

## RunCam SPLIT 4K

# RunCam Split 4 4K FPV Camera Instruction Manual

Model: SPLIT 4K

Brand: RunCam

## 1. INTRODUCTION

The RunCam Split 4 is a compact 4K FPV (First Person View) camera designed for micro drones, such as tiny whoops and toothpick builds. It offers both FPV video feed and high-definition 4K recording capabilities with low latency. This manual provides essential information for the proper installation, operation, and maintenance of your RunCam Split 4 camera.

## 2. KEY FEATURES

- **Compact 4K FPV & HD Camera:** Designed for small drones, enabling 4K FPV and HD recording.
- **Easy Installation:** Features 25.5x25.5mm mounting holes, compatible with many "whoop style" flight controllers.
- **UART Control:** Allows control of camera functions (start/stop recording, OSD menu navigation) via your radio transmitter when connected to a flight controller and configured in Betaflight.
- **Power-off Protection:** Automatically saves video footage in case of accidental power loss, such as during a crash.
- **Switchable Aspect Ratio and TV Mode:** Supports NTSC/PAL and 16:9/4:3 aspect ratio switching for FPV.
- **GyroFlow Support:** Built-in gyroscope for perfectly smooth and stabilized video output.

## 3. PRODUCT OVERVIEW

The RunCam Split 4 consists of a camera module and a main board connected by a flexible cable. The main board houses the microSD card slot and connection points for power and UART control.

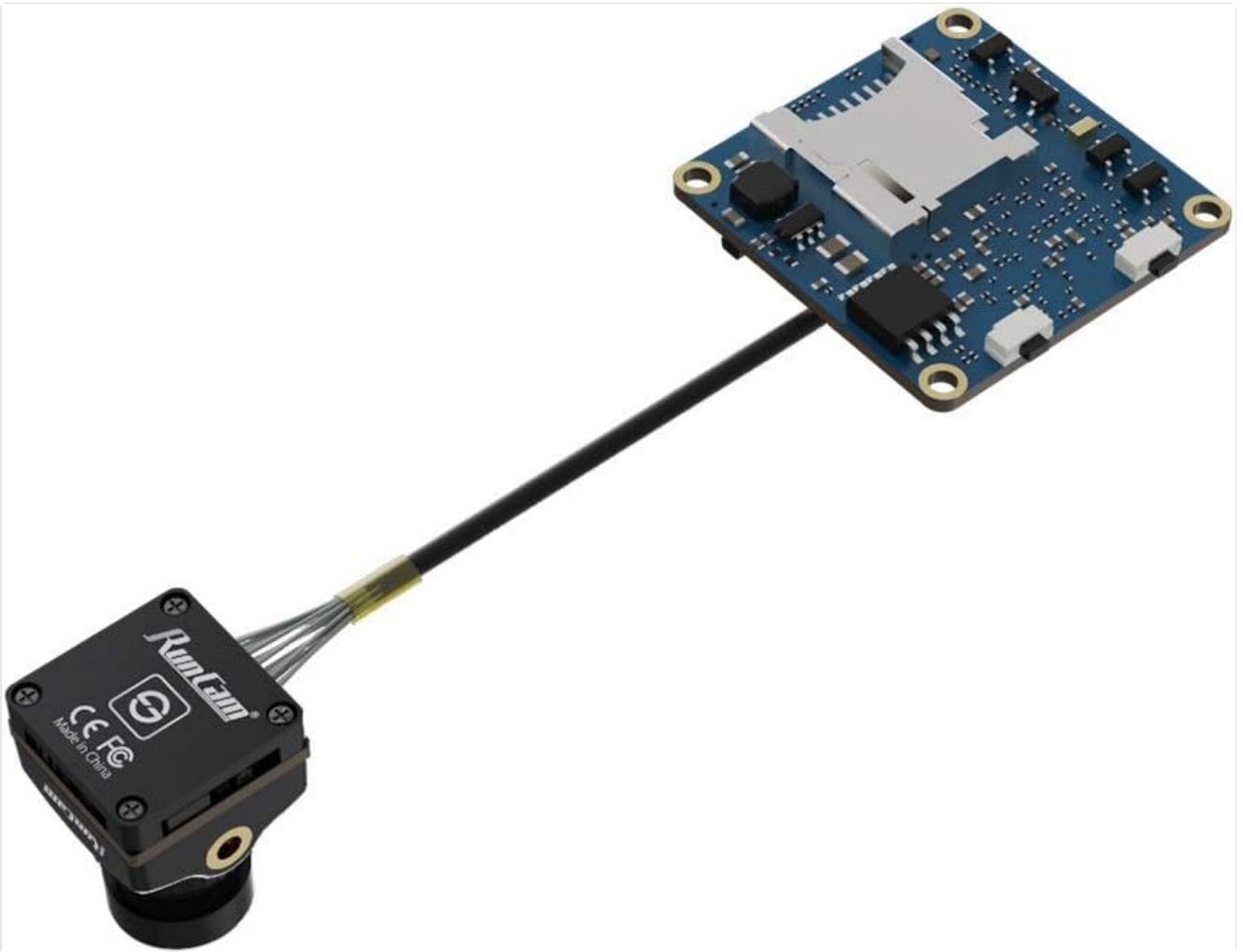


Image: RunCam Split 4 camera module connected to the main board, showing the microSD card slot on the board.



Image: Close-up view of the RunCam Split 4 camera lens and its compact housing.

## 4. SETUP AND INSTALLATION

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### 4.1 Mounting

The RunCam Split 4 main board features 25.5x25.5mm mounting holes, making it suitable for installation on "whoop style" flight controllers commonly found in micro drones. Ensure secure mounting to prevent vibration and damage during flight.

### 4.2 Wiring

Connect the camera to your flight controller according to the wiring diagram provided with your drone or flight controller. The camera requires a DC 5-20V power supply. For UART control, connect the camera's UART pins to a free UART port on your flight controller.

### 4.3 MicroSD Card Installation

Insert a high-speed microSD card (Class 10 or higher, U3 recommended) into the designated slot on the main board. Ensure the card is inserted correctly and securely. A loose SD card can lead to recording interruptions.

## 5. OPERATING INSTRUCTIONS

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### 5.1 Powering On and Initializing

Once properly installed and powered, the camera will initialize. The FPV feed should appear on your goggles or monitor. The camera is designed to automatically save video in case of sudden power loss, protecting your footage.

## 5.2 Recording Video

Video recording can be initiated and stopped via UART control using your radio transmitter, after configuring it in Betaflight. Refer to your flight controller's documentation and Betaflight setup guides for detailed instructions on mapping camera control functions to your radio switches.

## 5.3 OSD Menu Navigation

The On-Screen Display (OSD) menu allows you to adjust camera settings. This menu can be accessed and navigated using your radio transmitter via UART control. Settings include aspect ratio (16:9 or 4:3) and TV mode (NTSC or PAL).

## 5.4 GyroFlow Stabilization

The camera supports GyroFlow for post-stabilization of recorded footage. This feature utilizes the camera's built-in gyroscope data to produce smoother video. Ensure your GyroFlow software is up-to-date for optimal performance.



Image: Visual comparison demonstrating the effect of GyroFlow stabilization on video footage, showing a smoother result.

## 6. MAINTENANCE

### 6.1 Cleaning

Gently clean the camera lens with a soft, lint-free cloth. Avoid using abrasive materials or harsh chemicals that could damage the lens coating. Keep the main board free from dust and debris.

### 6.2 Firmware Updates

Periodically check the official RunCam website for firmware updates. Firmware updates can improve performance, add new features, or fix bugs. Updates are typically performed by placing the firmware file on the microSD card and powering on the camera.

### 6.3 Storage

When not in use, store the camera in a dry, cool environment, away from direct sunlight and extreme temperatures. Protect the lens from scratches.

## 7. TROUBLESHOOTING

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- **No FPV Feed:**

- Check all wiring connections, especially power and video signal lines.
- Ensure the camera is receiving the correct voltage (DC 5-20V).
- Verify that your FPV receiver and goggles are on the correct frequency and channel.

- **Recording Issues (e.g., stops mid-flight):**

- Ensure the microSD card is securely seated in its slot. A loose card can cause recording interruptions.
- Use a high-speed microSD card (Class 10, U3 recommended).
- Format the microSD card regularly.
- Check for sufficient free space on the microSD card.

- **Camera Overheating:**

- Some heat generation is normal during operation, especially with 4K recording.
- Ensure adequate airflow around the camera and main board, particularly if enclosed.

- **Video Quality Issues:**

- Clean the camera lens.
- Check for proper lighting conditions.
- Verify OSD settings for aspect ratio and TV mode are correct for your display.

## 8. SPECIFICATIONS

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| Feature                  | Detail                    |
|--------------------------|---------------------------|
| Brand                    | RunCam                    |
| Model Number             | SPLIT 4K                  |
| Item Weight              | 2.39 ounces               |
| Product Dimensions       | 1.97 x 1.97 x 1.97 inches |
| Video Capture Resolution | 4K                        |
| Photo Sensor Technology  | CMOS                      |
| Flash Memory Type        | SD (MicroSD)              |
| Connectivity Technology  | UART                      |
| Special Feature          | Lightweight               |
| FOV                      | 140°                      |
| Input Voltage            | DC 5-20V                  |

## 9. WARRANTY AND SUPPORT

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For warranty information, technical support, or service inquiries, please refer to the official RunCam website or

contact their customer support directly. Keep your purchase receipt as proof of purchase for warranty claims.

Official RunCam Website: [www.runcam.com](http://www.runcam.com)