

Version: 1.0.0

# Freewing Blue Bridge User manual

## Freewing Flight Assistant APP Operate Instruction



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MADE IN CHINA



# Freeewing Blue Bridge User manual

## Basic Introduction

Freeewing *BlueBridge* is a dedicated adapter device with a built-in Bluetooth communication module, including Blue Bridge Lite Edition and Blue Bridge Pro Edition. As a relay device, Freeewing Blue Bridge includes two of the most common interfaces. Through it, the connected devices can interact with the Freeewing Flight Assistant APP for data exchange, achieving the purpose of setting, modifying device parameters, and setting online upgrades.

### ► Blue Bridge Lite

#### Introduction to panels and parameters

A: Type-C data cable

B: Power input

C: Device connection port

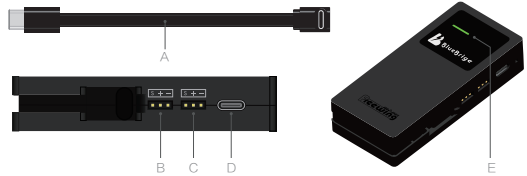
D: Type-C port (Power input, data transmission)

E: Signal light

1. Flashing, powered on. 2. Constantly on, Bluetooth connected.

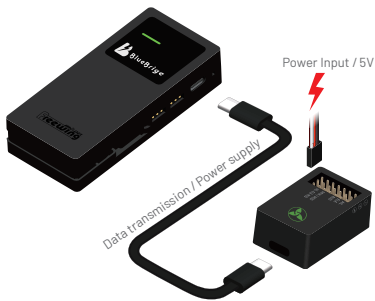
Input Voltage: 4.5-5.5V

Maximum Current: 1A



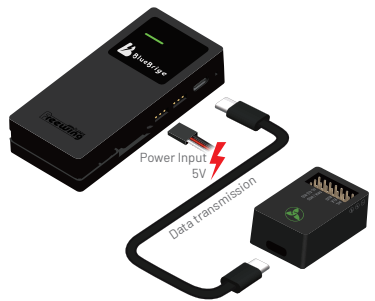
#### Connection Diagram

①



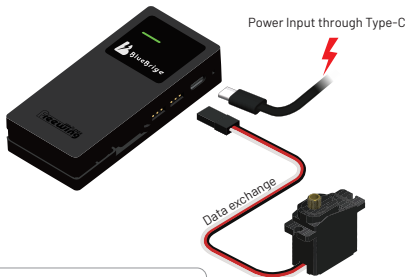
Gyro port power supply  
Power supply /Data exchange through Type-C

②



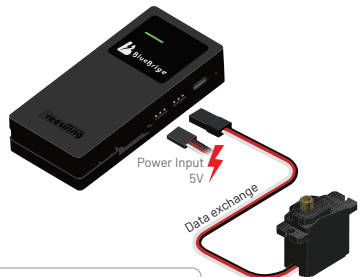
Power supply through port B  
Data exchange / Power supply through Type-C

③



Power supply through Type-C  
The servo interacts with data through port C

④



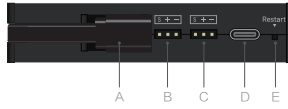
Power supply through port B  
The servo interacts with data through port C

- It can be powered by connecting to the mains through a mobile phone charger with Type-C interface.

## ► Blue Bridge Pro

### Introduction to panels and parameters

- A: Type-C data cable
- B: Power Output
- C: Device connection port
- D: Type-C port (Charge / Data transmission)
- E: Restart switch
- F: Signal light



Input voltage: 4.5-5.5V      Output voltage:4.8V  
 Maximum Current: 1A      Maximum Output Current: 1A

### Signal indicator light



**Green light - Always on**  
 The phone is successfully connected to Blue Bridge



**Green light - Flashing**  
 Blue Bridge standby mode



**Green / Red light - Flashing**  
 Upgrading.....



**Red light - Always on**  
 Low voltage  
 Reminder for charging



**Red light - Flashing**  
 Charging



**Blue light - Always on**  
 Charge completed  
 Full charged



**No light**  
 - Sleep mode  
 - Depleted battery

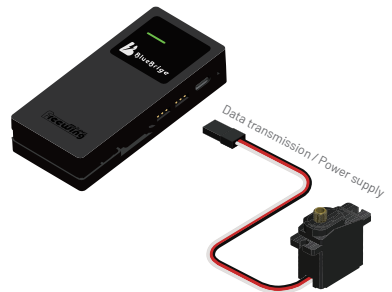
### Connection Diagram

①



Blue Bridge data cable connected to gyro  
 Data exchange / Power supply through Type-C

②



Connect the servo to the Blue Bridge C port  
 Directly perform parameter settings

## Operating instructions

1. Refer to the previous content to correctly connect the device to the Blue Bridge.
2. Blue Bridge supply power (this step can be skipped for Blue Bridge Pro Edition), Blue Bridge green indicator light flashes.



3. Turn on the Bluetooth, then turn on the **Freewing Flight Assistant APP**.
4. Click "Find Device" on the homepage. The Bluetooth device list shows "Freewing", click "Connect". The page jumps to display "Connected". At this point, the blue bridge indicator light becomes constantly on.



5. Click on the corresponding device type in the APP interface to enter the settings page and start your settings work.



# Freewing Flight Assistant APP Operate Instruction

## ► Basic Introduction

Freewing Flight Assistant APP is a professional mobile software used for setting, downloading, and updating parameters of aviation electronic devices. By using Freewing Blue Bridge as a signal transmission medium, a wireless connection is established between aircraft model electronic devices and mobile apps for remote unlimited operation. A centralized data exchange and setting platform can effectively reduce manufacturing and usage costs. The intuitive graphic and text settings interface of the Flight Assistant app enables us to set up, maintain, and upgrade devices more conveniently.

## ► Start to Use

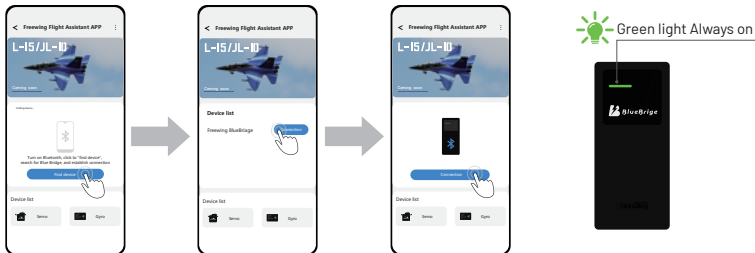
### Connection

1. The Freewing Flight Assistant APP (referred to as the "Flight Assistant APP") must be used in conjunction with the Freewing Blue Bridge.
2. Connect the electronic devices within the applicable range correctly to the Freewing Blue Bridge.

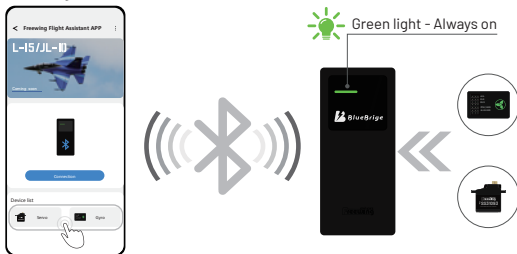
 Green light Flashing



3. Turn on the Bluetooth function on your phone and open the Flight Assistant APP.
4. Click on "Find Device" on the homepage
5. When "Freeing" appears in the list, click "Connect". The page jumps to display "Connected". At this point, the blue bridge indicator light becomes normal.



6. Click on the corresponding Freewing Blue Bridge device type in the APP interface to enter the settings page and start your device management.



### Attention:

The Freewing Blue Bridge remains powered on all the time. After setting up device A, when setting up another device B, the APP only needs to open the device B management interface and use it directly. In any case, if the power supply of the Freewing Blue Bridge is interrupted during use, Bluetooth will immediately disconnect. After powering on again, you need to restart the app and establish a Bluetooth connection again.

► Introduction to Setting Interface

**FreewingGuard 6-Axis Gyro Setting Interface - Parameter Setting**

**1 Bluetooth connection status**  
 ✖ Disconnect ✖ Connecting

**2 Aircraft Type Selection**  
 Delta Conventional V-Tail

**3 Gyro Mode Switch Setting**  
 The gyro working mode is associated with the shift switch, in order to achieve remote switching of the gyro's working mode.  
 Position 1: Off, Position 2: Basic, Position 3: Auto Level

**4 Gyro Direction**  
 AIL / Roll: Fwd Rev, ELE/Pitch: Fwd Rev, RUD / Yaw: Fwd Rev

**5 Gain Setting - Normal / Basic Mode**  
 AIL/Roll: 50, ELE/Pitch: 50, RUD/Yaw: 50

**6 Gain Setting - Auto Level Mode**  
 AIL/Roll: 50, ELE/Pitch: 50

**7 Neutral Angle Setting - Auto Level Mode**  
 AIL/Roll: 0.0, ELE/Pitch: 0.0

**Different wing layout options**

**Control surface correction direction**  
 Gyro switch for correcting the control surface direction.

**Gain setting-Auto Level Mode**  
 Adjust the gyro's sensitivity value  
 The higher the sensitivity value, the greater and faster the auto level recovery action of the aircraft!

**Bluetooth connection status**  
 The gyro working mode is associated with the shift switch, and the setting position 1.2.3 represents the three positions of the switch, they are: 1. Off 2. Basic Mode 3. Auto Level Mode.

**By choice, set freely**

**Gain setting-Normal/Basic Mode**  
 Adjust the sensitivity value of each axis of the gyro.  
 5-1. Slide button to adjust values  
 5-2. Click on the number bar to enter

**Neutral Angle Setting-Auto Level Mode**  
 During auto level flight, adjust the deviation angle of the horizontal or vertical axis.  
 During auto level flight, the aircraft may not be able to maintain a completely horizontal state. By using these parameters, the aircraft can maintain a more accurate horizontal attitude as much as possible

## Freewing Guard Gyro Setting Interface - Command bar

### Read

The current data in the device will be displayed on the interface:

When the reading is successful, there will be a green background text flashing prompt at the bottom of the interface. Otherwise, it will be prompted with red background text.

### Send

The parameters displayed on the interface will be directly written to the currently connected device and replace the original data

When the reading is successful, there will be a green background text flashing prompt at the bottom of the interface. Otherwise, it will be prompted with red background text.

### Save

The parameters displayed on the interface will generate a preset file (which can be named independently) and stored locally (My files).

### Calibrate

Gyro level calibration function. It is calibrated at the factory and does not require any operation.

### Downloads

Official download list of preset gyro parameters. On demand download to local - (my files)



### Restore

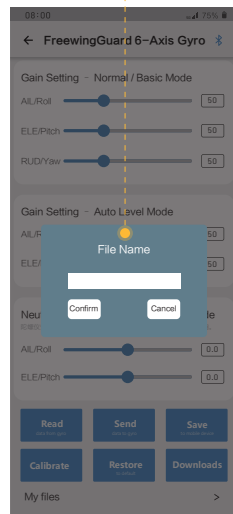
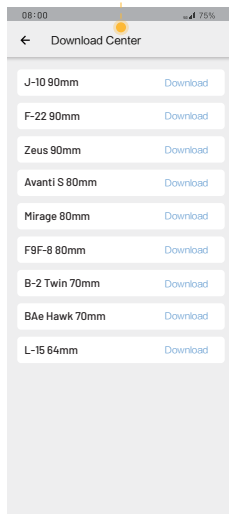
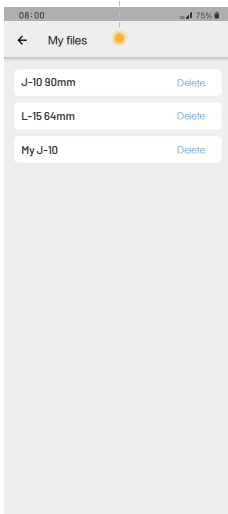
Restore the gyro to its factory setting.

### My file

Independently preset, the parameters downloaded by the server are stored here in the form of a list.

When in use, open this project and select the preset with the specified name. The interface parameters will immediately refresh and be sent to the device.

During this process, you can continue to adjust the parameters and send them. But it will not be saved unless the save action is repeated.



## Smart Servo Setting Interface

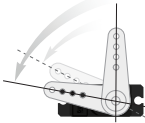
### Servo rotation direction

Switch the servo rotation direction through this command



### Rotation angle

Increase or decrease the left or right rotation angle (travel) of the servo. Maximum adjustment value:  $\pm 8^\circ$



### Sensitivity

Sensitivity control. It represents the fine-tuning response accuracy of signal pulse width. Properly reducing accuracy can repair abnormal shaking of the control surface.

### Overload Restart Time

The interval between detecting a stuck or overloaded servo and activating the protection mechanism  
Note: Short intervals may cause misjudgment. The default factory interval is 6 seconds

### Command bar

The operation logic here is consistent with the gyro

**Freewing Smart Servo**

1 Bluetooth connection status

2 Rotation Direction Rev  Fwd

3 Neutral-Position Adjustment (← Left, Right →) 0.0

4 Rotation Angle (Left and right rotation angle value)  
Left 0  
Right 0

5 Braking Force 0

6 Sensitivity (n x 1uS) 5

7 Rotation speed 100

8 Overload Restart Time (n x 0.1s) 50

9 Command bar: Read (data from servo), Send (data to servo), Save (to mobile device), Restore (to default), Download

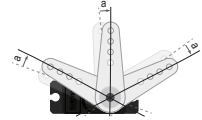
My files >

### Bluetooth connection status

✖ Disconnect  Connecting

### Neutral position adjustment

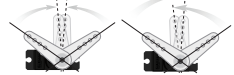
Adjust the stop position of the servo arm within a certain range. The rotation angle (travel) remains unchanged. Maximum adjustment value:  $\pm 8^\circ$



### Braking Force

Rotating the arm from two sides to the center position, then stop position is not the same. Adjust its data to solve this problem.

Maximum adjustment value:  $\pm 2^\circ$   
Note: Adjustments may not be possible due to structural issues.



### Rotation Speed

Adjusting the value can change the rotational speed of the servo  
The lower the value, the slower the speed  
Lowering the speed will not change the torque of the servo

5-1. Slide button to adjust values  
5-2. Click on the number bar to enter

