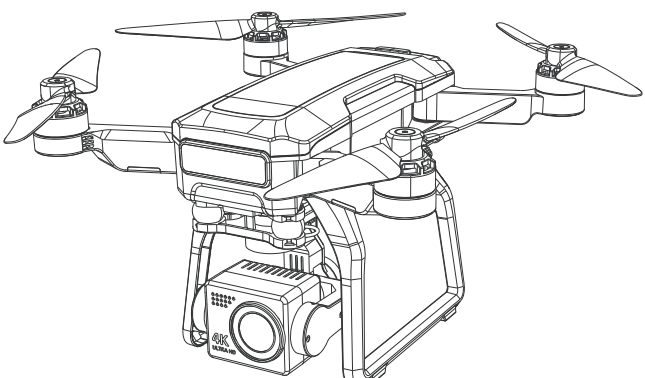
Bwine®

14+
for age

User Manual

v2.0



F7GB2

CONTACT US FOR MORE TECH SUPPORT

+ 1(619) 614-7960 | Mon-Fri 7:00AM - 5:00PM (PST)

Bwine®

WhatsApp business account

+ 86 133 0274 4119

Or scan

CONTACT US FOR MORE TECH SUPPORT

+ 1(619) 614-7960 | Mon-Fri 7:00AM - 5:00PM (PST)

Bwinedrone@gmail.com

Safety Disclaimer

User Manual

Safety at a Glance

⚠ • The Bwine F7GB2 is NOT a toy and is NOT suitable for people under the age of 14.

1. Glossary

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

✓ Recommend ⊗ Warning ⚠ Hints & Tips 📖 Reference

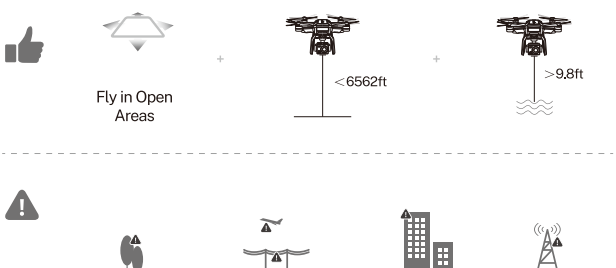
2. Disclaimer and Warning

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

- You agree to use this product only for purposes that are proper and in accordance with local regulations, terms and all applicable polices and guidelines Bwine may make available.
- Any personal injury property damage, legal disputes and all other adverse events caused by the violation of the safety instructions or due to any other factor, WILL NOT be Bwine's responsibility.

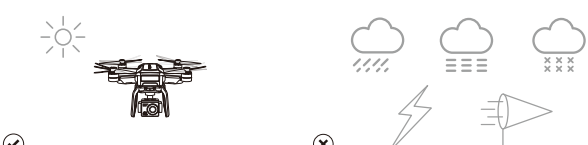
3. Flight Environment Requirements

- Fly in an open field far away from densely populated areas, residential surroundings and electromagnetic interference sources. When flying in areas below 6562 feet above sea level, please be at least 9.8 feet above the water when flying on the water.



- The compass and GPS signals on the aircraft will be interfered by buildings, mountains, and trees.
- It is recommended to fly in an open space with a diameter of 32 feet without interference.
- The flying height must be higher than the obstacles on the ground to avoid collision.
- It is recommended that the flight altitude be greater than 49 feet to avoid other signal interference from the ground.
- Electromagnetic interference sources include, but are not limited to: high-voltage power lines, high-voltage power transmission stations, mobile phone base stations and TV broadcast signal towers, Wi-Fi hot spots, routers, and Bluetooth devices. Must fly away from electromagnetic interference sources.

- Fly in an environment of 0°C to 40°C and good weather (not rain, fog, snow, thunder and lightning, strong wind, or extreme weather).



- It is forbidden to fly indoors. Only fly in authorized areas. To learn more about aircraft requirements, please visit the Federal Aviation Administration's aircraft page, https://www.faa.gov/

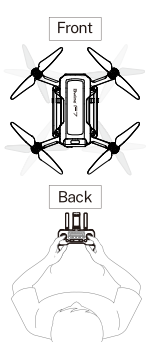
4. Pre-Flight Checklist

- Ensure that the aircraft battery, remote control, and mobile device are fully charged.

- Ensure that the arms of the aircraft are fully extended. Make sure that the battery compartment cover is fastened firmly and the intelligent flight battery is installed firmly.
- Ensure that the propeller is free from damage, aging, deformation, no foreign matter entanglement, and firm installation.
- Ensure that the camera cover was moved before turning on the aircraft.
- Please make sure that nothing obstructs the motors.
- Please make sure the camera lens and sensor are clean and without stains.
- Please make sure that GPS is turned on to avoid that it would be lost.
- Please fly outdoor in an open place.
- Turn on the aircraft, then turn on the transmitter, please pair it with the aircraft.
- Connect aircraft WiFi with your phone, make sure that you have connected the WIFI name “Bwine-F7-GB2-*****-BRG" exactly after app access right and Internets permission with your phone, please make reference to operation video on app first before flying.

5. Flight Operations

- Please unfold the arms of the aircraft and turn on the power before flight.
- Please pay attention to the direction of the aircraft when flying. The camera direction is the forward of the aircraft.



Unfold arms

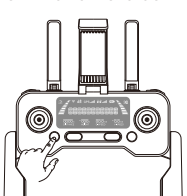
Stay away from People

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

✓ GPS ⩾ 3 bars

✗ GPS < 3 bars

⚠
- Please do not long-press the button on the remote control when flying, GPS Mode will be turned off.
- After turning off the GPS, the aircraft cannotrealize one-key return to home, ow powerreturn, or out of control.
- After turning off the GPS, GPS follow, orbiting, route planning, and aircraft finding functions cannot be realized.



✗ Long Press

- It is important to set an appropriate RTH altitude before each flight.
- Make sure your phone has permission to access the Wi-Fi "Bwine-F7-GB2-*****-BRG" and connect successfully.
- Do the compass and gyroscope calibration each time before flying, or it maybe can't work normally.
- Pay attention and control the aircraft at all times during flight. GPS flight assistance features and app are meant to assist the pilot, not replace their control of the aircraft.
- Pay close attention to its flight when operate return to home, Use discretion to operate the aircraft and manually avoid obstacles in a timely manner.
- Keep away from propellers and motors that are working and rotating.
- Fly in a non-interference environment and within line of sight (VLOS).
- Do not make calls or send text messages during the flight.
- When the GPS signal is poor, please return as soon as possible when the battery is low or the wind is warning.
- The aircraft is not equipped with obstacle avoidance function. During the flight, please judge the flight status reasonably, avoid obstacles in time, and set the corresponding flight and return altitude according to the flight environment.
- If the aircraft drifts during flight and cannot hover steadily, please land the aircraft and recalibrate the compass before taking off.

6. Instructions for Using Intelligent Flight Battery and Warning

- Please fully charge the battery for the first time before using it.
- It is recommended to charge and discharge it once a month, do not store it fully charged, keep 50%-60% of the electricity, the storage temperature is 10-40°C, and the best storage temperat ure is 19-21°C.
- Water enters the battery and the battery protection board fails, which will cause the battery to not be used normally. Do not use the battery in rain or in a humid environment, as this may cause the battery to self-ignite or even explode.

- If the battery is squeezed, deformed, and dropped from a high altitude, it is forbidden to use it again.
- Prohibition of prolonged high-temperature exposure. The high temperature of the battery will cause the internal pressure of the battery to be too high and cause an explosion.
- The positive and negative poles are short-circuited for a long time (such as the short-circuit caused by the water coming out of the battery contacts, the foreign matter in the hair, etc.).If it exceeds 30 minutes, the protection board IC will fail and disconnect, and the battery will not work normally.
- Charging is forbidden to use fast chargers that exceed the rated power of the battery. It is recommended to use 5V/3A chargers, do not use more than 5V/3A chargers.
- If the aircraft has not been used for a month, the battery must be removed to prevent the battery from being in a long-term low-power discharge state.

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

USB Adapter
(5V/3.0A)

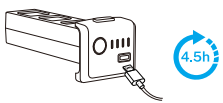
⚠ • It is prohibited to use computer USB, simple USB, and non-original charging cables for charging.

Original charging cable

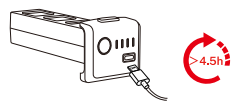
Computer USB

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≈4.5 hours



Overcharge>4.5 hours

- DO NOT charge the battery immediately after the flight as the temperature may be too high.
- Wait until it cools down to room temperature before chargingagain. Due to the battery current output, slighthotness is normal while flying.

Overheating warning

7. Problems You May Encounter

1.To Prevent Flying Lost

① It is better for beginners to fly the aircraft within a real-time image transmission range on your phone's app for safety.

② During the flight, DO NOT turn off GPS signal (Do not long-press button, otherwise GPS will turn off), the aircraft would fly unsteadily, or lose the direction, or will be lost completely.

③ During the flight, if the picture freezes, the reason is WiFi disconnection, please RETURN the aircraft first, change to another new environment or check if there is interference around, then connect again.
④ (ST⊘P) button on the transmitter is only for emergency stop. You can short press and then long press this button to operate it within 49.21 feet (15 meters height). DO NOT use it casually while flying, otherwise, it will crash.

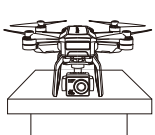
2.Camera Guidelines

① Please take off the gimbal camera cover before flight.
② When taking off from grass or sand, please place the aircraft on the landing pad or cardboard to keep it level.

⊗ On the grass

⊗ On the sand

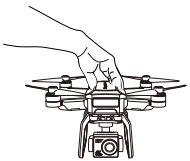
③ Do not turn on the aircraft when it is on desk or hollow wooden floor. They will amplify the small vibrations into high-frequency vibrations, which will cause the gimbal cannot work.



⊗ On the desk

⊗ On the hollow wooden floor

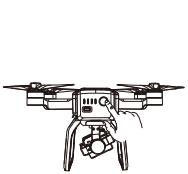
④ Do not interfere with the gimbal by external forces or pick up the aircraft during self-inspection (After compass and Gyroscope calibration, the gimbal will enter self-inspection for 20 seconds).



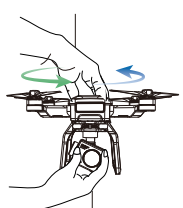
⊗ Picking up the aircraft
(during self-inspection)

⊗ Touching the camera

⑤ The Gimbal cannot work during the compass and Gyro calibration. Put theaircraft on a level surface after calibration, then the gimbal will start to work after 20 seconds.will start to work after 20 seconds.



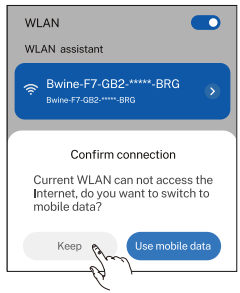
Before Start



During Compass and
Gyro calibration

Put on a level surface and
wait for 20 seconds

3.WIFI Guidelines



① For android phones, after connection with aircraft's WiFi "Bwine-F7-GB2-*****-BRG", please wait for about 10-40 seconds, note if there is any option 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 aircraft WiFi.
③ The phone WLAN compatible with this aircraft must support dual-band WiFi (2.4 and 5G).

4.Remote Controller Guidelines

After fully charged, if it shows a low battery on app, please remember to pair the remote controller first with a aircraft, then connect WIFI and enter app to check. If there are other problems, please contact with technical support.

5.Return within 98 ft

If one button return, it flies back above its original take-off point directly. If return by low battery, it flies back due to current height, this can not be cancelled.

1 Using This Manual

1.1 Legend

Recommend Warning Hints & Tips Reference

1.2 Read Before the First Flight

- Read the following documents before using the Bwine F7GB2
  ① User Manual
  ② Quick Start Guide
  ③ Disclaimer and Safety Guidelines
- It is recommended to watch all tutorial videos on the official website and read the Disclaimer and Safety Guidelines before using for the first time. Prepare for the first flight before reviewing the Quick Start Guide and refer to this User Manual for more information.

1.3 Download the Bwine Drone APP

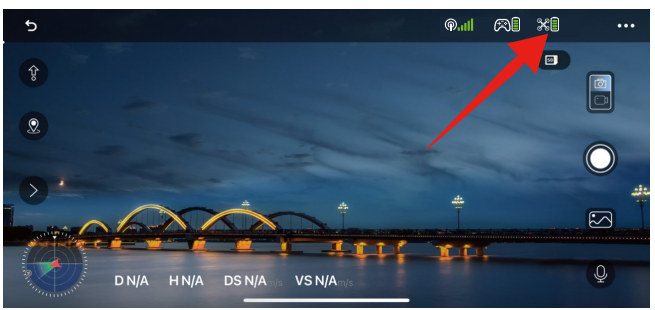
- Make sure to use Bwine Drone app during flight. Scan the QR code on the right to download the latest version of the app.
- Bwine Drone app supports Android 6.0 or higher, iOS 10.0.2 or higher, dual-band Wi-fi (2.4GHz) and 5.8GHz phones.

1.4 Video Tutorials

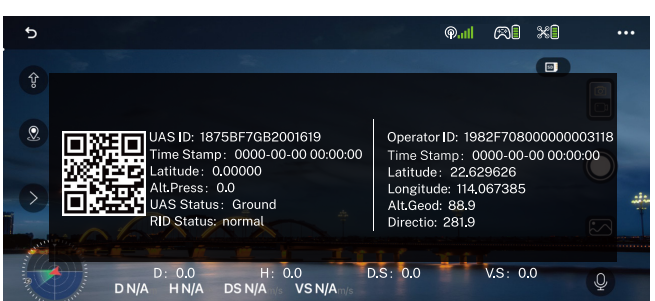
- Visit the following link to watch the tutorial videos to ensure correct and safe use of the product.
  https://www.youtube.com/channel/UCvmeppq4-qgQGvLSdoYpgHA

1.5 Register Remote_ID

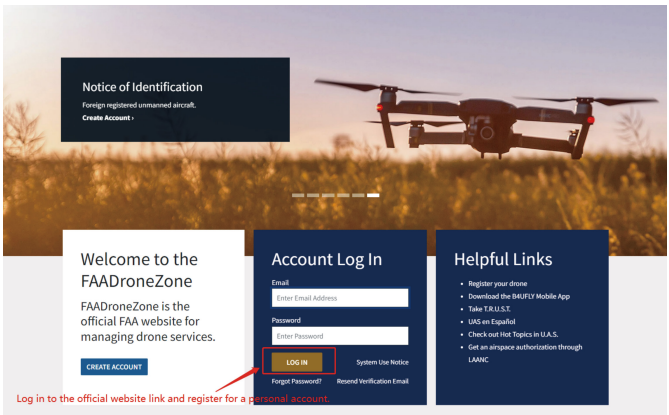
- The F7GB2 has a built-in FAA Remote_ID module, which can be registered by obtaining a unique Remote_ID serial number in the App or on the body according to the legal requirements in your region.

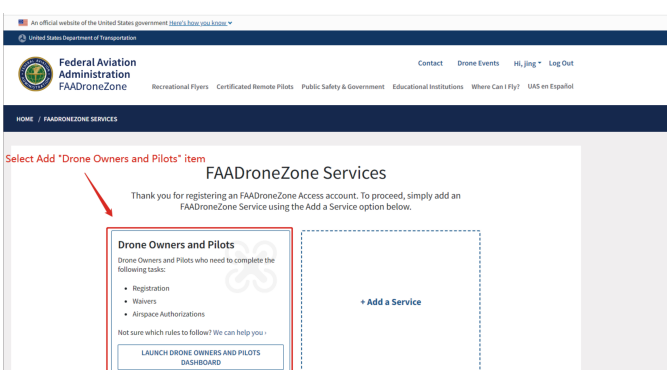


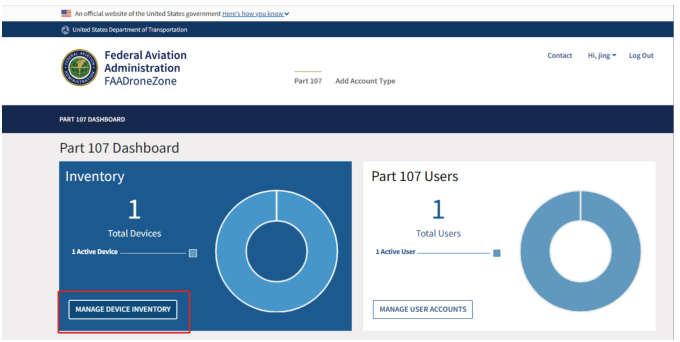
- Click on the drone power icon to bring up the drone RID information.

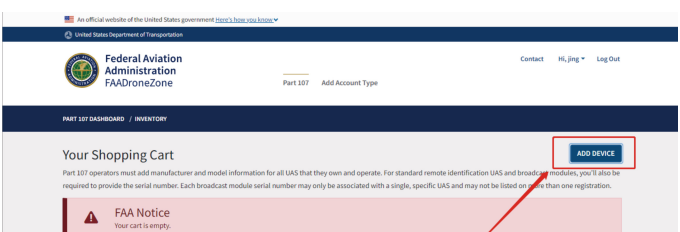


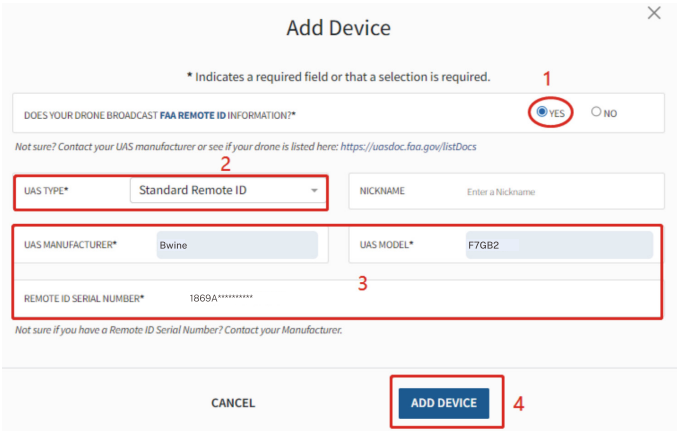
- Registration
  ① Please go to https://uasdoc.faa.gov/login
  ② Please complete and submit the information following these steps.

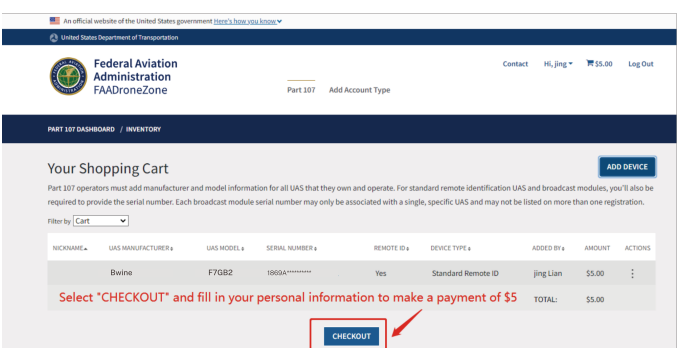


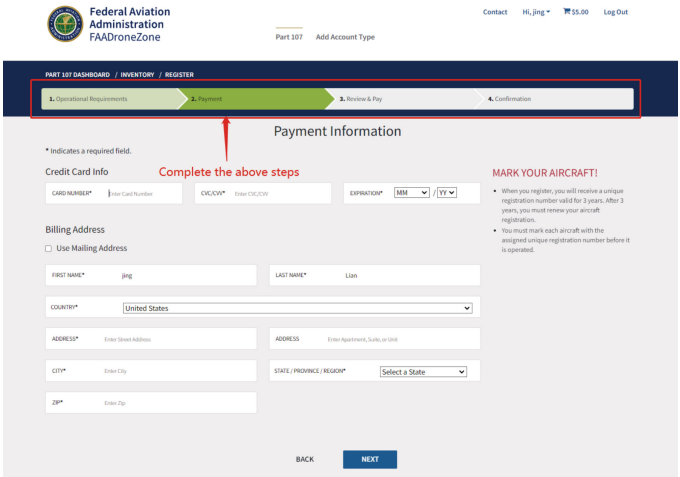












- The drone will start broadcasting the FAA remote ID signal when all of the following conditions are met.
  ① The drone has built-in Remote ID functionality.
  ② The drone is within airspace of the United States.
  ③ The drone’ s motors began to spin.

2 Product Profile

Bwine F7GB2 aircraft can hover and fly stably outdoors and has the function of returning home automatically. The camera uses an upgraded 5GHz Wi-Fi FPV real-time transmission function, equipped with a 120°FOV lens and a 90° adjustable camera, which can stably shoot 2.7K & 4K video and 4K ultra-clear images, providing you with a broad field of vision for unforgettable moments. With a folding design and ultra-light & small body weighing only 550 g, it's easy to carry. You can use the drone to shoot videos and photos. With a leading flight control system, our aircraft can fly stably, agilely and safely. The auto-return function enables the aircraft to fly back to the position where it takes off and land automatically even when the remote control signal is lost or the battery is low.

2.1 Important

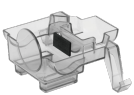
- The Bwine F7GB2 is NOT a toy and is not suitable for people under the age of 14.
- It requires correct assembly and debugging to avoid any accident before every flight. Inappropriate use of the product could result in personal injury or property damages.
- In the event of a problem during use. operating, or maintenance, please feel free to contact the Tech Support Bwinedrone@gmail.com

2.2 Product List

Drone

Transmitter

Drone Battery



Gimbal Cover

Spare Propeller

Fixed Wing Cover

Screwdriver

Screw

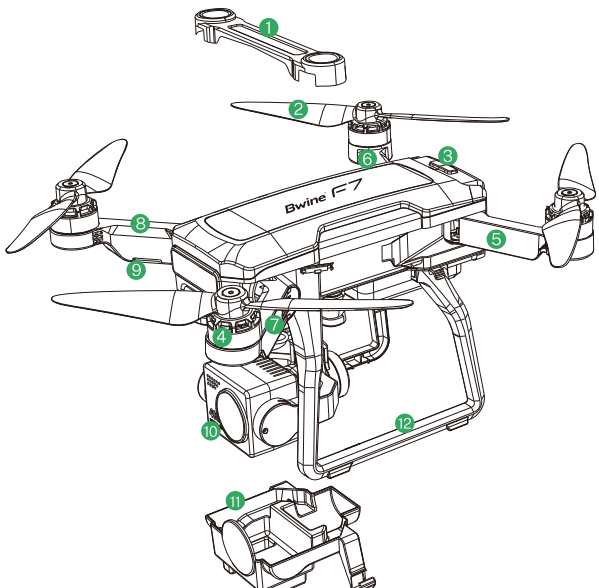
USB Charging Cable

User Manual

Quick Start Guide

3 Aircraft

F7GB2 aircraft is mainly composed of a flight controller, communication system, video downlink system, propulsion system, and an intelligent flight battery.

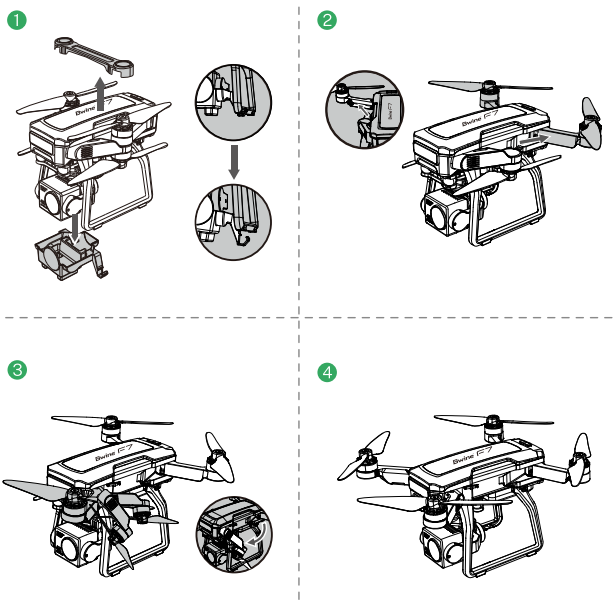


① Fixed Wing Cover
② Propeller
③ Intelligent Battery
④ Motors
⑤ Rear Wing Arm B
⑥ Rear Wing Arm A
⑦ Front Wing Arm A
⑧ Front Wing Arm B
⑨ Led Light
⑩ 3 Axis Mechanical Gimbal
⑪ Gimbal Protect Cover
⑫ Gimbal Tripod

3.1 Preparing the Aircraft

All aircraft arms are folded before the aircraft is packaged. Follow the steps below to unfold the aircraft arms.

① Unfold the drone before flying



- Unfold the upper arm before unfolding the lower arm.
- Before powering on the aircraft, ensure that the front and rear arms are extended and the camera is placed on the horizontal ground. Ensure that there is sufficient space under the camera to prevent the camera angle from being stuck to the ground during the self-check.

3.2 Three Gears Speed of the Aircraft

- The F7GB2 has 3 speed ranges: 11.48 ft/sec, 21.32 ft/sec and 31.17 ft/sec, the default is medium speed, which provides a diverse flight experience and meets different speed requirements. Switch between default medium mode, normal mode (slower) and sport mode(faster) by pressing the button.

⚠
- When wind speed is high, high speed flight should be maintained to improve wind resistance effect.
- When flying with fast gear, the pilot should reserve at least 3 meters of braking distance to ensure flight safety when flying in windy conditions.
- When using the fast gear for flight, the power of the aircraft will be greatly improved, and the operation of the remote lever on the transmitter will lead to the large flight action of the aircraft. During the actual flight, the pilot reserves enough flying space to ensure the safety of the flight.

3.3 Calibration and Aircraft Status Indicator

- The F7GB2 aircraft's status indicator is located above the nose landing gear to indicate the current status of the flight control system. Please refer to the following table for the status of the flight control system represented by different blinking modes.

Color of light	Blinking status of the indicator	Conditions
Front and rear are red lights 	Continuous blinking of red light	The transmitter has not been paired with the aircraft (please wait for 40 seconds)
Front is pink and rear is green light 	Pink and green lights are blinking fast	Compass calibration is required
Front and rear are red lights 	Red lights are blinking slowly	Low battery of aircraft
Front is white and rear is green light 	White and green lights are blinking slowly	Searching for GPS GPS signal has not been found, conditions for takeoff are not met.
Front is white and rear is green light 	White and green lights are blinking fast	Gyroscope/level calibration is required
Front is white and rear is green light 	White and green lights always turn on	GPS signal is detected and take-off conditions are met

3.4 Return to Home

The return-to-home (RTH) function brings the aircraft back to the last recorded home point.

There are 3 types of RTH: smart RTH, low battery RTH, and signal disconnection RTH. If you activate the RTH function under the condition that the aircraft successfully recorded the home point and GPS signal is good, the aircraft will automatically return to the home point and land.

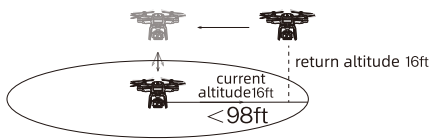
	GPS	Description
Home Point	Using 5 bars of signal	When flying outdoors, the GPS signal icon is displayed with 3 bars or more for the first time, and the take-off location will record the aircraft's current position as the home point. During the flight, if the aircraft lands at a new location, the point from which you retook off will become the latest home point, and the aircraft will return to the latest home point.

- Smart RTH

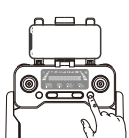
  When the pilot needs the aircraft to return home automatically, he can click the smart RTH button on transmitter or tap the return home icon on the Bwine Drone app to activate RTH.

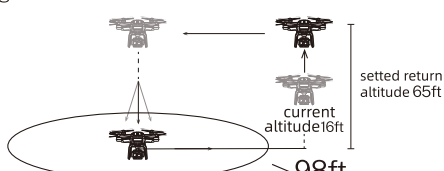
You can short-press on transmitter or tap on the Bwine Drone app again to exit RTH during the return. Then you can control the aircraft again.

- When the aircraft executes smart RTH within a radius of 98 feet (30 meters), and the aircraft will return from the current altitude to the take-off point. (Pay attention to maintaining the flying height to avoid hitting people or obstacles)

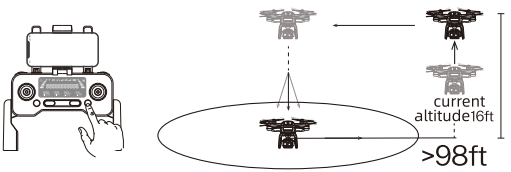


- When the aircraft returns to the home point beyond the 98 feet (30 meters) radius, if the return altitude is not set and the aircraft is flying below 65 feet (20 meters), it will automatically fly up to the default return altitude of 65 feet (20 meters) before returning home.





- When the aircraft returns home 98.43 feet(30 meters) away, if the RTH altitude is set (before flight), the aircraft will ascend to the altitude already set before returning to the take-off point, if the current altitude of the aircraft is lower than the RTH altitude. The aircraft will return to the home point from the current altitude, if the current altitude of the aircraft is higher than the RTH altitude.



- The aircraft is not equipped with obstacle avoidance function. Please judge the flight status reasonably during the flight. Avoid obstacles in time, and set the corresponding flight and return altitude according to the flight environment.

- Low Battery RTH

When the intelligent 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.

In order to prevent unnecessary dangers due to insufficient battery power, when the aircraft battery power is low, the intelligent low battery return home function will be automatically triggered. According to the remaining power after returning, there are 2 situations after returning:

① First-level low battery: the aircraft returns to the point 98 feet(30 meters) above the take off point and hover. After hovering, you can continue flying the aircraft at a height of 98 feet (30 meters) and within a radius of 98 feet(30 meters).

② Second-level low battery: the aircraft will fly directly from the current altitude to the point 98 feet(30 meters) above the home point and then descend to the ground.

⚠ • 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.

• Lost Signal RTH
When the transmitter has low battery or is turned off or loses signal for 6 seconds, the aircraft will enter the auto-return mode and return to the take-off point. If the signal is recovered during the process of returning, the aircraft will stop returning and rebind with the transmitter signal, and the transmitter can control the aircraft again at this time. Automatic return-to-home process when signal is lost:
① Aircraft stores its position when taking off after the GPS signal is successfully received, and records it as the home point.
② Trigger RTH (triggered by low battery of transmitter, signal loss, etc.).
③ After triggering the return-to-home function, the aircraft adjusts the nose direction and starts to return home.
④ The aircraft automatically flies to the top of the home point, then starts to land, and completes the home return.

3.5 Intelligent Flight Mode

Bwine F7GB2 has 6 intelligent flight modes: Image follow, GPS follow, flying around, VR function, ges photo & ges record and route planning. According to the users shooting needs, the operation can be completed by one click, which is simple and fast.

Image follow: Aircraft will lock on to the user and can track user's movement as he moves.

GPS follow: Aircraft can locate the mobile phone signal source by GPS and move with the location of the mobile phone.

Flying around: Aircraft orbits around the point already set on the app at a certain distance.

VR function: Click to enter the VR function, the mobile app will split the screen.

+ Ges photo & ges record: Aircraft takes photos or videos according to the manipulation commands of different gestures.

Route planning:Aircraft flies along the path marked on the app. completes the home return.

- **Image Follow**

① Ensure that the Bwine F7GB2 app has been downloaded and installed on the smart phone.
② Tap to active the image follow function from 3-5 meters away from the aircraft.
③ Tap app screen to lock the target.
④ The target needs to take the aircraft as the center and make a slow circle. Then the aircraft will follow the target to rotate and move.

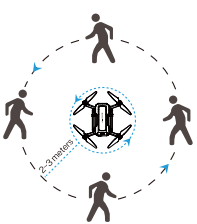
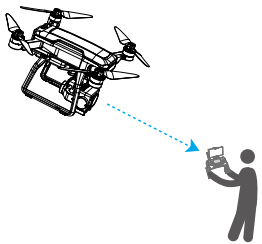


Image Follow

- Please use it in a well lighted place and pay attention to the speed of movement.
- Tap it again to exit this function.

- GPS Follow

① Ensure that the Bwine F7GB2 app has been downloaded and installed on the smart phone.
② Turn on the GPS positioning of the smart phone to connect to the aircraft WiFi.
③ After the Aircraft takes off in an open environment with good GPS signal, ensure that the flight range is within 32-164 feet (10-50 meters) for the best effect.



GPS Follow

④ Tap ＞ on the app interface, and then click to enter the GPS follow mode.
⑤ "Follow me mode is ready" will be displayed on the app interface and the aircraft turns on the GPS follow mode. The aircraft tracks your movement as you move.
⑥ Tap the icon on the app interface 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 WIFI signal might be interfered.
- Aircraft is not equipped with obstacle avoidance function. Please use it in open areas free of obstacles.

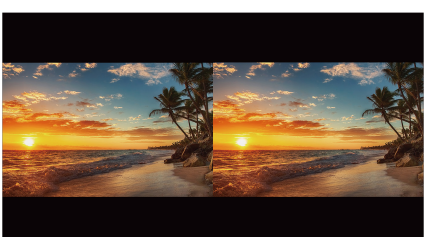
- Flying Around

① Ensure that the Bwine Drone APP has been downloaded and installed on the smart phone.
② Connect your smart phone to aircraft WiFi.

③ After the aircraft takes off, hover the drone around the center point of the target in GPS mode.
④ Tap to enter this function, and you can set the aircraft's orbiting radius (5-30 meters).
⑤ After the setting is completed, the aircraft will fly in a circle with the current position as the center.
⑥ Move the direction joystick forward and backward to change the radius, with a maximum radius of 100 meters. Move left or right to change the surround steering.

- **VR Function**

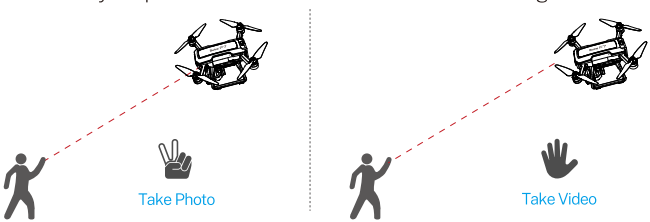
Click to enter the VR funciton, the mobile app will split the screen, put the mobile phone into the prepared VR glasses, and then put on the VR glass, you can experience the immersive real-time image effect of the drone.



- **Gesture Photo & Gesture Record**

① Ensure that the Bwine Drone app has been downloaded and installed on the smart phone.
② Connect your smart phone to aircraft WiFi.

③ After the aircraft takes off, use it in GPS mode.
④ Open the app, tap ＞ on the app interface, and tap ( ), in this mode, raise your right hand to shoulder height and make a scissors hand pose to take pictures.
⑤ Tap ( ) , in this mode, raise your right hand to shoulder height and show your palm to the camera to turn on the recording mode.



- Use the mode in a well-lit environment. Tap the button again to exit the gesture mode.
- Gesture mode can only be activated with the right hand.

- **Route Planning**

① Ensure that the Bwine Drone app has been downloaded and installed on the smart phone.
② Connect your smart phone to aircraft WiFi.
③ After the aircraft takes off, in GPS mode, tap ( ) on the app.
④ You can find a red circle on the map (limited flight range). Mark the points (up to 16) which you plan to fly the aircraft along within the circle.
⑤ If you want to reset the marked point or flight path, you can tap "Delete Single Point" or"Delete All".
⑥ Confirm that the marked points are correct, tap "Go" button and slide " Slide right flighting " to the right side. The aircraft will start waypoint flight.

⚠ • Push the right joystick to cancel the waypoint flight function.

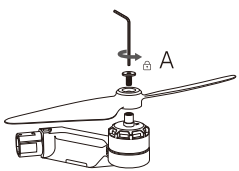
3.6 Propeller

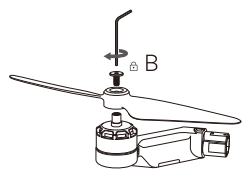
The propellers on the adjacent motors of the F7GB2 aircraft are forward and reverse propellers.
The two propellers on the same motor are the same, and the propellers are marked with A and B respectively. The rotation directions of the propellers with the same mark are different.

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

- **Attaching the Propellers**

Taking the camera direction as the front, the left front arm and right rear arm must be equipped with propellers marked with A; the right front arm and left rear arm must be equipped with propellers marked with B. Use a screwdriver to install and make sure the screws are tightened.





① Propeller "A"replacement

Take out the propeller "A" with the screw wrench in clockwise direction; then install the new propeller "A" with screw wrench in counter clockwise direction and fix the propeller.

② Propeller "B"replacement

Take out the propeller "B" with the screw wrench in counter clockwise direction; then install the new propeller "B" with screw wrench in clockwise direction and fix the propeller.

- Please use the propellers provided by Bwine, 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.
- Make sure that the ESC emits a tone after the aircraft is powered on.

3.7 Intelligent Flight Battery

The F7GB2 intelligent flight battery has a capacity of 2600mAh, a rated voltage of 11.1 V, and with charge and discharge management functions. This battery uses high energy and large capacity batteries to increase the flight time of the aircraft.

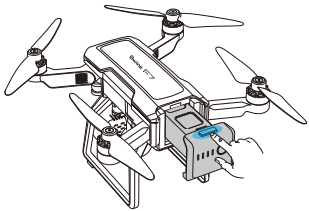
- Battery Features

① Balance Protection: Automatically balance the internal battery cell voltage to protect the battery.
② Overcharge Protection: Overcharge will seriously damage the battery. When the battery is full, remove the charger device in time.
③ Over-discharge Protection: Over-discharge will seriously damage the battery. When the battery is not used for flight, the battery will automatically discharge to protect the battery life.
④ Short Circuit Protection: When the battery detects a short circuit, the output will be cut off to protect the battery.
⑤ Easy Charging: No need for a dedicated power adapter, just Android charger and USB charging head.

⚠ • Please read carefully and strictly abide by Bwine requirements in this manual,Disclaimer and Safety Summary, and stickers on the battery surface before using the battery. The user shall bear the consequences caused by failure to use it as required.

- Using the Battery

① 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 pops up and locks. Make sure the battery is in place.

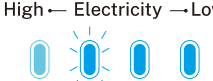


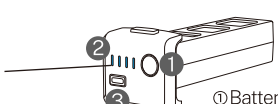
② To remove the battery, press the buckles on both sides of the battery and pull it out of the battery compartment.

⚠ • Do not install the battery into the aircraft or remove the battery from the aircraft when the battery power is turned on. Otherwise, the poor contact of the battery interface during the operation may cause the battery to short-circuit and burn the aircraft. The battery must be installed or removed with the battery power turned off.

• **Checking Battery Level**

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





①Battery Switch
②Battery Level Indicator
③Type-C Charging Port

- Powering On

Press and hold the power button for 3 seconds, release the power button after the indicator Lights turn on to the fourth. When turned on, the power indicator shows the current battery power.

- Powering Off

Press and hold the power button for 3 seconds, release the power button after all the indicator lights are off; after turning off, the indicator lights are all off.

- Low Temperature Notice

When using the battery in a low temperature environment, make sure that the battery is fully charged. The discharge capacity of the battery will be reduced when working in a low temperature environment.

In a low temperature environment, due to the battery output power limitation, the Aircraft's wind resistance and flight performance will be reduced. Please be careful. You need to be extra cautious when flying in low-temperature and high-altitude environments.

- Charging the Battery

Before using the Intelligent Flight Battery, be sure to fully charge it. Please use a 5V/3A USB charging plug.

In the charging state, the battery power indicator will flash and indicate the current charge level; when the fourth indicator light is always on, it indicates that the charging is complete.

And the charging time is about 4.5 hours via 5V/3A charger.

After charging is complete, please remove the charger in time.

USB Adapter (5V/3.0A) (Not Included) Charging Time: About 4.5 Hours (Depending On Charging Adapter)

- Daily Preservation Advice

It is recommended to charge and discharge it once a month, do not store with a full charge, keep 50%-60% of the power, the storage temperature is 10-40°C, and the best storage temperature is 19-21°C.

If water enters the battery and the battery protection board fails,the battery cannot be used normally. Do not use the battery in rain or in a humid environment, as this may cause the battery to self-ignite or even explode.

If the battery is squeezed, deformed and dropped from a high altitude, it is forbidden to use it again.

Prolonged exposure to high temperatures is forbidden. High temperatures will cause the internal pressure of the battery to become too high and cause an explosion.

The positive and negative poles are short-circuited for a long time (such as water coming out of the battery contacts, short-circuit caused by foreign objects in the hair, etc.). If it exceeds 30 minutes, the protection board IC will fail and disconnect, and the battery cannot be used normally.

It is forbidden to use fast chargers that exceed the battery's rated power for charging.

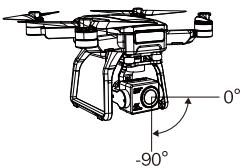
It is recommended to use a 5V/2A or 5V/3A charger.

If the aircraft has not been used for a month, the battery must be removed to prevent the battery from being discharged for a long time.

3.8 Camera Overview

• Camera overview

The camera uses an upgraded 5GHz Wi-Fi FPV real-time transmission function, equipped with a 120°FOV lens and a 90°adjustable camera, which can stably shoot 2.7K & 4K video and 4K ultra-clear images, providing you with a broad field of vision for unforgettable moments.



• Camera Guideline

① Remove the gimbal protection cover before use.
② Do not place the aircraft on rough ground, grass and sand when turn it on, because the camera will adjust up and down for self-calibration. Please place it in a horizontal position to ensure that there is enough clearance under the camera, otherwise the camera will get stuck.

⊗ On the grass

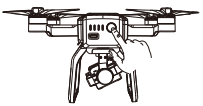
⊗ On the sand

③ Do not interfere or pick up the drone with your hands during the self-check of the drone camera. The gimbal doesn't work and can't keep stable in the process of compass calibration.

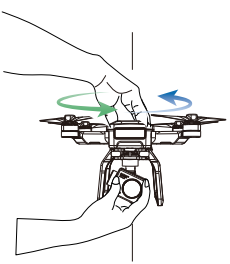
⊗ Picking up the aircraft
(during self-inspection)

⊗ Touching the camera

④ After the drone is calibrated, place it on a level and vibration-free ground, and the gimbal will automatically enter the working state in about 20 seconds.



Before Start



During Compass and Gyro calibration

Put on a level surface and wait for 20 seconds

⚠ • It is normal for the camera to tilt when it doesn't work.

- Storing Photos and Videos

F7GB2 is equipped with a micro SD card slot for storage space expansion.
Card speed: 10M/s.
File format: support FAT32 format.
Memory capacity: a memory card with a memory capacity of 128G or less.
The phone and the memory card store photos and videos at the same time. If you want a clearer video, please download the video files in the memory card.

- Check whether the capacity of the memory card is sufficient. If the capacity of the memory card is insufficient, videos and pictures cannot be stored.
- If you cannot save pictures or videos, try formatting the memory card.
- Do not insert or remove the micro SD card when the aircraft is turned on. Plugging or unplugging the micro SD card or removing the battery while the power is on during recording may cause damage to the micro SD card and loss of stored data.
- You must turn on the aircraft and connect to the aircraft WiFi to copy or download the photos or videos stored in the aircraft memory card to the phone.

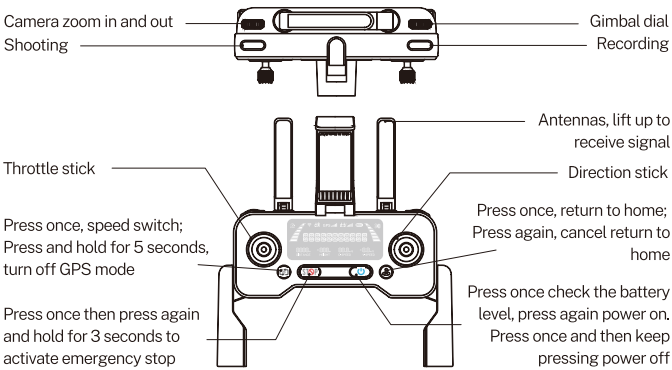
4 Transmitter

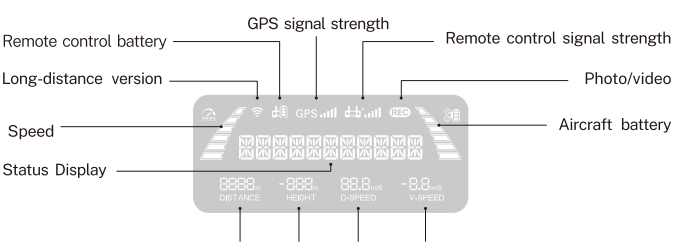
4.1 Transmitter Profile

F7GB2 transmitter uses the 2.4 GHz frequency band, and the transmitter distance is up to 9482FT (unobstructed and interference-free environment). The foldable handle can stably place the mobile device, and the maximum adjustable width is 3.3 inches,

transmitter builtin 1500mAh capacity battery, charging time is about 2 hours, the longest working time is about 2 hours.

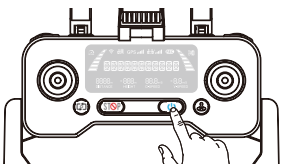
4.2 Using the Transmitter





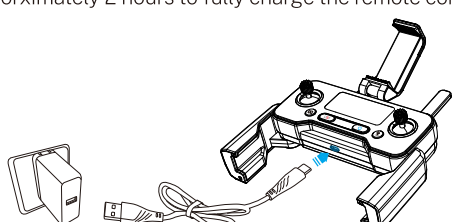
- **Turn On / Off**

  Short press the power button once to show the battery percent. If the battery level is too low, charge before use.
  Turn On: Short press the power button twice to turn on the transmitter.
  Turn Off: Short press once then long press the power button about 3 seconds to turn off the transmitter.



- **Charging the Battery**

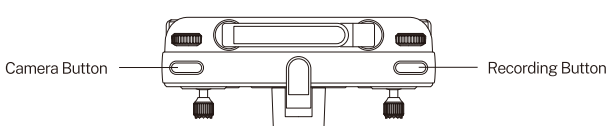
  Connect the Transmitter Micro USB interface to the charger for charging. It is forbidden to use fast chargers that exceed the rated power of the battery. It is recommended to use 5V/2A or 5V/3A chargers, do not use more than 5V/3A chargers.
  When the remote control is charging, the LED screen will indicate the battery level, when fully charged, it will indicate "CHARGE DONE". It takes apporximately 2 hours to fully charge the remote controller.



USB Adapter
(5V/3.0A Not Included)

Charging Time: About 2 Hours
(Depending On Charging Adapter)

- **Controlling the Camera**
  Recording Button: Press once to switch to recording mode or start/stop recording.
  Camera Buttom: Press once to switch to camera mode or take a photo.

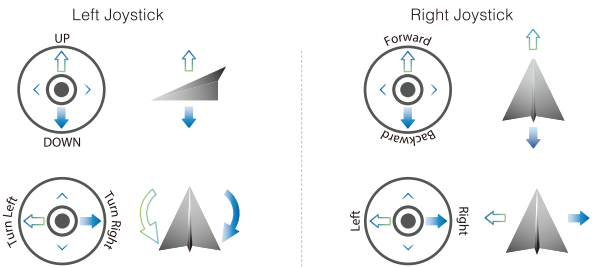


- **Joystick Control Aircraft**
  American control sticks is default mode. The left control stick is the throttle lever, which can adjust the aircraft's altitude and nose direction. The right control stick is a directional stick that controls the aircraft's flight direction (forward / back / left / right).
  The Japanese hand's control stick functions in reverse to the American control sticks. (Long-press and turn on transmitter to

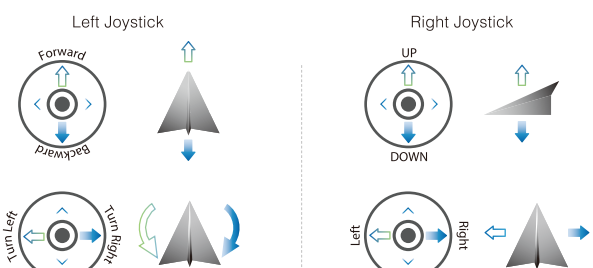
enter this mode. You will see “R HRND MODE” on the screen when turning on)

The control method of the Transmitter joystick is as follows:

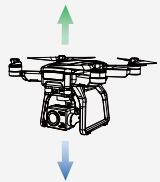
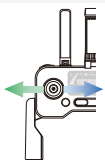
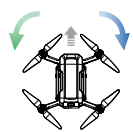
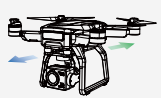
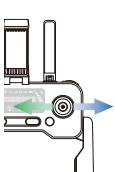
American hand's control （Mode 1）



Japanese hand's control （Mode 2）



⚠ • It will back to the default American control mode when turn off the transmitter and turn on again.

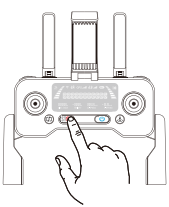
Transmitter (Defalut Mode)	Aircraft Direction	Remarks
		Push up/down the throttle stick to control the aircraft up and down. Push up and the aircraft rises. Pull down the lever and the aircraft lowers. When released, the joystick is in the middle position and the aircraft remains hovering. When the aircraft takes off, the throttle lever must be pushed up and the aircraft takes off off the ground (please push the stick slowly to prevent the aircraft from suddenly rush up).
		Push the throttle stick left/right to control the aircraft heading. Push the stick to the left and the aircraft will rotate counterclock-wise. Push the stick to the right and the aircraft rotates clockwise. In the neutral position, the angular velocity of rotation is zero, and the aircraft does not rotate.
		Push up/down the direction bar to control the aircraft to fly back and forth. Push the stick up and the aircraft leans forward and flies forward. Pull down the lever, the aircraft tilts backwards and flies backwards. The aircraft's front and rear directions remain level in the neutral position. The joystick offset corresponds to the angle of the aircraft's front and rear tilt. The greater the offset, the greater the tilt angle and the faster the flight speed.
		Push the direction stick left/right to control the aircraft to fly left and right. Hit the stick to the left, the aircraft tilts to the left and flies to the left. Hit the stick to the right, the aircraft tilts to the right and flies to the right. The left and right directions of the aircraft remain horizontal in the middle position. The joystick offset corresponds to the angle of the aircraft left and right tilt. The greater the offset, the greater the tilt angle and the faster the flight speed.

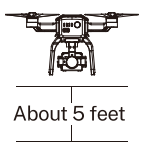
⚠ • The forward direction of the aircraft is based on the direction of the nose.

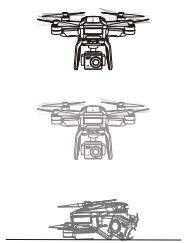
- **Smart RTH Button**

  Tap the smart RTH button on the transmitter, and the aircraft will activate the automatic return home function. Tap it again to exit the smart return home. The aircraft is hovering in the mid-air of the return home. At this time, you can operate the joystick to control the aircraft.

- **Emergency Stop**





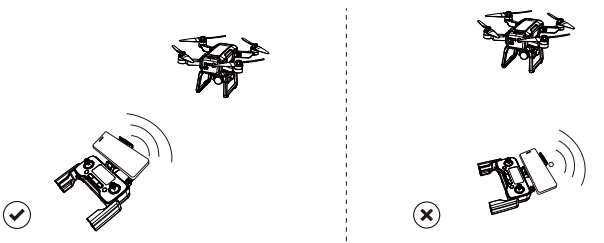


Click once and hold the STOP for 3 seconds to enter into Emergency Stop mode. It only activated when the drone's flight altitude within 5-42ft.

⚠ • By using this function the drone motor will stop working immediately thus 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.

4.3 Communication Range of Transmitter

When controlling the aircraft, the position and distance between the transmitter and the aircraft should be adjusted in time, and the antenna position should be adjusted to ensure that the aircraft is always within the best communication range.



4.4 Linking the Transmitter

Before each aircraft flight, you need to link with the transmitter. After the linking is successful, you can control the flight of the aircraft. The steps for the pairing are as follows:

• Turn on aircraft

• Turn on transmitter

• It takes about 40 seconds to link the transmitter to the aircraft automatically, and after the aircraft emits a beep, it means the linking is successful.

• Connect your mobile phone to aircraft's WiFi "Bwine-F7-GB2-******-BRG", tap the app to enter the control interface; the mobile phone screen displays information such as the transmitter's battery signal and camera screen.

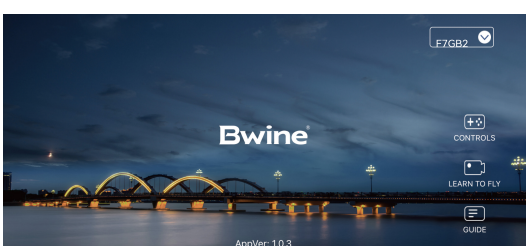
If the connection is successfully, the aircraft light will turn pink.

- Before each flight, check the power of the transmitter. The transmitter will "beep" when the battery is low. The transmitter will automatically shut down after 10 minutes of inactivity. Toggle the joystick or press any button to restore the transmitter to its normal working state.
- When using the transmitter handle to hold a mobile device, be sure to press it firmly to prevent the mobile device from slipping off.
- Keep the battery at around 3.8-3.9V, and recharge it every 1 month or so to keep the battery active.

5 Bwine Drone App

5.1 Home

After running Bwine Drone app, enter the homepage.



- CONTROLS

  Operate the aircraft through the app page buttons to realize the functions of the aircraft.

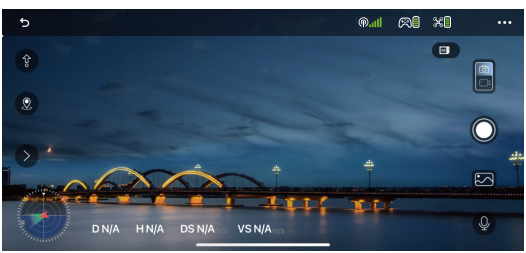
- LEARN TO FLY

  Click to enter the flight YouTube video website, where you can view the flight guidance of the corresponding product.

- GUIDE
  Click to view Help manual, Instructions videos and Quick Start.
  Long press the position of the non-function icon on the app homepage to enter the flight log interface, and click the file to share and send.

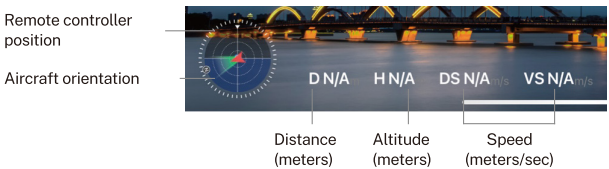
5.2 Controls

Click CONTROLS to enter control page.



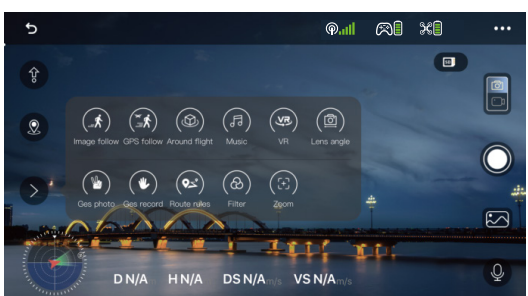
	Back to main menu		Shutter
	GPS signal		Media galler (one key to share)
	Remote Battery		Sound recording
	Aircraft Battery		Attitude Indicator
SD	SD card status (Pls format the SD card for the 1st time)		More functions
	Photo/video switching		GPS return home
			Auto take off

Display information of the orientation of the aircraft, and position of the transmitter.



5.3 More Functions

Click ﹀ to choose the intelligent flight functions.



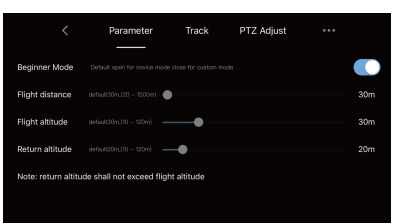
① Image follow: Tap to frame something on the screen, the aircraft will lock and follow the selected target.
② GPS follow: Tap to start the follow me function, the aircraft will use the GPS in the smartphone to follow you.
③ Around flight: The drone will fly in a circle with the current position as the center.
④ Music: Add music to the video. Click to enter the music page, select the page and enter the video shooting.
⑤ VR: Click this button to use the VR glasses function.

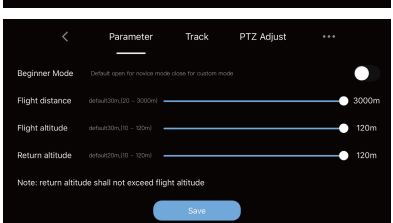
⑥ Lens angle: Tap to adjust the lens angle.
⑦ Ges photo: Tap this icon to use gestures to control aircraft to take photos.
⑧ Ges record: Tap this icon to use gestures to control aircraft recording.
⑨ Route rules: Click the change icon to enter the map, select a waypoint on the map, and the aircraft will follow the waypoint to fly. Up to 16 waypoints can be set.
⑩ Filter: Tap to select a different filter mode to take photos or videos.
⑪ Zoom: Click the button to use the zoom function, up to 5 times zoom.

5.4 Settings

Click • • • to enter setting page which includes Parameter, Track and PTA Adjust.

- Parameter





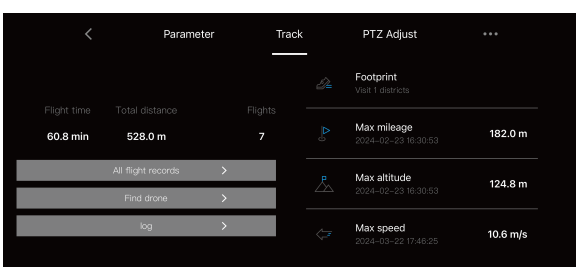
- **Out of Beginner Mode & Flight Setting**

① While the drone is under GPS mode, its default mode is Beginner Mode
② When in Beginner Mode the flight range is limited as below: maximum Flight distance is 30 meters, maximum Flight altitude is 30 meters, setted RTH altitude is 20 meters.
③ Click to turn off the Beginner Mode and set the proper flight setting in the app. The limited flight distance is 3000m, limited flight altitude is 120m, limited return altitude is 120m.

⚠ • The drone must be conneted with the app to save the setting.

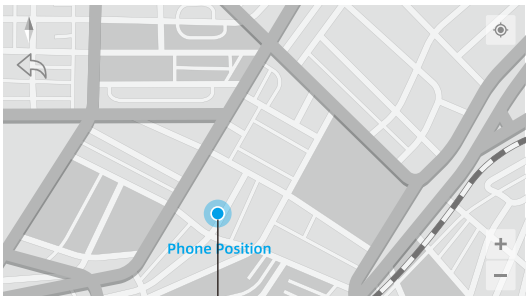
- **Track**

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



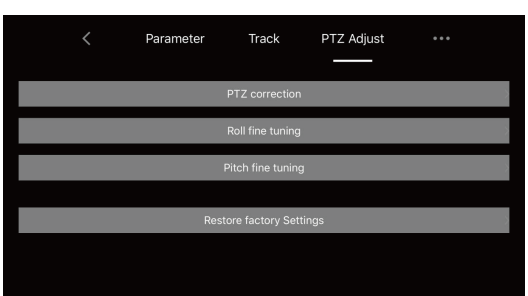
① Footprint: The total number of aircraft flying areas.
② Longest mileage: The longest mileage for a single flight.
③ Maximum altitude: The highest single flight altitude.
④ Maximum speed: The fastest single flight speed.
⑤ All flight records: The date, location, distance, duration and maximum altitude of each flight.

⑥ Find drone: Click to open the map surface to search the drone, the last position of lost drone will be showed on the map.



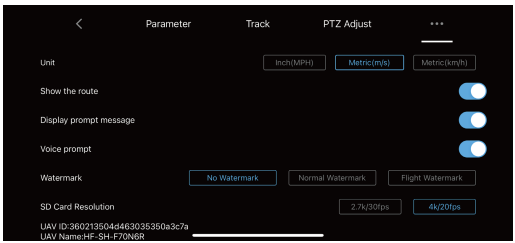
Current position of the mobile phone

- PTZ Adjust & Gimbal Back to Factory Setting



① Click to adjust the gimbal pitch, roll and yaw.
② Click Restore factory Settings to get the gimbal back to factory setting

- APP Display Setting & Resolution Adjustment



① Click to switch the units between Inch(MPH), Meter(m/s), Metric (km/h).
② Click to turn on/off Show the route, Display prompt message, Voice prompt.
② Click 2.7K/30fps or 4K/20fps to change the resolution of video when insert a SD card.

- The video resolution can only be adjusted when the drone is inserted a SD card.
- It will take about 20 seconds to change the resolution.

6 Flight

After the installation preparation is complete, please conduct flight training or training first. It is recommended to conduct training in the beginner mode. Please choose a suitable flight environment when flying. The flying altitude is limited to 393ft, and the local laws and regulations must be strictly observed during flight. Please be sure to read the F7GB2 Disclaimer and Safety Summary, and understand the safety precautions before flying.

6.1 Flight Environment Requirements

- Do not fly in severe weather such as strong wind, snow, rain, and fog.
- Choose an open place with no obstructions around as the flying field.
- The compass and GPS signals on the aircraft will be interfered by buildings, mountains, and trees. It is recommended to fly in an open space with a diameter of 32 ft without interference. It is recommended that the flight altitude be greater than 49 ft to avoid ground obstacles and other signal interference from the ground.
- When flying, keep in sight and control, and stay away from obstacles, crowds, etc. When flying on the water surface, please be more than 9 ft above the water surface.
- The transmitter may be interfered by high-voltage lines, communication base stations or transmission towers. Please fly away from these areas.
- Please fly below 6561 ft above sea level to ensure that the air pressure setting function of the aircraft can work normally.
- When GPS is active, the aircraft can achieve stable hovering, intelligent return to home, and intelligent flight functions. When the GPS function fails, these functions cannot be implemented. The aircraft will be unable to hover, drifting away in the direction of the wind.

6.2 Pre-Flight Checklist

- Whether the transmitter, intelligent flight battery, and mobile device are fully charged.
- Make sure that the aircraft arms are fully extended. Make sure that the battery compartment cover is fastened firmly and the intelligent flight battery is installed firmly.
- Ensure that the propeller is free from damage, aging, deformation, no foreign matter entanglement, and secure installation.
- Please make sure that GPS is turned on to avoid that it would be lost please fly outdoor in an open place.

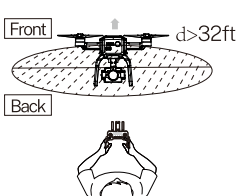
- Whether the 4 motors can start normally after power-on, and whether the rotation speeds are consistent.
- Connect drone WiFi with your phone, make sure that you have connected the WIFI name Bwine-F7-GB2-******-BRG exactly after app access right and Internets permission with your phone.
- Make sure the camera is clean.
- If you need to replace parts, be sure to use original parts. The use of non-original accessories may cause danger to the safe use of the aircraft.
- For details on accessory support, please refer to the accessory support page in the appendix of the user manual.

6.3 Calibration Before Flight

Aircraft needs to carry out a series of calibration work before flying, the main purpose is to avoid the accident that the aircraft loses control and crashes caused by the inaccurate GPS signal during the flight.

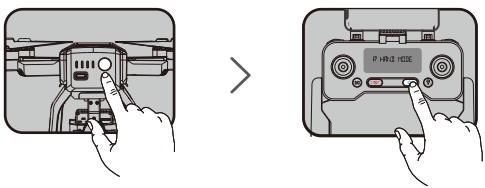
- **Match the aircraft with the transmitter and mobile phone**

① Remove the gimbal cover, unfold the four arms of the aircraft and place them on an open level ground with the nose facing forward and the tail facing the pilot.

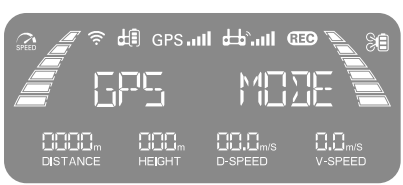


An open space with a diameter of 32 ft and no interferences.

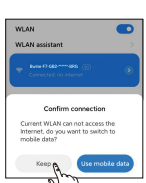
② Long press the power button of aircraft, the motor light will be on and you will hear a beeping sound, indicating that the aircraft has been turned on;
③ Short press the transmitter power button twice to turn on the transmitter switch.

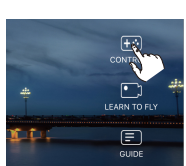


④ After the drone's “beep” sound disappears, the lights turn pink on the front and green on the back, which means the linking is successful. And the transmitter screen displays GPS MODE.



⑤Connect the mobile phone to the aircraft's WiFi (name: Bwine-F7-GB2-******-BRG), click on the app to enter the control interface

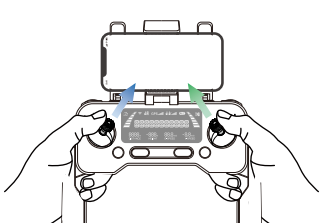




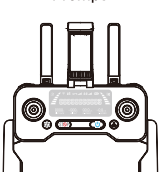
- When the Android phone is connected to aircraft WiFi (named Bwine-F7-GB2-******-BRG), as the aircraft WiFi has no network, wait for about 10-40 seconds on the phone's WiFi setting page, the phone will pop up the network setting option to ask whether to continue to connect to aircraft WiFi, please set it continue to use aircraft WiFi, so as not to cause the app to be unable to see the image transmission screen.
- Please turn off the VPN switch of the phone to avoid the app not being able to see the image transmission screen.
- If the mobile phone is set to priority on internet speed and the App cannot see the image transmission screen, please set the mobile phone to airplane mode and try.
- Aircraft image transmission WiFi is 5.8G, mobile phone WLAN function must be supported dual-band WiFi, 2.4G+5.8G, can be applied.

- **Compass Calibration**

① Push the left joystick to the "1 o'clock" and the right joystick to the "11 o'clock" direction, the lights of the arms flashes quickly, the front light is white pink and the rear light is green. (The default setting is that you don't need to push the left and right joystick to the 1 & 11 o'clock positions to enter compass calibration when turning on the drone. However, you can follow this step to calibrate the compass when the drone is disturbed.)



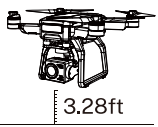
Prompt



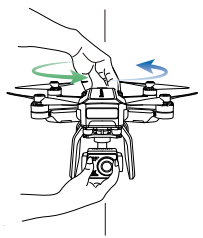
① Push the joysticks into the 11 & 1 o' clock position

② Follow the prompts to pick up the aircraft at a distance of 1m from the ground and rotate the aircraft horizontally for 1-2 laps until the app interface prompts to enter the vertical calibration.

GeomagneticHor Calibration

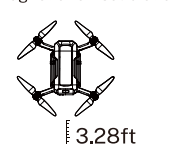


① Plaese place the aircraft 1 meter high on the groud and rotate it horizontally for 2-3times.

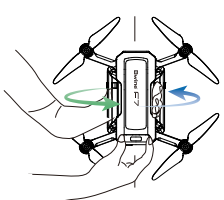


③ Pick up the aircraft at a distance of 1m from the ground, and rotate the aircraft 1-2 laps vertically with the camera facing upwards until the prompt of vertical calibration on the app interface disappears. After the compass calibration is completed, place the Aircraft on a level ground. At this time, the front arm of the aircraft has a white light and the rear arm has a green light.

GeomagneticHor Calibration



② Please place the airctaft 1 meter high on the ground, nose up, and rorate it 2-3 times.

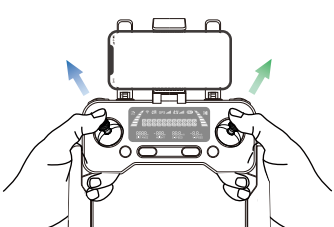


- The aircraft must be calibrated with the compass every time it is turned on before it can take off. After the aircraft is turned
- on and the frequency is turned on, the aircraft can becalibrated in steps ② and ③.
- When the aircraft is flying in a circle or out of control in a complex environment, the aircraft compass calibration is not standard or interfered.
- Please land the aircraft manually in time to manually calibrate the aircraft (refer to the first step of calibrating the compass).
- When calibrating the aircraft, please open the arm to avoid the influence of the magnetic field of the motor.

Calibrate the gyroscope/level

① Make sure that the aircraft is placed on a level ground and there is enough space under the camera.

② Push the left joystick to the "11 o'clock"and right joystick to the "1 o'clock" direction, The front white and back green lights flash quickly, the camera automatically back to level and the app displays horizontal calibration.



Level Calibration

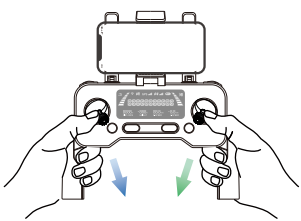
③ The aircraft is placed on the horizontal ground, search GPS satellite signal, search white blue light slow flashing, signal search success,the aircraft white blue light is always bright, indicatingstar searh success, you can fly.

③ The app prompts that the level calibration is successful, the front light becomes white, and the rear light becomes green, which indicating that the calibration is completed.
④ After the calibration is completed, "Ready to fly" is displayed in the app, and you can now prepare to take off.

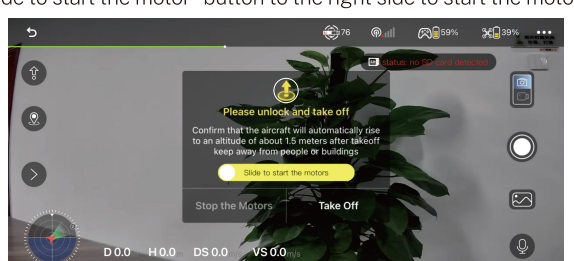
⚠ • When the aircraft's flight state is tilted and unstable, please land the aircraft on a level ground for gyroscope/horizontal calibration.

6.4 Starting/Stopping the Motors

• **Starting the Motors**
Method 1: Push the joysticks into 5 & 7'o clock position to start the motor.



Method 2: Tap the One-key Take Off icon on app and then slide " Slide to start the motor "button to the right side to start the motor.

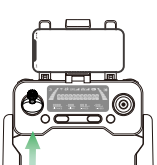


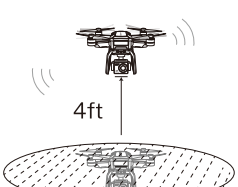
- **Stopping the Motors**
  After the motor starts rotating, there are two ways to stop:
  Method 1: After the aircraft takes off, push the throttle stick to the lowest position and operate the aircraft to land until the motor stops, then release the joystick.
  Method 2: When the flight is not taking off, Push the joysticks into 5 & 7'o clock position to start the motor. After the motor is turned off, please release the joystick immediately.
- **Manually Land the Aircraft**
  When you need to manually land the aircraft, continue to push the transmitter throttle lever downwards. Do not release the throttle lever during landing until the aircraft lands and the motors stop.

⚠ • Please choose a flat ground to land.

6.5 Automatic Take-off / Automatic Landing

- **Automatic take-off**
  After the aircraft is calibrated, users can use the automatic take-off function:
  ① Start the motor after confirming the safe take-off conditions.
  ② Push up the left stick on Transmitter or enter the APP and tap the icon to take off.
  ③ The aircraft will take off automatically and hover at a distance of 4 ft from the ground.





- It is recommended to fly in an open space with a diameter of 10 meters without interference;
- The flying height must be higher than ground obstacles to avoid collision;
- It is recommended that the flight altitude be greater than 15 meters to avoid other signal interference from the ground.

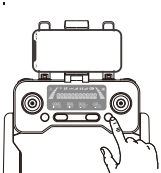
- **Automatic landing**

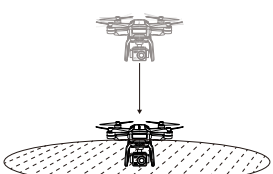
After the aircraft takes off, users can choose to use the automatic landing function:

① Confirm the safe landing conditions, click the One-key Return Home button on transmitter or enter the app, tap the One-key Landing icon to allow the drone to land automatically.

② When the aircraft is descending, push the throttle lever of the transmitter up and immediately open it to exit the automatic landing process.

③ The aircraft landed on the ground and turned off the motors by itself.





6.6 How to take off the Bwine Drone App

- **Basic Flight Steps**

① Place the aircraft on a flat and open ground with the nose facing forward and the tail facing the pilot.

② Power on the aircraft.

③ Connect the mobile phone to aircraft's WiFi Bwine-F7-GB2-******-

BRG, open the Bwine Drone app, and enter the camera interface.
④ After the aircraft calibration is completed, the front light is white and rear light is green, and the motor is started.
⑤ Slowly push the throttle stick upward to let the aircraft take off smoothly.
⑥ Pull down the throttle stick to lower the aircraft.
⑦ After landing, pull the throttle stick to the lowest position and hold it until the motor stops.
⑧ Turn off the power of aircraft and transmitter in turn after shutdown.

6.7 Aerial Photography Tips & Tricks

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

> • Awareness of flight safety is very important for the safety of you, the surrounding people and the environment. Please read the "Safety and Disclaimer Guidelines"carefully.

7 Appendix

7.1 Specifications

Drone	Model	F7GB2
	Weight (Including Battery)	550g / 19.4 OZ
	Flight Time	About 25 Minutes
	Motor Model	1806
	Operating Temperature Range	50°to 104°F (10°to 40°C)
	Satellite Systems	GPS / GLONASS
	Dimensions (L x W x H)	Unfolded: 33 x 32.5 x 13.5 cm
		Folded: 11.8 x 16.1 x 13.5 cm

Gimbal 3-axis	Mechanical Range	Tilt about -120°TO+45°
		Roll about -35°TO+35°
		Pan about -30°TO+30°
	Controllable Range of Camera (Up and down)	About -90°TO+0°
Camera	Lens	Mechanical Range
	Equivalent Focal Length	60cm
	Focus Range	Fixed-focus
	Resolution of Photo	Phone 3840 x 2160 P
		SD Card 3840 x 2160 P
	Resolution of Video	Phone 1280 x 720 P
		SD Card 3840 X 2160 P
	Photo Format	JEPG
	Video Format	MP4
	Supported SD Cards	Micro SD card(Class 10/U1 or later) 32G-128G
	Supported File Systems	FAT32
5G Transmission	Operating Frequency	5.15-5.35 GHZ; 5.725-5.825 GHZ
	Supported Transmission Protocol	802.11a; 802.11n20; 802.11n40
	Video Transmission Frame Rate	15 FPS
Transmitter	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 Hours
	Operating Voltage	3.7V
	Mobile Device Holder	4.7 to 6.5 Smart Phones
	Operating Temperature	32°to 104°F (0°to 40°C)
Drone Battery	Capacity	2600mAh
	Voltage	11.1V
	Battery Type	Li-polymer
	Power	28.86Wh
	Net Weight	183 g / 6.5 oz
	Max Charging Power	15W
	Max Charging Time	About 4.5 Hours(Depending on Charging Power)
	Charging Temperature Range	50°to 104°F (10°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 Support

All of the above accessories can be searched and purchased on Amazon, you can enter Bwine store to buy them yourself.
Be sure to use original accessories. The use of non-original accessories may cause unknown danger to the safe use of the Aircraft.

Battery

Propeller

Arm

7.3 Common Problems and Solutions

Question	Reason	Solutions
The motors cannot be started	Weak GPS signal	Turn on the aircraft in an open area with strong GPS signal
	The red light stays on	The aircraft has low battery. Please charge the battery in time
	The pink light stays on	The compass is not calibrated. Please refer to the "Calibration Before Flight" section of the user manual
	The left and right joystick are in place	Push the left and right joysticks simultaneously to 5 o'clock and 7 o'clock for 2 seconds
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. Please refer to the "Calibration Before Flight" section of the user manual
	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 32.81 ft (10 meters)
The flying direction of the aircraft is opposite to or inconsistent with the remote control joystick when flying	The aircraft isn't placed correctly when it takes off	The side with the camera should be forward and the tail of aircraft towards the operator before it takes off
Aircraft falls suddenly	Emergency stop function is used	Please don't use it in non-emergency situations to avoid unnecessary losses
Out of control, spinning around on its own, abnormal sound	The Transmitter signal is interfered or the aircraft exceeds the range of remote control	Please fly the aircraft outdoors without interference, and ensure that it is within a controllable range
	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 become deformed and incomplete	Replace the propellers with new ones
Can't enter the compass calibration program	The position of the joysticks isn't right	Push joystick on the left into 1 O'clock position and the joystick on the right into 11 O'clock position at the same time
Need to calibrate compass each time	To reduce the situation of out of control, improve its stability and make it return more accurate	Calibrating it follows the user manual or app commands

Question	Reason	Solutions
Gimbal doesn't work	The gimbal hits the grass when the aircraft takes off from the grass	Put the aircraft on the aircraft landing pad or cardboard to avoid hitting obstacles
	The gimbal of aircraft is interfered by man-made external forces, or the aircraft is picked up during the calibration process of gimbal	It takes about 40 seconds for gimbal self-checking and don't touch it during calibration
	The aircraft enters compass calibrations program	The gimbal doesn't work during calibration. Please place the aircraft on a level ground when calibrating and the gimal will calibrate automatically
Video isn't clear	Saved it on app. The video resolution is only 1280*720P when saved on app	Please insert an SD card into the camera and save the video on it
Video freezes, image transmission distance is short	The joysticks are moved too fast when controlling the aircraft	Move the joysticks slowly
		Adjust the frame rate and pixel on the app
	The aircraft is out of Wi-Fi range	Fly the aircraft within the range of the Wi-Fi
	WiFi image transmission signal interference	Fly the aircraft in an unobstructed open area free of buildings, high-voltage wires and signal towers
	The transmitter and the mobile phone are not pointed at the direction of the aircraft	Point the transmitter and the mobile device at the flying direction of the aircraft to maintain the trongest signal connection
	Phone performance freezes	Close unused apps running in the background to maintain the best performance of the phone
	The remote control antennas aren't unfolded	Unfold the antenna and mobile phone holder and make the antennas aim at the flying direction of the aircraft
App does not display the interface	The phone is not connected to Wi-Fi	Connect your mobile device to the Wi-Fi : Bwine-F7-GB2-******-BRG
	The phone version is too low	Android 6.0 and above, IOS 10.02 and above
	When connecting to the aircraft' s WiFi, the network is not set or set incorrectly	Set the Wi-Fi correctly
		Turn the phone to airplane mode
	It's intercepted by mobile phone plug-in	Turn off the intercept function and modify permissions
	VPN switch is turned on	Turn off the VPN switch
APP crash or its functions are abnormal	Wrong app downloaded	Download the correct app
	The phone version is old and not compatible with the app	Give us your mobile phone version model and we will give you a corresponding solution
Phone cannot connect to Wi-Fi	It is the first time to connect your phone to the Wi-Fi	Try connecting a few more times or restart the phone

Question	Reason	Solutions
The WiFi name is not displayed in the list	The phone is a single band phone	Use the dual band devices that support both 2.4 GHz and 5 GHz/5.8 GHz
	WiFi has not been activated	Wait for about 30 seconds after turning on the aircraft and keep refreshing the Wi-Fi list while the Wi-Fi is activated
	The aircraft doesn't pair with the remote control	Turn on the aircraft and remote control and it takes about 40 seconds for the aircraft to connect to the remote control. And then you can find the Wi-Fi name in the list
GPS signal is weak	Turning on the aircraft indoors	GPS signals cannot be found indoors.Please search for GPS signals in an open place outdoors
	Under the tree, next to the building, in an obstructed place	Please stay away from obstacles for more than 32.81 feet(10 meters), and search for GPS signals in an open area
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
It takes too long for the aircraft to pair with the remote control	It takes about 40 seconds for the aircraft to connect to the remote control	Please wait for about 40 seconds patiently
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
	The battery is not fully charged	Please use a charger with 5V/3A to charge it
	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 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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