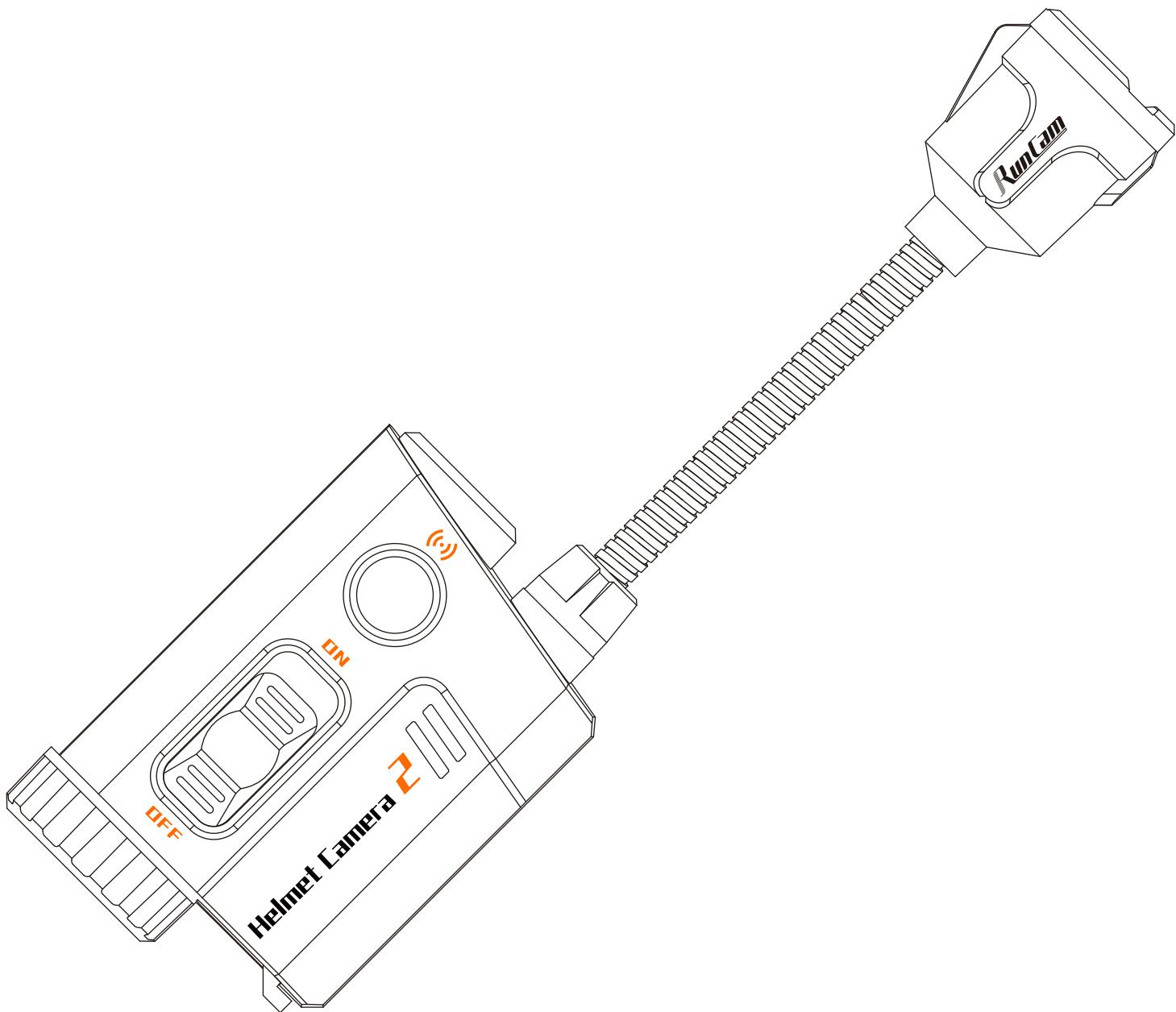


RunCam

Helmet Camera 2

User Manual



This manual and its contents are intended solely for the operation and use of this product and must not be used for any other purpose.

Quick Keyword Search

Keywords can be searched in the PDF version of this document. In Adobe Reader, please use Ctrl+F (Windows) or Command+F (macOS).

Click to Navigate

The table of contents provides an overview of the document structure. Clicking a title will navigate directly to the corresponding section.

Print-Friendly Document

This manual document supports high-quality printing.

Reading Guide

Symbol Definitions

 Important Notes  Operation and Usage Tips  Terminology and Reference Information

Usage Recommendations

RunCam provides the following materials:

- 1.Quick Start Guide
- 2.User Manual

It is recommended to watch the tutorial videos and read the Quick Start Guide for an overview of the usage process. For comprehensive product information, refer to the User Manual.

Access Tutorial Videos

Scan the QR code or click the link below to watch tutorial videos. These materials help ensure correct and safe usage of the product.



Downloading the RunCam App

Search for “RunCam App” on Google Play or the App Store, or scan the QR code below to download the app.



Google Play



App Store

 The app interface is updated periodically. Actual appearance and available features may vary depending on the app version in use.

Contents

01 Product Overview

1.1 Camera Overview	1
1.2 Accessories	2

02 Getting Started

2.1 Installing the microSD Card	1
2.2 Powering On/Off and Recording	2
2.3 Connecting to the App	3
2.4 Lens Rotation	4
2.5 Charging	5

03 Operations and Features

3.1 Video Settings	1
3.2 Connecting the Bluetooth Remote	2
3.3 Using the Bluetooth Remote	3
3.4 Transferring Media Files	4
3.5 Webcam Mode	5

04 Maintenance and Care

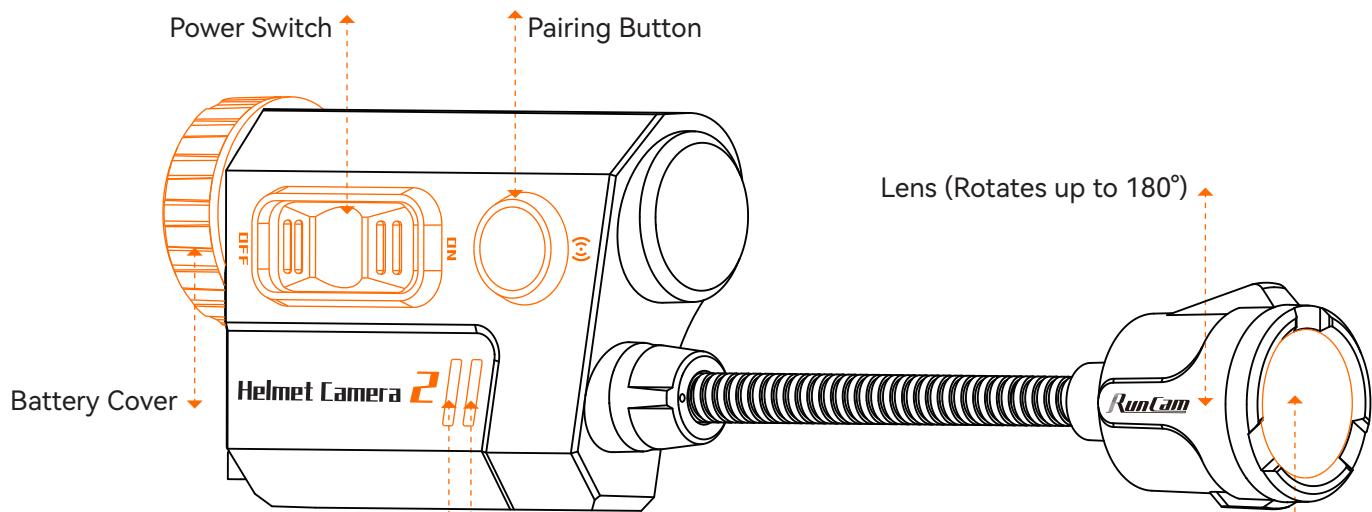
4.1 Firmware Update	1
4.2 Cleaning Guidelines	2
4.3 Battery Usage Notes	3

05 FAQ

06 Specifications

01 Product Overview

1.1 Camera Overview



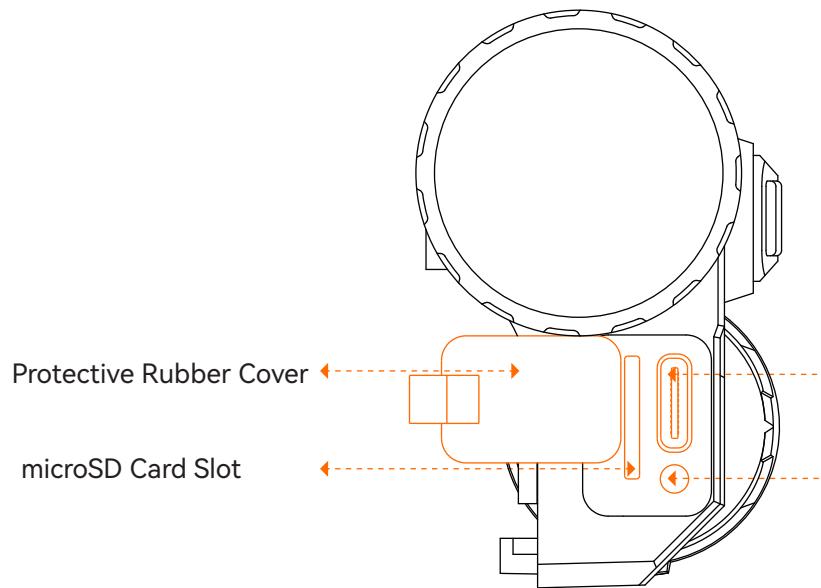
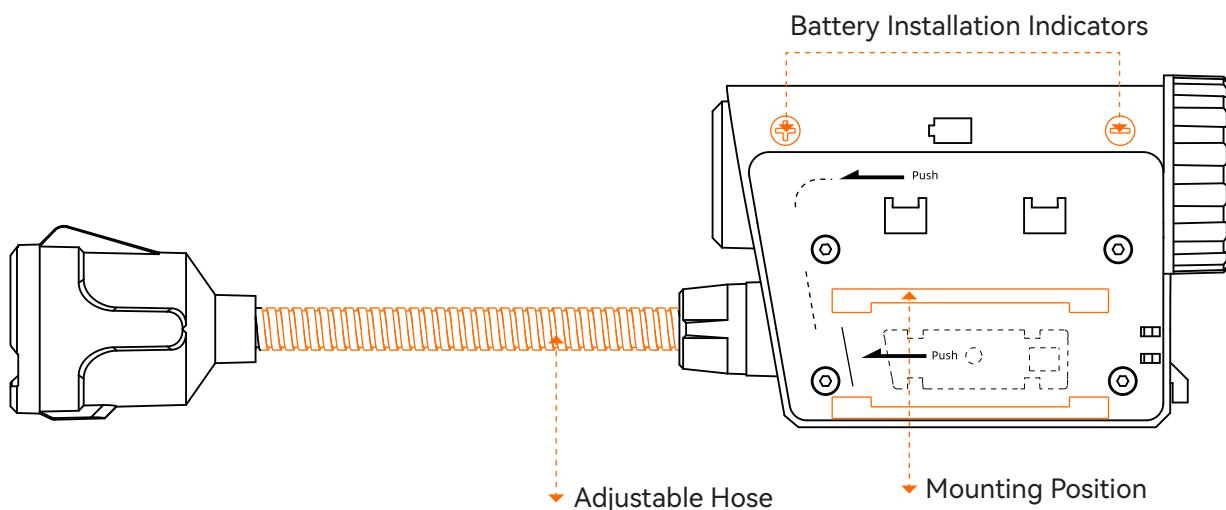
Pairing Light Indicator (Blue) Recording Light Indicator (Red)

Slow blink: Waiting for connection
Solid: Connected

Solid: Camera powered on
Slow blink: Recording

Fast blink: Card error(e.g., no card, card full, or low-speed card)

Lens Protector



Red: Recording Light Indicator

Solid: Camera powered on
Slow blink: Recording
Fast blink: Card error(e.g., no card, card full, or low-speed card)

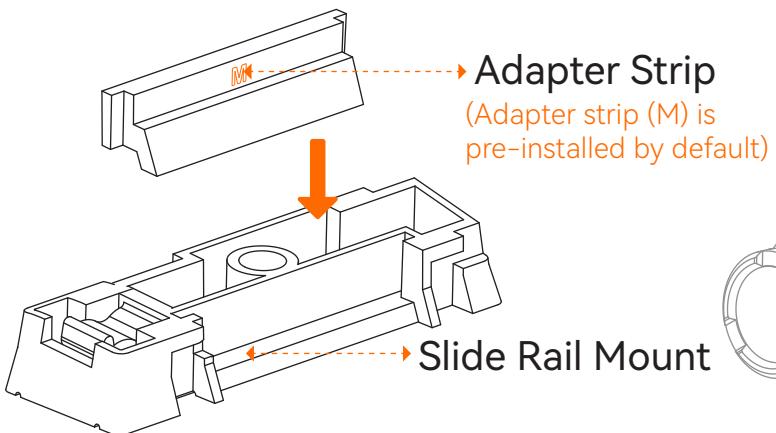
Green: Charging Light Indicator

Solid: Charging

1.2 Accessories

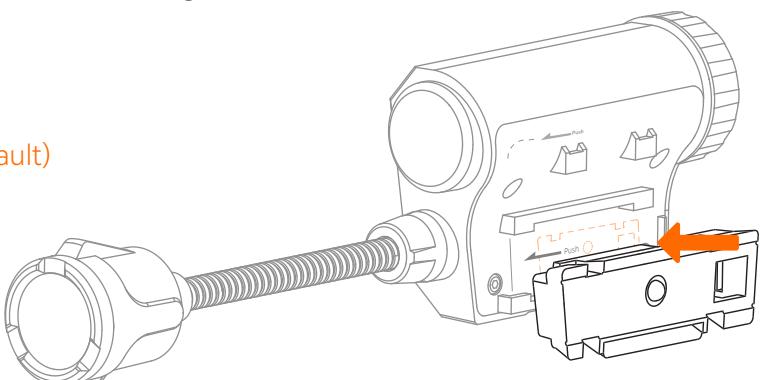
► Slide Rail Mount

Step1

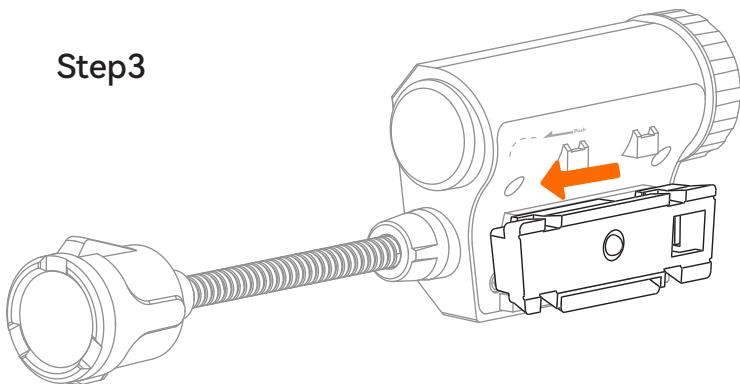


Step2

Align with innermost dashed line



Step3

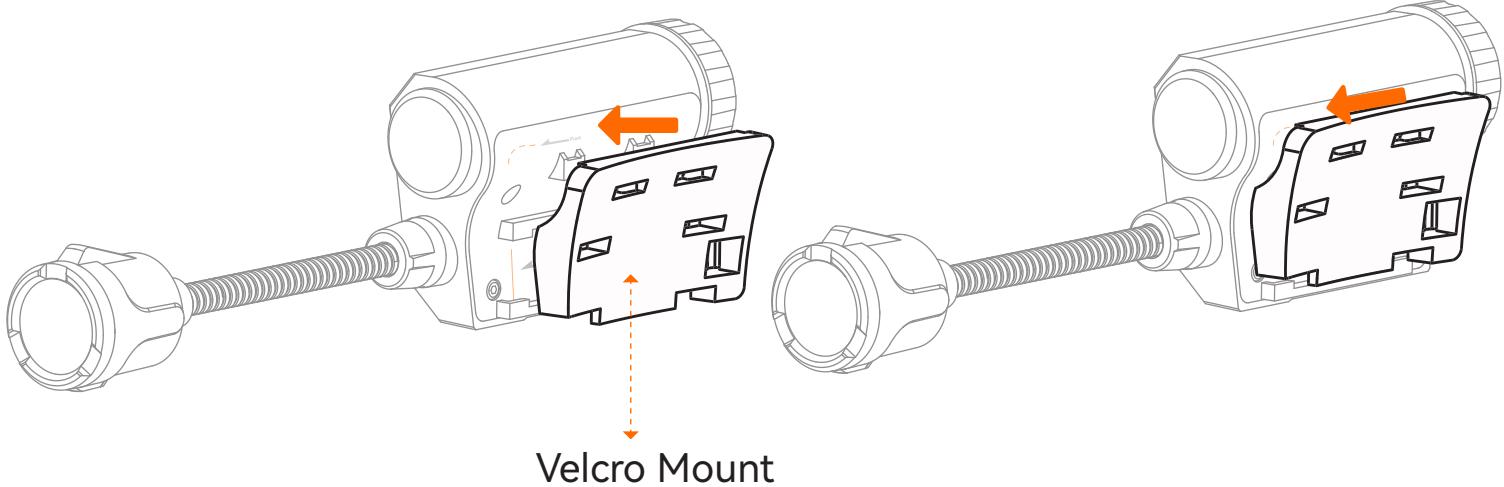


► Velcro Mount

Step1

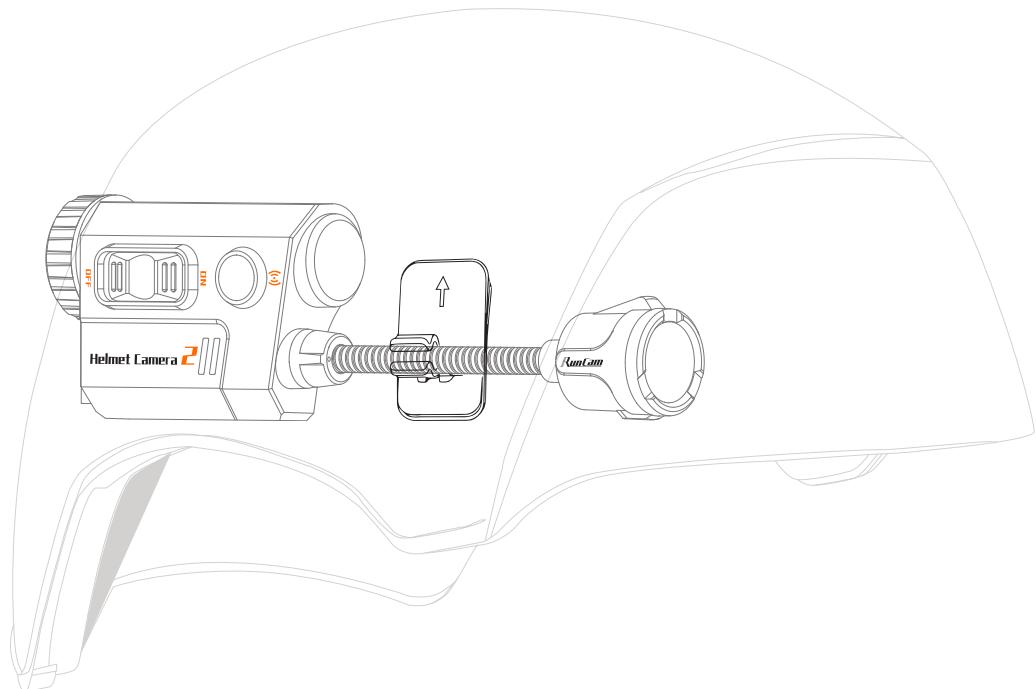
Align with outermost dashed line

Step2

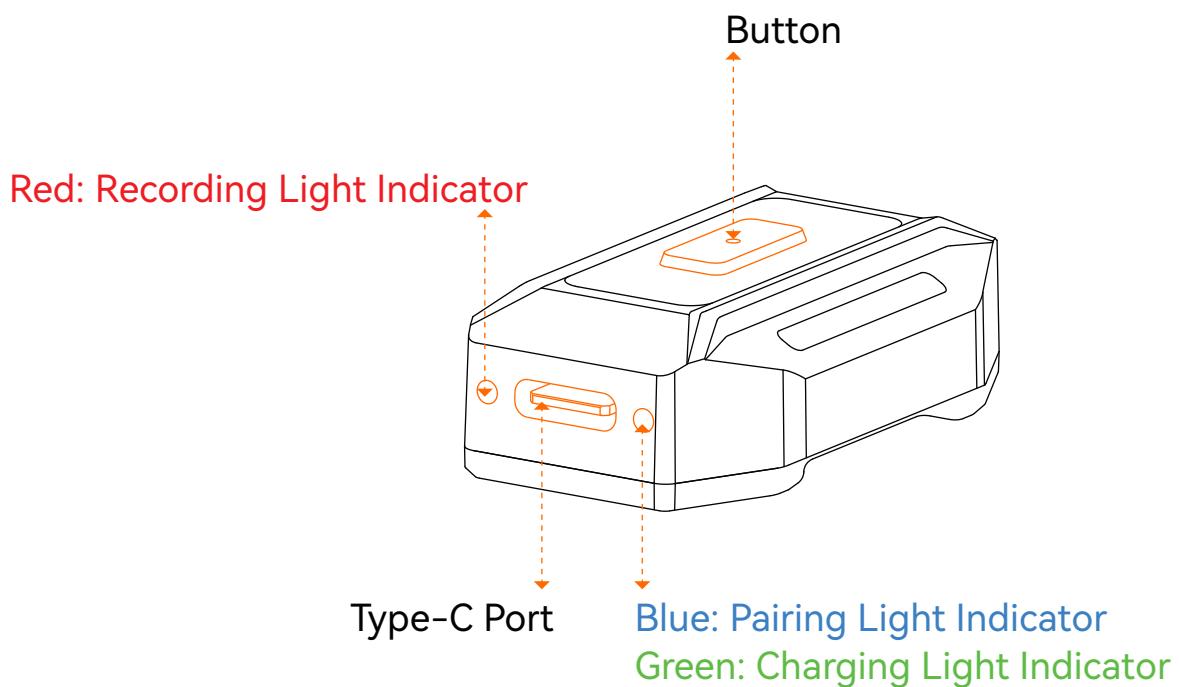


► Hose Mount

After securing the camera, the hose mount can be used to prevent lens movement during recording.

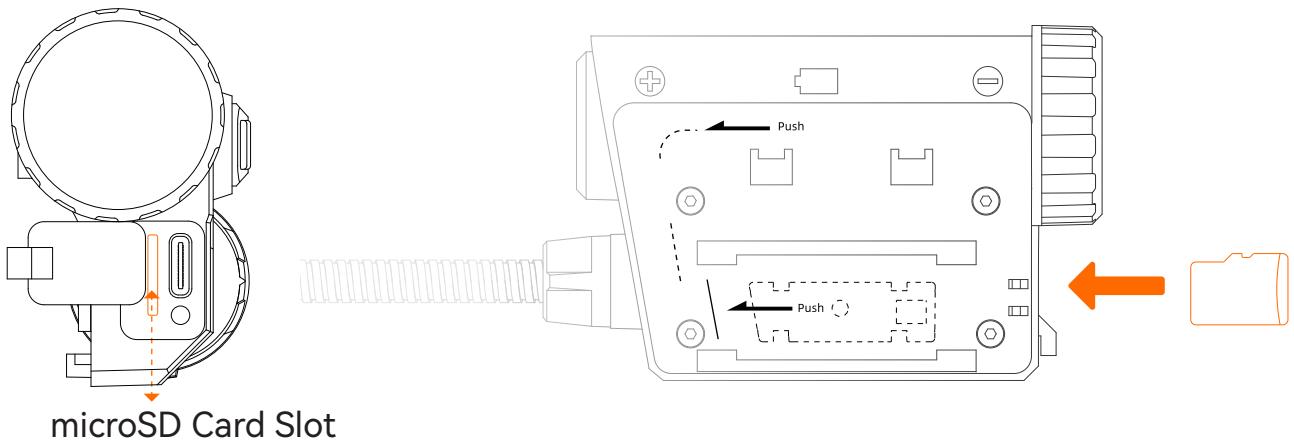


► Bluetooth Remote



02 Getting Started

2.1 Installing microSD Card



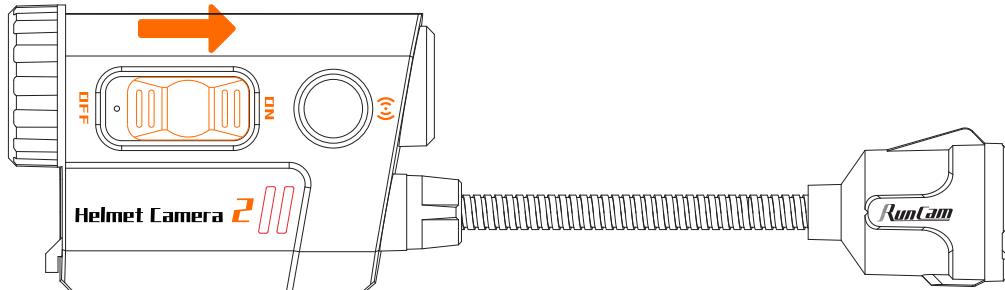
- A microSD card with a **U3** rating and a capacity of **64GB** or higher is recommended. The camera supports cards up to 512GB. If the recording indicator flashes rapidly and the camera does not record properly, please follow these steps:
 1. Confirm whether the microSD card's file system format is exFAT.
 2. If the format is incorrect, please format the card to exFAT using a computer.

⚠ Important Notice:

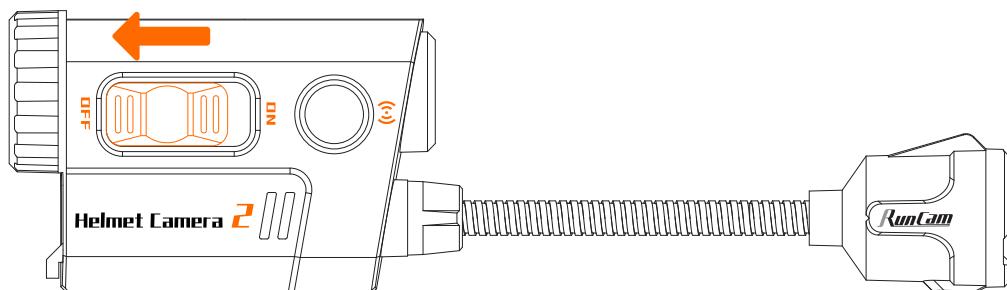
Formatting will erase all data on the microSD card. Please be sure to back up any important files before formatting.

2.2 Power On/Off and Recording

► When powered on, the camera vibrates once. After approximately 8 seconds, it starts recording with another vibration. The recording indicator light blinks slowly.



► To stop recording and power off the camera, all indicator lights turn off.



2.3 Connecting to the App

⚠ Kind Reminder:

RunCam App supports pairing with only one camera at a time. To connect to a different camera, disconnect the current device first, then pair with the new camera.

1. Push the power switch to turn on the camera.
2. Enable Wi-Fi  and Bluetooth  on the smartphone.
3. Launch the RunCam App, tap the camera icon  , and follow the on-screen instructions to complete the connection.
4. After connecting, the App enables live preview, setting adjustments and camera control.

If the camera fails to connect to the RunCam App, please follow these steps:

1. Ensure Wi-Fi and Bluetooth are enabled on the phone.
2. Verify the RunCam App is updated to the latest version.

To download RunCam Ap, search for “RunCam App” on Google Play or the App Store, or scan the QR code below.



Google Play

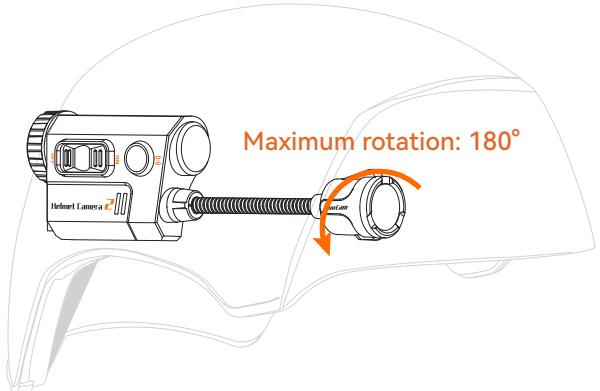


App Store

2.4 Lens Rotation

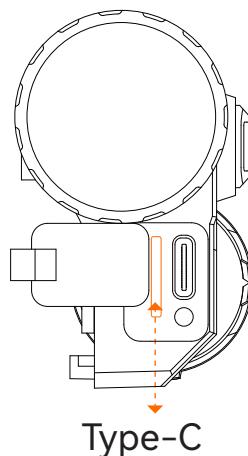
Usage Recommendation:

Secure the camera to the helmet using the mount before performing fine adjustments to the lens rotation. This method provides a more intuitive way to achieve the desired shooting angle. It is recommended to use the App’s live preview function during adjustment for the best results.



2.5 Charging

- Use a standard mobile phone charger or power bank with a maximum input of 5V=2A.
- During charging, the indicator light will remain solid green and will turn off when fully charged.



03 Operations and Features

3.1 Video Settings

After connecting to the App, the camera's shutter speed, ISO, white balance, and other parameters can be adjusted with real-time preview.

Tap  to enter the setting interface, where recording options and modes could be changed with different parameters.

► Loop Recording

Enable this mode to allow the camera to overwrite the oldest video segment with the newest once the storage is full. This helps conserve storage space and is ideal for capturing unexpected or unpredictable moments.

► Flashback Recording

Enable this mode to allow the camera to continuously record a preset duration in the background. When the record button is pressed, the footage from just before the press is saved, and recording continues from that point to form a complete video file. This function helps capture key moments that occurred before recording started while minimizing storage usage.

3.2 Connecting the Bluetooth Remote

⚠ Kind Reminder:

Bluetooth controller supports pairing with only one camera at a time. To connect to a different camera, disconnect the current device first, then pair with the new camera.

1. After powering on the camera, press and hold the pairing button  to enter Bluetooth pairing mode. The connecting indicator light flashes blue rapidly .
2. Briefly press the button on the Bluetooth remote to wake it. Remote's indicator light remains solid red.
3. Press and hold the button on the Bluetooth remote for approximately 3 seconds to enter pairing mode. Remote's blue light flashes rapidly.
4. After about 3 seconds, pairing completes. The blue indicator lights on both the camera and the remote turn solid.
5. Once paired, the Bluetooth remote controls the camera to start or stop recording.

 After the first successful pairing, the camera automatically stores the connection. For future use, simply short-press the remote's button to wake it. The connection re-establishes automatically within a few seconds, and no re-pairing required.

3.3 Using the Bluetooth Remote

1. Sleep and Wake Function

If the remote fails to connect to a camera within 5 minutes, it automatically enters sleep mode. To wake the remote, press the button briefly, and its the red indicator light remains solid when active.

2. Bluetooth Pairing

Press and hold the button to enter Bluetooth pairing mode. The blue indicator light flashes rapidly, indicating readiness to connect to a camera. For detailed pairing steps, refer to Section 3.2 Connecting the Bluetooth Remote. If no connection is established within 3 minutes, pairing mode exits automatically.

3. Recording Control

After a successful connection with camera, short pressing the button on controller starts or stops recording. During recording, the light on remote blinks red slowly.

4. Charging

- Use a standard mobile phone charger or power bank with a maximum input of 5V=2A to charge the remote.
- During charging, the indicator light remains solid green. Once fully charged, the light turns off automatically.

3.4 Transferring Media Files

► Transferring Media File to a Mobile Device

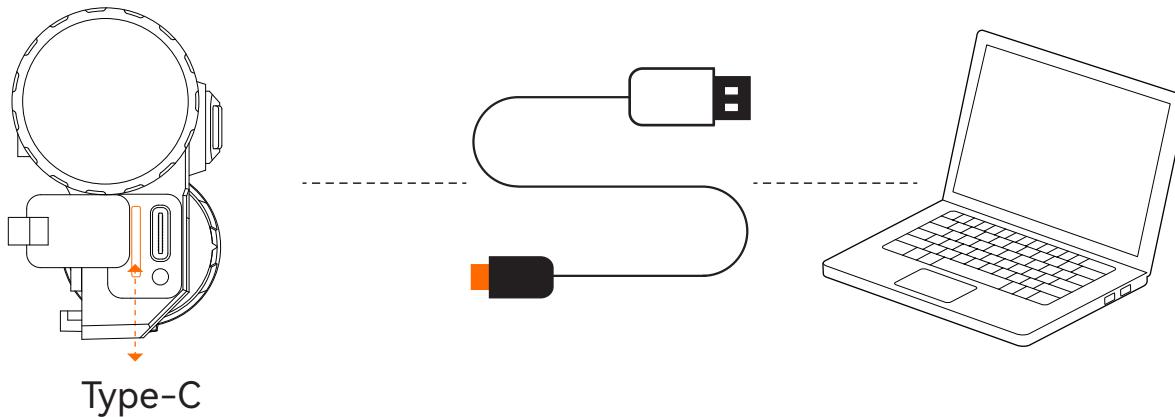
- Method one – Via App

After connecting the camera to the RunCam App, tap the icon  in the lower-right corner to view the recorded videos. Tap a video to play it, and then tap the download icon  to save it directly to the mobile device.

- Method two – Via U-Disk Mode (OTG Supported Devices)

For mobile devices that support OTG, media can be transferred using U-disk mode. Connect camera to the mobile device using a Type-C data cable. Once connected, the device's file manager can be used to access and export recorded media from the camera.

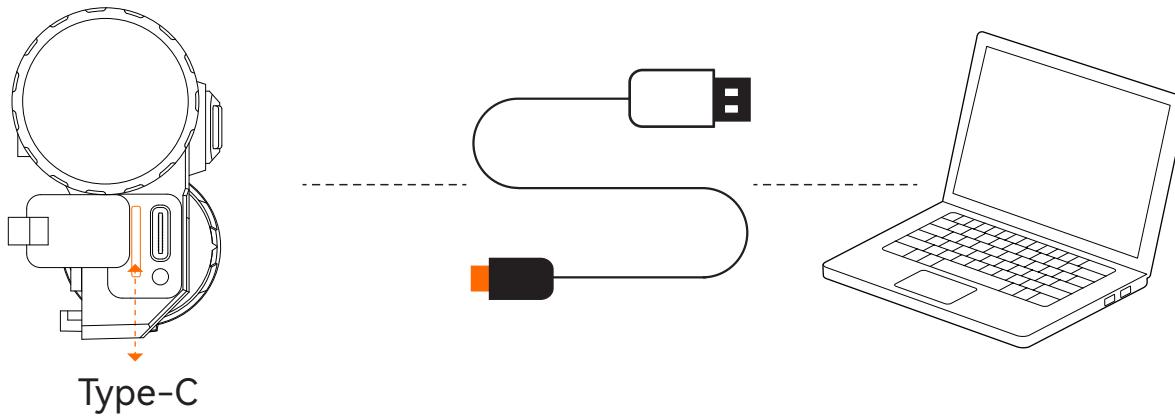
► Transferring Media Files to a PC/Laptop



Connect the camera to a computer via a Type-C data cable. After powering on the camera, it automatically enters U-disk mode, and the recording and charging light indicator remain solid red. Media files can then be accessed and downloaded. While in U-disk mode, the camera is not available for recording.

 If the contents of the microSD card cannot be read correctly, try using a different Type-C data cable or a different USB port on the computer.

3.5 Webcam Mode



Helmet Camera 2 supports webcam mode. Connect the camera to a computer via a Type-C data cable. After powering on, the camera vibrates once, and the recording and charging indicator remain solid red. Once startup completes, the camera vibrates again. At this point, short press the pairing button to switch to webcam mode. The camera will then be recognized by the computer as a webcam input device.

 If the video feed appears frozen or laggy, try using a different Type-C cable or USB port on the computer.

04 Maintenance and Care

4.1 Firmware Update

⚠️ Updating firmware will erase all data on the microSD card. Please be sure to back up any important files before updating.

 To prevent errors during the process, ensure the battery is sufficiently charged (ideally fully charged) before starting the update.

1. Download the Firmware:

Visit the official download page to download the latest firmware:
<https://www.runcam.com/download/helmetcam2>

2. Prepare the Firmware File:

After downloading the compressed file, extract it to obtain the firmware file named HC2.bin. Copy and paste it to the root of microSD card formatted in exFAT. Please do not place the firmware inside any folder or rename it.

3. Start the Update:

Insert the prepared microSD card (with HC2.bin file included) into the camera. Power on the camera, it will detect to update the firmware automatically.

4. Update Status:

During updating, the recording and pairing light indicator flash alternatively. Please do not power off the camera or remove the microSD card during this process.

5. Update Complete:

After a successful update, the camera vibrates 5 times and powers off. Restart the camera to begin normal use.

 If the update gets interrupted or the camera does not function properly afterward, please try the following steps:

1. Ensure the correct downloaded firmware version and the file is not corrupted.
2. Reformat the microSD card to exFAT, then recopy and paste the HC2.bin file to the root directory, and retry updating with a sufficiently charged battery.
3. If the issue persists after multiple attempts, contact RunCam Support for assistance.

4.2 Cleaning Guidelines

1. Do not use alcohol or any other cleaning liquids on the camera.
2. If the microphone hole becomes blocked by debris, rinse the camera gently with fresh water while ensuring it remains sealed and waterproof.
3. If debris is present on the lens protector, clean with fresh water or use lens cleaning tools such as a lens pen, air blower, or lens cloth. Avoid frequent removal and installation of the lens protector to prevent dust from entering and affecting image quality.
4. If debris is present on the lens itself, clean using a lens pen, air blower, or lens cloth.
5. If debris is found inside the battery or battery compartment, use a dry, soft cloth or paper to clean gently.

4.3 Battery Usage Notes

1. When battery power is low, the camera vibrates once every 30 seconds and automatically powers off after 5 minutes.
2. Operate the product within an environment temperature range of -10°C to 45°C. Excessive heat may cause battery swelling, fire, or explosion. Before use in cold environments, fully charge the battery at room temperature to prolong battery life.
3. Recharge and discharge the battery approximately every 3 months to maintain its activity.
4. Charging stops automatically when the battery is full. Disconnect the battery from the charger after charging completes.
5. When battery voltage is too low, it enters a low-power mode. Charging the battery will exit this mode.
6. Avoid storing the battery fully discharged for extended periods to prevent irreversible damage caused by over-discharge.
7. If the battery will not be used for over 10 days, discharge it to 40%-65% before storage to extend battery life.

05 FAQ

► Q: What if the camera does not respond or shows abnormal indicator lights after powering on?

A: First, check that the battery is sufficiently charged. If the battery level is normal, please remove the microSD card and power on the camera again. If the issue persists, especially if the blue light flashes rapidly and camera vibrates 5 times before shutting down, please ensure the lens module is secure. It is recommended to reach out to the RunCam Support if the problem continues.

► Q: What if the camera shows a microSD card error or fails to recognize the card?

A: Besides checking the card's file system format, verify that the microSD card is properly inserted and that the gold contacts are clean. Testing with a U3-rated microSD card of 64GB or larger is recommended. Older or low-speed cards may not be supported.

► Q: What if the charging indicator light does not turn on or the camera cannot charge?

A: Confirm that the Type-C cable and charger are functioning correctly. Inspect the charging port for debris or damage. Try using a different cable or charger if necessary. If the camera has not been used for a long period, the battery may enter a protection mode, charging for at least 30 minutes may reactivate it.

► Q: What if the camera cannot get connected to App?

A: Please follow the steps:

1. Verify that both Wi-Fi and Bluetooth are enabled on the mobile device.
2. Ensure the RunCam App gets updated to the latest version.

► Q: What if the camera cannot power off or becomes unresponsive?

A: If normal shutdown fails, remove the battery cover to force a power off. Reinstall the cover and power on the camera again. This is equivalent to a reboot and can resolve temporary software issues.

06 Specifications

► Specifications

Dimensions	188.1mm×34.2mm×54.1mm
Weight	118.5 g (excluding mounts)
Protection	Water-resistant and dust-proof
Interfaces	Micro-SD card slot, Type-C
Max SD Card Capacity	Up to 512GB
Supported File System	exFAT
Battery Type	18650 Lithium Battery
Capacity	3500mAh
Voltage	3.7v
Operating Temperature	-10°C to 45°C
Charing Temperature	5°C to 40°C
Operating Time	About 8 hours (1080P 60FPS)

► Camera and Connection Specifications

Image Sensor	2 Megapixels
Aperture	F1.6
FOV	D:127.7° H:106.3° V:56.5°
Video Resolution	1920x1080@60FPS、1920x1080@50FPS 1920x1080@30FPS、1920x1080@25FPS
Sensitivity	Auto
Shutter	Auto
Video Format	MP4
Recording Modes	Normal recording, Loop recording, Pre-recording
Audio Recording	16kHz 128kbps
Wi-Fi Protocol	IEEE 802.11a/n/ac/ax
Wi-Fi Frequency	5.15GHz ~ 5.850GHz
Bluetooth Protocol	Bluetooth 5.4 BLE
Bluetooth Frequency	2.4GHz~2.485Ghz

Technical Support
Please visit: <https://support.runcam.com/hc/en-us>

This manual is subject to change without prior notice.
The latest version of the User Manual can be found on the
official RunCam website:
<https://www.runcam.com/download/helmetcam2>

