6.9.3 Low Battery RTH

- When the smart flight battery is too low or there is not enough power to return home, the user should land the aircraft as soon as possible to avoid damage to the aircraft or other dangers.

- To prevent unnecessary dangers due to insufficient battery power, the Low Battery RTH function will be automatically triggered when the aircraft battery power is low.

- According to the remaining power after starting returning, there are 2 situations:
  ① First-level low battery:
  After the aircraft triggers the Low Battery RTH, it will automatically return to the Home Point and hover. After hovering, it can continue to fly within a 98ft (30m) radius at a height of 98ft (30m).
  ② Second-level low battery:
  The aircraft will land directly to the ground.

- When the aircraft's battery is low, the remote controller will emit a sound. At First-level Low Battery, the remote controller will beep slowly. At Second-level Low Battery, the remote controller will beep rapidly.

- Must pay attention to the flight altitude when the battery is low. Avoid hitting obstacles due to the low flying altitude when returning home with the second-level low battery.

- The remaining power after returning is related to the return distance, wind speed, and wind direction.

- When the aircraft is low on battery and is returning home, you cannot cancel the return. You can use the remote controller stick to avoid obstacles.

6.9.4 Lost Signal RTH

- If the remote controller's battery is low, turned off, or lost signal for 10 seconds, the aircraft will enter automatic return-to-home mode and return to the Home Point.

- If the remote controller reconnects during the RTH process and you wish to cancel the return, you can press the RTH button to cancel it.

- Lost Signal RTH process:
  (1) Record Home Point. (For information about the Home Point, refer to section 3.4.1.)
  (2) Trigger RTH (triggered by low battery of remote controller, signal loss, etc.).
  (3) After triggering the RTH, the aircraft adjusts the nose direction and starts to return home.
  (4) The aircraft automatically flies to the Home Point, then starts to land, and completes the return.

Signal Loss

- When out of control, the aircraft cannot avoid obstacles.
- When the GPS signal is weak, the aircraft cannot return to home automatically.

6.10 Smart Flight（Route Planning, GPS Follow, Fly Around, Cruise Control）

- F7GIM has four types of smart flight: Route Planning, GPS Follow, Fly Around, and Cruise Control.

6.10.1 Route Planning

Aircraft flies along the path marked on the App.

How to Start

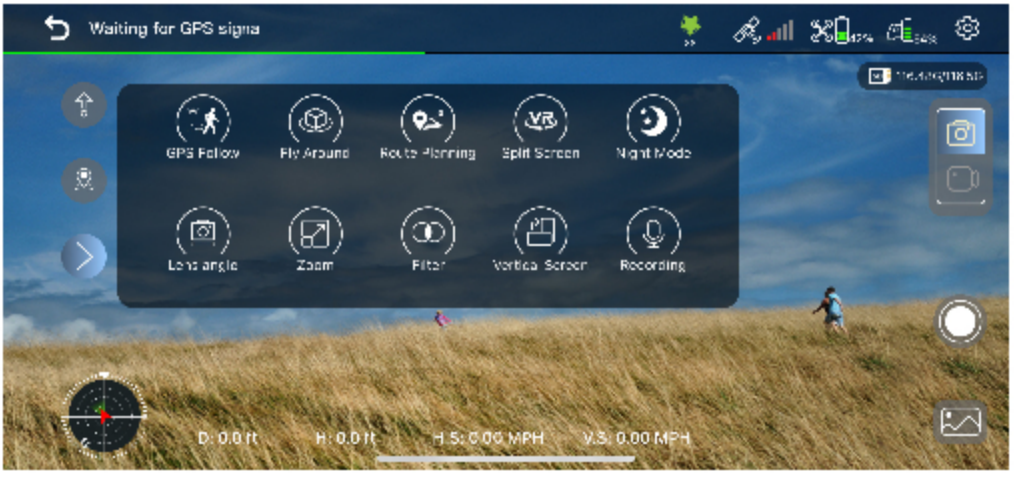
(1) Make sure that the Bwine Mini App has been downloaded and installed on the phone.

(2) Connect your phone to the remote controller with the data cable, and enter into the App operation interface.

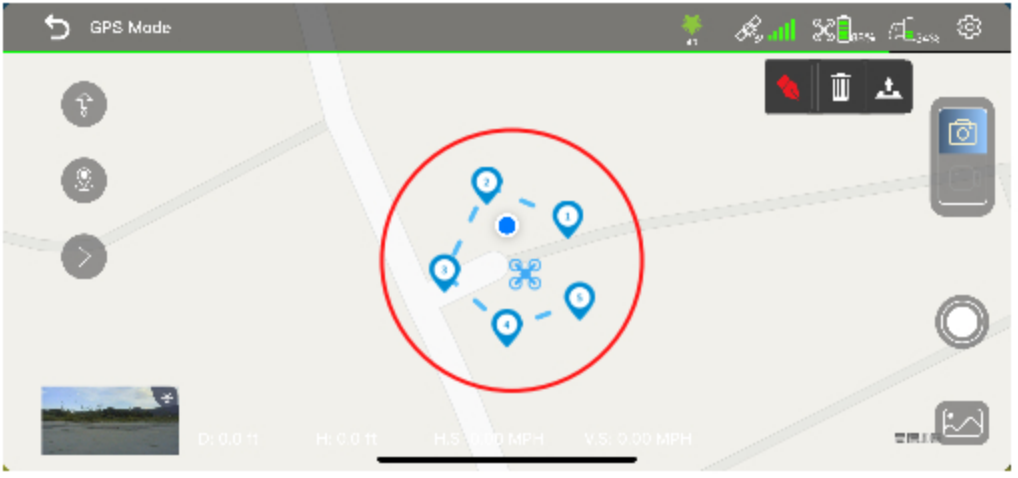
(3) Make sure the map is loaded on the Bwine Mini App before taking off the aircraft.

(4) Take off the aircraft in GPS mode and ensure flight height is higher than the nearby obstructions.

(5) Tap the icon on the app interface to start the Route Planning.



(6) You can find a red circle on the map (limited flight range). Mark the points (up to 10) which you plan to fly the aircraft along within the circle.



(7)Tap "Delete Single Point" or "Delete All" to reset the marked point.

(8)Confirm that the marked points are correct and tap“Go”. The aircraft will start waypoint flight.

- If the current flight altitude of the aircraft is lower than 49ft (15m), Route Planning cannot be started.

How to Exit

Push the right joystick to cancel the waypoint flight function.

6.10.2 GPS Flow

- Aircraft will lock onto the user and can track the user's movement as he moves.

How to Start

(1) Make sure that the Bwine Mini App has been downloaded and installed on the phone.

(2) Connect your phone to the remote controller with the data cable, and enter into the App operation interface.

(3) Take off the aircraft with a strong GPS signal and make sure the horizontal flight distance is within 164.04ft (50m).

(4) Tap the icon  on the app interface to start the GPS Follow.

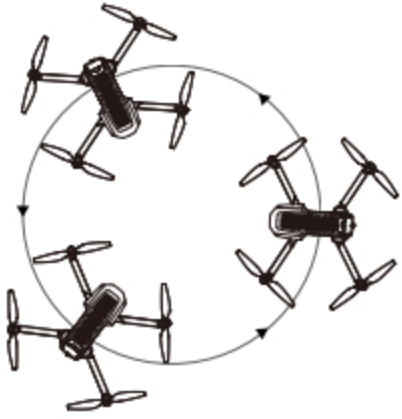
(5) "Follow me mode is ready" will be displayed on the App interface and the aircraft turns on the “GPS follow”. The aircraft will track your movements to fly.

How to Exit

Tap the icon  again to exit the GPS Follow.

- The GPS Follow function only works when the GPS signal is strong. Please avoid high buildings, trees, and areas where Wi-Fi signal might be interfered.
- Aircraft is not equipped with obstacle avoidance function. Please use it in open areas free of obstacles.
- To use this function, the positioning function of the mobile phone must be turned on, otherwise, the GPS Follow function unavailable.

6.10.3 Fly Around



- The aircraft will fly around the target center point with a radius.

How to Start

(1) Make sure that the Bwine Mini App has been downloaded and installed on the phone.

(2) Connect your phone to the remote controller with the data cable, and enter into the App operation interface.

(3) Take off the aircraft in GPS mode and make it hover around the center point of the target.

(4) Tap the icon on the app interface to start the Fly Around.

(5) The aircraft will move backward 16ft (5m) (default orbit radius) and then use the position where the Fly Around function was initiated as the center to start the surrounding flight.

(6) During the surrounding flight, the pilot can adjust the surrounding radius using the joystick (the radius range can only be between 16ft (5m) and 328ft (100m). Pushing the joystick down will increase the surrounding radius while pushing the joystick up will decrease the surrounding radius.

(7) By default, the aircraft performs surrounding flight in a counterclockwise direction. The pilot can change the surrounding direction by pushing the directional joystick left or right.

How to Exit

- Tap the icon  again to cancel the Fly Around.

- If the flight altitude is lower than 16ft (5m) when the Fly Around is activated, the aircraft will rise to 16ft (5m).
- The flying speed of the surrounding radius depends on the surrounding radius. The larger the radius, the faster the flight speed.

6.10.4 Cruise Control

- The aircraft automatically flies at a constant speed according to the current flight action.
- This function requires the use of GPS mode with a strong GPS signal.

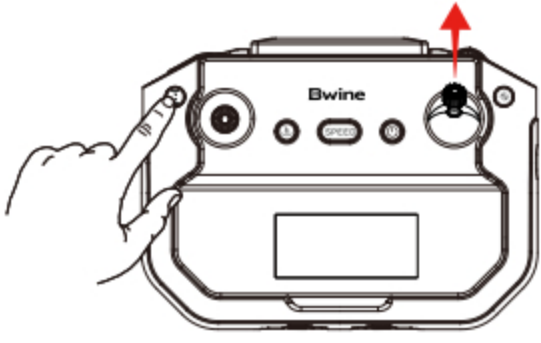
How to Start

(1) Set the desired auto-flight distance and altitude, fly the aircraft to an altitude above 49ft (15m) (it will be unavailable while below 49ft (15m)).

(2) Keep toggling the left or right joystick to operate the aircraft forward, backward, ascent, or descent, then press the remote controller's one-key takeoff/landing button .

(3) Release the joystick, the aircraft will fly automatically according to your action. (e.g., pushing the right joystick forward will make the aircraft fly forward automatically.

(4) During cruise control, you can continue to use the joystick to adjust the aircraft's direction and altitude. Repeat steps 2 and 3, and the aircraft will automatically fly based on your last joystick input.



How to Exit

- Method 1: During Cruise Control, pressing the one-button takeoff/landing  on the remote controller without operating the joystick will cancel cruise control.

  Method 2: Tap the icon  on the App to exit it.

1. This function is unavailable when the flight altitude is below 49ft (15m).
2. This function is unavailable when the aircraft battery power is low. During cruising, if the aircraft's battery is low, it will automatically exit this function.
3. The aircraft will automatically exit this function after reaching the set distance.
4. When the aircraft is descending in cruise control and reaches an altitude of 50ft, it will automatically exit this function.
5. When the remote controller signal is lost, it will automatically exit this function.
6. The aircraft doesn't have obstacle avoidance functionality. Ensure flight safety by ensuring no obstacles in front of the aircraft to avoid collisions and damage.

6.11 Basic Flight

6.11.1 Basic Flight Steps:

(1) Place the aircraft on a flat, open surface with the front of the aircraft facing forward and the rear facing the pilot.

(2) Press and hold the power button to turn on the aircraft.

(3) Short press then long press the power button on the remote controller to turn it on. The aircraft and remote controller will automatically pair, which takes about 20 seconds.

(4) Once pairing is complete, connect the phone to the remote controller using a data cable.

(5) Open the Bwine Mini app and enter the operating interface.

(6) Wait for the GPS signal search to complete; the aircraft's indicator light will be solid green.

(7) Unlock and start the motors.

(8) Slowly push the throttle stick up to achieve a smooth takeoff.

(9) Pull down the throttle stick to descend.

(10) After landing, pull the throttle stick to its lowest position and hold it there until the motors stop.

(11) After stopping the motors, turn off the power of the aircraft and the remote controller in sequence.

6.12 Aerial Photography Tips

(1) Perform the pre-flight check.

(2) It's recommended to take photos or record videos in Stable Mode.

(3) Choose clear, calm weather for shooting.

(4) During flight, make small, smooth stick movements to keep the aircraft stable.

7. Appendix

7.1 Specifications & Parameters

Aircraft	
Model	F7GIM
Weight (including battery)	About 357g/12.6oz
Battery capacity	3200mAh
Satellite system	GPS/GLONASS
Maximum flight altitude	393.7ft
Unfolded size	350mmx385mmx65mm
Folded size	165mmX90mmX65mm
Stable mode speed	6m/s
Sport mode speed	8m/s
Operating temperature range	32°F - 104°F (0°C - 40°C)

Gimbal Stabilization	
Mechanical range of gimbal stabilization	Tilt axis: approximately -100° to +70° Roll axis: approximately -35° to +35° Yaw axis: approximately -20° to +20°
Camera angle adjustment range	Approximately -90°TO+0°

Camera	
Lens	FOV 75°
Equivalent focal length	60cm/23.3inche
Focus range	Fixed focus
Maximum photo resolution	App: 5700×3200P
	SD card:5700×3200P
Maximum video resolution	App: 1280X720@30fps
	SD card: 3840×2160P@30fps
Photo format	JEPG
Video format	MP4
Supported file system	FAT32
Supported SD card	Micro SD card (Class 10/U1 or higher) 16GB to 128GB

5.8G Transmission	
Working frequency	5.725-5.825 GHz
Supported Transmission Protocols	802.11a；802.11n20；802.11n40

App / Live View	
Mobile App	Bwine Mini
Live view quality	1280x720@30fps
Mobile Compatibility	Android 7.1 and above, iOS 13.0 and above

