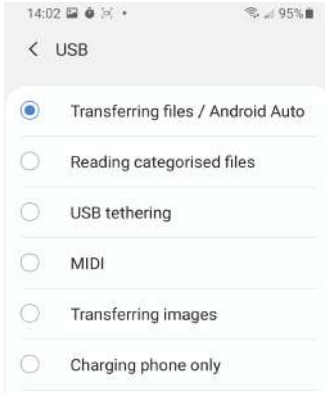
8. USB Permission Settings

- USB permission settings for Android phones When multiple apps need to be selected on the phone interface, make sure select the correct APP(Ruko U11), otherwise it will not be able to transmit the drone image.



Controlling the Camera

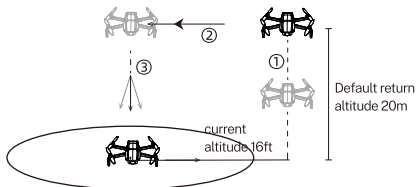
- USB Settings on some Android phones are hidden in the “Developer options” , you need to change the "Default USB configuration" to "Transferring files" after opening the developer mode. (The way to open “Developer options” varies depending on the phone model. You can search Google for details.)



8 Cautions of Return To Home (RTH) feature

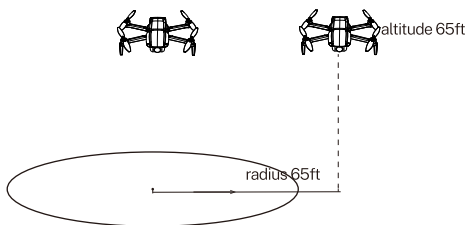
8.1 RTH Altitude

- If the return altitude is not set, if the drone flies below 20 metres, it will automatically rise to the default return altitude (20 metres) and then return.

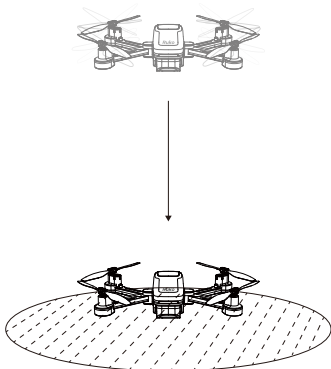


8.2 RTH in Low Battery

- In the case of first-level low electricity, the drone returns to hover over the take-off point, and can continue to fly within a radius of 30 meters(65 ft) at a height of 30 meters (65 ft) after hovering.



- In the case of secondary low electricity, the drone will land directly from the existing height and position to the ground. Please note that the drone may hit an obstacle when landing.



Warm Tips:

- The drone can complete a 6000-meter round trip under windless conditions.
- Due to the light weight of the drone and its limited wind resistance, avoid long-distance flights in strong winds to prevent insufficient power for returning.
(Note: When flying in windy conditions, it's recommended to fly against the wind initially and return with the wind for a safe journey back.)

Ruko[®]

rukotoy.com

CONTACT US FOR MORE TECH SUPPORT



+1 (888)892-0155

| Mon-Fri 7:00AM - 7:00PM (PST)



+1 (732) 207-0697



rukofunnytoys@gmail.com

