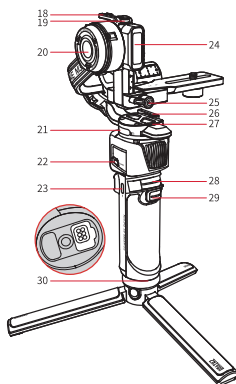
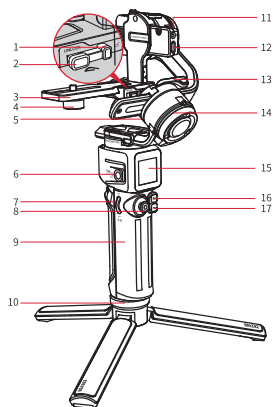


Get to Know CRANE-M3



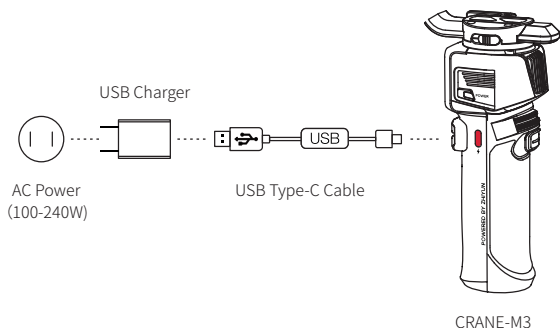
1. Quick Release Plate Safety Lock
2. Quick Release Plate Release Button
3. Quick Release Plate
4. 1/4" Camera Lock Screw
5. Roll Axis Lock Switch
6. 1/4" Threaded Hole
7. Fill Light Control Wheel
8. Joystick
9. Handle
10. Tripod
11. Audio Transmission Port
12. Camera Control/Charging Port
13. Roll Axis Latch
14. Roll Axis Motor
15. Touch Screen
16. M Button

17. Photo/Video Button
18. Tilt Axis Lock Switch
19. Tilt Axis Latch
20. Tilt Axis Motor
21. Pan Axis Lock Switch
22. Power Button
23. Type-C Charging/Firmware Upgrade Port
24. Fill Light
25. Level Mount Lock Screw
26. Pan Axis Latch
27. Pan Axis Motor
28. Adjustment Wheel
29. Trigger Button
30. Contact Points

Battery and Charging

CRANE-M3 is equipped with built-in battery. When using CRANE-M3 for the first time, please fully charge the battery to activate them and to ensure the proper function of the gimbal.

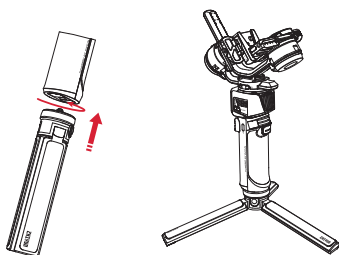
Charging method: Use provided USB Type-C cable to connect the USB charger (supports 12W PD charging at most) to the charging port of CRANE-M3.



⚠ The gimbal is equipped with high-energy-density battery, which may cause fire, economic loss, or personal injury when not properly used and stored. Please read the disclaimer and warning herein as well as the description on the battery label carefully before using the battery.

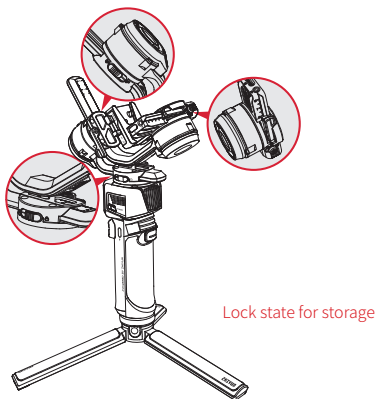
Mounting the Tripod

Mount the tripod to the bottom of the CRANE-M3 handle, then unfold the tripod and place the CRANE-M3 on a flat surface.

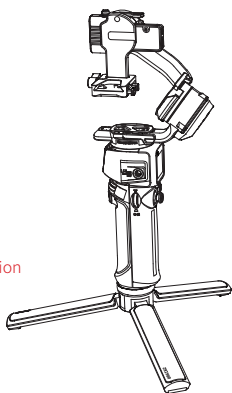


Mounting the Camera

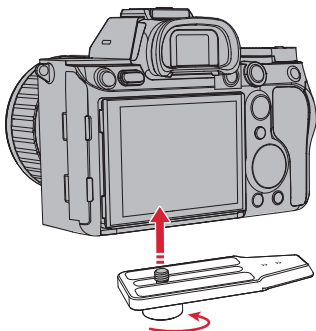
1. Each axis of the gimbal is equipped with a lock switch. You can use these lock switches to lock the axes for convenient installation and storage. The storage state is the default state. Please toggle the lock switch to unlock the three axes, expand the gimbal as shown in the image, and lock the axes again for convenient camera installation.



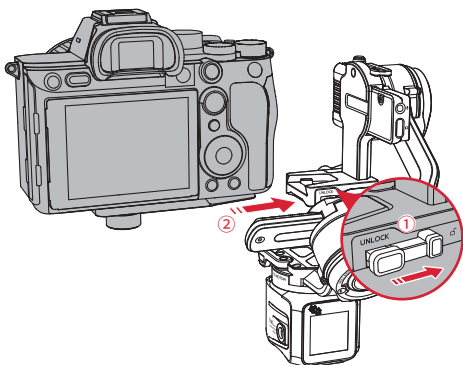
Lock state for installation



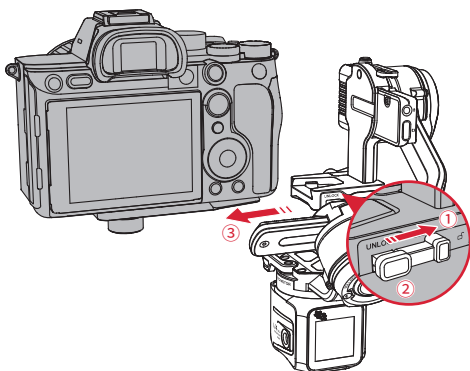
2. Mount the camera on the quick release plate. Tighten the bottom screw.



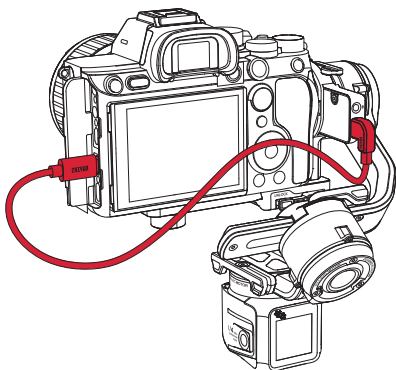
3. Toggle the quick release plate safety lock to unlock ① , install the whole quick release plate on CRANE-M3 ② and make sure a firm installation.



- 💡 When detaching, toggle the quick release plate safety lock to unlock ① , press the quick release plate release button ② to push the whole quick release plate out ③ .



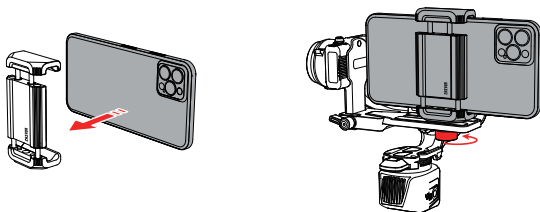
4. Connect the camera control/charging port of the gimbal to the USB port of the camera.



- ① Type-C to Multi cable is the control cable for Sony cameras. Can be used to control certain Sony cameras to start/stop the filming. Type-C to Type-C and Type-C to Micro cables are camera charging cables. Choose the correct cable according to your actual filming scenarios.
- ② The camera control/charging port is only available for controlling certain Sony cameras. For other cameras, you can purchase the “TransMount CRANE-M3 Bluetooth Control Unit” and install it on the gimbal to control. For the detailed tutorial of the unit, please visit the official website of ZHIYUN (www.zhiyun-tech.com) and check the “TransMount CRANE-M3 Bluetooth Control Unit User Guide”.
- ③ For details of supported camera models for CRANE-M3, please visit the official website of ZHIYUN (www.zhiyun-tech.com) and check the “CRANE-M3 Camera Compatibility List”.

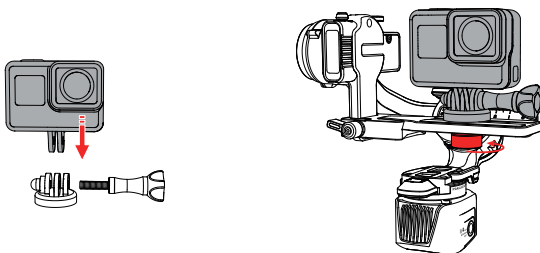
Mounting the Phone

Mount the phone to the phone clamp and mount the whole phone clamp to the quick release plate. Make sure to tighten the screw.



Mounting the Action Camera

Mount the action camera to the camera base (not provided) and mount the whole base to the quick release plate. Make sure to tighten the screw.

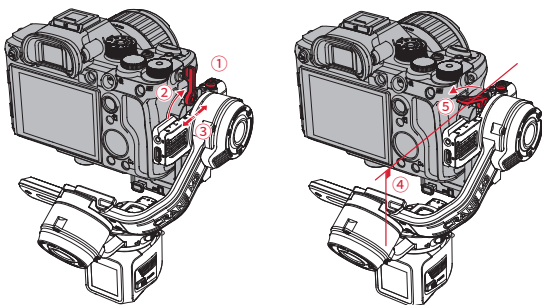


💡 CRANE-M3 only provides stabilization for mobile phones and action cameras. Button controls are not supported.

Balancing

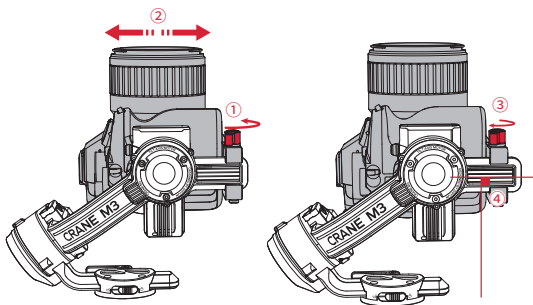
1.Horizontal Balance of the Tilt Axis

Unlock the tilt axis arm ① and loosen the tilt axis latch ② . Push the camera to move forward or backward ③ until the camera is steady and is at almost level with the ground ④ . Tighten the latch ⑤ .



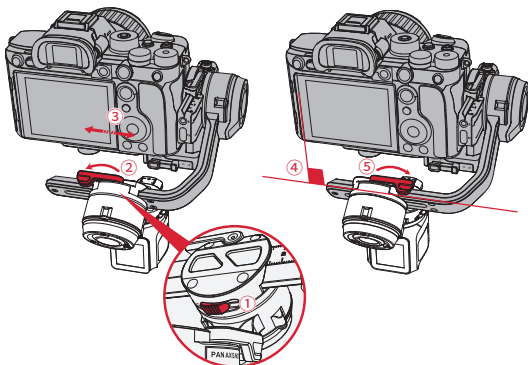
2.Vertical Balance of the Tilt Axis

Unlock the tilt axis arm, make the lens face up, loosen the level mount lock screw ① . Push the whole level mount to move forward or backward ② . Push until the camera can stay still with the lens facing up (i.e.the camera stays still and vertical to the ground) ③ . Complete this step by tightening up the screw ④ .



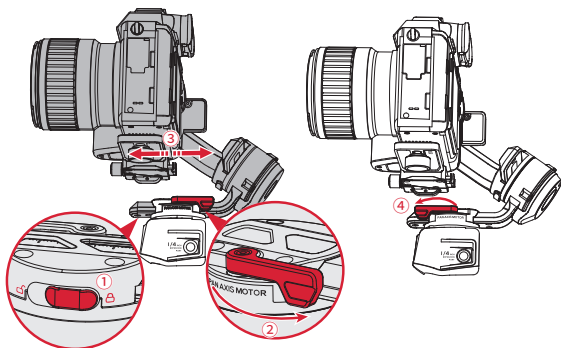
3. Roll Axis Balance

Unlock the roll axis ① , loosen the roll axis latch ② , push the roll axis arm to move left or right ③ until the camera can stay still and horizontal to the ground (as shown below) ④ . Complete this step by tightening up the latch ⑤ .



4. Pan Axis Balance

Unlock the pan axis ①, loosen the pan axis latch ②, hold and slightly tilt the handle, push the pan axis to move left or right ③ until the pan axis can stay still in any position. Complete this step by tightening up the pan axis latch ④.



💡 After balancing CRANE-M3, the motor torque needs to be adjusted for proper function. For the adjustment details, please see the methods introduced in "Motor Torque Adjustment".

Buttons Description



Power Button

Single press: Lock/unlock the touch screen

Press and hold: Power on/off



Photo/Video Button

Single press: Start/stop filming video

Double press: Take photo



M Button

Single press: Switch gimbal modes (PF-L-F)

Double press: Switch gimbal modes (POV-V)

Press and hold: Sleep mode/wake mode for the gimbal motor



Fill Light Control Wheel

Single press: Switch between brightness/color temperature

Press and hold: Turn on/off the fill light

Slide up/down: Adjust brightness/color temperature



Trigger Button

Double press: Reposition

Triple press: 180° rotation for the pan axis motor

Press and hold: Enter Go Mode. Release to return to the previous mode.



Joystick

Push the joystick up/down/left/right to control the gimbal to rotate.



Adjustment Wheel*

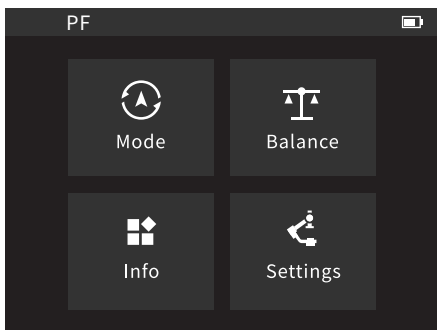
Adjust customized setting (aperture, shutter, ISO, zoom, roll axis), can customize on the touch screen

“*” ① Available in later upgrade.

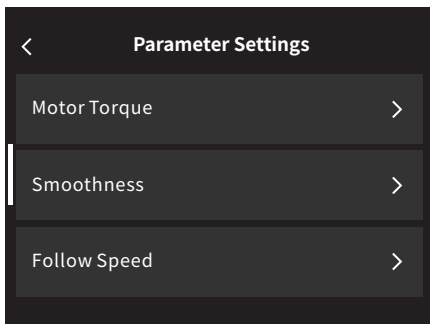
② Use with TransMount CRANE-M3 Bluetooth Control Unit for camera parameter adjustment.

Touch Screen Introduction

Touch Screen Interface



Main page (set as default)



Swipe right at the left edge of the screen
(return to the previous menu)

Touch Screen Menu



Mode:

For selecting gimbal modes. Available modes are: Pan Follow Mode (PF)/Lock Mode (L)/POV Mode (POV)/Follow Mode (F)/Go Mode (GO)/Vortex Mode (V)/Portrait Mode



Balance:

To see the balance status of three gimbal axes.



Info:

1. Language: Switch the language of the touch screen menu (simplified Chinese/English)
2. Device Info: See the device information such as device name/device model/SN/firmware version
3. Factory Reset: Tap to factory reset the gimbal.



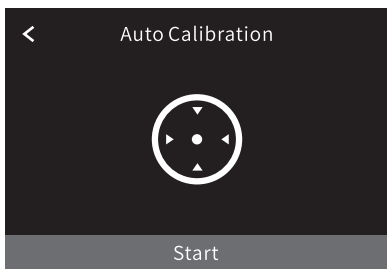
Settings:

1. Auto Calibration: To perform auto-calibration after the balancing is finished.
2. Parameter Settings: Sets the motor torque/smoothness/follow speed/joystick speed/deadband of the gimbal.
3. Parameter Reset: Reset the parameters to default.
4. Control Wheel: Customize the control wheel. Can be customized to control aperture/shutter/ISO/zoom/roll axis.

Motor Torque Adjustment

After balancing CRANE-M3, the motor torque needs to be adjusted for proper function. You can adjust the motor torque according to the weight of your camera and lens, so that the CRANE-M3 can be used in its ideal state. Following are two methods for adjustment. It is recommended to use auto-calibration.

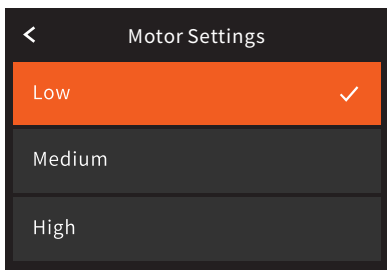
1.Auto calibration: Auto calibration will adjust the motor torque according to the weight of the carried camera and lens. Select "Settings" - "Auto Calibration", tap to enter calibration. You can see the calibration progress on the screen.



💡 When performing auto-calibration, please make sure that the three axes are unlocked and the gimbal is straightly put on a flat surface. Please don't touch the gimbal when calibrating.

2.Parameter Settings – Motor Settings:

Three levels (Low/Medium/High) are provided. Select the appropriate level according to the weight of the carried camera and lens.



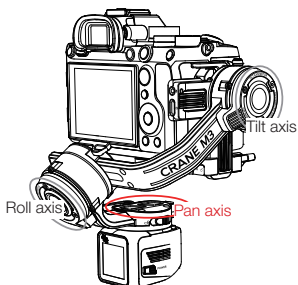
- ① If the motor torque is too low/high for the payload, the camera will shake and affect the gimbal performance. Please choose proper motor torque.
- ② It is recommended to use auto-calibration. If the gimbal is not yet in the ideal state after the auto-calibration, you can use the customized adjustment or choose the level of the motor torque to be high/medium/low.
- ③ When the camera lens is changed, please balance the gimbal again and adjust the motor torque with the methods above.

Gimbal Modes Description

- ⚡ Motors circled in red are free to move in line with the movement of the gimbal handle while motors circled in grey are locked.

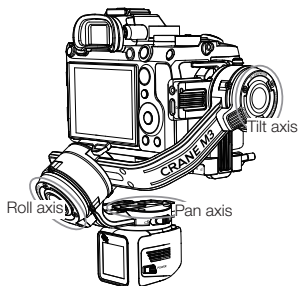
Pan Follow mode (PF):

The tilt axis and roll axis motors are locked, and the camera rotates with the handle while panning horizontally. Push the joystick up/down to control the tilt axis angle, and push it left/right to control the pan axis of the camera



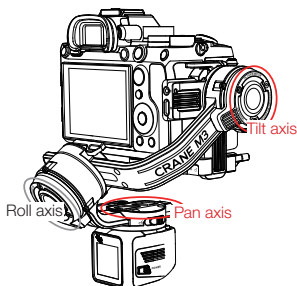
Lock mode (L):

All three motor angles are locked, and the camera orientation will not move with the rotation of the handle. Push the joystick up/down to change the tilt angle of the camera and left/right to change the horizontal orientation of the camera.

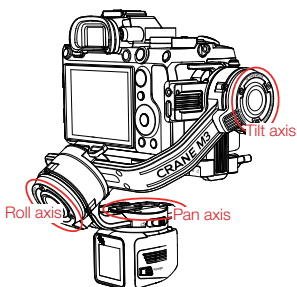


Follow mode (F):

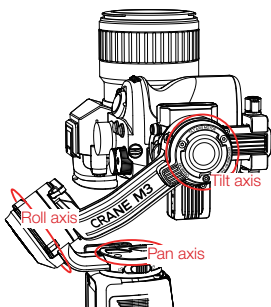
The roll axis motor is locked, and the tilt axis and pan axis motors follow the rotation of the handle. Push the joystick up/down to change the tilt angle of the camera and left/right to change the horizontal orientation of the camera.

**Point of View mode (POV):**

All three motors move when the handle is rotated.

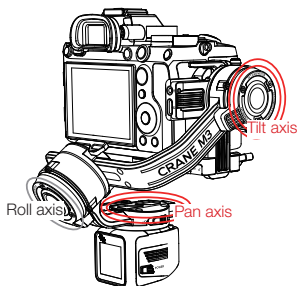
**Vortex mode (V):**

The tilt axis motor rotates upward by 90°, and the tilt axis, roll axis, and pan axis motors follow the rotation of the handle. Push the joystick to the left/right to control the rotation of the pan axis.



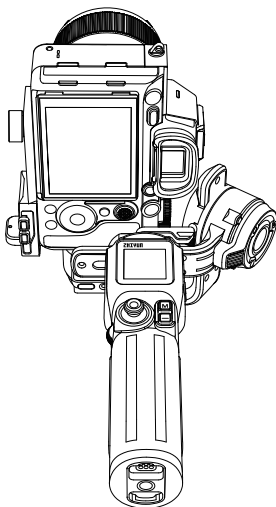
Go mode (GO):

The roll axis motor is locked, and the tilt axis and pan axis motors quickly follow the rotation of the handle.



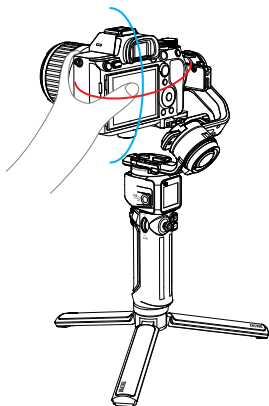
Portrait mode

The tilt axis motor rotates upward by 90° and the pan axis rotates by 90°. You can enter this mode for vertical filming.



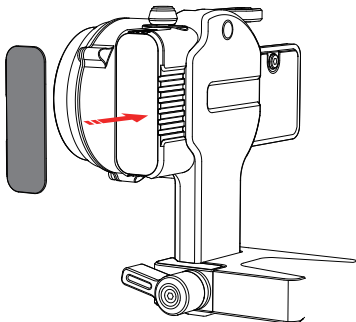
Manual Reposition

In Pan Follow mode (PF) and Lock mode (L), the camera can be rotated by a certain angle by hand. Hold it for 2s and the camera angle will be fixed at that angle after you release the camera.



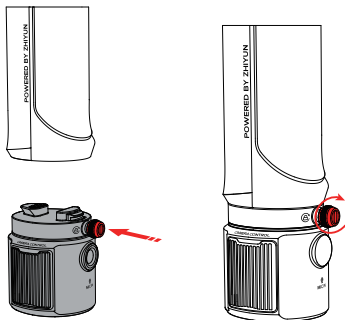
Changing Fill Light Filters

The fill light filters for CRANE-M3 are magnetic and easy to detach. There are four colors for the filters: red, yellow, blue, and orange. You can change your fill light filters according to your actual filming scenarios.

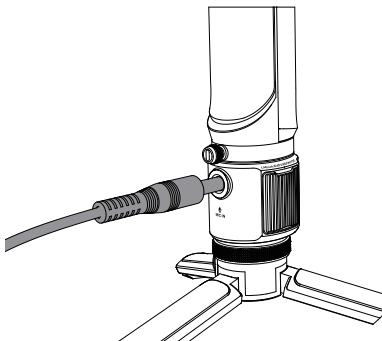


Using with TransMount Shotgun Microphone

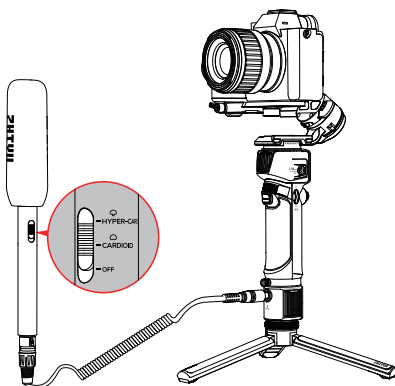
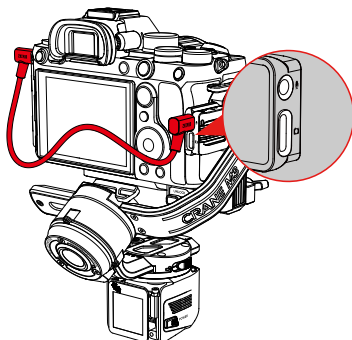
1. Mount the TransMount CRANE-M3 Expansion Base to the bottom of the CRANE-M3 handle. Tighten the screw and make sure a firm installation.



2. Connect the microphone and the MIC IN port at the base with the 6.5mm to XLR audio cable.



3. Connect the microphone input port of the camera to the audio transmission port of CRANE-M3 with the proper audio cable corresponding to the input port type of the camera microphone.



- ① There are two modes in the microphone: HYPER-CARDIOID and CARDIOID. Choose the proper mode according to the actual setting.
- ② Install the battery before using the microphone.
- ③ Read "TransMount CRANE-M3 Expansion Base User Guide" for more details of the expansion base.

Download the App

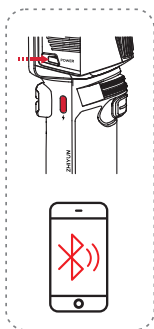


Scan the QR code on the left (Android 5.0 and above, iOS 9.0 and above required) or search "ZY Play" in App Store or Google Play to download.

- ① "ZY Play" is an app dedicated to CRANE-M3. When activated CRANE-M3 via "ZY Play", you can also use it for firmware upgrade, virtual joystick control, motion sensor control, timelapse, etc.
- ② ZY Play is subject to updates without notice. Please always refer to the latest version.

How to Connect

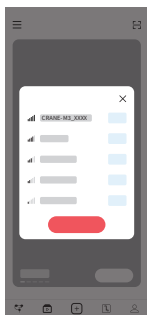
1. Power on CRANE-M3 and turn on Bluetooth on the smartphone.
2. Launch the "ZY Play" app. Select the CRANE-M3 page and tap to connect. Select the Bluetooth name of your CRANE-M3 to connect (the CRANE-M3 Bluetooth name can be found on the side of the tilt axis USER ID: XXXX).
3. If the CRANE-M3 is being used for the first time, you need to activate the gimbal via "ZY Play" to use the advanced features in the app. Internet connection is required.
4. After the activation succeeds, you can enter the feature interface of ZY Play App.



1



2



③



④

ZY Play Feature Description



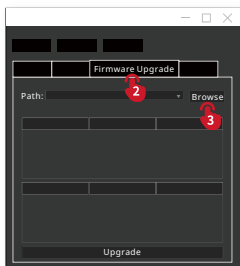
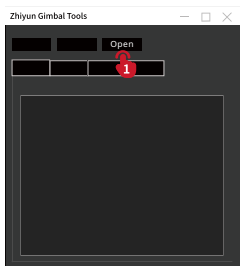
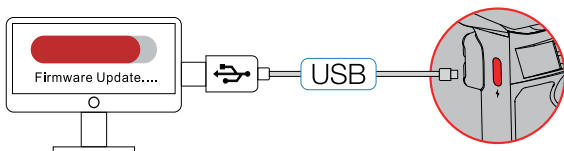
💡 For more details of the “ZY Play” app features, please visit the official website of ZHIYUN (www.zhiyun-tech.com) and watch CRANE-M3 video tutorials.

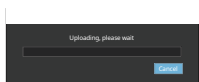
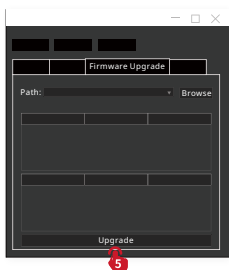
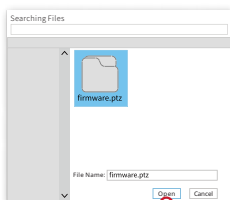
Firmware Upgrade

You can use "Zhiyun Gimbal Tools" or "ZY Play" App to upgrade the firmware of CRANE-M3.

Method 1:

1. Connect the Type-C charging/firmware upgrade port at the side of the CRANE-M3 vertical arm to the computer with the USB Type-C USB cable, power on CRANE-M3, and enter standby mode.
2. Visit the official website of ZHIYUN (www.zhiyun-tech.com), go to the CRANE-M3 product page, click "Download", find the USB driver, the ZHIYUN calibration upgrade tool and the firmware and download. (USB drivers are not required for Mac OS systems)
3. Install the driver and the software, unzip the firmware for the documents with the ".ptz" file extension.
4. Open "Zhiyun Gimbal Tools", select the corresponding port, click "Open", click "Firmware Upgrade". Click "Browse" under "Path" to select the latest firmware downloaded (with the ".ptz" file extension), and click "Upgrade" at the bottom to upgrade firmware. When the firmware upgrade finishes, CRANE-M3 will be automatically turned off.





Method 2:

Connect CRANE-M3 to the “ZY Play” app. If “ZY Play” app prompts to upgrade the firmware, follow the instructions to upgrade. Internet connection is required.

- 💡 Before upgrading the firmware, please ensure that the CRANE-M3 has more than 50% power remaining. Do not exit the app interface or access in the background during the upgrading process. Pay attention to the prompts on the app.

Six-side Calibration

Calibration Reason	How to calibrate
1. Slight deviation is found in the level position after the initialization of the gimbal. 2. The gimbal has not been used for a long time. 3. The gimbal undergoes significant temperature differences in operation environments.	Six-side Calibration

Method 1: Six-side calibration via APP:

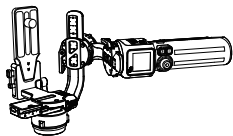
According to the method introduced in "How to Use the App", please connect the gimbal to the APP, and enter "Settings" - "Six-side Calibration", then conduct the six-side calibration according to the prompt.

Method 2: Six-side calibration via "Zhiyun Gimbal Tools":

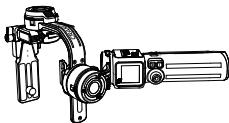
Power on the gimbal and enter standby mode. Connect the charging/firmware upgrade port of the gimbal to the computer with the Type-C USB cable, Open "Zhiyun Gimbal Tools", click "open" on the top and click "calibration" on the bottom. Please conduct the process according to the following steps. A "√" mark will appear after the calibration is complete.

- ① Please refer to the six-side calibration steps below. After the calibration completes, please restart the gimbal.
- ② In simple terms, six-side calibration is to place all six sides of the tilt axis in vertical to a level surface respectively.

STEP 1



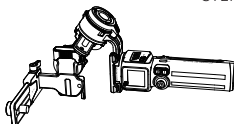
STEP 2



STEP 3



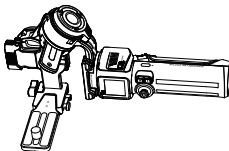
STEP 4



STEP 5



STEP 6



Product Model:CR119

	Min.	Standard	Max.	Remark
Operation Voltage	9.6V	11.1V	12.6V	
Operation Current	130mA	-	4700mA	
Output Voltage (Camera Control Port)	-	5V	-	
Output Current (Camera Control Port)	-	1A	1.2A	
Tilt Mechanical Range	-	309°	-	
Roll Mechanical Range		333°		
Pan Mechanical Range	-	360°	-	
Controllable Tilt Angle	-45°	-	160°	
Controllable Roll Angle	-30°	-	30°	
Controllable Pan Angle	-	360°	-	Unlimited Rotation
Operation Temperature	-10° C	25° C	50° C	
Battery Capacity	-	1150mAh	-	
Battery Runtime		8H	-	Lab Data 1
Charging Time	-	2H	-	Lab Data 2
Gimbal Net Weight	-	≈ 735g	-	
Quick Release Plate Weight	-	≈ 41g	-	
Tripod Weight	-	≈ 158g	-	
Gimbal Size (Folded)	-	280*157*75mm	-	
Gimbal Size (Expanded)	-	259*135*150mm	-	Without tripod

	Min.	Standard	Max.	Remark
Bluetooth	-	Bluetooth 5.0	-	
EIRP	-	<10dBm	-	
Operation Frequency	-	2.4GHz	-	
Camera Charging	-	Able to charge for 5V / 1A cameras	-	
1/4" Rosette Mount Screw Thread Carry Weight	-	Carry weight \leq 1000g, Arm \leq 100mm	-	
Touch Screen Size	-	1.22inch	-	
Touch Screen Brightness	-	420cd/m2	-	

Lab Data 1: The above data is collected at a specified temperature of 25°C . The CRANE-M3 is fully charged with 1150mAh battery and mounted with Nikon Z50+DX 16-50mm. The CRANE-M3 is properly balanced and put on a flat surface. The maximum runtime is 8h in static status.

Lab Data 2: This test is conducted with a 12W PD Fast Charge at a specified temperature of 25°C . The charging time is 2h. The actual charging time varies with environmental factors. In addition, the lower the temperature, the longer the charging time.

All the data in this guide is collected from internal experiments of ZHIYUN laboratories. Under different scenarios, the above data is subject to a margin of error. Please refer to actual use of this product.