

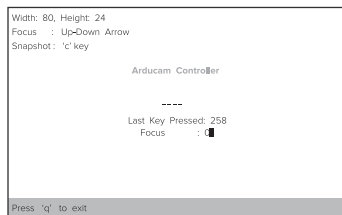
For Kernel version 5.10.63
`python3 -m pip install ./libcamera-1.0.1-cp39-cp39-linux_armv7l.whl`

For Kernel version 5.10.93
`python3 -m pip install ./libcamera-1.0.2-cp39-cp39-linux_armv7l.whl`

Manually adjusting the focus

`Python3 FocuserExample.py -i 10`

Press the Up/Down for the focus adjustment, press "q" to exit.



One-time autofocus

`python3 AutofocusTest.py -i 10`
Press 'f' to focus, and click 'q' to exit.
Enjoy

libcamera-still is an advanced command line tool for capturing still images with the IMX219 Camera Module.

`libcamera-still -t 5000 -o test.jpg`

This command will give you a live preview of the camera module, and after 5 seconds, the camera will capture a single still image. The image will be stored in your home folder and named test.jpg.

`-t 5000`: Live preview for 5 seconds.

`-o test.jpg`: take a picture after the preview is over and save it as test.jpg

If you only want to see the live preview, use the following command:

`libcamera-still -t 0`

Please Note:

This camera module supports the latest Raspberry Pi OS Bullseye (released on Jan 28th, 2022) and libcamera apps, not for the previous Raspberry Pi OS (Legacy) users.

FURTHER INFORMATION

For further information, check the following link:

<https://www.arducam.com/docs/cameras-for-raspberry-pi/raspberry-pi-libcamera-guide/>

CONTACT US

Email: support@arducam.com

Forum: <https://www.arducam.com/forums/>

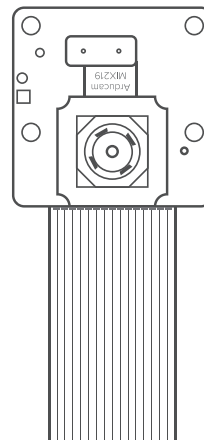
Skype: arducam

ArduCam

CAMERA MODULE

for Raspberry Pi

SKU: B0393



8MP IMX219 Auto Focus Lens

QUICK START

SPECS

Size	Around 25 × 24 × 9 mm
Weight	3g
Still resolution	8 Megapixels
Frame rate	30fps@1080P, 60fps@720P,VGA90 video modes.
Sensor	Sony IMX219
Sensor resolution	3280 × 2464 pixels
Sensor image area	3.68 x 2.76 mm (4.6 mm diagonal)
Pixel size	1.12 μm x 1.12 μm
Optical size	1/4"
Focal length	2.8 mm
Diagonal field of view	77.6 degrees
Focus Type	Motorized Focus
IR sensitivity	Visible light only

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PACKAGE CONTENTS

The following items are included in your package:

- 1 Arducam 8MP IMX219 Camera Module for Raspberry Pi [Auto Focus, Visible Light Only]
- 2 150mm Flex Ribbon Cable [15Pin, 1mm Pin Pitch]
- 3 500mm Flex Ribbon Cable [15Pin, 1mm Pin Pitch]
- 4 150mm Flex Ribbon Cable [15Pin-22Pin]

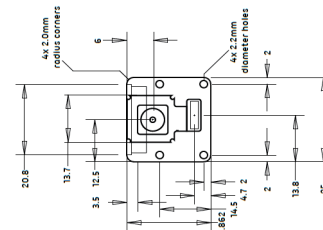
This Quick Start Guide

CONNECT THE CAMERA

You need to connect the camera module to the Raspberry Pi's camera port.

- 1 Locate the camera port near the USB C power connector, and gently pull up on the plastic edge.
- 2 Push in the camera ribbon and make sure the silver connector is facing the Raspberry Pi camera MIPI port. Do not bend the flex cable and make sure it is firmly inserted.
- 3 Push the plastic connector down while holding the flex cable until the connector is back in place.

MECHANICAL DRAWING



SOFTWARE SETTING

Please make sure you are running the latest version of Raspberry Pi OS. (January 28th 2022 or later releases, Debian version: 11 (bullseye)).

For Raspbian Bullseye users, please do the following:

- 1 Edit the configuration file: `sudo nano /boot/config.txt`
- 2 Find the line: `camera_auto_detect=1`, update it to:
`camera_auto_detect=0`
`dtoverlay=imx219`
- 3 Save and reboot.

For Bullseye users running on Pi 0-3, please also:

- 1 Open a terminal
- 2 Run `sudo raspi-config`
- 3 Navigate to Advanced Options
- 4 Enable Glamor graphic acceleration
- 5 Reboot your Pi.

Operating The Camera

Install python environment

```
python3 -m pip install opencv-python
sudo apt-get install libatlas-base-dev
python3 -m pip install -U numpy
```

Download the Raspberry library

```
git clone https://github.com/ArduCAM/RaspberryPi.git
```

Enable i2c

```
cd RaspberryPi/Motorized_Focus_Camera
sudo chmod +x enable_i2c_vc.sh
./enable_i2c_vc.sh
```

Press Y to reboot

Install libcamera-apps

```
cd RaspberryPi/Motorized_Focus_Camera/python/
```