

5MP Camera User Manual



SKU: 202-0456

1. General

The OKdo 5MP Camera is a low-cost wider Field View camera module, designed for the whole Raspberry Pi series (Pi 4/Pi 3 B+/Pi 3 A+/Pi 3/Pi ZERO/Pi ZERO W/CM3+/CM3). The OKdo 5MP Camera has a 5M Pixel sensor, and connects via a ribbon cable to the CSI connector on the Raspberry Pi.

Plug and Play device, driver-free. Supports all Raspberry Pi original camera tools, such as raspistill, raspivid etc.

2. Features

1. The OKdo 5MP Camera is a low-cost wider field view camera module that designed for Raspberry Pi 4, Pi 3 B+, Pi 3, Pi 2, Pi B+, Pi A, Pi Zero/Zero W. Comes with both ribbon cable sizes for compatibility with classic Raspberry Pi and Zero.

2. Connects to the CSI connector of Raspberry Pi directly. High bandwidth communication from the camera module to the Raspberry pi.

3. Sensor type: On-board OmniVision OV5647[6] Color CMOS QSXGA (5-megapixel); Video: 1080p at 30 fps with codec H.264 (AVC).

4. Lens Feature: 2.8 Focal Length. F/NO: 2.2. Field Of view: D=90° H=74°. Element: 4G+IR. CRA: 10°. Relative Illumination: 52%. Focal distance is adjustable.

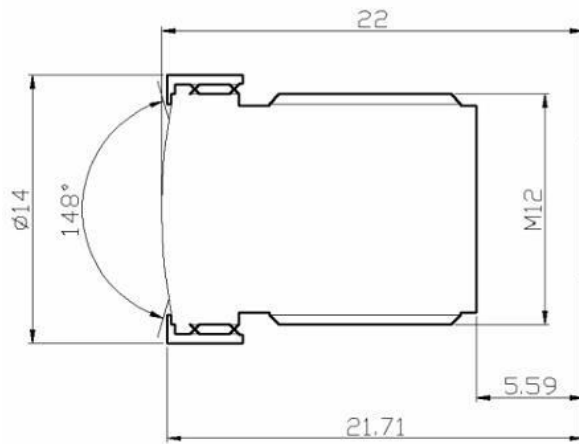
5. Plug and Play device, driver-free for all raspberry pi boards, no need to install extra software.

3. Hardware Description

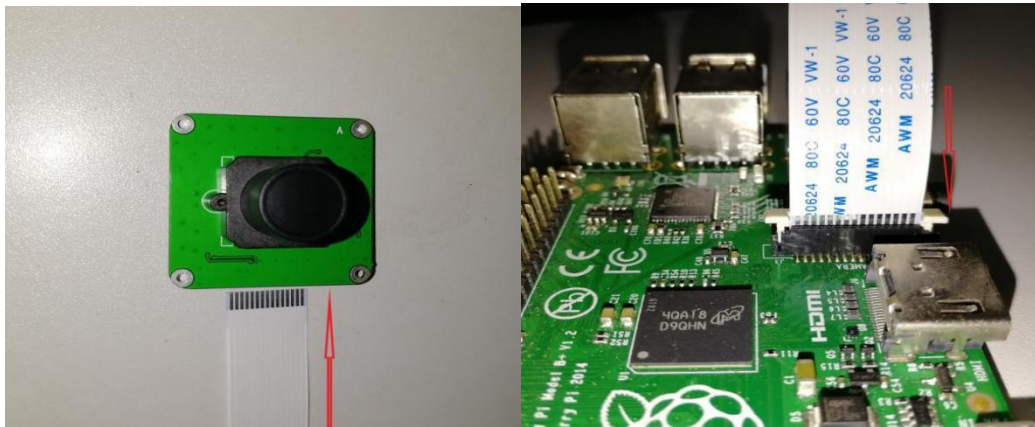
3.1 Overview

Sensor type	OmniVision OV5647 Color CMOS QSXGA
Sensor size	3.67 x 2.74 mm (1/4 inch)
Resolution	5 million pixels
Field of view	Fov(D) = 90° Fov(H) = 74°
Pixel Count(Still Picture Resolution)	2592 x 1944
Focal Length	2.8 mm
Focal Distance	Adjustable
F(N) /Aperture	2.2
Pixel Size	1.4 x 1.4 um
Video	1080p at 30 fps 720p at 60 fps
Board Size	39 x 39 mm (not including flex cable)
TV DISTORTION	<-17%
CRA	10°
Relative Illumination	52%
Minimum Object Distance (M.O.D)	0.1 meter
Element	4G+IR
Lens Diameter	M12
Lens Seat Spacing	22 mm
Mounting Holes	4x D=2.20 mm

3.2 Size



3.3 Wiring





4. Software Description

4.1 Load image

Prepare a capacity of more than 8GB TF card and a card reader. Load the image file on to the SD card, using the instructions provided on the Raspberry Pi website for Linux, Mac or PC:

<https://www.raspberrypi.org/documentation/installation/installing-images/README.md>

Raspbian Raspberry Pi OS Image download:

Support: support@okdo.com

Bulk Price: sales@okdo.com 5

<https://www.raspberrypi.org/downloads/>

If your Raspberry Pi OS is not the latest version. You can use below command update.

```
sudo apt-get update
```

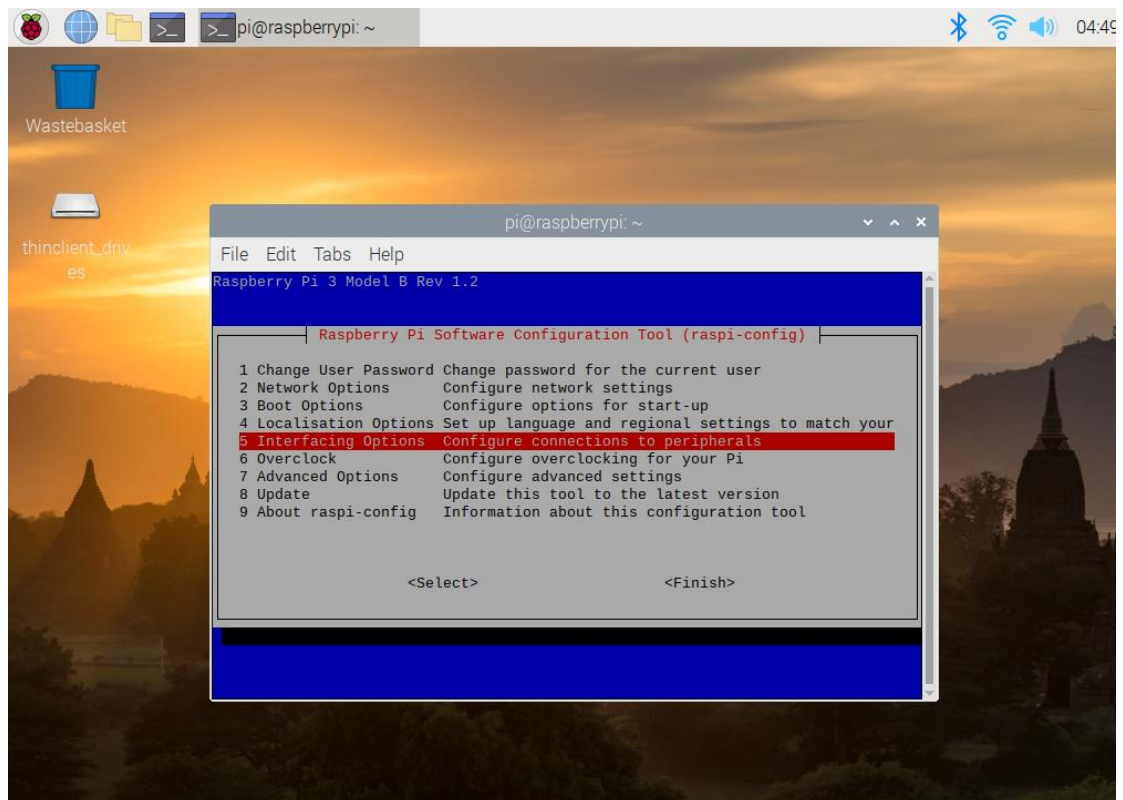
```
sudo apt-get upgrade
```

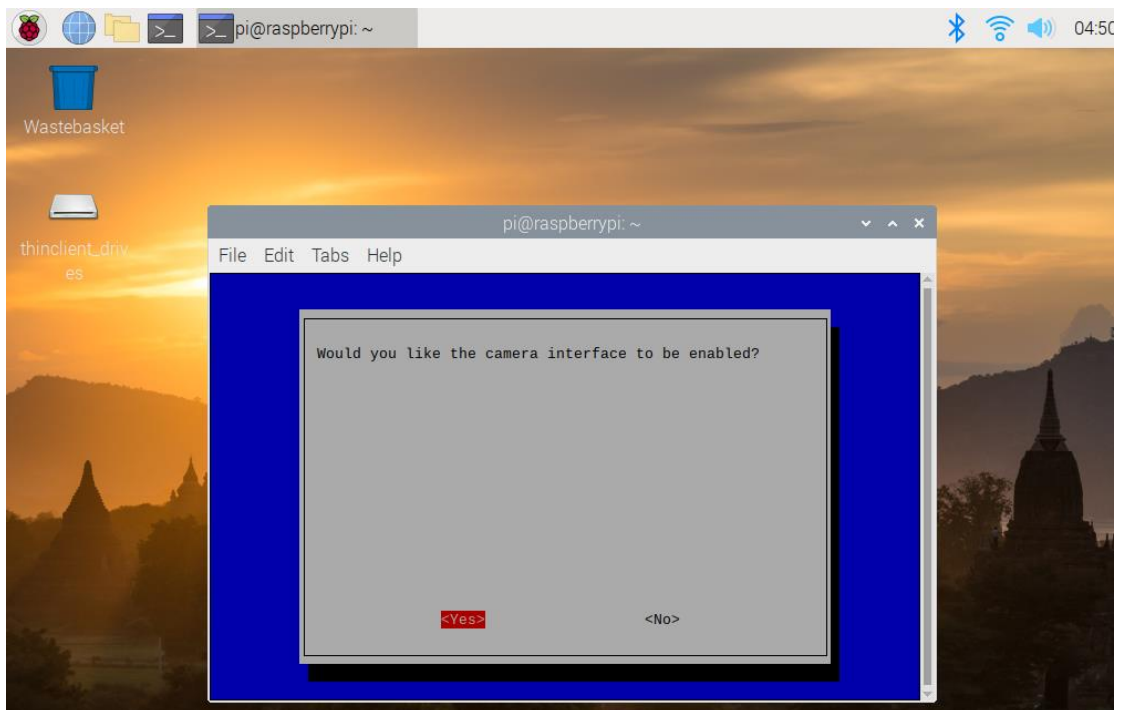
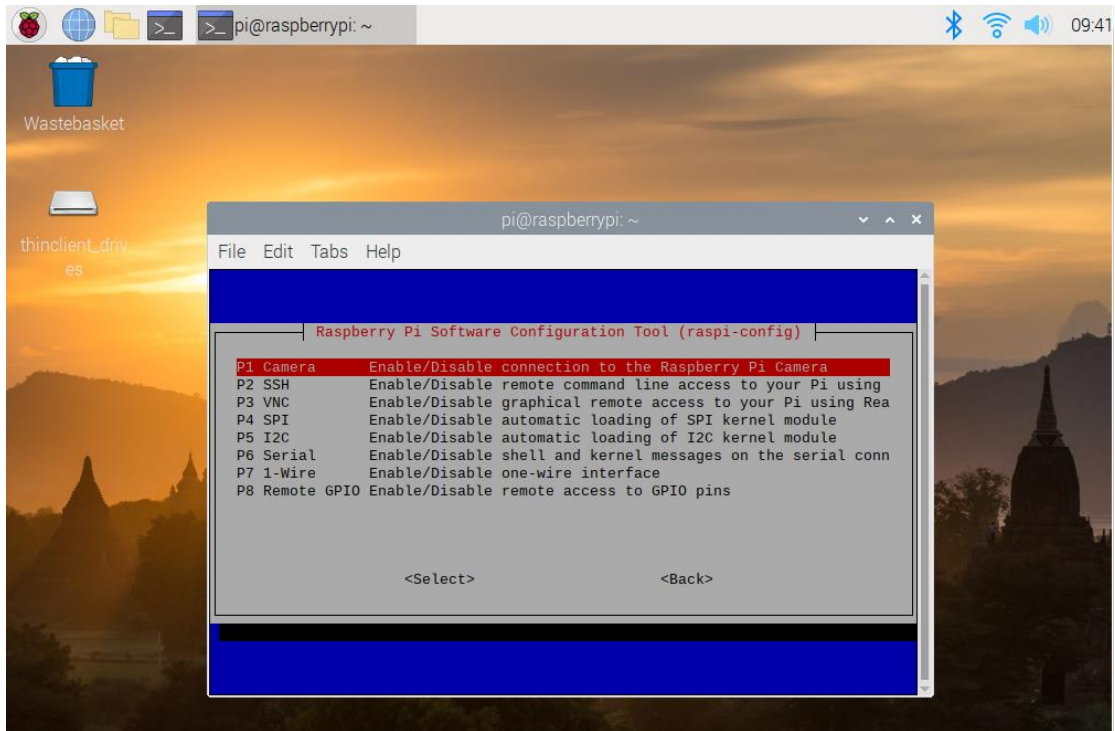
4.2 Enable Camera

(1) Open the raspi-config tool when you first set up your Raspberry Pi:

```
sudo raspi-config
```

(2) Select 'Interfacing Options' → 'Camera'. and then enable camer and reboot.





4.3 Take Photos

(1) take a picture name 'test'.

```
raspistill -o test.jpg
```

(2) take a picture name 'test' with resolution 640*480

```
raspistill -o test.jpg -w 640 -h 480
```

(3) take a picture name 'test' after 10 seconds(10000ms).

```
raspistill -t 10000 -o test.jpg
```

(4) Take a picture name 'test' with PNG format(raw date) . It will take more time to save.

```
raspistill -o test.png -e png
```

4.4 Take H.264 Video

(1) take a 10s(10000ms) video name 'test'.

```
raspivid -o test.h264 -t 10000
```

(2) take a 10s(10000ms) video name 'test' with resolution 1280*720.

```
raspivid -o test.h264 -t 10000 -w 1280 -h 720
```


4.5 Reference

The OKdo 5MP Camera can be used in the same way as a standard Pi camera.

For more information, please refer to below link:

<https://projects.raspberrypi.org/en/projects/getting-started-with-picamera>

<https://www.raspberrypi.org/forums/viewforum.php?f=43&sid=7b94c5651e50c2fc2afoa049o66cdfda>