RunCam Phoenix 2 SE

RunCam Phoenix 2 SE FPV Camera User Manual

Model: Phoenix 2 SE

1. Product Overview

The RunCam Phoenix 2 SE is a special edition micro FPV camera designed for RC FPV drones, cars, and planes. It features a 1/2" CMOS sensor, 1000TVL resolution, and a wide 160° FOV, providing clear and detailed images for an immersive flying experience. Its robust design includes a sandwich fully covered back cover for dust-proof and short-circuit protection, enhancing durability. The camera also comes with a unique replaceable lens hood for anti-glare and lens protection.

Figure 1: RunCam Phoenix 2 SE FPV Camera

2. What's in the Box

Upon unboxing your RunCam Phoenix 2 SE, please verify that all components are present:

- 1x RunCam Phoenix 2 SE Camera
- 1x Lens Hood
- 1x Set of Screws
- 1x 6-pin FPV Silicone Cable
- 1x User Manual

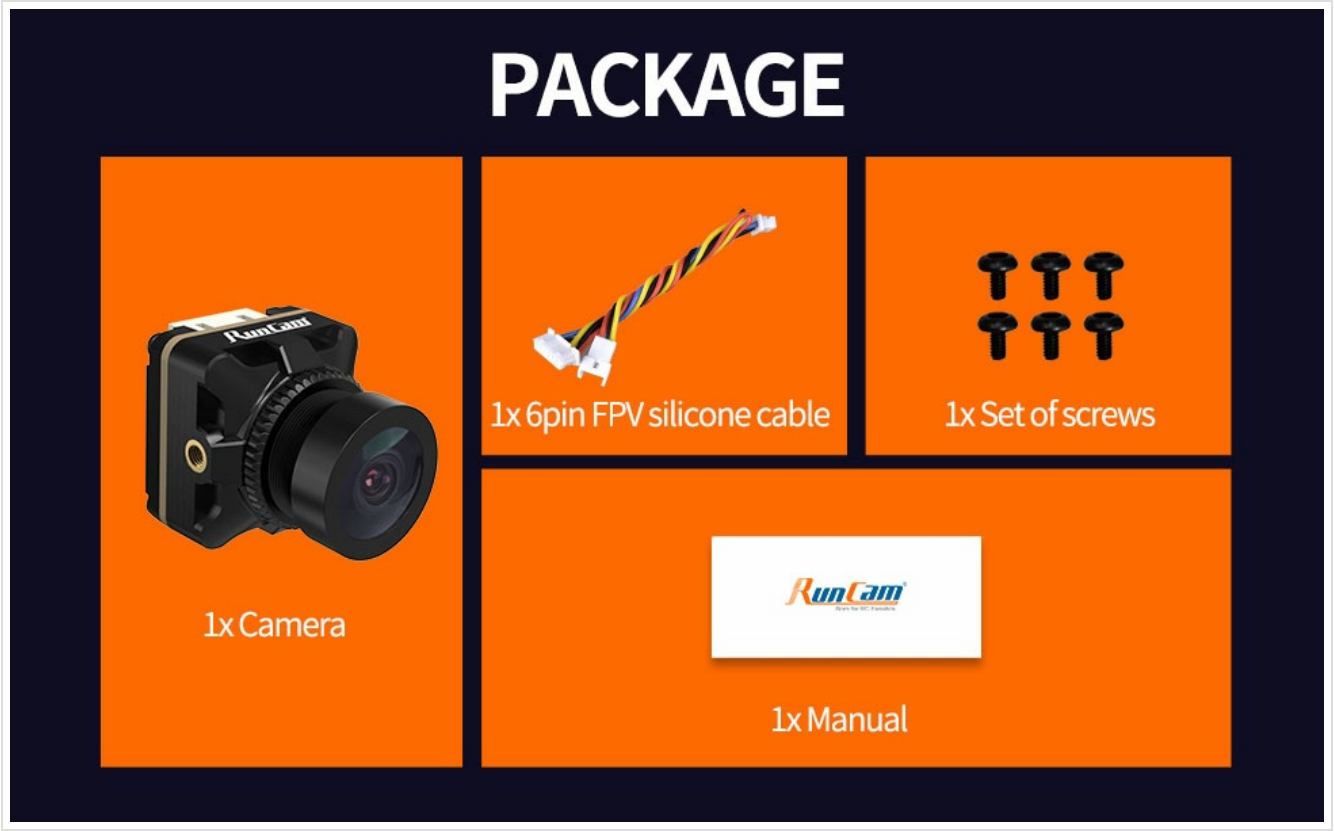


Figure 2: Package Contents

3. Key Features

- **High Resolution:** Real 1000TVL resolution with a 1/2" CMOS sensor for clear image capture.
- **Wide Field of View:** FOV160° (D:160° H:124° V:95°@F 2.4) for broad perspective.
- **Global WDR:** Ensures balanced exposure in challenging lighting conditions.
- **Day/Night Switch:** Automatic switching between color, black & white, and extended modes for optimal visibility.
- **Durable Design:** Sandwich fully covered back cover provides dust-proof and short-circuit protection.
- **Replaceable Lens Hood:** Offers anti-glare properties and physical protection for the lens.
- **Flexible Settings:** Supports 4:3 / 16:9 screen format and PAL / NTSC signal system switching via menu control.
- **Easy Configuration:** Parameters can be set using a RunCam OSD board or an FPV transmitter via the built-in 6-pin connector.
- **Compact Size:** 19mm*19mm*22mm dimensions and 8.6g net weight make it compatible with most micro FPV drones.

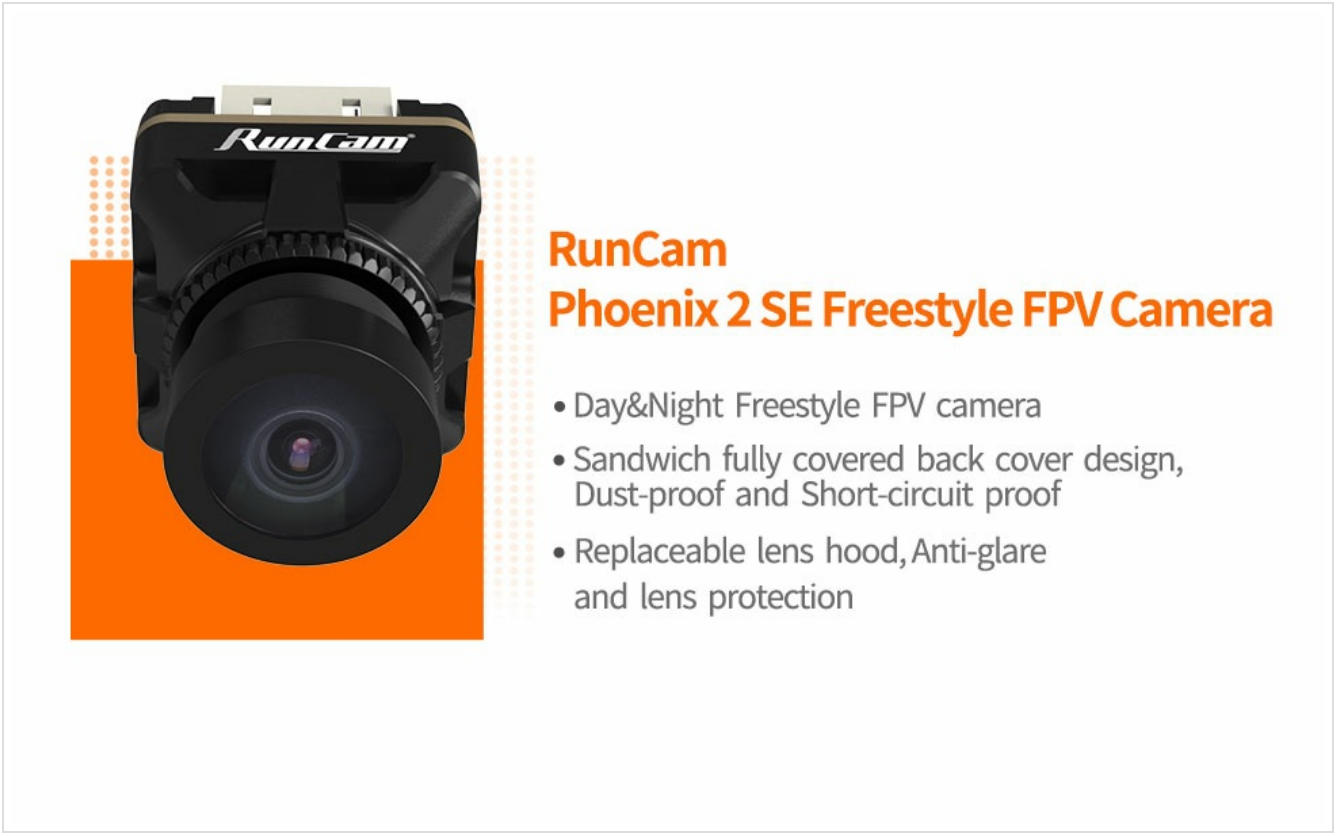


Figure 3: Key Features of Phoenix 2 SE

4. Setup Guide

Follow these steps to set up your RunCam Phoenix 2 SE FPV Camera:

1. **Mounting the Camera:** Securely mount the camera to your drone, RC car, or plane using the provided screws. Ensure the camera is firmly attached to prevent vibration and damage during operation.
2. **Connecting the Cable:** Use the included 6-pin FPV silicone cable to connect the camera to your flight controller or video transmitter. Refer to your flight controller's manual for the correct pinout for video input, ground, and power.
3. **Power Supply:** Connect the camera to a DC 5-36V power source. Ensure the voltage is within the specified range to avoid damaging the camera.
4. **OSD/Menu Control:** The camera supports menu control via a RunCam OSD board or your FPV transmitter. This allows you to adjust settings such as screen format (4:3 / 16:9), signal system (PAL / NTSC), and Day/Night mode. Consult the RunCam OSD board manual or your FPV transmitter's instructions for accessing and navigating the camera's menu.
5. **Lens Hood Installation:** Attach the replaceable lens hood to the camera. This provides additional protection for the lens and helps reduce glare in bright conditions.

Figure 4: Camera with 6-pin connector

5. Operating Instructions

Once the camera is properly installed and powered, it will begin transmitting video. Ensure your FPV goggles or monitor are tuned to the correct frequency of your video transmitter.

- **Video Feed:** The camera provides a live video feed to your FPV system. The 1000TVL resolution and Global WDR ensure a clear and dynamic image, adapting to various lighting conditions.
- **Day/Night Mode:** The camera automatically adjusts between Day (color) and Night (black & white) modes to optimize image quality in different light environments. You can also manually set this via the OSD menu.
- **Aspect Ratio and Signal System:** Adjust the screen format (4:3 or 16:9) and signal system (PAL or NTSC) through the OSD menu to match your FPV display preferences.

Your browser does not support the video tag.

Video 1: Demonstration of RunCam Phoenix 2 SE FPV camera in action, showcasing its video quality and performance during flight.

6. Maintenance

Proper maintenance ensures the longevity and optimal performance of your RunCam Phoenix 2 SE camera:

- **Lens Cleaning:** Gently clean the camera lens with a soft, lint-free cloth. For stubborn smudges, use a lens cleaning solution specifically designed for optical surfaces. Avoid abrasive materials that could scratch the lens.
- **Lens Hood:** Always use the provided lens hood. It protects the lens from physical damage and reduces glare, improving image quality.
- **Dust and Debris:** Regularly inspect the camera for dust and debris, especially around the lens and connectors. Use compressed air or a soft brush to remove any accumulation.
- **Storage:** When not in use, store the camera in a dry, cool place, away from direct sunlight and extreme temperatures.
- **Physical Protection:** The camera's sandwich fully covered back cover design offers inherent dust-proof and short-circuit protection. However, avoid exposing the camera to excessive force or impact.

7. Troubleshooting

If you encounter issues with your RunCam Phoenix 2 SE, refer to the following common troubleshooting tips:

- **No Video Output:**
  - Check all cable connections, ensuring they are secure and correctly wired (power, ground, video out).
  - Verify the camera is receiving the correct voltage (DC 5-36V).
  - Ensure your FPV goggles/monitor are on the correct video channel/frequency.
  - Confirm the signal system (PAL/NTSC) setting on the camera matches your display device.
- **Poor Image Quality (Blurry/Distorted):**
  - Clean the camera lens thoroughly.
  - Check for physical damage to the lens or camera housing.
  - Ensure the lens is securely tightened.
  - Verify that the camera is not experiencing excessive vibration during flight.
- **OSD Menu Not Appearing/Responding:**
  - Ensure the OSD board or FPV transmitter is correctly connected and configured for menu control.
  - Refer to the specific instructions for your OSD board or FPV transmitter for menu access.
- **Camera Not Powering On:**
  - Check the power cable for continuity and proper connection.
  - Test the power source to ensure it is providing the correct voltage.

If the issue persists after following these steps, please contact RunCam customer support for further assistance.

8. Specifications

Feature	Specification
Product Name	RunCam Phoenix 2 SE v2
Image Sensor	1/2" COMS Sensor
Horizontal Resolution	1000TVL
Lens FOV	D:160° H:124° V:95°@F 2.4
Screen Format	4:3 / 16:9 Switchable
Mirror/Flip	Available
Signal System	PAL / NTSC Switchable
Shutter	Rolling Shutter
Sensitivity	10650 mV/Lux-sec
WDR	Global WDR
Day/Night	Color/BW/EXT/Auto
Menu Control	Cable Control
Power	DC 5-36V
Current	200mA@5V, 80mA@12V
Housing Material	ABS
Net Weight	8.6g
Dimensions	19mm x 19mm x 22mm

DIMENSIONS

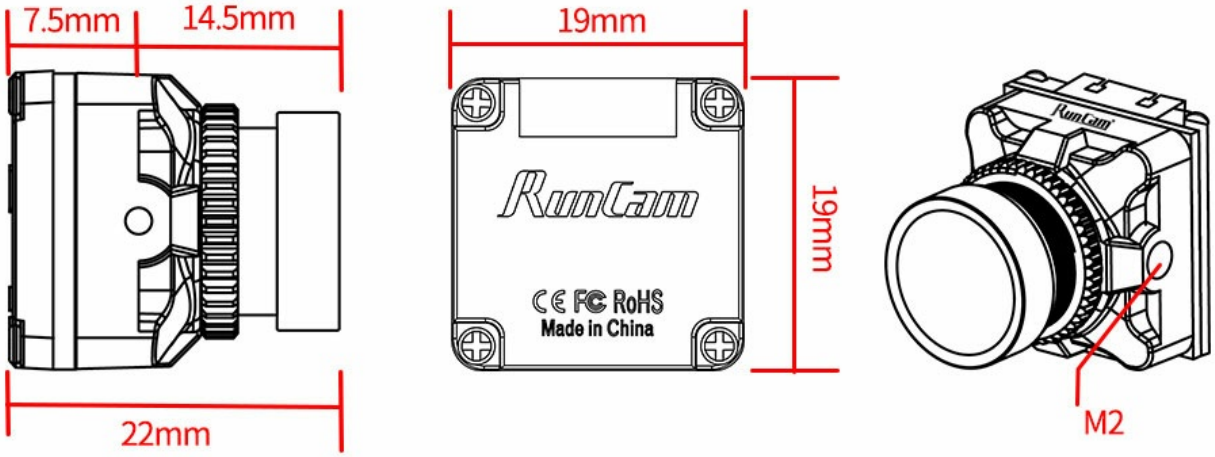
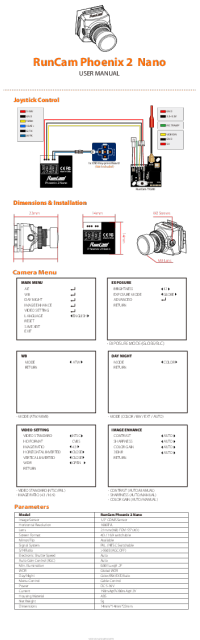


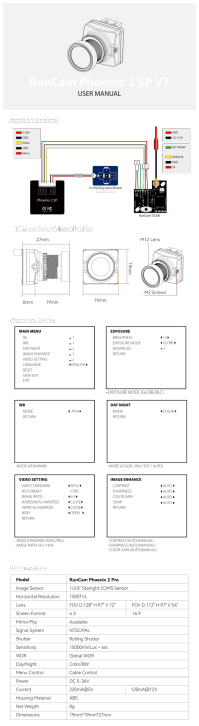
Figure 5: Dimensions of RunCam Phoenix 2 SE

9. Warranty and 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 any warranty claims.
Official RunCam Website: www.runcam.com

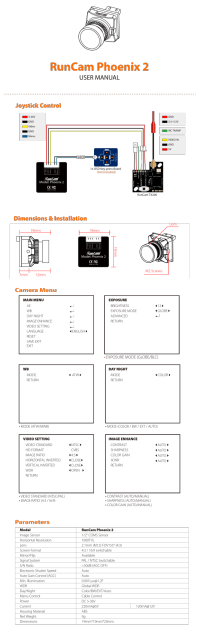
Related Documents - Phoenix 2 SE

	RunCam Phoenix 2 Nano FPV Camera User Manual User manual for the RunCam Phoenix 2 Nano FPV camera, detailing joystick control, installation, camera menu settings, and technical parameters. Features 1000TVL resolution and Global WDR.



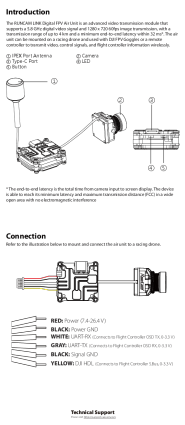
[RunCam Phoenix 2 SP V3 FPV Camera User Manual and Specifications]

Comprehensive user manual for the RunCam Phoenix 2 SP V3 FPV camera. Covers joystick control, installation, detailed camera menu settings, and technical specifications including image sensor, resolution, and dimensions.



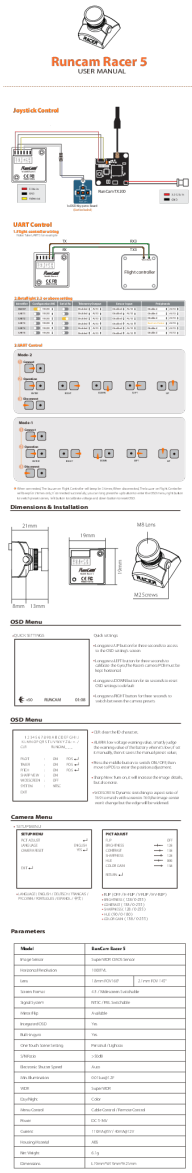
[RunCam Phoenix 2 User Manual - FPV Camera Guide]

Comprehensive user manual for the RunCam Phoenix 2 FPV camera, detailing joystick control, installation, dimensions, and camera settings for optimal performance.


Introduction
Connection
Technical Support

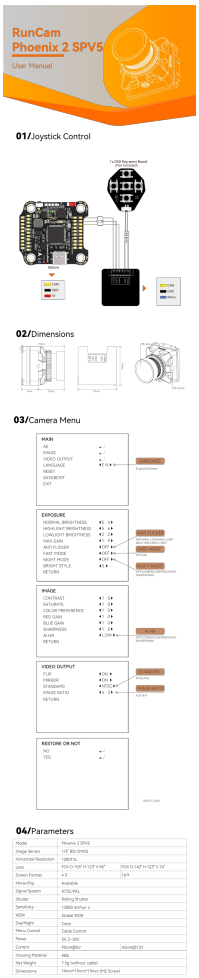
[Runcam Link Digital FPV Air Unit: Specifications and Connection Guide]

Comprehensive guide to the Runcam Link Digital FPV Air Unit, covering its advanced video transmission capabilities, technical specifications, connection diagrams, activation process, and linking methods for FPV drone enthusiasts.


Runcam Racer 5
USER MANUAL
Joystick Control
UART Control
Dimensions & Installation
OSD Menu
OSD Menu
Camera Menu
Parameters

[Runcam Racer 5 FPV Camera User Manual and Specifications]

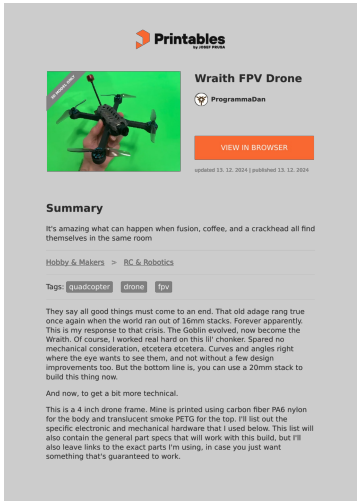
Comprehensive user manual and technical specifications for the Runcam Racer 5 FPV camera, covering wiring, OSD control, camera settings, and performance parameters.



[RunCam Phoenix 2 SPV5 User Manual - FPV Camera Guide]

Comprehensive user manual for the RunCam Phoenix 2 SPV5 FPV camera. Learn about joystick control, dimensions, camera menu settings, and technical parameters.

Documents - RunCam – Phoenix 2 SE



[Wraith FPV Drone: Build Guide and Specifications]

A comprehensive guide to building the Wraith FPV drone, including electronic component recommendations, assembly instructions, and licensing information. This document details the parts needed for a 4-inch FPV drone capable of using a 20mm stack.

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