

# Object Detection Tensorflow

- Source: **Nicholas Renotte** ([YouTube](#) / [Github](#)) Tensorflow Model Zoo([Github](#))
- Python 版本要 3.10.x 之前，Python 3.11 會有問題

## 1. Clone the repository

```
git clone https://github.com/nicknochnack/TFODCourse
```

## 2. Create a python virtual environment

```
python -m venv tfod  
.\tfod\Scripts\activate
```

## 3. Dependencies

```
python -m pip install --upgrade pip  
pip install ipykernel  
pip install notebook  
pip install opencv-python  
pip install PyQt5  
pip install lxml  
pip install wget  
pip install tensorflow  
pip install matplotlib  
pip install tensorflow-addons  
pip install pytz  
pip install pycocotools  
pip install gin-config
```

## 4. Add virtual environment to Kernel (Jupyter Notebook)

```
python -m ipykernel install --user --name=tfod  
  
# Open the Jupyter Notebook  
jupyter notebook
```

## 5. Labeling (PyQt5 Error Solution)

```
# 當遇到以下錯誤時:  
# qt.qpa.plugin: Could not find the Qt platform plugin "windows" in ""  
# 在系統環境變數添加這個變數  
QT_QPA_PLATFORM_PLUGIN_PATH = "{你的 venv}\Lib\site-packages\PyQt5\Qt5\plugins\platforms"
```

## 6. Verify Installation

```
# protobuf 版本太高時需要 downgrade  
pip uninstall protobuf -y  
pip install protobuf==3.20.3
```