AK2000

3-Axis Stabilized Handheld Gimbal for Camera

—— Instructions ——
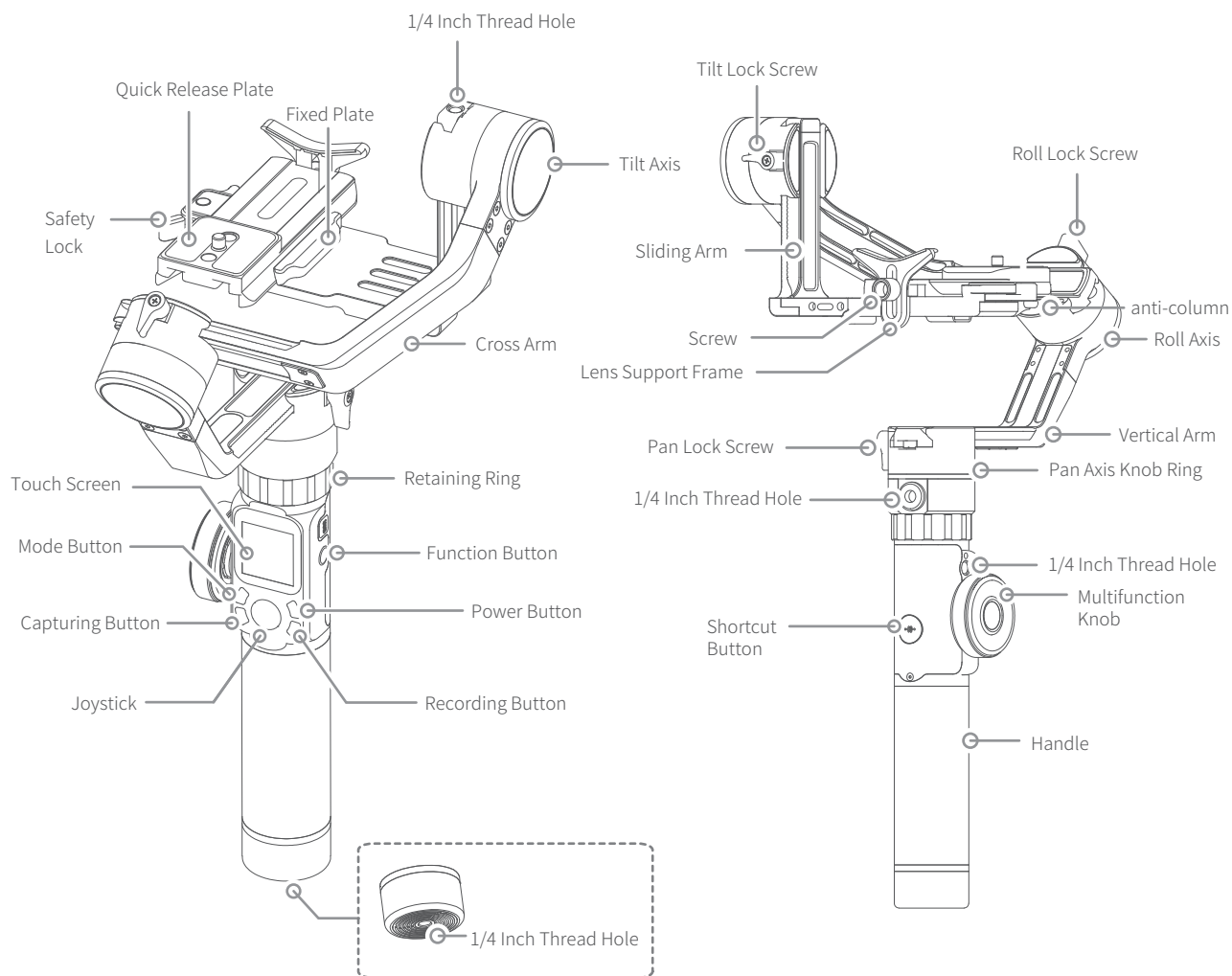
Guilin Feiyu Technology Incorporated Company

Catalogue

1.Product Overview

1/4 Inch Thread Hole

Quick Release Plate

Fixed Plate

Tilt Lock Screw

Roll Lock Screw

Tilt Axis

Safety Lock

Sliding Arm

anti-column

Screw

Roll Axis

Cross Arm

Lens Support Frame

Retaining Ring

Vertical Arm

Touch Screen

Pan Lock Screw

Pan Axis Knob Ring

Mode Button

Function Button

1/4 Inch Thread Hole

1/4 Inch Thread Hole

Capturing Button

Power Button

Multifunction Knob

Shortcut Button

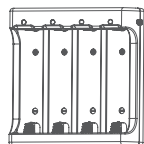Joystick

Recording Button
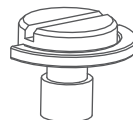
Handle

1/4 Inch Thread Hole

Accessories

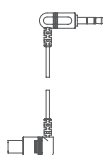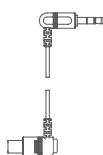18650 Li-ion Battery
X4

Tripod
X1

Charger
X1

Thumb Screw
(Short)
X1

Micro USB Cable
X1

Sony Control Cable
(3.5 audio to multi)
X1

Canon Control Cable
(RS-80N3)
X1
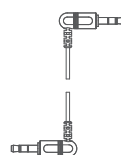
Panasonic Control Cable
(Shift audio 3.5 to 2.5)
X1

1

2.Installation

2.1 Battery Charging

Please fully charge the batteries before powering on the gimbal for the first time.

Charge the batteries with the charger.

Micro USB
Cable

(not included)
5V / 3A
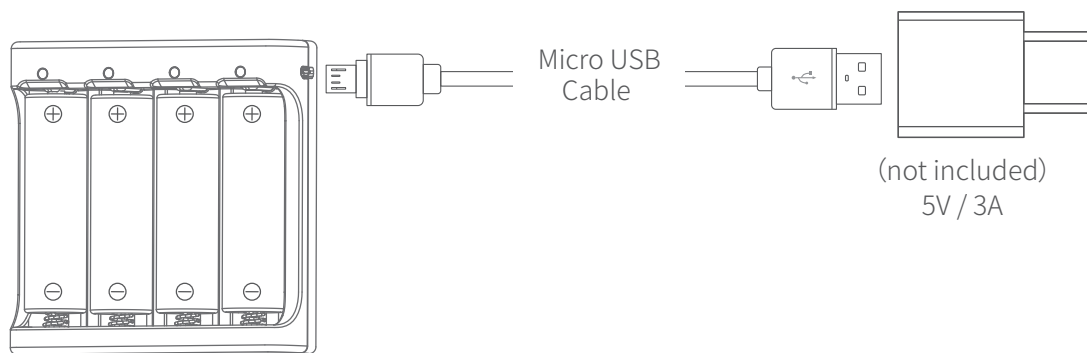
2.2 Battery Installation

Remove the tail cap, open the batteries compartment, and install the batteries correctly.

Battery Model:
18650 Li-ion Battery

2
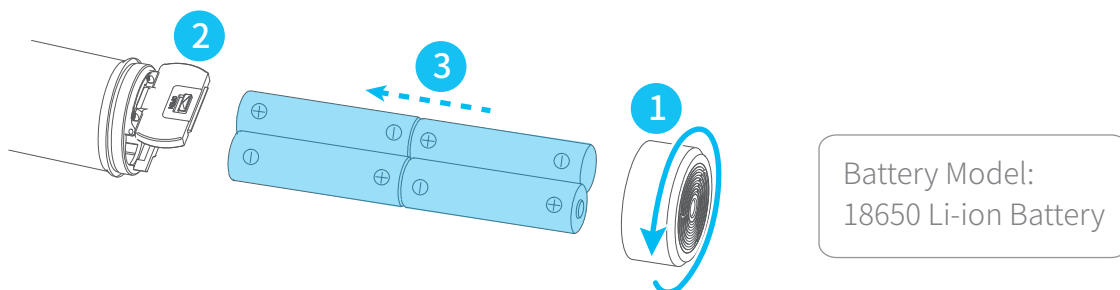
2.3 Camera Installation

1. Lock the lens support frame with the screw to the quick release plate;
2. Use the thumb screw to lock the camera from the bottom slot of the quick release plate, and slightly adjust the lens support frame after locking the camera;
(Select the long/short thumb screw according to the position of the camera to be mounted on the quick release plate)

Thumb Screw (Long)

Thumb Screw (Short)
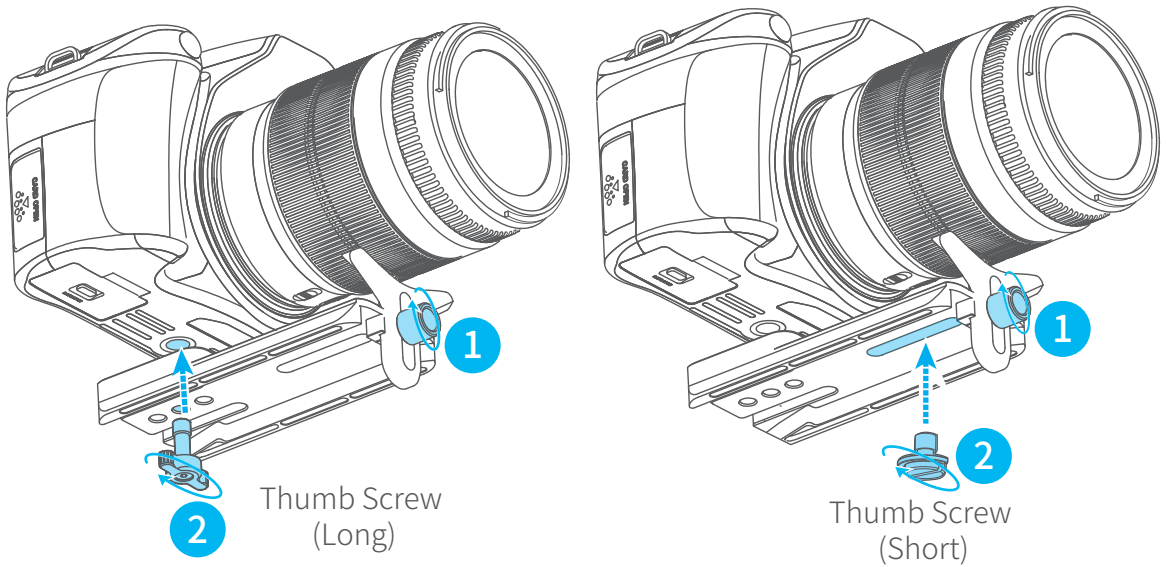
3. Press and hold the anti-column;
4. Place the quick release plate on the fixed plate, loosen the anti-column and tighten the safety lock.

Safety Lock   Anti-column
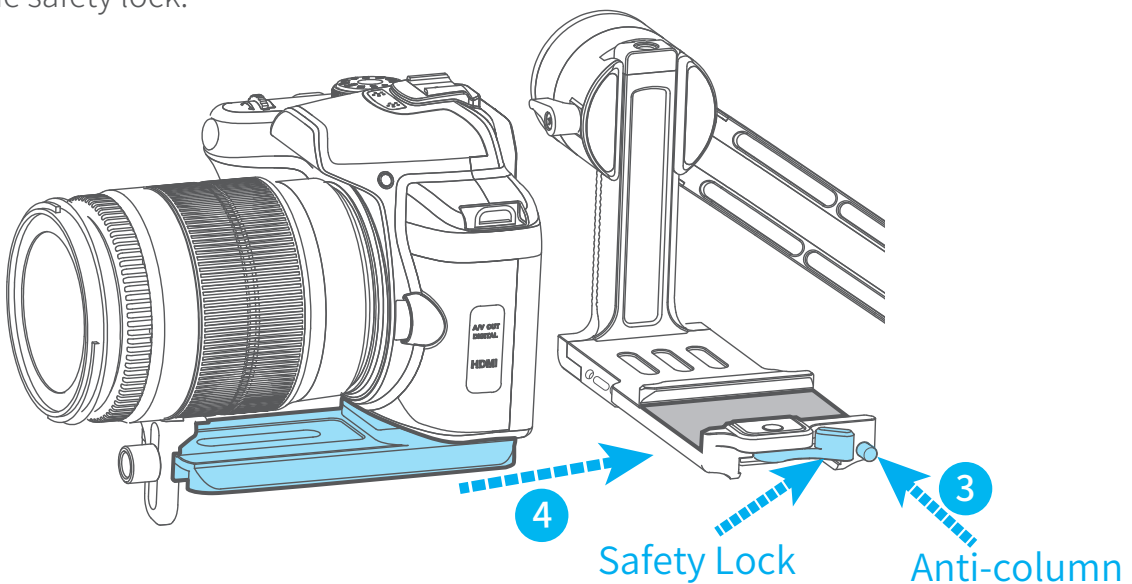
3.Gimbal Balancing

Balance Adjustment of the Tilting Axis

Adjust the center of gravity of the camera in two steps to the axis of rotation of the tilting axis.

(1) Adjust the center of gravity position of the tilting axis up and down: point the camera lens down, adjust cross arm to maintain the level, as shown in figure ①, let go and observe the state of rotation. Adjust the balance via adjust the sliding arm up and down (refer to figure ② ③).

* After adjustment, be sure to tighten the lock screw.

Normal
①

Camera forward

T=Tight
L=Loose

Slide up to adjust
②

Camera backward

T=Tight
L=Loose

Silde down to adjust
③

4
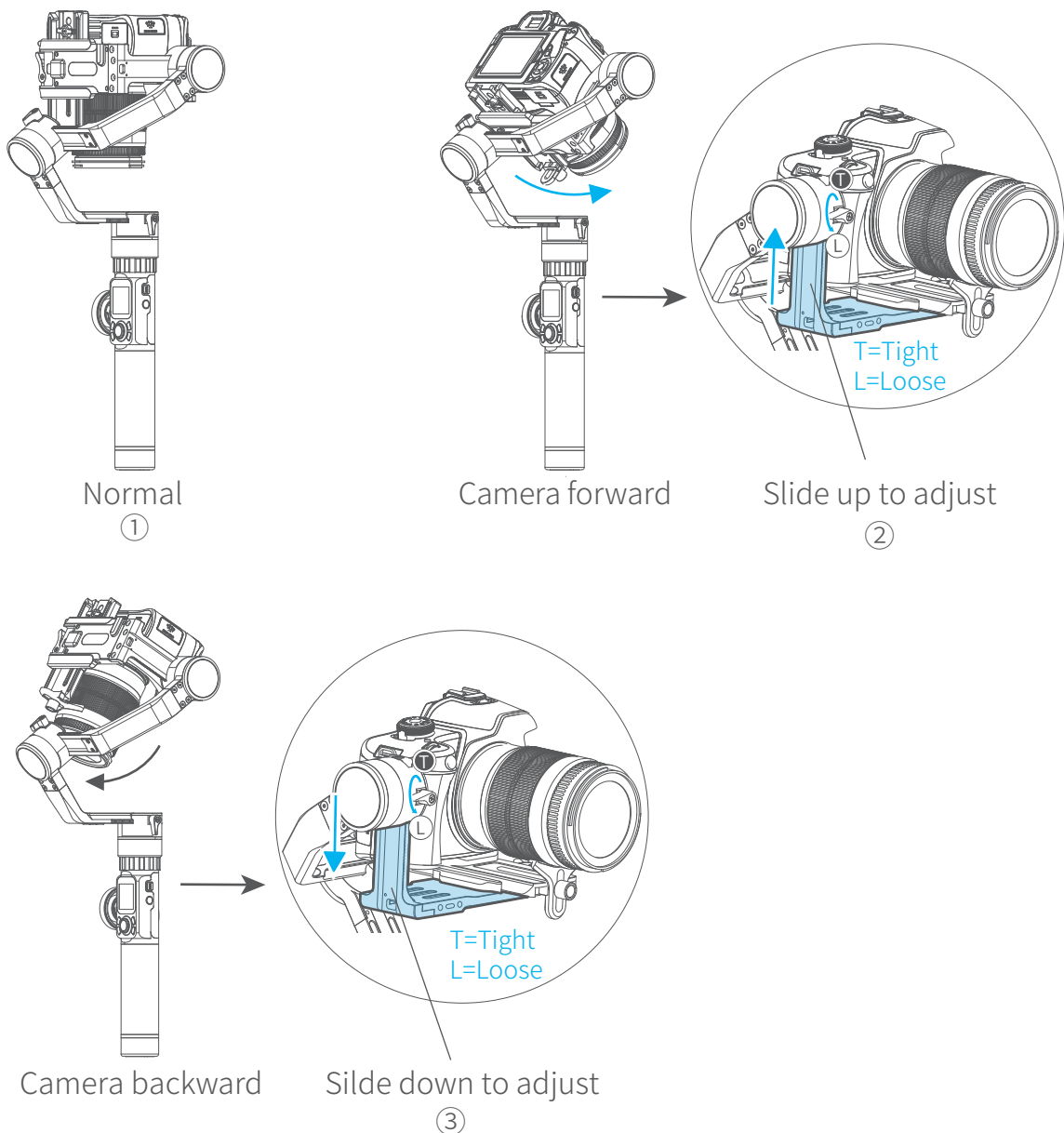
(2) Adjust the center of gravity position of the tilting axis forward and backward: point the camera lens horizontal forward, adjust cross arm to maintain the level as shown in figure ①,let go and observe the state of rotation.

Loosen the safety lock on the right side of the camera, and adjust the balance by sliding up and down the quick release plate on the bottom of the camera (refer to Figure ② ③).

*Be sure to fasten the safety lock after adjustment.
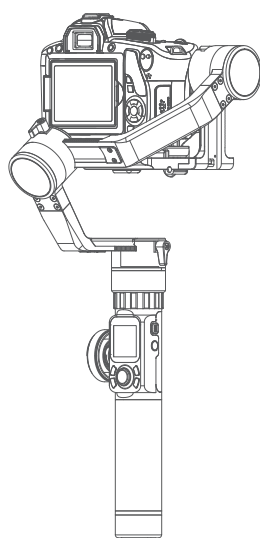
Balanced
①

Camera forward

Safety Lock
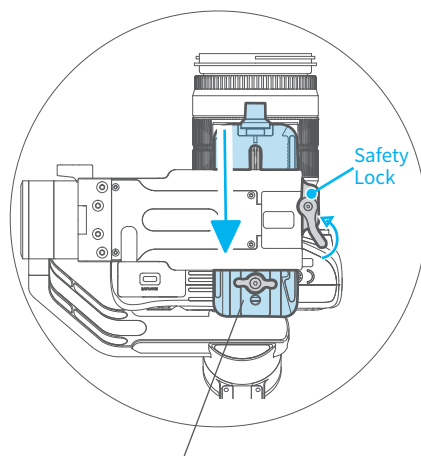
Slide the adjustment skateboard down to adjust
②

Safety Lock
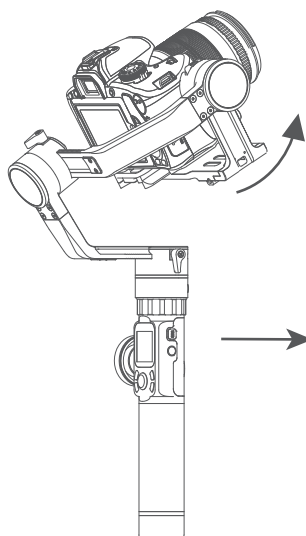
Camera backward

Slide the adjustment skateboard up to adjust
③

Balance Adjustment of the Rolling Axis

When the balance adjustment of tilting axis completed, the balance of the rolling axis can be adjusted:keep the gimbal socket connector vertical to the ground with the hand -held control handle 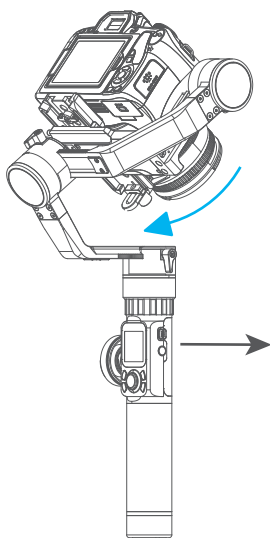as shown in figure ①, leave the gimbal powered off and observe the balance. Loosen the lock screw and slide the cross arm left and right to adjust the roll (refer to figure ② ③).

* After adjustment, be sure to tighten the lock screw.

T=Tight
L=Loose

Balanced
①

Camera rightward

Slide the cross
arm left to adjust
②

T=Tight
L=Loose

Camera leftward

Slide the cross
arm right to adjust
③

When the balance adjustment of tilting axis and rolling axis is completed, the balance of the panning axis can be adjusted. Keep the gimbal socket connector in the horizontal position,adjust hand-held panning axis as shown in figure ①,let go and observe the state of rotation.
Loosen the lock screw on the panning and slide the vertical arm forward and backward to adjust (refer to figure ② ③).

* After adjustment, be sure to tighten the lock screw.

Horizontal ground

①

The lens is down

T=Tight
L=Loose
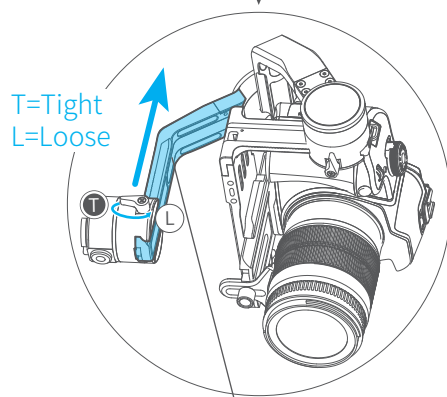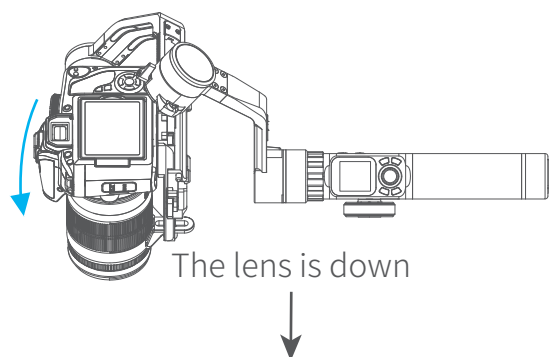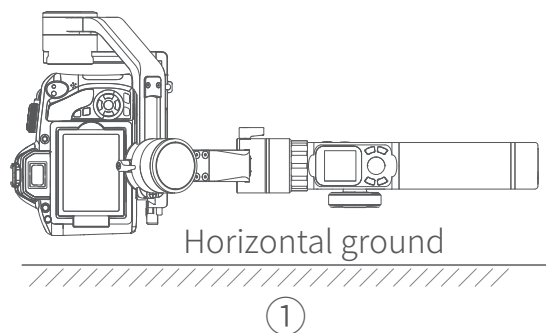
Slide the vertical arm backward to adjust
②

The lens is up

T=Tight
L=Loose
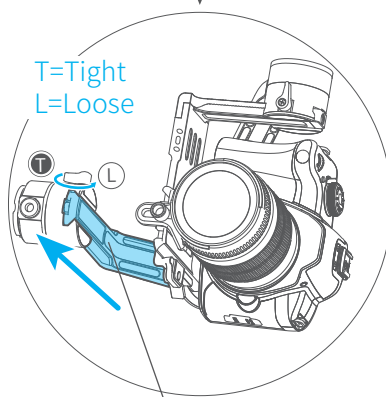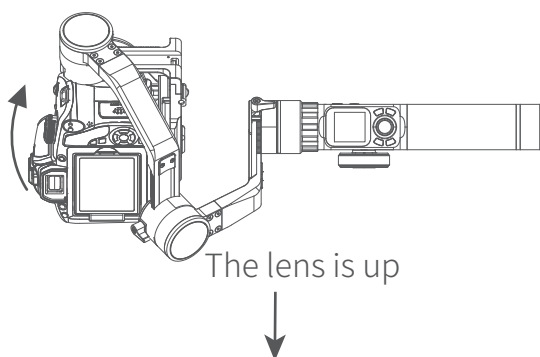
Slide the vertical arm forward to adjust
③

4.AK2000 Function / Operation

4.1 Handle - Function / Operation

1.Touch Screen

* Click the option to switch or select the function mode, and slide the screen to the left or right to switch the page.

- Single tap the power button in the panning follow mode to enter the panning follow mode and rolling follow (rolling follow angle ⩽ 60°).

- Single tap the power button in the follow mode to enter the follow mode and rolling follow (rolling follow angle ⩽ 60°).

- Single tap the power button in the lock mode to enter the lock mode and rolling follow (rolling follow angle ⩽ 60°).

Screen interface
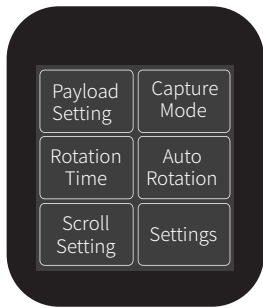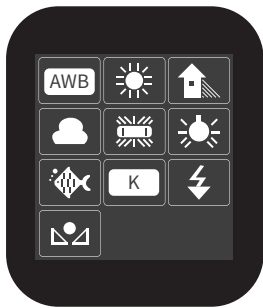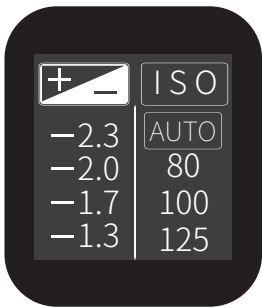
Display icon	Mode / Status	Display icon	Mode / Status
🛜	WiFi is connected	HF	Panning Mode
🛜	WiFi is not connect	TF	Follow Mode
✳	Bluetooth is connected	AF	All follow mode
✳	Bluetooth is not connect	LK	Lock Mode
🔋	Battery Level	HF-R	Panning Mode + Rolling follow
📷	Camera mode	TF-R	Follow Mode + Rolling follow
📷	Camera is not connect	LK-R	Lock Mode + Rolling follow
🔍	Zoom status	C	Tilt Axis
	Follow focus status	↶	Roll Axis
		↷	Pan Axis

Screen Interface

The load setting is performed according to the camera.

Payload Setting	Capture Mode
Rotation Time	Auto Rotation
Scroll Setting	Settings

Click on the touch-screen →
← Slide the touch-screen interface to the right

| 0-300 g |
| 300-600 g |
| 600-1000g |
| 1000-1500g |

Slide the touch-screen interface up and down →

| 1500-2500g |
| >2500g |
| Auto-adapt |
| Custom 1 |

| Custom 2 |
| Custom 3 |
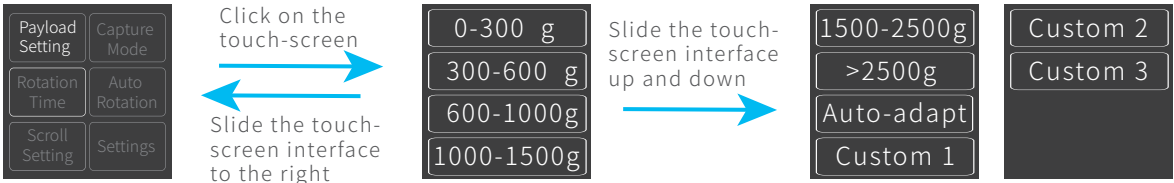
Select the corresponding scene mode according to the shooting scene.

Payload Setting	Capture Mode
Rotation Time	Auto Rotation
Scroll Setting	Settings

Click on the touch-screen →
← Slide the touch-screen interface to the right

| Default |
| Smooth |
| Action |
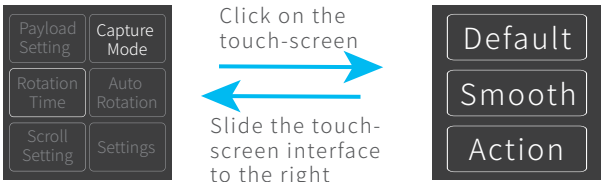
The maximum time setting of PAN and TILT is less than 8 hours, and the maximum time setting of INVL and DWELL is 59 seconds.* PAN/TILT>INVL>DWELL
Please refer to the chapter "Auto-rotation Mode" in page 14

Payload Setting	Capture Mode
Rotation Time	Auto Rotation
Scroll Setting	Settings

Click on the touch-screen →
← Slide the touch-screen interface to the right

P A N	00:00:00
TILT	00:00:00
INVL	00:00:00
DWELL	00:00:00

Pull the four-directional joystick up and down to increase and decrease the time →

Touch the screen to select and change the options

P A N	07:59:59
TILT	07:59:59
INVL	00:00:59
DWELL	00:00:58

Enter auto-rotation mode

Payload Setting	Capture Mode
Rotation Time	Auto Rotation
Scroll Setting	Settings

Click on the touch-screen →
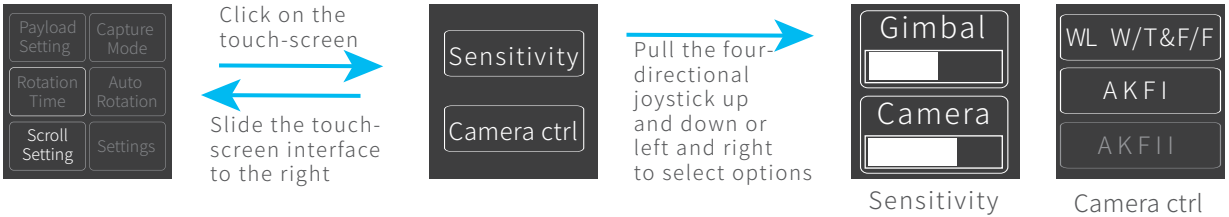← Slide the touch-screen interface to the right

procedure 1
Initial point setting
O K   ESC

The higher the sensitivity setting, the faster the response of control PTZ/camera

Payload Setting	Capture Mode
Rotation Time	Auto Rotation
Scroll Setting	Settings

Click on the touch-screen →
← Slide the touch-screen interface to the right

| Sensitivity |
| Camera ctrl |

Pull the four-directional joystick up and down or left and right to select options →

Gimbal

Camera

Sensitivity

WL W/T&F/F
AKFI
AKFII

Camera ctrl

Settings

Payload Setting	Capture Mode
Rotation Time	Auto Rotation
Scroll Setting	Settings

Click on the touch-screen →
← Slide the touch-screen interface to the right

| Calibration |
| Language |

2.Mode Button

Note: The firmware upgrade may occur manual operation function and the actual product features do not match. Please find the latest manual on the official website.
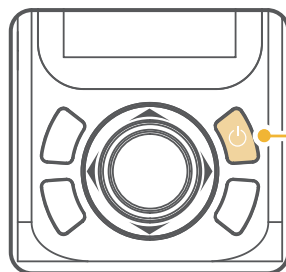
| Single click	Panning Mode / Lock Mode	Single tap to switch between panning mode and lock mode
Double click	Follow mode	Under follow mode, single tap to switch to panning mode
Triple click	All follow mode	Enter all follow mode
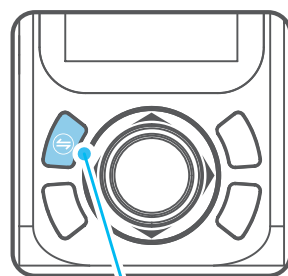
Mode Button

3.Power Button

Long time press	Power on / Power off	Long time press the power button, and release it when the display show 𝑭𝑱
Single tap	Rolling follow mode	Angle limit 60 °
Triple tap	Rotate 180° in horizontal	The roll and tilt direction are fixed, the pan direction rotate 180 °

Power Button

4.Capturing Button

| Manual capturing	Single click the camera button to focus and single tap again within 3 seconds to take photos. When there is no operation within 3 seconds after clicking for focus, the focus state shall be cleared. * Need to connect to the camera shutter cable or connect to the camera WiFi.
Self-timer	Press and hold the camera button, the gimbal will make a "beep" sound and enter the automatic continuous shooting mode; it shoots once for every 5 seconds by default. Single tap the camera button to exit the automatic continuous shooting mode (you can enter the Feiyu On App to set the continuous shooting interval). * Need to connect to the camera shutter cable.
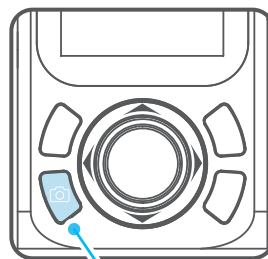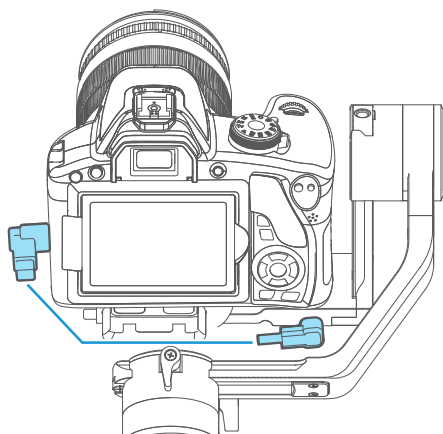
Capturing Button

5.Recording Button

* Need to connect to the shutter release cable or the camera WiFi (for Camera with WiFi function).

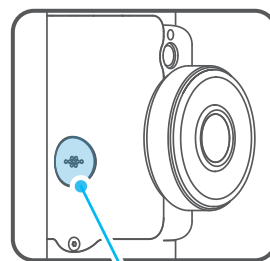| Single tap | Start shooting / Stop shooting |
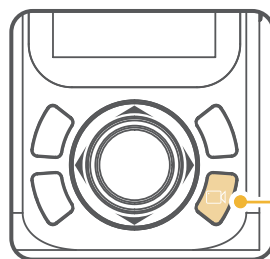
Video
Button

6.Shortcut button

| Long time press | Fast follow mode |
| Double tap | Reset |

Long time press the shortcut button, enter the fast follow mode.

Double tap the shortcut button, return to panning mode, tilt,roll and pan axis return to initial level.

shortcut button

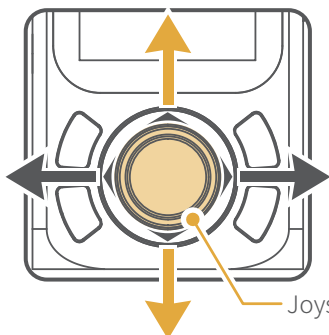## 7.Joystick

Upward
(1) Camera lens upward
(2) Select the option above

Move to left
(1) Camera lens move to left
(2) Select the option on the left

Move to right
(1) Camera lens move to right
(2) Select the option on the right

Joystick

Downward
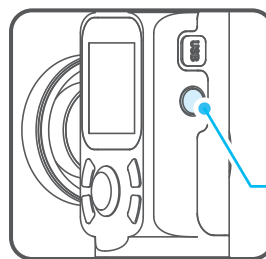(1) Camera lens downward
(2) Select the option below

www.feiyu-tech.com

8.Function Button

Single tap	Return / Lock / Unlock

On other interfaces, single tap the function button to return to the main interface.

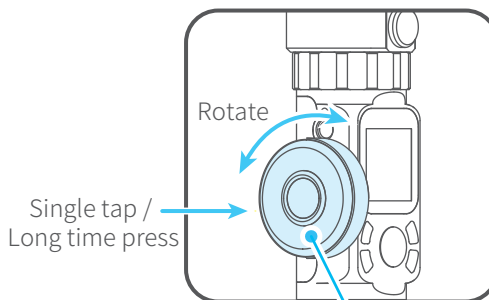Single tap the function key on the main interface to enter the locked/unlocked state.

Function Button

9. Multifunction Knob

Rotate	Control the current axial rotation / follow focus and zoom
Long time press	Switch between the follow focus & zoom options and the axial options
Single tap	Switch adjustment option

Rotate

Single tap / Long time press

Multifunction Knob

Control Follow focus or Zoom

Single tap
Switch adjustment option

Display   **Introduction**

⊕ Default ── **Zooming control**   Camera supports zooming control

• ── **Follow focus**   Camera supports follow focus

* After connecting your camera

Long time press the multifunction knob

Control the axis direction

Single tap
Switch adjustment option

Display   **Introduction**

Default ── **Control the tilt axis rotation**

── **Control the roll axis rotation**

── **Control the pan axis rotation**

Modes

Panning Mode（Default mode）
The roll and tilt direction are fixed, and the camera moves according to the left-right movements of the user's hand.

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

Rolling Follow Mode
The pan and tilt direction are fixed, and the camera moves according to the left-right movements of the user's hand.

All Follow Mode
The camera moves according to the user's hand.

Lock Mode
The orientation of the camera is fixed.

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

Manual Lock

Manually move camera to desired position,and hold for half a second. New tilt and/or pan positions are automatically saved.
(Camera can be manually positioned while in panning mode ,follow mode or lock mode.)
Take the tilt axis setting for example:
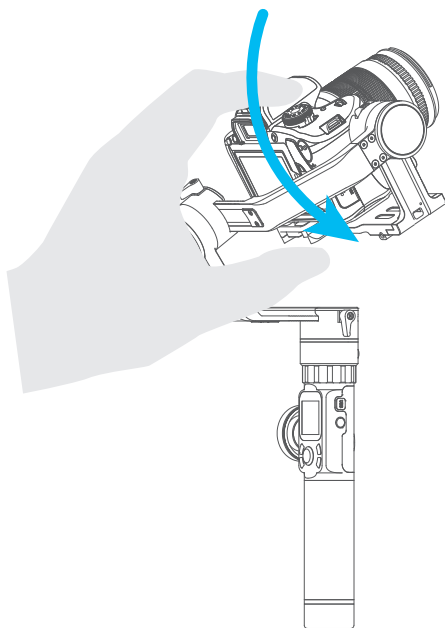
Auto-rotation Mode

Auto-rotation Mode Parameter Setting

Method 1. Enter the Feiyu ON App to set the auto-rotation mode parameters.

Enter the parameter setting interface to select the auto-rotation mode for setting. The maximum time setting for panning and tilting rotation time is less than 8 hours, and the maximum setting time for photographing stop time and photographing interval is 59 seconds.
(Note: The photographing interval setting must be greater than the photographing stop time and less than the panning rotation time or the tilting rotation time.)
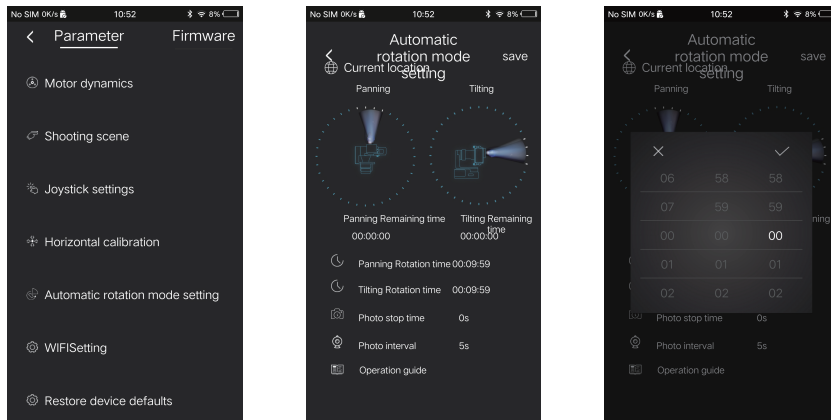
Method 2. Set the auto-rotation mode parameters by entering the rotation time interface through the display screen.

Adjust and control the options via the touch screen or by pulling the four-directional joystick up and down or left and right
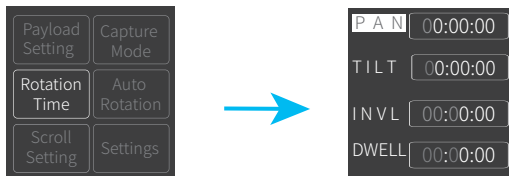
Display icon	Mode / Status	Minimum time setting	Maximum time setting
PAN(T1)	Panning axis rotation time period	0 0 : 0 0 : 0 0	0 7 : 5 9 : 5 9
TILT (T2)	Tilting axis rotationtime period	0 0 : 0 0 : 0 0	0 7 : 5 9 : 5 9
INVL(t)	Photographing interval	0 0 : 0 0 : 0 0	0 0 : 0 0 : 5 9
DWELL(P)	Photographing waiting time	0 0 : 0 0 : 0 0	0 0 : 0 0 : 5 9

* T1/T2>t>P

PAN(T1): Time required for the panning axis to rotate from the start point to the end point.

TILT (T2): Time required for the tilting axis to rotate from the start point to the end point.

INVL(t): The time between the end of the previous shooting and the end of the next shooting.

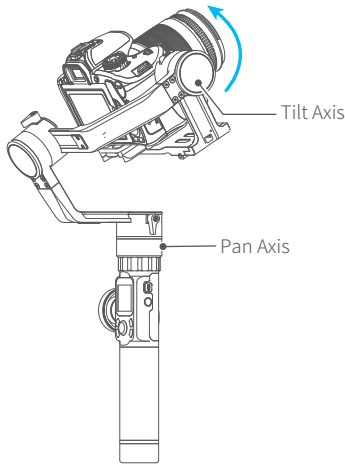DWELL(P): Gimbal stop time after issuing a photographing command.

Auto- rotation mode setting

(1) Select auto-rotation to enter the auto-rotation mode on the display interface.
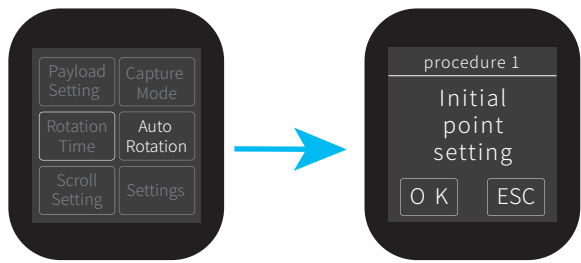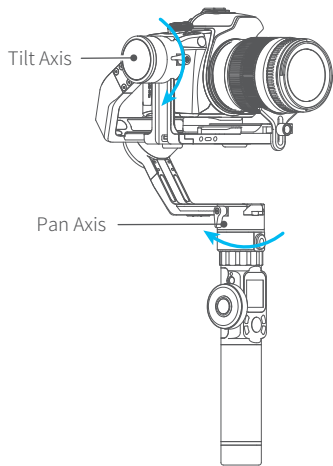

(2) Set rotation start position

Rotate the panning axis or tilting axis to the start position and stay for half a second, and click OK option on the screen to record the start position.


(3) Set rotation end position

Rotate the panning axis or tilting axis to the end position and stay for half a second, and click OK option on the screen again to record the end position.

(4) Start auto rotation movements

The gimbal automatically returns to the start position, the tilting axis and panning axis start to rotate to the end position according to the set parameters, and the gimbal automatically resets after completion.
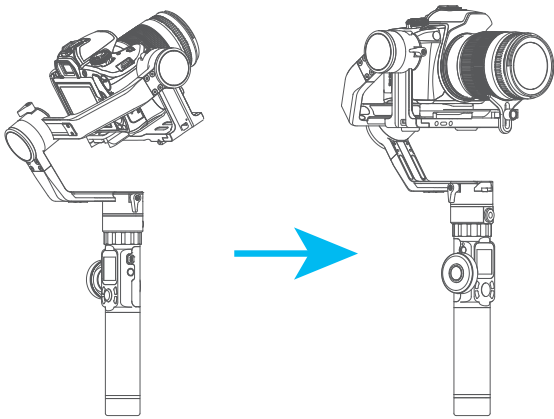
Exit → **Double tap** Shortcut button or click the ESC option on the screen → Exit the auto-rotation mode and reset

5.App - Download and Connecting

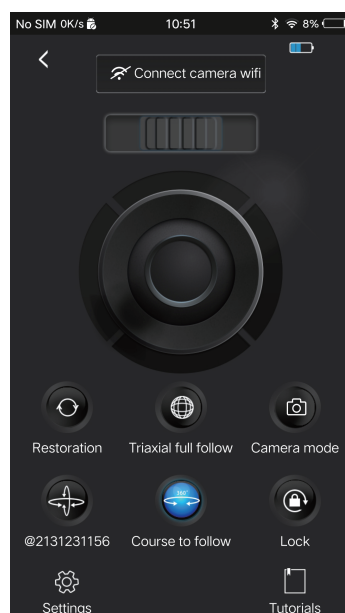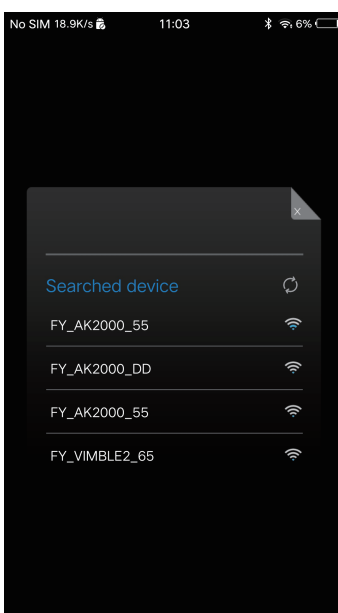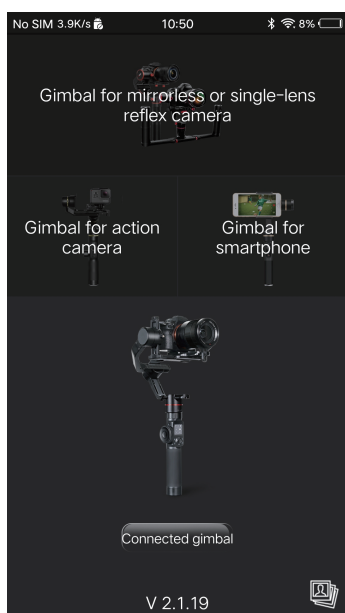| 5.1	Download and Install Feiyu ON App

* Requires iOS 9.0 or later, Android 5.0 or later

iOS Version   Android Version

5.2	Connecting App

1. Turn on the mobile phone Bluetooth and start the gimbal；
2. Open the App, and connect to AK2000 according to the App prompts. After the connection is successful, you can control AK2000 on the App.

No SIM 3.9K/s 10:50 8%

Gimbal for mirrorless or single-lens reflex camera

Gimbal for action camera   Gimbal for smartphone

Connected gimbal

V 2.1.19

No SIM 18.9K/s 11:03 6%

Searched device

FY_AK2000_55

FY_AK2000_DD

FY_AK2000_55

FY_VIMBLE2_65

No SIM 0K/s 10:51 8%

Connect camera wifi

Restoration   Triaxial full follow   Camera mode

@2131231156   Course to follow   Lock

Settings   Tutorials

6.Advanced Operation
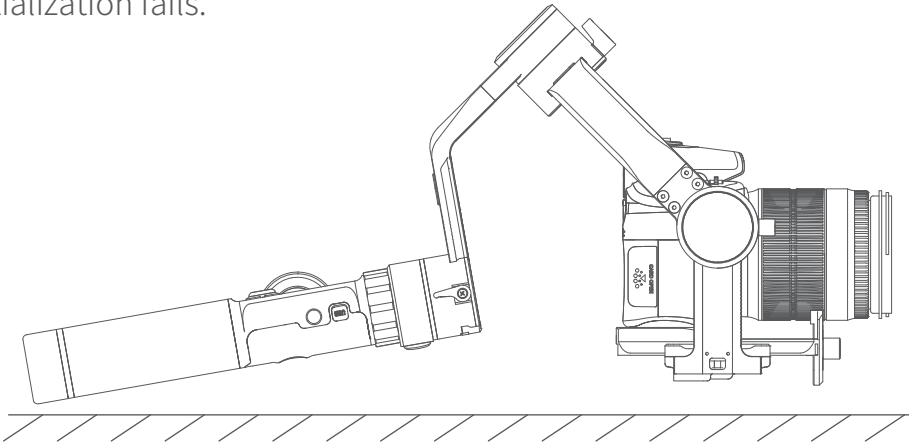
Gimbal Initialization

You can initialize your gimbal when:

(1) When camera is not balance.

(2) If not use for a long period of time.

(3) In case of extreme temperature variations.

(1) Select system settings on the display screen to enter the gimbal calibration.

(2) Place the gimbal on the table, and the gimbal automatically initializes. If the display screen prompts that the calibration is successful, the initialization ends, otherwise the initialization fails.
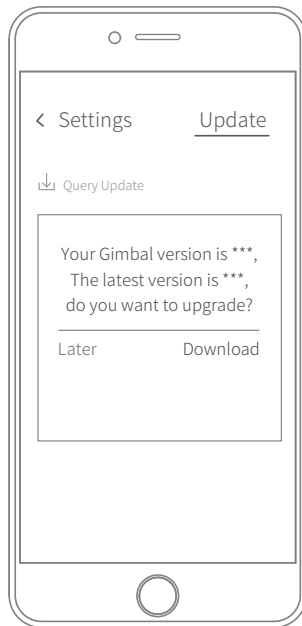

(3) After the initialization is successful, slide the display screen interface to the left/right or click the "ESC" key on the screen to wake up.

6.2 Firmware Upgrade
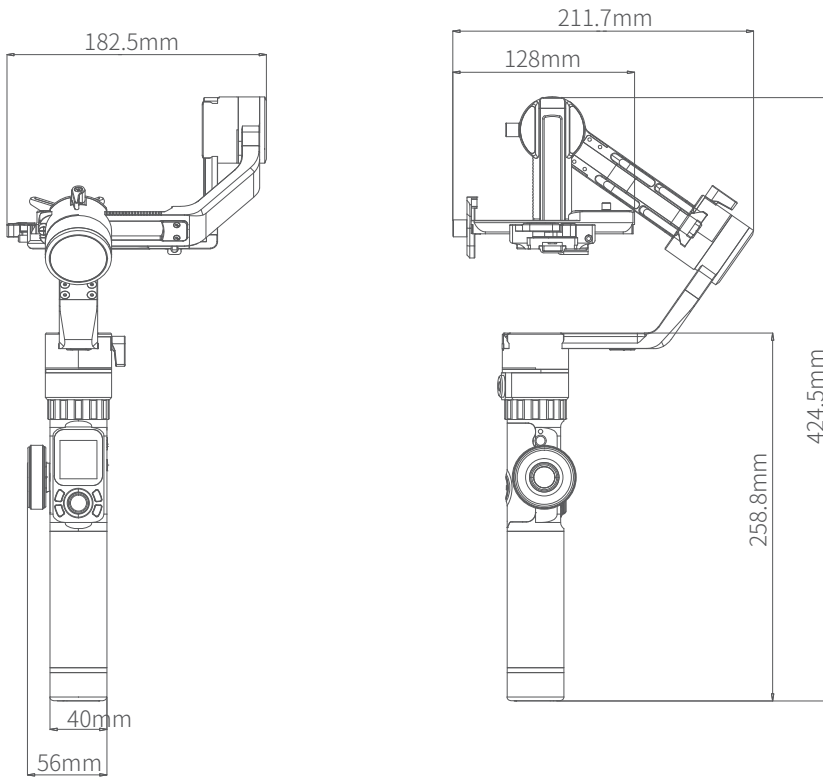
Connect the gimbal to the Feiyu ON App, to upgrade the firmware through the App.

Feiyu ON

< Settings   Update

⬇ Query Update

Your Gimbal version is ***,
The latest version is ***,
do you want to upgrade?

Later   Download

7.Specifications

182.5mm

211.7mm

128mm

424.5mm

258.8mm

40mm

56mm

Max. Tilting Range	360°
Max. Rolling Range	360°
Max. Panning Range	360°
Tilting Speed	2°/s ~ 75°/s
Panning Speed	3°/s ~ 150°/s
Operation Time	12 Hours
Weight	About 1252g (not including the batteries)
Payload	2800g (In center of gravity balanced state)

8.Compatible Cameras for Reference

Brand	Model	Can be equipped with a lens
Canon	Canon5DMarkIV	CanonEF 100mm f/2.8L IS USM +Camera hood
		CanonEF 135mm f/2L USM+Camera hood
		CanonEF 85mm f/1.2 L II USM+Camera hood
		CanonEF 50mm f/1.2L USM+Camera hood
		CanonEF 35mm f/2 IS USM+Camera hood
	Canon5DMarkIII	CanonEF 85mm f/1.2 L II USM+Camera hood
		CanonEF 24-105mm f/4L IS USM
	Canon6DMarkII	CanonEF 85mm f/1.2 L II USM+Camera hood
		CanonEF 16-35mm f/2.8L II USM
		CanonEF 24-105mm f/4L IS USM
		CanonEF 50mm f/1.2L USM+Camera hood
Nikon	Nikon D500	NikonAF-S 105mm f/2.8G IF-ED VR
		NikonNikkor 18-140mm f/3.5-5.6G ED VR
	NikonD7500	NikonNikkor 18-140mm f/3.5-5.6G ED VR
		NikonAF-S 105mm f/2.8G IF-ED VR
Sony	Sony α9	Sony E 50mm F1.8
		Sony E PZ 18-105mm F4 OSS
		Sony FE 85mm F1.8
		Sony FE 35mm F1.4
		sony FE 24-240mm F3.5-6.3
	Sony α7R2	SonyVario-Sonnar T* 24-70mm f/2.8 ZA SSM

Brand	Model	Can be equipped with a lens
Sony	Sony α7R3	Sony E 50mm F1.8
		Sony E PZ 18-105mm F4 OSS
		Sony FE 85mm F1.8
		Sony FE 35mm F1.4
		sony FE 24-240mm F3.5-6.3
		Sony FE 24-105mm f/4 G OSS
		Sony FE 12-24mm f/4.0 G
	Sony A6500	SonyFE 28-70mm f/3.5-5.6 OSS
Panasonic	GH5s	25mm f/1.4
		35-100mm f2.8
	GH4	OLYMPUS M.ZUIKO DIGITAL ED 12mm f/2.0

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Due to software and hardware improvements, your actual product might differ from the descriptions and pictures in this user manual. You can get the latest user manual from the official website.

For more information, please visit our official website