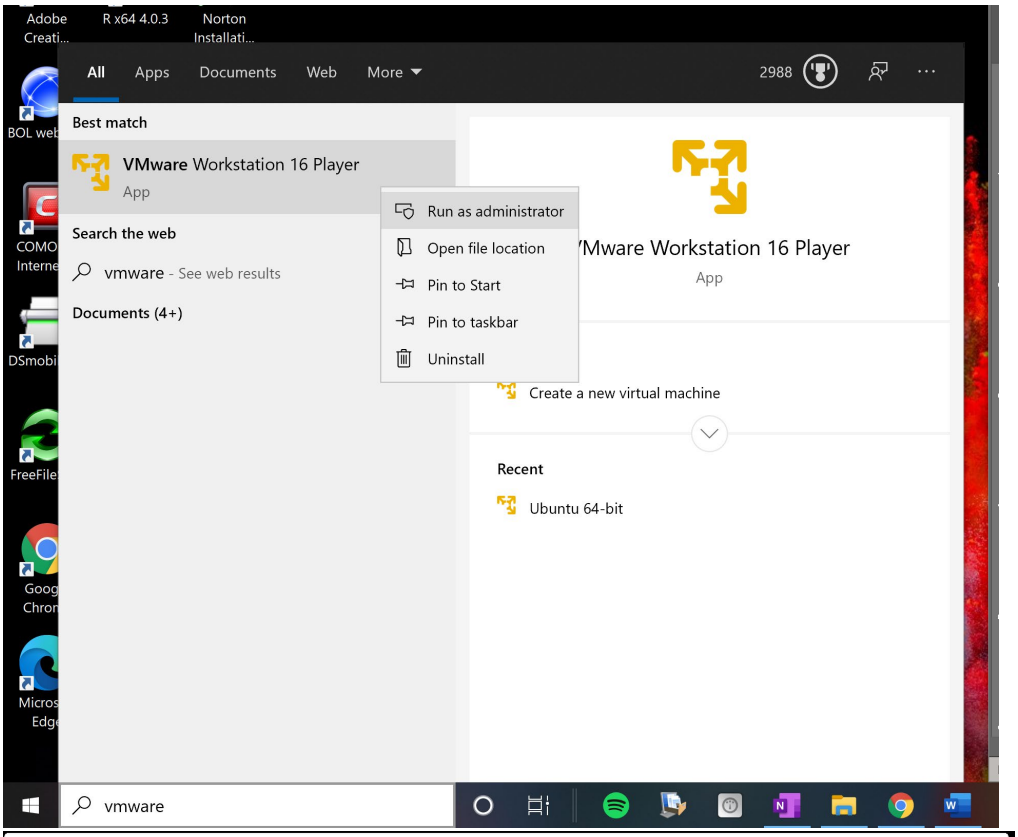
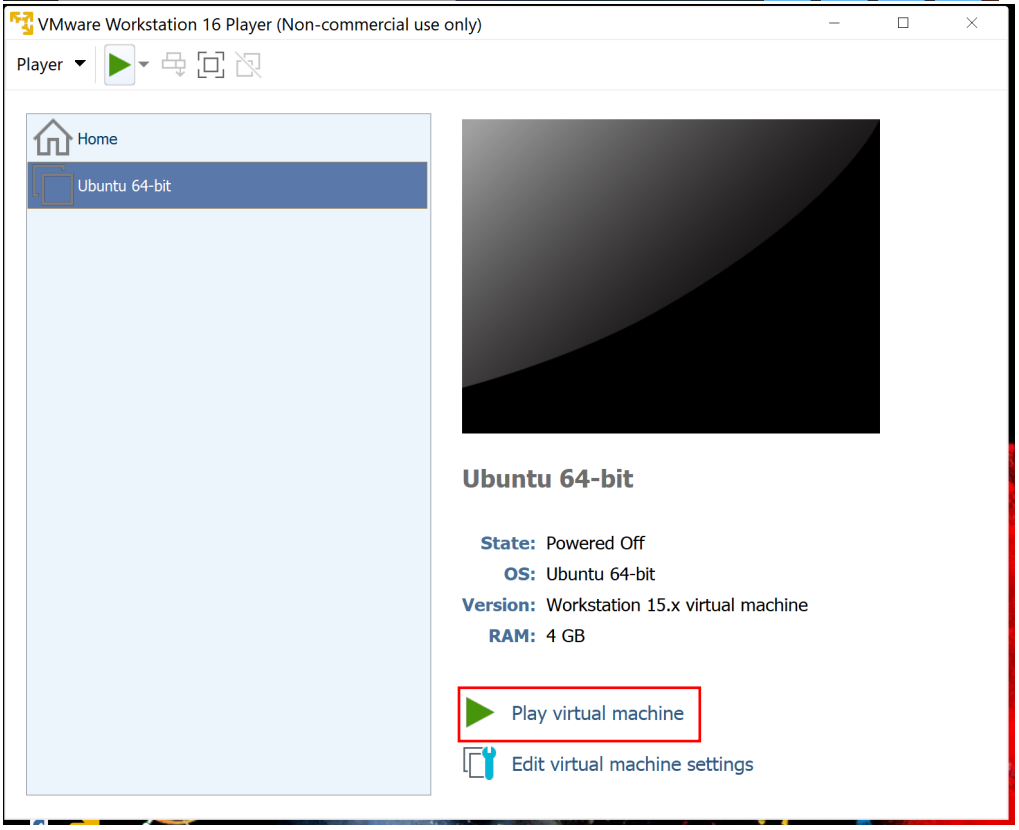
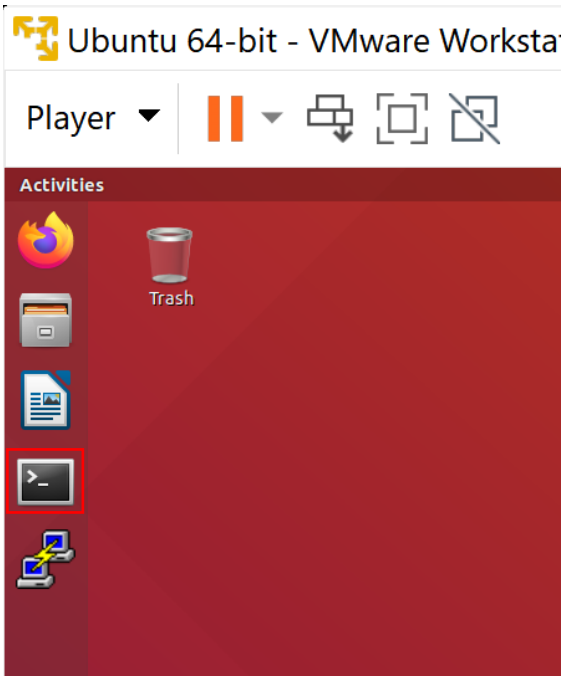




Open terminal



Download keras-yolo3 and required libraries

```
Kneron@ubuntu:~$ git clone https://github.com/qqwweee/keras-yolo3
Cloning into 'keras-yolo3'...
remote: Enumerating objects: 144, done.
remote: Total 144 (delta 0), reused 0 (delta 0), pack-reused 144
Receiving objects: 100% (144/144), 151.07 KiB | 3.43 MiB/s, done.
Resolving deltas: 100% (65/65), done.
```

```
Kneron@ubuntu:~$ cd keras-yolo3
Kneron@ubuntu:~/keras-yolo3$ pip3 install matplotlib
Collecting matplotlib
  Downloading https://files.pythonhosted.org/packages/d2/43/2bd634674900366697e7be71444fafc7b236923d614d4521979a200c6b559/matplotlib-3.3.3-cp36-cp36m-manylinux1_x86_64.whl (11.6MB)
    100% |████████████████████████████████| 11.6MB 125kB/s
Collecting pyparsing!=2.0.4,!=2.1.2,!=2.1.6,>=2.0.3 (from matplotlib)
  Downloading https://files.pythonhosted.org/packages/8a/bb/488841f56197b13700afd5658fc279a2025a39e22449b7cf29864669b15d/pyparsing-2.4.7-py2.py3-none-any.whl (67kB)
    100% |████████████████████████████████| 71kB 3.5MB/s
Collecting numpy>=1.15 (from matplotlib)
  Downloading https://files.pythonhosted.org/packages/a6/fc/36e52d0ae2aa502b211f1bcd2fdeec72d343d58224eabcdddc1bcb052db1/numpy-1.19.4-cp36-cp36m-manylinux1_x86_64.whl (13.4MB)
    100% |████████████████████████████████| 13.4MB 104kB/s
Collecting cycler>=0.10 (from matplotlib)
  Downloading https://files.pythonhosted.org/packages/f7/d2/e07d3ebb2bd7af696440ce7e754c59dd546ffe1bbe732c8ab68b9c834e61/cycler-0.10.0-py2.py3-none-any.whl
Collecting pillow>=6.2.0 (from matplotlib)
  Downloading https://files.pythonhosted.org/packages/5f/19/d4c25111d36163698396f93c363114cf1cddbacb24744f6612f25b6aa3d0/Pillow-8.0.1-cp36-cp36m-manylinux1_x86_64.whl (2.2MB)
    100% |████████████████████████████████| 2.2MB 738kB/s
Collecting kiwisolver>=1.0.1 (from matplotlib)
  Downloading https://files.pythonhosted.org/packages/a7/1b/cbd8ae738719b5f41592a12057ef5442e2ed5f5cb5451f8fc7e9f8875a1a/kiwisolver-1.3.1-cp36-cp36m-manylinux1_x86_64.whl (1.1MB)
    100% |████████████████████████████████| 1.1MB 1.3MB/s
Collecting python-dateutil>=2.1 (from matplotlib)
  Downloading https://files.pythonhosted.org/packages/d4/70/d60450c3dd48ef87586924207ae8907090de0b306af2bce5d134d78615cb/python_dateutil-2.8.1-py2.py3-none-any.whl (227kB)
    100% |████████████████████████████████| 235kB 2.9MB/s
Collecting six (from cycler>=0.10->matplotlib)
  Using cached https://files.pythonhosted.org/packages/ee/ff/48bde5c0f013094d729fe4b0316ba2a24774b3ff1c52d924a8a4cb04078a/six-1.15.0-py2.py3-none-any.whl
Installing collected packages: pyparsing, numpy, six, cycler, pillow, kiwisolver, python-dateutil, matplotlib
Successfully installed cycler-0.10.0 kiwisolver-1.3.1 matplotlib-3.3.3 numpy-1.19.4 pillow-8.0.1 pyparsing-2.4.7 python-dateutil-2.8.1 six-1.15.0
```

```
Kneron@ubuntu:~/keras-yolo3$ pip3 uninstall numpy
Kneron@ubuntu:~/keras-yolo3$ pip3 install numpy==1.16.4
Collecting numpy==1.16.4
  Downloading https://files.pythonhosted.org/packages/87/2d/e4656149cbadd3a8a0369fcd1a9c7d61cc7b87b3903b85389c70c989a696/numpy-1.16.4-cp36-cp36m-manylinux1_x86_64.whl (17.3MB)
    100% |████████████████████████████████| 17.3MB 81kB/s
Installing collected packages: numpy
Successfully installed numpy-1.19.0
```

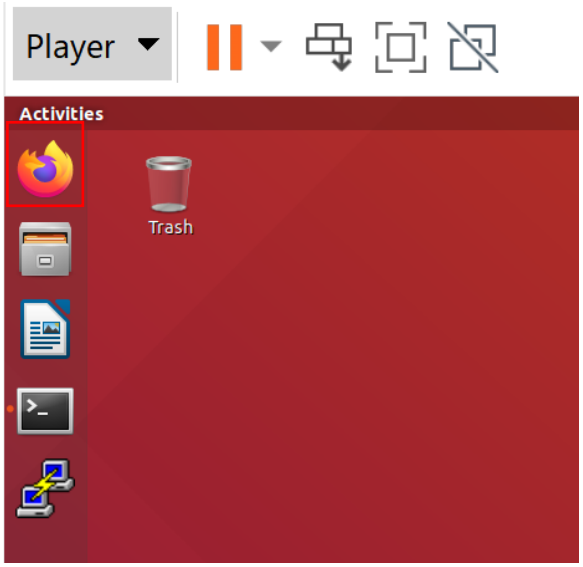
Install yolov3.weights

```
Kneron@ubuntu:~/keras-yolo3$ wget https://pjreddie.com/media/files/yolov3.weights
--2020-11-18 11:24:36--  https://pjreddie.com/media/files/yolov3.weights
Resolving pjreddie.com (pjreddie.com)... 128.208.4.108
Connecting to pjreddie.com (pjreddie.com)|128.208.4.108|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 248007048 (237M) [application/octet-stream]
Saving to: 'yolov3.weights'

yolov3.weights                100%[=================================================>] 236.52M   947KB/s    in 5m 29s

2020-11-18 11:30:07 (737 KB/s) - 'yolov3.weights' saved [248007048/248007048]
```

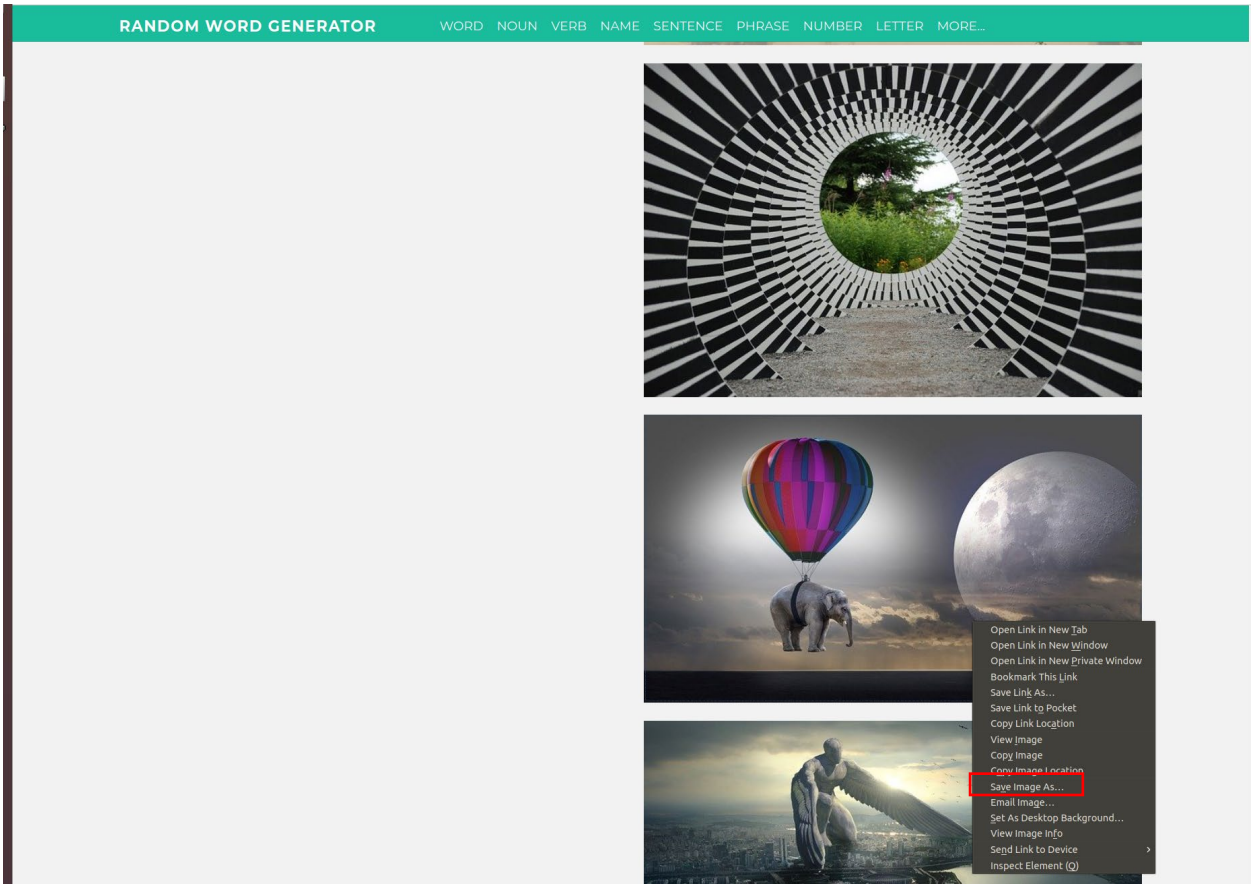
Convert weights to keras

```
Kneron@ubuntu:~/keras-yolo3$ python3 convert.py yolov3.cfg yolov3.weights model_data/yolo.h5
```

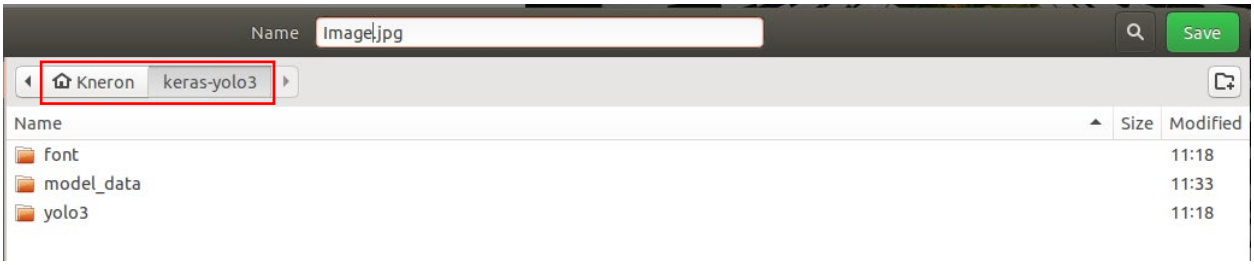
Download a picture to test



I went to random picture generator and chose a picture with the most objects



Save as a name that is easy to remember

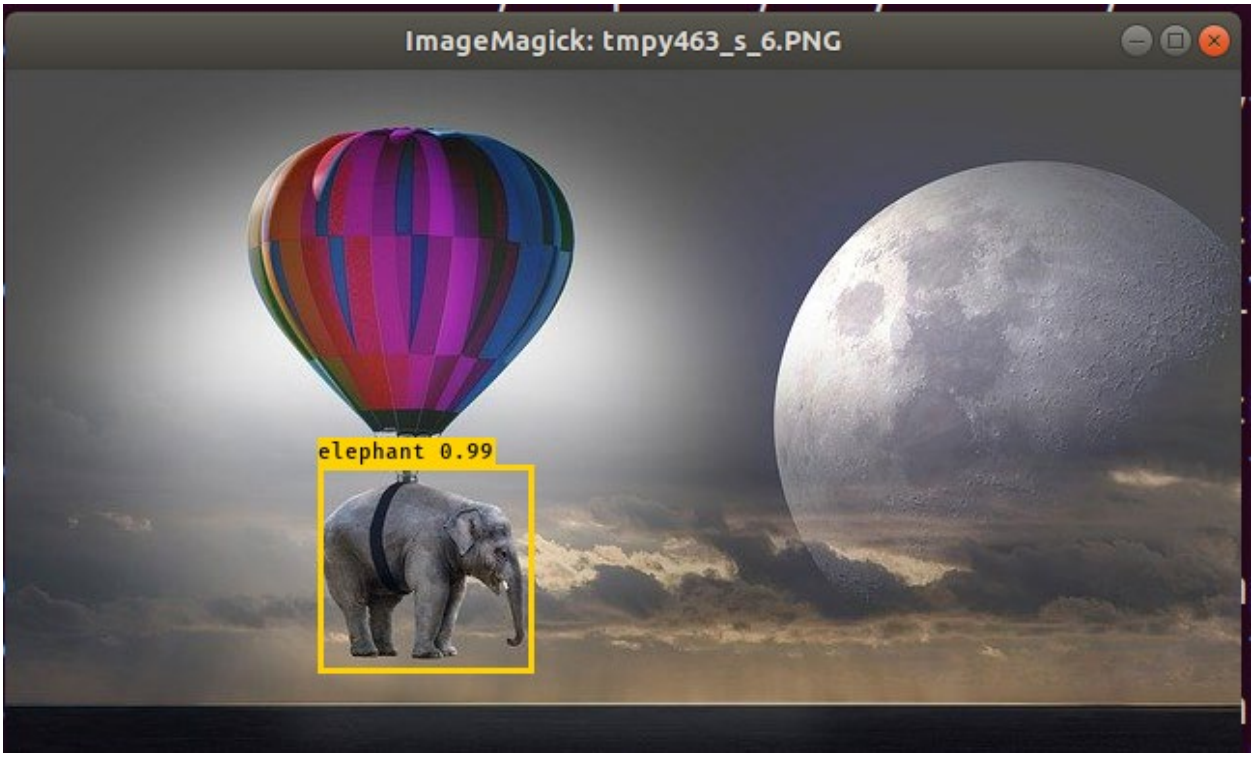


Go back to terminal

```
Kneron@ubuntu:~/keras-yolo3$ python3 yolo_video.py --image
```

When prompted enter the image name and extension

```
Input image filename:Image.jpg
```

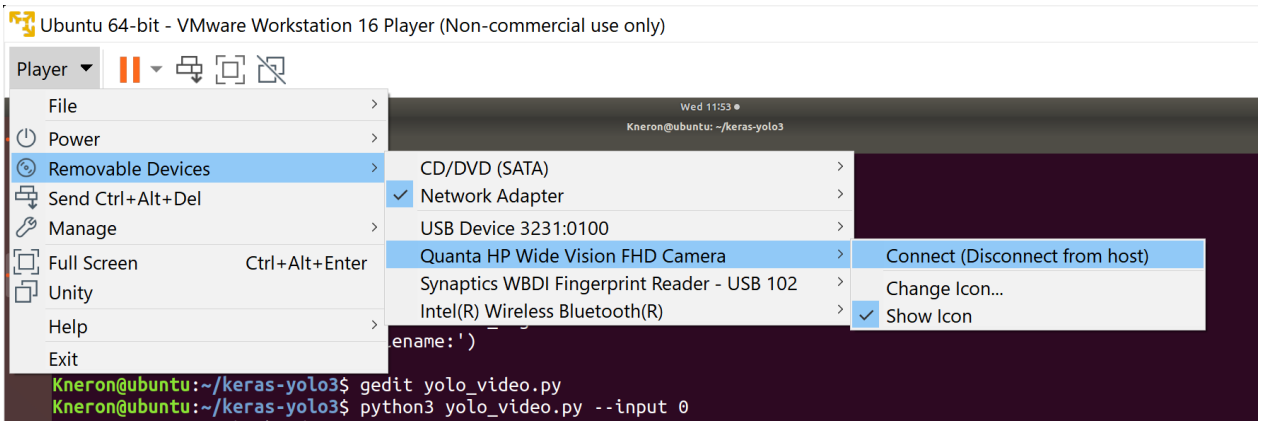


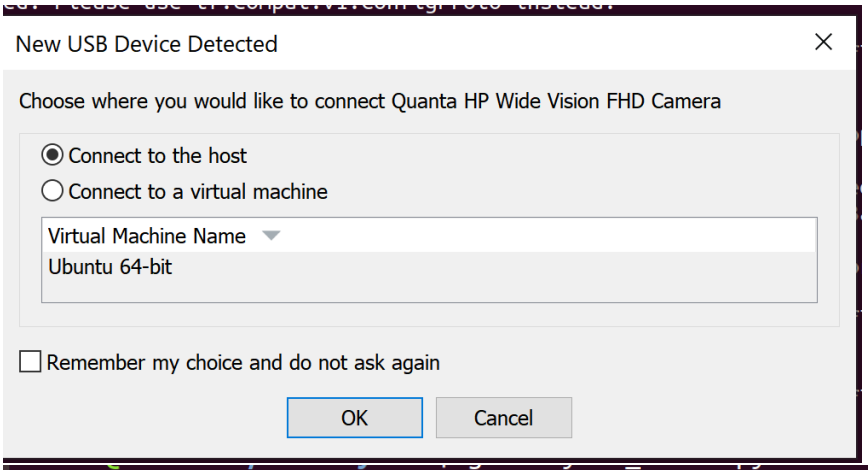
Ctrl+C when done

To webcam to detect objects
Change yolo_video.py code then save and exit

```
Kneron@ubuntu:~/keras-yolo3$ gedit yolo_video.py
```

```
'''
Command line positional arguments -- for video detection mode
'''
parser.add_argument(
    "--input", nargs='?', type=int,required=False,default='./path2your_video',
    help = "Video input path"
)
```






```
Kneron@ubuntu:~/keras-yolo3$ python3 yolo_video.py --input 0
```