

**#project name: The Road Rescuers**

**#author list: L. Jaya Krishna, Y. Sathwik, Sk. Manssor, K. Sumanth**

**#import libraries of python opencv**

import cv2

import numpy as np

import RPi.GPIO as GPIO

import time

GPIO.setmode(GPIO.BOARD)

GPIO.setup(7,GPIO.OUT)

**#create VideoCapture object and read from video file**

cap = cv2.VideoCapture('cars.mp4')

**#use trained cars XML classifiers**

car\_cascade = cv2.CascadeClassifier('cars.xml')

**#read until video is completed**

while True:

**#capture frame by frame**

ret, frame = cap.read()

**#convert video into gray scale of each frames**

gray = cv2.cvtColor(frame, cv2.COLOR\_BGR2GRAY)

**#detect cars in the video**

cars = car\_cascade.detectMultiScale(gray, 1.1, 3)

**#to draw a rectangle in each cars**

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for (x,y,w,h) in cars:
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cv2.rectangle(frame,(x,y),(x+w,y+h),(0,255,0),2
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#to give the signal
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GPIO.output(7,True)
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time.sleep(10)
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GPIO.cleanup()
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