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SMOOTH-XS

User Guide

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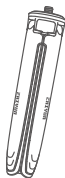
Contact Card

Packing list

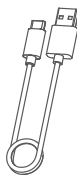
The product package comes with the following items. If there are any missing items, please contact ZHIYUN or your local distributor.



SMOOTH-XS x 1



Tripod x 1



USB Type-C Cable x 1



Storage Pouch x 1

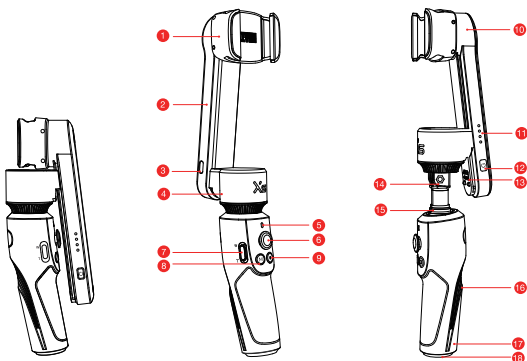


Wrist Strap x 1



Quick Start Guide x 1

Getting to know the SMOOTH-XS

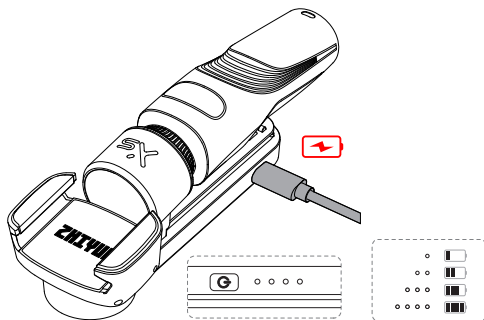


1. Phone Holder
2. Vertical Arm
3. USB Type-C Charging/Firmware Update Port
4. Pan Axis Motor
5. Mode Indicator
6. Stabilizer Joystick
7. Zoom Slider
8. M Button
9. Photo/Video Button

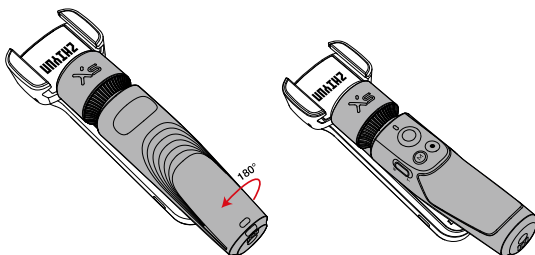
10. Roll Axis Motor
11. Power Indicator
12. Power Button
13. Contact Point
14. Tilt Adjustment Joint
15. Extendable Rod
16. Handle
17. Wrist Strap Hole
18. 1/4" Threaded Hole

The SMOOTH-XS uses built-in batteries. Before using the SMOOTH-XS for the first time, please charge it fully to activate the batteries and ensure the appropriate use of the product.

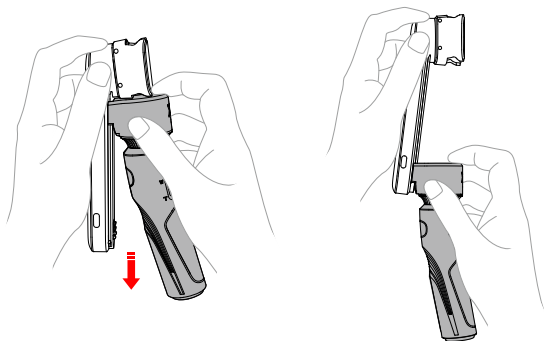
Charging method: Connect the Type-C cable provided in the package with the adapter (5V/2A recommended, not included) to the port on the stabilizer's vertical arm. Charging completes when the four indicator lights turn white (when the stabilizer is powered off).



1. Rotate the handle 180° counterclockwise.

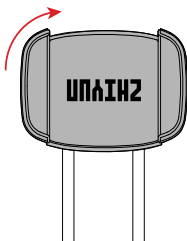


2. To ensure good contact with the contact points, pull the pan axis motor to the bottom of the vertical arm while holding the roll and pan axes motors, until you hear a “click” sound.

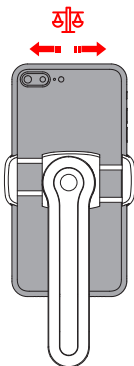
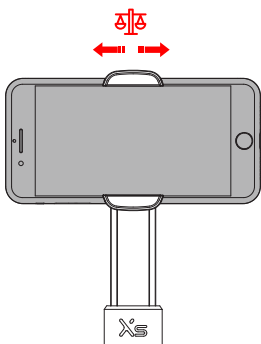


- !** Before each use, make sure to unfold the SMOOTH-XS and ensure good contact with the contact points before powering the device on.

3. Rotate the phone clamp 90° clockwise.

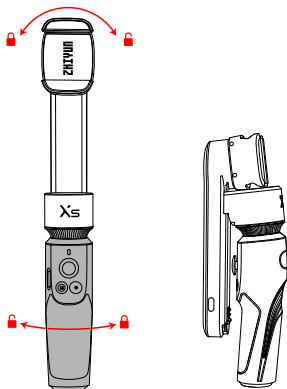


4. When mounting the phone, make sure the phone camera is on the left side of the clamp. Then, adjust the balance for shooting in landscape or portrait mode. When shooting in landscape or portrait mode, move the smartphone left or right in the phone holder until the smartphone is able to maintain a natural balance.

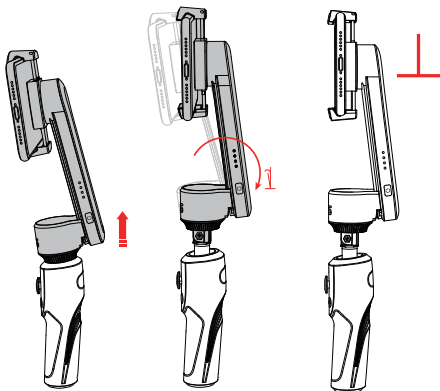


- ⚠ ① When mounting the smartphone, please make sure that the smartphone is fixed in the phone clamp firmly.
- ② Mount the smartphone before powering on the stabilizer. How balanced the smartphone is will greatly affect the runtime of the SMOOTH-XS stabilizer. The SMOOTH-XS stabilizer can work normally if it is unbalanced, but will consume more battery power and the motor strength will be weakened.
- ③ The maximum rotation range of the roll axis is 270° , and the maximum rotation range of the pan axis is 290° . Rotation that exceeds the above limits will damage the stabilizer.

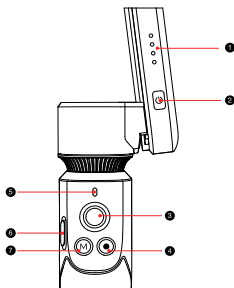
- 💡 There is a built-in lock design in the stabilizer's roll axis and pan axis for convenient storage and transportation when the stabilizer is powered off. Rotate the smartphone clamp and pan axis to the lock position to lock them. Unlock the stabilizer before use.



- ⚠️ If the phone is not perpendicular to the ground after mounting, you may unfold the telescopic rod slightly and rotate the tilt axis clockwise. The phone will then be perpendicular to the ground.



Indicator and Control Buttons



❶ Power Indicator

- When the stabilizer is powered off and charging, the white LED indicators will blink successively to indicate the current battery level.
- When the stabilizer is powered on, the white LED indicators indicate the current battery level.

One solid white indicator light indicates that the battery level is at 0-25%.

Two solid white indicator lights indicate that the battery level is at 25-50%.

Three solid white indicator lights indicate that the battery level is at 50-75%.

Four solid white indicator lights indicate that the battery level is at 75-100%.

- A solid red light indicates that the firmware is being updated.
- A flashing red indicator light indicates that the SMOOTH-XS is malfunctioning. Should this happen, please contact customer service.

❷ Power Button

- Long press the power button for three seconds to turn the SMOOTH-XS on or off.
- Turn on the gimbal and press quickly 8 times to reset the Bluetooth.

❸ Stabilizer Joystick

- Push the joystick up and down, and left and right to control the stabilizer movement.

❹ Photo/Video Button

- Press once while in Photo Mode in the ZY Cami app to take a picture.
- Press once while in Video Mode in the ZY Cami app to start/end a recording.
- Double press the button to switch between

Photo and Video modes in the ZY Cami app.

- Triple press the button to switch between the front and rear cameras in the ZY Cami app.
- Direct control of the native phone camera is supported in some smartphones after connecting the SMOOTH-XS to the phone via Bluetooth.

❺ Mode Indicator

- A single flashing blue light indicates Pan Follow Mode.
- A solid blue light indicates Lock Mode.
- A double flashing blue light indicates Roll and Pan Follow Mode.
- A pulsing blue light indicates Standby Mode.
- A rapidly flashing green light indicates that a program is being loaded.

❻ Zoom Slider

- In the ZY Cami application, toggle the lever up and down to control the zoom.

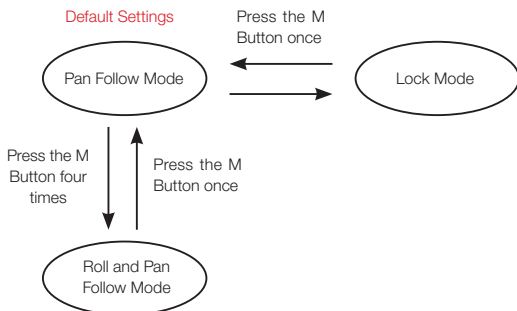
❼ M Button

- Press the M Button once to switch between Pan Follow Mode and Lock Mode.
- Press the M Button twice to switch between Landscape Mode and Portrait Mode.
- Press the button three times to recentre the stabilizer.
- Press the button four times to enter Roll and Pan Follow Mode, and press once again to return to Pan Follow Mode.
- Long press to enter or exit Standby Mode.
- You can customize the function of the M button in the ZY Cami app.

 When connected via Bluetooth, the SMOOTH-XS is able to control the native phone camera without the ZY Cami app. This feature is available in phones which support camera control using the volume button. Bluetooth connection with the SMOOTH-XS does not require a password.

Operation Modes

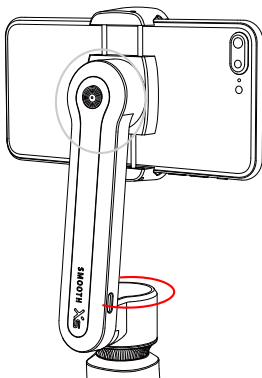
Press the M button once or four times to switch modes.



 The red circle indicates that the motor will rotate along with the grip movement. The gray circle means the motor is locked and cannot move along with the grip movement.

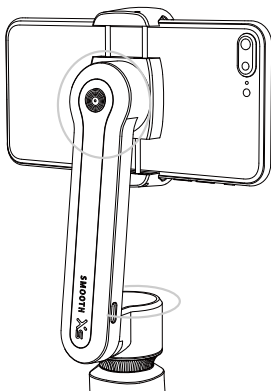
Pan Follow Mode: Press the M button once.

The smartphone pans left/right following the movement of the stabilizer handle while the roll axis motor is locked. Push the joystick up/down to control the roll axis angle, and push left/right to control the pan axis.



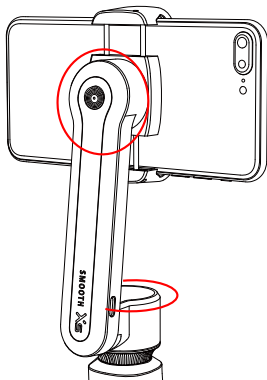
Lock Mode: Press the M button once.

This mode locks the movement of both axes and the orientation of the smartphone is fixed. Push the joystick up/down to control the roll axis angle, and push left/right to control the pan axis.

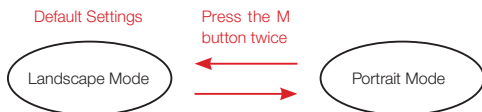


Roll and Pan Follow Mode: Press the M button four times.

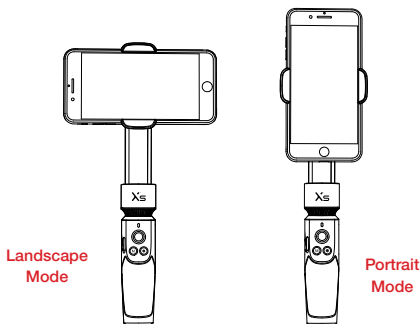
The roll axis motor and pan axis motor move following the grip movement in this mode. Push the joystick up/down to control the roll axis angle, and push left/right to control the pan axis.



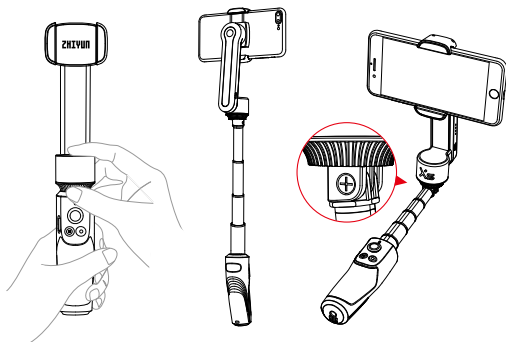
Press the M button twice to switch modes.



Landscape Mode & Portrait Mode: Double press the M button.



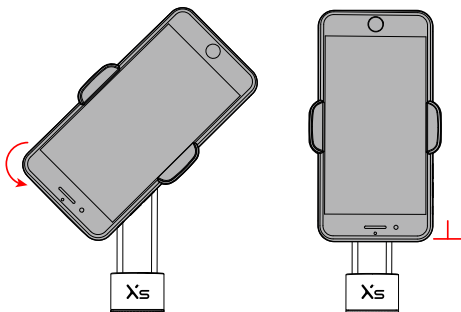
Extension Mode: Hold the stabilizer grip with your left hand and hold the bottom cover of the pan axis motor with the thumb and middle finger of your right hand. Then, hold the top of the pan axis motor with your index finger to extend or retract the rod.



 The maximum range of the tilt axis is 90°. Rotation exceeding this angle will damage the SMOOTH-XS stabilizer. Use a Phillips screwdriver to tighten the tilt axis if it becomes loose.

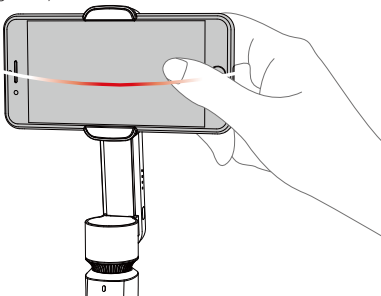
Standby Mode

- When the SMOOTH-XS stabilizer is powered on, rotate the roll axis or pan axis manually until the axis triggers the built-in locking device. The SMOOTH-XS will then enter Standby Mode automatically. Unlock the roll axis and pan axis to wake the SMOOTH-XS stabilizer. Before restarting the SMOOTH-XS stabilizer, make sure the roll axis and pan axis are unlocked.
- The SMOOTH-XS automatically enters Standby Mode if the vertical arm is retracted and the contact points are separated when the device is on (Bluetooth is disconnected). When the vertical arm is extended and there is contact with the contact points, the SMOOTH-XS will resume operation (Bluetooth resumes operation). Before restarting the SMOOTH-XS stabilizer, make sure there is good contact with the contact points.
- The picture below demonstrates how to rotate the roll axis to lock it.



Manual Repositioning

In Locking Mode, the rotation angle of the pan axis can be adjusted manually by moving the pan axis to a certain angle and holding it there for 2 seconds (please do not exceed the angle limit).



How to Use the App



Scan the QR code on the left (Android 7.0 and above or iOS 10.0 and above) or search "ZY Cami" in the App Store or Google Play to download the app.

- ⚠️ ① Users can make better use of the various functions of the SMOOTH-XS with the dedicated "ZY Cami" app.
- ② ZY Cami is subject to updates without notice. Please always refer to the latest version.

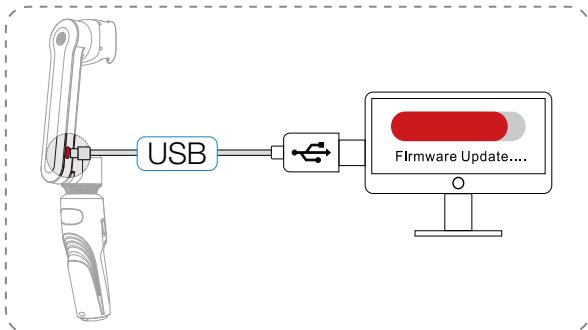
How to Connect

1. Power on the stabilizer and turn on Bluetooth on the smartphone.
2. Launch the "ZY Cami" app. Tap the icon in the upper left corner in the home screen to open the device list and select the SMOOTH-XS device you wish to connect (the Smooth-XS Bluetooth name can be checked on the side of the phone clamp USER ID: XXXX).
3. Activation on the app is required if the SMOOTH-XS is being used for the first time, otherwise the motor will not work.
4. After the activation succeeds, the motor will work normally and the shooting interface will pop up automatically on the app.

Main App Features



SMOOTH-XS Firmware Upgrade



! When upgrading the firmware, extend the SMOOTH-XS to ensure that there is good contact with the contact points before performing the upgrade.

Method one:

Connect the USB port on the SMOOTH-XS stabilizer to the computer with a USB Type-C cable for firmware upgrade and online calibration.

1. Visit the official ZHIYUN website (www.zhiyun-tech.com), go to the corresponding product page and click "Download". Download the USB driver, calibration tool and the latest firmware. (USB drivers are not required for Mac OS and WIN10 systems)
2. Install the driver. Extract the compressed firmware file.
3. Turn on the SMOOTH-XS stabilizer and enter Standby Mode.
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. Wait for the progress bar to display "100%". When the firmware update completes, the red LED indicator on the SMOOTH-XS stabilizer will turn off.

Method Two:

Connect the SMOOTH-XS stabilizer to the app according to the method described in the "How to Use the App" section of this manual. If the app prompts you to upgrade the firmware, please click to proceed with the operation. When the firmware update is complete, the red LED indicator on the SMOOTH-XS stabilizer will turn off.

💡 Before upgrading the firmware, please ensure that the SMOOTH-XS stabilizer has more than 50% power remaining. You will not be able to exit the app interface or access the back-end during the upgrading process. Pay attention to the prompts on the app.

Product model: SM110

	Minimum	Standard	Maximum	Notes
Operation Voltage	3.4V	3.7V	4.2V	
Operation Current	220mA	-	3000mA	
Charging Voltage (input)	4.7V	5V	5.5V	
Charging Current (input)	500mA	-	850mA	
Roll Mechanical Range	-	268°	-	
Pan Mechanical Range	-	290°	-	
Roll Axis Controllable Angle	-40°	-	+180°	
Pan Axis Controllable Angle	-110°	-	+145°	
Working Temperature	-10°C	25°C	45°C	
Charging Temperature	-0°C	25°C	40°C	
Battery Capacity	-	1000mAh	-	
Operation Time	-	4h	5.5h	Lab Data 1
Charging Time	-	3h	-	Lab Data 2
Folded Size (W*D*H)	61x56x188mm			
Unfolded Size (W*D*H)	69x56x267mm			
Product Net Weight	-	≈ 249g	-	
Load Capacity	200±35g			
Clamp Range	50mm	-	90mm	
Phone Thickness	7.5mm	-	9.5mm	
Extendable Rod	0	-	260mm	
Bluetooth	Bluetooth Low Energy (BLE) 5.0			
Effective Isotropic Radiated Power (EIRP)	≤ 4dbm			
Operation Frequency	2.400-2.4835GHz			

Lab Data 1: This data was gathered when the stabilizer was loaded with an iPhone XR with an ambient temperature of 25°C, and the SMOOTH-XS was adjusted and balanced. The runtime was 4h while operating and 5.5h while stationary.

Lab Data 2: This test was conducted with an ambient temperature of 25 °C and a 5V/2A power adapter. The charging time varies according to different environments, and actual results may be different. In addition, the lower the temperature of the charging environment, the smaller the charging current, and the longer the charging time.

All the data in this guide was gathered from internal experiments from ZHIYUN's laboratories. The data may differ to some extent under different scenarios so please refer to the actual use of the SMOOTH-XS.

Thank you for purchasing the SMOOTH-XS. The information contained herein relates to your safety and your legal rights and responsibilities. Read this entire document carefully to ensure proper configuration before use. Failure to read and follow the instructions and warnings herein may result in serious injury to you or bystanders, or damage to the SMOOTH-XS or other property. ZHIYUN reserves the right of final interpretation of this document and all relevant documents relating to the SMOOTH-XS, and the right to make changes at any time without notice. This document is subject to update without notice. Please visit www.zhiyun-tech.com for 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.

Except for what is mandated by the laws and regulations of the People's Republic of China, 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

Symbol Descriptions:  Operation and Use Tips  Important Notes

Warnings

The SMOOTH-XS is a high-precision device. Users should be equipped with basic hands-on skills and common safety knowledge, and the device should be used with care. Read the entire SMOOTH-XS user guide to become familiar with the features of this product before operating it. Failure to operate the product correctly can result in damage to the product or personal property, or cause serious injury. This product is not intended for use by children. Do not use the SMOOTH-XS with components that are not provided or recommended by ZHIYUN or in any way that does not follow the safety guidelines in the product documentation 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 of the SMOOTH-XS in order to operate the product correctly and avoid damage or serious injury.

Safe Operation Guidelines

Warning:

1. Do not let the product come into contact with any kind of liquid. Do not leave product out in the rain or near any source of moisture. If the insides of the product come into contact with water, corrosion may occur, potentially resulting in the battery catching on fire, or even an explosion.
2. If the product catches fire, use water, water spray, sand, fire blanket, dry powder, or a carbon dioxide fire extinguisher immediately to put out the fire. Please extinguish the fire by applying the methods recommended above based on the actual situation.
3. The product should be used within the temperature range of -10°C to 45°C .
4. Do not disassemble the product in any way. If the battery is punctured during disassembly, the battery may leak, catch fire or explode.
5. Do not mechanically strike, crush, or throw the product. Do not place heavy objects on the product.
6. Do not heat the product. Do not put the product in a microwave oven or in a pressurized container.
7. Do not place the product near any heat source (such as a stove or heater), or put the product in a car on a hot day. Never expose the battery to any environment with temperatures of over 60°C . The ideal storage temperature is between 22°C to 28°C .
8. Do not leave the battery unused for too long after it has been completely discharged to prevent over-discharging of the battery, which may result in battery damage and permanent failure.

Caution:

1. The SMOOTH-XS is a high-precision control device. Damage may be caused to the SMOOTH-XS if it is dropped or subject to external force, and this may result in the device malfunctioning.
2. Make sure the rotation of the gimbal axes are not blocked by external force when SMOOTH-XS is turned on.
3. The SMOOTH-XS is not waterproof. Do not let the SMOOTH-XS come into contact with any kind of liquid, including cleaning liquids. It is recommended to use a dry soft cloth to clean the SMOOTH-XS.
4. Protect the SMOOTH-XS from dust and sand during use.

Note:

1. Please disconnect the battery and charger when the device is fully charged.
2. If leaving the product unused for over 10 days, discharge the battery to 40%-65% for storage, which can extend the battery life.
3. Please charge and discharge the SMOOTH-X every three months to keep the battery active.
4. Keep the handle stable when powering on the SMOOTH-XS. Shakiness during power-on may cause the SMOOTH-XS to fail to start.

Warranty Period

- 1. Customers are entitled to a replacement or free repair services for product defect(s) found within 15 days upon receipt of the product.
- 2. The default warranty period for products that are properly used and maintained is one year from the date of receipt. The warranty period may vary due to differences in product parts, and laws and regulations of different countries and regions. For warranty periods of specific regions, please consult the ZHIYUN official customer service or the ZHIYUN authorized dealer where the purchase was made.

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 with expired warranty.
- 4. Products damaged due to force majeure, such as fire, flood, lightening, etc.

ZHIYUN Warranty Claim Procedure

- 1. If the product fails or if any problem occurs after purchasing the product, please contact a local authorized ZHIYUN distributor for assistance. If there is no local authorized ZHIYUN distributor, you may also contact ZHIYUN’s customer service via email at service@zhiyun-tech.com or through ZHIYUN’s website at www.zhiyun-tech.com.
- 2. Your local distributor or ZHIYUN’s customer service will guide you through the whole service procedure regarding any product issue or problem you may encounter. 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



Website



Weibo



Vimeo



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Facebook
(Zhiyun Support)



Facebook
(Zhiyun Tech)



Youku



Youtube



Wechat



Instagram

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E-mail: service@zhiyun-tech.com

Address: 09 Huangtong Road, Tieshan Industrial Zone, Qixing District, Guilin, 541004, Guangxi, China

Certificate of Quality

This product is confirmed to meet quality standards and permitted for sale after strict inspection.

QC Inspector: _____



For full product information, please visit ZHIYUN's official website: Content on www.zhiyun-tech.com is subject to update without notice.

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