FEIYUTECH 3-Axis Stabilized Handheld Gimbal Smartphone Instructions

Contents [hide]

3-Axis Stabilized Handheld Gimbal Smartphone Instructions Manual

Model: SPG2

Guilin Feiyu Technology Incorporated Company

1. SPG 2 Overview

Accessories

Micro USB cable X1

26650 Li-ion Battery X1

Tripod X1
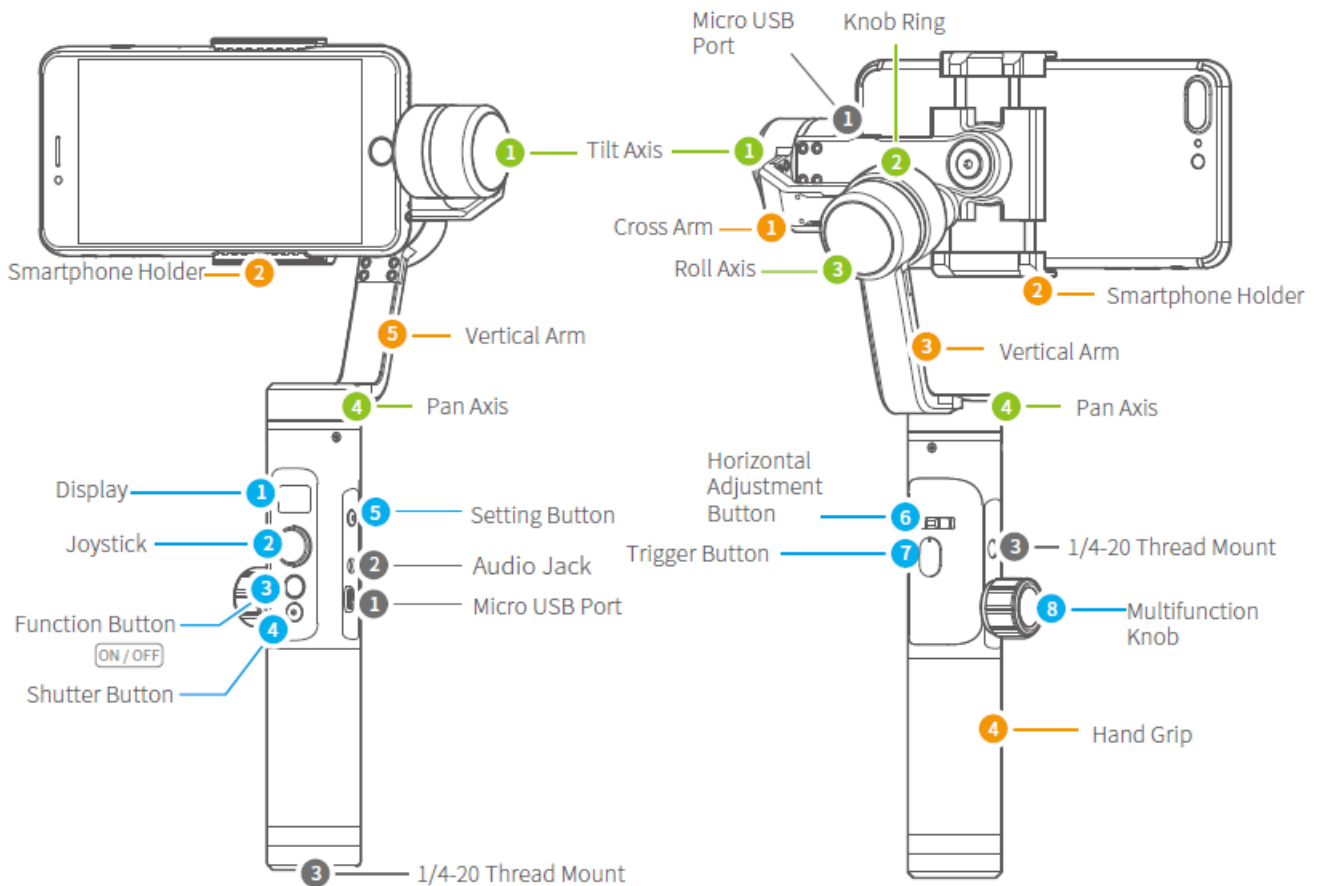
Introduction of Interface and screws

1. Micro USB Port

1. Used for charging the gimbal (input 5V / 2A), the gimbal can be used while being charged, but it is not available for external power supply.
2. Used for firmware upgrade (computer), please refer to the firmware upgrade operation steps for details. Please stuff up this port by the dustproof plug when it is not in use.

2. Audio Jack

Used to connect the phone to the audio input or output of the phone.

3. 1/4-20 Thread Mount

Used for expanding other accessories, such as the tripod which built-in 1/4 inch screw, extension rod and so on.

Introduction of Display and Buttons

1. Display
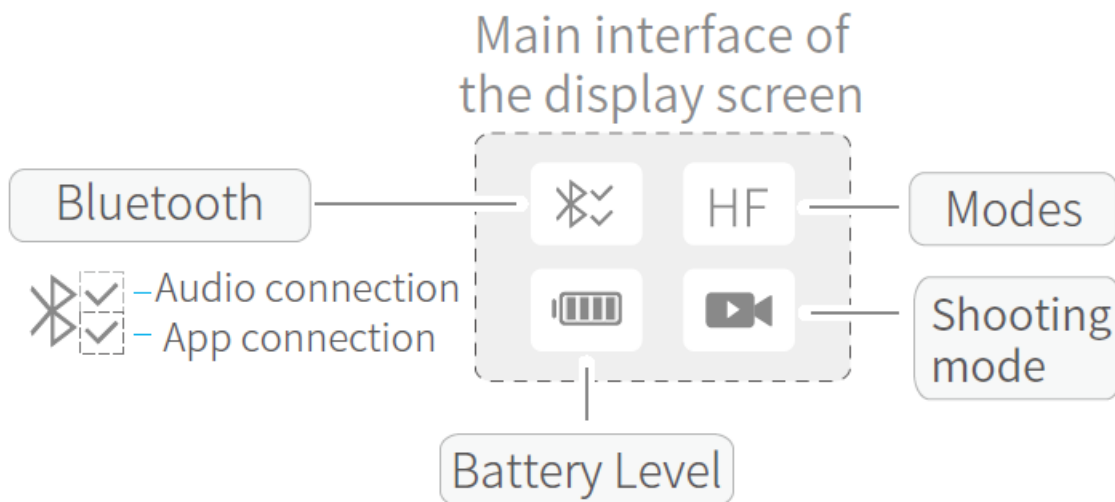
2. Joystick
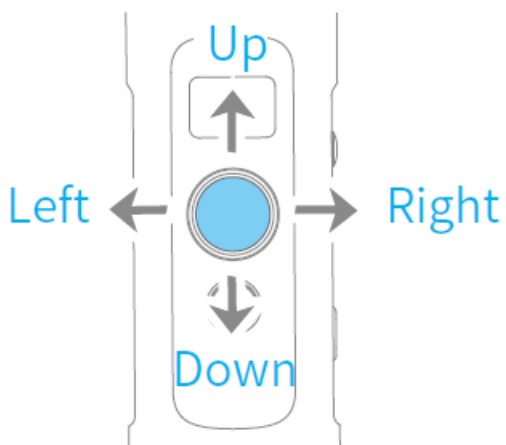
3. Function Button

- Long press: Power on / Power off
- Single tap: Panning Mode / Lock Mode
- Double tap: Follow Mode
- Triple tap: All Follow Mode
- Quadruple tap: Auto-rotation Mode

- Five tap: Initialization

4. Shutter Button

After the gimbal is connected to the mobile phone through Feiyu ON App, single tap the shutter button to control the phone to take photos, and double tap it to switch between the front and the rear lens of the camera, press and hold to control the video recording.

Please refer to the chapter "App – Download and Connecting" in page 10

5. Setting Button

- Long press: Switch the volume interface/Click to exit
- Single tap: Click on the main interface to switch to the phone shooting mode

6. Horizontal Adjustment Button

You can control the horizon angle via the horizontal adjustment button.

7. Trigger Button

- Press and hold: Fast follow mode
- Double tap: Reset

8. Multifunction Knob

1. Achieve the control to the focal length of Smartphone, such as follow focus, zoom.
2. Control the axial angle of the gimbal

Introduction of Axis and Knob

1. **Tilt Axis**
   Take the Smartphone lens as the base point, and control the smartphone lens to move upward or downward by tilt axis.
2. **Knob Ring**
   Used for fixing the cross arm.
3. **Roll axis**
   Take the smartphone lens as the base point, and control the smartphone lens to tilt to the left or tilt to the right by roll axis.
4. **Pan Aaxxiiss**
   Take the smartphone lens as the base point, and control the smartphone lens to turn left or turn right by pan axis.

Introduction of Other Components

1. **Cross arm**

Used for adjusting the up and down centre-of-gravity position of smartphone.

2. **Smartphone holder**

   Used for fixing the Smartphone.

3. **Vertical arm**

   Used for connecting the rolling axis and the panning axis.
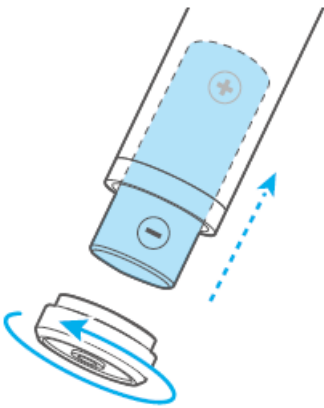
4. **Hand grip**

   Used for holding the gimbal by one hand.

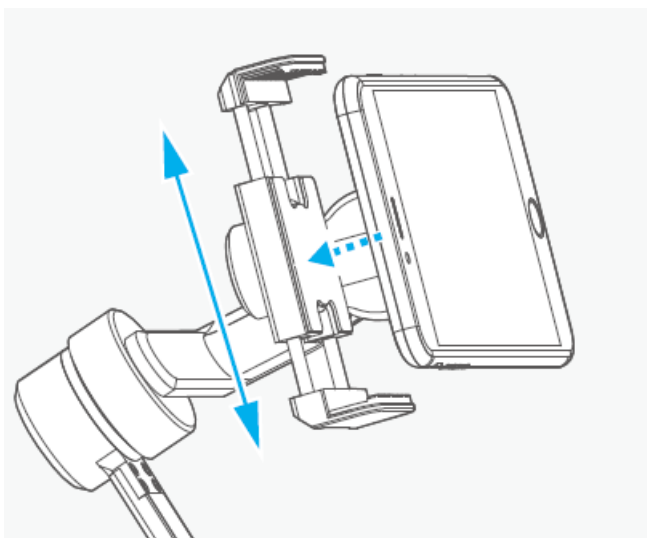## 2. Quick Start Guide

1. Install Battery

Remove the bottom cap, insert a 26650 battery and then tighten the cap.

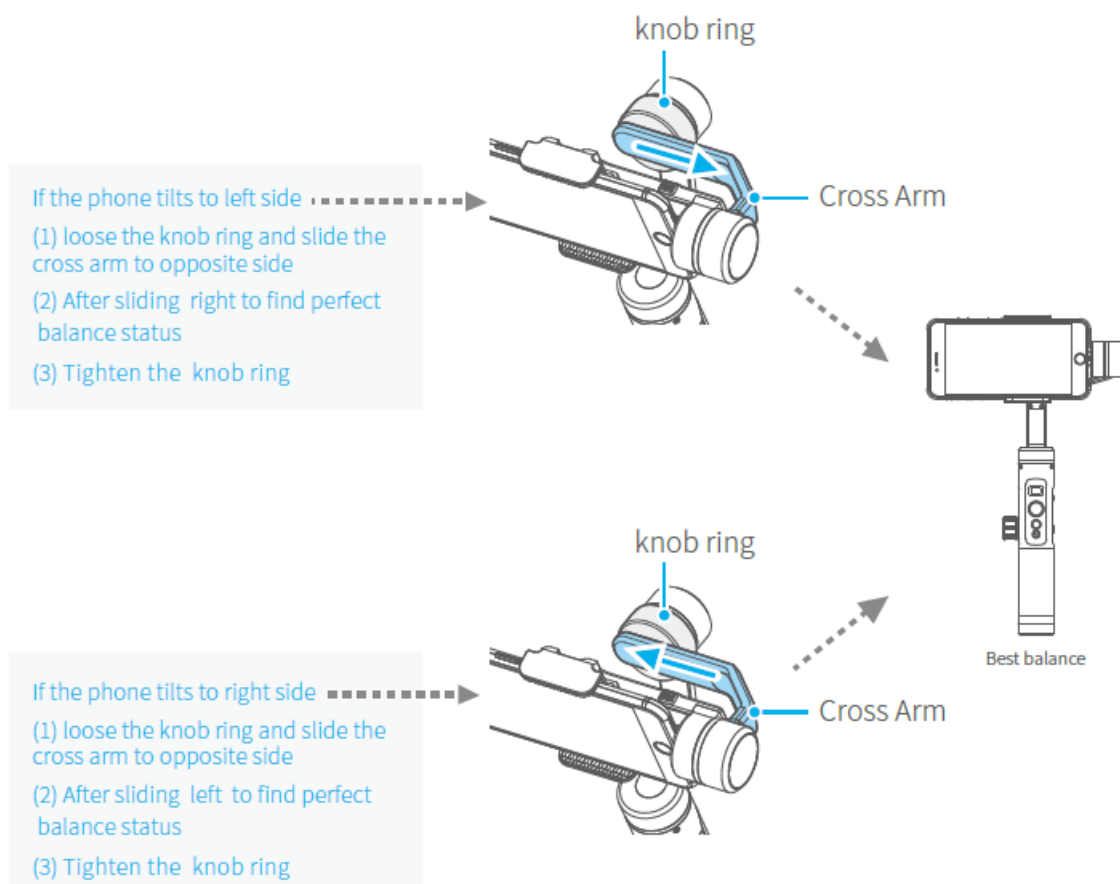- Type: 26650
- Battery Capacity: 5000mAh

2. Put the Smartphone on

It's recommended to remove your smartphone protective case.

Place smartphone in holder so that the phone is snug against the back of the holder.

3. Balance the Gimbal

knob ring

If the phone tilts to left side ⟶

(1) loose the knob ring and slide the cross arm to opposite side

(2) After sliding right to find perfect balance status

(3) Tighten the knob ring

Cross Arm

knob ring

If the phone tilts to right side ⟶

(1) loose the knob ring and slide the cross arm to opposite side

(2) After sliding left to find perfect balance status

(3) Tighten the knob ring

Cross Arm

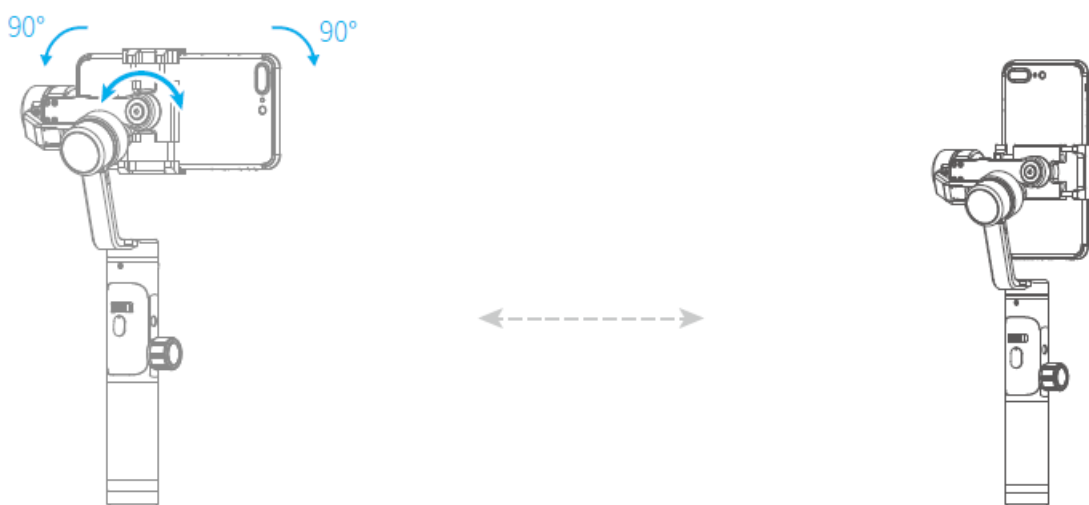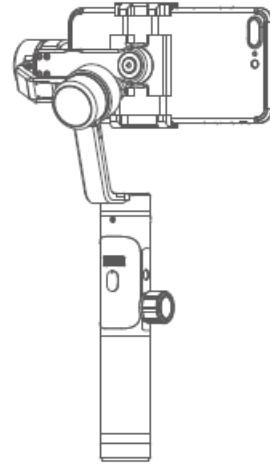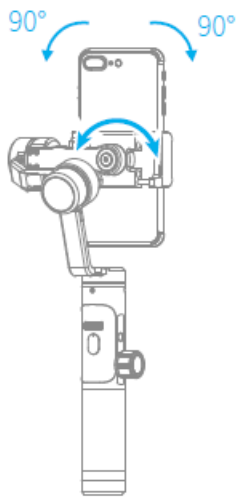Best balance

4. Set the horizontal shooting/ vertical shooting of mobile phone

Support clockwise / counterclockwise rotation

Pull the mobile phone fixture to switch between horizontal and vertical shooting, as shown in below picture:

90°   90°

5. Power on / off

NOTE

1. Please mount the smartphone before powering on the gimbal.
2. When the battery is low, please charge the gimbal.
3. When not in use, turn off the gimbal and then remove the battery.

Power on / off: Long press the function button, the display will show and release it when you hear the beep tone.

3. Charging

Charging the Gimbal

Charging with Micro USB cable as shown below.
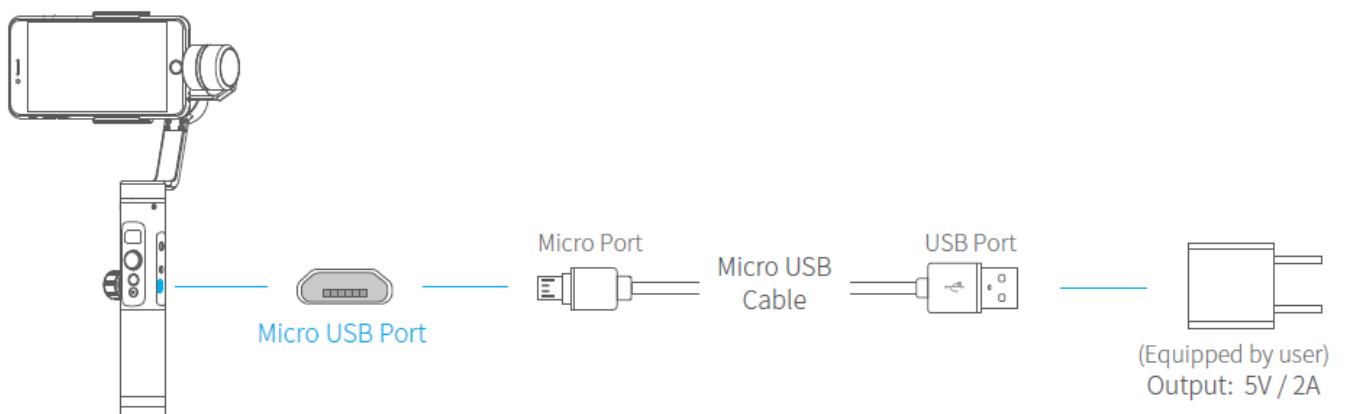
Charging the Smartphone

Use the mobile phone transfer charging cable (self-provided) to charge the mobile phone, and select the corresponding charging adapter cable according to the charging port of the mobile phone.

Cross Arm

Micro USB Port

Tilt Axis

Micro USB
charging interface

Transfer charging cable
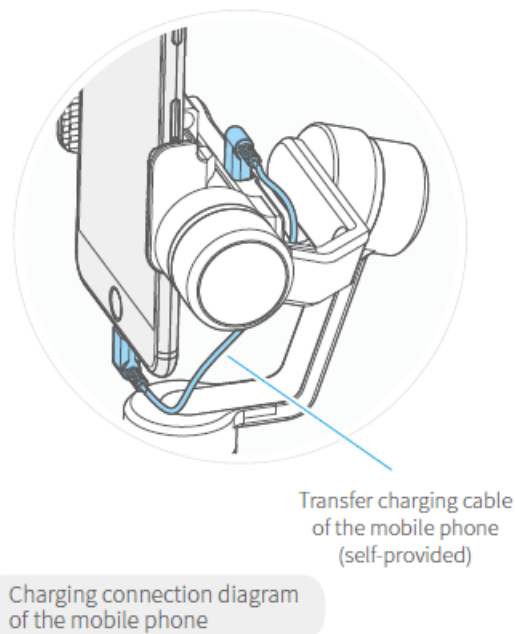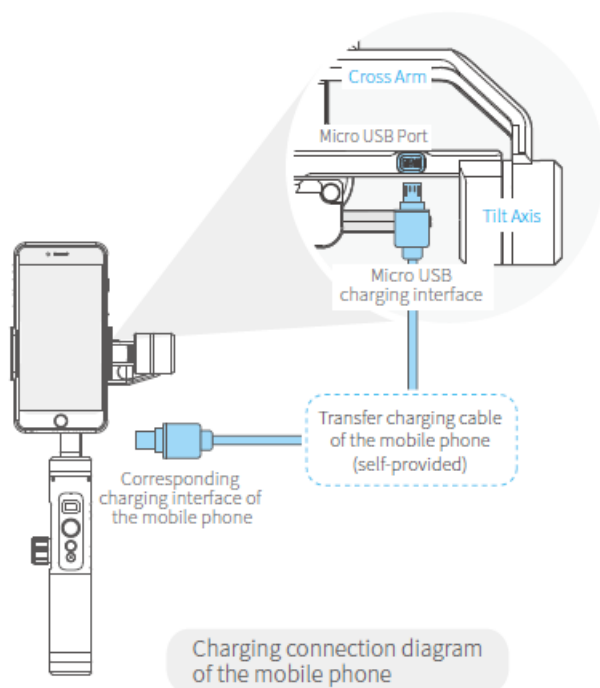of the mobile phone
(self-provided)

Corresponding
charging interface of
the mobile phone

Transfer charging cable
of the mobile phone
(self-provided)

Charging connection diagram
of the mobile phone

Charging connection diagram
of the mobile phone

4. Operation

Modes

Panning Mode (Default mode

The roll and tilt direction are fixed, and the smartphone moves according to the left-right movements of the user's hand.

Follow Mode

The roll direction is fixed, and the smartphone moves according to the left-right movements, up-down movements of the user's hand.
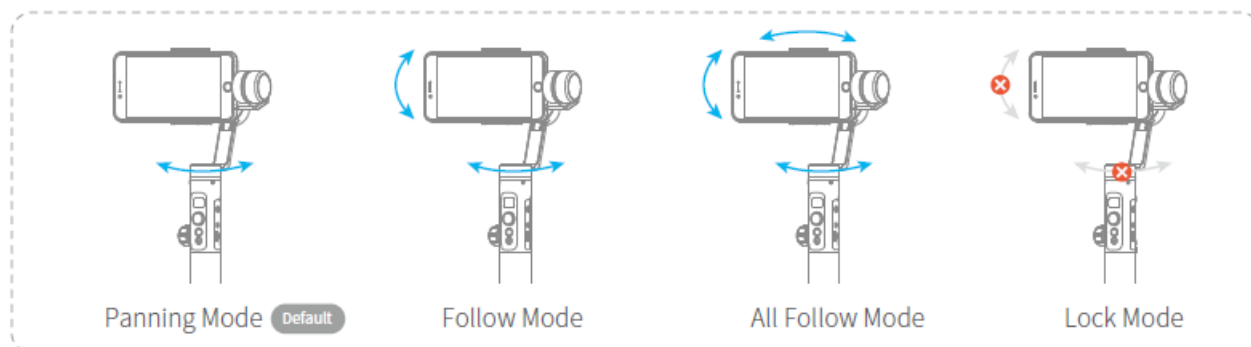
All Follow Mode

The smartphone moves according to the user's hand.

Reset

Return to panning mode, three axises return to default position.

Lock Mode

The orientation of the camera is fixed.

Panning Mode (Default)   Follow Mode   All Follow Mode   Lock Mode

Introduction of Display

Display icon	Mode / Status
HF	Panning Mode
TF	Follow Mode
AF	All follow mode
LK	Lock Mode
⚹⌄	Bluetooth1① is connected Bluetooth2② is connected
⚹✕	Bluetooth1① is connected Bluetooth2② is not connected
⚹⌄	Bluetooth1① is not connected Bluetooth2② is connected
⚹✕	Bluetooth1① is not connected Bluetooth2② is not connected

Display icon	Mode / Status
(IIII)	Battery Level
(⚡)	Charging
▶◀	Video mode
⮝⮝	Panorama mode
🐇	Fast motion mode
🐢	Slow motion mode

1. Bluetooth 1 is used for connecting the mobile phone with the gimbal via audio; please refer to the "Mobile Phone Audio Connection" .
2. Bluetooth 2 is used for connecting the mobile phone with the gimbal via APP; please refer to the "App Downloading and Connection".

Joystick – operation

Upward
(1) Lens upward
(2) Increase the volume

Move to left
(1) Lens move to left

Move to right
(1) Lens move to right

Up ↑
Left ← → Right
Down ⇕

Downward
(1) Lens downward
(2) Decrease the volume

Joystick
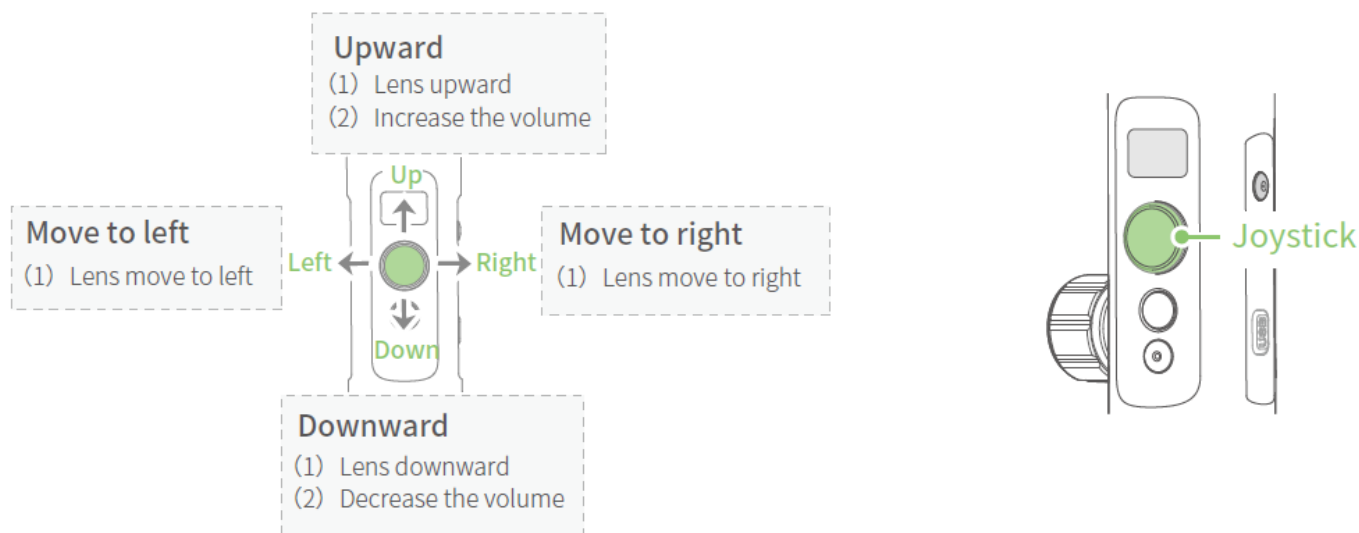
Function Button – operation

Note Functions in practice may differ from what is described in the manual in hand due to firmware upgrade. Please refer to the latest version of manual which could be found on official website.

| Single tap	Panning Mode / Lock Mode/ Check the battery level	Single tap to switch between panning mode and lock mode Single tap to check the battery level during charging
Double tap	Follow mode	Under the follow mode, single tap to switch to panning mode
Triple tap	All Follow Mode	Enter all follow mode
Quadruple tap	Auto-rotation Mode	Enter auto-rotation mode Please refer to the chapter "Auto-rotation Mode" in page 11
Five tap	Initialization	Enter initialization Please refer to the chapter "Gimbal Initialization" in page 12

Function Button
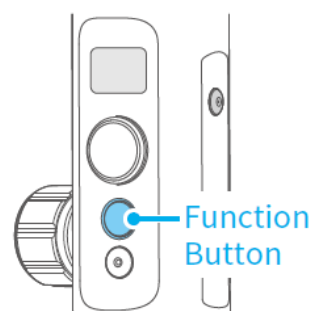
Shutter Button-operation

When SPG 2 is connected to the mobile phone via Feiyu ON App, single tap the shutter button to control the phone to take photos, double tap it to switch between the front and the rear lens of the camera, press and hold it to control the video recording.

Single tap	Shooting
Double tap	Switch between the front and the rear lens of the camera
Long press	Start shooting / Stop shooting

Shutter Button
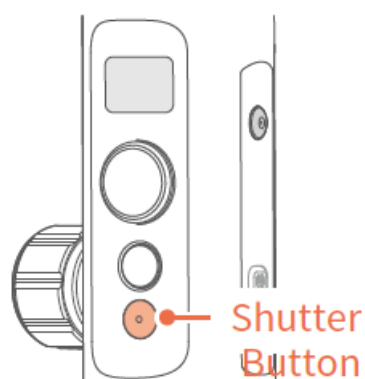
Please refer to the chapter "App – Download and Connecting" in page 10

Setting Button – operation

When SPG 2 is connected to the mobile phone via Feiyu ON App, the setting button can switch the phone shooting mode, and the phone volume can be adjusted after connecting to the phone audio Bluetooth.

Please refer to the chapter "App – Download and Connecting" in page 10

Switch Camera Modes

Single tap the setting button to switch the phone shooting mode
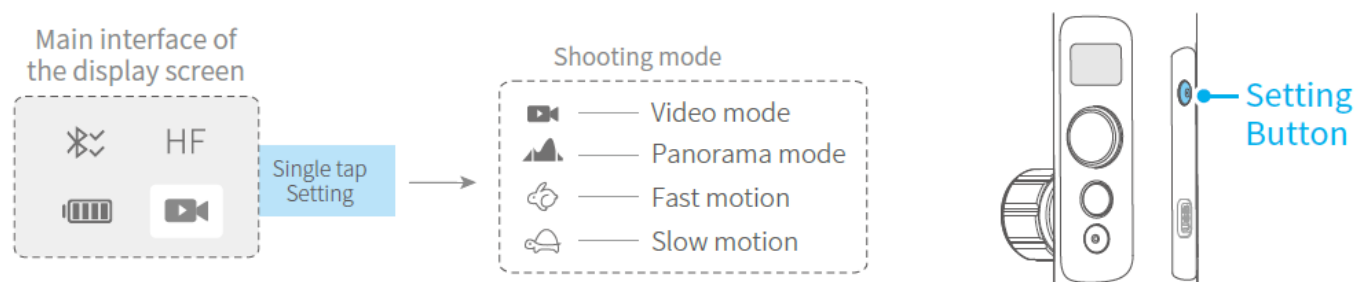
Adjust volume

Press and hold the setting button to switch between the main interface and the volume interface.
You can adjust the volume by moving the four-directional joystick up/down (this operation requires connecting to the mobile phone audio Bluetooth)
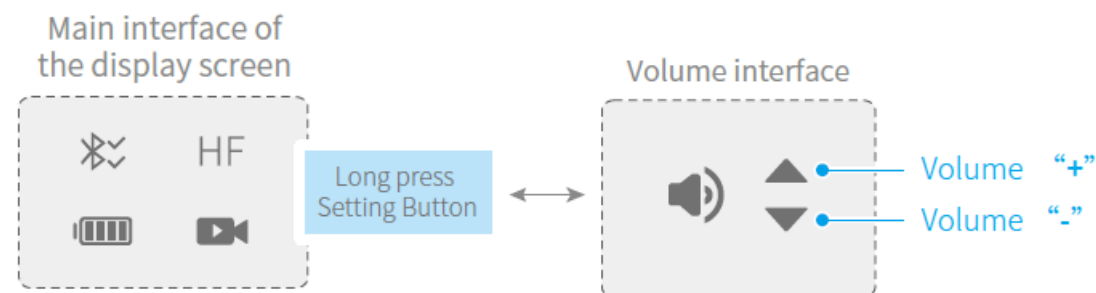
Horizontal Adjustment Button – operation

You can control the horizon angle via the horizontal adjustment button.
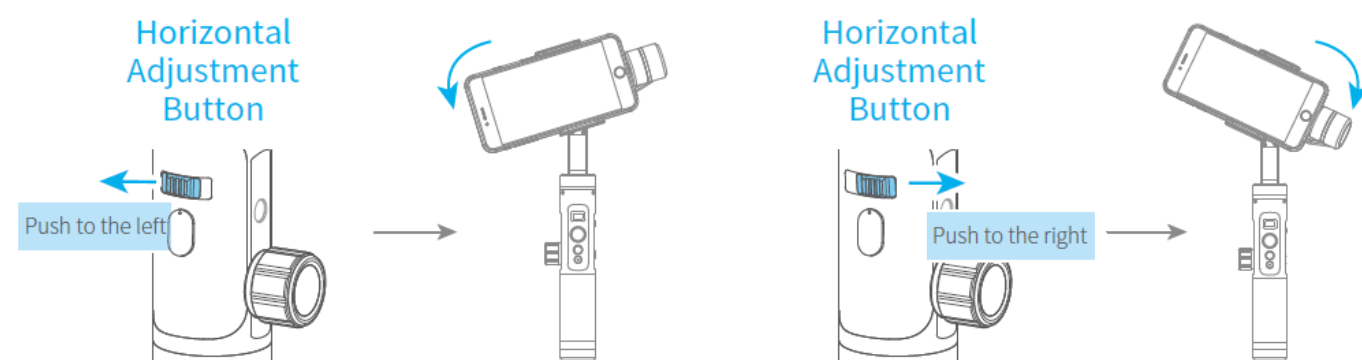
Trigger Button – operation

Press and hold	Fast follow mode	Press and hold the trigger button in the panning follow, follow mode to enter the fast follow mode, and then release it to return to the modebefore entering the fast follow mode
Single tap	Answer/hang up the phone	In any mode, when the voice Bluetooth connection is successful and connected to the headset, single tap the trigger button to answer the phone, and single tap again to hang up.
Double tap	Reset	Return to panning mode, tilt,roll and pan axis return to initial level

Trigger Button
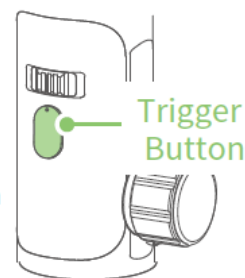
Multifunction Knob – Zooming control / Follow focus / Control 3 Axis

Single tap	Switch adjustment option
Rotate	Adjust by rotating
Long press	Select the device you want to control

Multifunction Knob

Single tap / Long press

Rotate

Control Smartphone

Single tap
Switch adjustment option

Adjust the camera parameters   Single tap to switch the option, rotate to adjust the control options, and the phone needs to support digital zoom/follow focus.

* After connecting your Smartphone
Please refer to the chapter "App - Download and Connecting" in page 10

Long press the multifunction knob
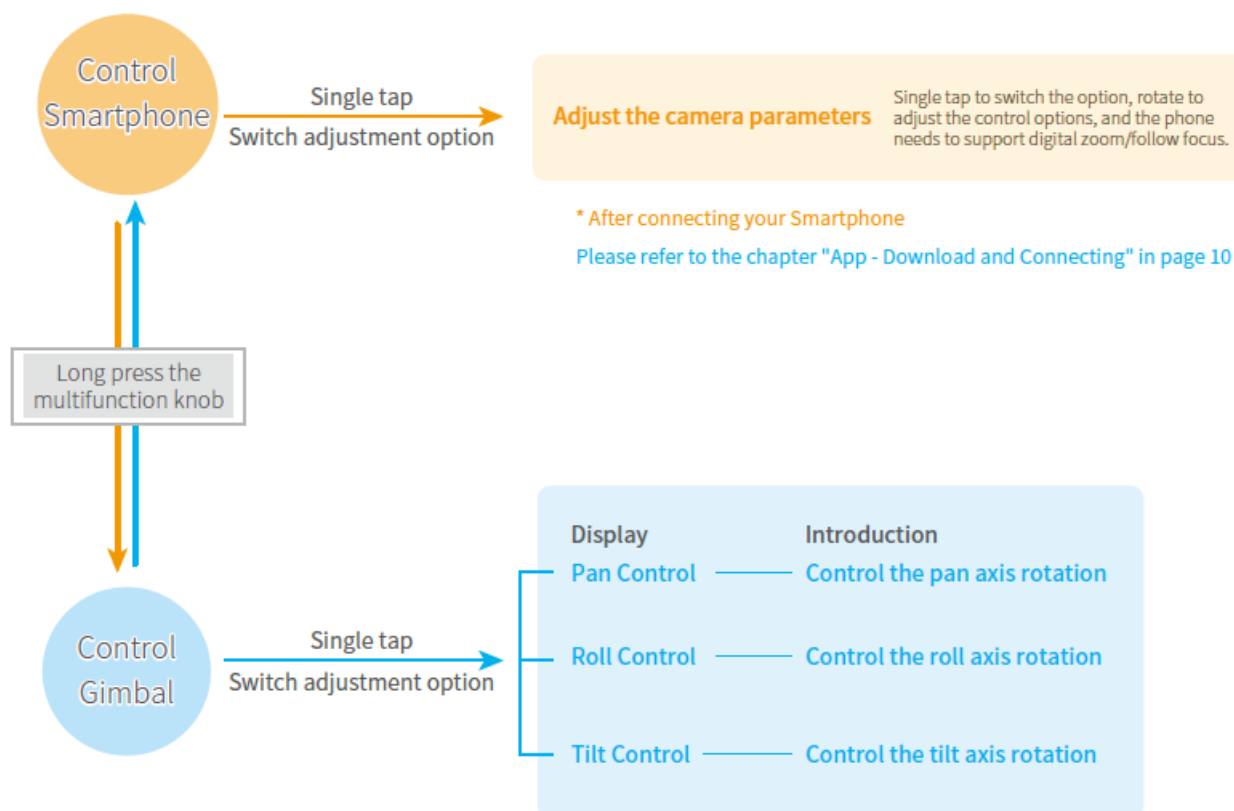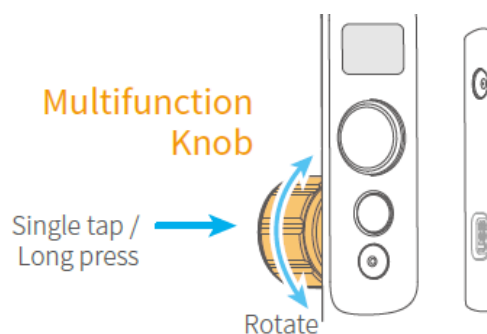
Control Gimbal

Single tap
Switch adjustment option

Display	Introduction
Pan Control	Control the pan axis rotation
Roll Control	Control the roll axis rotation
Tilt Control	Control the tilt axis rotation

App – Download and Connecting

1. **Download and Install Feiyu ON App**

    Please download Feiyu ON at your smartphone app store or can the QR code below.

* Requires iOS 9.0 or later, Android 6.0 or later.

iOS Version   Android Version

Or search and download the "Feiyu ON" App on the following application platform:

App Store   Google play

2. Connecting Feiyu ON App

1. Turn on the gimbal.
2. On smartphone, enable bluetooth and open Feiyu ON App. Login or register, follow instruction and connect to the Gimbal
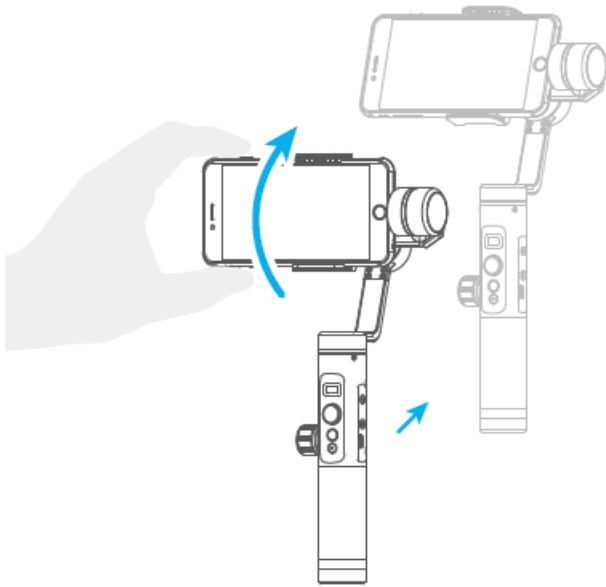
5. Advanced Operation

Manual Lock

Camera can be manually positioned while in panning mode , follow mode or lock mode. Both the pan axis and tilt axis can be manually set up.

Manually move camera to desired position, and hold for half a second. New tilt and/or pan positions are automatically saved.

Take the tilt axis setting for example:

Auto-rotation Mode

The SPG2 gimbal can easily create constant speed movements in the auto-rotation mode.
This mode can be used for recording both regular video and motion timelapse photography.
For better performance, attach gimbal to the FeiyuTech tripod, or other tripod, to keep it completely still.

Set rotation speed in Feiyu ON App

Both the pan and tilt directions can be rotated.

Connect to the Feiyu ON App and select desired speed from the auto-rotation mode rate option in the settings menu.

SPG2 Rotation Speed												
9s/ turn	18s/ turn	24s/ turn	30s/ turn	1min/turn	2min/ turn	4min/ turn	8min/ turn	15min/turn	30min/turn	1h/ turn (Default)	4h/ turn	8h/ turn

(1) Enter auto-rotation mode

function button
**Quadruple tap**
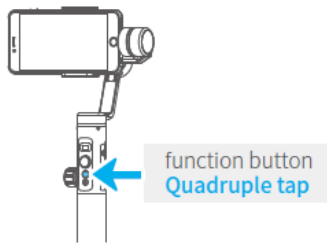
(2) Set rotation start position

Record the first position (rotation start position) by manually moving camera to desired position. Hold in position for half a second. Single tap the function button to record rotation start position.

Tilt

Pan

function button
Single tap
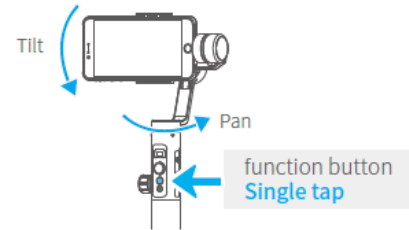
(3) Set rotation end position

Record the second position (rotation end position) by manually moving camera to desired position. Hold in position for half a second. Single tap the function button to record rotation end position.

Tilt Axis

Pan Axis

function button
Single tap
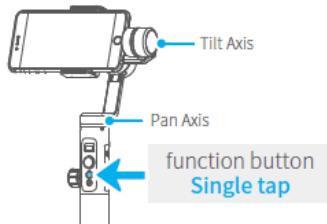
(4) Start auto rotation movements

The gimbal automatically restores to the start position, while the tilt axis and pan axis start rotating at a constant speed according to pre-set speed to end position, repeat step (2) (3) to start again.
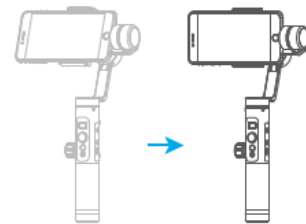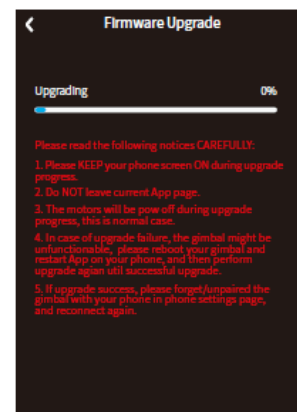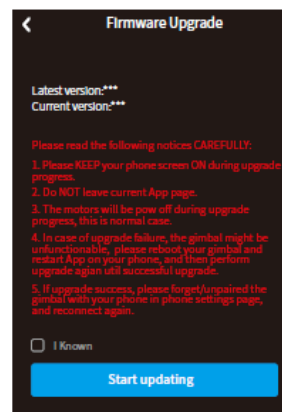

Exit ⇒ **Double tap** Trigger button ⇒ Exit the auto-rotation mode and reset

Firmware Upgrade

Upgrade the firmware through the App.

(1) Click left corner icon

(2) Select upgrade type.

(3) Follow the prompts to upgrade the firmware.

Feiyu ON

Mobile phone audio connection

Turn on the phone Bluetooth and connect to FY_SPG2AUDID_XX, after the connection is successful, the phone audio can be input or output through the audio jack of SPG 2.
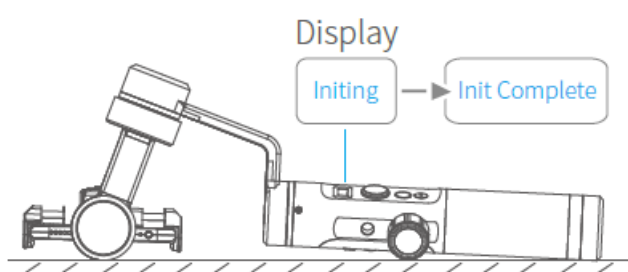
Gimbal Initialization

You can initialize your gimbal when:

- When smartphone is not level
- If not used for a long period of time
- In case of extreme temperature variations

Adjusting Steps
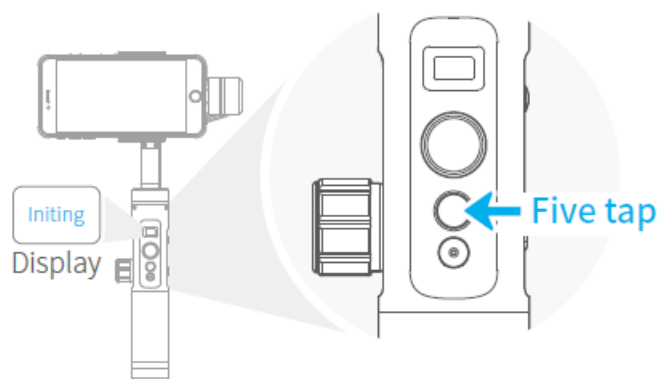
1. Tap the function button for 5 consecutive times and hear the "beep" sound, and the motor will stop working and "Initing" shows up.

2. Place the gimbal on the table unmoved, and the gimbal automatically detect whether or not it is placed on a static flat surface, and then its initializing will start automatically showing "Initing" on the display, and "Init Complete" will be displayed after the initializing has been successfully completed.
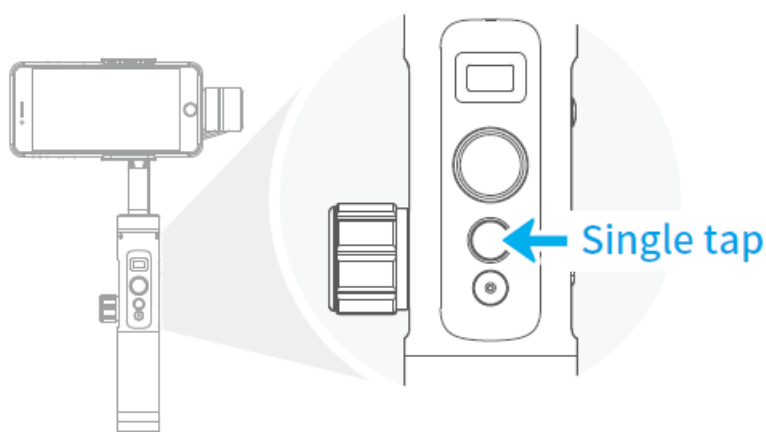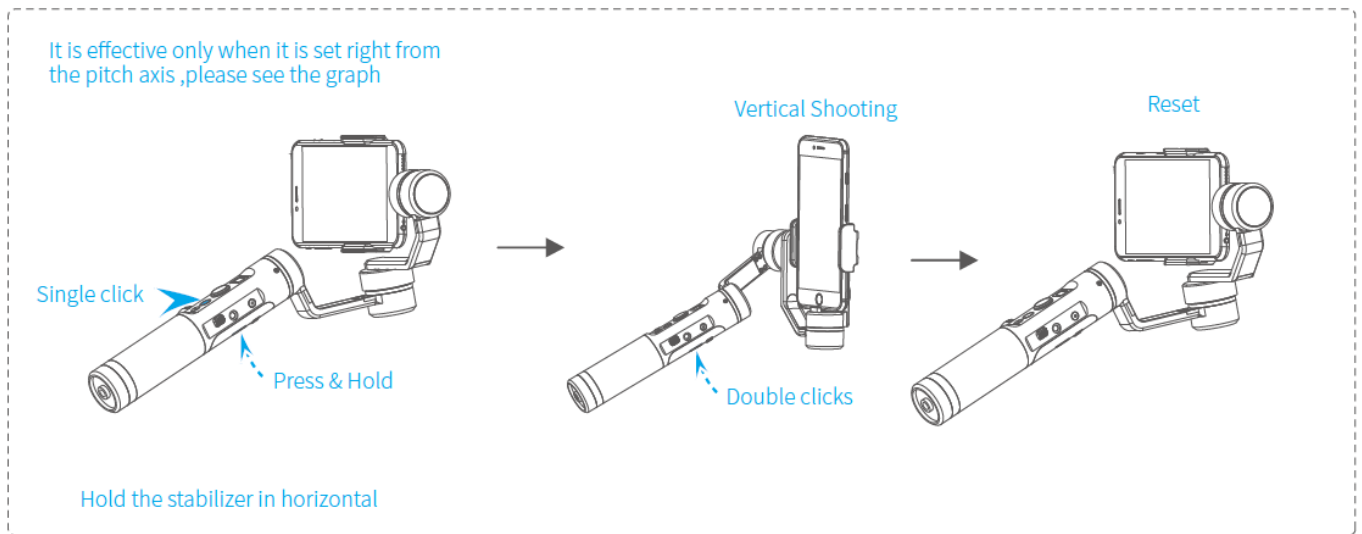

3. After the initialization is done, single tap the function button to wake up and return to the main interface.

NOTE: If the initialization is not successful for a long time, long press the function button to turn off the gimbal, restart it and then initialize.

Vertical Shooting

Press and hold the trigger button in the horizontal shooting mode and then single click the function button to switch to the vertical shooting mode.

Double click the trigger button to exit the vertical shooting and restore to the horizontal shooting mode.

It is effective only when it is set right from the pitch axis ,please see the graph

Vertical Shooting

Reset

Single click

Press & Hold

Double clicks

Hold the stabilizer in horizontal

Audio recording with Bluetooth connection

Note: The audio jack at the SPG2 handle is suitable for American standard earphones. To use the Chinese standard earphones, you need to use the conversion cable (self-prepared).

1. Turn the gimbal on and plug the earphone connector into the audio jack on the right side of the SPG2 handle.

Plug in the earphone connector (American standard)
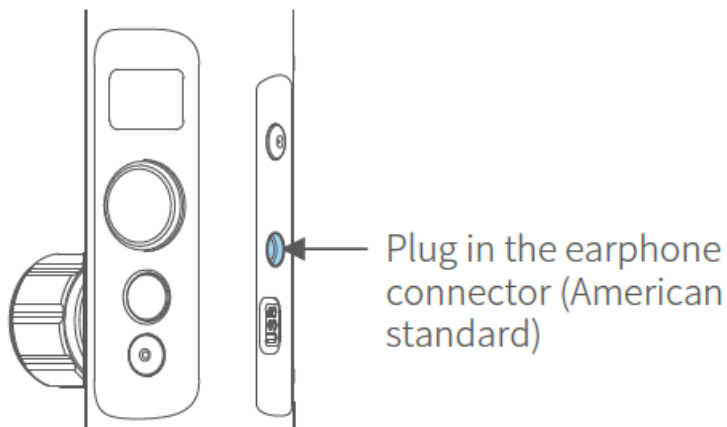
2. Turn on the mobile phone Bluetooth and connect to FY_SPG2AUDID_XX. After the connection is successful, press the shutter button on the handle. If the volume appears on the phone interface (as shown in below picture), the connection is successful.
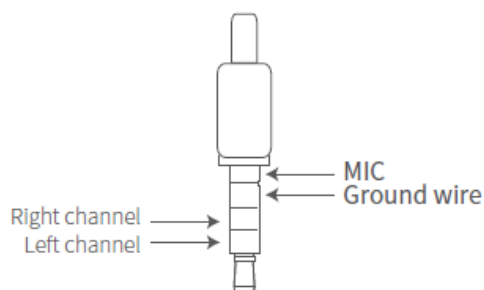
3. Open the Feiyu ON App, after the connection is successful, click the volume icon at the top right corner of the interface, select "Bluetooth Earphone", blow or talk to the sound hole 1 of the earphone, and the icon has sound waves, which indicates the reception is OK.

4. Press and hold the shutter button for about 1 second to start video recording. After the video recording is completed, you can play back the video in the album and listen to the audio effects from the earphones. Or disconnect the Bluetooth with the gimbal from the Bluetooth list on your mobile phone to listen to the audio effects from your mobile phone.

Precautions:

1. When using the earphone for recording, please note that the audio jack at the SPG2 handle is suitable for American standard earphones, to use the Chinese standard earphones, you need to use the conversion cable. Most of the American standard and Chinese standard earphones can be distinguished by the color of the insulation ring. American standard: White; Chinese standard: Black.
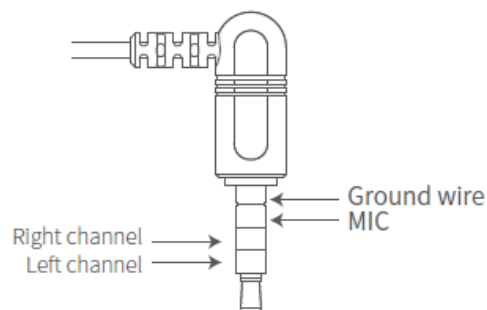

2. When using a microphone equipped with a camera, the corresponding mobile phone patch cable is required, the interface of the patch cable is suitable for mobile phones and is the American standard.

3. SPG2's Bluetooth radio is not available for the phone's camera, it needs to be used with the Feiyu ON APP, or some live or video app, such as the iOS client end of Tik Tok.

6. Specifications
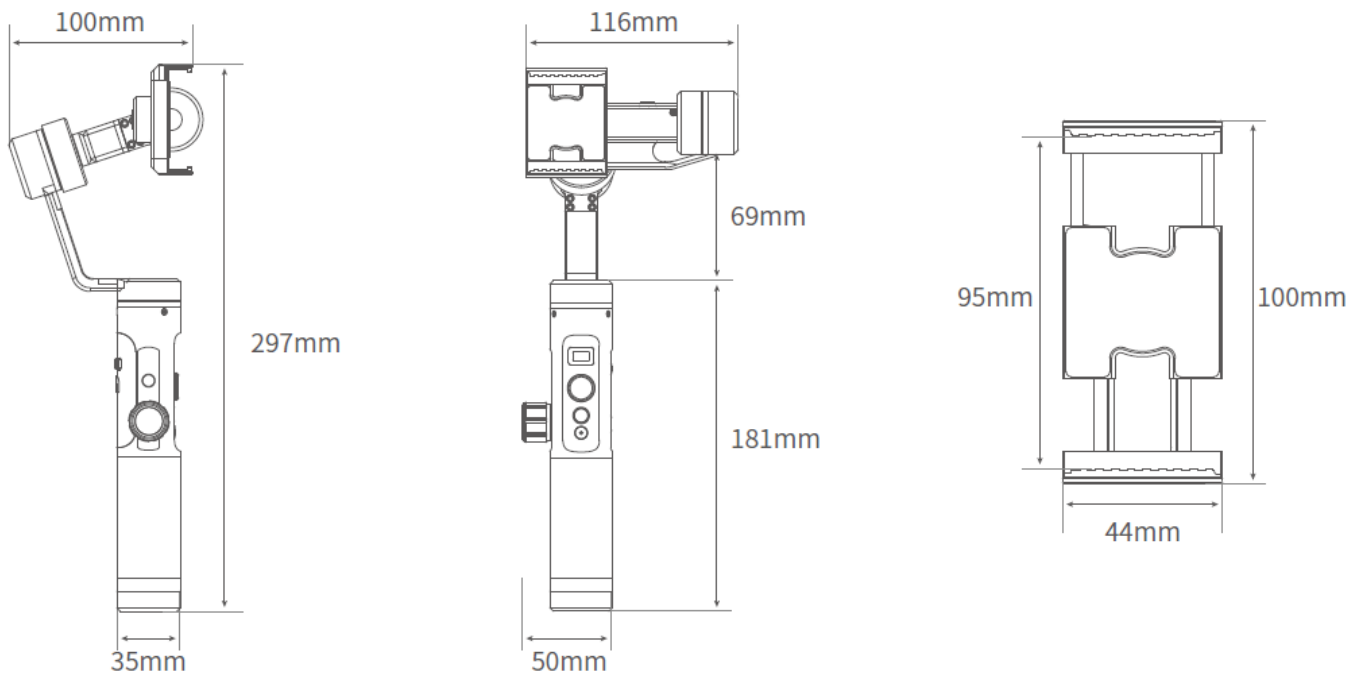
- Product Name: SPG2 3-Axis Stabilized Handheld Gimbal for Smartphone

- Max. Tilting Range: 320°

- Max. Rolling Range: 320°

- Max. Panning Range: 360°

- Tilting Speed: 2°/s ~ 75°/s

- Panning Speed: 3°/s ~ 150°/s

- Operation Time: 14Hours

- Weight: 440g   exclude the battery and smart phone

- Adaption smart phone: IPhone series and Android series (width 54mm~95mm)

Guilin Feiyu Technology Incorporated Company

Documents / Resources

SPG 2	**FEIYUTECH 3-Axis Stabilized Handheld Gimbal Smartphone** [pdf] Instructions 3-Axis Stabilized Handheld Gimbal Smartphone, SPG-2

References

- 🇫 **FeiyuTech - Official Website**