# Main Tutorials

[Image Collection:](https://github.com/nicknochnack/TFODCourse/blob/main/1. Image Collection.ipynb)

[https://github.com/nicknochnack/TFODCourse/blob/main/1.%20Image%20Collection.ipynb](https://github.com/nicknochnack/TFODCourse/blob/main/1. Image Collection.ipynb)

Training and Detection:

https://github.com/nicknochnack/TFODCourse/blob/main/2.%20Training%20and%20Detection.ipynb

https://youtu.be/yqkISICHH-U

https://youtu.be/yqkISICHH-U?t=1147

https://youtu.be/yqkISICHH-U?t=1273

https://youtu.be/yqkISICHH-U?t=2190

https://youtu.be/yqkISICHH-U?t=2412

https://youtu.be/yqkISICHH-U?t=2710

https://youtu.be/yqkISICHH-U?t=3202

Video Capturing

https://youtu.be/yqkISICHH-U

https://youtu.be/yqkISICHH-U?t=3536

https://youtu.be/yqkISICHH-U?t=3913

https://youtu.be/yqkISICHH-U?t=3967

https://youtu.be/yqkISICHH-U?t=3982

https://youtu.be/yqkISICHH-U?t=4185

training and spliting:

https://youtu.be/yqkISICHH-U?t=5005

https://youtu.be/yqkISICHH-U?t=5299

https://youtu.be/yqkISICHH-U?list=RDCMUCHXa4OpASJEwrHrLeIzw7Yg&t=6250

# **Namestitev programa labelImg**

* **Ustvari pyhton environment iz python 32 bit:**

py -m virtualenv -p="C:\Users\janezv\AppData\Local\Programs\Python\Python37-32\python.exe" "C:\Program Files\ImgLabeling"

* **Aktiviraj okolje**

cd C:\Windows\System32\cmd.exe

activate

* **Sledi navodilom**

https://github.com/nicknochnack/TFODCourse/blob/main/1.%20Image%20Collection.ipynb

V cmd-ju:

pip install --upgrade pyqt5 lxml

* **pojdi v direktor kjer je labelImg.py in:**

pyrcc5 -o libs/resources.py resources.qrc

python labelImg.py

* **Naredi .exe file:**

https://github.com/tzutalin/labelImg

pip install pyinstaller

pyinstaller --hidden-import=pyqt5 --hidden-import=lxml -F -n "labelImg" -c labelImg.py -p ./libs -p ./

# Pomembni ukazi:

## Activate environment in cmd:

cd “C:\Users\janezv\Documents\IZOBRAŽEVANJE doma\AI Umetna inteligenca\2021 Object Detection Tensor Flow\TensorFlow Object Detection\TFODCourse\tfod”

.\Scripts\activate

**jupyter notebook**

**jupyter kernelspec list**

**jupyter kernelspec uninstall envKi\_ga\_zelis\_pobrisat**

## Kako izbrisati environment v jupyter-ju

**V cmd-ju najdi in aktiviraj okolje (katerokoli) in izvedi ukase:**

* Prikaži vsa okolja

jupyter kernelspec list

* Izbriši okolje

**jupyter kernelspec uninstall unwanted-kernel**

## Namestitev za klnjižnice import cv2; in druge knjižnice ter preglej vse nameščeno

pip install opencv-python

pip install --upgrade pyqt5 lxml

pip list

# Namestitve in orodja

Namestitve in pravilne verzije:

https://www.tensorflow.org/install/source\_windows

**https://github.com/nicknochnack/TFODCourse**

# Pomožni linki

## Jupyter:

https://youtu.be/2WL-XTl2QYI

## Error list:

https://github.com/nicknochnack/TFODCourse

## Utility links

* Objekti za detekcijo (vaja bo vzela model [SSD MobileNet V2 FPNLite 320x320](http://download.tensorflow.org/models/object_detection/tf2/20200711/ssd_mobilenet_v2_fpnlite_320x320_coco17_tpu-8.tar.gz) –> v programu bo link od tega modela )

http://download.tensorflow.org/models/object\_detection/tf2/20200711/ssd\_mobilenet\_v2\_fpnlite\_320x320\_coco17\_tpu-8.tar.gz

## Python Environment

https://youtu.be/APOPm01BVrk?t=51

https://youtu.be/APOPm01BVrk?t=608

* Kreiraj environment

py -m virtualenv -p=<your\_python\_executable**.exe**> <virtual\_environment\_directory>

py -m virtualenv -p=C:\Users\janezv\AppData\Local\Programs\Python\Python37-32\python.exe C:\PythonEnvironments\py37\_32

* Kreiraj environment iz python verzije, ki ima path vpisan na računalniku

py -m venv /path/to/new/virtual/environment

* kreiraj porjekt z imeno project\_env:

**python -m venv project\_env**

* Akitviraj python okolje (v mapi py okolja):

**Scripts\activate.bat**

* dekativiraj:

**deactivate**

* eksportiraj okolje v .txt datoteko:

**pip freeze > manual.txt**

* importiraj vse knjižnice iz text datoteke:

**pip install -r manual.txt**

* najdi python poti v environmentu:

**where python**

* V python najdi absolutno pot folder kjer smo trenutno:

**cwd = os.getcwd()**

**print(cwd)**

* Pot Python.exe . Pot Python interpretor

**import sys**

**print(sys.executable)**