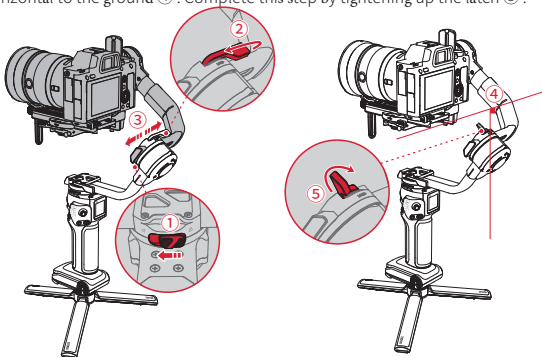


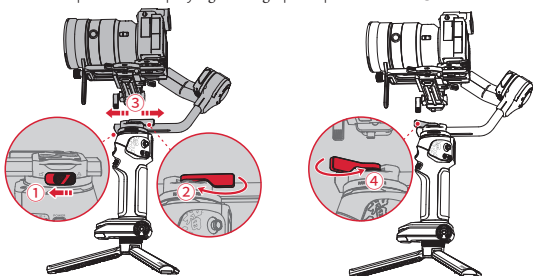
### 3. Roll Axis Balance

Unlock the roll axis ① and loosen the quick release plate leveling base latch ②. Push the camera to move left or right ③ until the camera can stay still and horizontal to the ground ④. Complete this step by tightening up the latch ⑤.



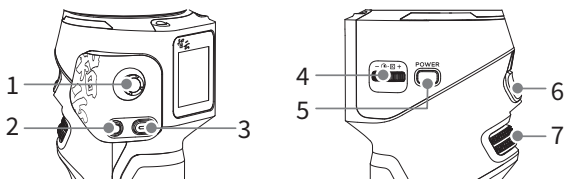
### 4. Pan Axis Balance

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.



- 💡 The balancing steps for the portrait orientation are the same as the landscape orientation.
- After balancing WEEBILL 3S, the motor torque needs to be adjusted for proper function. For the adjustment details, please see the methods introduced in "Motor Torque Adjustment".

## Button Description

**1. Joystick**

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

**2. Photo/Video Button**

Half press: Activate auto-focus on certain cameras. Long press: Take a photo.  
Single press: Start/stop filming a video.

**3. Mode Switch**

Single press: Switch among PF/L/F mode.  
Double press: Switch among POV/V/Portrait mode. Long press: Sleep/wake mode for the gimbal motors.

**4. Fill Light Control Wheel**

Single press: When the fill light is on, press to switch between fill light brightness/color temperature level.  
Scroll: When the fill light is on, scroll to adjust the fill light brightness/color temperature level.  
Long press: Turn on/off the fill light.



### 5. Power Button

Single press: Lock/unlock touchscreen.

Long press: Turn on/off the gimbal.



### 6. Tigger Button

Single press: Switch to customized gimbal mode (Follow mode by default)/Return to the previous mode.

Double press: Gimbal reposition. Triple press: Selfie mode.

Long press: Enter Go mode. Release to return to the previous mode.

When in the portrait orientation, long press to lock the gimbal.

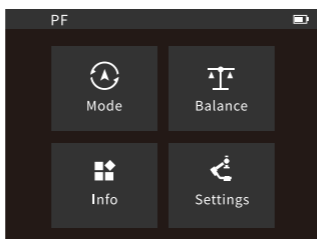
Motors of three axes won't move with the handle. Release to unlock the gimbal and the motors of the tilt axis and roll axis will move with the handle.



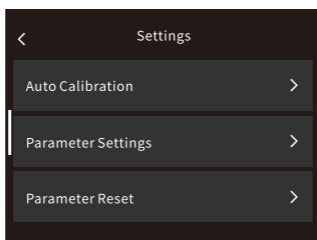
### 7. Adjustment Wheel

Scroll: Adjust parameters customized in the screen menu (aperture, shutter, ISO, digital focus/zoom, roll axis, tilt axis, pan axis).

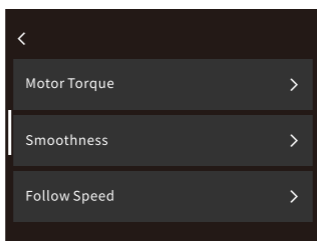
## Touchscreen Introduction



Main page (set as default)



Gimbal Settings Interface



Parameter Settings Interface

💡 Swipe right at the left edge of the screen to return to the previous menu.

## Touchscreen 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 touchscreen 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/focus/roll axis/tilt axis/pan axis
5. Control Wheel Setting: Sets the orientation/sensitivity of control wheel parameter adjustment.
6. Trigger Button: Customize the gimbal mode when pressing the trigger button once.
7. Bluetooth Shutter Control: Connect the camera Bluetooth to wirelessly control the camera.
8. Motor Fine-tuning: Fine-tune the roll axis/tilt axis angle of the gimbal.
9. Shooting: Set the shooting features in the gimbal (Panorama/Timelapse/Motionlapse/V Mode)

## Motor Torque Adjustment

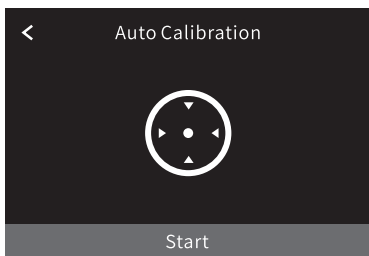
After balancing CRANE 4 the motor torque needs to be adjusted for proper function. You can adjust the motor torque according to the weight of your camera and lens, so that the CRANE 4 can be used in its ideal state. Following are two methods for adjustment. It is recommended to use auto-calibration.

### 1. Auto calibration:

Auto calibration will adjust the motor torque according to the weight of the carried camera and lens.

#### Operation steps:

Select "Settings" - "Auto Calibration", tap to enter calibration. You can see the calibration progress on the screen.



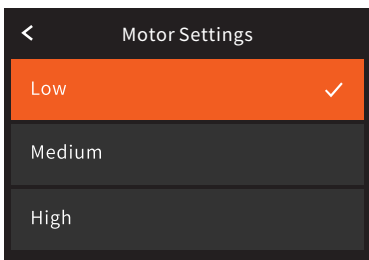
- 💡 When performing auto-calibration, please make sure that the gimbal is balanced, the three axes are unlocked and the gimbal is straightly put on a flat surface. Please don't touch the gimbal when calibrating.

## 2.Motor Torque:

Three levels (Low/Medium/High) are provided based on the mainstream lens combo weight in the market. Select the appropriate level according to the weight of the carried camera and lens.

### Operation steps:

Select "Settings" - "Parameter Settings" - "Motor Torque" to enter motor torque setting interface.



- 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 When setting the motor torque, please make sure that three gimbal axes are unlocked and the gimbal is straightly put on a flat surface.
- ③ 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.
- ④ When the camera lens is changed, please balance the gimbal again and adjust the motor torque with the methods above.


## Bluetooth Shutter Control

CRANE 4 supports Bluetooth shutter control, which allows you to wirelessly control the camera shutter without connecting a camera control cable. Before connecting the camera Bluetooth to CRANE 4, please turn on the camera's Bluetooth and enter pairing mode. Then press the menu/return button on CRANE 4 to enter the main menu, rotate the fill light control wheel and select Bluetooth shutter control, and single press the fill light control wheel to confirm. CRANE 4 will then automatically search for the camera Bluetooth name. Select the Bluetooth name that needs to be connected, press the control wheel to confirm the connection, and finally confirm the connection on the camera.



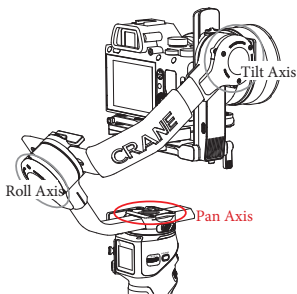
- After WEEBILL 3S and the camera complete pairing and successfully connect Bluetooth for the first time, they can automatically connect to Bluetooth next time.
- When WEEBILL 3S and the camera are connected through both camera control cables and Bluetooth at the same time, the gimbal prioritizes controlling the camera function through the camera control cable.
- After WEEBILL 3S and the camera are connected via Bluetooth, the Bluetooth connection can be disconnected in the Bluetooth shutter control menu.
- For specific camera models that support Bluetooth control in CRANE 4 please visit the ZHIYUN official website [www.zhiyun-tech.com](http://www.zhiyun-tech.com) to check the "CRANE 4 Camera Compatibility List" for the latest information.

## Gimbal Mode 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):

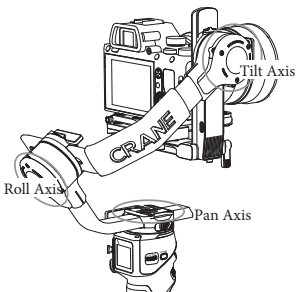
The tilt axis and roll axis motors are locked, and the camera rotates with the handle while panning horizontally. Push the joystick up / down to control the tilt axis angle, and push it left/right to control the pan axis of the camera.





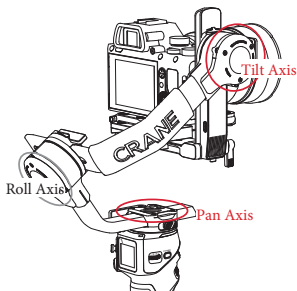
### Lock mode (L):

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.



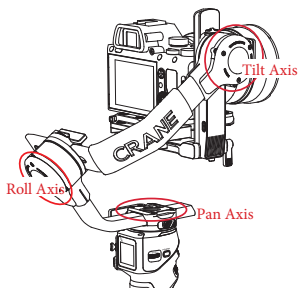
### Follow mode (F):

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.



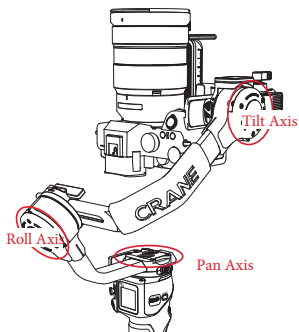
### Point of View mode (POV):

All three motors move when the handle is rotated. Push the joystick up/down to change the tilt angle of the camera and left/right to change the horizontal orientation of the camera.



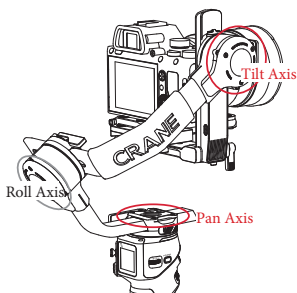
### Vortex mode (V):

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.



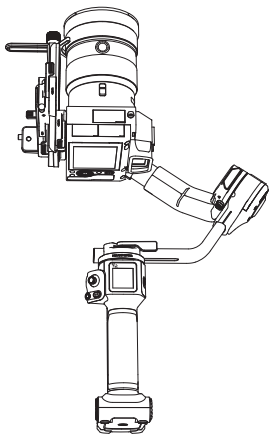
### Go mode (GO):

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



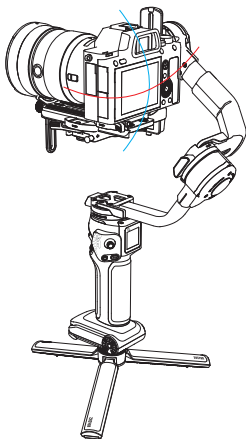
### Portrait mode (P):

The tilt axis motor rotates upward by  $90^\circ$  and the pan axis rotates counterclockwise by  $90^\circ$ . You can enter this mode for vertical shooting.



## Manual Reposition

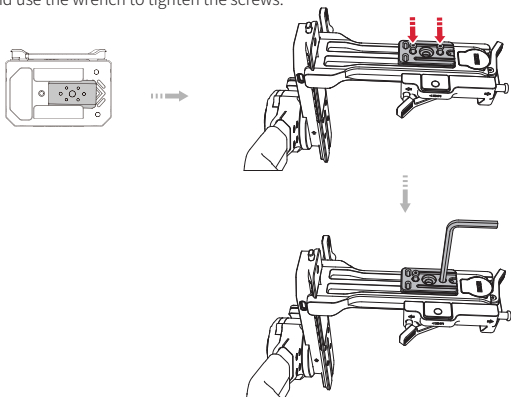
In Pan Follow mode (PF), Lock mode (L), and Follow mode (F), the camera can be rotated by a certain angle by hand. Hold it for 2s and the camera angle will be fixed at that angle after you release the camera (tilt axis, pan axis).



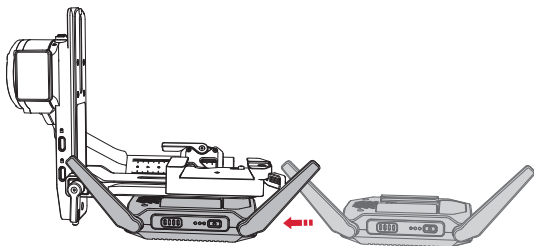
## Use with TransMount Video Transmission Transmitter (AI) ( hereinafterreferred to as "transmitter AI")


### Installing

1. Take out the transmitter mounting plate, mount the transmitter mounting plate to the bottom of the CRANE 4's level mount (note the direction of the notch), and use the wrench to tighten the screws.



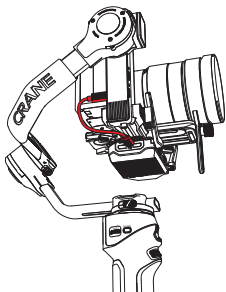
2. Place the transmitter AI with the mounting plate slot facing up, align the transmitter mounting plate, push the transmitter AI toward the tilt axis motor until it clicks into the safety lock to make sure of a firm installation.



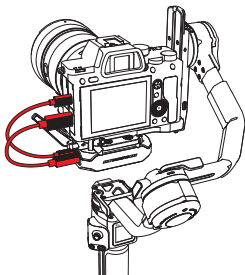
 In order to have the best image transmission, please rotate the antenna to the position as shown in the image. The antenna can only be rotated in one direction. Please rotate properly. For more details, please read the user guide of transmitter AI.

## Connecting

1. Take the gimbal-only cable (Type-C to Type-C LN-UCUC-A02), connect with the camera/image transmission control port of CRANE 4 and the Type-C charging/communication port of the transmitter AI.







2. Take the camera control cable corresponding to the USB port model of the camera, connect to the camera control port of the transmitter AI and the USB port of the camera. Use the HDMI cable corresponding to the HDMI port model of the camera, connect to the HDMI video input port of the transmitter AI and the HDMI output port of the camera.



- 💡 1. CRANE 4 can also be used with TransMount Image Transmission Transmitter 2.0. The installation steps are similar to transmitter AI. Please choose proper cables when installing.
- 2. It is recommended that the CRANE 4 and transmitter AI be shut down and powered off before plugging in or out the cable. The actual color of the cable is black. The red color used in the manual is only used for illustrative purposes.
- 3. To know how you can connect the camera control cable and the HDMI cable, please visit the official website of ZHIYUN ([www.zhiyun-tech.com](http://www.zhiyun-tech.com)) to find "TransMount Video Transmission Transmitter AI Camera Compatibility List".
- 4. After installing the device, you need to adjust the balance of the CRANE 4.

## Using

1. Power on WEEBILL 3S, transmitter AI and camera. When the screen on WEEBILL 3S shows the icon[  ] and gives a “beep” sound, the connection is successful. You can then control the camera via the gimbal buttons.
2. Launch the “ZY Play” app. Select the WEEBILL 3S page and tap to connect. Select the Bluetooth name of your WEEBILL 3S to connect. (the WEEBILL 3S Bluetooth name can be found on the tilt axis USER ID: XXXX).
3. When the app enters the image transmission interface, tap the Wi-Fi icon [  ], and follow the instruction to connect the transmitter AI Wi-Fi (default password: 12345678). Tap the image transmission icon[  ], to enable image transmission. You can then watch the real-time footage of the camera on “ZY Play” app. You can also use the virtual joystick on the app to control the camera to take photos/shoot videos or control the gimbal to rotate.

 The transmitter AI should be used with the “ZY Play” app. To know how you can download the app, please see the method introduced in “How to Use the App”.

## Downloading the App



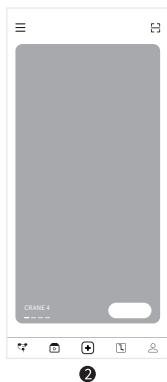
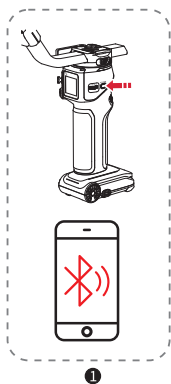
Scan the QR code on the left (Android 5.0 and above, iOS 9.0 and above required) or search "ZY Play" in App Store or Google Play to download.

① "ZY Play" is an app dedicatedly designed for CRANE 4. When activated CRANE 4 via "ZY Play", you can also use it for firmware upgrades, virtual joystick control, six-side calibration, etc.

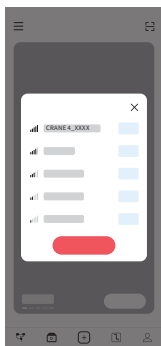
② ZY Play is subject to updates without notice. Please always refer to the latest version.

## How to Connect

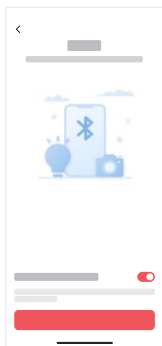
1. Power on CRANE 4 and turn on Bluetooth on the smartphone.
2. Launch the "ZY Play" app. Select the CRANE 4 page and tap to connect. Select the Bluetooth name of your CRANE 4 to connect (the CRANE 4 Bluetooth name can be found on the side of the tilt axis USER ID: XXXX).
3. If the CRANE 4 is being used 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.







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](http://www.zhiyun-tech.com)) and watch CRANE 4 video tutorials.

## Circumstances When Calibration Is Needed

Calibrate the gimbal as needed.

Calibration Reason	Calibration Method
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
Slight deviation is found in the tilt or roll angle in level position after six-side calibration of the gimbal.	Motor fine-tuning


## Six-side Calibration

### 1. Six-side calibration via APP:

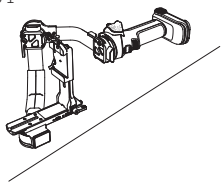
According to the method introduced in "How to Use the App", please connect the gimbal to the APP, and enter "Settings" - "Six-side Calibration", then conduct the six-side calibration according to the prompt.

### 2. Six-side calibration via "Zhiyun Gimbal Tools":

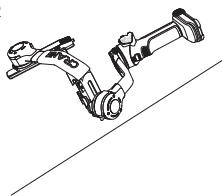
Power on the gimbal and enter standby mode. Connect the charging/upgrade port of the gimbal to the computer with the Type-C USB cable, Open "Zhiyun Gimbal Tools", click "open" on the top and click "calibration" on the bottom. Please conduct the process according to the following steps. A "√" mark will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

-  ① Please refer to the six-side calibration steps below. After the calibration is completed, please restart the gimbal.
- ② In simple terms, six-side calibration is to place all six sides of the quick release plate vertically to a level surface respectively.

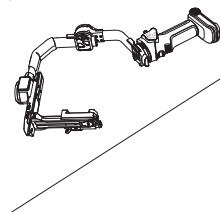
Step 1



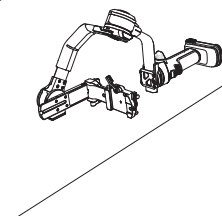
Step 2



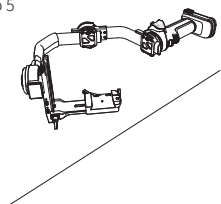
Step 3



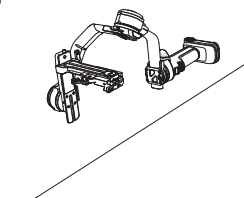
Step 4



Step 5



Step 6



## Motor Fine-Tuning

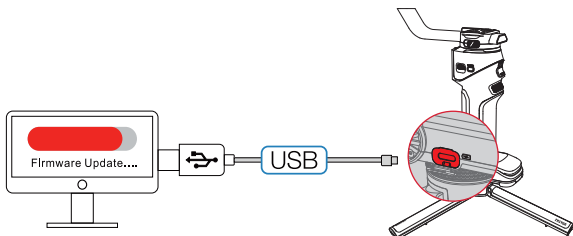
Select “Motor Fine-tuning” in the main menu to fine-tune the value of the tilt axis and roll axis according to actual needs.

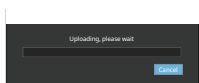
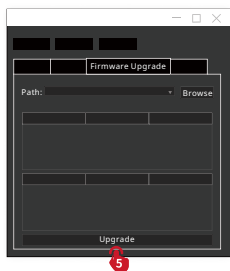
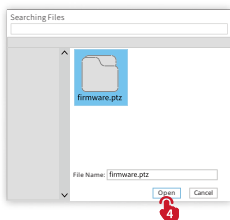
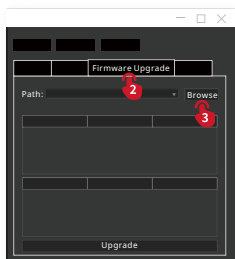
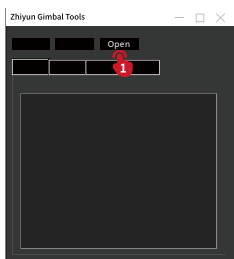
## Firmware Upgrade

You can use “Zhiyun Gimbal Tools” or “ZY Play” app to perform CRANE 4 firmware upgrade.

### Method One:

1. Visit the official website of ZHIYUN ([www.zhiyun-tech.com](http://www.zhiyun-tech.com)), go to the CRANE 4 product page, click “Download”, find the USB driver, the calibration upgrade tool and the firmware and download. (USB drivers are not required for Mac OS systems)
2. Install the driver, unzip the firmware for the documents with the “.ptz” file extension.
3. Connect the Type-C charging/upgrade port of WEEBILL 3S to the computer with the Type-C USB cable, power on CRANE 4.
4. Open “Zhiyun Gimbal Tools”, 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.





## Method Two:

When CRANE 4 is connected to “ZY Play” app, if a firmware update prompt pops up on the app, please follow the instructions to upgrade. Internet connection is required. To know how you can connect CRANE 4 to “ZY Play”, please check the method introduced in “How to Use the App”.

- When upgrading with Method 1, please wait until the screen displays that the upgrade is finished, then you can plug out the USB Type-C cable.
- Before upgrading the firmware, please ensure that the CRANE 4 has more than 50% power remaining. You will not be able to exit the app interface or access in the background during the upgrading process. Pay attention to the prompts on the app.

Product Model: CR122

Item	Min.	Standard	Max.	Remark
Operation Voltage	11V	14.8V	16.8V	
Operation Current	200mA	-	14500mA	
Output Voltage (Camera Control Port)	-	5V	-	
Output Current (Camera Control Port)	-	1A	-	
Output Voltage (Focus Motor Control Port)	9.9V	-	12.6V	
Output Current (Focus Motor Control Port)	0.1A	-	2A	
Tilt Mechanical Range	-72°	-	+142°	
Roll Mechanical Range	-251°	-	71°	
Pan Mechanical Range	-	360°	-	Unlimited Rotation
Controllable Tilt Angle	-71°	-	+136°	
Controllable Roll Angle	-35°	-	+35°	
Controllable Pan Angle	-	360°	-	
Operation Temperature	-10°C	25°C	45°C	
Battery Capacity	-	2600mAh	-	
Battery Runtime		12H		Lab Data 1
Charging Time		1H50min		Lab Data 2

Item	Min.	Standard	Max.	Remark
Gimbal Net Weight		1673g		
Quick Release Plate Weight		108.9g		
Tripod Weight		157.1g		
Sling Grip Weight		251.7g		
Wrist Rest Weight		139.4g		
Sling Grip/Wrist Rest Base Weight		95g		
Gimbal Size (Folded)		340*280*70mm		
Gimbal Size (Expanded)		411.6*182.7*237.9mm		Without tripod
Bluetooth		Bluetooth 5.1		
EIRP		< 10dBm		
Operation Frequency		2.402-2.480GHz		
Camera Charging		Able to charge 5V / 1A cameras		
1/4" Rosette Mount Screw Thread Carry Weight		≤ 6000g		

Lab Data 1: The above data is collected at a specified temperature of 25°C.

The CRANE 4 is fully charged with batteries and mounted with Nikon 5DS+EF 24-105mm f/4L. The CRANE 4 is properly balanced and put on a flat surface. The maximum runtime is 12 hours. When the battery powers the gimbal, it also charges the camera simultaneously. The battery life will be shortened in this case, so you should determine whether to turn on the camera USB power supply function. The actual duration of use will vary depending on the length of time the CRANE 4 is used, the number of times the battery is charged and discharged, as well as the battery's vitality. The longer the CRANE 4 is used, the more times the battery is charged and discharged, and the lower the battery vitality, the shorter the duration of use.

Lab Data 2: The data is collected when charging with a 15V PD Fast Charging at a specified temperature of 25°C. The charging time is 1h50min. The actual charging time varies with environmental factors. In addition, the lower the temperature, the longer the charging time.

All the data 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.

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s).

Operation is subject to the following two conditions:

This device may not cause interference.

This device must accept any interference, including interference that may cause undesired operation of the device. L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

L'appareil ne doit pas produire de brouillage;

L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by or of the following measures:

-Reorient or relocate the following antenna.

-Increase the separation between the equipment and receiver.

-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-Consult the dealer or an experienced radio/TV technician for help.

The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

#### RF Exposure:

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction Federal Communication Commission (FCC) Radiation Exposure Statement Power is so low that no RF exposure calculation is needed.



Thank you for purchasing this product. The information contains herein affects your safety, legitimate rights and obligation. Please read this instruction carefully to ensure proper configuration before use. Failure to read and follow this instruction and warnings herein may result in serious injury to you or bystanders, or damage to your device or property. Guilin Zhishen Information Technology Co., Ltd (hereinafter referred to as "ZHIYUN") reserves all rights for final explanation on this instruction and other documents related to the product. The information is subject to update without notice. Please visit [www.zhiyun-tech.com](http://www.zhiyun-tech.com) to obtain the latest product information.

By using this product, you hereby signify that you have read this document carefully and that you understand and agree to abide by the terms and conditions herein. You agree that you are solely responsible for your own conduct while using this product, and for any consequences thereof. You agree to use this product only for purposes that are proper and in accordance with all terms, precautions, practices, policies and guidelines ZHIYUN has made and may make available.

ZHIYUN accepts no liability for damage, injury or any legal responsibility incurred directly or indirectly from the use of this product. Users shall observe safe and lawful practices including, but not limited to, those set forth herein.

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### Reading Tips

Legends:  Hints and Tips       Important

### WARNING

Read the ENTIRE User Guide to become familiar with the features of this product before operating. Failure to operate the product correctly can result in damage to the product or personal property and cause serious injury. This is a sophisticated product. It must be operated with caution and common sense and requires some basic mechanical ability. Failure to operate this product in a safe and responsible manner could result in injury or damage to the product or other property. This product is not intended for use by children without direct adult supervision. DO NOT use with incompatible components or in any way otherwise as mentioned or instructed in the product documents provided by ZHIYUN. The safety guidelines herein contain instructions for safety, operation and maintenance. It is essential to read and follow all of the instructions and warnings in the User Guide, prior to assembly, setup or use, in order to operate the product correctly and avoid damage or serious injury.

### Safe Operation Guidelines

1. This product is a high-precision control device. Damage may be caused to this product if dropped or subject to external force, and this may result in malfunction.
2. Make sure the rotation of the gimbal axes is not blocked by external force when this product is turned on.
3. this product is not waterproof. Prevent contacts of any kind of liquid or cleaner with the this product. It is recommended to use dry cloth for cleaning.
4. Protect this product from dust and sand during use.

### Warranty Period

1. Customers are entitled to replacement or free repair service in case of quality deficits found in the product within 15 days upon receipt of the product.
2. Customers are entitled to free repair service from ZHIYUN for any product proven defective in material or workmanship that results in product failure during normal consumer usage and conditions within the valid warranty period, which is 12 months counting from the date of selling. However, warranty period varies by product component and country of purchase. Please contact our after-sales service team on ZHIYUN official website or your place of purchase for detailed warranty information.

### Warranty Exclusions

1. Products subjected to unauthorized repair, misuse, collision, neglect, mishandling, soaking, accident, and unauthorized alteration.
2. Products subjected to improper use or whose labels or security tags have been torn off or altered.
3. Products whose warranty has expired.
4. Products damaged due to force majeure, such as fire, flood, lightning, etc.

### Warranty Claim Procedure

1. If failure or any problem occurs to your product after purchase, please contact a local agent for assistance, or you can always contact ZHIYUN's customer service through email at [info@zhiyun-tech.com](mailto:info@zhiyun-tech.com) or website at [www.zhiyun-tech.com](http://www.zhiyun-tech.com).
2. Your local agent or ZHIYUN's customer service will guide you through the whole service procedure regarding any product issue or problem you have encountered. ZHIYUN reserves the right to reexamine damaged or returned products.

**Customer Information**

Customer Name:

Phone Number:

Address:

**Sales Information**

Sales date:

Product Serial Number:

Distributor Name:

Distributor's Contact Number:

**First Maintenance Record**

Service Date:

Repairman Signature:

Cause of Problem:

Service Result:

Solved

Unsolved

Refunded/Replaced