



# FEIYUTECH AK2000 3 Axis Stabilized Handheld Gimbal Camera User Manual

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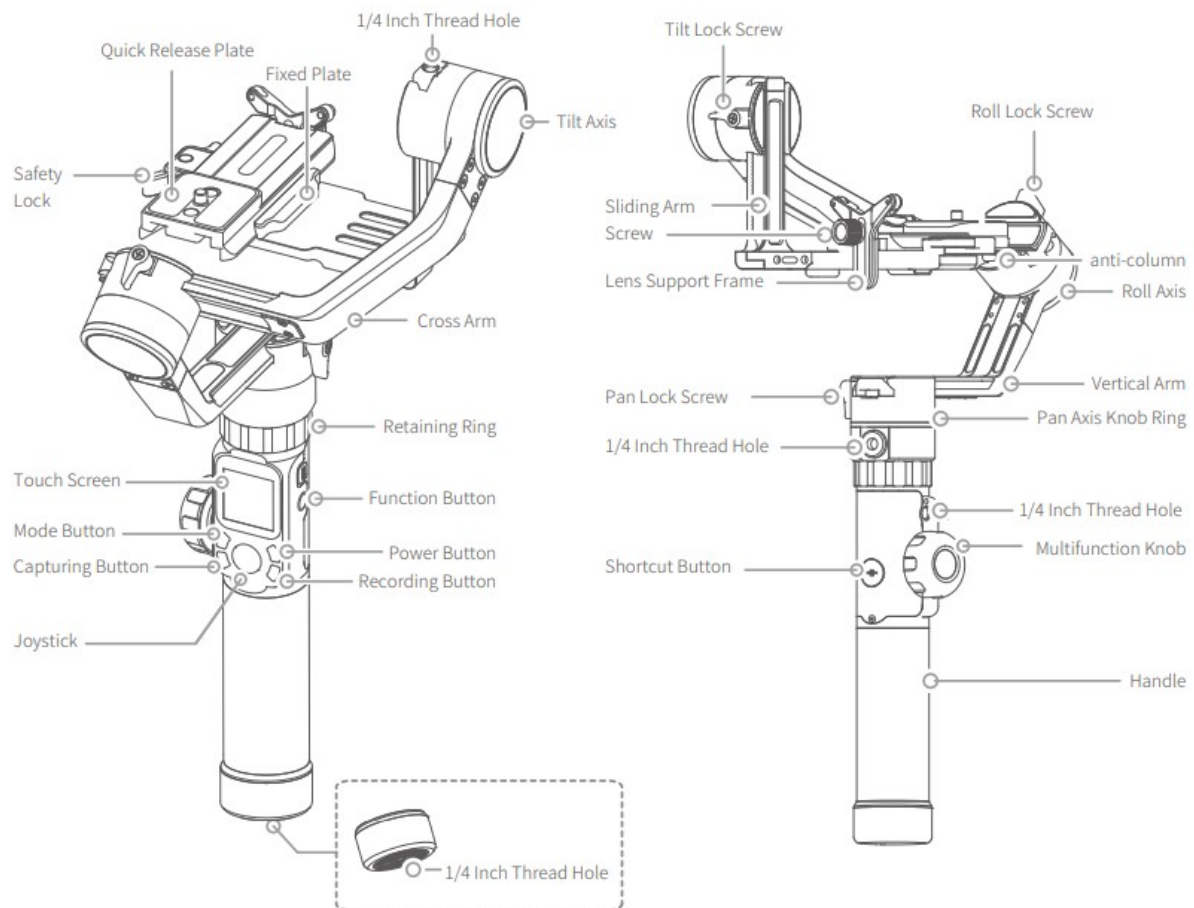
**3-Axis Stabilized Handheld Gimbal for Camera  
Instructions**

**Guilin Feiyu Technology Incorporated Company  
V3.1E NUser Manual**

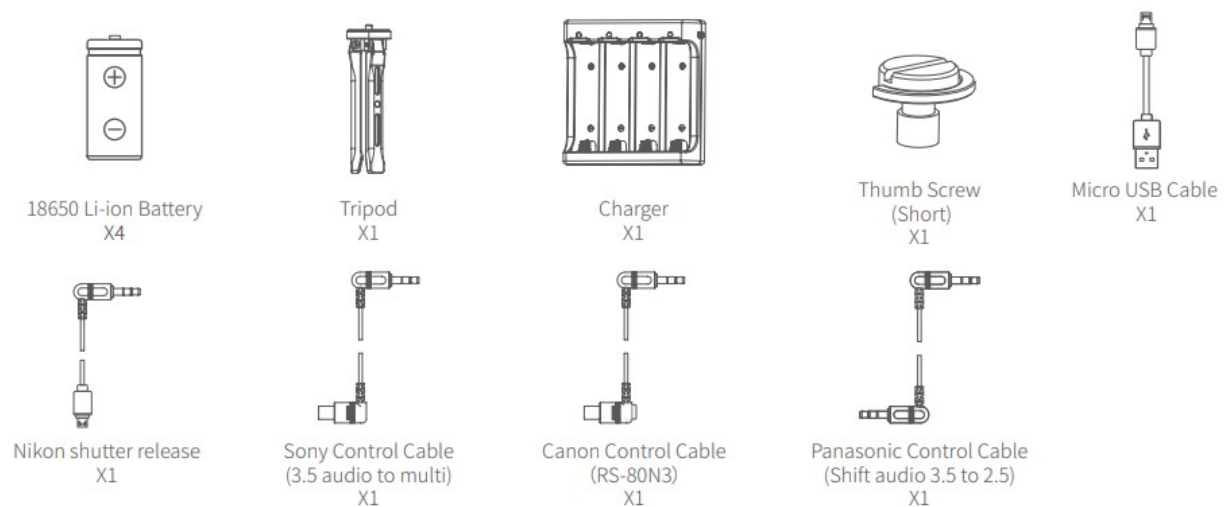
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## Product Overview



## Accessories



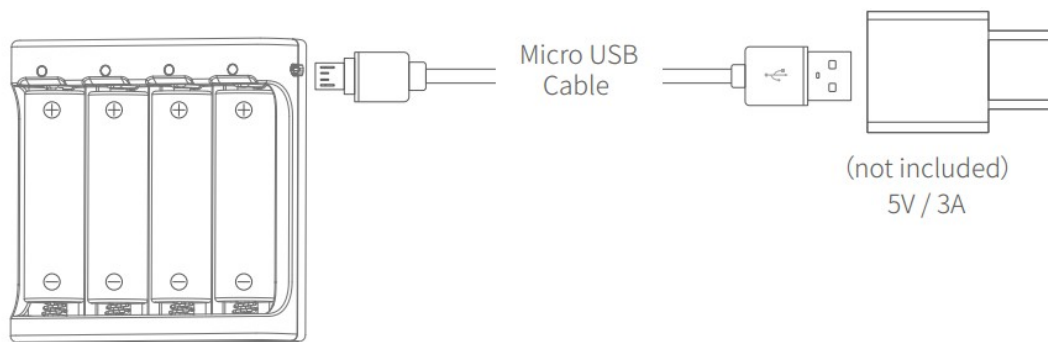
## Installation

### TIPS

1. Please mount the camera 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 batteries.

### 2.1 Battery Charging

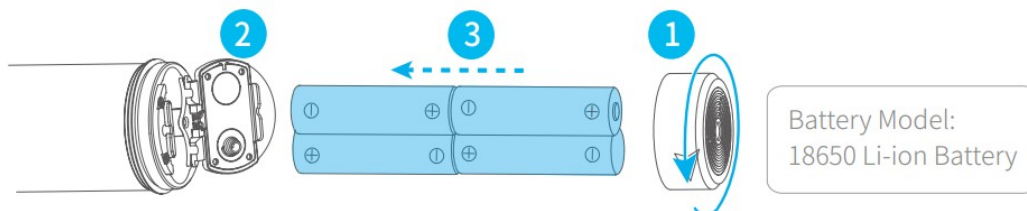
Please fully charge the batteries before powering on the gimbal for the first time.  
Charge the batteries with the charger.



## 2.2 Battery Installation

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

**Note:** When installing the battery, pay attention to the direction of the battery. If the battery is reloaded, it will cause the battery to short-circuit.

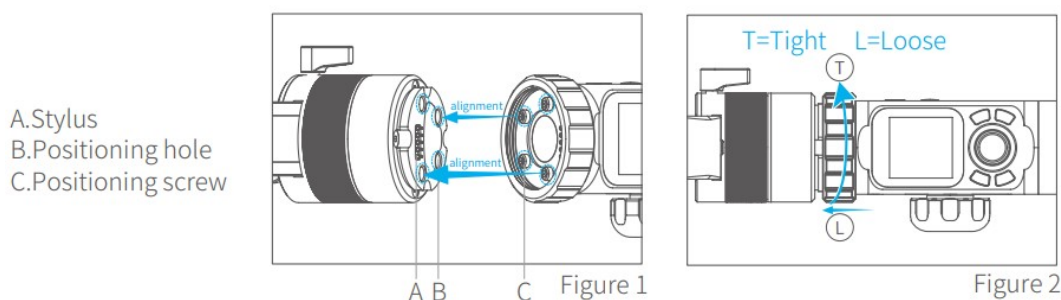


## 2.3 Installation handles

### 2.3.1 Installation handles

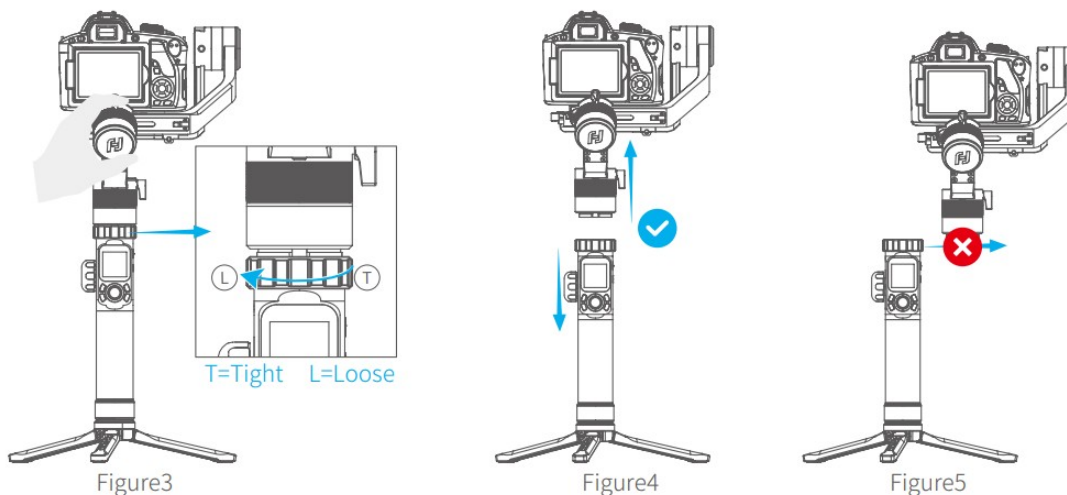
Align the handle positioning screw with the head positioning hole, fix the handle part and the head, then move up the fixing ring up and tighten it, and the installation is completed.

**Note:** When installing the handle, the four positioning screws must be aligned with the corresponding positioning holes and then tighten the fixing ring to avoid the stylus being hit and causing troubles to the stabilizer.



### 2.3.2 Split handle

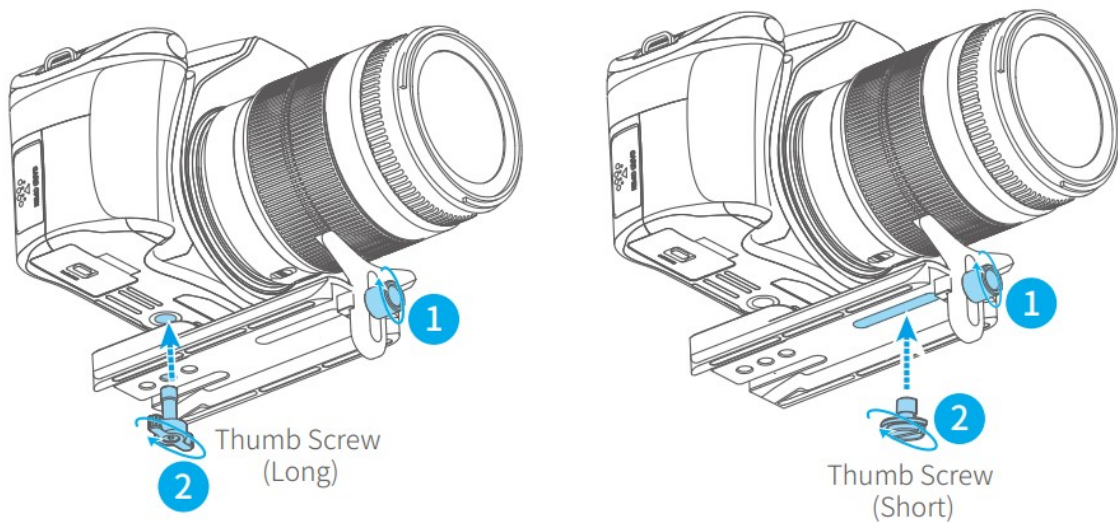
The stabilizer is placed flat on the ground, holding the stabilizer's head, and only twisting the retaining ring, as shown in Figure 3. After twisting, the head is lifted vertically and upwards, as shown in Figure 4. Do not move left or right, as shown in Figure 5, to prevent the stylus from breaking.



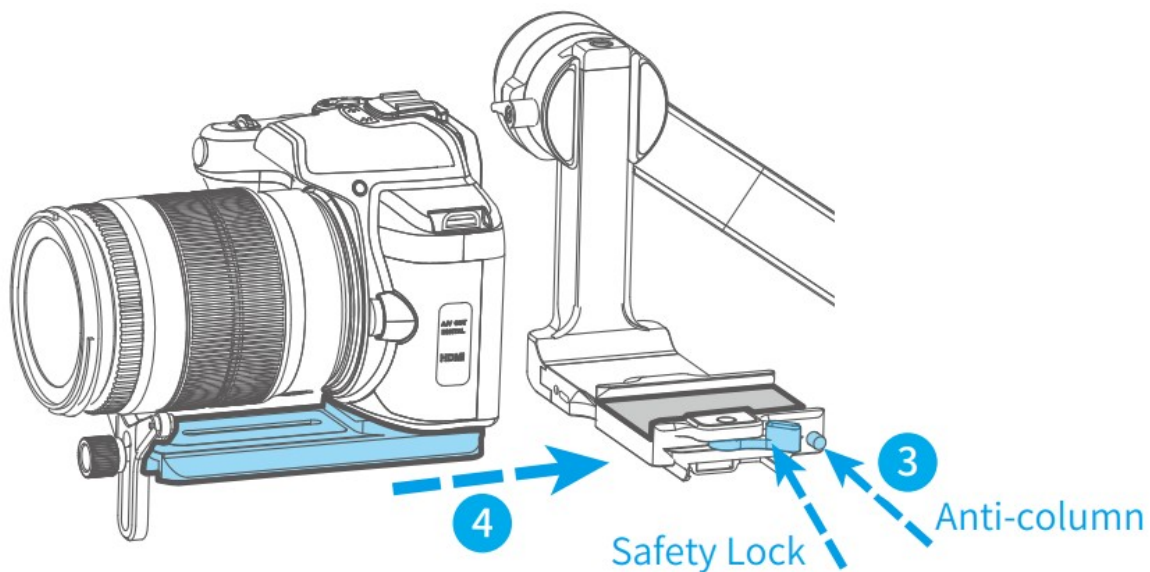
## 2.4 Camera Installation

**Note:** make sure the camera is ready to shoot, the lens cover is removed, the battery and memory card are loaded before 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)



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.



## Gimbal Balancing

### Note:

1. Before adjusting the balance, the camera needs to remove the lens cover and insert it into the memory card to complete all the connections to ensure that the camera is ready to shoot.
2. During the balancing process, ensure that the camera power is turned off and the stabilizer motor is turned off.  
It is possible to lock each axis of the stabilizer to the installation posture to facilitate balance adjustment.
3. Tripods can be installed (refer to 20 pages for installation) for easy balance adjustment.

### 3.1 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 position of the camera's tilting axis up and down: Place the camera lens upright and keep the cross arm horizontal, as shown in Figure 6. After releasing the hand, observe the camera lens rotation state. Unscrew the locking screw of the tilt axis motor and adjust the balance by adjusting the sliding arm left and right (see Figure 7, Figure 8). When the cross arm is kept horizontal, the camera lens is placed vertically upwards and stays in a vertical state with the ground. The sliding arm adjustment is completed, as shown in Figure 6.  
\* After adjustment, make sure tighten the lock screw .



Figure6

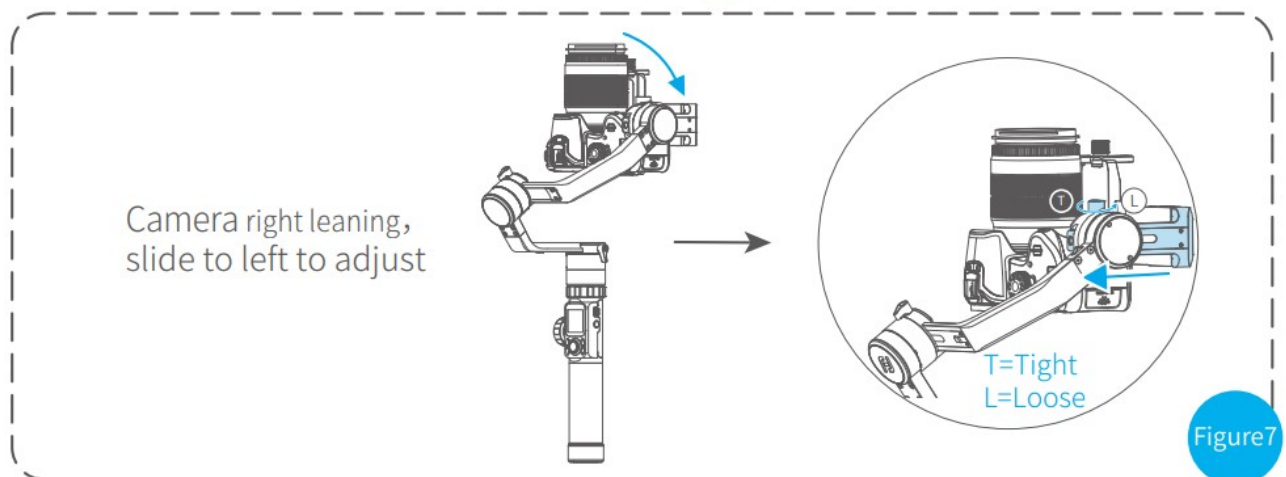


Figure7

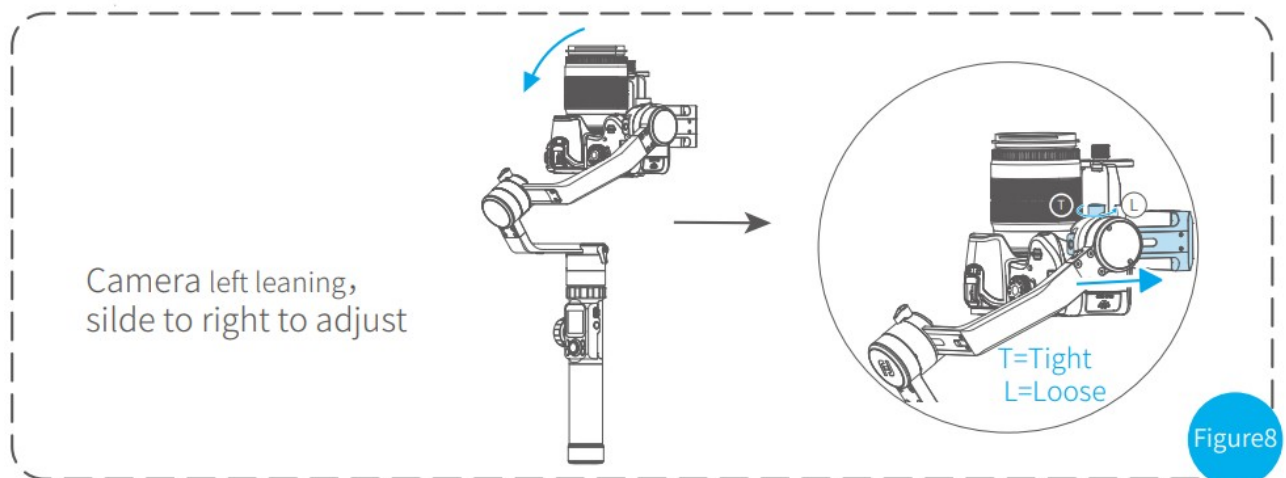


Figure8

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 figure9, let go and observe the state of rotation. Unscrew the camera safety lock on the right side and adjust the balance by sliding the quick release plate at the bottom of the camera back and forth (see Figure 10, Figure 11). When the cross arm is kept horizontally, the tilt axis can stay stably at any angle, indicating that the balance



adjustment of the tilt axis is completed.

\*Be sure to fasten the safety lock after adjustment.

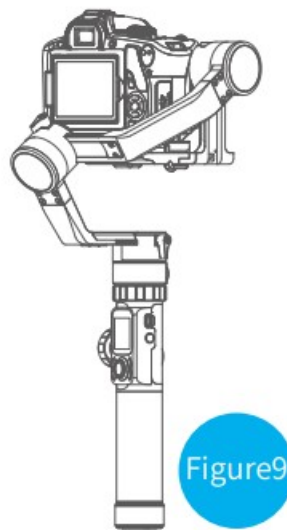


Figure9

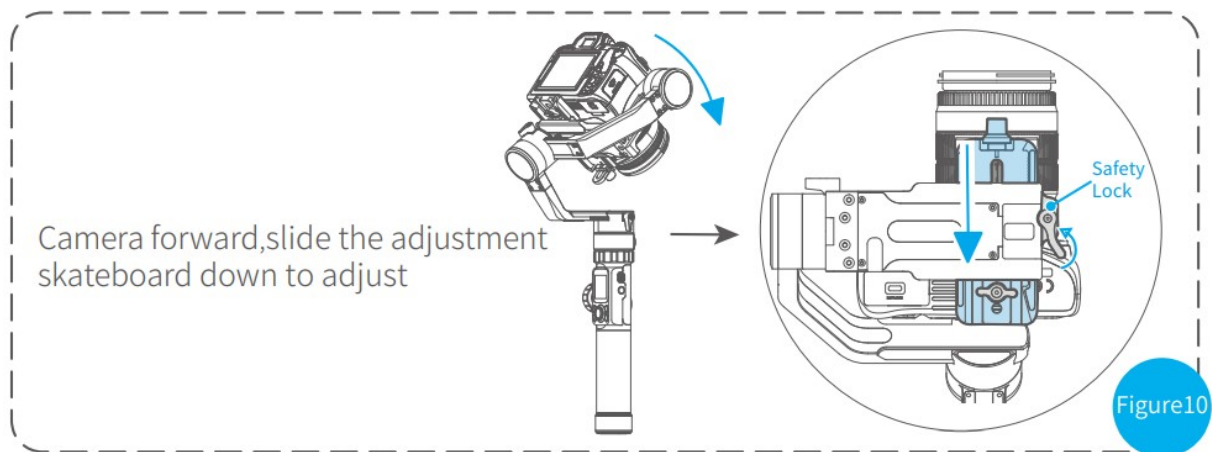


Figure10

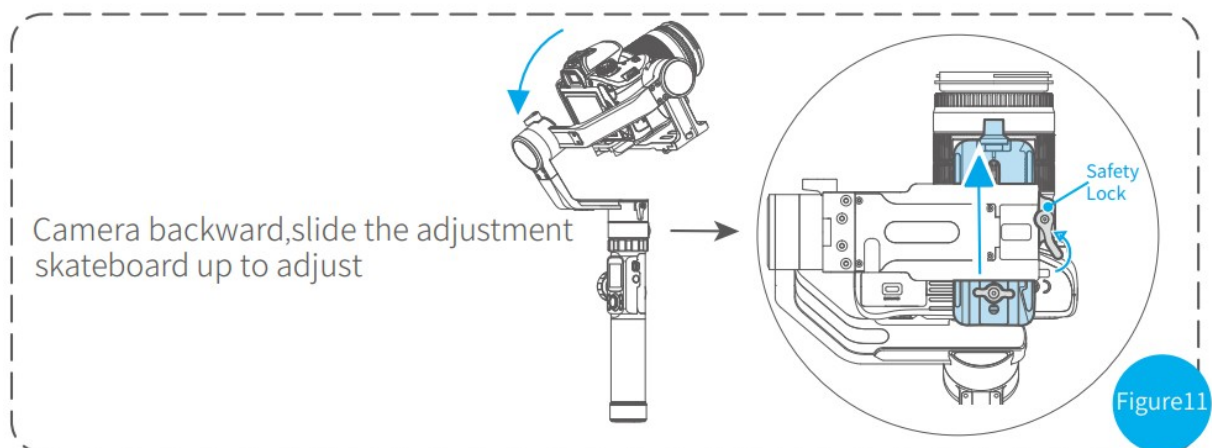


Figure11

### 3.2Balance Adjustment of the Rolling Axis

When the balance adjustment of the tilt axis of the stabilizer is completed, the balance adjustment of the roll axis can be performed: the camera lens is placed horizontally forward, the cross arm is kept horizontally as shown in Figure 12, and the cross arm is released to make the cross arm in a natural state. Observed camera tilt state.

Unscrew the lock screw of the motor of roll axis and adjust the left and right sliding cross arm (see Figure 13, Figure 14). When the roll axis can stay stably at any angle, it means that the balance adjustment of the roll axis is completed.

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

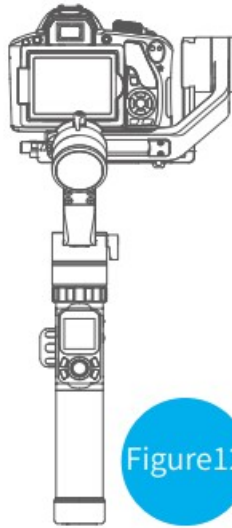


Figure12

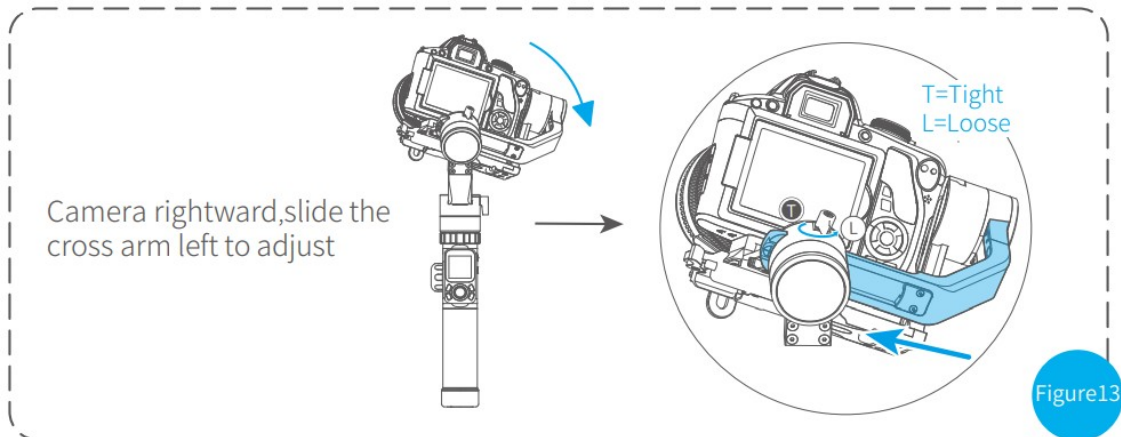


Figure13

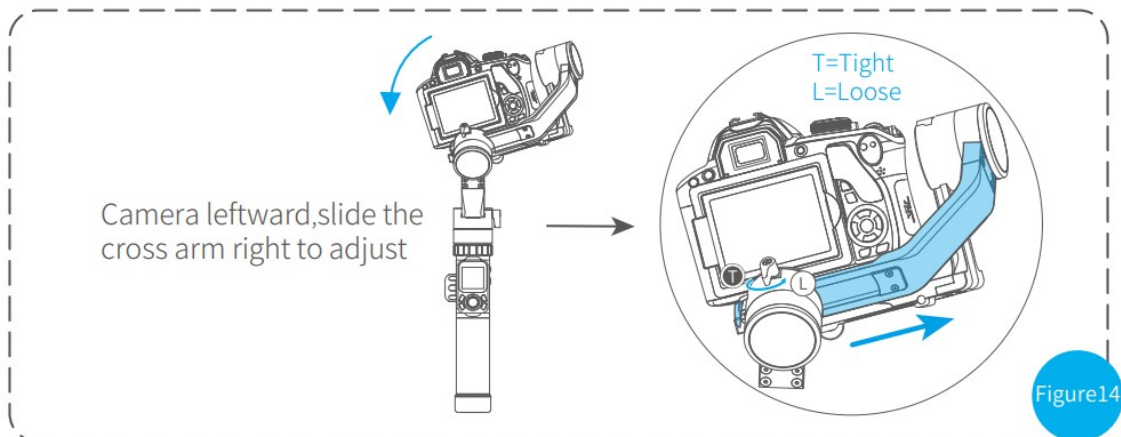


Figure14

### 3.3 Balance Adjustment of the Panning Axis

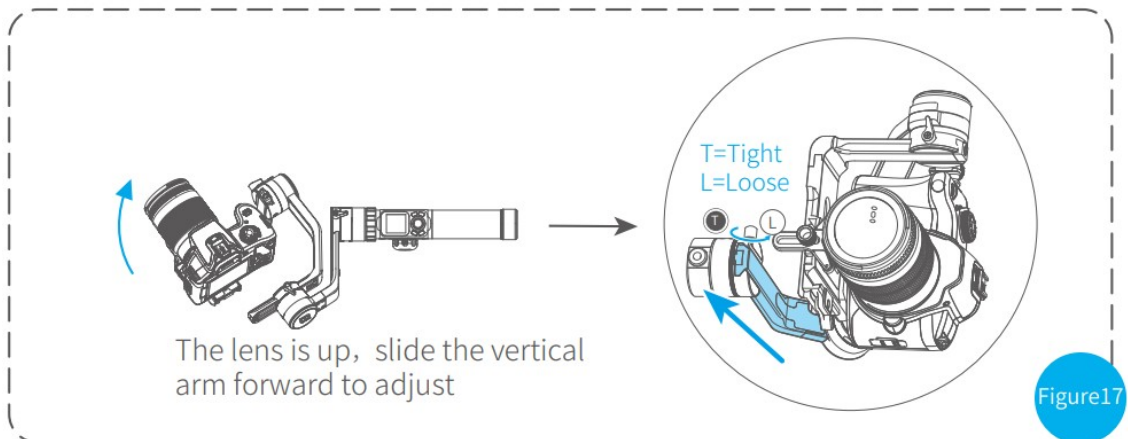
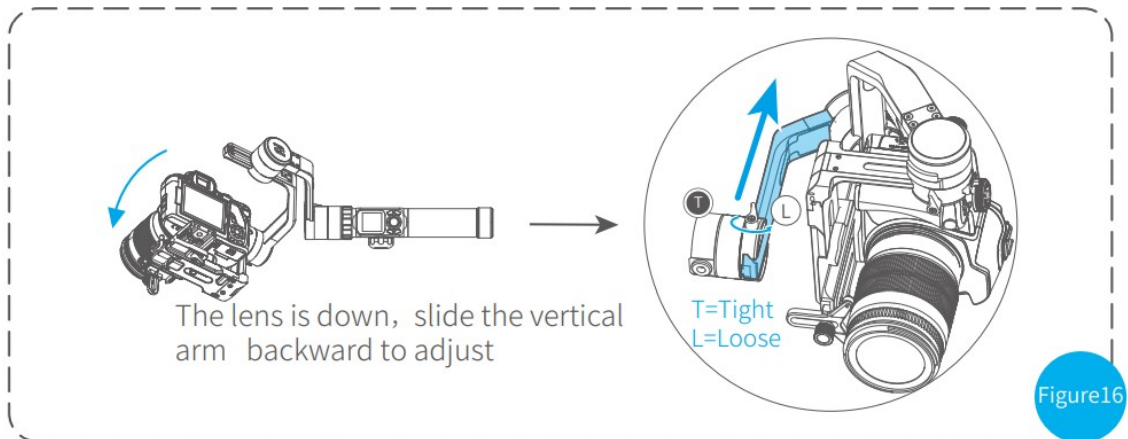
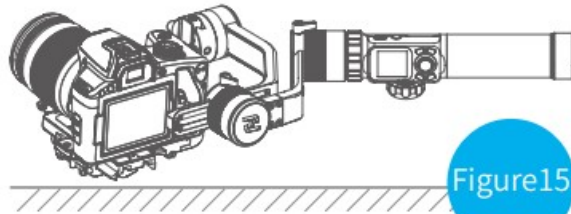
When the balance adjustment of tilting axis and rolling axis is completed, the balance of the panning axis can be adjusted.

Keep the stabilizer handle part parallel to the horizontal floor, and hold the vertical arm parallel to the ground, as shown in Figure 15.

Unscrew the lock screw of the pan axis motor and slide the vertical arm to adjust it (see Figure 16, Figure 17).

When the vertical arm is parallel to the ground, the pan axis can stay stably at any angle, indicating that the balance adjustment of the pan axis is completed.

\* After adjustment, make sure tighten the lock screw.



## App – Download and Connecting

### 4.1 Download and Install Feiyu ON App

\* Requires iOS 9.0 or later, Android 5.0 or later



iOS Version

<https://itunes.apple.com/us/app/feiyu-on/id1170606381?mt=8>





Android Version

[http://www.feiyu-tech.cn/download/App/Feiyu\\_On.apk](http://www.feiyu-tech.cn/download/App/Feiyu_On.apk)

#### 4.2 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.



#### AK2000 Function / Operation

##### 5.1 Introduction to functional models

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, updown 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

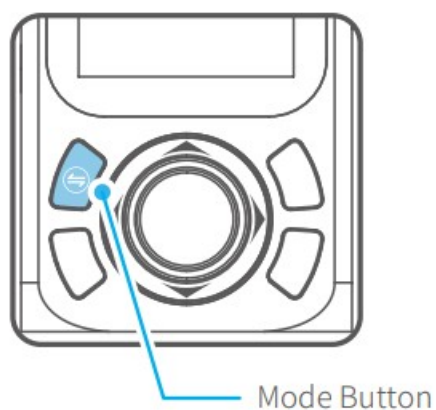
Return to panning mode, three axes return to default position.

## 5.2 Handle – Function / Operation

### Mode Button

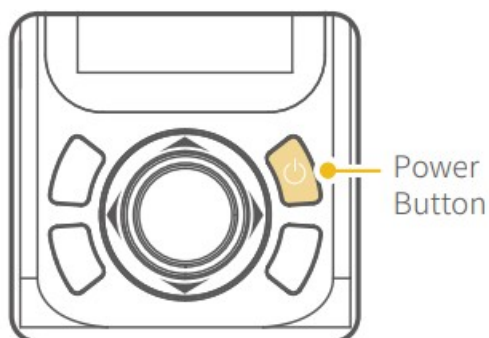
**Note:** The firmware upgrade may occur manual operation function and the actual product features do not match. Please find the latest manual on the official website.

Triple 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
Single click	All follow mode	Enter all follow mode



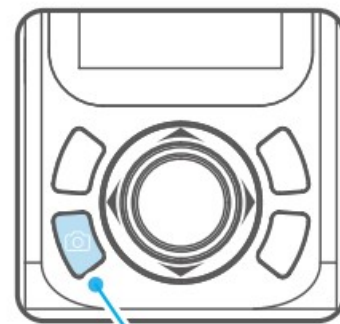
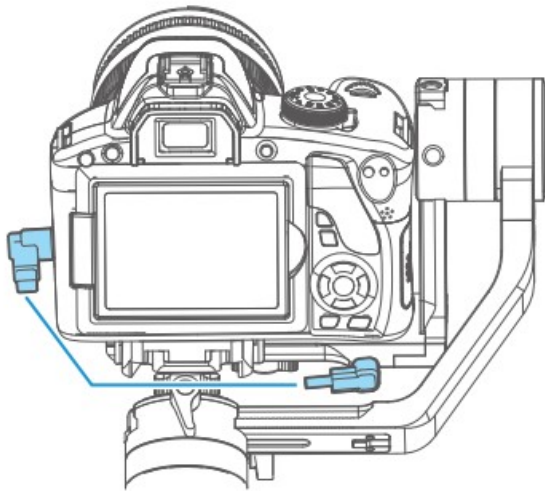
### Power Button

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



### Capturing Button

Manual capturing	<p>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.</p> <p>* Need to connect to the camera shutter cable or connect to the camera WiFi.</p>
Self-timer	<p>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.</p> <p>* Need to connect to the camera shutter cable or connect to the camera WiFi.</p>



Capturing Button

### Recording Button

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

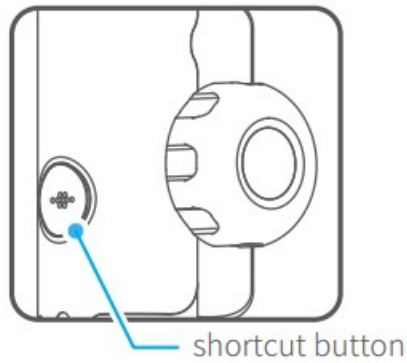
Single tap Start shooting / Stop shooting



Video Button

### Shortcut Button

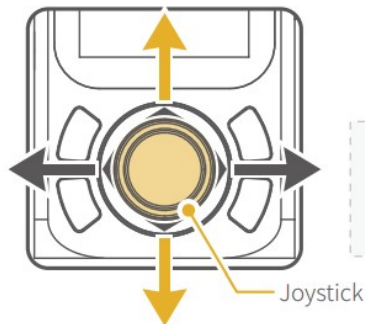
Long time press	Fast follow mode	Long time press the shortcut button, enter the fast follow mode.
Double tap	Reset	Long time press the shortcut button, enter the fast follow mode.



## 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

### Downward

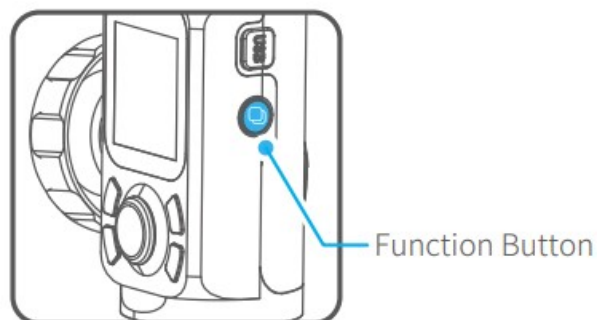
- (1) Camera lens downward
- (2) Select the option below

## Function Button

Single tap Return / Lock / Unlock

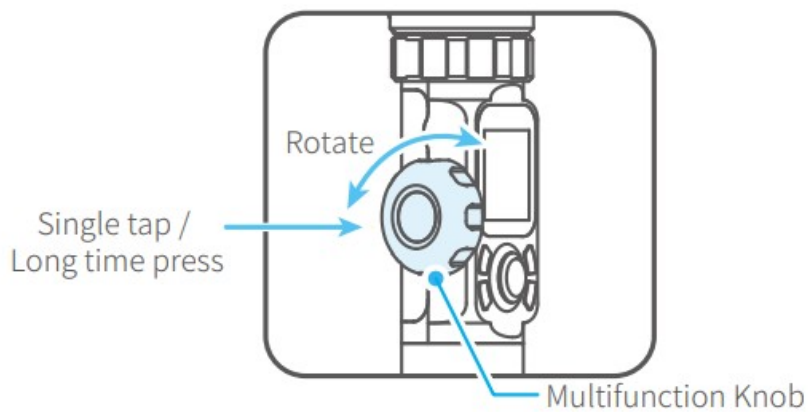
On other interfaces, single tap the function button to return to the main interface.

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

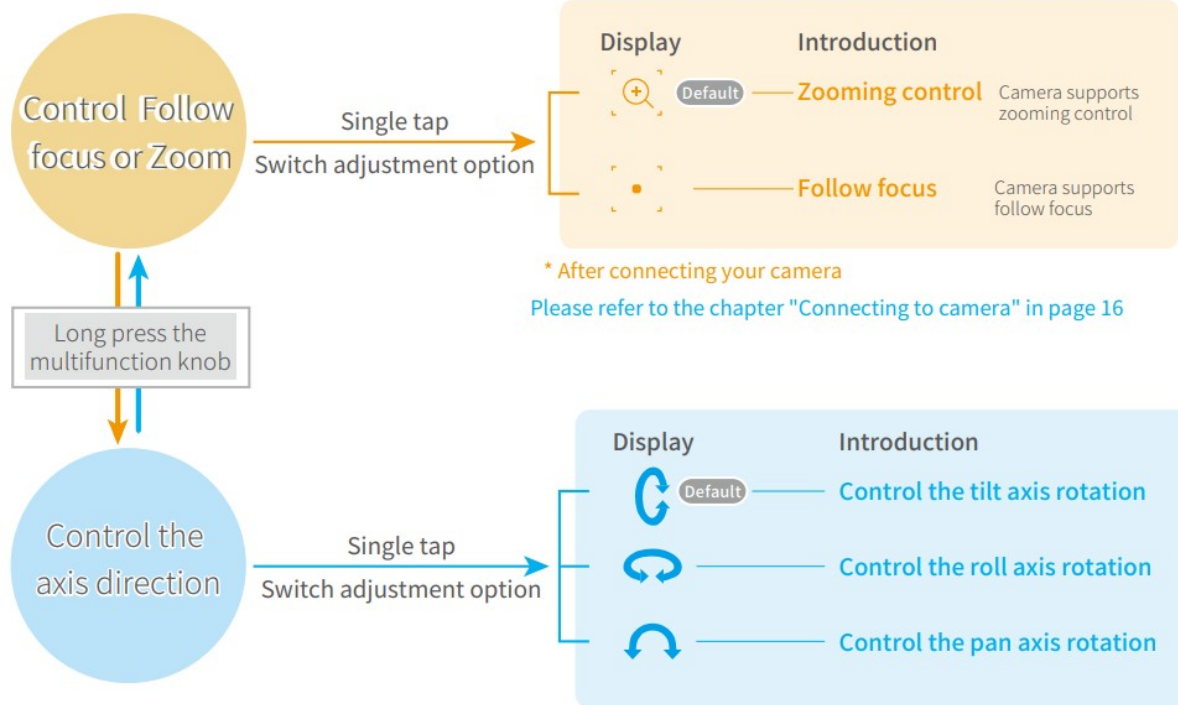


## Multifunction Knob

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

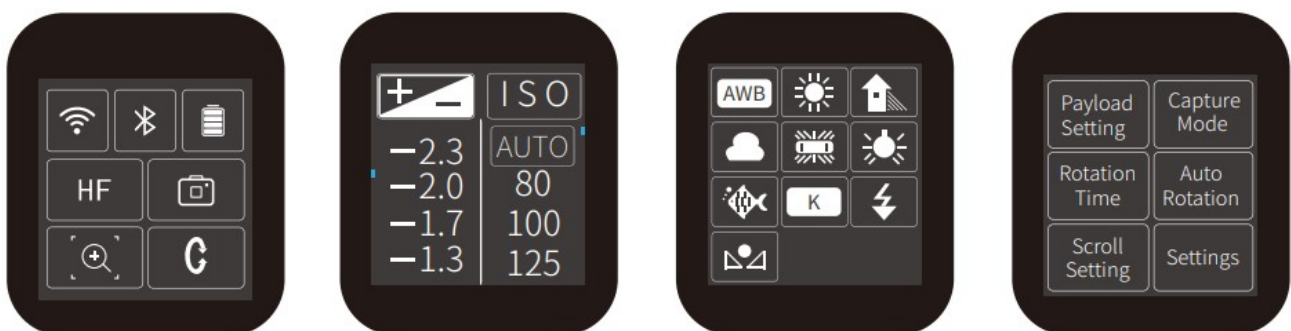


\*The multifunction knob is disabled by default when you power on the gimbal, click the scroll setting option on the display screen or click the multifunction knob to activate it.















## 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.  
Screen interface

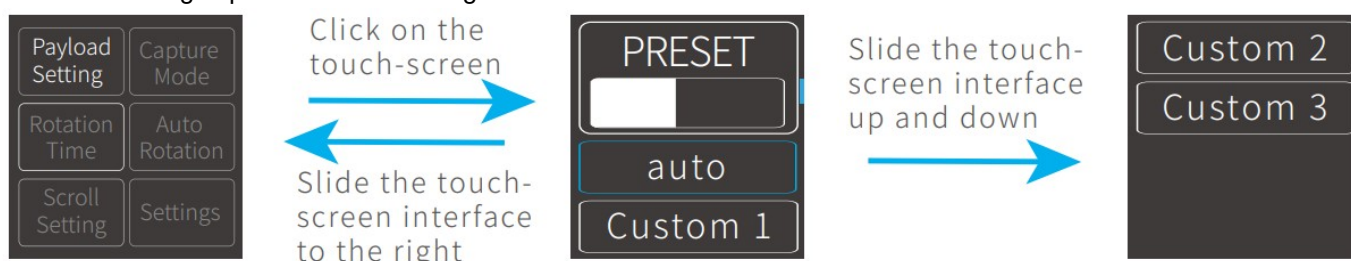




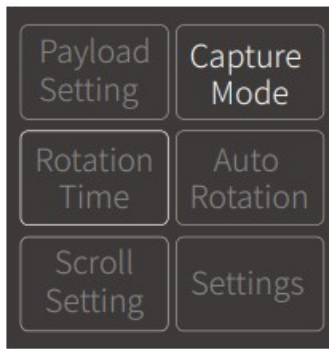
Display icon	Mode / Status
	WiFi is connected
	WiFi is not connect
	Bluetooth is connected
	Bluetooth is not connect
	Battery Level
	Camera mode
	Camera is not connect
	Zoom status
	Follow focus status
HF	Panning Mode
TF	Follow Mode
AF	All follow mode
LK	Lock Mode
HF-R	Panning Mode + Rolling follow
TF-R	Follow Mode + Rolling follow
LK-R	Lock Mode + Rolling follow
	Tilt Axis
	Roll Axis
	Pan Axis

### Screen interface

The load setting is performed according to the camera.



Select the corresponding scene mode according to the shooting scene.

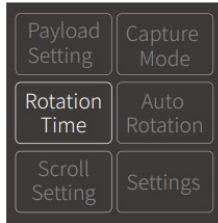


Click on the touch-screen  
Slide the touch-screen interface to the right

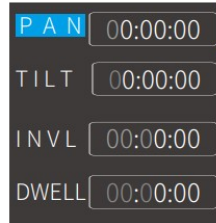


The maximum time setting of PAN and TILT is less than 8 hours, and the maximum time setting of INVL and DWELL is 59 seconds.\* PAN/TILT>INVL>DWELL

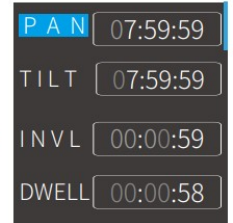
Please refer to the chapter “Auto-rotation Mode” in page 14



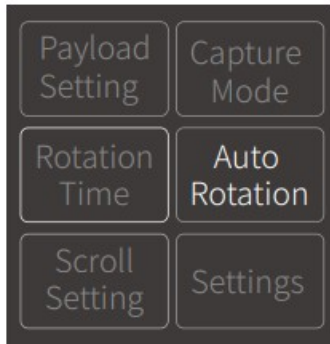
Click on the touch-screen  
Slide the touch-screen interface to the right



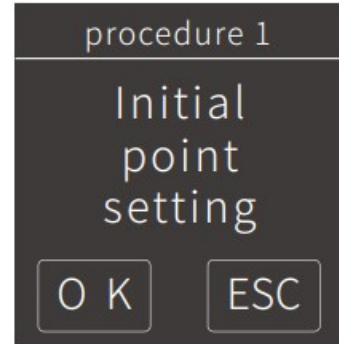
Pull the four-directional joystick up and down to increase and decrease the time  
Touch the screen to select and change the options



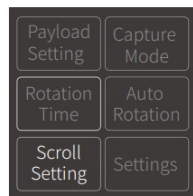
Enter auto-rotation mode



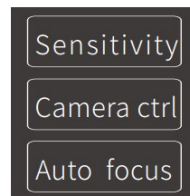
Click on the touch-screen  
Slide the touch-screen interface to the right



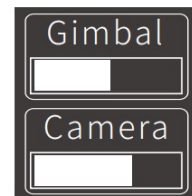
The higher the sensitivity setting, the faster the response of control PTZ/camera



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



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

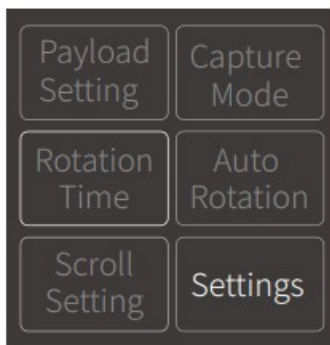


Sensitivity

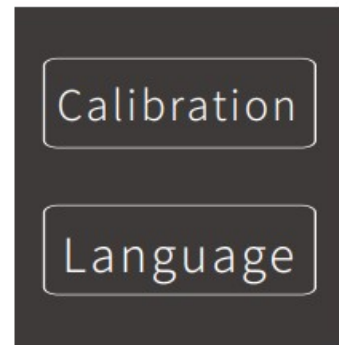


Camera ctrl

Settings







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



### 5.3 Modes

#### • Modes

- Single tap the power button in the panning follow mode to enter the panning follow mode and rolling follow (rolling follow angle  $\leq 60^\circ$ ).

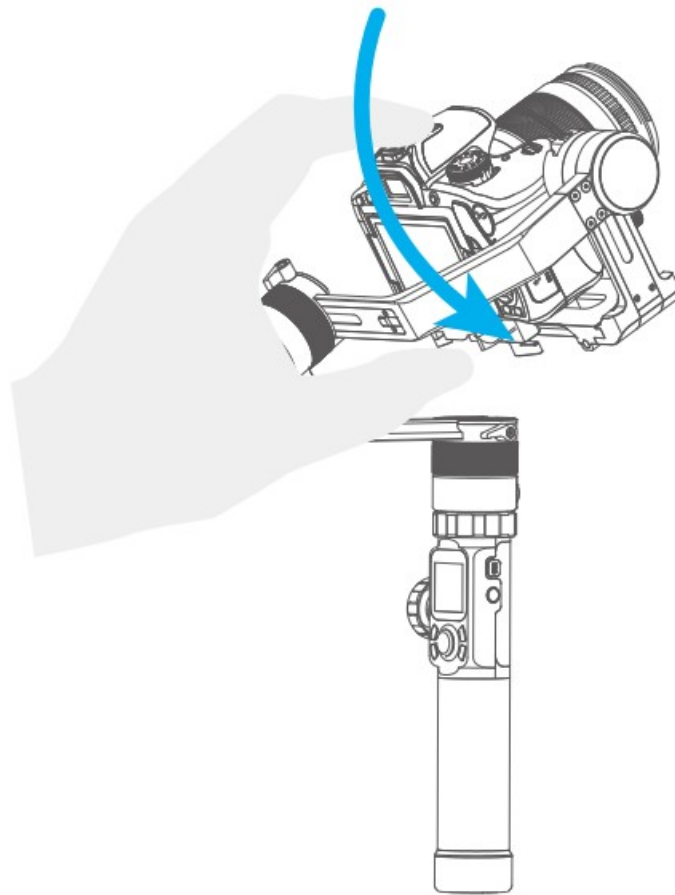
- Single tap the power button in the follow mode to enter the follow mode and rolling follow (rolling follow angle  $\leq 60^\circ$ ).
- Single tap the power button in the lock mode to enter the lock mode and rolling follow (rolling follow angle  $\leq 60^\circ$ ).
- Long press  or  lock functions of multifunction knob, single press the multifunction knob /  or  to restore the functions.

- 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:



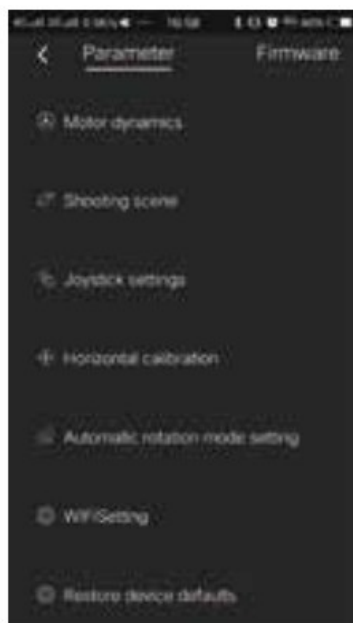
- Auto-rotation Mode

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

#### Auto-rotation Mode Parameter Setting

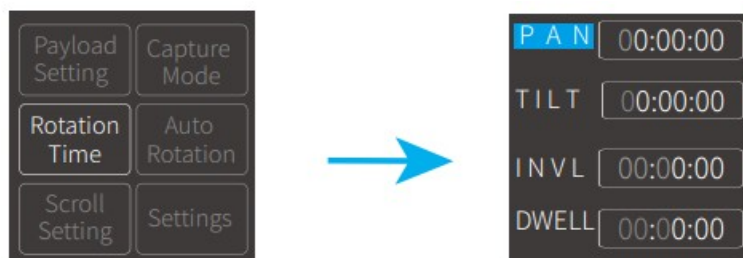
Enter the parameter setting interface to select the auto-rotation mode for setting. The maximum time setting for panning and tilting rotation time is less than 8 hours, and the maximum setting time for photographing stop time and photographing interval is 59 seconds.

(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.)



Adjust and control the options via the touch screen or by pulling the four-directional joystick up and down or left and right.

Method 2. Set the auto-rotation mode parameters by entering the rotation time interface through the display screen.



PAN( T1 )	Mode / Status	Minimum time setting	Maximum time setting
INVL( t )	Panning axis rotation time period	0 0 : 0 0 : 0 0	0 7 : 5 9 : 5 9
DWELL( P )	Tilting axis rotation time period	0 0 : 0 0 : 0 0	0 7 : 5 9 : 5 9
Display icon	Photographing interval	0 0 : 0 0 : 0 0	0 0 : 0 0 : 5 9
TILT ( T2)	Photographing waiting time	0 0 : 0 0 : 0 0	0 0 : 0 0 : 5 8

#### \* T1/T2>t>P

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

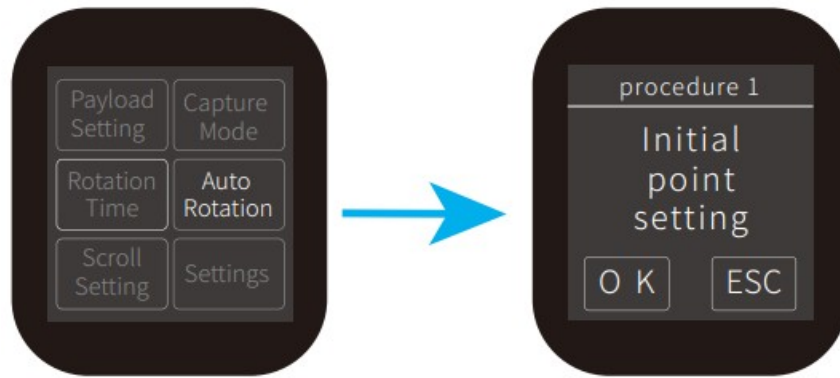
TILT : Time required for the tilting axis to rotate from the start point to the end point.

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

DWELL: Gimbal stop time after issuing a photographing command.

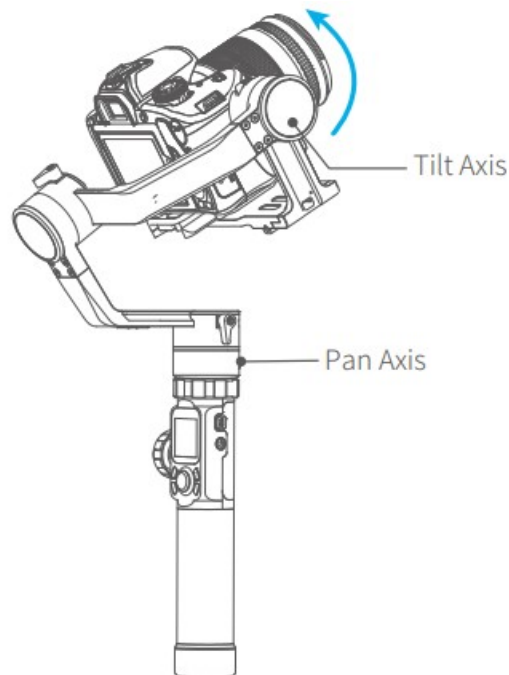
### Auto- rotation mode setting

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



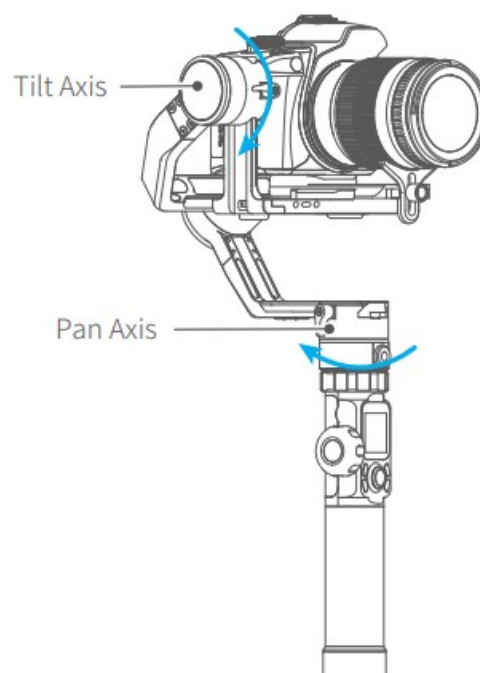
## 2. Set rotation start position

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

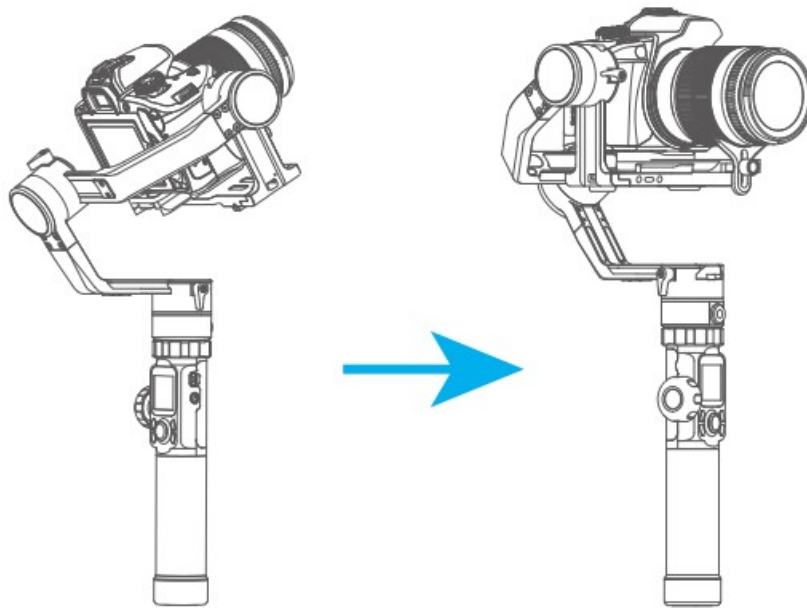
Rotate the panning axis or tilting axis to the end position and stay for half a second, and click OK option on the screen again to record the end position.





#### 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.



Shortcut button or click the Double tap ESC option on the screen Exit the auto-rotation mode and reset Exit

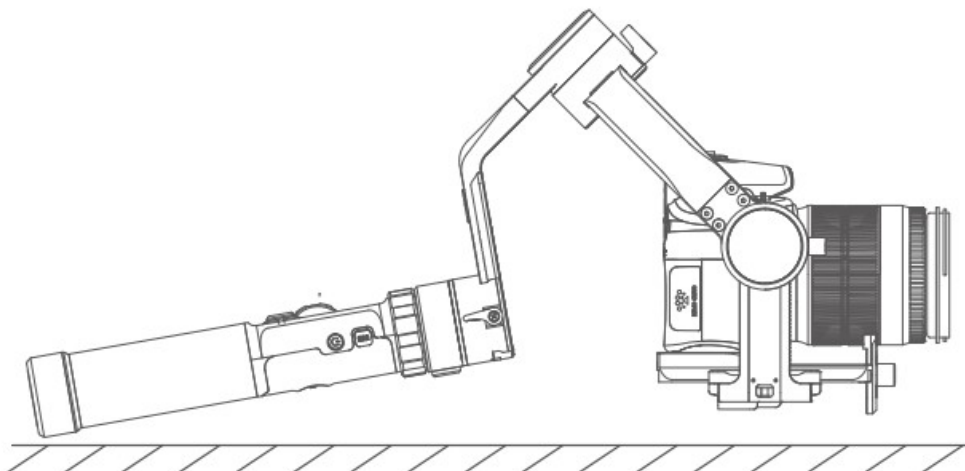
## Advanced Operation

### 6.1 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.



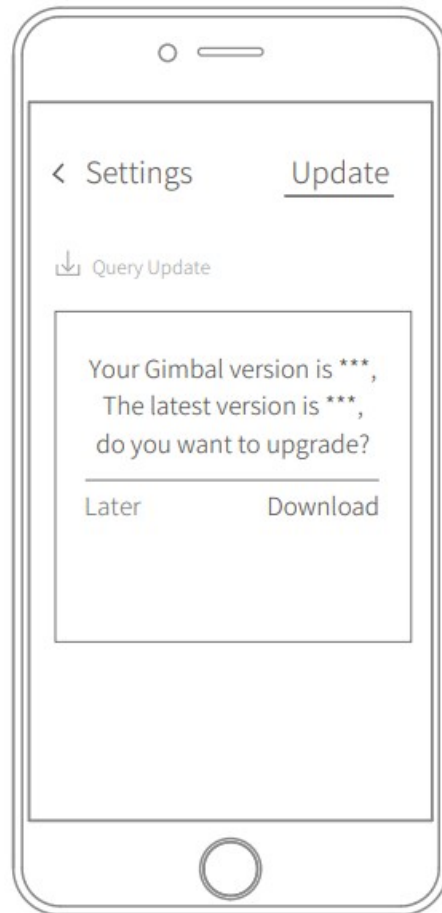
3. After the initialization is successful, slide the display screen interface to the left/right or click the “ESC” key on the screen to wake up.

## 6.2 Firmware Upgrade

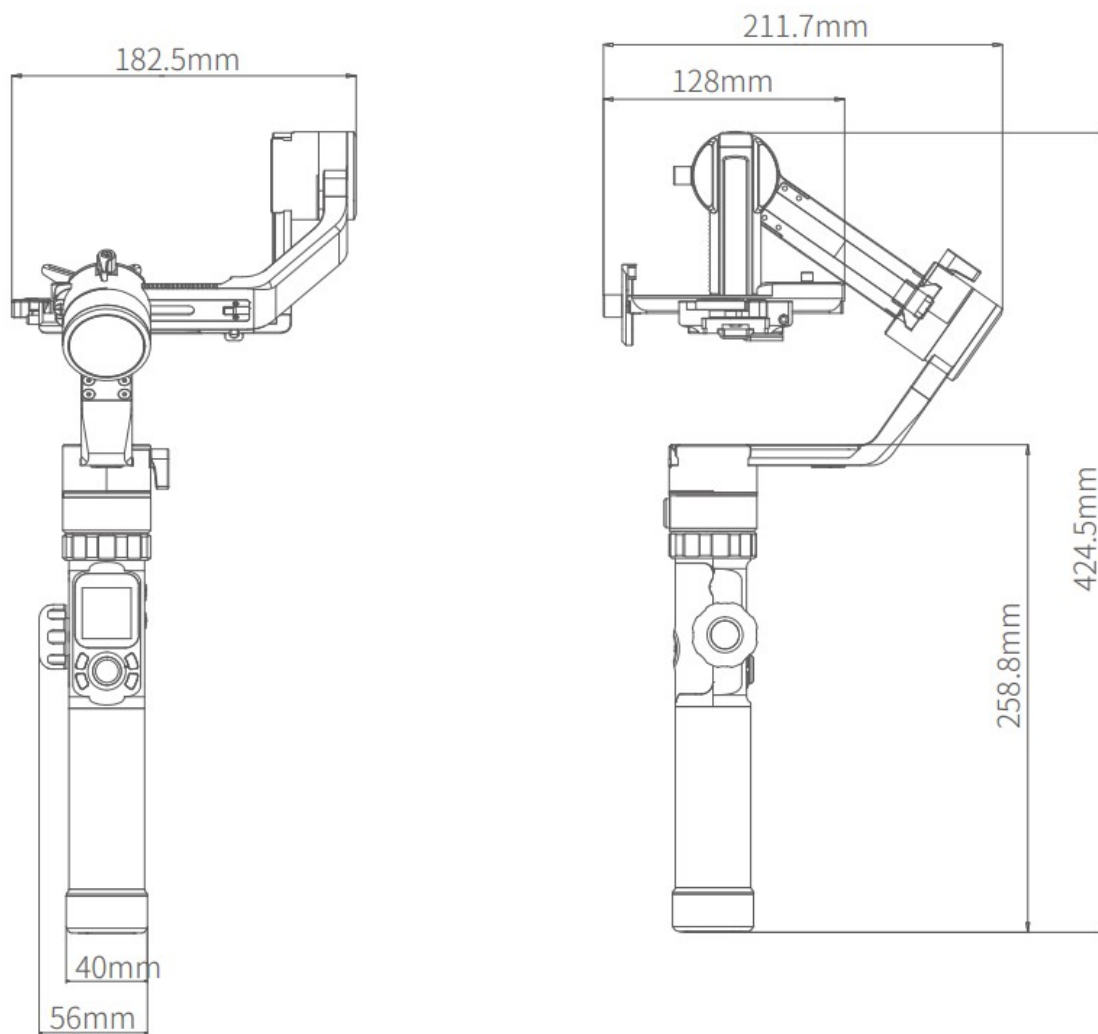
Connect the gimbal to the Feiyu ON App, to upgrade the firmware through the App.  
The remote control can be supported after the firmware is upgraded to V1008 and later.



Feiyu ON



## Specifications



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

### 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

			
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## DISCLAIMER

Prohibit any user for any illegal purpose. Users will be responsible for all behaviors of purchase and use products. The Company assumes no liability for any risks related to or resulting from the debug and use of this product (including the direct, indirect or third-party losses).

For any unknown sources of using, we will not be at any services.


The updating and changes of product firmware and program may cause changes in function descriptions in this user manual, please read the instructions carefully before upgrading the firmware and use the corresponding user manual.

You can get the latest user manual from the official website: [www.feiyu-tech.com](http://www.feiyu-tech.com)

FeiyuTech reserves the right to amend this manual and the terms and conditions of use the gimbal at any time.



## Documents / Resources

 The image shows the cover of the FeiyuTech AK2000 3 Axis Stabilized Handheld Gimbal Camera User Manual. It features the FeiyuTech logo at the top, the model name 'AK2000' in large blue letters, and the word 'Instructions' below it. At the bottom, it says 'FeiyuTech Technology Incorporated Company'.	<p><a href="#">FEIYUTECH AK2000 3 Axis Stabilized Handheld Gimbal Camera</a> [pdf] User Manual AK2000 3 Axis Stabilized Handheld Gimbal Camera, AK2000, 3 Axis Stabilized Handheld Gimbal Camera, Stabilized Handheld Gimbal Camera, Handheld Gimbal Camera, Gimbal Camera, Camera</p>
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## References

- [FeiyuTech - Official Website](#)
- [feiyu-tech.com](http://www.feiyu-tech.com)
- [Manual-Hub.com - Free PDF manuals!](#)
- [User Manual](#)

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