

BWINE F7 DRONE

User Manual & Operating Instructions

Model: F7 | 4K Camera Drone

Document Source: This PDF manual is downloaded from <https://thebwine.com/>

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1. Package Contents

- Bwine F7 Drone × 1
- Remote Controller × 1
- Rechargeable Battery (7.4V 2000mAh) × 1
- Spare Propellers × 4
- USB Charging Cable × 1
- Screwdriver × 1
- User Manual × 1
- Propeller Guards × 4
- Carrying Case × 1

Important: Please check all items are included before first use. Contact customer service if any items are missing.

2. Product Overview

2.1 Drone Components

- **Camera:** 4K UHD camera with 90° adjustable angle
- **Gimbal:** 3-axis mechanical gimbal for stable footage
- **Propellers:** Quick-release foldable propellers
- **Landing Gear:** Retractable landing gear
- **LED Indicators:** Front and rear LED lights
- **Battery Compartment:** Easy-access battery bay
- **Micro SD Slot:** Supports up to 128GB cards
- **Sensors:** GPS, optical flow, and obstacle avoidance sensors

2.2 Key Features

- 4K Ultra HD video recording
- GPS positioning and return-to-home function
- Optical flow positioning for stable hovering
- Obstacle avoidance system
- Follow-me mode
- Waypoint navigation
- One-key takeoff and landing
- Headless mode operation

3. Technical Specifications

Specification	Details
Dimensions	Folded: 18.5 × 9.5 × 6.8 cm Unfolded: 35 × 35 × 6.8 cm
Weight	498g (with battery)
Camera Resolution	4K UHD (3840 × 2160) at 30fps 1080p at 60fps
Photo Resolution	12MP (4000 × 3000)

Battery	7.4V 2000mAh Li-Po
Flight Time	Up to 25 minutes
Control Range	Up to 1200m
Max Speed	15 m/s (Sport Mode)
Operating Temperature	0°C to 40°C
Wind Resistance	Level 4 (up to 10.7 m/s)

4. Remote Controller

4.1 Controller Layout

- **Left Joystick:** Throttle (up/down) and Yaw (left/right rotation)
- **Right Joystick:** Pitch (forward/backward) and Roll (left/right movement)
- **Power Button:** Long press to turn on/off
- **Return Home Button:** Automatic return to takeoff point
- **Takeoff/Landing Button:** One-key takeoff and landing
- **Photo/Video Button:** Capture photos and start/stop video recording
- **Gimbal Wheel:** Adjust camera angle up/down
- **Mode Switch:** Switch between flight modes
- **Phone Holder:** Adjustable clamp for smartphones

4.2 Controller Preparation

1. Install 4 AA batteries in the controller battery compartment
2. Download and install the "Bwine Fly" app on your smartphone
3. Mount your phone in the controller's phone holder
4. Connect your phone to the controller via USB cable or Wi-Fi
5. Open the Bwine Fly app and follow the connection instructions

5. Pre-flight Preparation

5.1 Battery Installation and Charging

1. Insert the battery into the drone's battery compartment until it clicks securely
2. To charge, remove the battery and connect it to the USB charging cable
3. Connect the cable to a 5V/2A power adapter or computer USB port
4. Charging time is approximately 120 minutes for a full charge
5. The LED indicator will turn green when fully charged

Battery Safety: Never leave batteries charging unattended. Always use the provided charging cable and avoid overcharging.

5.2 Propeller Installation

1. Identify marked (A) and unmarked (B) propellers
2. Install A propellers on motors marked with white dots
3. Install B propellers on motors without white dots
4. Push propellers down and rotate clockwise until they lock in place
5. Ensure all propellers are securely attached before flight

5.3 Pre-flight Checklist

- ✓ Battery fully charged and properly installed
- ✓ Propellers correctly installed and secure
- ✓ Micro SD card inserted (optional)
- ✓ Controller batteries charged

- ✓ Phone app connected and GPS signal acquired
- ✓ Flight area is safe and legal for drone operation
- ✓ Weather conditions are suitable (low wind, good visibility)

6. Flight Operations

6.1 Powering On

1. Press and hold the drone's power button for 3 seconds
2. The drone's LED lights will flash, indicating it's powered on
3. Press and hold the controller's power button for 3 seconds
4. Wait for the controller to establish connection with the drone
5. Open the Bwine Fly app and connect to the drone's Wi-Fi network

6.2 GPS Calibration

1. Place the drone on a flat surface in an open area
2. Wait for GPS signal acquisition (usually 30-60 seconds)
3. The drone's LED will change from flashing to solid when GPS is locked
4. If GPS calibration fails, move to a more open area away from interference

6.3 Compass Calibration

Perform compass calibration in the following situations:

- First flight in a new location
 - When the app indicates calibration is needed
 - After traveling more than 50km from last flight location
1. Enter compass calibration mode through the app
 2. Hold the drone horizontally and rotate 360° slowly
 3. When prompted, hold the drone vertically (nose down) and rotate 360°
 4. Calibration is complete when the app confirms success

6.4 Takeoff Procedures

1. Ensure the drone is on a flat, level surface
2. Stand at least 3 meters away from the drone
3. Press the takeoff button on the controller or in the app
4. Confirm takeoff when prompted
5. The drone will automatically lift to a hover at 1.2 meters height

6.5 Basic Flight Controls

- **Throttle (Left Stick Up/Down):** Climb and descend
- **Yaw (Left Stick Left/Right):** Rotate left and right
- **Pitch (Right Stick Up/Down):** Move forward and backward
- **Roll (Right Stick Left/Right):** Move left and right

6.6 Flight Modes

- **GPS Mode:** Most stable, uses GPS for positioning
- **Sport Mode:** Increased speed and agility, reduced obstacle avoidance
- **Follow Me Mode:** Drone automatically follows the controller
- **Orbit Mode:** Drone circles around a selected point

- **Waypoint Mode:** Pre-programmed flight path
- **Headless Mode:** Forward direction relative to pilot, not drone orientation

7. Camera Functions

7.1 Photo Capture

- Press the photo button on the controller to take single shots
- Use the app for additional options like burst mode and timer
- Photos are saved to the micro SD card and phone simultaneously
- Maximum photo resolution: 12MP (4000 × 3000)

7.2 Video Recording

- Press and hold the video button to start/stop recording
- Available resolutions: 4K@30fps, 2.7K@30fps, 1080p@60fps
- Videos are saved in MP4 format
- Maximum single video file size: 4GB

7.3 Gimbal Control

- Use the gimbal wheel on the controller to adjust camera angle
- Tilt range: -90° to +30°
- Gimbal automatically stabilizes during flight
- Reset gimbal position through the app if needed

8. Maintenance & Care

8.1 Regular Maintenance

- Clean the drone with a soft, dry cloth after each use
- Check propellers for damage or wear before each flight
- Inspect the gimbal and camera for dust or debris
- Keep firmware updated through the app
- Store in the provided carrying case when not in use

8.2 Battery Care

- Do not fully discharge batteries; recharge when at 20-30%
- Store batteries at 40-60% charge for long-term storage
- Do not expose batteries to extreme temperatures
- Replace batteries if they show signs of swelling or damage
- Use only original Bwine batteries and chargers

8.3 Storage Guidelines

- Store in a cool, dry place away from direct sunlight
- Remove batteries if storing for more than a month
- Keep away from magnetic objects and interference sources
- Use the original carrying case for protection

9. Troubleshooting

9.1 Common Issues

Drone won't turn on:

- Check if battery is charged and properly installed
- Ensure battery connections are clean
- Try pressing power button for 5 seconds

Poor GPS signal:

- Move to an open area away from buildings
- Wait longer for GPS acquisition (up to 2 minutes)
- Check for magnetic interference sources

Unstable hovering:

- Calibrate compass and IMU
- Check if propellers are damaged or incorrectly installed
- Ensure flight area has good lighting for optical sensors

Camera not working:

- Restart the drone and app
- Check if micro SD card is properly inserted
- Ensure SD card has sufficient storage space
- Format SD card if necessary

Remote controller connection issues:

- Check controller battery level

- Re-pair controller with drone
- Reset Wi-Fi connection in phone settings
- Ensure phone and app are updated

10. Safety Guidelines

Important Safety Information

10.1 Flight Safety

- Never fly near airports, military bases, or restricted airspace
- Maintain visual line of sight with the drone at all times
- Do not fly over people, crowds, or moving vehicles
- Respect others' privacy when using the camera
- Follow local laws and regulations regarding drone operation
- Do not fly in adverse weather conditions (rain, snow, strong wind)
- Maximum operating altitude: 120 meters (400 feet)
- Always perform pre-flight checks before takeoff

10.2 Emergency Procedures

- **Lost Signal:** Drone will automatically return to home
- **Low Battery:** Land immediately when warning appears
- **Emergency Stop:** Pull both joysticks down and inward simultaneously
- **Flyaway Prevention:** Always ensure proper GPS calibration

10.3 Legal Compliance

- Register your drone if required by local regulations
- Obtain necessary permits for commercial use
- Respect no-fly zones and airspace restrictions
- Follow privacy laws when recording video or photos
- Carry proper identification and drone documentation when flying

11. Warranty Information

11.1 Warranty Coverage

Bwine provides a 12-month limited warranty from the date of purchase covering:

- Manufacturing defects in materials and workmanship
- Functional issues under normal use conditions
- Original accessories included with the drone

11.2 Warranty Exclusions

The warranty does not cover:

- Damage from crashes, impacts, or misuse
- Water damage or exposure to extreme conditions
- Normal wear and tear of consumable parts
- Damage from unauthorized modifications or repairs
- Loss or theft of the product

11.3 Contact Information

- **Website:** <https://thebwine.com/>
- **Email Support:** support@bwine.com
- **Technical Support:** Available 24/7 through the website
- **Warranty Claims:** Submit through online portal with proof of purchase

11.4 Regulatory Information

FCC Compliance: This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

CE Marking: This product complies with European Union directives regarding electromagnetic compatibility and safety.

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Please read all instructions carefully before operating your drone. Keep this manual for future reference.