Kuman SC15 Raspberry Pi Camera User Manual

Contents

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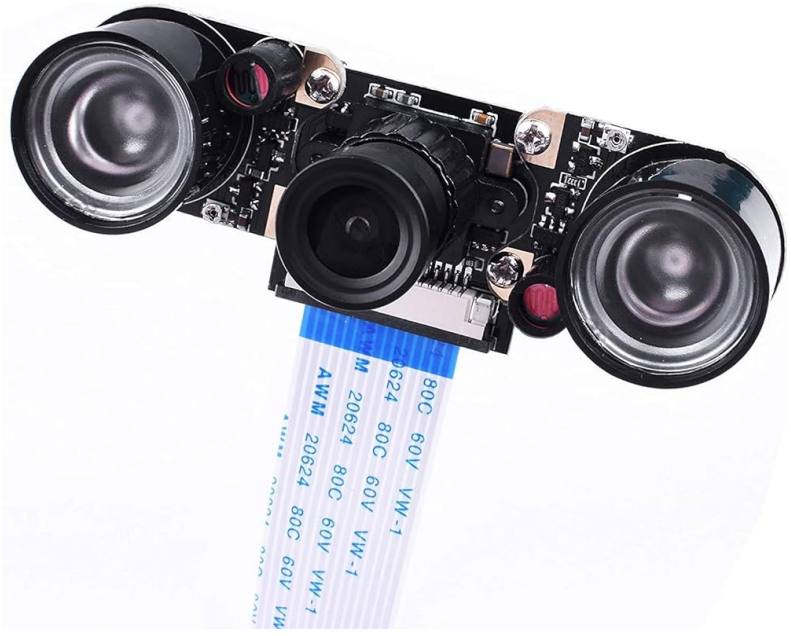


Product Information

- Product: Raspberry Camera
- Supported Raspberry Pi models: B/B+, A+, RPI 3, 2, 1
- Sensor: 5 Megapixel Ov5647
- Supports up to 2 infrared LED and/or fill Flash
- Supports all revisions of the Raspberry Pi
- Package Contents: 2PCs infrared LED light, 1 piece infrared night vision webcam camera board
- Image Resolution: 2592 x 1944 pixels
- Video Resolutions: 1080P @ 30 FPS, 720P @ 60 FPS, and 640 x 480P @ 60/90 FPS
- Lens: 1/4 5M
- Aperture (F): 2.9
- Focal Length: 3.29MM
- Diagonal: 72.4 degrees
- Dimension: 25mm x 24mm x 6mm
- 4 screw holes for attachment and power supply
- Supports up to 2 3W high-power 850 infrared LED and/or fill flash

Product Usage Instructions

Raspberry Basics Operating

1. Download the Raspbian system image from the Raspberry website (**http://www.raspberrypi.org/**).
2. Format the SD card using the SDFormatter.exe software. Note: The TF card capacity should be at least 4GB. You will need a TF card reader to perform this operation.
3. Open the Win32DiskImager.exe software and select the system image you prepared. Click on “Write” to program the system image onto the SD card.

Configure the Camera

Hardware Connection

Plug the camera’s cable into the cable slot located between the network port and HDMI port on the Raspberry Pi. Ensure that the silver bright face of the cable is facing towards the HDMI port. Follow these steps:

1. Open the cable slot’s buttons on the Raspberry Pi board.
2. Insert the cable tightly into the cable slot. Do not bend the cable.
3. After inserting the cable, re-fasten the cable slot’s buttons.

How to Use the Camera

1. Enter the Raspbian system terminal and execute the following statements to update the system:
    - `apt-get update`
    - `apt-get upgrade`
2. Use raspi-config to configure the camera:
    - Execute the following statement: `sudoraspi-config`
    - Move the cursor to “Camera” and press Enter.

3. In the “Enable support for Raspberry Pi camera?” prompt, select “Enable”.
4. Restart the system when prompted: “Would you like to reboot now?”. Select “Yes”.

Taking Pictures and Video

After configuring and connecting the camera, you can take pictures and videos by powering on the Raspberry Pi. Follow these steps:

1. To take a picture, execute the following statement: `raspistill -o image.jpg`
2. To take a video, execute the following statement: `raspivid -o video.h264 -t 10000` (where `-t 10000` indicates recording for 10 seconds; adjust the value according to your requirement).

Reference Materials

For more detailed camera instructions, refer to the following resources:

- **http://www.raspberrypi.org/camera**
- **http://www.raspberrypi.org/archives/tag/camera-board**
- **http://www.raspberrypi.org/archives/3890**

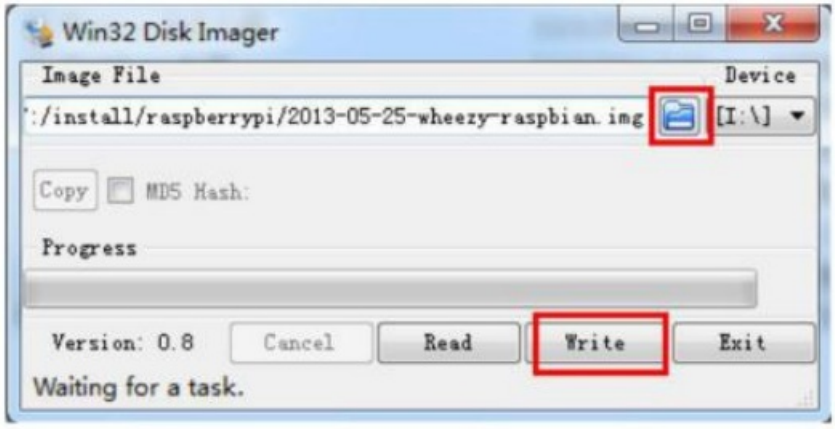
Raspberry camera user manual

- Rpi camera, supports Raspberry Pi model B/B+ A+ RPI 3 2 1
- 5 Megapixel Ov5647 sensor, supports up to 2 infrared LED and/or fill Flash
- Raspberry Pi night vision camera, supports all revisions of the Pi
- Package contains: 2PCs infrared LED light, 1 piece infrared night vision webcam camera board
- The camera is capable of 2592 x 1944 pixel static images, and also supports 1080 P @ 30 FPS, 720 P @ 60 FPS and 640 x480 P 60/90 video Recording
- **Lens:** 1/4 5M;
- **Aperture (F):** 2.9;
- **Focal Length:** 3.29MM;
- **Diagonal:** 72.4 degree;
- **Sensor best resolution:** 1080p (2592×1944 pixels);
- **Dimension:** 25mm x 24mm x 6mm;
- **4 screw holes;**
- Used for both attachment and 3.3V power supply;
- Supports up to 2 3W high-power 850 infrared LED and/or fill flash.

Raspberry basics operating

1. Download the Raspbian system image in the raspberry website (**http://www.raspberrypi.org/**).
2. Use the SDFormatter.exe software to format the SD card.
   Note: TF card capacity is not less than 4GB. This operation must be accompanied by TF card reader, the user needs to buy another.

3. open Win32DiskImager.exe software, select the system to prepare the previous image, click write programming system image. As the following picture:



Configure the camera

Hardware connection

Please plug the camera's cable into cable slot which between the network port and HDMI port, and silver bright face toward the HDMI port.

The specific operation is as follows

1. Firstly you should open the cable slot's buttons which on the raspberry board, and then you could insert the cable.
2. The cable needs to be tightly inserted into the cable slot, and please do not bend the cable.
3. After the cable is inserted, you need to re-fasten cable slot's buttons.

How to use the camera

1. Enter the Raspbian system terminal, execute the following statement to obtain the system update:
   apt-get update
   apt-get upgrade
2. Use raspi-config to configure the camera. Executethe following statement:
   sudo raspi-config
   Then move the cursor to the "Camera" and press Enter. As the following picture:

3. “Enable support for Raspberry Pi camera?”

   Please select “Enable”

4. Restart the system:

   “Would you like to reboot now?”

   Please select “Yes”

Taking pictures and video
When finish configuring the camera and connect the camera, you could taking pictures and video as long as power the raspberry.
The specific operation is as follows:

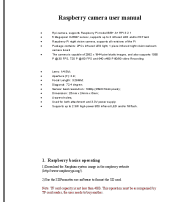
1. Taking picture, please execute the following statement: raspistill -o image.jpg
2. Taking video, please execute the following statement: raspivid -o video.h264 -t 10000 “-t 10000” means that record 10 seconds, you can adjust it according to your requirement.

Reference materials

Camera library file please refer to: Shell (Linux command line) Python Otherwise, you can visit the following websites for more detailed camera instructions:

- **http://www.raspberrypi.org/camera**
- **http://www.raspberrypi.org/archives/tag/camera-board**
- **http://www.raspberrypi.org/archives/3890**

Documents / Resources

	Kuman SC15 Raspberry Pi Camera [pdf] User Manual SC15 Raspberry Pi Camera, SC15, Raspberry Pi Camera, Pi Camera, Camera

References

- Teach, learn, and make with the Raspberry Pi Foundation
- User Manual