

RunCam

**T1 Development
DIY Camera**



RunCam T1 Development DIY Camera Instruction Manual

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RunCam

RunCam T1 Development DIY Camera



Product Specifications

- **Model:** RunCam T1
- **Installation Method:** Integrated or Split
- **Power Supply:** Supports battery power and Type-C USB 5V power supply
- **Resolution:** 2.7k, 1440p, 1080p, 720p
- **Frame Rates:** 25fps, 30fps, 50fps

Product Usage Instructions

Basic Camera Operations

Power Supply:

The camera can be powered by both a battery and a Type-C USB 5V power supply.

Button Operations:

- **Power On/Off:** Long press the Power/Shutter button to turn the camera on or off.
- **WiFi On/Off:** Press the WiFi button to toggle WiFi on or off. Make sure to stop recording before changing WiFi settings.
- **Recording:**
 - **Start/Stop Recording:** Press the Power/Shutter button to start or stop recording.
 - **Force Restart:** Press both the Power/Shutter and WiFi buttons simultaneously to force restart the camera.

Touch Screen Operations

Record Mode:

- **Resolution Selection:** Swipe left to right to select resolution and swipe up/down to choose frame rates.
- **Mode Switching:** Swipe down to switch between recording and photograph modes.

Photograph Mode:

- **Resolution Selection:** Swipe left to right to select resolution and swipe up/down to choose options.
- **Mode Switching:** Swipe down to switch between recording and photograph modes.

Playback

Video Playback:

Swipe left/right to select a video and tap play. Photo playback: Swipe left/right to switch between photos.

Frequently Asked Questions

- **Q: How do I change the camera's resolution?**

A: In record mode, swipe left to right to select the desired resolution and swipe up/down to choose the frame rate.

- **Q: How can I toggle WiFi on and off?**

A: Press the WiFi button to turn the WiFi on or off. Ensure recording is stopped before changing WiFi settings.

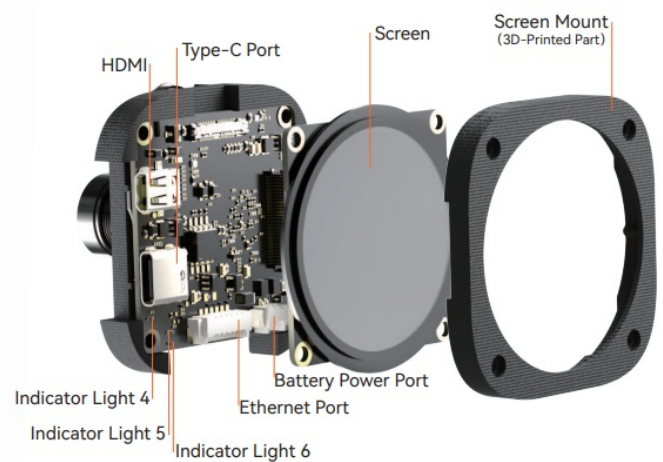
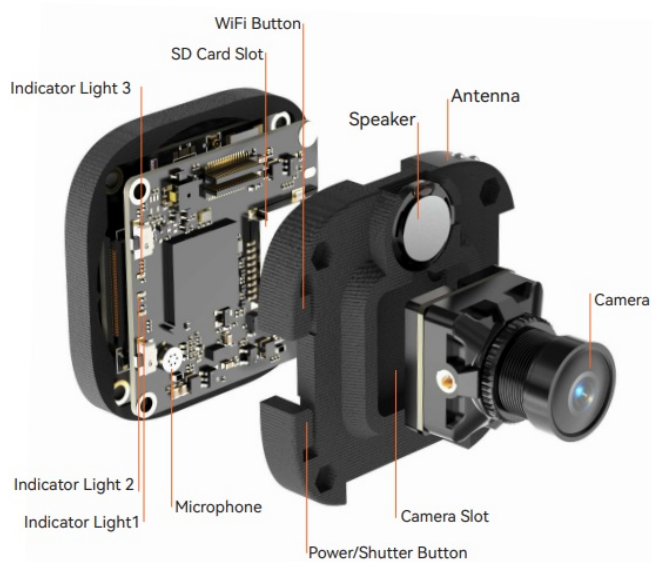
Installation Method

Integrated



Split

Diagram



Indicator Lights Status

Indicator	Color	Standby	Card Error	Recording	WiFi On	WiFi Connected	Charging	Type-C Charging	Ethernet Connected	Firmware Upgrade
Indicator1	Blue	Solid	Fast Flash	Slow Flash	Solid	Solid	Solid	Solid	Solid	Alternating Flash
Indicator2	Red	Solid	Fast Flash	Slow Flash	Solid	Solid	Solid	Solid	Solid	Alternating Flash
Indicator3	Yellow	/	/	/	Slow Flash	Solid	/	/	/	Alternating Flash
Indicator4	Green	/	/	/	/	/	Solid	Fast Flash	/	/
Indicator5	Green	/	/	/	/	/	/	/	On	/
Indicator6	Green	/	/	/	/	/	/	/	On	/

Basic Camera Operations

Power Supply

Suppo both batte power and Type-C USB 5V power supply.



Battery Power Supply

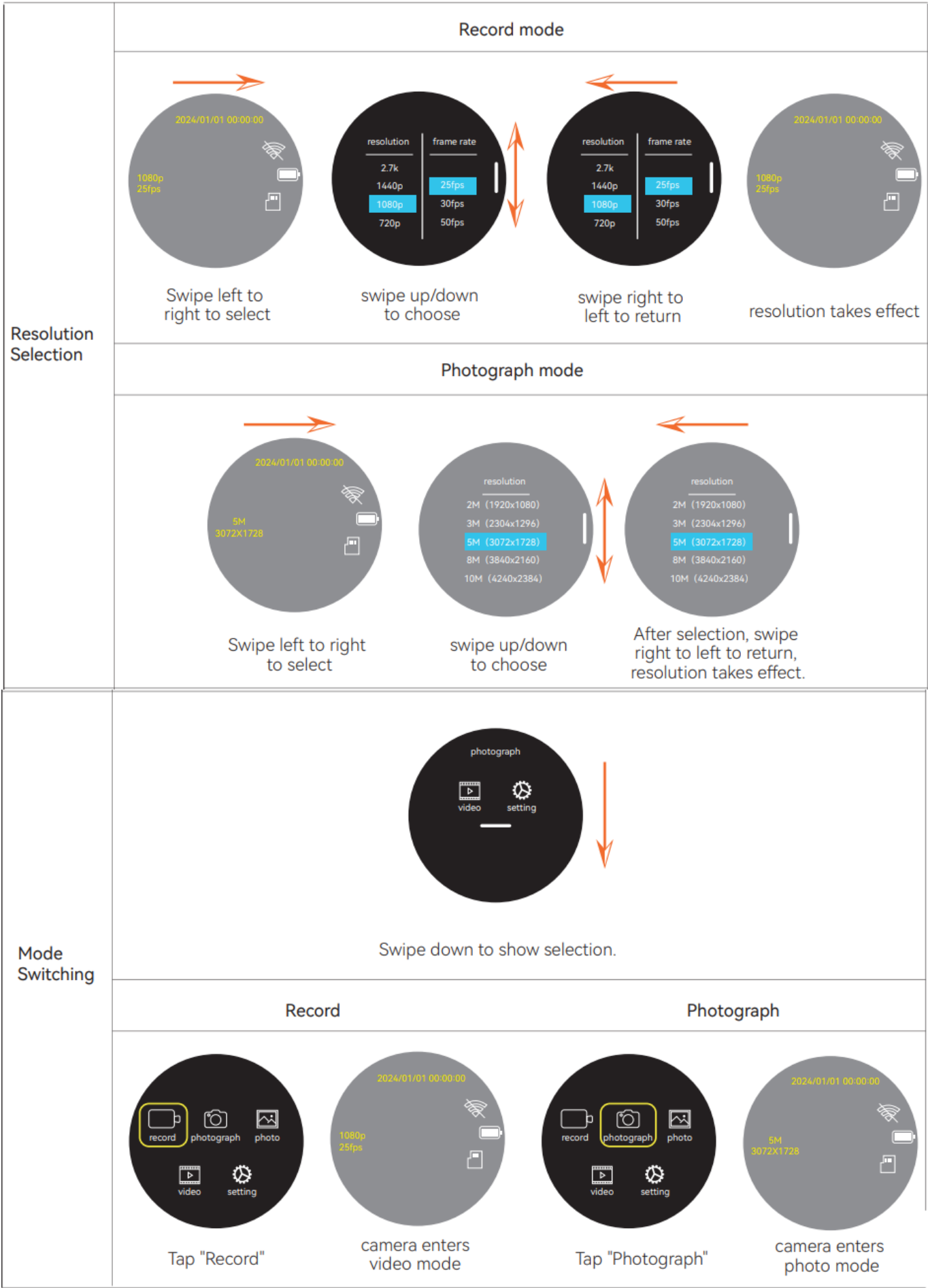


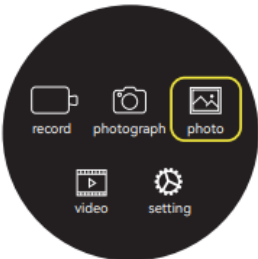
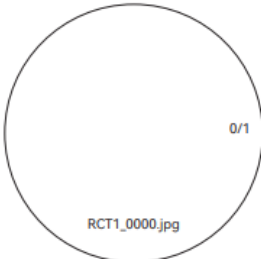
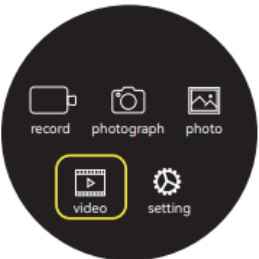
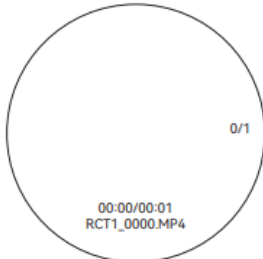
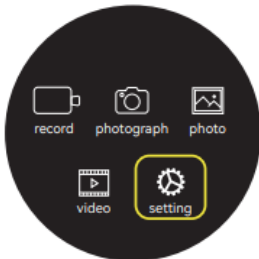
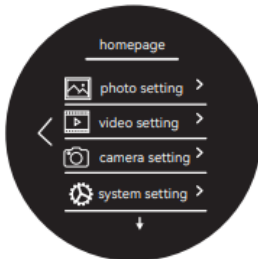
Type-C USB 5V

Button Operations

Power On/Off	When the camera is off, long press the Power/Shutter button to turn it on.	
	When the camera is on, long press the Power/Shutter button to turn it off.	
WiFi On/Off	When the network output is set to WiFi, short press the WiFi button to turn on WiFi.	
	When the network output is set to WiFi and WiFi is already on, short press the WiFi button to turn off WiFi.	
	Ensure recording is stopped before controlling WiFi.	
Recording	In Record Mode	Not recording: Short press Power/Shutter button to start recording.
		Recording: Short press Power/Shutter button to stop recording.
	In Photograph Mode	Short press Power/Shutter button to take photos.
Force Restart	Press the power/shutter button and the WiFi button simultaneously to force restart the camera.	

Touch Screen Operations



Mode Switching	Photo		Video	
				
	Tap "Photo"	enter photo playback	Tap "Video"	enter video playback
	Setting			
				
	Tap "Setting"	enter settings page		
Playback	Video playback: Swipe left/right to select video, tap play.			
	Photo playback: Swipe left/right to switch photos.			

Firmware Upgrade

For optimal performance, upgrade to the latest firmware version (Supports FAT32 SD cards only).

Upgrade Status:

Red, blue, and yellow lights alternate flashing, and the screen shows the SYSTEM UPGRADE. After completion, the camera restarts.

Upgrade instructions:

<https://www.runcam.com/download/RunCamT1>.



Hardware Interface Instructions

Type-C Port

Supports 5V USB power input.	Powers the mainboard and charges the battery (green light solid on while charging, off when fully charged).
U-Disk Mode (connected to a computer)	Insert SD card, connect via USB, and the camera will enter U-Disk mode to access SD card files.
Connect to the computer in PCCAM mode	While in U-Disk mode, short press WiFi button to switch to PCCAM (camera) mode. Right-click on "Computer" -> "Manage" -> "Device Manager" and find "UVC Camera0" under "Cameras" for preview.
Connect the CVBS display to the Type-C serial cable	Ensure "Output Interface Settings" - "Local Interface" are set to "CVBS" for real-time preview via a CVBS display in recording mode.

HDMI

Connect to an HDMI display for real-time preview in record mode.







Note:

- Ensure the camera is in "Record" mode.
- Ensure the "Output Settings" – "Local Interface" is set to HDMI.
- If the camera resolution is set to 4K, ensure the "4K Compatibility" is set to "Local Interface" under "Output Settings".

Ethernet Port

Supports wired VTX and UART data transfer.

JST SH 1.25mm 6Pin Wiring Instruction

-  **TX**
Transmit data
-  **RX**
Receive data
-  **ETH_RN**
Negative receive signal
-  **ETH_RP**
Positive receive signal
-  **ETH_TN**
Negative transmit signal
-  **ETH_TP**
Positive transmit signal



Wired VTX

Use a JST SH 1.25mm 6-pin cable to connect the camera to the Ethernet. Set the camera's network output to Ethernet, then connect the camera to the computer. Once connected, configure the network on the computer.

Windows

1. Open "Control Panel," go to "Network and Sharing Center," find the Ethernet network, and open its "Properties."
2. Double-click "Internet Protocol Version 4 (TCP/IPv4)". Manually change the IP address to:
 - **Default IP Address:** 192.168.10.1
 - **Subnet Mask:** 255.255.255.0
 - **Default Gateway:** 192.168.2.1

Click OK to complete the settings. Open a video player (PotPlayer or VLC Media Player) that supports URL video playback. After configuration, a real-time preview will be available in record mode.

Mac

1. Open "Network Preferences," find and select "USB xx LAN," then set "Configure IPv4" to manual.
2. Change the IP address to:
 - Default IP Address: 192.168.10.1
 - Subnet Mask: 255.255.255.0
 - Default Gateway: 192.168.2.1

After completing the settings, open a video player (PotPlayer or VLC Media Player). After configuration, a real-time preview will be available in record mode.

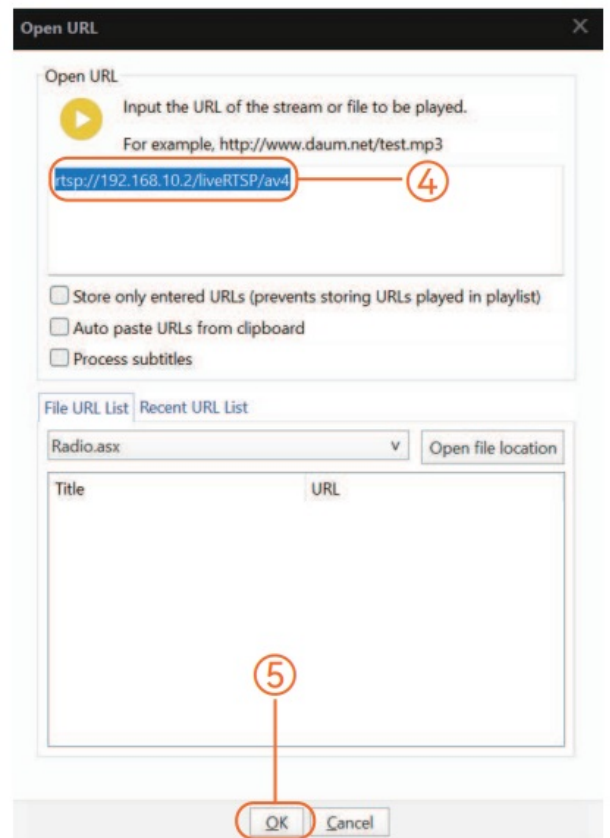
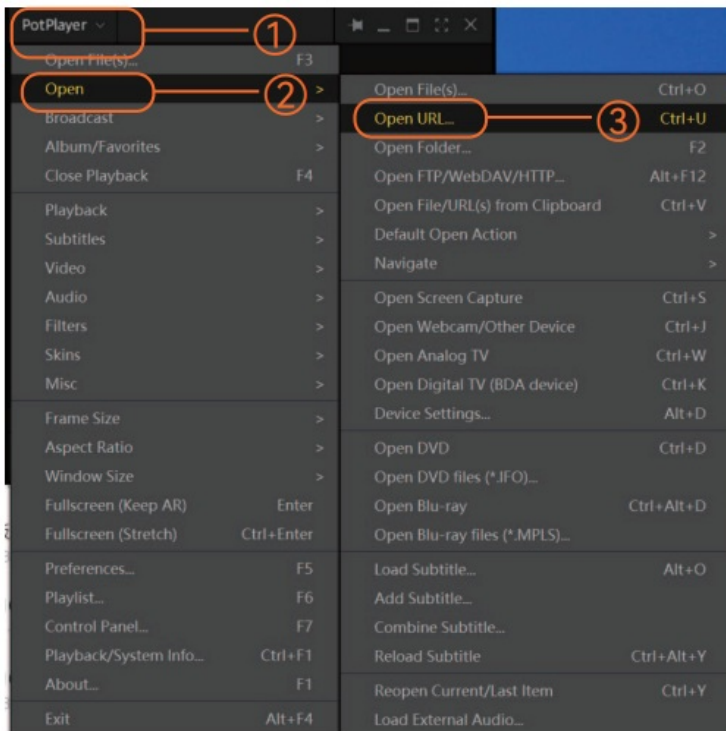
Real-Time Preview Instructions:

Note:

- Ensure the IP address is set.
- Ensure the camera mode is set to "Record" mode.
- Ensure the camera's "Output Settings" – "Network Output Interface" is selected as "Ethernet".
- If the camera resolution is 4K, ensure the camera's "Output Settings" – "4K Compatibility" is selected as "Net Interface".

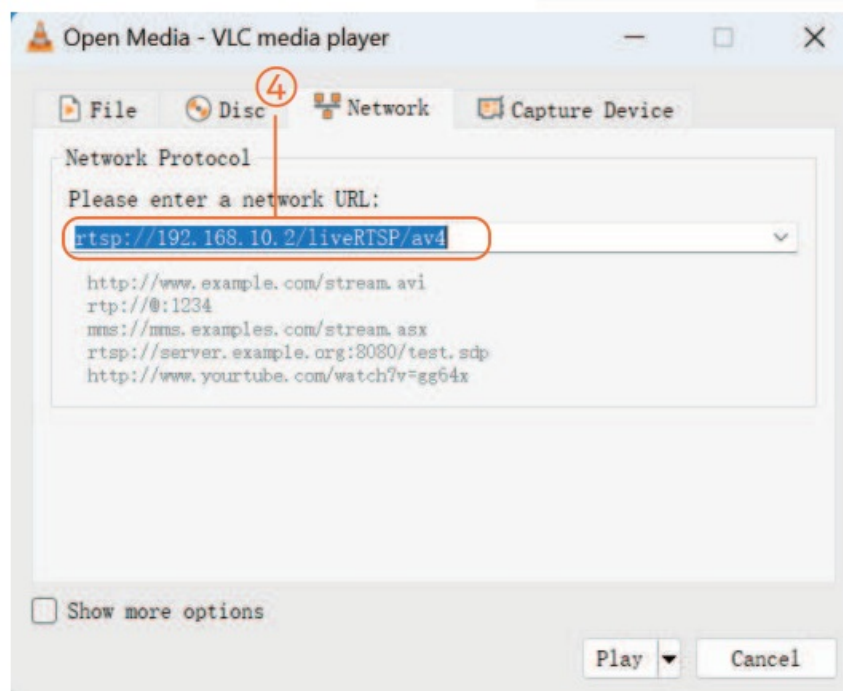
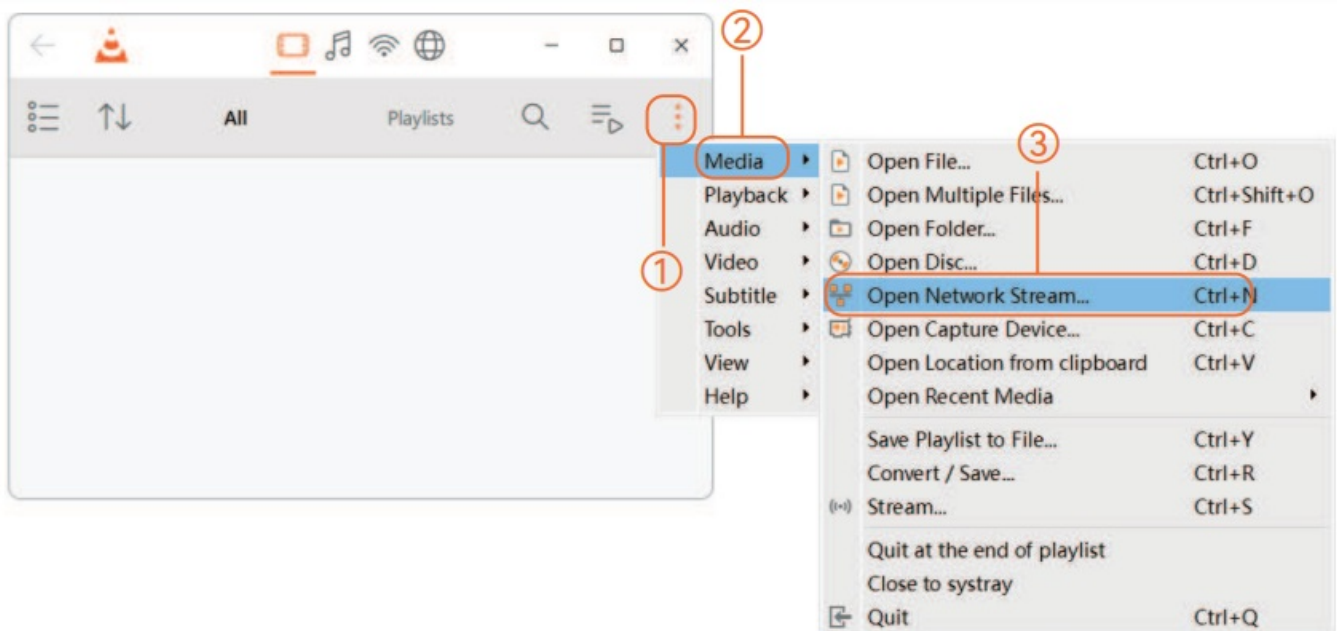
PotPlayer:

Follow the steps indicated in the image. Copy the address: `rtsp://192.168.10.2/live RTSP/av4`, paste it into 4, and click "OK" to enable the real-time preview in record mode.



VLC Media Player:

Follow the steps indicated in the image, copy this address: `rtsp://192.168.10.2/live RTSP/av4`, paste it into the field marked 4, and click "Play" to enable the real-time preview in recording mode.



UART Configuration

Refer to the document: Simplified Protocol.docx


Technical Support

Visit: [RunCam Support](<https://support.runcam.com/hc/en-us>).

Specifications

Name	RunCam T1	
Sensor	Sony IMX415	
Video Resolution	4K: 3840x2160@25/30fps	2.7K: 2704x1520@25/30fps
	1440P: 2560x1440@25/30fps	1080P: 1920x1080@25/30/50/60fps
	720P: 1280x720@25/30/50/60fps	
Photo Resolution	2M: 1920x1080	3M: 2304x1296
	5M: 3072x1728	8M: 3840x2160
	10M: 4240x2384	12M: 4608x2592
	13M: 4800x2700	20M: 6016x3384
Video Forma	MP4	
Photo Format	JPG	
Recording Modes	Normal Recording, Slow Motion, Loop Recording, Pre-Recording	
Photo Modes	Normal Photo, Time-Lapse, Burst Mode	
Power Interface	Type-C USB 5V / Battery	
Current	Max 874mA@DC 5V	
Dimensions	46.5 x 46.5 x 20.5 mm (excluding lens height)	
Weight	43 g	

Documents / Resources

 <p>RunCam T1 Manual</p>	<p>RunCam T1 Development DIY Camera [pdf] Instruction Manual T1, T1 Development DIY Camera, Development DIY Camera, DIY Camera, Camera</p>
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References

- [RunCam - download](#)
- [User Manual](#)

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