

## Vegetables Detection Coding Complete

### This is the full and complete coding for the Vegetable Detection Project

```
# IMPORT PACKAGES
from ultralytics import YOLO
import ultralytics
import numpy as np
import cv2
import matplotlib.pyplot as plt

# LOAD THE PRETRAINED MODEL
model = YOLO("yolo11x.pt")

# TRAINING WITH CUSTOM DATASET
results =
model.train(data=r'C:\Users\User\Desktop\zaryth\Capstone_5_Vegetable_Zaryth\Capstone_5_Vegetable_Zaryth\dataset\vegetables.v8i.yolov11\data.yaml', epochs=30, imgsz=240, augment=True, shear=0.0, flipud=0.0,
fliplr=0.5)

# DEPLOY CUSTOM TRAINED MODEL
# For picture
model_custom =
YOLO(r"D:\YPAI09\Capstone\Capstone_5_Vegetable_Zaryth_new\Capstone_5_Vegetable_Zaryth\Capstone_5_Vegetable_Zaryth\runs\detect\train8\weights\best.pt")

result =
model_custom(source=r'D:\YPAI09\Capstone\Capstone_5_Vegetable_Zaryth_new\Capstone_5_Vegetable_Zaryth\Capstone_5_Vegetable_Zaryth\test_image_2.jpg') # picture --> source="link image"

# PLOT OUT THE RESULT
img = result[0].plot() # gives numpy array
img = cv2.cvtColor(img,cv2.COLOR_BGR2RGB)
plt.imshow(img)
plt.xticks([])
plt.yticks([])
plt.grid(False)
plt.axis('off')
plt.show()

# DEPLOY CUSTOM TRAINED MODEL
# For camera
model_custom =
YOLO(r"C:\Users\User\Desktop\zaryth\Capstone_5_Vegetable_Zaryth\Capstone_5_Vegetable_Zaryth\runs\detect\train8\weights\best.pt")

result = model_custom(source=0,show=True)

# train8 is the best
# Print model architecture
print(model)
```