

How I installed OpenCV and Mediapipe on the Raspberry Pi 3 A+

I connected to the Raspberry Pi via SSH and performed all these steps from the command line. Please type the blue lines into the Raspberry Pi command line - don't type the \$ symbol.

During this installation process I suggest that you connect your Raspberry Pi to mains power instead of battery power.

```
# Step 1: Make sure the Pi is using the whole SD card:  
# .....
```

```
$ sudo raspi-config
```

Select Advanced Options --> Expand Filesystem

Please refer to this blog post if you are not sure how to perform the above step:

<https://www.jeremymorgan.com/tutorials/raspberry-pi/how-to-install-opencv-raspberry-pi/>

The Pi should automatically reboot after this selection is completed. If it does not auto reboot then run:

```
$ sudo reboot
```

Log back into your Raspberry Pi's command line.

Check that space is available:

```
$ df -h
```

```
# Step 2: Update and Upgrade  
# .....
```

```
$ sudo apt-get update
```

```
$ sudo apt-get upgrade
```

```
# Step 3: Install OpenCV
# .....
```

Ref: <https://www.youtube.com/watch?v=xlmJsTeZL3w>

I watched the above video. These are the steps that worked for me. Numpy is installed along with OpenCV.

```
$ sudo apt-get install libhdf5-dev libhdf5-serial-dev libhdf5-103
$ sudo apt-get install libqtgui4 libqtwebkit4 libqt4-test
$ sudo apt-get install libatlas-base-dev
$ sudo apt-get install libjasper-dev
$ wget https://bootstrap.pypa.io/get-pip.py
$ sudo python3 get-pip.py
$ sudo pip3 install opencv-contrib-python==3.4.6.27
$ sudo apt-get install python3-h5py
```

```
# Step 4: Install Mediapipe
# .....
```

Ref: mediapipe-rpi4 0.8.8
<https://pypi.org/project/mediapipe-rpi4/>

I followed the instructions (above link) for Raspberry Pi 3. I installed Mediapipe after installing OpenCV therefore, I didn't need to install the dependencies that are mentioned.

```
Install Mediapipe
$ sudo pip3 install mediapipe-rpi3
```

```
# Step 5: Testing
# .....
```

To check that everything is working, create a new python file in Thonny or another Raspberry Pi IDE. Then type:

```
import cv2
import numpy as np
import mediapipe as mp
```

```
print("Packages are installed")
```

If you are able to run this code then the packages have been successfully installed.

-- The End