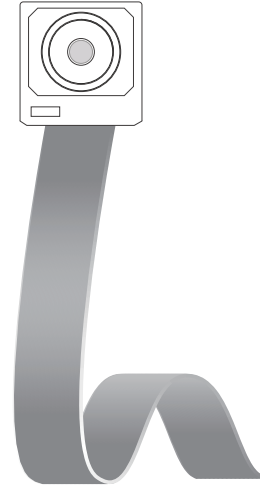# Arducam Mini 16MP

IMX519 Camera Module for
All Raspberry Pi Models

SKU: B0389

16MP IMX519
QUICK START GUIDE

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

INTRODUCTION

● About Arducam

Arducam has been a professional designer and manufacturer of SPI, MIPI, DVP and USB cameras since 2012. We also offer customized turnkey design and manufacturing solution services for customers who want their products to be unique.

● About this Mini Camera

The B0389 is add-on Mini camera module for Raspberry Pi series boards which is fully compatible with official one. The board is tiny, at around 300mm x 16mm. The neck width of the camera module is 6mm, this highlight making it perfect for endoscope, spy surveillance, or other applications The camera is connected to the BCM2835/BCM2836 processor on the Pi via the CSI bus, a higher bandwidth link that carries pixel data from the camera back to the processor.

● About Customer Service

We have many solutions for kinds of requests. If you need our help or want to customize other models of IMX519 cameras, feel free to contact us at support@arducam.com

SPECS

Camera	
Sensor	Sony IMX519 stacked, back-illuminated sensor 16 megapixels 1.22 µm × 1.22 µm pixel size7.103 mm diagonal
Optical Size	1/2.534 inch
Resolution	16MP 4656 x 3496
Output	RAW10/8, COMP8
Pixel Size	1.22µm*1.22µm
Video Modes	1080p@30fps,720p@60fps.
Lens	
Field of View (FOV)	80°(H)
Lens	f/1.75; EFL: 4.28
IR cut Filter	Without IR Filter, IR Sensitive
Application	
Application	Cellular phones, PDAs, Toys, Other battery-powered products, RPI Zero
Linux integration	
Linux integration	V4L2 driver available
Ribbon Cable Length	
Ribbon Cable Length	300mm

BEFORE YOU START

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

● 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

● For Raspberry Pi Compute Module 3/4

The latest software only supports one camera at this time, CM4 uses CAM1 by default.

DRIVER INSTALLATION

1. Connect the camera directly to your Raspberry Pi.
2. Download the shell scripts

```
wget -O install_pivariety_pkgs.sh https://github.com/ArduCAM/Arducam-Pivariety-V4L2-Driver/releases/download/install_script/install_pivariety_pkgs.sh
```

3. Update your Pi

```
sudo apt update
```

4. Install libcamra-dev

```
./install_pivariety_pkgs.sh -p libcamera_dev
```

5. Install libcamera-apps

```
./install_pivariety_pkgs.sh -p libcamera_apps
```

6. Install the kernel driver

```
./install_pivariety_pkgs.sh -p imx519_kernel_driver_low_speed
```

7. Reboot

OPERATING THE CAMERA

● Test

```
libcamera-still -t 3000 -o test.jpg
```

● Command Line

1. Record Video

For example, record a H.264 10s video with the frame size 1920W × 1080H.

```
libcamera-vid -t 10000 --width 1920 --height 1080 -o test.h264
```

2. See the camera in live preview:

```
libcamera-still -t 0
```

For more troubleshooting, please refer to:https://www.arducam.com/docs/cameras-for-raspberrypi/raspberry-pi-libcamera-guide/16mp-autofocus-camera-common-issues-fixes/