

## Installation Cheat Sheet 2 - OpenCV 2.4.11 and Python 2.X

### Using Windows 7 + Python 2 + precompiled binaries

(should also work with Windows 8/8.1, not tested though)

1) If you have a version of both Python 2.X and Python 3.X installed on your computer currently it would be recommended to uninstall Python 3.X, remove any references to Python 3.X in your PATH variable, then reboot before continuing. This guide will not cover installation/configuration with OpenCV in the case of concurrent Python 2.X and Python 3.X installs.

2) Download OpenCV 2.4.11

3) Make a folder "C:\OpenCV-2.4.11" and extract to there

4) Download and install the latest Python 2.X (NOT Python 3.X), for example 2.7.9

5) Reboot and make sure "C:\Python27\" is in your path variable, if not, add it (also remove any other Python paths) then reboot again

6) Download the latest NumPy matching your version of Python 2.X, for example

"numpy-1.9.2-win32-superpack-python2.7.exe"

Note that the version of NumPy has to match within 2.X, i.e. if you have Python 2.7.X, the NumPy for Python 2.5.X or 2.6.X will *not* work.

7) If you do not want to use IDLE (editor that ships with Python), download and install your editor of choice. I recommend PyCharm Community Edition by JetBrains (yes, it's free, and has good auto code completion)

8) Copy "cv2.pyd" from:

C:\OpenCV-2.4.11\opencv\build\python\2.7\x86\cv2.pyd

To:

C:\Python27\Lib\site-packages

(note that I recommend using the 32 bit version (from the x86 directory) of cv2.pyd even if you are using a 64-bit computer)

9) From my [MicrocontrollersAndMore GitHub](#) page decide which example you are going to use:

canny\_still.py (uses a still image)

canny\_webcam.py (uses a webcam)

red\_ball\_tracker.py (tracks a red ball, uses a webcam)

10) Make and name a new Python .py file as preferred, ex "canny\_still.py". For those of you that are new to Python, the easiest way to do this is to navigate to your chosen directory in Windows Explorer, then right click in the directory, choose New -> Text Document, then rename the file from a .txt extension to a .py extension (Windows will ask "Are you sure you want to change the extension?", answer "Yes"). If you currently do not have Windows 7 configured to allow viewing / editing of file extensions, go to: Start -> Control Panel -> View by: Large icons -> Folder Options -> View tab -> uncheck "Hide extensions for known file types".

**11)** If you are using an example with a still image (i.e. `canny_still.py`), copy any JPEG image into the project directory and rename it "image.jpg". You can use the "image.jpg" from my [MicrocontrollersAndMore GitHub](#) page if you would like to see the same results as in the video (if you are using a webcam example then this step does not apply).

**12)** Run the program, for those of you that are new to Python, this can be done in one of at least 3 ways:

- a) choose run in your chosen Python editor
- b) double click on the .py file in Windows Explorer
- c) run from the operating system command prompt, i.e. @WindowsCommandPrompt type "cd C:\PythonProgs", then "canny\_still.py"