1. Split the 80% and 20% of the image into train and test folder
2. Do label for all of them
3. Edit file: ssd\_mobilenet\_v2\_quantized\_300x300\_coco.config
   1. num\_classes set to number of different image
   2. go to line 181: num\_examples set to number of test image
4. open cmd and cd to object detection folder
   1. C:\Anaconda3\Scripts\activate.bat
   2. activate tensorflow1
   3. set PYTHONPATH=D:\tfliteLocal2\models-master;D:\tfliteLocal2\models-master\research;D:\tfliteLocal2\models-master\research\slim
   4. set PATH=%PATH%;PYTHONPATH
   5. python xml\_to\_csv.py
   6. python generate\_tfrecord.py --csv\_input=images\train\_labels.csv --image\_dir=images\train --output\_path=train.record
   7. python generate\_tfrecord.py --csv\_input=images\test\_labels.csv --image\_dir=images\test --output\_path=test.record
5. training starts
   1. python train.py --logtostderr --train\_dir=training/ --pipeline\_config\_path=ssd\_mobilenet\_v2\_quantized\_300x300\_coco.config
   2. optional\* see loss rate graph 🡪 tensorboard --logdir=training
6. make inference graph
   1. python export\_tflite\_ssd\_graph.py --input\_type image\_tensor --pipeline\_config\_path ssd\_mobilenet\_v2\_quantized\_300x300\_coco.config --trained\_checkpoint\_prefix training/model.ckpt-xxxx --output\_directory inference\_graph
7. cd to inference\_graph folder and make detect file
   1. tflite\_convert --graph\_def\_file=tflite\_graph.pb --output\_file=detect.tflite --input\_shapes=1,300,300,3 --input\_arrays=normalized\_input\_image\_tensor --output\_arrays=TFLite\_Detection\_PostProcess,TFLite\_Detection\_PostProcess:1,TFLite\_Detection\_PostProcess:2,TFLite\_Detection\_PostProcess:3 --allow\_custom\_ops
   2. zip labelmap.txt and detect.tflite
8. go to raspberry pi and unzip to the model folder