Ruko

14+
For Ages

User Manual
v2.0

F11 GIM2

Contents

1 Using This Manual 4
1.1 Legend 4
1.2 Read Before the First Flight 4
1.3 Video Tutorials 4
1.4 Download the App 4
2 Package Contents 5
3 Preface 6
4 Warning 9
5 Fly Safety 11
6 Remote Controller 12
6.1 Controller Features 12
6.2 Controlling the Drone 13
6.3 Optimal Transmission Zone 15
6.4 Emergency Stop 15
6.5 Charging the Controller 16
7 Drone 16
7.1 Preparing the Aircraft 16
7.2 Drone Diagram 17
7.3 Assemble the Propeller 17
7.4 Intelligent Flight Battery 18
7.5 Gimbal and Camera 18

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8 Drone Status Indicators 20
9 Product Functions Profile 21
9.1 Return to Home 21
9.2 Waypoint Flight 22
9.3 Point of Interest 23
9.4 GPS Follow Me 23
9.5 Image Recognition Follow Me 24
9.6 Hand Gesture 24
10 Connect the APP 24
10.1 Download the APP 24
10.2 Connect the APP with Drone 25
11 APP Functions 25
11.1 Control 25
11.2 APP Icons Introduction 26
12 APP Setting 27
12.1 Setting 27
13 APP Functions 29
13.1 APP One Key Share Function 29
13.2 How to Download the Pictures and Videos 31
14 Flight 32
14.1 Take Off/Landing Procedures 32
14.2 Quick Start 33

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15 Specifications 35
15.1 Drone 35
15.2 Gimbal Stabilization 35
15.3 Camera 35
15.4 5G Transmission 35
15.5 APP/Live View 36
15.6 Remote Controller 36
15.7 Intelligent Flight Battery 36
15.8 Charging Cable: Type-c 36
16 Common Problems 37
17 Accessories Support 40

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1 Using This Manual

1.1 Legend

- 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

1.2 Read Before the First Flight

- Read the following documents before using Ruko drone.
  - 1) User Manual
  - 2) Quick Start Guide
  - 3) Disclaimer and Safety Guidelines
- To ensure a safe first flight, it is an essential step for you to watch all the guide videos on our website and read the disclaimer and user manual.

1.3 Video Tutorials

- Scan the QR code to watch the guide videos, which demonstrate how to use Ruko drone.

1.4 Download the App

- Scan the QR code download RUKO DRONE app.

IOS version download QR code

The iOS version of RUKO DRONE is compatible with iOS 11.0 and later.

Android version download QR code

The operation system version of RUKO DRONE is compatible with Android 4.0.3 and later.

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2 Package Contents

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3 Preface

Thank you for purchasing the Ruko Series GPS aircraft. Please read all instructions and warnings carefully before operating. Please also keep this instruction manual for future reference and maintenance.

Important

- This product should be operated by the people who are over 14 years old. It is a precision device, integrating machinery and electronics with an mechanics and high frequency transmission. It requires correct assembly and debugging to avoid any accident. The user should operate and control this product in a safe manner. In case of incorrect operation, it may cause serious injury or damage property, it can also be lost due to incorrect operation.
- This product is suitable for experienced UAV pilots no less than 14 years of age.
- In the event of a problem during using, operating, or maintenance, please contact the local sales agent or retailer. We are happy to touch with the responsible staff of our company.

Safety Precautions

- This RC aircraft can be dangerous when in use, please make sure you keep it far away from any persons or spectators when flying. In correct installation,poor conditions, or users not familiar with operation may cause damage to the aircraft or injure people or may cause an unexpected accident. Please pay close attention to flying safety and learn to recognize more dangerous conditions which may cause an accident due to your own negligence.
- **Keep it far away from any structures or crowds.**
  The RC aircraft may vary slightly in speed or sensitivity while flying and can cause potential danger. There may be times it may turn from crowds, buildings, trees, structures, high voltage wire, etc. Please also avoid flying in adverse weather conditions such as rain, electrical storms, and high winds to ensure safety of the user, any spectators, and surrounding property.
- **Keep it away from any moist environment.**
  The motor of the aircraft is composed of many precision electronic and mechanical parts. Therefore, please try to avoid any moisture or water contact from entering the main body of the aircraft as it may causes a breakdown of the mechanical and electronic parts and thus cause an accident.

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- **Only operate with included parts for intended use.**
  Please use the original parts made by Ruko Series for any re-equipping or maintenance to ensure flying safety. Please operate and use only under the scope of the product function permitted. Using on opposed parts will void warranty.
  DO NOT use for any illegal purpose or use beyond the scope of which your local laws and regulations have stipulated.
- **Avoid controlling it independently.**
  New users may have certain difficulties during the early stages of learning to operate this aircraft. Please try to avoid operating the aircraft alone. When available, always operate the aircraft under the guidance of a more experienced user.
- **Do not operate under the influence of drugs or alcohol.**
  Please operate the RC aircraft according to your own rules and flying skill. Any fatigue, bad mental state, or insomnia operation may increase the probability of accident risk.
- **Please keep a safe range from aircraft when using top speed.**
  When the aperture flying height exceeds,please keep the aircraft far from the pilot and any surrounding persons or objects so as not to cause danger or damage.
- **Store it in a cool, dry place.**
  The RC aircraft is composed of material such as metal, fiber, plastic, electronics, etc. Therefore, please keep it away from any heat sources and environments exposed to direct sunlight. Excessive heat exposure can cause distortion and damage.
- **Read the Disclaimer & Safety Guidelines**

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- This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.
- Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The device has been evaluated to meet general RF exposure requirement. The device complies with rules and regulations adopted by Ruko Bass Drone.

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4 Warning

There is important information contained in this package and instruction manual, please keep it for future reference.

- You have the responsibility to make sure that this model of aircraft won't cause injury to others' body or cause any damage to property.
- Please operate strictly as shown on the instruction manual when debugging or assembling the aircraft. Please keep the aircraft away from any electrical equipment and keep a safe distance between the user and the aircraft to avoid colliding to the head or face of body, which may cause injury.
- Our company and distributor won't be responsible for any incorrect operation, which may cause bad or damage or injury to the body.
- Children age 14 and up should use the product under the guidance of an adult. This product is FORBIDDEN to be used by children under 14 years old.
- Please carefully examine and use this product as shown in the instruction manual or packing instruction. Some parts should be assembled by an adult.
- Please carefully examine with the product. Please place it beyond the reach of the children to avoid CHOKING HAZARD or parts being mistakenly swallowed.
- Please keep the aircraft away from any kind of heat sources to avoid FORBIDDEN to an not to cause or damage.
- Please dispose of the packing material timely so as not to cause injury to children.
- Please DO NOT disassemble or re-equip the aircraft by yourself, or cause damage to the aircraft during flying.
- Batteries in the battery compartment of the charger should be inserted to the designated power source which has the same logo as the product.
- Built-in rechargeable 3.7V lithium polymer battery included in the transmitter.
- Only the original charger made from our factory can be used.
- Charger is only for indoor.
- When charging the battery, please conduct under the surveillance of an adult. Please also keep it far away from any combustible objects and ensure that keep away from the aircraft when charging.
- Please DO NOT make it short circuited or squeeze the battery so as not to cause an explosion.
- DO NOT mix the Li-ion battery with a different type of battery.
- Intelligent Li-ion battery is loaded in the Quad-rotor. Both built-in or external can be used for charging.

WARNING: CHOKING HAZARD - Small parts. Not for children under 3 years.

WEEE 2012/19/EU Contains electrical or electronic components. May contain batteries or accumulators. Not suitable for disposal in a public waste disposal site. Return to a collection point for recycling or other forms of environmentally sound disposal.

Not recommended for children under 14 years old.

MADE IN CHINA

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

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5 Fly Safety

- ANTI-Interference and Interrupt.
- Make sure correctly open the remote control antenna.
- Make sure fly in the open and relaxed area (interference and obstacles).
- Do not fly against the wind. WiFi transmission distance is 300M.

- Avoid flying in or near obstacles, crowds, high voltage power lines, trees, animals or bodies of water.
- DO NOT fly near strong electromagnetic sources such as power lines and base stations as it may affect the onboard compass.

- DO NOT use the drone in adverse weather conditions such as rain, snow, fog and wind speeds exceeding 7 mis or 10 mph.

⚠ It's important to understand basic flight guidelines for the safety of both you and those in or around you. Don't forget to read the Safety Guidelines before flight.

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6 Remote Controller

6.1 Controller Features

- The FY-10M2 has three speed mode: Camera mode 14.7ft/4.5s, Normal mode 25.5ft/5s, and Sport mode 35.1ft/5s. The default speed is Normal mode, higher speed will cause battery faster.

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6.2 Controlling the Drone

- **Remote Controller Stick Mode-1 (Default Mode)**

- **Switch Remote Controller Stick Mode-Mode 2**

Power off the remote control, Keep pressing Fn(F), clicking the C1 twice, (Click once indicating the power level, click again the remote control beeps three times and power on, LED screen indicates "RMMD MODE 2")
Note: Once switch, the control mode will back to default mode - Mode 1.

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Transmitter (Default Mode)	Aircraft Direction	Remarks
		Push up/down the throttle stick to control the aircraft heading. Push left/right the direction stick to down the nose and the aircraft will move forward/backward. Left/right stick is the middle position, the aircraft will fly forward when the aircraft takes off. The aircraft will move forward when the aircraft takes off. Push up/down the throttle stick to control the aircraft altitude. Push left/right the direction stick to control the aircraft heading.
		Push up/down the throttle stick to control the aircraft heading. Push left/right the direction stick to down the nose and the aircraft will move forward/backward. Left/right stick is the middle position, the aircraft will fly forward when the aircraft takes off. The aircraft will move forward when the aircraft takes off. Push up/down the throttle stick to control the aircraft altitude. Push left/right the direction stick to control the aircraft heading.
		Push the stick up and the aircraft will move forward. Push the stick down and the aircraft will move backwards. The aircraft's front and rear will tilt to the corresponding to and positions. The speed of flight corresponds to the angle of the stick. Push the stick to the left and the aircraft will fly to the left. The aircraft's front and rear will tilt to the left and the aircraft's lift is the right and the aircraft will move to the left. Push the stick to the right and the aircraft will fly to the right. The aircraft's front and rear will tilt to the right and the aircraft's lift is the left and the aircraft will move to the right. The greater the angle of the stick, the faster the speed of flight. The greater the offset, the faster the flight speed.

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6.3 Optimal Transmission Zone

- The signal between the drone and the remote controller is most reliable when the antennas are positioned in relation to the aircraft as shown below.

⚠ DO NOT use other wireless devices to avoid interference to the remote controller.

6.4 Emergency Stop

- Click once and hold the 🅕🅝 for 3 seconds to enter into Emergency Stop mode. It only activated when the drone's flight attitude within 5-40%.

⚠ By using this function the drone motor will stop working immediately (has fall to the ground), which might cause damage. Only use this feature when in emergency so as to reduce the risk of damage or injury.

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6.5 Charging the Controller

- When the remote control is charging, the LED power will indicate the battery level, when fully charged, it will indicate "BAT 100 PCT". Controller is built-in 3.7V 1500mAh lithium polymer battery. Use the original type C cable to connect an AC power adapter (5.0V-5.2A, 2A) to charge. It takes approximately 2hours to full charge the remote controller. The charing time depends on what adapter we using, suggest to use charger with output camery 5V/2A. Never overcharge.

7 Drone

7.1 Preparing the Aircraft

All aircraft arrive in folded barrow also out of the factory. Please follow the steps below to unfold the arms.

- Take off the Gimbal Cover

- Unfold the front arms

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- Unfold the rear arms and then unfold all the propellers

7.2 Drone Diagram

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7.5 Gimbal and Camera

- The gimbal and camera are pre-installed on the drone and are stable/engaged and allow for clear and smooth shots in flying. The camera also supplied with electronic stabilization function.
- The camera uses an upgraded SONY IMX415 1/2.8" 8MP dual-line transmission function, equipped with 2-Axis Gimbal 4K 120, 1080P/30 frame and 4/8" adjustable camera, which can stably shoot 4K ultra-clear video and images, providing you with a heart-felt experience for unforgettable memories.

⚠ DO NOT install the battery with the power already switched on.
DO NOT change the battery immediately after flight as the temperature may be too high, that will cause a short-term temperature from charging again.

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- **Camera Guideline:**
  - Please take off the gimbal camera cover before flight.
  - When taking off from grass or sand, please place the aircraft on the landing pad or cardboard to keep it level.

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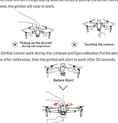
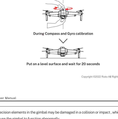
①Do not turn on the aircraft when it is on dock or hollow wooden floor. They will amplify the small vibrations into high-frequency vibrations, which will cause the gimbal correct work.



②Do not interfere with the gimbal by external forces or pick up the aircraft during calibration. Otherwise, the gimbal will start to work.



③ The Gimbal cannot work during the compass and Gyro calibration. Put the aircraft on a level surface after calibration, then the gimbal will start to work after 20 seconds.

④ Put on a level surface and wait for 20 seconds

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- Precision elements in the gimbal may be damaged in a collision or impact, which may cause the gimbal to function abnormally.
- Avoid getting dust or sand on the gimbal and the camera, especially in the gimbal motors.
- DO NOT apply excessive force to the gimbal. Allow the gimbal to prevent on, as this may cause the gimbal to function abnormally or even lead to permanentmotor damage.
- Make sure to install the gimbal cover when the drone is not in use.
- If the gimbal get wet after flying in wet weather, temporary failure might occur, make the gimbal and the drone dry so as to get it recover to full function.

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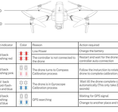
8 Drone Status Indicators

- F10GNB drone has front and back four LED lights.



LED light indicator	Color	Status	Description
Front and back LED lights are solid on		Solid red	Aircraft error
		Solid yellow	Aircraft error, or not connected to the device
		Solid green	Aircraft error, or connected to the device
Front and back LED lights are flashing alternately		Flashing red and yellow	Aircraft error
		Flashing green and yellow	The drone is in Gyroscope calibration or Compass calibration
		Flashing red	Low battery alarm
Front and back LED lights are flashing in the same direction		Flashing green	Ready to fly
		Flashing red	Aircraft error

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9 Product Functions Profile

9.1 Return to Home

The Return to Home (RTH) function brings the drone back to the Home Point. This function can only be achieved under GPS mode. There are three types of RTH: Smart RTH, Low Battery RTH, and Fail-safe RTH. If the drone has successfully recorded the Take-off Point and the GPS signal is strong, the RTH will be triggered when either the Smart RTH is initiated, the low battery level is low, or when the signal between the drone and remote controller is lost.

Drone Status	Gps	Description
		The default Home Point is the first location where the drone receives a strong GPS signal prior to the motors starting to rotate.

- **Smart RTH**

Smart RTH can bring the drone back to the Home Point. It is initiated by either clicking the ⌂ button once on the remote controller or on the app, the remote controller will start with a "DISK" sound. Click the ⌂ button again cancel the RTH function.

- **Fail Safe Return RTH**

If the Home Point has been recorded successfully and the compass function can work normally, the Fail Safe Return RTH function will be triggered once the remote controller signal is lost, the drone will return to the Home point in straight line. The drone may link to the remote controller automatically during the RTH process, if connected successfully, the RTH process will stop.

- **Low Battery RTH**

Low Battery RTH is triggered when the drone battery level is low, this function is triggered automatically, the drone will first be ordered return altitude and fly back to the Home Point, the process is unable to cancel, but it is allowed to control the drone with direction joystick to land it in a safe area.

If the battery can't support the drone fly back to the Home Point, it will land automatically where it is, and the remote controller vibration joystick is available during landing.

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- **Cautions**
  - Never turn off the remote controller during RTH process.
  - Set a proper return home altitude on the app before take-off.
  - HD obstacle avoidance function is available with this drone.
  - When flight distance less than 30 ft, the drone flies back at the current altitude instead of the return altitude. Make sure it flies higher than any other objects surrounding.
  - When flight distance farther than 30 ft, make sure the drone has enough battery to fly back.
  - The drone can NOT return to Home Point without a strong GPS signal.

9.2 Waypoint Flight

- When the phone mobile data is available, select ⊞ in the app, load the map data of the area which needed to fly in.
- Connect the drone WiFi in the phone, one-tap to clicking ⊞ on the app.
- Click ⊞ to enter the limited flight range for this function, click to set points within the red circle to ensure the waypoint flight function ON points the most.
- Click ⊞ and ⊞ to reset the points of flight route.
- Click ⊞ confirm to start Waypoint Flight.
- Push the Direction Joystick to cancel the Waypoint Flight .

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9.3 Point of Interest

- **This feature enable the drone to fly around the point in a 360 circle.**
- Select the drone around the center point.
- Press ⊙ ⊙ in Autonomous controller at the same time.
- Make and set the drone surround radius range(within 2 to 100 meters) with the Direction Joystick.
- Press ⊙ ⊙ to confirm the controller at the same time again, the drone starts fly according to the radius range set in step 3.
- To cancel the Point of Interest Flying, Use the Direction Joystick.
- Note: If the surround radius range set less than 2 meters, the drone will automatically adjust to 2 meters.
- If the drone have connected with the controller and the drone is in air, press the ⊙ ⊙ button at the same time, the Point of Interest function will be activated.
- This function will only be available when the GPS signal is strong.

9.4 GPS Follow Me

- GPS Follow Me function requires strong GPS signal, once the function been initiated, the drone can follow the smart phone wherever it goes, below are the steps to activate this function:
- Connect the drone's WiFi in the smart phone, access to the app CONTROL ⊙ interface.
- Make sure the flight distance is within 10-100meters.
- Click the ⊙ on the app.
- Waiting for app to indicate drone status, "Follow Me Ready", now the drone will move along with the positioning coordinates on the app.
- Click the ⊙ on the app interface again to exit the Follow Me mode.

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- GPS Follow Me function will be affected by the tall structures, trees and the long areas with WiFi signal interference, GPS Follow me function is not activated when the GPS signal and or GPS positioning off on the mobile device.

9.5 Image Recognition Follow Me

Image Recognition Follow Me function enables the drone to follow the object's circle movement to notes.

- Connect the drone's WiFi on the smart phone, access to the app CONTROL ⊙ interface.
- Click ⊙ on the app, the drone will automatically lock the target, to confirm the selection, drone starts following the object in circle movement.
- Ensure the size of the frame isn't too large, so as to ensure the recognition is achievable.

9.6 Hand Gesture

- Click ⊙ on the app, drone stands down 3 seconds to lift with hand motion to take photos and record video. Follow the instruction in the app.
- When raise the hand, make sure to keep the allow at the same height of the shoulder.

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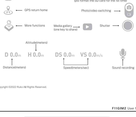
10 Connect the APP

10.1 Download the App



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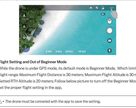
10.2 Connect the APP with Drone

- APP Guidance

①.For some aircraft phone, after connection with drone, the app will ask for the camera access for about 10-40 seconds, note: If there is no camera popping up about internet settings, make sure connected, otherwise, there is no picture after entering App.

②.If still without WiFi connection, please turn on your phone's airplane mode and connect WiFi.

③.Make sure allow all the permissions required when connecting with app. If failed connection, please go to the phone "setting" to allow all the permissions.



- Once the drone WiFi has been connected, the app will recognize the drone model and connect automatically.

- CONTROL ⊙ tap to access the instant video transmission and drone control interface, LEARN TUTORIAL ⊙ tap to watch the guide video.

GUIDE ⊙ tap to read the manual, and watch instructional videos.

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11 APP Functions

11.1 Control

- Click and the drone status says "Ready to Fly" before initiating flight, access to the control interface.

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- User can refer to the aircraft flight direction from the Attitude Indicator in the app.

11.2 APP Setting

12.1 Settings

- **Fight Setting and Out of Beginner Mode**

While the drone is under GPS mode, its default mode is Beginner Mode, Which limits the flight range Maximum Flight Distance is 30 meters; Maximum Flight Altitude is 30 meters; Sensor RTH Altitude is 20 meters. Follow below picture to turn off the Beginner Mode and set the proper flight setting in the app.

The drone must be connected with the app to save the setting.

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- **Find the Lost Drone**

When the drone has connected with app, and drone GPS signal is strong, the drone's location can be recorded in the app.

① Access to "Tools", click ⊞ button to open the map surface to search the drone.

② The last position of lost drone will be showed on the map.

Current position of the mobile phone

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- **Gimbal Back to Factory Setting**
Get the gimbal back to factory setting, access to "PTZ adjust", click "Restore factory setting"

- **How to change units**
This function enables to switch the units between Inch(MPH, Meter/min), Metric(km/h),

13 APP Functions

13.1 App One Key Share Function

1 Open the app click (share) enter into the file (1)

2 Click once or press (1) to select the photos which to share, click (2) choose the media to be shared (fig.3)

Fig. 2

Fig. 3

13.2 How to Download the Pictures and Videos

After shooting and recording were completed, photo and video save to both the app album and microSD card in the Remote Pro.

- Connect the drone's WiFi on the phone, access to the app "control" interface, click (1) either choose to download the picture and video from SD card or app album.
② Download the picture and video from SD card, click (2) choose files and click (3) save to the mobile phone.

13.3 How to Download the Pictures and Videos

After shooting and recording were completed, photo and video save to both the app album and microSD card in the Remote Pro.

- Connect the drone's WiFi on the phone, access to the app "control" interface, click (1) either choose to download the picture and video from SD card or app album.
② Download the picture and video from SD card, click (2) choose files and click (3) save to the mobile phone.

- Take out the SD card from drone, insert the card into a card reader and read the data on computer, download the video and photo into a computer.

Video be stored in the app album will be compressed, thus always suggest to download the video from the SD card to get the best resolution.

14 Flight

14.1 Takeoff/Landing Procedures

- Place the drone in an open, flat area, remove the gimbal cover.

- Power on the remote controller and the drone.
- Wait until the remote controller and drone connected, connect the app, complete the calibration process.
- Keep the drone camera facing forward, start the motors.
- Gently push the throttle joystick up to take off.

- **Step 1: Turn on the controller**
Power on the controller, lift up the antenna to receive signal.
- **Step 2: Turn on the drone**
Remove the gimbal cover gently, place the drone on a level surface, power on the drone, All lights blinking red, Drone and remote controller connected successfully, all lights flashing white and blue then turn to flashing white and green.

- This correct process take around 40seconds.

- **Step 3: Connect the app**
Open the phone's WiFi list, connect the drone's WFI which name "FLAYO-GX8-XXXX", open the "FLAYO DRONE" app.

- **Step 4: Complete compass Calibration**
Pin on the app and hold steadily, rotate the drone in one full circle (360°) until hear a "beep" sound reminder, then rotate the drone in one full circle (360°) vertically to the ground, repeat the process, if hear one long "beep" sound reminder.

- **Step 5: Complete the gyroscope calibration**
Put the drone on a level surface, push the left and right joysticks to the "4" and 4 stick positions, lights flashing white and blue quickly.

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- Drone searches for GPS signal automatically, when lights turn to solid blue and white, drone is ready to fly.
- App status "Ready to fly" is displayed in the app, drone is ready to fly.
- When it is needed to manually trigger the compass calibration to adjust to the environment, please push the joystick to 1 & 7 in stick position, follow the drone steps to rotate the drone.

- To trigger the Gyroscope Calibration, please push the joystick to 1 & 1 stick position, drone auto complete the Gyroscope Calibration.

- **Step 6: Start and Stop the Motors**
Push the joystick to 1 & 7 o'clock position, motors start.
Push the Throttle joystick up to get the drone take off, or you can press ◎ in the app to take off. Push the joystick to 0 & 7 o'clock position again, restore stop.

The motors will stop running if no operation after 20 seconds.

- **Step 7: 3 Ways to land the drone**
Press the Pitch button ◎, drone will return to the Home Point.
Press the land button ◎ on the app, the drone will land directly.
Keep pulling Throttle joystick down until the drone's lands and motors stop.

If the drone keep searching for GPS but no success because of weak GPS signal, keep sending the joystick to turn off the GPS Mode and switch to Manual Control mode, so that it is able to get the drone take off. However, under Manual Control mode, keep the drone within 10 meters and 10 meters high, and avoid any GPS positioning services.

15 Specifications

15.1 Drone

- MODEL: FY-GX8Z
- Weight (including Battery): 589g/590cr
- Flight Time: About 28 mins
- Motor Model: 1806
- Operating Temperature Range: 32° to 104° F (0° to 40° C)
- Satellite Systems: GPS(L2),Glonass
- Dimensions (Unfold): Unfolded: 455x430x580mm
- Fold: 170x100x58mm

15.2 Gimbal Stabilization

- Mechanical Range: Tilt: Max: 90°, Tilt: Adjust: 30°(10~30°)
- Control Range: Adjusted angle of camera (up and down): About -80°TO+47

15.3 Camera

- Lens:FOV 90°
- Equivalent Focal Length: 16MM
- Focus range:Fixed focus
- Resolution of photo: 1920*1080 (Optional: 1280*720 and 3840*2160)*
- Resolution of video: Phone:1080P/720P SD card:3840*2160*
- Photo Format: JPG
- Video Format: MP4
- Supported File Systems: FAT32
- Supported SD Cards: Micro SD card (Class 10),U1 or later) SDG-1280

15.4 5G Transmission

- Operating Frequency: 2.4/5.8,5.15~5.725/5.725~5.825 GHz
- Supported Transmission Protocol: 802.11a, 802.11n,802.11ac
- Video Transmission Frame Rate: 30FPS

15.5 APP / Live View

- Mobile App: FLAYO DRONE
- Live View Quality:

CONFIGURATION	STORAGE METHOD		RESOLUTION	TRANSMISSION BITRATE
HD	Phone	1080p	1920x1080	8Mbs
		720p	1280x720	4Mbs
	SD	1080p	1920x1080	8Mbs
		720p	1280x720	4Mbs

- Required Operating System: IOS 8.0+ or later,Android 5.0 or later

15.6 Remote controller

- Operating Frequency: 2.4G + 5G bridge
- Max operating distance: Up to 3KM (Outdoor and Unobstructed)
- Battery: 1500mAh Li-polymer
- Charging time: about 2 hours
- Operating time: about 2.5 hours
- Operating Voltage: 3.7V
- Mobile Device Holder: 4.7"to 5.5" Smart Phones
- Operating Temperature:32° to 104° F (0° to 40° C)

15.7 Intelligent Flight Battery

- Capacity: 2500 mAh
- Voltage: 7.7V
- Battery Type: Li-polymer
- Energy: 27.75Wh
- Net Weight: 190 g ±5g
- Max Charging Power: 50W
- Max Charging Time: About 4.5 hours (Depending on Charging Power)
- Charging Temperature Range:10° to 40° C (50° to 104° F)

15.8 Charging cable: Type-C

- Compatible Charger (not included): Output currently 5V/3A.
- Rated Power: ≤15 W

16 COMMON PROBLEMS

Question	Reason	Solution
The motors cannot be started	Weak GPS signal	Fly the drone in an open area with strong GPS signal
	The red light stays on	The Aircraft is in an abnormal state, please restart the equipment and follow the prompts
	The pink light stays on	The compass is not calibrated. Please refer to the "Compass Calibration Tips" section of the user manual
	The left and right pulsate in yellow and red	Push the left and right joysticks inwards to cancel the Aircraft's Failsafe Mode
Unstable flight	Drone is in low, affected by Aircraft airflow	Place the drone in an area free of obstacles
	The gimbal is not calibrated	Place the Aircraft on a horizontal surface and restart the equipment to calibrate the gimbal
	The propellers become deformed and malfunction	Replace the propellers with new ones
	The Aircraft's motors are flying too fast/too slow	Repeat the Gyroscope Calibration
	The Transmitter signal is interfered or the Aircraft's signal is weak	Fly away from the Aircraft's signal interference area
Out of control, spinning around on its own, downward launch	Compass interference	Repeat the Aircraft calibration without interference, and ensure that it is within a controllable range
	The propellers become deformed and malfunction	Replace the propellers with new ones
	The Aircraft's motors are flying too fast/too slow	Ensure the propellers are installed correctly and replace a pair between the motors and the rotor
The camera or the/transmitter is/are unable to turn on, Black Screen, the camera angle	Power is not sufficient	Ensure the drone is in solid blue and green
	Power Switch Cable Connection Loose	Have Customer Service contact the drone's manufacturer
	Drone is in the "Sleep" mode	Ensure the drone is in solid blue and green
	Drone is in the "Sleep" mode	Ensure the drone is in solid blue and green
	The camera is in Lockpicking	Contact the drone's manufacturer
Video freezes, image transmission distance is short	The Aircraft's signal is weak	Fly the Aircraft within the range of the Wi-Fi
	WiFi image transmission signal interference	Fly the Aircraft in an environment free of interference, such as WiFi, Bluetooth and signal towers
	The transmitter and the drone phone are not paired or in the wrong pairing mode	Pair the Transmitter and the drone phone, ensure the pairing mode is the same as the transmitter the charged signal connection
	Phone performance freezes	Close unnecessary apps in the background to maintain the best performance of the phone
Video is not clear	Low WiFi signal, the phone uses 2G/3G/4G	Move the drone closer to the phone to ensure a strong WiFi signal
	The phone is not connected to the drone's WiFi	Connect the phone to the drone's WiFi
	The phone's operating system is too old, causing compatibility issues	Update the phone's operating system to the latest version
App does not show what the drone's camera is seeing	Incorrect app setting, causing the app not to display the video	Turn off the app's video display
	The PTZ app blocks the drone's video from being sent to the phone	Turn off the app
	Didn't keep the drone, transmitter, and phone connected, causing the drone's WiFi sharing was disrupted	Please do keep the drone's WiFi connection, transmitter connection, and phone connection.
APP crashes or freezes unexpectedly	Insufficient phone memory, causing app and accompanying software to crash	Download the latest App
Phone cannot connect to the drone's WiFi	Incorrect WiFi password	Ensure the correct WiFi password is entered
The drone's WiFi name is not displayed in the list	Drone's WiFi module is not powered on	Ensure the drone's WiFi module is powered on
GPS signal is weak	Turning on the drone indoors	Use the drone outdoors in an open area with strong GPS signals
	Under the tree, next to the building, in an enclosed space	Avoid flying in GPS-obstructed areas, such as under trees or next to buildings, and ensure the GPS signals in an open area

Question	Reason	Solution
Video freezes, image transmission distance is short	The Aircraft's signal is weak	Fly the Aircraft within the range of the Wi-Fi
	WiFi image transmission signal interference	Fly the Aircraft in an environment free of interference, such as WiFi, Bluetooth and signal towers
	The transmitter and the drone phone are not paired or in the wrong pairing mode	Pair the Transmitter and the drone phone, ensure the pairing mode is the same as the transmitter the charged signal connection
	Phone performance freezes	Close unnecessary apps in the background to maintain the best performance of the phone
Video is not clear	Low WiFi signal, the phone uses 2G/3G/4G	Move the drone closer to the phone to ensure a strong WiFi signal
	The phone is not connected to the drone's WI-FI	Connect the phone to the drone's WI-FI
	The phone's operating system is too old, causing compatibility issues	Update the phone's operating system to the latest version
App does not show what the drone's camera is seeing	Incorrect app setting, causing the app not to display the video	Turn off the video display in the app
	The PTZ app blocks the drone's video from being sent to the phone	Turn off the app
	Didn't keep the drone, transmitter, and phone connected, causing the drone's WI-FI sharing was disrupted	Please do keep the drone's WIFI connection, transmitter connection, and phone connection.
APP crashes or freezes unexpectedly	Insufficient phone memory, causing app and accompanying software to crash	Download the latest App
Phone cannot connect to the drone's WI-FI	Incorrect WI-FI password	Ensure the correct WI-FI password is entered
The drone's WIFI name is not displayed in the list	Drone's WI-FI module is not powered on	Ensure the drone's WI-FI module is powered on
GPS signal is weak	Turning on the drone indoors	Use the drone outdoors in an open area with strong GPS signals
	Under the tree, next to the building, in an enclosed space	Avoid flying in GPS-obstructed areas, such as under trees or next to buildings, and ensure the GPS signals in an open area

Question	Reason	Solutions
Unable to return home, drifting and flying away	GPS signal was turned off during the flight	Please don't turn off GPS suddenly during outdoor flight. Switch back to GPS mode in time
Cannot charge battery/Cannot fully charge battery	Using inferior charger or charging on the computer with unstable voltage output	Use a mobile USB charger that ensures constant stable voltage output(5V) and amperage output(2-3A)
	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
	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 battery is not fully charged	Fully charged with the correct USB charger before flying
The product has slight marks	We tested all Aircraft before shipping	In order to give you the best experience, we tested functions of all Aircraft before shipping. Therefore, it is inevitable that there will be slight traces. However, it can be guaranteed that all Aircraft are 100% brand new

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17 Accessories Support

Battery

Propeller

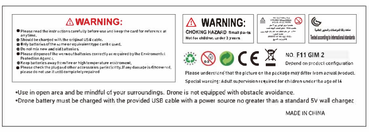
Landing Gear

Arm

Transmitter

All of the above accessories can be searched and purchased on Amazon, and you can enter the Ruko store to buy them yourself.

Be sure to use original accessories. The use of non-original accessories may cause danger to the safe use of the aircraft.



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