Manuals+ — User Manuals Simplified.

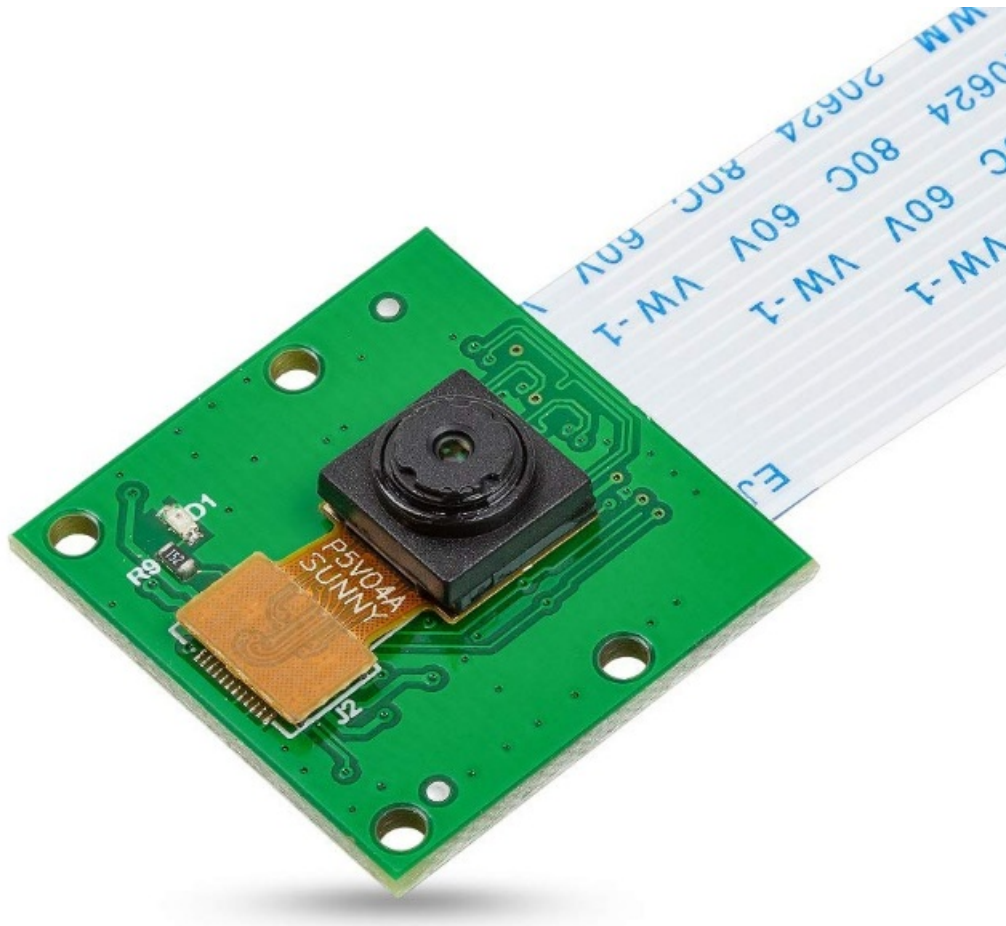# ArduCam B0393 Camera Module for Raspberry Pi User Guide

Contents [hide

ArduCam B0393 Camera Module for Raspberry Pi

SPECIFICATION

- Size   Around 25 x 24 x 9 mm
- Weight   3g
- Still resolution   8 Megapixels
- Frame rate   30fps@1080P, 60fps@720P,VGA90 video modes.
- Sensor   Sony IMX219
- Sensor resolution   3280 x 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
- Diagnoal 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. 2150mm Flex Ribbon Cable [15Pin, Imm Pin Pitch]
3. 500mm Flex Ribbon Cable [15Pin, Imm 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
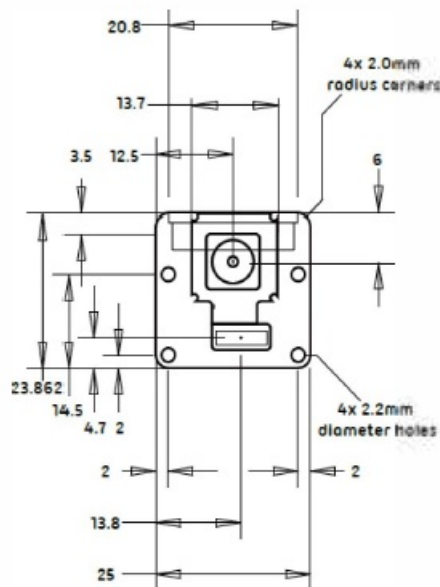
SOFTWARE SETTING

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=O dtoverfay=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 libatfas-base-dev
python3 -m pip insta/1-U numpy

Download the Raspberry library

git clone httpsJ/github.com/ArduCAM/RaspberryPi.git
Enable i2c
cd RaspberryPi/Motorized_Focus_Camera
sudo ch mod +x enable_i2c_ vc.sh
.lenable_i2c_ vc.sh
Press Y to reboot

Install libcamera-apps
cd RaspberryPi/Motorized_Focus_Camera/pythonl

For Kernel version 5.10.63
python3 -m pip instoll ./libcomero-1.0.1-cp39-cp39-linux_ormv71.whl
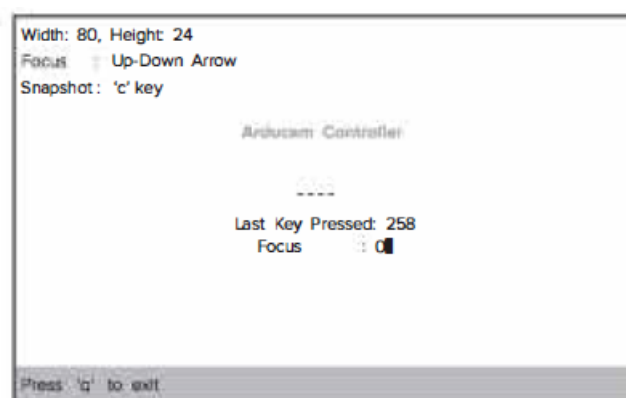For Kernel version 5.10. 93
python3 -m pip install ./libcamero-1.0.2-cp39-cp39-linux_ormv7/.whl

Manually adjusting the focus
Python3 FocuserExomple.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 testjpg
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 testjpg: 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 INFOMATION
For further information, check the following link:
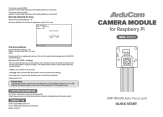**https://www.arducam.com/docs/cameras-for-raspberry-pi/raspberry-pi-libcamera-guide/**

CONTACT US
Email: **support@arducam.com**
Forum: **https://www.arducam.com/forums/**
Skype: arducam

Documents / Resources

	ArduCam B0393 Camera Module for Raspberry Pi [pdf] User Guide B0393 Camera Module for Raspberry Pi, 8MP IMX219 Auto Focus Lens, B0393, Camera Module for Raspberry Pi, Camera Module Raspberry Pi, Raspberry Pi Camera Module, Camera Module, Module