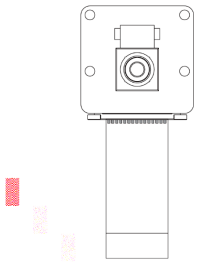

ArduCam B0386 16MP IMX519(NOIR) Camera Module User Guide

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ArduCam-logo

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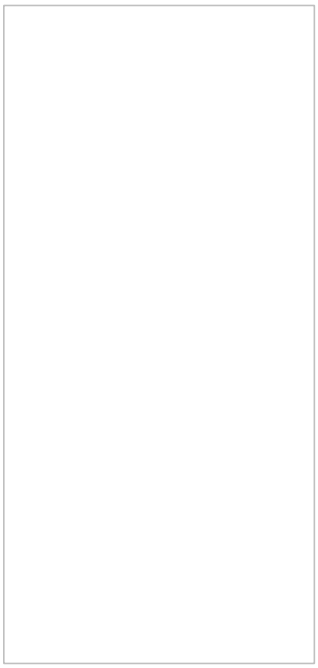

INTRODUCTION

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 Camera

It takes zero compromises in specs. With a resolution at 16 megapixels (compared to 8MP and 12MP), a stock lens, a V2-like form factor, and boatloads of improvements, the camera provides a better choice for a whole world of industrial/consumer/etc. applications, it's compatible with any existing Pi models, work with the latest software from the foundation, and leverages the same tuning algorithms used in the official camera modules. The package contains a camera board with a Sony IMX519 sensor and a stock lens, an FPC cable.

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	All Raspberry Pi Board
Linux integration	
Linux integration	V4L2 driver available
Ribbon Cable Length	
Ribbon Cable Length	150mm

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-V4L**
   2river/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
7. Reboot

OPERATING THE CAMERA

- Test
  libcamera-still -t 3000 -o test.jpg
- Command Line
  libcamera-vid -t 10000 –width 1920 –height 1080 -o test.h264
  1. **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/**
  2. **Record Video**
     For example, record an H.264 10s video with the frame size 1920W × 1080H.

Documents / Resources

	ArduCam B0386 16MP IMX519(NOIR) Camera Module [pdf] User Guide B0386, 16MP IMX519 NOIR Camera Module, 16MP IMX519 NOIR, Camera Module, B0386, Module

References

- **Redirecting...**
- **Arducam Camera Support Forum**