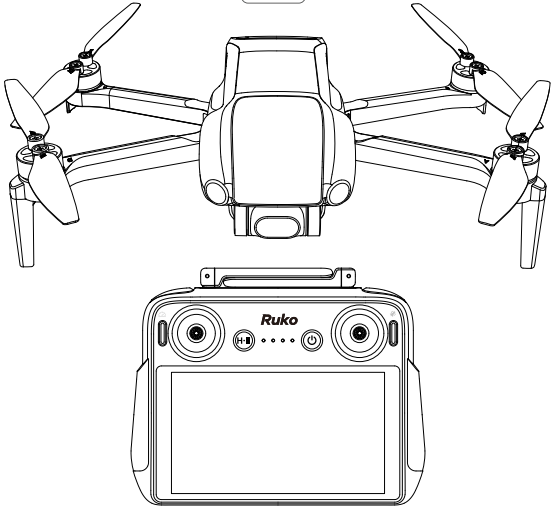
Ruko

16+
for age

User Manual

v1.0



U11MINI 4K(RC3)

CONTACT US FOR MORE TECH SUPPORT

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

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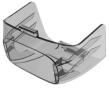
Content

1.Product List

Drone

Remote Controller

Intelligent Flight Battery



Camera Cover

Spare Propeller

USB Charging Cable

Screwdriver

Screw

Joystick

Quick Start Guide

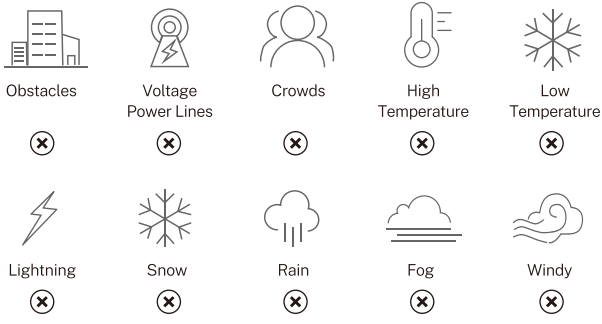
User Manual

2.Requirements of Flight Environment

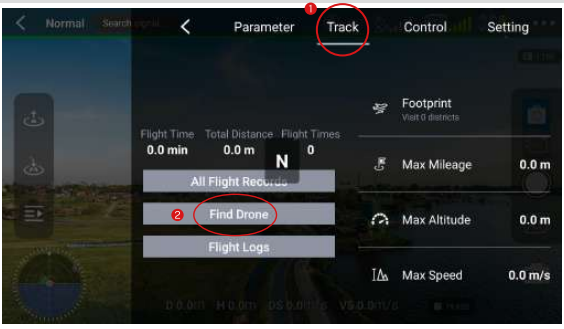
- Flight Safety.

- It is recommended to fly in an open space with a radius of at least 33 feet and no obstacles. High-voltage power lines and communication towers can interfere with control signals; avoid flying near these areas.

- Do not fly over or near crowds. Avoid flying in extreme weather conditions such as high or low temperatures, or during thunderstorms and heavy rain.



3.Find Drone



- You can tap "Track" and then "Find drone" in the settings to view the location of the last time your phone connected to the drone.

- Note: The remote controller needs to be connected to the Internet to cache map data.

My Location	Drone Location
Tap to lock to the Drone Location.	Tap to lock to My Location.
Tap to switch three layers of map	

4.Routine Maintenance and Transportation

- 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 charge, 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 not to 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 has been squeezed, deformed, or dropped from a high altitude, do not use it again.
- Do not expose the battery to high temperatures for extended periods. Excessive heat may increase internal pressure and lead to an explosion.
- If the aircraft has not been used for a month, remove the battery to prevent prolonged low-power discharge.
- Regularly inspect the drone for any damaged parts and replace them promptly if needed.
- Ensure the drone is properly packaged during transportation to prevent damage.
- Avoid exposing the drone to extreme conditions such as high temperatures or humidity during transport.
- Keep the drone and battery away from strong magnetic fields or static electricity.

⚠ • Please use a charger with at least 5V/3A output.

USB Adapter
(5V/3.0A)

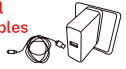
(Not included)

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

Original charging cable

Computer USB

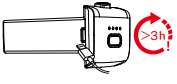
Non-original charging cables



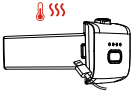
⚠ • Please remove the battery in time after the aircraft has landed on low power to avoid battery damage caused by battery over-discharge.

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

Charging Time≈3 hours



Overcharge>3 hours



Overheating warning

⚠ • Important Reminder:
When charging the drone battery, an adult must be present to supervise the entire process. Do not leave unattended to prevent any accidents.

5.Flight Operation Guidelines

5.1 Pre-Flight Checklist

- Ensure that the remote controller and the smart flight battery have sufficient power.
- Make sure the aircraft's arms are fully extended.
- Ensure the battery compartment cover is securely fastened and the smart flight battery is properly installed.
- Check that the propellers are not damaged, worn, or deformed, and that there are no foreign objects tangled in them. Ensure they are securely installed.
- Make sure GPS is enabled to avoid signal loss, and fly outdoors in an open area.
- Please make sure to remove the gimbal cover before powering on. Do not rotate the gimbal by hand after powering on to avoid jamming or malfunction.
- After powering on, verify that all four motors start normally and that their speeds are consistent.
- Ensure the camera is clean.
- If replacing parts, always use original manufacturer components. Using non-original parts can pose a safety risk. For details on supported accessories, refer to the Accessories support page in the Appendix of the user manual.

5.2 Operation Safety Guidelines

- Please unfold the arms of the aircraft and turn on the power before flying.
- Please pay attention to the direction of the aircraft when flying. The direction of the camera indicates the front of the aircraft.
- Do not answer calls, read messages, or perform any actions that may distract you from using the remote controller to control the aircraft during flight.
- Ensure you are not under the influence of alcohol, drugs, or anesthesia. You should also not experience dizziness, fatigue, nausea, or any condition that may impair your ability to operate the aircraft safely.
- Be sure to set the correct Return-to-Home (RTH) altitude before each flight. Ensure that your drone is correctly connected to the remote controller, with all necessary permissions enabled.
- Make sure to fly outdoors in an environment with strong GPS signals.
- When the aircraft has a strong GPS signal, it will stay in GPS mode and cannot switch to Attitude Mode. If the GPS signal is not acquired, you can manually switch to Attitude Mode by pressing and holding the compass button on the remote controller.
- After turning off the GPS, the one-button return to home, low power return, GPS follow, surround mode, route planning, and aircraft finding functions are unavailable. The flight may become unstable, requiring users to have sufficient flying skills and operational proficiency.
- GPS flight assistance features and the App are intended only to support the pilot and cannot replace the user in controlling the aircraft. Stay alert during flight and operate the aircraft carefully to avoid obstacles when returning.

6.FCC Safety and Disclaimer

Radiation Exposure Statement

- To maintain compliance with FCC's RF Exposure Guidelines, this equipment should be installed and operated with a minimum distance of 20 cm from the human body.

- 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; （2） This device must accept any interference received, including interference that may cause undesired operation.

- Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note:

- This device 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 device may generate and radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications (which can be determined by turning the device on and off). It is recommended to eliminate the interference using the following methods:
  – 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.

- This device and its antenna(s) must not be co-located or operated in conjunction with any other antenna or transmitter.

- The device has been evaluated to meet general RF exposure requirements in portable exposure conditions without restriction.

7.Disclaimer and Warning

- This product is not a toy and is not intended for use by individuals under 14 years of age. Keep out of reach of children.
- Please read the user manual carefully before first use. It is recommended to practice operating the drone in an open outdoor area with GPS mode enabled.
- Improper operation may result in personal injury or property damage.
- Users must comply with all safety guidelines and local regulations.
- Ruko shall not be held responsible for any personal injury, property damage, legal disputes, or other adverse consequences resulting from violation of safety instructions or other improper use.
- The remote controller's App can be upgraded via internet connection, but only through official Ruko channels. Using unauthorized or unverified third-party update sources is strictly prohibited.
- Only upgrade software through official Ruko channels. The use of unauthorized or unverified third-party update sources is strictly prohibited.
- Do not transfer data using any untrusted external devices.
- When downloading videos, images, or firmware updates, always verify the integrity and security of the files.
- When operating the drone, users must respect the privacy rights of others. Do not capture, record, or transmit images without prior consent.
- Do not use the drone to capture images in private areas (such as residences or private gardens) without permission.
- Users are responsible for complying with applicable privacy and data protection laws. Any unauthorized use of images or videos may result in legal liability.
- Ruko reserves the right to update this disclaimer and the associated safety guidelines at any time.

1 Using This Manual

1.1 Legend

Recommend Warning Hints & Tips Reference

1.2 Recommendations

- Ruko U11MINI 4K(RC3) provides users with instructional videos and the following documents:

  1. *User Manual*
  2. *Quick Start Guide*

- It is recommended that users first watch the instructional video and then read the ***Quick Start Guide*** to understand how to use the product. Please read the ***User Manual*** for more details.

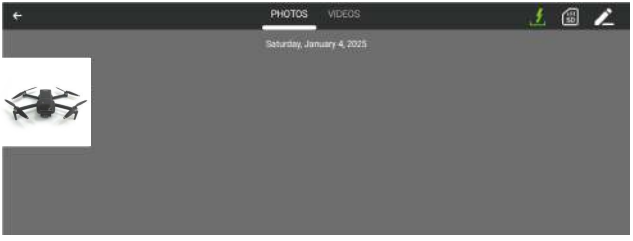
1.3 Download Ruko U11 App on phone

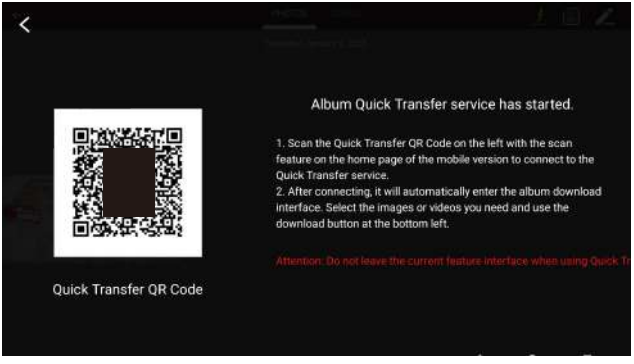
- By downloading the Ruko U11 App on your phone, you can transfer flight logs, photos, and videos from the remote controller to your mobile device.

(For Android) (For iOS)

- You can transfer logs, photos, and videos to your phone in the following ways:

1. Transfer photos and videos:
① Download the Ruko U11 App on your phone.
② Turn on the remote controller. Tap Album [ ] on the main screen of the remote controller.
③ Tap the transfer icon in the upper right corner [ ], and a scannable QR code will appear.

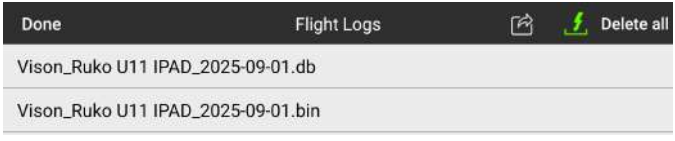




④ Open the Ruko U11 App on your phone, tap "Quick Transfer (Scan)" in the upper left corner, then scan the QR code on the remote controller. You can then export the photos and videos from the remote controller to your phone.

2.Transfer flight logs:
① Download the Ruko U11 App on your phone.
② Turn on the remote controller. On the main screen of the remote controller, tap Profile [ ].
③ Then tap Log File to enter the log sharing interface, select the correct date, and tap to open it.

④ Tap the transfer icon in the upper right corner [ ], and a scannable QR code will appear.



⑤ Open the Ruko U11 App on your phone, tap "Quick Transfer (Scan)" in the upper left corner, then scan the QR code on the remote controller. You can then export the flight logs from the remote controller to your phone.

- Note: If you need to download the files from the memory card of the drone, you need to download the drone files to the remote controller first and then transfer them to your cell phone using the fast transfer function.

⚠ • Ruko U11 is compatible with Android 6.0 or above, iOS 10.0.2 or above.

1.4 Video Tutorials

- According to the corresponding aircraft, visit the link or scan the QR code below to locate the model to watch tutorial videos or get more technical support, which explains how to use the aircraft safely. https://rukotoy.com/support

2 Product Profile

2.1 Introduction

- U11MINI 4K(RC3) can hover and fly stably both indoors and outdoors, with RTH function. The camera uses an upgraded 5GHz Wi-Fi FPV real-time transmission function, equipped with an 85° FOV lens and a 90° adjustable camera, which can stably shoot 4K HD video and 8K ultra-clear images, providing you with a broad field of vision for unforgettable moments.

2.2 Feature Highlights

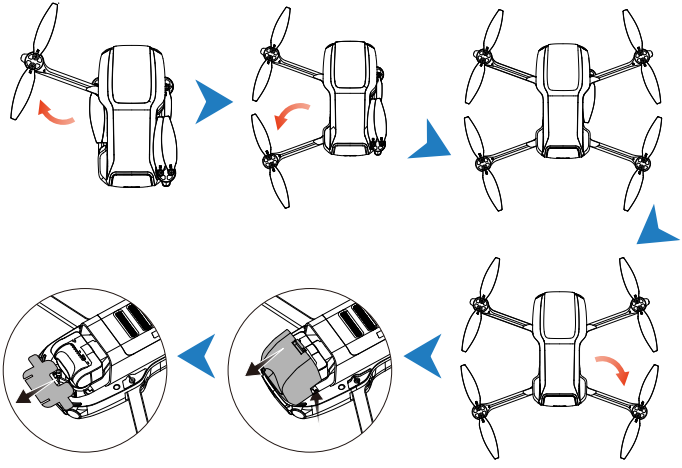
- The U11MINI 4K(RC3) drone features a foldable design, an ultra-lightweight body, and weighs less than 249 grams. Therefore, FAA certification is not required. It is portable, easy to operate, and allows for one-tap photo and video capture.

- U11MINI 4K(RC3)'s leading flight control system provides agile, stable and safe flight performance. The RTH function enables the aircraft to automatically return to its return point and land even when the remote control signal is lost or battery is low.

2.3 Preparing the Aircraft

- All propellers are folded before the aircraft is packaged. Follow the steps below to prepare the aircraft.

1. Unfold the front arms;
2. Unfold the rear arms, then extend all propellers;
3. Remove the camera cover from the aircraft's camera.

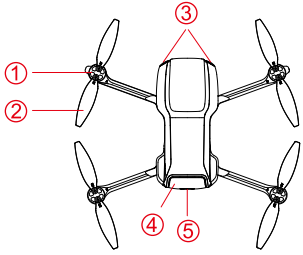


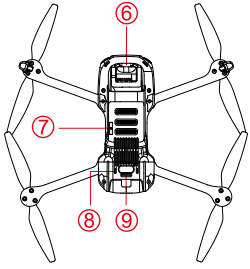
⚠

1. Unfold the front arms before unfolding the rear arms.

2. Before powering on the aircraft, ensure that the front and rear arms are extended and the aircraft is placed on the horizontal ground.

2.4 Aircraft Diagram





① Motor
② Propellers
③ LED Light
④ Battery
⑤ Power Button
⑥ 3-Axis Brushless Gimbal
⑦ SD Card Slot
⑧ Optical Flow Lens/TOF
⑨ Drone Status Indicator Light

1. Left Control Joystick
(American control joystick)The left control joystick can adjust the aircraft's altitude and nose direction (Up/Down, Left Rotation/Right Rotation).

2. Right Control Joystick
(American control joystick)The right control joystick can adjust the aircraft's flight direction (forward / backward /left/right).

3. Auto-Cruise Control
By operating the remote control stick and briefly pressing the button, then releasing the stick, the drone will automatically fly according to the control movements, activating the speed control auto-cruise mode.

4. Return-to-Home Button
Press once briefly, and the drone will automatically return to the take-off position (due to GPS signal issues, the landing position may slightly deviate from the take-off position, with a deviation range of about 9.84 feet in diameter); pressing once during the return will cancel the intelligent return.

5. GPS Status Indicator Light
① GPS Signal Acquired: Solid Blue
② Searching for GPS Signal: Flashing Blue
③ Attitude Mode: Off

6. Power Indicator Light
Displays the current battery level of the remote control.

7. Power Button
Long press to turn the remote controller on/off.

8. Speed/GPS Switch Button
① Short press to switch speeds (three levels available).
② Long press to switch between GPS Mode and Attitude Mode.

9. Drone Signal Antenna

10. Lanyard Hole
The lanyard screw must be used with an M4 screw.

11. Charging Port

12. SD Card Slot
A MicroSD card can be inserted for memory expansion, supporting up to 256G MicroSD card.

13. Photo Button
Press the button to activate the photo function.

14. Video Button
Press the button to start or stop video recording.

15. Zoom Wheel
Adjusts image zoom in/out.

16. Angle Adjustment Wheel
Adjusts the camera angle.

17. Joystick Storage Slot

18. C1 Customizable Button
By default, pressing the button activates the gimbal one-key adjustment function. The button's function can be customized in the remote controller settings.

19. C2 Customizable Button
By default, pressing the button turns the buzzer on or off. The button's function can be customized in the remote controller settings.

20. Cooling Fan Vent

3 Aircraft

- The Ruko U11MINI 4K(RC3) drone includes a gimbal stabilization system, a communication system, a video transmission system, and a propulsion system. This section provides a detailed explanation of the functions of each component.

3.1 Flight Speed Mode

- The Ruko U11MINI 4K(RC3) offers three speed modes—Low, Medium, and High—which can be selected using the speed button to suit different flying preferences and conditions.

1. Maximum speeds:
   Low Speed: 4.5 m/s
   Medium Speed: 8 m/s
   High Speed: 14 m/s

2. In high wind conditions, Sport Mode (High Speed Mode) should be used to enhance wind resistance.

3. When flying in Sport Mode, ensure at least 3 meters of braking distance and sufficient open space, as the aircraft's power and responsiveness will be significantly increased.

3.2 Calibration and Aircraft Status Indicator

- The status indicator light on the drone is located at the center underneath the tail, while the status indicator light on the remote controller is located directly above the controller's screen. Please refer to the following table for the status of the flight control system represented by different blinking modes.

	Blinking status of the indicator		Conditions
Aircraft		The red light blinks twice at short intervals	The remote controller and the drone are starting to pair
		Slow flash	Pairing complete. The drone is searching for GPS signals
		Slow flash	Drone low battery
		Stay on	Complete GPS signal search
		Green light out	Start compass calibration
		Stay on	Indoor attitude model
		Quick flashing	Start gyroscope calibration
Remote Controller		Flash	GPS search in progress
		Stay on	Star search successful
		Extinguish	Turn off GPS and enter attitude mode
	 (Remote Controller Power Indicator)	Gradually turning off	Indicates the remote controller's power level, decreasing as the battery drains
		Flashing in sequence	Drone is returning to home
		Flashing	Indicates low remote controller battery
		Three green lights flash in turn	The drone is returning
		Blue light and three green lights flash in turn	The remote controller is charging

The current flight status of the drone can be determined based on the indicator lights on the drone and the remote controller.

3.3 Return to Home

- The U11MINI 4K(RC3) features an automatic Return-to-Home (RTH) function when operating in GPS mode, enabling the aircraft to return to the return point. The RTH function directs the drone back to the last recorded home point.

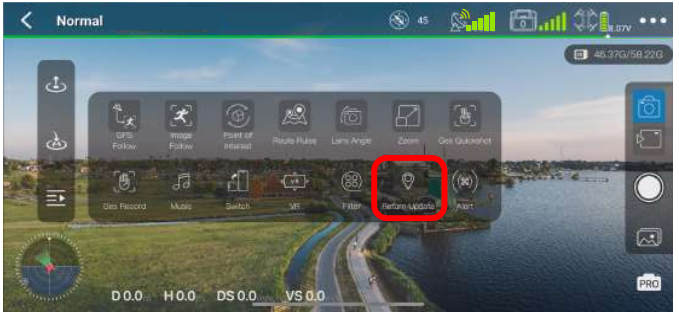
- There are three types of RTH:
  Smart RTH
  Low Battery RTH
  Signal Loss RTH

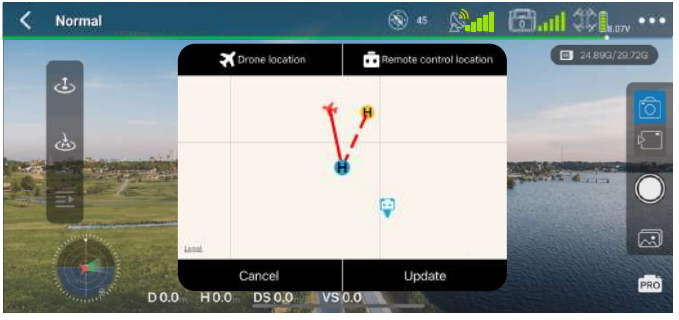
- If the home point has been successfully recorded and the GPS signal is strong, activating the RTH function will cause the aircraft to automatically return to the home point and land.

	GPS	Description
		When flying outdoors, once the GPS signal icon shows at least 3 bars, the aircraft will record its current position as the Home Point. If the aircraft lands and then takes off again from a new location during the same flight session, the new takeoff point will be set as the updated Home Point. The drone will return to the latest Home Point when the Return-to-Home (RTH) function is triggered.

- When the drone is not unlocked, press and hold the Custom C2 Button (Default: Turn Buzzer On/Off) to activate the drone's buzzer, which can be used for locating the drone and assisting in finding it.

- After the drone acquires a GPS signal and takes off outdoors, the return point location can be updated via the remote controller.





Drone location	New return point location
Original return point location	Remote control location

- You can select a new return point location on the map or set the latest location of the drone or remote controller as the new return point location.

1. Select a new return point location:

- Drag freely on the remote controller map to select a new return point.
- Tap "Update" to complete the setup.

2. Drone location:

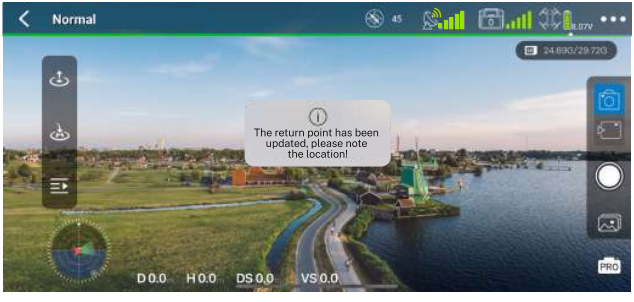
- Tap "Drone location."
- Tap H will navigate to the current location of the drone.
- Tap "OK" to complete the setup.

3. Remote control location:

- Tap "Remote control location."
- Tap H will navigate to the current location of the remote controller.
- Tap "OK" to complete the setup.

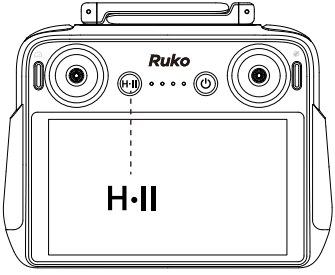
Complete setting

- After the new return point is set, a confirmation popup will Appear, indicating that the new return point has been successfully configured.



Available only after takeoff in GPS mode.

Smart RTH



Activating Return

During flight, press the Smart RTH button (H·II), and the remote controller will emit a "beep" sound. The aircraft will then automatically return to the takeoff point. While returning, the power indicator on the remote controller will flash in a loop.

Canceling Return

To cancel the return flight, press the Smart RTH button (H·II) again.

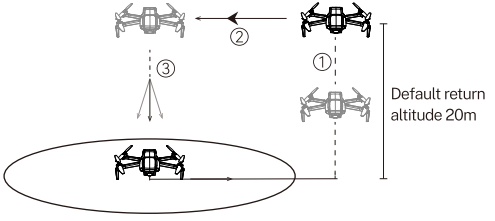
1. To initiate automatic return, press the Smart RTH button (H·II) on the remote controller or tap the return icon ( ) in the remote controller interface.

2. During the return flight, you can manually control the aircraft to ascend, descend, move forward, backward, or sideways to avoid obstacles.

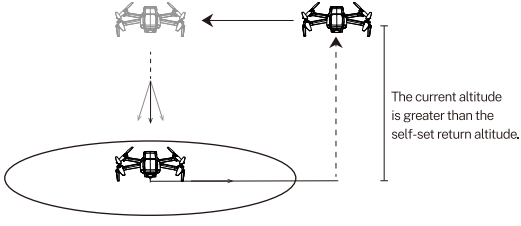
3. To exit the return flight, short press the Smart RTH button (H·II) again or tap the return icon ( ) in the remote controller interface.

Note:

- If no return-to-home altitude is set and the drone's current altitude is below 65 feet (20 meters), it will automatically ascend to the default return altitude of 65 feet (20 meters) before returning.If the drone is flying above 65 feet (20 meters), it will return at its current altitude.



- The default return altitude is 65 feet (20 meters). On the remote controller settings page, the return altitude can be set between 10 and 120 meters.
- If a return altitude has been set and the drone is flying below that altitude, it will ascend to the set altitude before returning. If the drone is flying above the set return altitude, it will return at its current altitude.



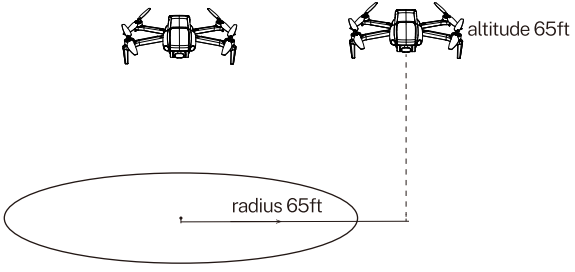
- The drone is not equipped with an obstacle avoidance system. Please assess the flight environment carefully, avoid obstacles manually, and set an appropriate flight and return altitude based on the surroundings.

Low Battery RTH

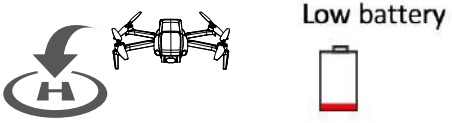
- When the intelligent flight battery is critically low or lacks sufficient power to return home, the pilot should land the aircraft immediately to prevent potential damage or accidents.

- To prevent risks caused by insufficient battery power, the Low Battery Return-to-Home (RTH) function will be triggered automatically when the battery level is low. Based on the remaining battery level, two scenarios may occur during the return process:

1. Level 1 Low Battery: The drone will return and hover at an altitude of 98 feet (30 meters) above the takeoff point. After hovering, you may continue flying the drone within a 98-foot (30-meter) radius at that altitude.



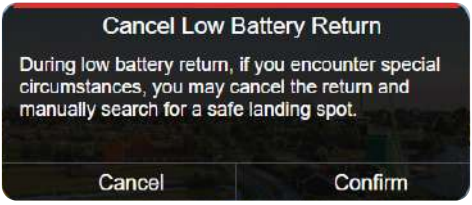
2. Level 2 Low Battery: The drone will descend from its current altitude to the ground.



3. Cancel low battery return:

- If needed, you can cancel low battery return by pressing the return button on the remote controller or tapping the return icon in the settings page.

- After tapping the confirmation button in the pop-up window, the drone will exit RTH mode.



- You can only disable low-battery return after removing the flight restrictions. Once disabled, you can fly the drone.

⚠ Caution:

- Pay close attention to flight altitude when the battery is low.
- The remaining battery after return is affected by distance, wind speed, and wind direction.

Lost Signal Return-to-Home (RTH)

- If the drone loses signal for more than 10 seconds, it will automatically enter Return-to-Home (RTH) mode. The remote controller will emit a beeping sound, the indicator lights will flash, and a warning message will appear on the remote control settings page.

- If the signal is restored, the drone will continue returning to the Home Point unless you press the RTH button again to cancel and regain manual control.

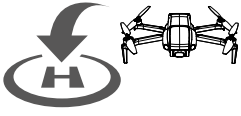
Automatic Return-to-Home Procedure

1. Once the GPS signal is successfully acquired, the drone stores its takeoff position as the Home Point.

2. If signal loss occurs (due to low remote battery, interference, etc.), the RTH function will be automatically triggered after 10 seconds.

3. The drone will adjust its orientation to face the Home Point and begin returning.

4. It will fly back to the Home Point, descend, and land automatically to complete the return.



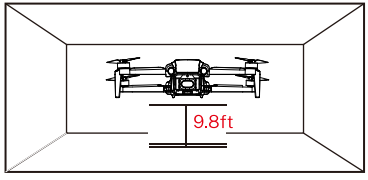
Note:

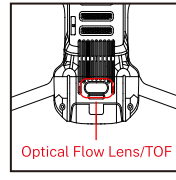
- When out of control, the aircraft cannot avoid obstacles.

- If the GPS signal is weak or unavailable, the RTH function will not be triggered, and the drone will not return automatically.

3.4 Optical Flow Positioning/TOF (Indoor Attitude Mode)

- The underside of the aircraft is equipped with a downward-facing optical flow system and a TOF (Time-of-Flight) altitude sensor, enabling the drone to better adapt to indoor environments.
- The optical flow system, composed of downward vision sensors, allows the drone to hover stably at low altitudes when flying indoors without GPS, operating in Attitude Mode.





Note:

1. The optical flow system functions best in well-lit environments with rich surface textures. It is an auxiliary system and cannot fully replace the pilot's judgment.

2. The system may be ineffective or perform poorly in the following environments:
   - Extremely bright or dark lighting
   - Reflective or smooth surfaces (e.g., mirrors, water, glass)
   - Solid-colored or low-texture areas

3. The optimal operating range is between 0.5 meters and 3 meters. Outside this range, positioning accuracy may degrade. Please maintain stable flight within this range.

4. Ensure the optical flow lens is clean and unobstructed before flight. This system functions only in Attitude Mode.

- If GPS signal is weak and you're flying indoors, manually disable GPS and switch the drone to Attitude Mode before takeoff.
- Once GPS is disabled, the drone will not support Return-to-Home (RTH) or smart flight features.

3.5 Intelligent Flight Mode

- The U11MINI 4K features 6 intelligent flight modes: GPS Follow, Image Follow, Point of Interest, Route Rules, Ges Quickshot/Ges Record, Auto-Cruise Control. Depending on the user's shooting needs, the operation can be completed with a single tap, making it simple and fast.

GPS Follow: In this mode, the aircraft will lock on to the user and automatically follow the operator's movement trajectory to capture and shoot.

Image Follow: Image Follow function enables the drone to follow the object's in circle movement to rotate.

Point of Interest: In this mode, the aircraft is centered on the location set on the remote controller, flying around at a specific distance to shoot.

Route Rules: In this mode, aircraft flies along paths marked with way points.

Ges Quickshot/Ges Record: Use preset hand gestures to trigger photo capture or video recording automatically.

Auto-Cruise Control: The drone automatically flies at a constant speed according to the current flight action under strong GPS signal.

GPS Follow

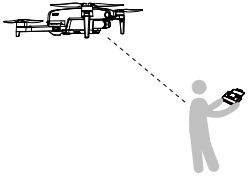
1. Make sure the drone and the remote controller are successfully connected.

2. After the aircraft takes off, the best effect is to ensure that the flight range is within 50 meters in an open environment with good GPS signal.

3. Tap the ( )icon on the remote control settings page to start the ( ) mode.

4. "GPS Follow"( )will be displayed on the remote control settings page and try to fly. The aircraft will track your movements to fly.

5. Tap the icon on the remote control settings page again to exit the GPS Follow mode.



- The GPS Follow function only works when the GPS signal is strong. Please avoid high buildings, trees, and areas where signal might be interfered.
- In GPS Follow mode, the drone maintains stable flight at speeds of up to 17 m/s.
- Aircraft is not equipped with obstacle avoidance function. Please use it in open areas free of obstacles.

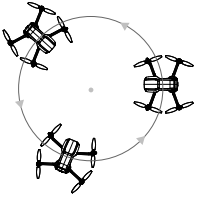
Image Follow

1. Launch aircraft and ensure flight height is higher than the nearby obstructions, access to the remote control settings page.

2. Tap() , slide to start and tap on the object or person plans to track, tap to confirm the selection, drone rotates following the object's in circle movement.

   Note: Make sure the size of the frame isn't too large, so as to ensure the recognization is acheiveable.

Point of Interest



1. Make sure the drone and the remote controller are successfully connected.

2. Ensure the drone is flown in an open area with a strong GPS signal.

3. Launch the aircraft and position it over the desired center point. Allow it to hover steadily before initiating the orbit.

4. Tap the () icon on the remote controller to activate Point of Interest mode.

5. Move the right joystick forward and backward to set the radius of the drone to fly (within 5-50 meters).

6. The aircraft begins to orbit according to the radius set in step 5.

7. Tap the icon on the remote controller settings page again to exit the Point of Interest.

- The default minimum surround mode radius is 16 feet (5m).
- Move the right joystick left and right to adjust the circling speed and direction.

Route Rules

1. Make sure the drone and the remote controller are successfully connected.
2. Ensure the drone is flown in an open area with a strong GPS signal.
3. After the aircraft takes off, in GPS mode, tap the icon().
4. Mark the points (up to 16) which you plan to fly on the remote controller map's within red circle (limited flight range).
5. Tap "Delete Single Point" or "Delete All" to reset the marked point.
6. Make sure the marks are correct, tap "Send", the aircraft will start waypoint flight.

- Push right joystick to cancel Route Rules function.
- The map required for the map interface must be downloaded from the Internet in advance.

Ges Quickshot/Ges Record

1. Make sure the drone and the remote controller are successfully connected.

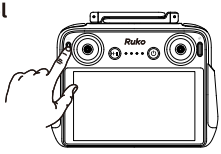
2. After the drone takes off, use it in GPS mode.

3. Open the remote controller, and tap the ( )icon on the interface. In this mode, raise the right hand and pose( ) at the same height of the shoulder to take photos.

4. Tap the ( )icon. In this mode, raise your right hand and show your palm at the same height of the shoulder to open the recording mode.

- Use in a well-lit environment. Tap the icon again to exit Ges Quickshot/Ges Record mode.

Auto-Cruise Control



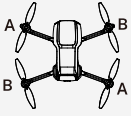
- This function can only be used in GPS mode and when sufficient satellite signals are detected.

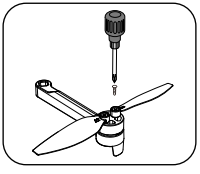
1. Set the desired flight distance and altitude.
2. Fly the drone to an altitude above 15 meters (this function cannot be used below 15 meters).
3. Operate the left or right joystick, then briefly press the cruise control button once more.
4. Release the joystick; the drone will automatically fly according to your input (for example, if you push the right joystick forward, the drone will automatically fly forward).
5. During automatic flight, you can adjust the drone's direction and altitude using the remote controller. Press the cruise control button again while making adjustments—once the joystick is released, the drone will continue flying based on the latest input.
6. To exit cruise control mode without operating the joysticks, briefly press the cruise control button or tap "Cancel" on the remote controller.

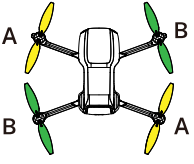
- The drone cannot use this function if the flight altitude is below 15 meters.
- The function cannot be used when the drone's battery is low.
- The drone will automatically exit this function after reaching the set distance.
- If the drone descends to 15 meters during automatic cruising, it will automatically exit this function.
- The drone does not have obstacle avoidance features. Please ensure flight safety.

3.6 Propeller

- The adjacent motors on the U11MINI 4K(RC3) are equipped with clockwise and counterclockwise propellers. The two propellers on the same motor are the same, and the propellers are marked with A and B respectively.
- The rotation directions of the propellers with the same mark are the same.

Propellers	Mark A	Mark B
		
Installation location	Installed to the motor with A mark on the arm	Installed to the motor with B mark on the arm





Installation location

Attaching the Propellers

- Facing the camera as the front of the aircraft, install A-marked propellers on the left front and right rear arms, and B-marked propellers on the right front and left rear arms.
- Use a screwdriver to secure the propellers, ensuring all screws are firmly tightened.

Detaching the Propellers

- Use the screwdriver to detach the propellers from the motors.

- Please use the propellers provided by Ruko, and do not mix propellers of different types.
- Please check whether the propeller is installed correctly and tightly before each flight.
- Before each flight, please check to make sure that the propellers are in good condition.

3.7 Intelligent Flight Battery

- The U11MINI 4K(RC3) is powered by a 2200mAh intelligent flight battery with a rated voltage of 7.6V and built-in charge/discharge management functions. This high-capacity and high-energy battery helps extend the drone's overall flight time.

Battery Features

1. Balance Protection
   Automatically balances internal battery cell voltage to maintain stability and prolong battery life.

2. Overcharge Protection
   Overcharging can cause serious damage to the battery. Once fully charged, please disconnect the charger promptly.

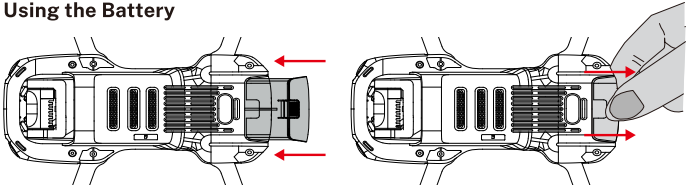
3. Over-Discharge Protection
   To prevent damage from over-discharge, the battery will automatically discharge to a safe level when not in use for extended periods.

4. Short Circuit Protection
   If a short circuit is detected, the battery will automatically cut off power output to prevent damage.

5. Easy Charging
   Supports charging via Android USB cables. For optimal performance, use the official Ruko charger. Avoid using chargers that exceed 12V output.

- Please read and follow all Ruko instructions carefully in this User Manual and Quick Start Guide before using the battery.
- Be sure to read the warning labels on the battery surface before use.
- Users are responsible for any consequences resulting from improper use.

Using the Battery



- Install the intelligent flight battery into the battery compartment and push it down until you hear a "click" from the battery buckle, indicating that it has locked into place. Make sure the battery is in place.

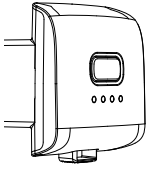
- To remove the battery, press the latch at the bottom of the drone battery and pull the battery out from the compartment.

- Do not insert or remove the battery while it is powered on. Doing so may cause poor contact at the battery interface, leading to a short circuit and potential damage to the aircraft.

- Always ensure the battery is powered off before installing or removing it from the drone.

Checking Battery Power

- Turn on the power and check the current battery.



Powering On

- Press and hold the power button. When the fourth indicator light turns on, release the button to check the current battery power.

Powering Off

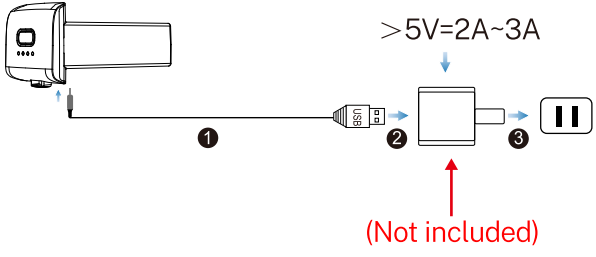
- Press and hold the power button until all lights are off and release the power button. After closing, the indicators are off.

Note: The drone features an automatic shutdown function. If no operation is performed (such as takeoff), it will automatically power off 10 minutes after being turned on.

Charging the Battery

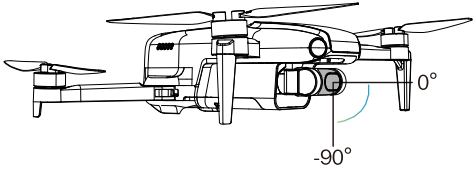
- Before using the intelligent flight battery, make sure it is fully charged.

1. Use a charger with no less than 5V/2A output.
2. While charging, the battery's power indicators will flash to show the current charge level. When all four lights are solid, charging is complete.
3. After charging is complete, promptly disconnect the charger.

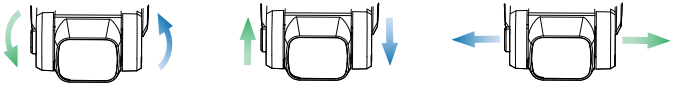


3.8 Camera Overview

- The camera features an upgraded 5GHz Wi-Fi FPV real-time transmission system, an 85° field-of-view lens, a 90° adjustable angle, and a 3-axis brushless gimbal for advanced stabilization. This configuration enables stable recording of 4K HD videos and 8K ultra-clear images, offering a wide perspective to capture every unforgettable moment.



- The gimbal integrates a 3-axis mechanical stabilization system, Electronic Image Stabilization (EIS), and supports roll and pitch movement. The yaw axis is driven by a brushless motor enhanced with EIS technology.



Roll Axis　　Tilt Axis　　Yaw Axis

- The gimbal will not function and may appear tilted when powered off or during compass calibration—this is normal. Once powered on and calibration is complete, the gimbal will perform an automatic self-check and stabilize within approximately 20 seconds.Please avoid touching or moving the drone during this process.

- The drone's gimbal is a movable mechanical structure. When powered off, it is normal for the gimbal to appear tilted.
- If the drone takes off from grass or uneven surfaces, the gimbal may fail its self-check due to contact with the ground. To prevent this, use a launch pad or a flat piece of cardboard to keep the gimbal clear of obstacles during takeoff.
- Taking off from a floor, roadside, or table may cause vibrations that lead to gimbal self-check failures. Avoid using the drone in areas that produce significant vibrations.
- The gimbal does not function during compass calibration. After calibration is complete, place the drone on a flat surface, and the gimbal will automatically enter working mode.

Storing Photos and Videos

- U11MINI 4K(RC3) is equipped with a micro SD card slot for storage space expansion.

  1. Card speed: 10M/s.
  2. File format: support FAT32 format.
  3. Memory capacity: a memory card with a memory capacity of 16-256G.

- After inserting the SD card, both the remote controller and the SD card will save photos and videos. For clearer images and videos, please check and download them from the SD card.

1. Make sure the memory card has sufficient available storage. If the capacity of the memory card is insufficient, videos and pictures cannot be stored.

2. If saving photos or videos fails, try formatting the memory card.

3. To copy or download media from the drone's memory card to your remote controller, ensure the aircraft is powered on and connected to the remote controller.

4. Always power off the aircraft properly. Improper shutdown may result in unsaved camera settings or corrupted video files. Ruko is not responsible for any data loss caused by improper use.

5. Do not insert or remove the SD card while the drone is powered on, as this may cause video saving failures or other abnormal issues.

6. Avoid direct contact with the SD card slot during operation. Be cautious, as it may become hot during use.

4 Remote Controller

4.1 Remote Controller Profile

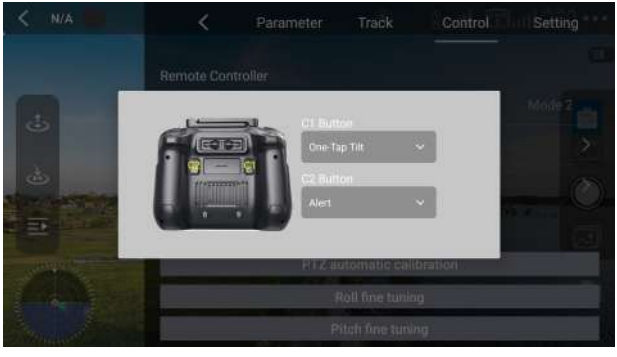
- U11MINI 4K(RC3) remote controller uses the 5 GHz frequency band.
- Remote controller built-in 5800mAh capacity battery, charging time is 2.5 hours.

4.1.1 Charging the Remote Controller

- Connect the remote controller's Micro USB port to a charger.
- Please use a charger with at least 5V/2A output.
- Charging: The three indicator lights will flash in sequence.
- Fully Charged: All three indicator lights will remain solid.

4.1.2 Customizable Button

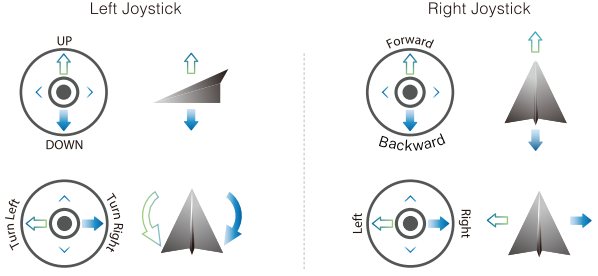
- C1 is the default one-key camera adjustment button.
- C2 is the default buzzer switch button.
- C1 and C2 are customizable buttons. To configure them, tap "···" at the top of the remote screen to enter the settings menu. Then, go to the "Control" section and tap "Custom Buttons" to make adjustments in the pop-up menu.
- Available functions include: Land, Alert, Unlock, Orbit Mode, Indoor Mode, Cruise Mode, Gimbal One-Key Adjustment, Gyro Calibrate, Takeoff/Landing, Compass Calibrate.



4.1.3 Joystick Mode

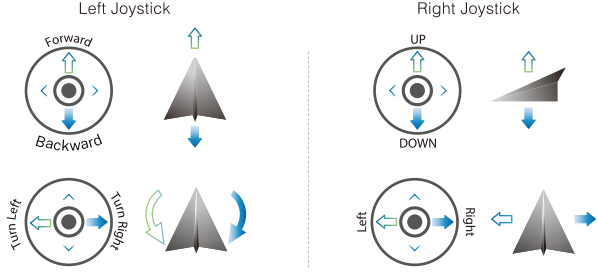
- The control method of the remote controller joystick is as follows:
  Mode 1(American hand's control)

Mode 1(American hand's control)



- Switching to Mode 2(Japanese hand's control)
  1. Turn on the drone and the remote controller, and wait for frequency pairing to complete.
  2. Go to the settings interface, tap "Setting," and then switch the Joystick Mode.

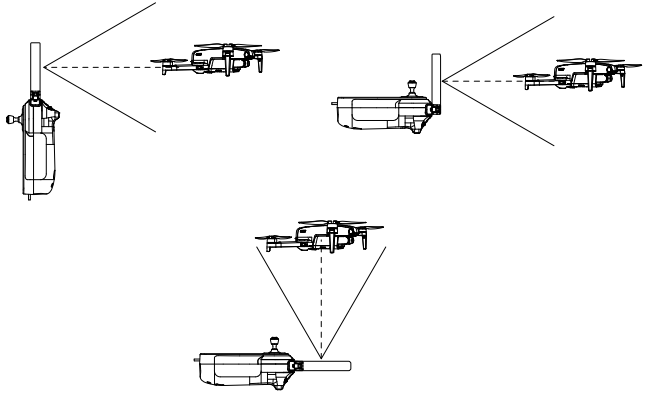
Mode 2(Japanese hand's control)



4.2 Communication Range of Remote Controller

- When operating the aircraft, adjust the orientation and distance between the remote controller and the drone in time, and position the remote controller's antenna properly to ensure the drone always stays within the optimal signal connection range.

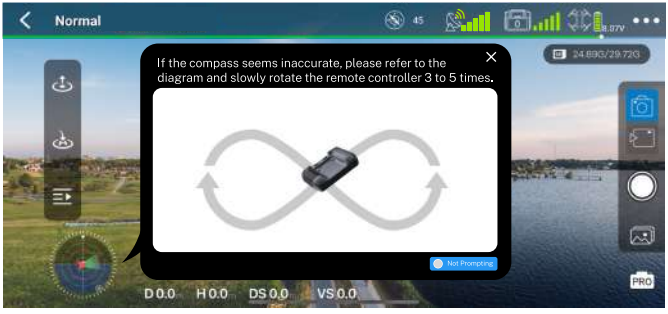
- When the antenna forms a 180° or 270° angle with the back of the controller and is pointed directly at the drone, the signal connection quality between the controller and the drone can reach its best state.



- You can check the drone's current orientation through the attitude ball on the remote controller.

4.3 Remote Controller Compass Calibration

- After the remote controller has been paired with the drone and you have entered the control interface, the remote controller will prompt you to perform compass calibration. Please follow the on-screen animation and rotate the remote controller to complete the compass calibration.



4.4 Matching the Remote Controller

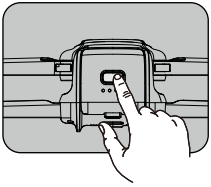
- The drone must be paired with the remote controller before each flight. Control is only possible after successful frequency pairing. Follow the steps below to complete the pairing process:

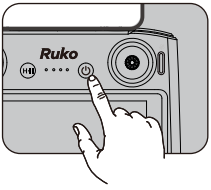
  1. Power on the drone.

  2. Power on the remote controller.

  3. The drone and remote controller will automatically complete the pairing process within approximately 30 seconds.

  4. When the connection is successful, "Go Fly" will appear at the bottom right of the remote controller screen. Tap it to enter the real-time video transmission view.





- Successful Pairing Indicators:

  1. The drone's LED lights change from red to green.

  2. The green indicator light on the remote controller changes from blinking to solid.

- The drone and remote controller will automatically pair within approximately 30 seconds.
- Please check the controller's battery level before each flight. The remote controller will sound a tone when the battery is low.
- The remote controller will automatically power off after 20 minutes of inactivity. You can wake it up by moving the joystick or pressing any button.

5 Ruko U11 App

5.1 Home

- After running Ruko U11 App, enter the homepage.

Profile

- Language: Switchable between Chinese and English.
- Find drone: Shows the last known location when the aircraft lost video transmission. Open the map to locate the position where the aircraft disconnected.
- Log File: View and export the flight log of the drone.
- Check for Updates: View the current version of the App and upgrade it if a new version is updated.

Support

- Tap to access technical support, after-sales service.

Album

- Allows you to view photos and videos of your shoot.

Guide

- Tap to view the Help manual, Instructions videos and Quick start.

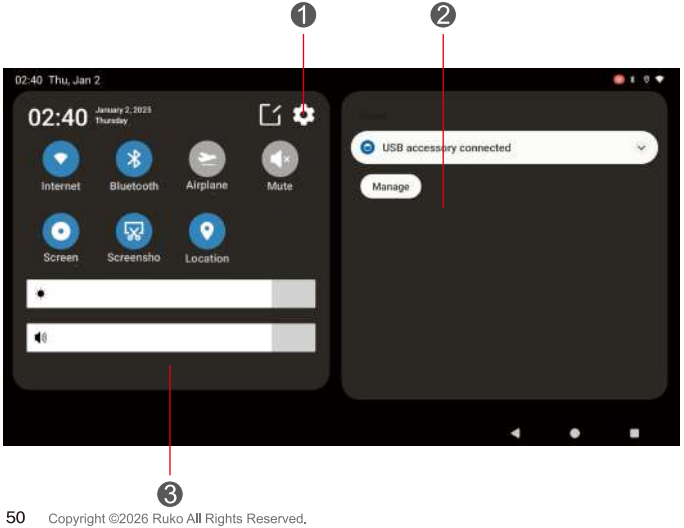
Go Fly / Start

- Tap to enter the control interface. When the remote controller is connected to the drone, it shows "Go Fly"; when not connected, it shows "Start."

5.2 Screen Gesture Operation

Swipe down 2 times to open the device's shortcut bar.

5.3 Shortcut Function Bar



❶ Settings
Click to enter the system settings.

❷ Notification Center
Display system notification information.

❸ Quick Function

Internet: Tap to turn WiFi network on or off, long press to enter WiFi connection.

Bluetooth: Tap to turn Bluetooth on or off, long press to enter Bluetooth settings.

Airplane Mode: Turn off WiFi and Bluetooth.

Mute: Tap to turn off system alert sound and playback sound.

Screen Record: Tap to turn on the screen recording function.

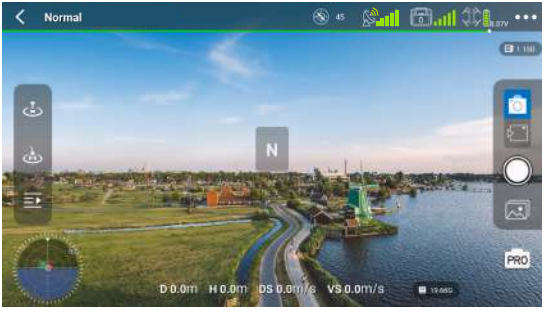
Screenshot: Tap to capture the screen image.

Location: Tap to turn on or off, long press to enter location setting.

Screen brightness: Drag to adjust the screen brightness.

Sound Adjustment: Drag to adjust the sound volume.

5.4 Control Interface

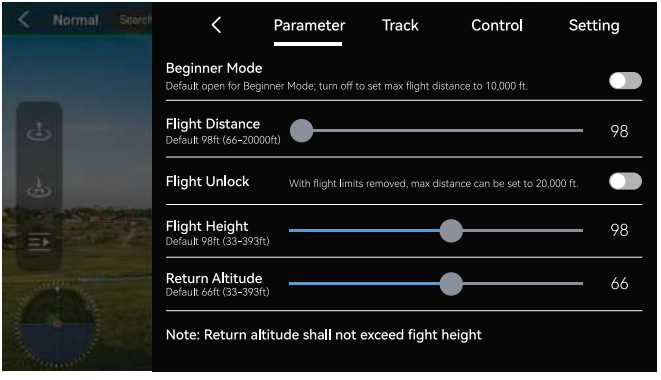


Back	GPS Status
RC GPS Strength	Aircraft Battery Level
Auto Takeoff/Landing	Return to Home
Shutter	Photo/Video
Photo Album	Image Parameter Adjustment: White Balance; Sharpening Contrast; Brightness; Saturation
1.15G 1. SD card capacity display 2. Format : Tap to format when the memory card is loaded but cannot be recognized or save files	19.66G RC SD Card Capacity
Compass Interference Value	A higher value indicates stronger ambient interference. If the interference value remains at 180 or above for more than 3 seconds before takeoff, the drone will be forced to initiate compass calibration.
D 0.0m H 0.0m DS 0.0m/s VS 0.0m/s	D : Distance H : Height DS : Flight Speed VS : Ascent and Descent Speed

	**GPS Follow**	Aircraft will lock onto the user and can track the user's movement as he moves
	**Image Follow**	The aircraft camera will slowly rotate to follow the target
	**Point of Interest**	The aircraft fly around in circle with the current position as the center
	**Route Rules**	Aircraft flies along the path marked on the remote controller
	**Lens Angle**	Adjust the shooting angle of the aircraft camera
	**Zoom**	Optional 5x zoom
	**Ges Quickshot**	Recognize your gestures and automatically take photos
	**Ges Record**	Tap to recognize your gesture automatically record
	**Music**	Select music for the video
	**Switch**	Switches three vertical screen functions
	**Filter**	Select a filter for your photo or video
	**Return Update**	Select a new return point location on the map
	**Alert**	When the drone is not unlocked, tap "Alert" on the remote controller will turn on the drone's buzzer

Parameter

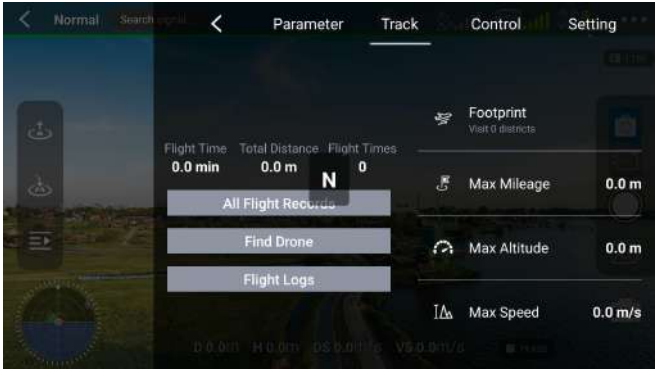
- Beginner Mode: In this mode, the maximum flight distance and altitude are limited to 98ft to ensure safer flights within visual range.
- Flight Distance: Set the maximum flight distance.
- Flight Unlock: With flight limits removed, max distance can be set to 20,000 ft.
- Flight Height: Set the maximum flight altitude.



- The drone's max flight distance is measured in no-wind conditions, flying forward at 9m/s with low-battery return disabled, until forced landing at critical low battery.
- In windy conditions, the drone auto-returns at first low battery for safety. If flight limits and low-battery return are disabled, it can fly up to 20000 ft manually, but will land on the spot when battery is critically low.

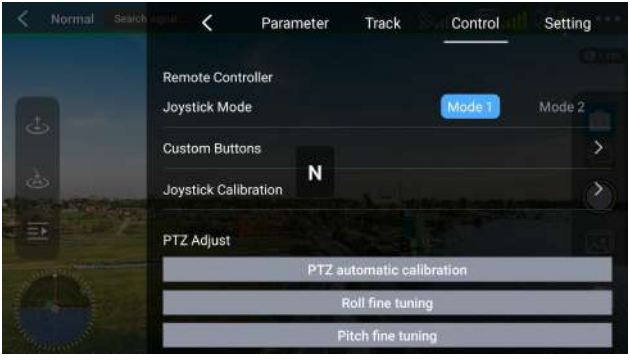
Track

- All Flight Records: Total number of aircraft flying area, All flight records: The date, location, distance, duration and maximum altitude of each flight.
- Find Drone: It shows the last position of the aircraft when it lost the image transmission signal. Open the map to find the position where the aircraft is disconnected.
- Flight Logs: You can export the flight log data.



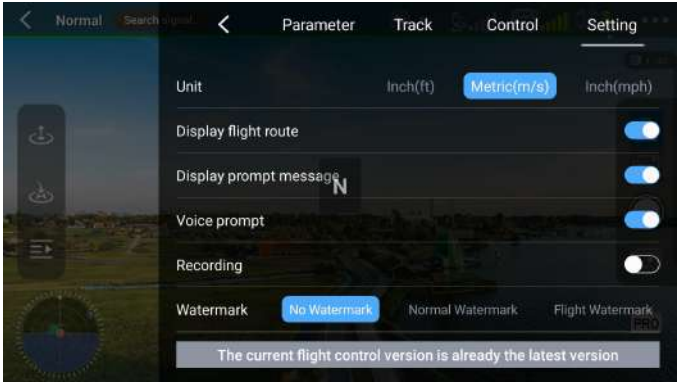
Controls

- Joystick mode: can choose mode 1 (American hand) or mode 2 (Japanese hand) control.
- Custom buttons: you can set the function of C1 and C2 buttons.
- PTZ Adjust: When the gimbal deviates from the horizontal position, the user can fine-tune or correct the roll and pitch angles. The aircraft must be placed on a level surface during adjustment, or the user can restore the factory settings.



More Settings

- Unit: Switch between metric and imperial measurement units.
- Display flight route: Turn on or off the flight path record function.
- Display prompt message: Turn on or off the status bar to display the information.
- Voice prompt: Turn on or off the aircraft status voice prompt.
- Recording: Enable or disable audio recording during video capture.
- Watermark: choose the watermark setting you prefer, it will only available for pictures which store on the phone
- Flight firmware upgrade: An upgrade will be automatically displayed when a new flight firmware is released. Normally, no upgrade is required.



6 Flight

- After completing installation, please perform flight training, preferably in Beginner Mode. Choose a suitable flight environment, and strictly comply with local laws and regulations. The maximum flight altitude is limited to 393 ft (120 meters).

- Before flying, be sure to read the U11MINI 4K Disclaimer and Safety Summary and understand all safety precautions.

6.1 Flight Environment Requirements

1. Do not fly in severe weather such as strong wind, snow, rain, and fog.

2. Choose an open area free of obstructions for flying. Buildings, mountains, and trees may interfere with the aircraft's compass and GPS signals. It is recommended to fly in an open space with a radius of 33ft (10m) without interference.Maintain a flight altitude above 49ft (15m) to avoid ground obstacles and reduce signal interference from the ground.

3. Always keep the aircraft within sight and control, and stay clear of obstacles, crowds, and other hazards. When flying over water, maintain an altitude of at least 9ft (3m) above the surface.

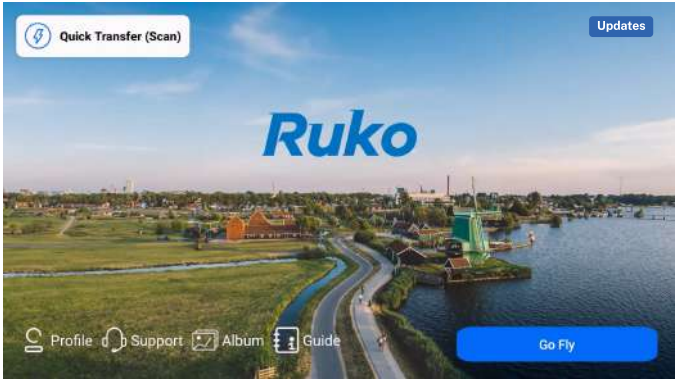
4. The remote controller signal may be interfered with by high-voltage power lines, communication base stations, or transmission towers. Avoid flying near these areas.

5. Fly below 9,842ft (3,000m) above sea level to ensure the aircraft's air pressure sensor functions properly.

6. When GPS is active, the aircraft can hover stably and perform intelligent return-to-home and flight functions. If the GPS signal fails, these features will be disabled, and the aircraft may drift with the wind.

6.2 Operation App Upgrade

- If a new App version is released, "updates" prompt will pop up in the upper right corner of the homepage. You can click Complete Upgrade.



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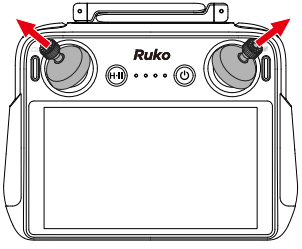
- You need to connect to the internet when upgrading
- You need to make sure the remote control keeps 25% battery when upgrading, the upgrade takes about 5-10 minutes.

6.3 Calibration before Flight

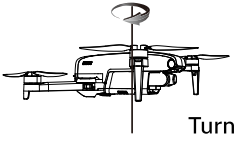
Calibrate the Compass

- When flying in a complex environment or when magnetic interference exceeds a certain threshold, it is necessary to calibrate the compass.

- You can manually enter compass calibration by pushing the left and right joysticks toward the 11 o'clock and 1 o'clock directions. Alternatively, you can set the C1/C2 customizable buttons in the settings to Compass Calibrate, then short-press C1/C2 to enter compass calibration. The drone's green light will turn off, indicating it has entered calibration mode.

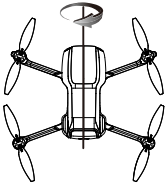


1. Follow the prompts to hold the aircraft approximately 3.28ft (1m) above the ground, and rotate it horizontally 3 full rotations until the remote controller prompts you to begin vertical calibration.



2. Then rotate the aircraft 3 laps vertically with the camera facing upwards until the prompt of vertical calibration on the screen disappears.

3. After calibration, place the drone on a level surface and wait until the drone's status indicator light turns solid green (GPS mode). You can then start flying.



Turn 3 times

- The drone will not forcibly enter compass calibration. However, before flying, please check the compass interference value . If the compass interference value stays above 180 for three consecutive seconds, the drone will be forced into compass calibration.

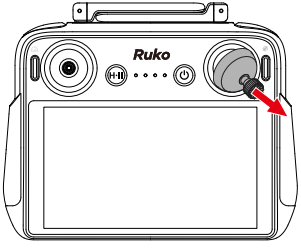
- If there are large metal objects, electronic devices, or magnetic fields in the drone's flight environment, they may interfere with the drone's compass. If the drone's compass is interfered with, it may cause uncontrolled flight directions or circling.

- If the drone has not taken off and the interference value is too high, it is recommended to manually enter compass calibration or change the flight environment. If the interference value becomes too high during flight, it is recommended to manually land the drone and switch to a different flight environment.

Calibrate the Gyroscope

1. Make sure that the Aircraft is placed on a level ground.

2. You can manually enter gyroscope calibration by pushing the right joystick toward the 5 o'clock direction. Alternatively, you can set the C1/C2 customizable buttons in the settings to Gyroscope Calibrate, then short-press C1/C2 to access the gyroscope calibration function.



3. The rear light flashes quickly, and the drone enters horizontal automatic calibration.

4. The light changes back to the original light state, indicating that the calibration is completed.

5. "Fly" is displayed on the remote controller screen, and you can now prepare to take off.

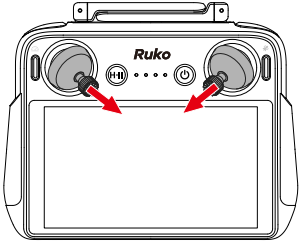
- When the aircraft's flight state is tilted and unstable, please land the aircraft on a level ground for gyroscope/horizontal calibration.
- When the tilt angle of the fuselage is greater than 10°, the horizontal correction cannot be performed.

6.4 Starting/Stopping the Motors

Starting the Motors

1. Method 1:
   Push both joysticks inward to the 5 and 7 o'clock positions simultaneously.

2. Method 2:
   On the remote control settings page, set the customizable buttons C1/C2 to One-Key Takeoff/Landing, then short-press C1/C2 to perform one-key takeoff.
   Note: Once the motors start spinning, release the joysticks immediately.



Stopping the Motors

- If the drone has not taken off, push both joysticks again to the 5 and 7 o'clock positions to stop the motors. Release the joysticks immediately once the motors stop.

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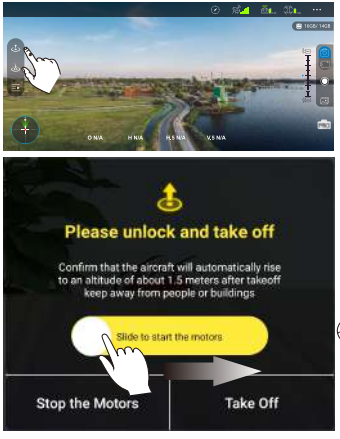
- Pull down the joysticks on the remote controller to manually land the drone. The drone will hover at a height of 1.6 feet (0.5 meters). Continue pulling down the joysticks to complete the landing and stop the motor.
- Please choose a flat surface for landing.

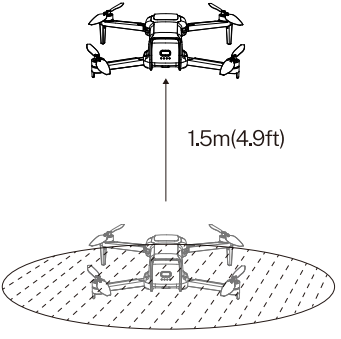
6.5 Auto Takeoff/Landing

Auto Takeoff

- After the aircraft is calibrated, users can use the take-off function:

1. Start the motor after confirming the safe take-off conditions.
2. Tap " " on the remote controller screen to take off.
3. Slide to unlock motor.
4. Press the One-key Takeoff button on remote controller.
5. The aircraft will take off automatically and hover at a distance of 1.5m(4.9ft) from the ground.





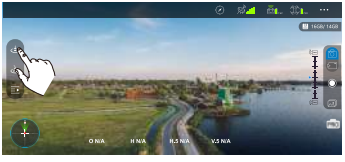
Auto Landing

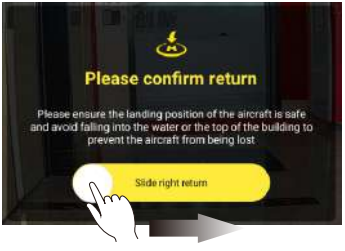
- After the aircraft takes off, the user can choose to use the automatic landing function:

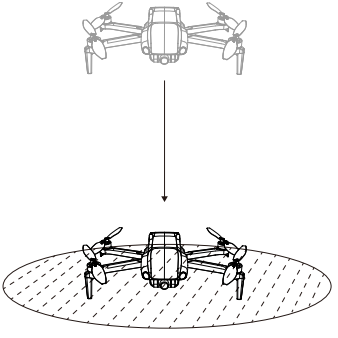
1. Confirm the safe landing conditions, tap the " " on the remote controller.

2. Slide to confirm automatic landing.

3. The aircraft descends to the ground and turns off its motors.







6.6 Basic Flight Steps

Basic Flight Steps

1. Place the aircraft on flat, open ground with the nose facing forward and the tail toward the pilot.
2. Press and hold the power button to turn on the aircraft.
3. Long-press the remote controller's power button to turn it on. The drone and remote controller will automatically pair within about 30 seconds.
4. Wait for the pairing to complete, then tap "Go Fly" to enter the remote controller interface.
5. Open the Ruko U11 App and enter the flight interface.
6. After the GPS signal is successfully acquired, the drone's indicator light will turn solid green.
7. Unlock and start the motors.
8. Slowly push the joysticks upward to take off smoothly.
9. To descend, gently pull the joystick downward.
10. After landing, pull the joysticks to the lowest position and hold it until the motor stops.
11. Turn off the aircraft and the remote controller.

Aerial Photography Tips & Tricks

1. Perform pre-flight inspection.
2. It is recommended to take photos or videos in low-speed or medium-speed gear.
3. Choose sunny and less windy weather for shooting.
4. Push the stick as little as possible during the flight to make the aircraft fly smoothly.

7 Appendix

7.1 Specification Parameter

Drone	Model	U11MINI 4K(RC3)
	Maximum Takeoff Weight	＜249g
	UAS Class	C0
	Motor Model	1503
	Operating Temperature Range	32° to 104°F (0° to 40°C)
	Satellite Systems	GPS / GLONASS
	Flight Environment	Outdoor / Spacious Indoor
	Maximum Wind Resistance Level	Level 5
	Propeller Weight	0.6 g
	Propeller Radius	61.5 mm
	Maximum Propeller Speed	3400 rad/min
	Dimensions (L x W x H)	Unfolded: 32x19.2x5.8 cm
		Folded: 14.1x8.7x5.8 cm
Camera	Controllable Range of Camera (Up and down)	About -90° to +0°
	Camera Weight	About 25.7g
	Focus Range	Fixed-focus
	Resolution of Photo	Phone 3840×2160P
		SD Card 8000×6000P
	Resolution of Video	Phone 1280×720P / 30FPS
		SD Card 3840×2160P / 30FPS 1920×1080P / 60FPS
	Photo Format	JPG
	Video Format	MP4
	Supported SD Cards	Micro SD card(Class 10/U1 or later) 16-256G
	Supported File Systems	FAT32
5G Transmission	Operating Frequency	5.15-5.35 GHZ; 5.725-5.825 GHZ
	Video Transmission Frame Rate	30 FPS
Remote controller	Remote Controller Weight	About 465g
	Manufacture	Ruko
	Model Numer	RC3
	Battery	5800 mAh Li-polymer
	Charging Time	About 2.5 hours
	Operating Voltage	7.4V
	Operating Temperature	32°to 104°F (0°to 40°C)

Intelligent Flight Battery	Capacity	2200mAh
	Voltage	7.6V
	Battery Type	Li-polymer
	Power	16.72Wh
	Net Weight	93 g/3.28 oz
	Max Charging Time	About 3 Hours(Depending on Charging Power)
	Charging Temperature Range	41° to 104°F (5° to 40°C)
Charging Cable	Interface Type	Type - C
	Input	100 - 240V, 50/60Hz, 0.5A
	Output	5V/1.5A or 5V/2A or 5V/3A
	Rated Power	≤ 15W

7.2 Accessories

Intelligent Flight Battery

Spare Propeller

Remote Controller

- Always use original accessories. The use of non-original accessories may pose a risk to the safe use of the aircraft.
- It is forbidden to install any accessory or payload not included in the original packaging of the UA or not approved by the manufacturer.
- The remote pilot is responsible for ensuring that the mass of the UA does not exceed the Maximum Takeoff Mass (MTOM) as specified in the manufacturer's instructions.

7.3 Common Problems and Solutions

Question	Reason	Solutions
The Quick Transfer (Scan) function is not working	The Quick Transfer function was not used correctly	For details, please refer to pages 11–12 of the manual
The remote controller touchscreen is unresponsive	If your fingers are wet or you are wearing gloves, the touchscreen may not function properly	Please keep both the screen and your fingers dry, and avoid using the remote controller with gloves
The remote controller screen brightness is too low, making it difficult to see the display	The default brightness setting is relatively low	Pull down the control bar and adjust the screen brightness to the maximum
The remote controller shows insufficient storage	The built-in memory is full	Please delete old videos/photos or insert an SD card to expand storage
The remote controller is overheating	It has been used under direct sunlight for a long time	Please use the remote controller in a shaded environment and avoid prolonged exposure to direct sunlight
The motor cannot be unlocked	No GPS signal (drone indicator light flashing green)	Fly in an open area with a strong GPS signal
	Compass is being interfered with (drone green light off)	Complete the compass calibration; see page 54 of the manual for details
	The gyroscope is calibrating (drone green light flashes quickly for 1–2 seconds)	Place the drone on a level surface and wait for the calibration to complete
	The drone has entered low battery mode (drone indicator light is red)	Please charge the battery in time
	The left and right joysticks are not in place	Push the left and right joysticks simultaneously toward the 5 o'clock and 7 o'clock positions, respectively. Alternatively, use the one-touch takeoff feature on the remote controller screen
Unstable flight	Flying too low, affected by aircraft airflow	Please fly the aircraft above 9.84ft(3 meters)
	The gyroscope is not calibrated	Place the aircraft on a horizontal surface and conduct gyroscope/horizontal calibration.see page 56 of the manual for details
	The propellers become deformed and incomplete	Replace the propellers with new ones
	GPS signal is unstable. Flying near buildings and in obstructed places	Please fly the aircraft in an open area free of obstacles within the circle of radius 32.81ft(10m)

Question	Reason	Solutions
Fly not far, fly out a distance to bounce back	In beginner mode, you will only be able to fly 30 metres in height and 30 metres in distance	Enter the setting interface of the remote controller screen, close the beginner mode, set the flight distance and height, and save the Settings
	When the drone enters the first low-battery stage, it can only fly up to 30 meters high and 30 meters away	Replace with another battery to continue flying
	Maximum flight distance reached	Enter the settings menu to check the maximum flight distance limit. Note: You can only fly beyond 20,000 ft after disabling Flight Unlock
After unlocking, the drone tips over during takeoff	4 propellers are installed backwards or a wrong propeller is installed	When installing the propeller, install it according to the corresponding mark
The drone suddenly crashed	1.The battery is not installed properly; 2.The propeller is not securely installed and falls off	Check whether the battery or propeller is abnormal, and re-test after firm installation
Out of control, spinning around on its own, abnormal sound	Compass interference.	Please manually land the aircraft in time and calibrate the compass. Please make sure to fly away from the buildings, trees, power lines, and signal towers
	The propellers are deformed and damaged	Replace the propellers with new ones
The image is blurry or unclear	The camera cover is not removed	Remove the camera cover before flying
	The camera lens is dirty	Use a clean cloth to clean the lens
	The lens film has not been removed	Please remove the lens film
	Videos saved in the remote controller are only in 720P quality	Insert an SD card into the drone to save videos in 4K quality
Video freezes, image transmission distance is short.	During long-distance flight, the image transmission signal may be interfered with by obstacles	1. Please choose an open flight environment and keep the drone's altitude higher than the surrounding obstacles; 2. Point the remote controller toward the drone's flight position
	Phone performance freezes.	Close unused apps running in the background to maintain the best performance of the phone.
GPS signal is weak	When the drone is indoors.	GPS signals cannot be found indoors. Please search for GPS signals in an open area.
	Under the tree, next to the building, in an obstructed place	Please stay away from obstacles for more than 32.81ft(10m), and search for GPS signals in an open area

Question	Reason	Solutions
Unable to return home, drifting and flying away	The drone has lost its GPS signal	Fly away from buildings or covered areas
	The compass is being interfered with	Stay away from metal objects, electronic devices, or signal towers
The remote controller and the drone take a long time to match	It takes about 30 seconds to match the remote to the drone	Please wait patiently
Unable to charge battery/Not fully charged	Using an inferior charger or charging from a computer with unstable voltage	Ensure that you use a charger with stable output voltage. Do not use a charger below 5V/2A
	Using inferior charging cables	Please use the original factory charging cable to charge
Short battery life	Flying in windy weather	Flying in windy weather will accelerate power loss
	The drone was not be fully charged before using	The batteries are fully charged with the correct USB charger before flying
	Flying in cold weather	In low temperatures, the chemical reaction of the lithium battery is slowed down and the energy cannot be fully released
The product has slight marks	We tested all drone before shipping	In order to give you the best experience, we tested functions of all drone before shipping. Therefore, it is inevitable that there will be slight traces. However, it can be guaranteed that all drone are 100% brand new

Ruko

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