ArduCam B024001 12MP IMX477 HQ Camera Board with Tripod Mount for Raspberry Pi User Guide

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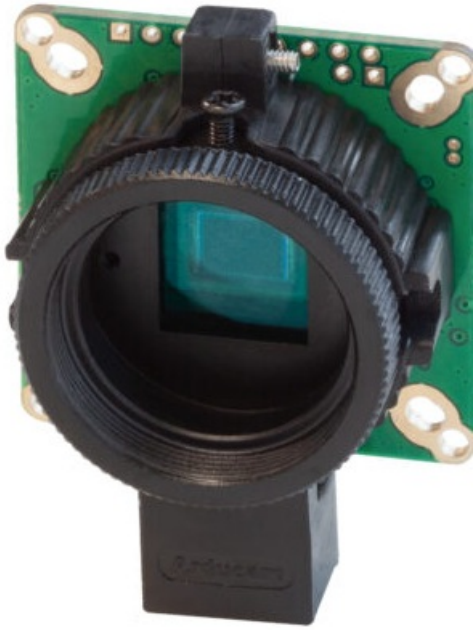


This Arducam IMX477 High-Quality Camera board is designed for Raspberry Pi, no lens is included in this product, and we recommend you use a C- or CS-mount lens with it.

SETUP

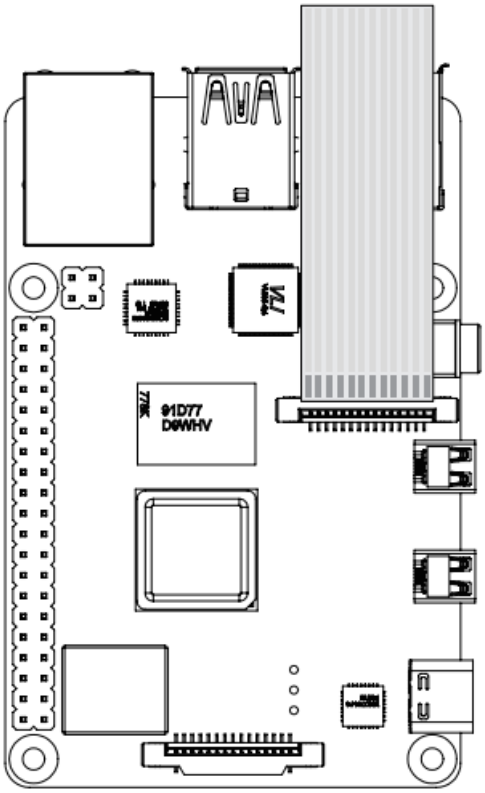
Fitting the lens

1. **Identify your lens mount Type**
   You should prepare a lens for this camera board. 3 kinds of lenses are used most for embedded cameras – M12 lens, C-Mount Lens, and CS-Mount Lens. Make sure which kind of lens you are using before proceeding.
2. **For CS-Mount Lens**
   CS-mount is the stock mount of this camera module, and it won't focus properly if any other adapter is fitted, so remove it if there is one. Then rotate the CS-Mount lens into the CS camera mount.
3. **For C-Mount Lens**
   Thread the C-CS adapter that comes with the lens first. C-mount lens has a longer back focus length, and therefore requires the adapter. Then rotate the C-Mount Lens into the C-CS adapter.
4. **For M12 Lens**
   Thread the M12-CS adapter that comes with the lens first. Then rotate the M12 Lens into the M12-CS adapter.

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.



SPECS

- Size: 38 x 38 x 18.4mm (excluding lens)
- Still resolution: 12.3 Megapixels
- Video modes: Video modes: 1080p30, 720p60 and 640 × 480p60/90
- Linux integration: V4L2 driver available
- Sensor: Sony IMX477
- Sensor resolution: 4056 x 3040 pixels
- Sensor image area: 6.287mm x 4.712 mm (7.9mm diagonal)
- Pixel size: 1.55 µm x 1.55 µm
- IR Sensitivity: Visible light Interface: 2-lane MIPI CSI-2
- Default Lens Mount: CS-Mount
- Hole Pitch: Compatible with 29mm, 30mm, 34mm

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=imx477
3. Save and reboot

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

Open a terminal

1. Run sudo raspi-config
2. Navigate to Advanced Options
3. Enable Glamor graphic acceleration
4. **Reboot your Pi**

OPERATING THE CAMERA
For Raspbian Bullseye users, please do the following: For Bullseye users running on Pi 0-3, please also: Please make sure you are running the latest version of Raspberry Pi OS. (January 28th 2022 or later releases, Debian version: 11 (bullseye)). https://www.arducam.com/docs/cameras-for-raspber ry-pi/raspberry-pi-libcamera-guide/

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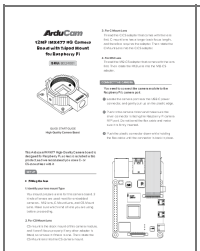
libcamera-still is an advanced

Documents / Resources

	ArduCam B024001 12MP IMX477 HQ Camera Board with Tripod Mount for Raspberry Pi [pdf] User Guide B024001, 12MP IMX477 HQ Camera Board with Tripod Mount for Raspberry Pi, B024001 12M P IMX477 HQ Camera Board with Tripod Mount for Raspberry Pi

References

- Cameras for Raspberry Pi - Arducam
- Arducam Camera Support Forum