

## RunCam RunCam Thumb Pro

# RunCam Thumb Pro FPV Mini Action Camera User Manual

Model: RunCam Thumb Pro

[Introduction](#) [Setup](#) [Operation](#) [Maintenance](#) [Troubleshooting](#) [Specifications](#) [Warranty & Support](#)

## 1. INTRODUCTION

This manual provides instructions for the proper setup, operation, and maintenance of your RunCam Thumb Pro FPV Mini Action Camera. Please read this manual thoroughly before using the device to ensure optimal performance and longevity.



Figure 1: Front view of the RunCam Thumb Pro FPV Mini Action Camera.

## 2. SETUP

### 2.1 Package Contents

Verify that all items are present in the package:

- RunCam Thumb Pro Camera

- Sets of Screws
- 3D Printed Camera Mount
- 4-Pin Cable
- ND Filter Set (if purchased with this variant)
- 128G SD Card (if purchased with this variant)

## 2.2 Power Supply Connection

The RunCam Thumb Pro does not have an internal battery and requires an external 5V DC power supply. Connect the camera to a stable 5V power source using the provided 4-pin cable. This can be a flight controller or a balanced cable from a battery. Ensure the power supply is exactly 5V to prevent damage to the camera's mainboard.



Figure 2: Rear view showing the 4-pin power input (RX, TX, GND, DC 5V) and Micro USB port.

## 2.3 Micro SD Card Installation

Insert a Micro SD card (up to 256GB capacity) into the designated slot on the camera. Ensure the card is inserted correctly until it clicks into place. A high-speed card is recommended for 4K video recording.

## 2.4 Mounting the Camera

Use the included 3D printed camera mount and screws to securely attach the camera to your FPV drone or other RC hobby device. Ensure the camera is firmly mounted to minimize vibrations during operation.

## 3. OPERATION

### 3.1 Basic Recording

Once powered, the camera is ready to record. Refer to the specific instructions for your flight controller or remote control system for initiating and stopping recording. The camera supports remote-control HD recording.



Figure 3: Remote control recording setup, showing a remote controller and a scene being recorded.

### 3.2 Adjusting Camera Settings via QR Code

Camera settings such as resolution, saturation, and exposure can be adjusted using the RunCam App. Generate a QR code within the app with your desired settings, then present the QR code to the camera lens. The camera will scan the code and apply the settings.



Figure 4: Illustrates the process of adjusting camera settings using QR codes generated by the RunCam App.

### 3.3 Horizontal and Vertical Shooting

The camera supports both horizontal and vertical video orientations. This can be configured through the RunCam App using QR codes for image rotation (0°, 90°, 180°, 270°) and aspect ratio adjustments (4:3, 16:9, 9:16).

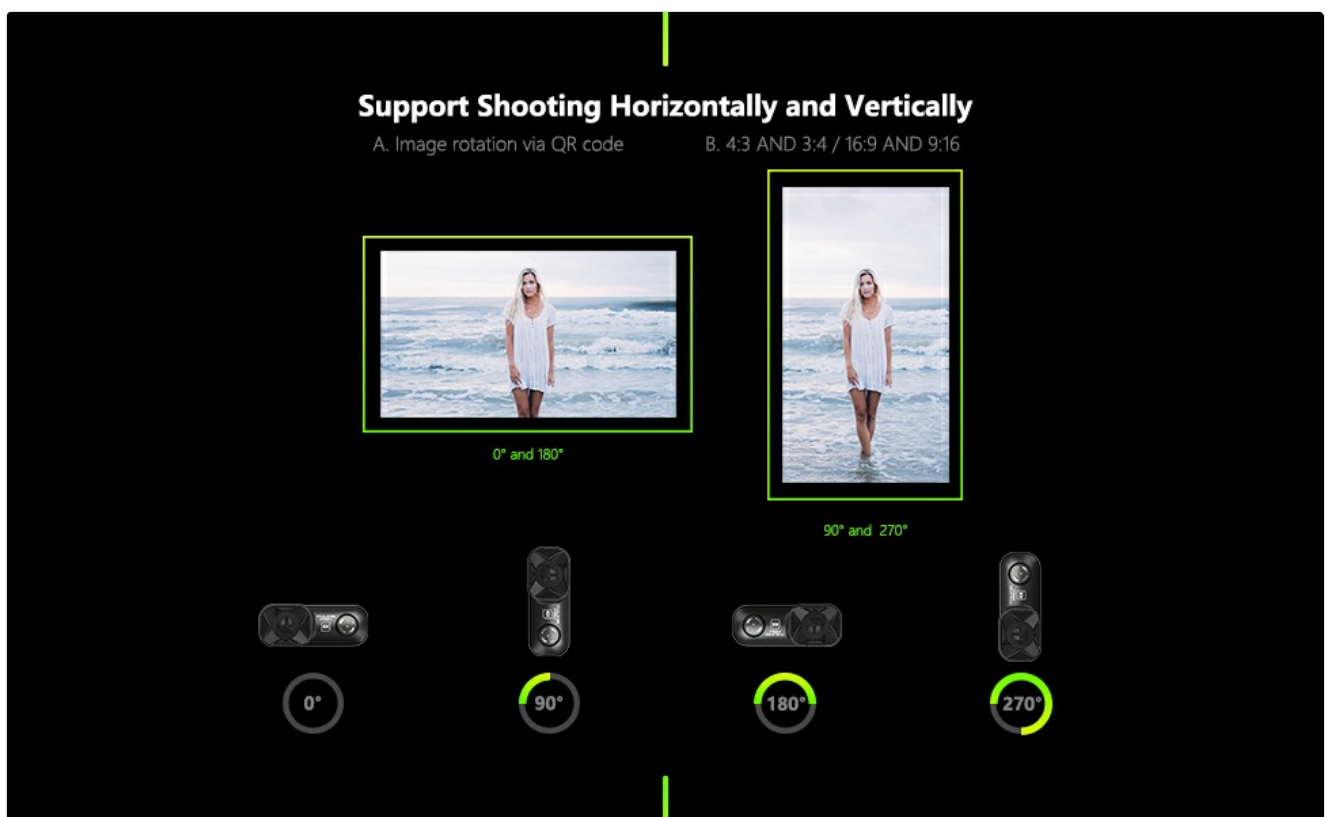


Figure 5: Demonstrates the camera's capability for horizontal and vertical video capture.

### 3.4 Gyroflow Stabilization

The RunCam Thumb Pro features a built-in gyroscope that records Gyro data. This data can be used with Gyroflow

software to achieve smooth and stabilized video footage in post-production.

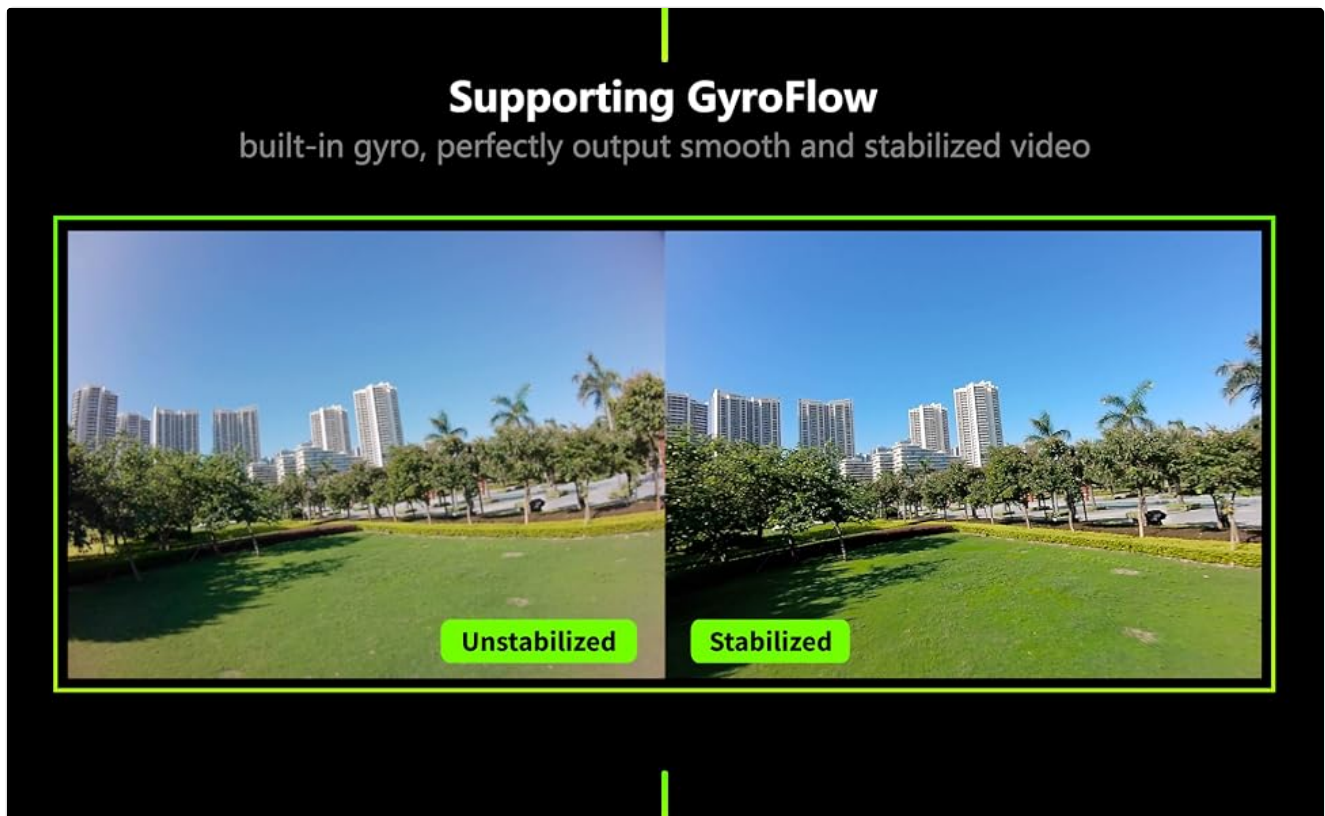


Figure 6: Visual comparison showing the effect of Gyroflow stabilization on video quality.

### 3.5 ND Filter Usage

The camera supports replaceable ND (Neutral Density) filters. These filters help to reduce the amount of light entering the lens, which can improve video quality in bright conditions by reducing overexposure and minimizing the "jello" effect caused by high shutter speeds.



Figure 7: The included ND filter set, designed for easy replacement.

## 4. MAINTENANCE

### 4.1 Protective Cover

The camera is equipped with a replaceable protective cover to shield the lens from damage. Ensure the cover is

properly installed during use. Replace if damaged.



Figure 8: The camera with its protective cover, highlighting its replaceable nature.

## 4.2 General Care

- Keep the camera clean and free from dust and debris.
- Avoid exposing the camera to extreme temperatures or moisture.
- Do not attempt to disassemble the camera, as this will void the warranty.
- When not in use, store the camera in a safe, dry place.

## 5. TROUBLESHOOTING

### 5.1 Camera Not Powering On

- Ensure the 5V power supply is correctly connected and stable.
- Verify that the power source is providing exactly 5V DC. Incorrect voltage can prevent operation or damage the device.
- Check the 4-pin cable for any damage or loose connections.

### 5.2 Recording Issues (Lights Flashing Red/Green)

- This often indicates an SD card issue. Try formatting the SD card or using a different, known-good SD card.
- Ensure the SD card is properly inserted and not full.
- Verify the SD card is of a suitable speed class for 4K recording.

### 5.3 Overheating During Operation

Avoid prolonged video recording in high-temperature environments or areas with insufficient ventilation. Overheating can affect device performance and lead to abnormal operation. Ensure adequate airflow around the camera, especially when mounted on a drone.

### 5.4 Poor Video Quality / Jello Effect

- Ensure the camera is securely mounted to minimize vibrations.
- Use appropriate ND filters in bright lighting conditions to reduce shutter speed and the jello effect.
- Verify camera settings (resolution, exposure) are optimized for your environment via the RunCam App.
- Utilize Gyroflow stabilization in post-production for smoother footage.

## 6. SPECIFICATIONS

|                         |                                                          |
|-------------------------|----------------------------------------------------------|
| Brand                   | RunCam                                                   |
| Model                   | RunCam Thumb Pro                                         |
| Resolution              | 4K30fps, 2.7K60fps, 1440P60fps, 1080P120fps, 1080P60fps  |
| Sensor                  | IMX577 (12MP)                                            |
| Field of View (F.O.V)   | 155° (New Version)                                       |
| Video Format            | MP4                                                      |
| Gyro                    | Built-in                                                 |
| Communication Interface | Micro USB                                                |
| Micro SD Card Capacity  | 256GB Max                                                |
| USB Power Input         | DC 5.0V                                                  |
| Remote Control          | UART                                                     |
| Power Consumption       | 500mA@5V Max                                             |
| Dimensions              | 54mm x 25.5mm x 21mm (approx. 2.13 x 1.00 x 0.83 inches) |
| Net Weight              | 16g (approx. 0.56 ounces)                                |

## 7. WARRANTY & SUPPORT

For warranty information and technical support, please refer to the official RunCam website or contact their customer service directly. Keep your purchase receipt as proof of purchase for warranty claims.  
Official RunCam Website: [www.runcam.com](http://www.runcam.com)

### ASK A QUESTION ABOUT THIS MANUAL

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**Name**

Anonymous

**Email**

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**Question**

Example: How do I reset this device or fix this error?

**Details**

Model number, symptoms, what you tried, or the section of the manual you are using.

**Submit question**