

ArduCAM B0272 12MP IMX477 Motorized Focus High Quality Camera with M12 Lens Raspberry User Manual

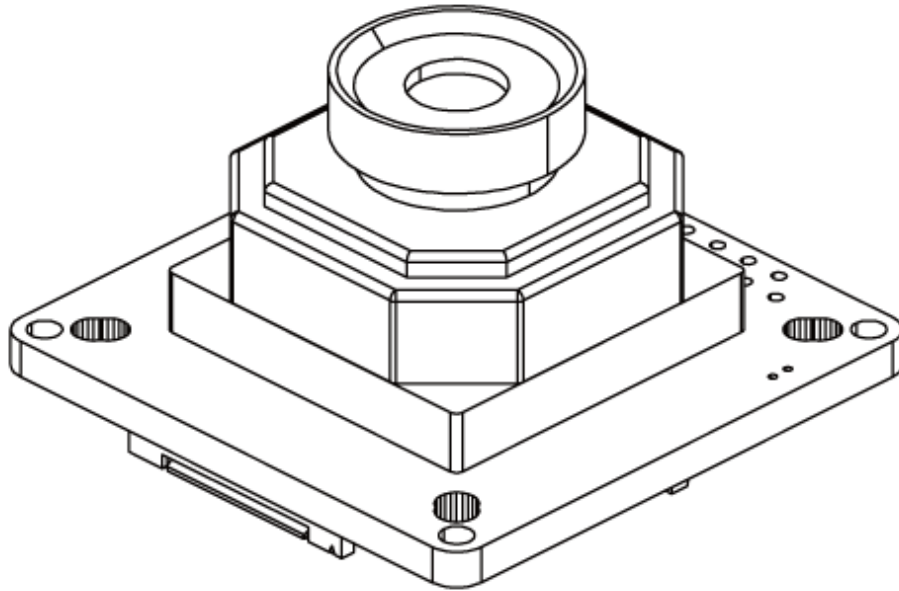
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ArduCam

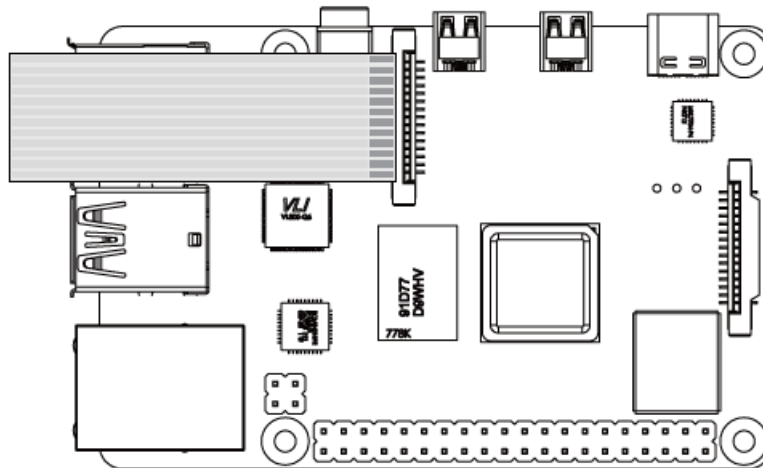
ArduCAM B0272 12MP IMX477 Motorized Focus High Quality Camera with M12 Lens Raspberry



This Arducam IMX477 High Quality motorized focus camera module integrates a motor that could be controlled by software for a smarter focus, and you will no longer focus the camera by screwing the lens with your bare hands. Instead, keyboard keys or OpenCV can be used to remotely control the focusing process of your HQ camera.

CONNECT THE CAMERA

1. Insert the connector and make sure it is facing the Raspberry Pi MIPI port. Don't bend the flex cable and make sure it is firmly inserted.
2. Push the plastic connector down while holding the flex cable until the connector is back in place



SPECS

- **Size:** 38x 38x 26mm
- **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
- **Hole Pitch:** Compatible with 29mm, 30mm, 34mm
- **Optical Format:** 1/2.3"
- **Focal Length:** 3.9mm
- **Aperture:** F2.8
- **Field of View:** 75° (H)
- **Mount:** M12 mount
- **Back Focal Length:** 4.49mm

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:

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

`libcamera-still` is an advanced command line tool for capturing still images with the IMX477 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`

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/raspber-ry-pi-libcamera-guide/>



CONTACT US

Email: support@arducam.com
Forum: <https://www.arducam.com/forums/>
Skype: arducam

Documents / Resources

	ArduCAM B0272 12MP IMX477 Motorized Focus High Quality Camera with M12 Lens Raspberry [pdf] User Manual B0272 12MP IMX477 Motorized Focus High Quality Camera with M12 Lens Raspberry, B0272, 12MP IMX477 Motorized focus High Quality Camera with M12 Lens Raspberry, focus High Quality Camera with M12 Lens Raspberry, Camera with M12 Lens Raspberry, Lens Raspberry
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References

-  [Arducam Wiki](#)
-  [Arducam Camera Support Forum](#)