

OS02G10 Stereo USB Camera (A)

From Waveshare Wiki

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Specifications

- Pixels: 2MP
- Sensor chip: OS02G10
- DSP: Auto gain/exposure/white balance
- Camera:
 - CCD size: 1/2.9inch
 - Aperture (F): 2.2
 - Focal length (EFL): 2.8mm
 - Field of View (FOV): 92°(D) 84°(H) 54°(V)
 - Distortion: < 0.4%
- Focus mode: Fixed focus
- Interface type: USB2.0
- Image:
 - Supported image formats: MJPG, YUY2
 - Static image resolution: 3840 × 1080
 - Video recording (MJPG):
 - 30FPS 3840×1080
 - 30FPS 2560×720
 - 30FPS 1920×1080
 - 30FPS 1600×600
 - 30FPS 1280×720
 - 30FPS 1280×480
 - 30FPS 800×600
 - 30FPS 640×480
 - 30FPS 640×240
 - 30FPS 320×240
 - Video recording (YUY2):
 - 2FPS 3840×1080
 - 5FPS 2560×720
 - 5FPS 1920×1080
 - 10FPS 1600×600
 - 10FPS 1280×720
 - 10FPS 1280×480

OV5693 5MP USB Camera



(<https://www.waveshare.com/os02g10-stereo-usb-camera-a.htm>)

USB binocular camera, synchronized same-frame output

10FPS 800×600

30FPS 640×480

30FPS 640×240

30FPS 320×240

- Operating voltage: 5V ± 5%
- Operating temperature: 0°C ~ 50°C
- Dimensions: 100.00 × 22.00 × 17.72 (mm)
- Supported systems: Windows, Linux, macOS

Working with Windows PC

Test Software

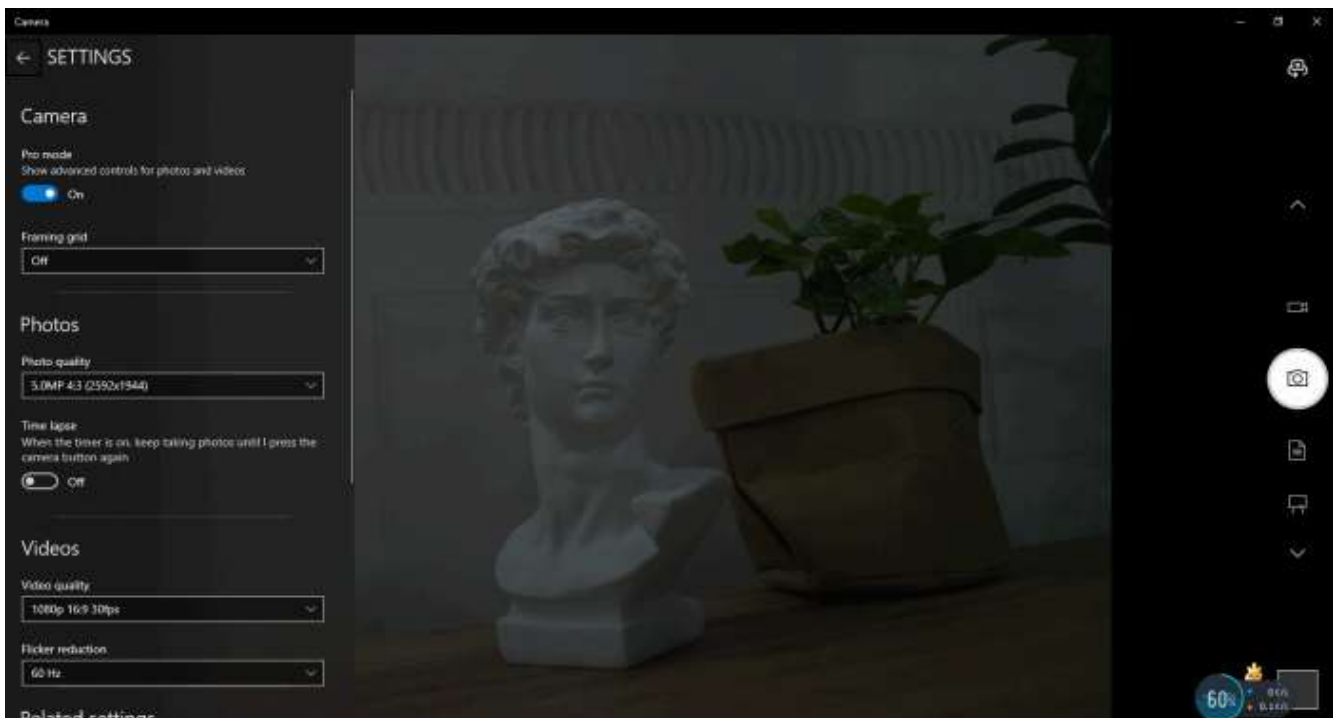
Currently, a camera app is generally pre-installed on most Windows 10 systems. You can simply open this built-in Windows camera app to perform testing.

If you are using Windows 7 or cannot find the camera app in the system, you can download and install the AMCAP test software provided by us from Resources->Software.

Test Steps

Window camera software

- Search for "Camera" to open the software
- Click the gear icon in the upper left corner to open the settings interface, where you can set the resolution for taking pictures or videos

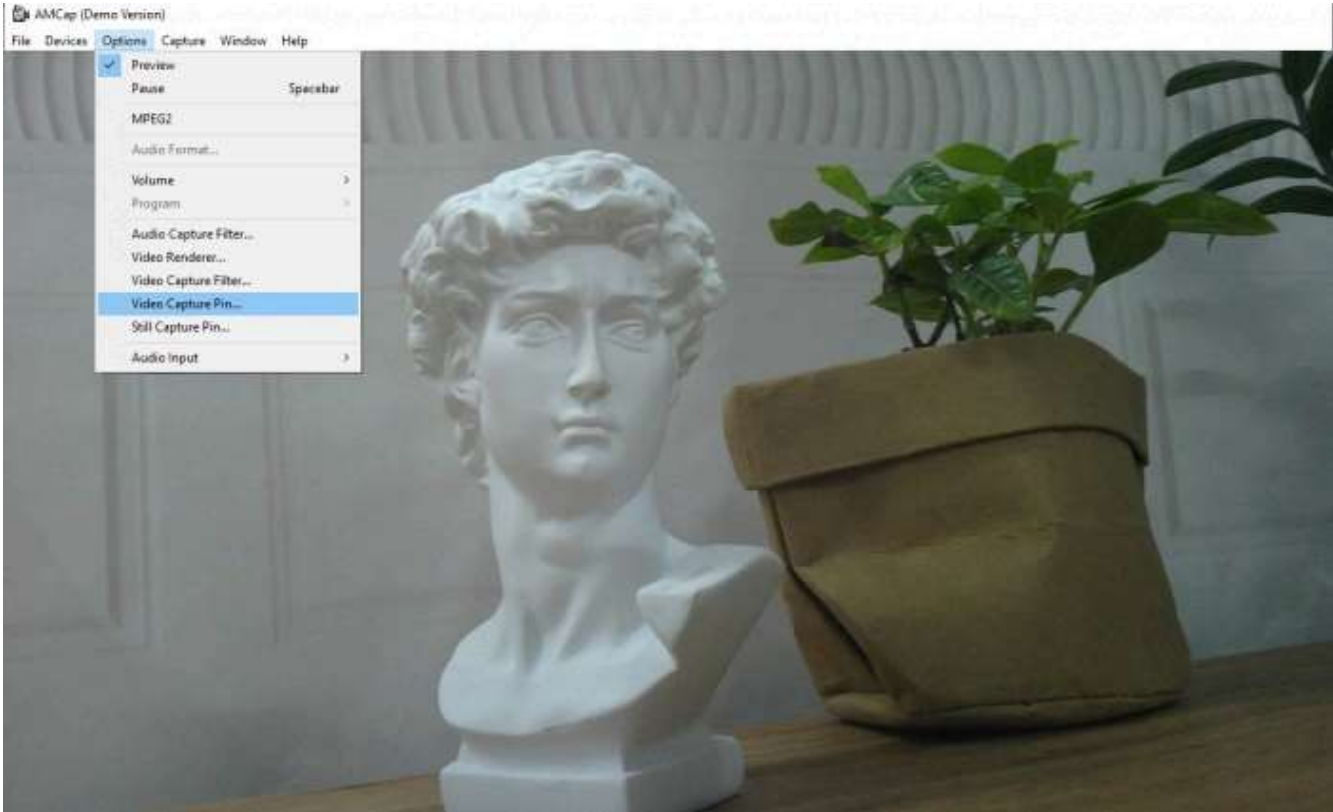


(/wiki/File:Usb-camera-manual-1.png)

- Click the video or capture icon on the right to switch between recording and shooting

AMCap software

- Download and install AMCap software
- You can click on the Option option and select Video Capture Pin... or Still Capture Pin... to set the parameters of the image and video



(/wiki/File:Usb-camera-manual-2.jpg)

Working with Raspberry Pi

Preview with Plugins

- Open the Raspberry Pi terminal, enter the command to install the luvview software
 - `sudo apt-get install luvview -y`
- After installation, enter the command on the terminal to open the software for USB camera testing

```
sudo luvview -s 1920x1080
```



(/wiki/File:Usb-camera-manual-3.jpg)

Preview with Scripts

- Install opencv

```
sudo apt-get install python3-opencv
```

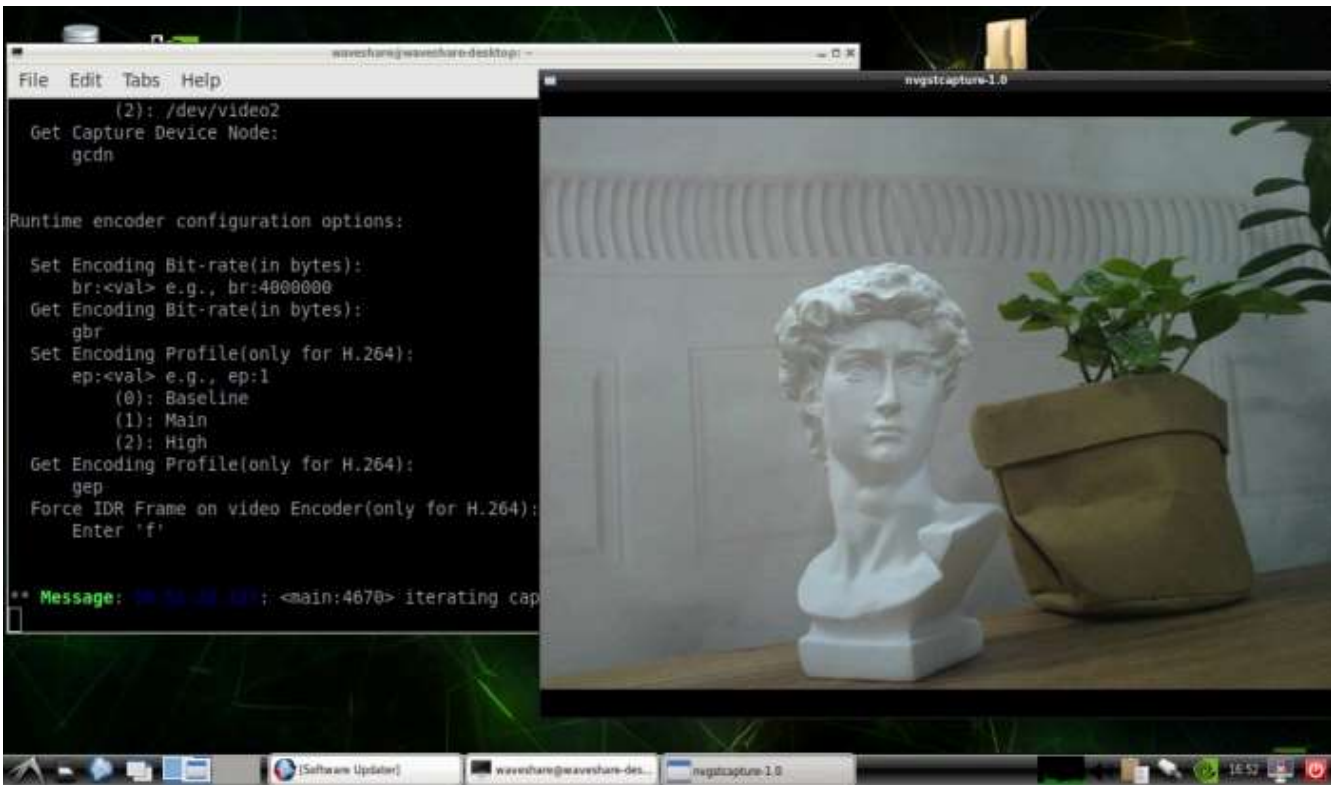
- Download the demo and test

```
wget https://files.waveshare.com/wiki/common/Usb_camera_examples.zip
unzip Usb_camera_examples.zip
cd Usb_camera_examples
sudo python3 Usb_camera_examples.py
```

Working with Jetson Nano Developer Kit

Preview with Commands

- Open the Jetson Nano Developer Kit terminal (open with Ctrl+Alt+T or mouse click)
- Input the following command to preview:
 - `nvgstcapture-1.0 --camsrc=0`
- After inputting, a preview window will open



(/wiki/File:Usb-camera-manual-4.jpg)

Preview with Scripts

- Install opencv

```
sudo apt-get install python3-opencv
```

- Download the demo and test

```
wget https://files.waveshare.com/wiki/common/Usb_camera_examples.zip
unzip Usb_camera_examples.zip
cd Usb_camera_examples
sudo python3 Usb_camera_examples.py
```

Note: In practical application, you may need to call with a program, and you can refer to Opencv and other related image processing library materials by yourself

Resources

Document

- User Manual (https://files.waveshare.com/wiki/common/USB_Camera_Common_User_Manual)

a_EN.pdf)

Software

-
- Amcap software (<https://files.waveshare.com/wiki/common/Amcap.zip>)
- mjpg-streamer (<https://files.waveshare.com/wiki/common/Mjpg-streamer-master.tar.gz>)

FAQ

Question: What is the filter's wavelength in nm?

Answer:

650nm filter.

Question: If the hand touches the back of the PCB, will the camera display abnormalities?

Answer:

- Avoid touching the components on the PCB backside to prevent affecting electrical performance

Question: Does the module get hot during use?

Answer:

- During use, the module heats up significantly and may feel hot, which is normal.

Question: Why can't I control parameters like brightness, contrast, etc.?

Answer:

- If you are using Mac and Opencv, some parameter settings cannot be used, it is recommended to use Linux and V4L2 drivers.

Support

Technical Support

If you need technical support or have any feedback/review, please click the **Submit Now** button to submit a ticket, Our support team will check and reply to you within 1 to 2 working days. Please be patient as we make every effort to help you to resolve the issue.

Working Time: 9 AM - 6 PM GMT+8
(Monday to Friday)

Submit Now (<https://service.waveshare.com/>)

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([https://www.waveshare.com/w/index.php?title=OS02G10_Stereo_USB_Camera_\(A\)&oldid=107983](https://www.waveshare.com/w/index.php?title=OS02G10_Stereo_USB_Camera_(A)&oldid=107983))"*
