e-Yantra Robotics Competition (eYRC 2017)

Task 0 – Planter Bot

Software Installation

This file contains instructions to install following three software/libraries:

1.   Python

2.   NumPy

3.   OpenCV

Please follow the steps given below:

1.   Python

   ✓   Download Python from here

   ✓   Please ensure you download **Python 2.7.x 32-bit version only**

   ✓   Double-click the downloaded file to commence the installation. Follow the on-screen guidelines to complete the installation

   ✓   Next we have to configure the **environment variables**

   •   Right-click on *My Computer*

   •   Click of *Properties*

   •   Click on *Advanced System Settings* to open the *System Properties* dialog box

   •   Under System Properties, select *Advanced* tab

   •   Click on *Environment Variables*

   •   Under *System Variables*, search for variable *Path*

- Add *C:Python27;C:/Python27/Scripts;* at the start of the textbox

- Click on *OK*

✓ In order to verify the installation of python

- Open Command Prompt, type *python* and press Enter

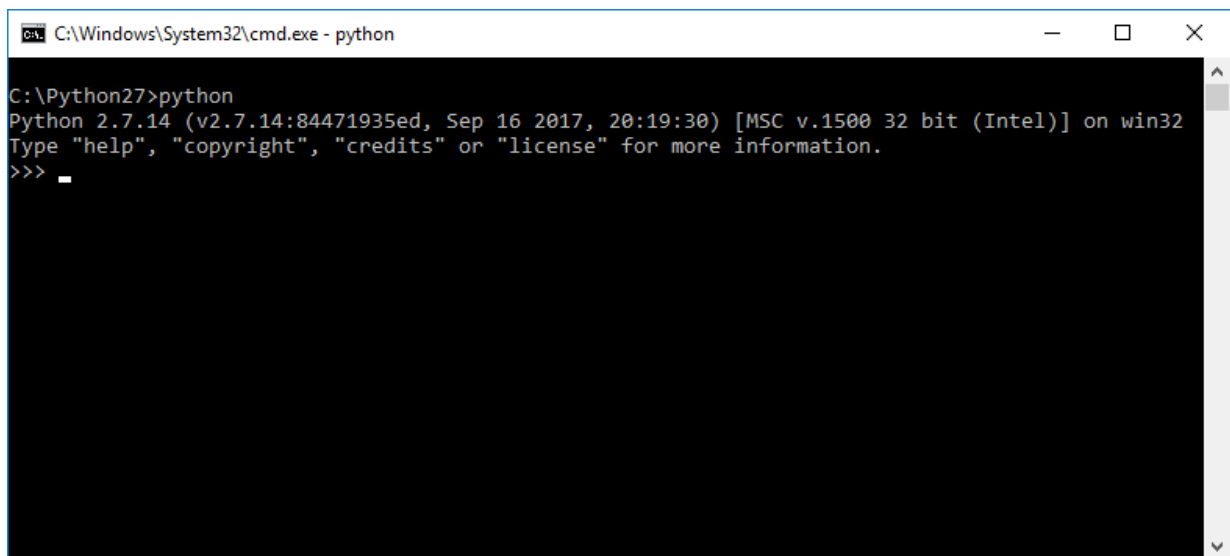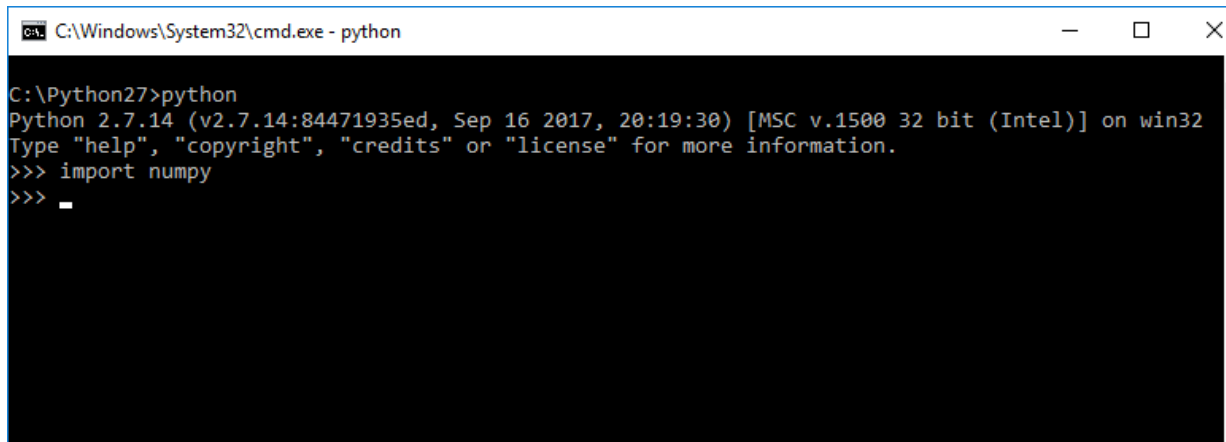- You should see the prompt as shown in Figure 1 below:

Figure 1: Command Prompt with Python running

2. NumPy

✓ Download NumPy from here

✓ Open command prompt and cd to folder where "numpy-1.13.3-2-cp27-none-win32.whl" is downloaded.

✓ Type pip install *numpy-1.13.3-2-cp27-none-win32*.

✓ In order to verify your installation,

- Open Command Prompt, type *python* and press Enter. This will open python prompt

- Type *import numpy* and press Enter
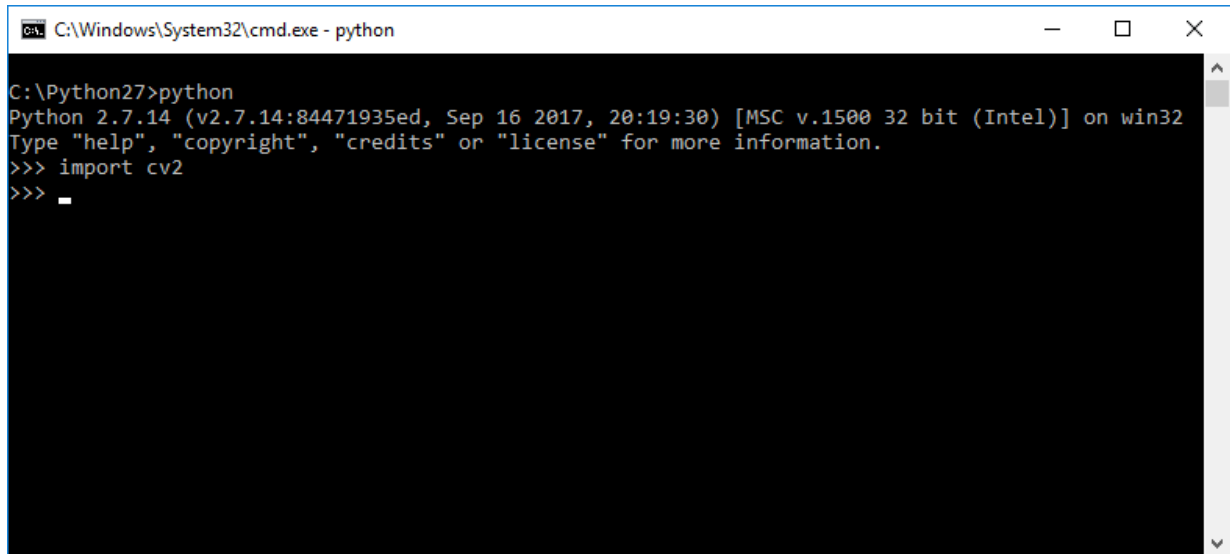
- You should see the prompt as shown in Figure 2 below:

Figure 2: NumPy imported in Python prompt

3. OpenCV

- ✓ Download OpenCV from here

- ✓ Please ensure you download **OpenCV 3.1.0 version only**

- ✓ Double-click the downloaded file to commence installation

- ✓ Navigate to the folder opencv/build/python/2.7

- ✓ Copy the file cv2.pyd to C:/Python27/lib/site-packages

- ✓ In order to verify your installation,

  - Open Command Prompt, type *python* and press Enter. This will open python prompt

  - Type *import cv2* and press Enter

  - You should see the prompt as shown in Figure 3 below:

Figure 3: OpenCV imported in Python prompt