



Embedded Systems and Robotics Club

Python & Digital Image Processing Workshop

Software Installation - Instruction Sheet (for Windows 64-bit users)

The folder contains three files:

1. python-2.7.13.amd64.msi
2. cv2.pyd

This Instruction sheet contains instructions to install following three softwares/libraries:

1. Python
2. NumPy – Library for Numerical Python
3. OpenCV – Library for Image Processing

NOTE: *We suggest you to come to the workshop with the softwares installed. If you face any difficulties kindly contact us on Friday at CCN.*

Please follow the steps given below

1. Python Installation:

- ✓ Double-click the “python-2.7.13.amd64.msi” 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 below

```
C:\Windows\system32\cmd.exe - python
Microsoft Windows [Version 6.1.7600]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\ERTS Lab>python
Python 2.7.6 (default, Nov 10 2013, 19:24:18) [MSC v.1500 32 bit (Intel)] on win
32
Type "help", "copyright", "credits" or "license" for more information.
>>> _
```

2. NumPy Installation

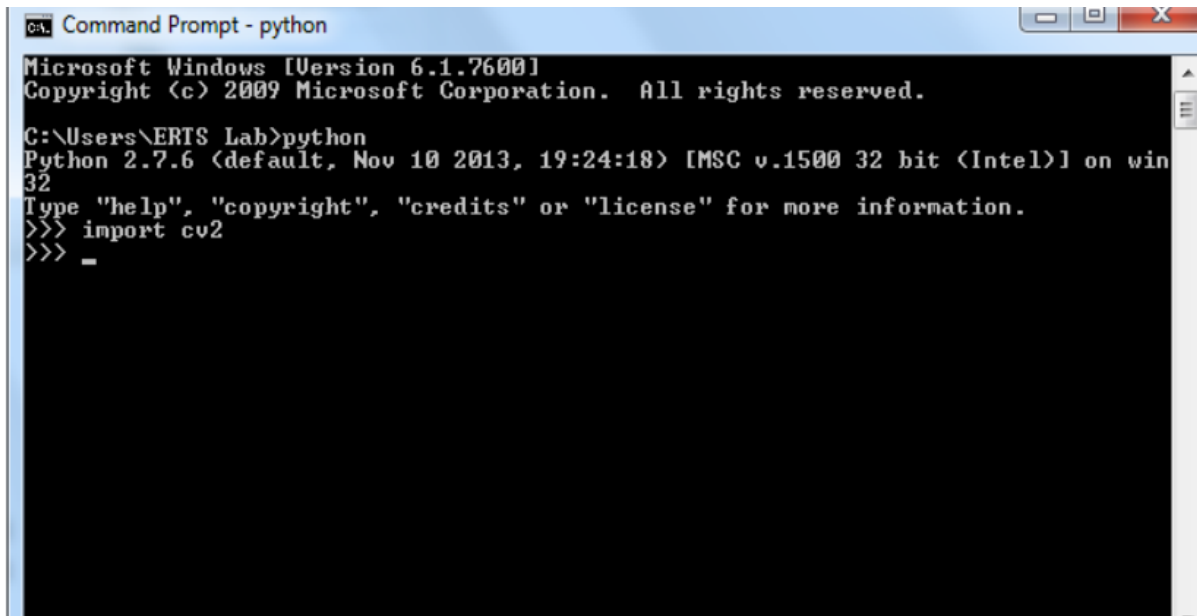
- ✓ Connect to Internet.
- ✓ Open Command Prompt, type "pip install numpy".
- ✓ In order to verify your installation,
 - Open Command Prompt, type *python* and press Enter. This will open python prompt
 - Type *import numpy* and press Enter
 - You should see the prompt as shown in Figure below

```
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C:\Users\ERTS Lab>python
Python 2.7.6 (default, Nov 10 2013, 19:24:18) [MSC v.1500 32 bit (Intel)] on win
32
Type "help", "copyright", "credits" or "license" for more information.
>>> import numpy
>>> _
```

3. OpenCV Installation

- ✓ 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 below



```
Command Prompt - python
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C:\Users\ERTS Lab>python
Python 2.7.6 (default, Nov 10 2013, 19:24:18) [MSC v.1500 32 bit (Intel)] on win
32
Type "help", "copyright", "credits" or "license" for more information.
>>> import cv2
>>> _
```