Shri Vile Parle Kelavani Mandal's
DWARKADAS J. SANGHVI COLLEGE OF ENGINEERING
(Autonomous College Affiliated to the University of Mumbai)
NAAC Accredited with "A" Grade (CGPA : 3.18)

Department of Computer Science and Engineering (Data Science)

Subject: Image Processing and Computer Vision - II Laboratory (DJ19DSL702)

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Experiment 3

(YOLO for Object Detection)

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Aim: Identify vehicles from a Road Traffic CCTV video Footage using YOLO

Theory:

Introduction

In this experiment, we will explore the concept of object detection using the popular deep learning algorithm called You Only Look Once (YOLO). Object detection is a crucial task in computer vision, enabling machines to identify and localize multiple objects within an image or video.

Objectives

- Understand the fundamentals of object detection and its applications.

- Introduction to the YOLO algorithm and its architecture.

- Implement a pre-trained YOLO model for vehicle detection in road traffic CCTV video footage.

- Analyze and interpret the results of the object detection experiment.

1. Object Detection

Object detection is the task of identifying and localizing objects of interest within an image or video. It is a fundamental problem in computer vision with numerous applications, including autonomous vehicles, surveillance, robotics, and augmented reality. Unlike image classification, which assigns a single label to an entire image, object detection aims to detect multiple objects and provide their bounding boxes and class labels.

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1.1. Object Detection Approaches

There are two main approaches to object detection:

- Two-Stage Detectors: These methods first propose candidate regions likely to contain objects and then classify those regions. Examples of two-stage detectors include Faster R-CNN and R-FCN.

- One-Stage Detectors: These methods directly predict bounding boxes and class probabilities in a single step. YOLO and SSD (Single Shot Multibox Detector) are prominent one-stage detectors.

In this lab, we will focus on the YOLO algorithm, which stands for "You Only Look Once."

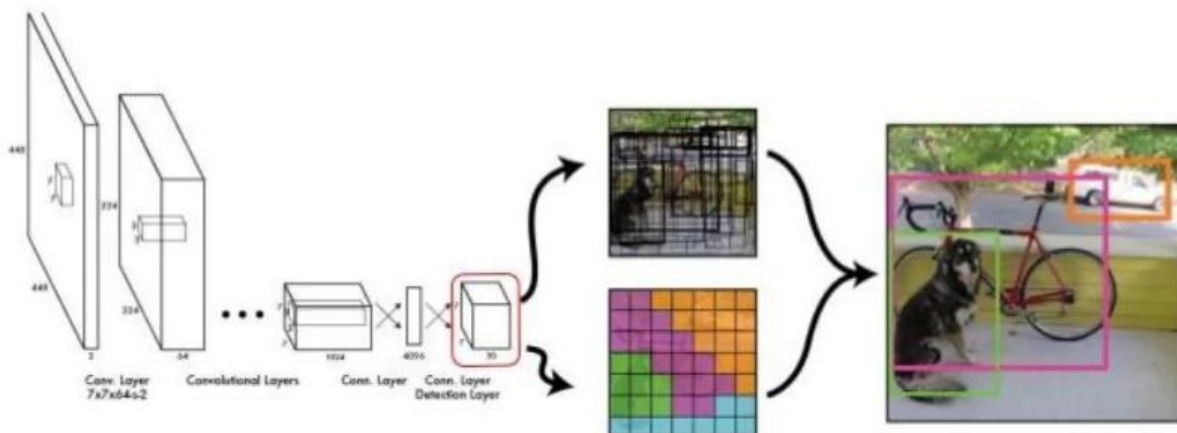

Figure 1. YOLO concept

2. YOLO (You Only Look Once)

YOLO is a popular real-time object detection algorithm introduced by Joseph Redmon et al. It operates differently from traditional approaches by framing object detection as a regression problem. YOLO divides an input image into a grid and predicts bounding boxes and class probabilities for each grid cell.

2.1. YOLO Architecture

The YOLO architecture consists of the following components:

- Backbone: Typically, YOLO employs a deep convolutional neural network (CNN) as its backbone, pre-trained on a large dataset (e.g., ImageNet). The backbone is responsible for feature extraction.

- Grid and Anchor Boxes: The input image is divided into an S x S grid, and each grid cell predicts bounding boxes. YOLO uses anchor boxes of different shapes and sizes to predict the objects.

- Bounding Box Prediction: Each grid cell predicts B bounding boxes. Each bounding box is represented by five components: (x, y, w, h, confidence). (x, y) represents the center of the box relative to the cell's position, (w, h) represents width and height, and the confidence denotes the probability of the box containing an object.

- Class Prediction: For each grid cell and bounding box, YOLO predicts C class probabilities, where C is the total number of classes.

- Non-Maximum Suppression (NMS): To remove duplicate or highly overlapping bounding boxes, YOLO uses NMS during post-processing.

2.2. Loss Function

The YOLO loss function is a combination of localization loss (bounding box regression) and classification loss. The localization loss measures the accuracy of bounding box predictions, while the classification loss measures the accuracy of class predictions.

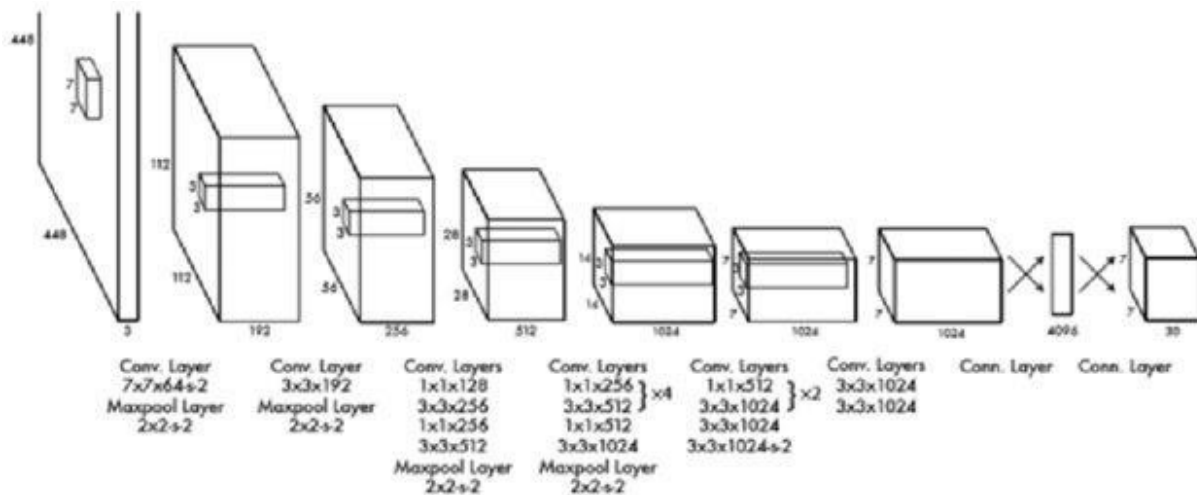**Department of Computer Science and Engineering (Data Science)**

Figure 2. Internal architecture of the YOLO v5 model

3. Implementing YOLO for Object Detection

In this lab, we will use a pre-trained YOLO v5 model to detect vehicles in road traffic CCTV video footage. We will follow the following steps:

1. Load and preprocess the video footage.

2. Download and set up the pre-trained YOLO model.

3. Perform object detection on each frame of the video.

4. Visualize the results and analyze the performance.

Conclusion

In this lab, we explored the concept of object detection using the YOLO algorithm. We learned about the YOLO architecture, the key components of the algorithm, and how it differs from traditional object detection approaches. By implementing a pre-trained YOLO model for vehicle detection in road traffic CCTV video footage, we gained practical experience in using deep learning for real-world computer vision tasks.

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Now, let's move on to the practical part of the lab and apply our knowledge to identify vehicles from the provided dataset!

Lab Assignments to complete in this session:

Use the given dataset and perform the YOLO task.

Dataset: https://drive.google.com/drive/folders/1arPa_lfVXnSvGRT-CGrufg3zMSJxqBca?usp=sharing

The steps involved in the experiment are as follows:

1. Load and preprocess the video footage.

2. Download and set up the pre-trained YOLO model.

3. Perform object detection on each frame of the video.

4. Visualize the results and analyze the performance.

5. Bonus Task: Perform Real-Time object-detection using the webcam. This can be any object-detection task and not particularly identification of vehicles.

```
!pip install ultralytics -q
```

Loading libraries

```python
# Object Detecion
import cv2
from ultralytics import YOLO
#plots
import matplotlib.pyplot as plt
import seaborn as sns

#basics
import pandas as pd
import numpy as np
import os
import subprocess

from tqdm.notebook import tqdm

# Display image and videos
import IPython
from IPython.display import Video, display
%matplotlib inline

# Video  path for experiment
path = 'https://docs.google.com/uc?
export=download&confirm=&id=1pz68D1Gsx80MoPg-_q-IbEdESEmyVLm-'

frac = 0.65
display(Video(data=path, height=int(720*frac), width=int(1280*frac)))
```

```
<IPython.core.display.Video object>
```

```python
import os, time, random
import numpy as np
import pandas as pd
import cv2, torch
from tqdm.auto import tqdm
import shutil as sh

from IPython.display import Image, clear_output
import matplotlib.pyplot as plt
%matplotlib inline
```

Initializing YOLOv5

```
!git clone https://github.com/ultralytics/yolov5  # clone repo
!pip install -qU pycocotools
!pip install -qr yolov5/requirements.txt  # install dependencies
!cp yolov5/requirements.txt ./

fatal: destination path 'yolov5' already exists and is not an empty
directory.

from google.colab import drive
drive.mount('/content/drive', force_remount=True)

Mounted at /content/drive
```

Defining co-ordinates

```
img_h, img_w, num_channels = (380, 676, 3)

df =
pd.read_csv('/content/drive/MyDrive/data/train_solution_bounding_boxes
(1).csv')
df.rename(columns={'image':'image_id'}, inplace=True)
df['image_id'] = df['image_id'].apply(lambda x: x.split('.')[0])
df['x_center'] = (df['xmin'] + df['xmax'])/2
df['y_center'] = (df['ymin'] + df['ymax'])/2
df['w'] = df['xmax'] - df['xmin']
df['h'] = df['ymax'] - df['ymin']
df['classes'] = 0
df['x_center'] = df['x_center']/img_w
df['w'] = df['w']/img_w
df['y_center'] = df['y_center']/img_h
df['h'] = df['h']/img_h
df.head()

        image_id        xmin        ymin        xmax        ymax
x_center  \
0   vid_4_1000   281.259045  187.035071  327.727931  223.225547
0.450434
1   vid_4_10000    15.163531  187.035071  120.329957  236.430180
0.100217
2   vid_4_10040  239.192475  176.764801  361.968162  236.430180
0.444645
3   vid_4_10020  496.483358  172.363256  630.020260  231.539575
0.833213
4   vid_4_10060    16.630970  186.546010  132.558611  238.386422
0.110347

    y_center         w         h   classes
0   0.539817  0.068741  0.095238        0
1   0.557191  0.155572  0.129987        0
2   0.543678  0.181621  0.157014        0
```

```
3   0.531451   0.197540   0.155727        0
4   0.559122   0.171491   0.136422        0

index = list(set(df.image_id))
image = random.choice(index)
print("Image ID: %s"%(image))
img =
cv2.imread(f'/content/drive/MyDrive/data/training_images/{image}.jpg')
img.shape

Image ID: vid_4_11020

(380, 676, 3)

image = random.choice(index)
Image(filename=f'/content/drive/MyDrive/data/training_images/{image}.j
pg',width=600)
```



```
source = 'training_images'
if True:
    for fold in [0]:
        val_index = index[len(index)*fold//5:len(index)*(fold+1)//5]
        for name,mini in tqdm(df.groupby('image_id')):
            if name in val_index:
                path2save = 'val2017/'
            else:
                path2save = 'train2017/'
            if not
os.path.exists('/tmp/convertor/fold{}/labels/'.format(fold)
```

```
+path2save):

os.makedirs('/tmp/convertor/fold{}/labels/'.format(fold)+path2save)
            with open('/tmp/convertor/fold{}/labels/'.format(fold)
+path2save+name+".txt", 'w+') as f:
                row =
mini[['classes','x_center','y_center','w','h']].astype(float).values
                row = row.astype(str)
                for j in range(len(row)):
                    text = ' '.join(row[j])
                    f.write(text) f.write("\
                    n")
            if not
os.path.exists('/tmp/convertor/fold{}/images/{}'.format(fold,path2save
)):

os.makedirs('/tmp/convertor/fold{}/images/{}'.format(fold,path2save))

sh.copy("/content/drive/MyDrive/data/{}/{}.jpg".format(source,name),'/
tmp/convertor/fold{}/images/{}/{}.jpg'.format(fold,path2save,name))
```

```
{"model_id":"69c8712d656d40cb91077685ca4e1923","version_major":2,"vers
ion_minor":0}
```

Experimentation

```
!python yolov5/detect.py --weights yolov5/yolov5s.pt --img 676 --conf
0.4 --source /content/drive/MyDrive/data/testing_images

detect: weights=['yolov5/yolov5s.pt'],
source=/content/drive/MyDrive/data/testing_images,
data=yolov5/data/coco128.yaml, imgsz=[676, 676], conf_thres=0.4,
iou_thres=0.45, max_det=1000, device=, view_img=False, save_txt=False,
save_csv=False, save_conf=False, save_crop=False, nosave=False,
classes=None, agnostic_nms=False, augment=False, visualize=False,
update=False, project=yolov5/runs/detect, name=exp, exist_ok=False,
line_thickness=3, hide_labels=False, hide_conf=False, half=False,
dnn=False, vid_stride=1
YOLOv5 🚀 v7.0-218-g9e97ac3 Python-3.10.12 torch-2.0.1+cu118
CUDA:0 (Tesla T4, 15102MiB)

Downloading
https://github.com/ultralytics/yolov5/releases/download/v7.0/yolov5s.p
t to yolov5/yolov5s.pt...
100% 14.1M/14.1M [00:00<00:00, 73.6MB/s]

Fusing layers...
YOLOv5s summary: 213 layers, 7225885 parameters, 0 gradients
WARNING ⚠  --img-size [676, 676] must be multiple of max stride
32, updating to [704, 704]
```

```
image 1/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_25100.jpg: 416x704 (no
detections), 45.3ms
image 2/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_25120.jpg: 416x704 (no
detections), 9.6ms
image 3/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_25140.jpg: 416x704 (no
detections), 12.7ms
image 4/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_25160.jpg: 416x704 (no
detections), 12.6ms
image 5/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_25180.jpg: 416x704 (no
detections), 9.6ms
image 6/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_25200.jpg: 416x704 (no
detections), 9.6ms
image 7/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_25220.jpg: 416x704 (no
detections), 9.9ms
image 8/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_25240.jpg: 416x704 (no
detections), 9.6ms
image 9/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_25260.jpg: 416x704 (no
detections), 9.5ms
image 10/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_26320.jpg: 416x704 (no
detections), 10.0ms
image 11/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_26400.jpg: 416x704 (no
detections), 9.5ms
image 12/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_26420.jpg: 416x704 (no
detections), 9.5ms
image 13/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_26560.jpg: 416x704 1 car,
9.5ms
image 14/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_26580.jpg: 416x704 1 car,
9.5ms
image 15/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_26600.jpg: 416x704 2 cars,
9.5ms
image 16/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_26620.jpg: 416x704 1 car,
9.5ms
image 17/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
```

```
CGrufg3zMSJxqBca/data/testing_images/vid_5_26640.jpg: 416x704 3 cars,
9.5ms
image 18/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_26660.jpg: 416x704 1 car,
9.5ms
image 19/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_26680.jpg: 416x704 3 cars,
1 truck, 9.5ms
image 20/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_26700.jpg: 416x704 2 cars,
9.5ms
image 21/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_26720.jpg: 416x704 3 cars,
9.5ms
image 22/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_26740.jpg: 416x704 3 cars,
9.5ms
image 23/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_26760.jpg: 416x704 3 cars,
9.5ms
image 24/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_26780.jpg: 416x704 2 cars,
1 truck, 9.5ms
image 25/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_26800.jpg: 416x704 2 cars,
1 truck, 9.5ms
image 26/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_26820.jpg: 416x704 2 cars,
9.5ms
image 27/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_26840.jpg: 416x704 1 car,
9.5ms
image 28/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_26860.jpg: 416x704 1 car,
9.5ms
image 29/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_26880.jpg: 416x704 1 car,
9.5ms
image 30/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_26900.jpg: 416x704 3 cars,
9.5ms
image 31/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_26920.jpg: 416x704 2 cars,
9.5ms
image 32/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_26940.jpg: 416x704 2 cars,
9.5ms
image 33/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_26960.jpg: 416x704 1 car,
```

```
10.7ms
image 34/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_26980.jpg: 416x704 (no
detections), 9.5ms
image 35/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_27240.jpg: 416x704 1 car,
9.5ms
image 36/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_27260.jpg: 416x704 (no
detections), 9.5ms
image 37/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_27280.jpg: 416x704 (no
detections), 9.5ms
image 38/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_27300.jpg: 416x704 3 cars,
3 traffic lights, 9.5ms
image 39/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_27320.jpg: 416x704 3 cars,
4 traffic lights, 9.5ms
image 40/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_27360.jpg: 416x704 3 cars,
5 traffic lights, 9.5ms
image 41/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_27380.jpg: 416x704 3 cars,
5 traffic lights, 9.5ms
image 42/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_27400.jpg: 416x704 3 cars,
4 traffic lights, 9.5ms
image 43/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_27420.jpg: 416x704 3 cars,
3 traffic lights, 9.5ms
image 44/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_27440.jpg: 416x704 3 cars,
2 traffic lights, 9.5ms
image 45/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_27460.jpg: 416x704 2 cars,
2 traffic lights, 9.5ms
image 46/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_27480.jpg: 416x704 4 cars,
1 traffic light, 9.5ms
image 47/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_27500.jpg: 416x704 1 car,
9.5ms
image 48/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_27520.jpg: 416x704 2 cars,
9.5ms
image 49/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_27540.jpg: 416x704 2 cars,
9.5ms
```

```
image 50/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_27560.jpg: 416x704 1 car,
9.5ms
image 51/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_27580.jpg: 416x704 (no
detections), 10.4ms
image 52/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_27600.jpg: 416x704 (no
detections), 9.5ms
image 53/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_27620.jpg: 416x704 1 car,
9.5ms
image 54/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_27640.jpg: 416x704 1 car,
9.5ms
image 55/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_27660.jpg: 416x704 (no
detections), 9.5ms
image 56/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_27680.jpg: 416x704 (no
detections), 9.5ms
image 57/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_27700.jpg: 416x704 (no
detections), 9.5ms
image 58/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_27720.jpg: 416x704 (no
detections), 9.5ms
image 59/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_27740.jpg: 416x704 (no
detections), 9.5ms
image 60/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_27760.jpg: 416x704 (no
detections), 10.3ms
image 61/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_27780.jpg: 416x704 (no
detections), 9.5ms
image 62/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_27800.jpg: 416x704 (no
detections), 9.5ms
image 63/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_27820.jpg: 416x704 (no
detections), 9.5ms
image 64/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_27840.jpg: 416x704 1 car,
9.5ms
image 65/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_27860.jpg: 416x704 1 car,
9.5ms
image 66/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
```

```
CGrufg3zMSJxqBca/data/testing_images/vid_5_27880.jpg: 416x704 1 car,
9.5ms
image 67/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_27900.jpg: 416x704 1 car,
9.5ms
image 68/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_27920.jpg: 416x704 1 car,
9.5ms
image 69/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_27940.jpg: 416x704 1 truck,
9.5ms
image 70/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_27960.jpg: 416x704 (no
detections), 9.5ms
image 71/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_27980.jpg: 416x704 1 chair,
9.5ms
image 72/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_28000.jpg: 416x704 (no
detections), 9.5ms
image 73/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_28020.jpg: 416x704 (no
detections), 9.5ms
image 74/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_28040.jpg: 416x704 (no
detections), 9.5ms
image 75/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_28060.jpg: 416x704 (no
detections), 9.5ms
image 76/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_28080.jpg: 416x704 (no
detections), 9.5ms
image 77/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_28180.jpg: 416x704 (no
detections), 9.5ms
image 78/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_28260.jpg: 416x704 1 car,
9.5ms
image 79/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_28320.jpg: 416x704 (no
detections), 9.5ms
image 80/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_28340.jpg: 416x704 (no
detections), 9.5ms
image 81/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_28360.jpg: 416x704 (no
detections), 9.5ms
image 82/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_28380.jpg: 416x704 1 car,
```

```
9.5ms
image 83/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_28420.jpg: 416x704 1 car,
9.5ms
image 84/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_28440.jpg: 416x704 1 car, 1
truck, 9.5ms
image 85/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_28460.jpg: 416x704 (no
detections), 9.5ms
image 86/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_28480.jpg: 416x704 (no
detections), 9.5ms
image 87/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_28500.jpg: 416x704 1 car,
9.5ms
image 88/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_28520.jpg: 416x704 1 car, 1
truck, 9.5ms
image 89/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_28540.jpg: 416x704 1 truck,
9.5ms
image 90/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_28560.jpg: 416x704 (no
detections), 9.5ms
image 91/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_28580.jpg: 416x704 (no
detections), 9.5ms
image 92/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_28600.jpg: 416x704 (no
detections), 9.5ms
image 93/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_28620.jpg: 416x704 (no
detections), 9.5ms
image 94/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_28640.jpg: 416x704 (no
detections), 9.5ms
image 95/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_28660.jpg: 416x704 (no
detections), 9.5ms
image 96/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_28680.jpg: 416x704 (no
detections), 9.5ms
image 97/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_28700.jpg: 416x704 (no
detections), 9.5ms
image 98/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_29000.jpg: 416x704 2 cars,
9.5ms
```

```
image 99/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_29020.jpg: 416x704 1 car,
9.5ms
image 100/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_29040.jpg: 416x704 1 car,
9.5ms
image 101/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_29060.jpg: 416x704 (no
detections), 9.5ms
image 102/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_29080.jpg: 416x704 (no
detections), 9.5ms
image 103/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_29100.jpg: 416x704 (no
detections), 9.5ms
image 104/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_29400.jpg: 416x704 1 car,
9.6ms
image 105/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_29420.jpg: 416x704 2 cars,
9.5ms
image 106/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_29440.jpg: 416x704 2 cars,
9.5ms
image 107/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_29460.jpg: 416x704 1 car,
9.5ms
image 108/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_29480.jpg: 416x704 1 car,
9.5ms
image 109/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_29500.jpg: 416x704 (no
detections), 9.5ms
image 110/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_29520.jpg: 416x704 (no
detections), 9.5ms
image 111/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_29540.jpg: 416x704 2 cars,
9.5ms
image 112/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_29560.jpg: 416x704 1 car,
9.5ms
image 113/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_29580.jpg: 416x704 1 car,
9.5ms
image 114/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_29600.jpg: 416x704 (no
detections), 10.4ms
image 115/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
```

```
CGrufg3zMSJxqBca/data/testing_images/vid_5_29620.jpg: 416x704 (no
detections), 9.5ms
image 116/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_29640.jpg: 416x704 (no
detections), 9.5ms
image 117/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_29720.jpg: 416x704 (no
detections), 9.5ms
image 118/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_29740.jpg: 416x704 (no
detections), 9.5ms
image 119/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_29760.jpg: 416x704 1 car,
9.5ms
image 120/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_29820.jpg: 416x704 1 car,
9.5ms
image 121/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_29840.jpg: 416x704 1 car, 1
truck, 9.6ms
image 122/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_29860.jpg: 416x704 (no
detections), 9.5ms
image 123/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_29880.jpg: 416x704 (no
detections), 9.5ms
image 124/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_29900.jpg: 416x704 (no
detections), 9.5ms
image 125/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_29980.jpg: 416x704 1
person, 9.5ms
image 126/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_30000.jpg: 416x704 (no
detections), 9.6ms
image 127/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_30020.jpg: 416x704 (no
detections), 9.5ms
image 128/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_30040.jpg: 416x704 (no
detections), 9.5ms
image 129/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_30120.jpg: 416x704 (no
detections), 9.5ms
image 130/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_30140.jpg: 416x704 (no
detections), 9.5ms
image 131/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_30160.jpg: 416x704 (no
```

```
detections), 10.0ms
image 132/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_30180.jpg: 416x704 (no
detections), 9.5ms
image 133/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_30640.jpg: 416x704 1 car,
9.5ms
image 134/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_30660.jpg: 416x704 (no
detections), 9.6ms
image 135/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_30680.jpg: 416x704 (no
detections), 9.5ms
image 136/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_30700.jpg: 416x704 (no
detections), 12.3ms
image 137/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_30720.jpg: 416x704 (no
detections), 9.5ms
image 138/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_30740.jpg: 416x704 1 car, 1
truck, 9.5ms
image 139/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_30760.jpg: 416x704 1 car, 3
traffic lights, 9.5ms
image 140/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_30820.jpg: 416x704 2 cars,
6 traffic lights, 9.5ms
image 141/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_30840.jpg: 416x704 2 cars,
5 traffic lights, 9.5ms
image 142/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_30860.jpg: 416x704 3 cars,
3 traffic lights, 9.5ms
image 143/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_30920.jpg: 416x704 2 cars,
2 traffic lights, 9.5ms
image 144/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_30940.jpg: 416x704 2 cars,
2 traffic lights, 9.5ms
image 145/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_31020.jpg: 416x704 2 cars,
9.5ms
image 146/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_31040.jpg: 416x704 3 cars,
9.5ms
image 147/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_31060.jpg: 416x704 1 car,
9.6ms
```

```
image 148/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_31080.jpg: 416x704 2 cars,
9.5ms
image 149/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_31100.jpg: 416x704 1 car,
10.4ms
image 150/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_31120.jpg: 416x704 2 cars,
9.5ms
image 151/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_31140.jpg: 416x704 1 car,
9.5ms
image 152/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_31160.jpg: 416x704 1 car,
9.5ms
image 153/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_31180.jpg: 416x704 (no
detections), 9.5ms
image 154/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_31200.jpg: 416x704 (no
detections), 9.5ms
image 155/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_31260.jpg: 416x704 (no
detections), 9.6ms
image 156/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_31280.jpg: 416x704 (no
detections), 9.5ms
image 157/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_31300.jpg: 416x704 (no
detections), 12.6ms
image 158/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_31360.jpg: 416x704 (no
detections), 11.3ms
image 159/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_31380.jpg: 416x704 (no
detections), 9.5ms
image 160/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_31400.jpg: 416x704 (no
detections), 9.5ms
image 161/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_31420.jpg: 416x704 (no
detections), 9.5ms
image 162/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_31480.jpg: 416x704 (no
detections), 9.5ms
image 163/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_31500.jpg: 416x704 (no
detections), 9.5ms
image 164/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_31520.jpg: 416x704 (no
```

```
detections), 9.5ms
image 165/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_31560.jpg: 416x704 1 car,
9.5ms
image 166/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_31600.jpg: 416x704 2 cars,
9.5ms
image 167/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_31620.jpg: 416x704 1 car,
9.5ms
image 168/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_31640.jpg: 416x704 (no
detections), 9.5ms
image 169/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_31660.jpg: 416x704 (no
detections), 9.5ms
image 170/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_31680.jpg: 416x704 (no
detections), 9.5ms
image 171/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_31700.jpg: 416x704 1 car,
9.5ms
image 172/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_31720.jpg: 416x704 1 car,
9.5ms
image 173/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_400.jpg: 416x704 1 car,
9.5ms
image 174/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_420.jpg: 416x704 1 car,
9.5ms
image 175/175 /content/drive/.shortcut-targets-by-id/1arPa_lfVXnSvGRT-
CGrufg3zMSJxqBca/data/testing_images/vid_5_440.jpg: 416x704 1 car,
9.5ms
Speed: 0.5ms pre-process, 9.8ms inference, 0.9ms NMS per image at
shape (1, 3, 704, 704)
Results saved to yolov5/runs/detect/exp

predicted_files = []
for (dirpath, dirnames, filenames) in
os.walk("/content/yolov5/runs/detect/exp"):
    predicted_files.extend(filenames)

Image(filename=f'/content/yolov5/runs/detect/
exp/{random.choice(predicted_files)}')
```
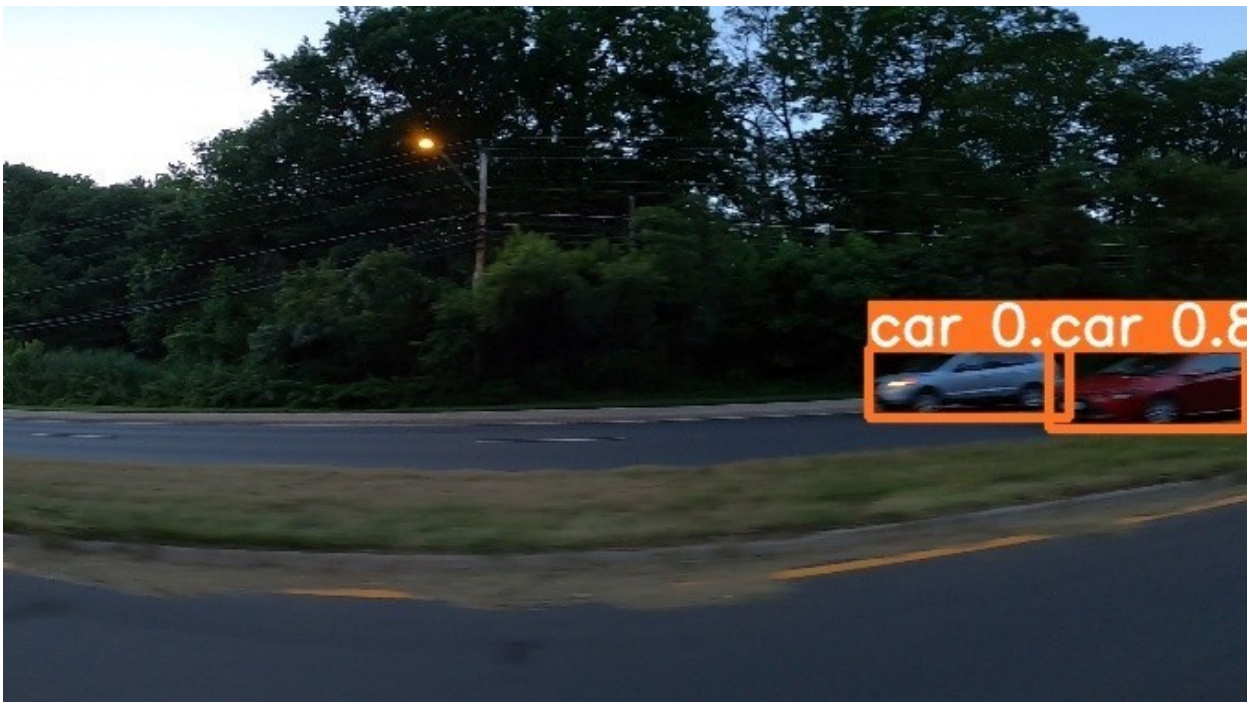
```
Image(filename=f'/content/yolov5/runs/detect/
exp/{random.choice(predicted_files)}')
```



```
Image(filename=f'/content/yolov5/runs/detect/
exp/{random.choice(predicted_files)}')
```

```
Image(filename=f'/content/yolov5/runs/detect/
exp/{random.choice(predicted_files)}')
```



```
Image(filename=f'/content/yolov5/runs/detect/
exp/{random.choice(predicted_files)}')
```

```
!gdown "https://docs.google.com/uc?
export=download&confirm=&id=1pz68D1Gsx80MoPg-_q-IbEdESEmyVLm-"
```

```
Downloading...
From: https://docs.google.com/uc?
export=download&confirm=&id=1pz68D1Gsx80MoPg-_q-IbEdESEmyVLm-
To: /content/vehicle-counting.mp4
100% 35.3M/35.3M [00:00<00:00, 56.8MB/s]
```

```
!python yolov5/detect.py --weights yolov5/yolov5s.pt --img 676 --conf
0.4 --source /content/vehicle-counting.mp4
```

```
detect: weights=['yolov5/yolov5s.pt'], source=/content/vehicle-
counting.mp4, data=yolov5/data/coco128.yaml, imgsz=[676, 676],
conf_thres=0.4, iou_thres=0.45, max_det=1000, device=, view_img=False,
save_txt=False, save_csv=False, save_conf=False, save_crop=False,
nosave=False, classes=None, agnostic_nms=False, augment=False,
visualize=False, update=False, project=yolov5/runs/detect, name=exp,
exist_ok=False, line_thickness=3, hide_labels=False, hide_conf=False,
half=False, dnn=False, vid_stride=1
YOLOv5 🚀 v7.0-218-g9e97ac3 Python-3.10.12 torch-2.0.1+cu118
CUDA:0 (Tesla T4, 15102MiB)

Fusing layers...
YOLOv5s summary: 213 layers, 7225885 parameters, 0 gradients
WARNING ⚠  --img-size [676, 676] must be multiple of max stride
32, updating to [704, 704]
video 1/1 (1/538) /content/vehicle-counting.mp4: 416x704 4 cars, 1
truck, 48.3ms
```

```
video 1/1 (2/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 9.6ms
video 1/1 (3/538) /content/vehicle-counting.mp4: 416x704 4 cars, 1
truck, 9.6ms
video 1/1 (4/538) /content/vehicle-counting.mp4: 416x704 4 cars, 1
truck, 9.6ms
video 1/1 (5/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (6/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (7/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (8/538) /content/vehicle-counting.mp4: 416x704 5 cars, 1
truck, 9.6ms
video 1/1 (9/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 9.6ms
video 1/1 (10/538) /content/vehicle-counting.mp4: 416x704 4 cars, 1
truck, 9.6ms
video 1/1 (11/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 9.6ms
video 1/1 (12/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 9.6ms
video 1/1 (13/538) /content/vehicle-counting.mp4: 416x704 4 cars, 1
truck, 9.6ms
video 1/1 (14/538) /content/vehicle-counting.mp4: 416x704 4 cars, 1
truck, 12.0ms
video 1/1 (15/538) /content/vehicle-counting.mp4: 416x704 4 cars, 1
truck, 10.5ms
video 1/1 (16/538) /content/vehicle-counting.mp4: 416x704 5 cars, 1
truck, 10.9ms
video 1/1 (17/538) /content/vehicle-counting.mp4: 416x704 4 cars, 1
truck, 19.4ms
video 1/1 (18/538) /content/vehicle-counting.mp4: 416x704 4 cars, 1
truck, 17.0ms
video 1/1 (19/538) /content/vehicle-counting.mp4: 416x704 4 cars, 1
truck, 17.6ms
video 1/1 (20/538) /content/vehicle-counting.mp4: 416x704 4 cars, 1
truck, 16.8ms
video 1/1 (21/538) /content/vehicle-counting.mp4: 416x704 4 cars, 1
truck, 15.5ms
video 1/1 (22/538) /content/vehicle-counting.mp4: 416x704 4 cars, 1
truck, 20.9ms
video 1/1 (23/538) /content/vehicle-counting.mp4: 416x704 5 cars, 1
truck, 12.5ms
video 1/1 (24/538) /content/vehicle-counting.mp4: 416x704 4 cars, 1
truck, 9.6ms
video 1/1 (25/538) /content/vehicle-counting.mp4: 416x704 4 cars, 1
truck, 16.6ms
video 1/1 (26/538) /content/vehicle-counting.mp4: 416x704 4 cars, 1
```

```
truck, 14.6ms
video 1/1 (27/538) /content/vehicle-counting.mp4: 416x704 4 cars, 1
truck, 20.5ms
video 1/1 (28/538) /content/vehicle-counting.mp4: 416x704 4 cars, 1
truck, 14.8ms
video 1/1 (29/538) /content/vehicle-counting.mp4: 416x704 4 cars, 1
truck, 18.2ms
video 1/1 (30/538) /content/vehicle-counting.mp4: 416x704 3 cars, 2
trucks, 16.7ms
video 1/1 (31/538) /content/vehicle-counting.mp4: 416x704 4 cars, 2
trucks, 13.6ms
video 1/1 (32/538) /content/vehicle-counting.mp4: 416x704 4 cars, 2
trucks, 12.7ms
video 1/1 (33/538) /content/vehicle-counting.mp4: 416x704 4 cars, 1
truck, 15.9ms
video 1/1 (34/538) /content/vehicle-counting.mp4: 416x704 4 cars, 1
truck, 16.6ms
video 1/1 (35/538) /content/vehicle-counting.mp4: 416x704 5 cars, 2
trucks, 15.4ms
video 1/1 (36/538) /content/vehicle-counting.mp4: 416x704 5 cars, 2
trucks, 19.3ms
video 1/1 (37/538) /content/vehicle-counting.mp4: 416x704 5 cars, 1
truck, 24.2ms
video 1/1 (38/538) /content/vehicle-counting.mp4: 416x704 5 cars, 1
truck, 10.3ms
video 1/1 (39/538) /content/vehicle-counting.mp4: 416x704 5 cars, 1
truck, 9.6ms
video 1/1 (40/538) /content/vehicle-counting.mp4: 416x704 5 cars, 1
truck, 9.6ms
video 1/1 (41/538) /content/vehicle-counting.mp4: 416x704 5 cars, 2
trucks, 9.6ms
video 1/1 (42/538) /content/vehicle-counting.mp4: 416x704 6 cars, 1
truck, 9.6ms
video 1/1 (43/538) /content/vehicle-counting.mp4: 416x704 6 cars, 2
trucks, 9.6ms
video 1/1 (44/538) /content/vehicle-counting.mp4: 416x704 6 cars, 1
truck, 9.6ms
video 1/1 (45/538) /content/vehicle-counting.mp4: 416x704 6 cars, 1
truck, 9.6ms
video 1/1 (46/538) /content/vehicle-counting.mp4: 416x704 6 cars, 2
trucks, 9.6ms
video 1/1 (47/538) /content/vehicle-counting.mp4: 416x704 6 cars, 1
truck, 9.6ms
video 1/1 (48/538) /content/vehicle-counting.mp4: 416x704 6 cars, 2
trucks, 9.6ms
video 1/1 (49/538) /content/vehicle-counting.mp4: 416x704 5 cars, 2
trucks, 9.6ms
video 1/1 (50/538) /content/vehicle-counting.mp4: 416x704 5 cars, 2
trucks, 9.6ms
```

```
video 1/1 (51/538) /content/vehicle-counting.mp4: 416x704 6 cars, 2
trucks, 10.2ms
video 1/1 (52/538) /content/vehicle-counting.mp4: 416x704 5 cars, 2
trucks, 9.6ms
video 1/1 (53/538) /content/vehicle-counting.mp4: 416x704 6 cars, 1
truck, 9.6ms
video 1/1 (54/538) /content/vehicle-counting.mp4: 416x704 5 cars, 1
truck, 9.6ms
video 1/1 (55/538) /content/vehicle-counting.mp4: 416x704 6 cars, 1
truck, 9.7ms
video 1/1 (56/538) /content/vehicle-counting.mp4: 416x704 4 cars, 2
trucks, 9.7ms
video 1/1 (57/538) /content/vehicle-counting.mp4: 416x704 4 cars, 2
trucks, 9.6ms
video 1/1 (58/538) /content/vehicle-counting.mp4: 416x704 5 cars, 2
trucks, 9.6ms
video 1/1 (59/538) /content/vehicle-counting.mp4: 416x704 4 cars, 2
trucks, 9.6ms
video 1/1 (60/538) /content/vehicle-counting.mp4: 416x704 4 cars, 2
trucks, 9.8ms
video 1/1 (61/538) /content/vehicle-counting.mp4: 416x704 4 cars, 2
trucks, 9.6ms
video 1/1 (62/538) /content/vehicle-counting.mp4: 416x704 4 cars, 2
trucks, 9.6ms
video 1/1 (63/538) /content/vehicle-counting.mp4: 416x704 4 cars, 2
trucks, 9.6ms
video 1/1 (64/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 9.6ms
video 1/1 (65/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 9.6ms
video 1/1 (66/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 9.6ms
video 1/1 (67/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 9.6ms
video 1/1 (68/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 9.6ms
video 1/1 (69/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 9.6ms
video 1/1 (70/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 9.6ms
video 1/1 (71/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 9.6ms
video 1/1 (72/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 9.6ms
video 1/1 (73/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 9.6ms
video 1/1 (74/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 9.6ms
video 1/1 (75/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
```

```
truck, 9.6ms
video 1/1 (76/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 11.1ms
video 1/1 (77/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 9.6ms
video 1/1 (78/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 10.4ms
video 1/1 (79/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 9.6ms
video 1/1 (80/538) /content/vehicle-counting.mp4: 416x704 3 cars,
9.6ms
video 1/1 (81/538) /content/vehicle-counting.mp4: 416x704 3 cars,
9.6ms
video 1/1 (82/538) /content/vehicle-counting.mp4: 416x704 3 cars,
9.6ms
video 1/1 (83/538) /content/vehicle-counting.mp4: 416x704 3 cars,
9.6ms
video 1/1 (84/538) /content/vehicle-counting.mp4: 416x704 3 cars,
9.6ms
video 1/1 (85/538) /content/vehicle-counting.mp4: 416x704 3 cars,
9.6ms
video 1/1 (86/538) /content/vehicle-counting.mp4: 416x704 3 cars,
9.6ms
video 1/1 (87/538) /content/vehicle-counting.mp4: 416x704 3 cars,
9.6ms
video 1/1 (88/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 9.6ms
video 1/1 (89/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 9.6ms
video 1/1 (90/538) /content/vehicle-counting.mp4: 416x704 3 cars,
9.6ms
video 1/1 (91/538) /content/vehicle-counting.mp4: 416x704 3 cars,
9.6ms
video 1/1 (92/538) /content/vehicle-counting.mp4: 416x704 3 cars,
9.6ms
video 1/1 (93/538) /content/vehicle-counting.mp4: 416x704 3 cars,
9.6ms
video 1/1 (94/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (95/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (96/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (97/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (98/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (99/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
```

```
video 1/1 (100/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (101/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (102/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (103/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (104/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (105/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (106/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (107/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (108/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (109/538) /content/vehicle-counting.mp4: 416x704 5 cars,
9.6ms
video 1/1 (110/538) /content/vehicle-counting.mp4: 416x704 5 cars,
9.6ms
video 1/1 (111/538) /content/vehicle-counting.mp4: 416x704 5 cars,
9.6ms
video 1/1 (112/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (113/538) /content/vehicle-counting.mp4: 416x704 5 cars,
9.6ms
video 1/1 (114/538) /content/vehicle-counting.mp4: 416x704 5 cars,
9.6ms
video 1/1 (115/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (116/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (117/538) /content/vehicle-counting.mp4: 416x704 5 cars,
9.7ms
video 1/1 (118/538) /content/vehicle-counting.mp4: 416x704 5 cars,
13.3ms
video 1/1 (119/538) /content/vehicle-counting.mp4: 416x704 5 cars,
9.7ms
video 1/1 (120/538) /content/vehicle-counting.mp4: 416x704 5 cars,
9.6ms
video 1/1 (121/538) /content/vehicle-counting.mp4: 416x704 5 cars,
9.6ms
video 1/1 (122/538) /content/vehicle-counting.mp4: 416x704 5 cars,
9.6ms
video 1/1 (123/538) /content/vehicle-counting.mp4: 416x704 5 cars,
9.6ms
video 1/1 (124/538) /content/vehicle-counting.mp4: 416x704 4 cars,
```

```
9.6ms
video 1/1 (125/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (126/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (127/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (128/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (129/538) /content/vehicle-counting.mp4: 416x704 3 cars,
9.6ms
video 1/1 (130/538) /content/vehicle-counting.mp4: 416x704 3 cars,
9.6ms
video 1/1 (131/538) /content/vehicle-counting.mp4: 416x704 3 cars,
9.6ms
video 1/1 (132/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (133/538) /content/vehicle-counting.mp4: 416x704 5 cars,
11.3ms
video 1/1 (134/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (135/538) /content/vehicle-counting.mp4: 416x704 4 cars,
14.8ms
video 1/1 (136/538) /content/vehicle-counting.mp4: 416x704 5 cars,
9.6ms
video 1/1 (137/538) /content/vehicle-counting.mp4: 416x704 4 cars,
15.6ms
video 1/1 (138/538) /content/vehicle-counting.mp4: 416x704 4 cars,
14.9ms
video 1/1 (139/538) /content/vehicle-counting.mp4: 416x704 4 cars,
14.6ms
video 1/1 (140/538) /content/vehicle-counting.mp4: 416x704 5 cars,
16.2ms
video 1/1 (141/538) /content/vehicle-counting.mp4: 416x704 5 cars,
24.0ms
video 1/1 (142/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (143/538) /content/vehicle-counting.mp4: 416x704 4 cars,
13.9ms
video 1/1 (144/538) /content/vehicle-counting.mp4: 416x704 4 cars,
17.8ms
video 1/1 (145/538) /content/vehicle-counting.mp4: 416x704 4 cars,
16.8ms
video 1/1 (146/538) /content/vehicle-counting.mp4: 416x704 4 cars,
22.5ms
video 1/1 (147/538) /content/vehicle-counting.mp4: 416x704 4 cars,
14.4ms
video 1/1 (148/538) /content/vehicle-counting.mp4: 416x704 4 cars,
12.1ms
```

```
video 1/1 (149/538) /content/vehicle-counting.mp4: 416x704 4 cars,
18.1ms
video 1/1 (150/538) /content/vehicle-counting.mp4: 416x704 4 cars,
15.4ms
video 1/1 (151/538) /content/vehicle-counting.mp4: 416x704 4 cars,
14.7ms
video 1/1 (152/538) /content/vehicle-counting.mp4: 416x704 4 cars,
14.2ms
video 1/1 (153/538) /content/vehicle-counting.mp4: 416x704 4 cars,
13.4ms
video 1/1 (154/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (155/538) /content/vehicle-counting.mp4: 416x704 4 cars,
13.9ms
video 1/1 (156/538) /content/vehicle-counting.mp4: 416x704 4 cars,
13.5ms
video 1/1 (157/538) /content/vehicle-counting.mp4: 416x704 4 cars,
18.7ms
video 1/1 (158/538) /content/vehicle-counting.mp4: 416x704 4 cars,
13.7ms
video 1/1 (159/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (160/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (161/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (162/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (163/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (164/538) /content/vehicle-counting.mp4: 416x704 4 cars,
14.4ms
video 1/1 (165/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (166/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (167/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (168/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (169/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (170/538) /content/vehicle-counting.mp4: 416x704 4 cars,
10.3ms
video 1/1 (171/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (172/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (173/538) /content/vehicle-counting.mp4: 416x704 4 cars,
```

```
9.6ms
video 1/1 (174/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (175/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (176/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (177/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (178/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (179/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (180/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (181/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (182/538) /content/vehicle-counting.mp4: 416x704 4 cars, 1
truck, 9.6ms
video 1/1 (183/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (184/538) /content/vehicle-counting.mp4: 416x704 4 cars,
10.6ms
video 1/1 (185/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (186/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (187/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (188/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (189/538) /content/vehicle-counting.mp4: 416x704 4 cars,
10.1ms
video 1/1 (190/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (191/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (192/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (193/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (194/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (195/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (196/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (197/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
```

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video 1/1 (198/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (199/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (200/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (201/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (202/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (203/538) /content/vehicle-counting.mp4: 416x704 4 cars, 1
truck, 9.6ms
video 1/1 (204/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 9.6ms
video 1/1 (205/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 9.6ms
video 1/1 (206/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 9.6ms
video 1/1 (207/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 9.6ms
video 1/1 (208/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 9.6ms
video 1/1 (209/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 9.6ms
video 1/1 (210/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 9.6ms
video 1/1 (211/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 9.6ms
video 1/1 (212/538) /content/vehicle-counting.mp4: 416x704 3 cars,
9.6ms
video 1/1 (213/538) /content/vehicle-counting.mp4: 416x704 4 cars, 1
truck, 9.8ms
video 1/1 (214/538) /content/vehicle-counting.mp4: 416x704 4 cars, 1
truck, 9.6ms
video 1/1 (215/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (216/538) /content/vehicle-counting.mp4: 416x704 4 cars, 1
truck, 9.6ms
video 1/1 (217/538) /content/vehicle-counting.mp4: 416x704 4 cars, 1
truck, 9.6ms
video 1/1 (218/538) /content/vehicle-counting.mp4: 416x704 4 cars, 1
truck, 10.7ms
video 1/1 (219/538) /content/vehicle-counting.mp4: 416x704 4 cars, 1
truck, 9.7ms
video 1/1 (220/538) /content/vehicle-counting.mp4: 416x704 4 cars, 1
truck, 9.6ms
video 1/1 (221/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (222/538) /content/vehicle-counting.mp4: 416x704 4 cars,
```

```
9.6ms
video 1/1 (223/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (224/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (225/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (226/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (227/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 9.6ms
video 1/1 (228/538) /content/vehicle-counting.mp4: 416x704 3 cars,
9.6ms
video 1/1 (229/538) /content/vehicle-counting.mp4: 416x704 3 cars,
9.6ms
video 1/1 (230/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (231/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (232/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.7ms
video 1/1 (233/538) /content/vehicle-counting.mp4: 416x704 3 cars,
14.4ms
video 1/1 (234/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 9.6ms
video 1/1 (235/538) /content/vehicle-counting.mp4: 416x704 3 cars,
10.1ms
video 1/1 (236/538) /content/vehicle-counting.mp4: 416x704 3 cars,
9.6ms
video 1/1 (237/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
bus, 9.6ms
video 1/1 (238/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
bus, 10.0ms
video 1/1 (239/538) /content/vehicle-counting.mp4: 416x704 3 cars,
9.6ms
video 1/1 (240/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
bus, 9.6ms
video 1/1 (241/538) /content/vehicle-counting.mp4: 416x704 3 cars,
9.6ms
video 1/1 (242/538) /content/vehicle-counting.mp4: 416x704 3 cars,
9.6ms
video 1/1 (243/538) /content/vehicle-counting.mp4: 416x704 4 cars,
9.6ms
video 1/1 (244/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
train, 9.6ms
video 1/1 (245/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
train, 9.6ms
video 1/1 (246/538) /content/vehicle-counting.mp4: 416x704 3 cars,
9.6ms
video 1/1 (247/538) /content/vehicle-counting.mp4: 416x704 4 cars,
```

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10.5ms
video 1/1 (248/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
train, 9.6ms
video 1/1 (249/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
train, 9.6ms
video 1/1 (250/538) /content/vehicle-counting.mp4: 416x704 4 cars, 1
train, 9.6ms
video 1/1 (251/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
train, 9.7ms
video 1/1 (252/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
train, 9.6ms
video 1/1 (253/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
train, 9.6ms
video 1/1 (254/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
train, 9.6ms
video 1/1 (255/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
train, 10.9ms
video 1/1 (256/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
train, 9.6ms
video 1/1 (257/538) /content/vehicle-counting.mp4: 416x704 4 cars,
16.2ms
video 1/1 (258/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
train, 27.8ms
video 1/1 (259/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
train, 10.1ms
video 1/1 (260/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
train, 12.7ms
video 1/1 (261/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
train, 22.7ms
video 1/1 (262/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
train, 17.0ms
video 1/1 (263/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
train, 9.7ms
video 1/1 (264/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
train, 9.6ms
video 1/1 (265/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
train, 9.6ms
video 1/1 (266/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
train, 14.7ms
video 1/1 (267/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
train, 9.6ms
video 1/1 (268/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
train, 18.0ms
video 1/1 (269/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
train, 9.6ms
video 1/1 (270/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
train, 15.4ms
video 1/1 (271/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
train, 16.2ms
```

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video 1/1 (272/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
train, 17.5ms
video 1/1 (273/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
train, 14.4ms
video 1/1 (274/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
train, 15.8ms
video 1/1 (275/538) /content/vehicle-counting.mp4: 416x704 3 cars,
21.7ms
video 1/1 (276/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 22.8ms
video 1/1 (277/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 14.9ms
video 1/1 (278/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (279/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 10.5ms
video 1/1 (280/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (281/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (282/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (283/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (284/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.7ms
video 1/1 (285/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (286/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 17.9ms
video 1/1 (287/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.7ms
video 1/1 (288/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (289/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 1 truck, 9.6ms
video 1/1 (290/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
bus, 1 truck, 9.6ms
video 1/1 (291/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (292/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (293/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
bus, 1 truck, 9.6ms
video 1/1 (294/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 1 truck, 9.6ms
video 1/1 (295/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
truck, 9.6ms
video 1/1 (296/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
```

```
truck, 9.6ms
video 1/1 (297/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (298/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (299/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (300/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
truck, 9.6ms
video 1/1 (301/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
truck, 9.6ms
video 1/1 (302/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
truck, 9.6ms
video 1/1 (303/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (304/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (305/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.7ms
video 1/1 (306/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
truck, 10.6ms
video 1/1 (307/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
truck, 9.6ms
video 1/1 (308/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
truck, 9.6ms
video 1/1 (309/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
truck, 9.6ms
video 1/1 (310/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
truck, 9.6ms
video 1/1 (311/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
truck, 9.7ms
video 1/1 (312/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
truck, 9.6ms
video 1/1 (313/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 1 truck, 9.6ms
video 1/1 (314/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
truck, 9.6ms
video 1/1 (315/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
truck, 13.7ms
video 1/1 (316/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
truck, 9.6ms
video 1/1 (317/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
truck, 9.6ms
video 1/1 (318/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 9.6ms
video 1/1 (319/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 9.6ms
video 1/1 (320/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 1 truck, 9.6ms
```

```
video 1/1 (321/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 1 truck, 9.6ms
video 1/1 (322/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 1 truck, 9.6ms
video 1/1 (323/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
bus, 1 truck, 9.6ms
video 1/1 (324/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
bus, 1 truck, 9.6ms
video 1/1 (325/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
bus, 9.6ms
video 1/1 (326/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
bus, 1 truck, 9.6ms
video 1/1 (327/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
bus, 1 truck, 9.6ms
video 1/1 (328/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 1 truck, 9.6ms
video 1/1 (329/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
bus, 1 truck, 9.6ms
video 1/1 (330/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
bus, 9.7ms
video 1/1 (331/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
bus, 9.6ms
video 1/1 (332/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
bus, 9.6ms
video 1/1 (333/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
bus, 9.6ms
video 1/1 (334/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 1 truck, 9.6ms
video 1/1 (335/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 9.6ms
video 1/1 (336/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 1 truck, 9.6ms
video 1/1 (337/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 9.6ms
video 1/1 (338/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 1 truck, 9.6ms
video 1/1 (339/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 9.6ms
video 1/1 (340/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 9.6ms
video 1/1 (341/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 9.6ms
video 1/1 (342/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 9.6ms
video 1/1 (343/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 9.7ms
video 1/1 (344/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 1 truck, 9.6ms
video 1/1 (345/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
```

```
bus, 9.6ms
video 1/1 (346/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 9.7ms
video 1/1 (347/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 9.6ms
video 1/1 (348/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 9.6ms
video 1/1 (349/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 9.6ms
video 1/1 (350/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 9.7ms
video 1/1 (351/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 9.6ms
video 1/1 (352/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 9.6ms
video 1/1 (353/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 9.6ms
video 1/1 (354/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 11.5ms
video 1/1 (355/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
truck, 9.6ms
video 1/1 (356/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 9.6ms
video 1/1 (357/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 1 truck, 9.6ms
video 1/1 (358/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 1 truck, 9.6ms
video 1/1 (359/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 9.6ms
video 1/1 (360/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 9.6ms
video 1/1 (361/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 9.6ms
video 1/1 (362/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 9.6ms
video 1/1 (363/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 1 truck, 9.6ms
video 1/1 (364/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
bus, 1 truck, 9.6ms
video 1/1 (365/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 1 truck, 9.7ms
video 1/1 (366/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
bus, 1 truck, 9.6ms
video 1/1 (367/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 1 truck, 9.6ms
video 1/1 (368/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 1 truck, 9.6ms
video 1/1 (369/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 9.6ms
```

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video 1/1 (370/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 9.6ms
video 1/1 (371/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 1 truck, 9.6ms
video 1/1 (372/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 1 train, 9.6ms
video 1/1 (373/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 1 truck, 9.6ms
video 1/1 (374/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 1 truck, 9.6ms
video 1/1 (375/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 1 train, 10.1ms
video 1/1 (376/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 9.9ms
video 1/1 (377/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 1 train, 1 truck, 9.6ms
video 1/1 (378/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 14.5ms
video 1/1 (379/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 1 truck, 9.6ms
video 1/1 (380/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 1 truck, 16.7ms
video 1/1 (381/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
bus, 1 truck, 14.2ms
video 1/1 (382/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
bus, 1 truck, 14.0ms
video 1/1 (383/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 15.8ms
video 1/1 (384/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
bus, 1 truck, 19.5ms
video 1/1 (385/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
bus, 1 truck, 9.6ms
video 1/1 (386/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
bus, 15.7ms
video 1/1 (387/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
bus, 15.0ms
video 1/1 (388/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 15.1ms
video 1/1 (389/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
bus, 1 truck, 15.1ms
video 1/1 (390/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 18.6ms
video 1/1 (391/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
bus, 9.6ms
video 1/1 (392/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
bus, 1 truck, 9.6ms
video 1/1 (393/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 15.0ms
video 1/1 (394/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
```

```
truck, 9.6ms
video 1/1 (395/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
bus, 1 truck, 15.3ms
video 1/1 (396/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 10.8ms
video 1/1 (397/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 10.1ms
video 1/1 (398/538) /content/vehicle-counting.mp4: 416x704 3 cars, 1
truck, 9.9ms
video 1/1 (399/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
truck, 19.6ms
video 1/1 (400/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
truck, 16.3ms
video 1/1 (401/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
truck, 9.6ms
video 1/1 (402/538) /content/vehicle-counting.mp4: 416x704 1 car, 1
truck, 9.6ms
video 1/1 (403/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (404/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.7ms
video 1/1 (405/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (406/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (407/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 13.6ms
video 1/1 (408/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (409/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (410/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (411/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (412/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (413/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (414/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (415/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (416/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (417/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (418/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 16.1ms
```

```
video 1/1 (419/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 10.0ms
video 1/1 (420/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 10.1ms
video 1/1 (421/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (422/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (423/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (424/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (425/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 10.2ms
video 1/1 (426/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (427/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (428/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (429/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (430/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.7ms
video 1/1 (431/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (432/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (433/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (434/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (435/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (436/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (437/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (438/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (439/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (440/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (441/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (442/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (443/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
```

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truck, 9.6ms
video 1/1 (444/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (445/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (446/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (447/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (448/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.7ms
video 1/1 (449/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (450/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (451/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (452/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (453/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (454/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.8ms
video 1/1 (455/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (456/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (457/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (458/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (459/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (460/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (461/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (462/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (463/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (464/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (465/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (466/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (467/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
```

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video 1/1 (468/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (469/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (470/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (471/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (472/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (473/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (474/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (475/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 19.2ms
video 1/1 (476/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (477/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (478/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (479/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (480/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (481/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (482/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (483/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (484/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (485/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (486/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (487/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (488/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.9ms
video 1/1 (489/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 14.3ms
video 1/1 (490/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (491/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.7ms
video 1/1 (492/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
```

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truck, 9.6ms
video 1/1 (493/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.6ms
video 1/1 (494/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 12.7ms
video 1/1 (495/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 9.9ms
video 1/1 (496/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 10.2ms
video 1/1 (497/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 21.7ms
video 1/1 (498/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 15.4ms
video 1/1 (499/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 15.4ms
video 1/1 (500/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 15.5ms
video 1/1 (501/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 12.2ms
video 1/1 (502/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 21.4ms
video 1/1 (503/538) /content/vehicle-counting.mp4: 416x704 2 cars, 1
truck, 23.7ms
video 1/1 (504/538) /content/vehicle-counting.mp4: 416x704 2 cars,
21.0ms
video 1/1 (505/538) /content/vehicle-counting.mp4: 416x704 2 cars,
14.9ms
video 1/1 (506/538) /content/vehicle-counting.mp4: 416x704 2 cars,
14.0ms
video 1/1 (507/538) /content/vehicle-counting.mp4: 416x704 2 cars,
14.9ms
video 1/1 (508/538) /content/vehicle-counting.mp4: 416x704 2 cars,
14.9ms
video 1/1 (509/538) /content/vehicle-counting.mp4: 416x704 2 cars,
10.5ms
video 1/1 (510/538) /content/vehicle-counting.mp4: 416x704 2 cars,
20.8ms
video 1/1 (511/538) /content/vehicle-counting.mp4: 416x704 2 cars,
15.2ms
video 1/1 (512/538) /content/vehicle-counting.mp4: 416x704 2 cars,
11.0ms
video 1/1 (513/538) /content/vehicle-counting.mp4: 416x704 2 cars,
9.6ms
video 1/1 (514/538) /content/vehicle-counting.mp4: 416x704 2 cars,
9.6ms
video 1/1 (515/538) /content/vehicle-counting.mp4: 416x704 2 cars,
11.7ms
video 1/1 (516/538) /content/vehicle-counting.mp4: 416x704 2 cars,
9.6ms
video 1/1 (517/538) /content/vehicle-counting.mp4: 416x704 2 cars,
```

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15.0ms
video 1/1 (518/538) /content/vehicle-counting.mp4: 416x704 2 cars,
17.6ms
video 1/1 (519/538) /content/vehicle-counting.mp4: 416x704 2 cars,
9.6ms
video 1/1 (520/538) /content/vehicle-counting.mp4: 416x704 2 cars,
10.8ms
video 1/1 (521/538) /content/vehicle-counting.mp4: 416x704 2 cars,
9.6ms
video 1/1 (522/538) /content/vehicle-counting.mp4: 416x704 2 cars,
9.6ms
video 1/1 (523/538) /content/vehicle-counting.mp4: 416x704 2 cars,
9.6ms
video 1/1 (524/538) /content/vehicle-counting.mp4: 416x704 2 cars,
9.6ms
video 1/1 (525/538) /content/vehicle-counting.mp4: 416x704 2 cars,
9.6ms
video 1/1 (526/538) /content/vehicle-counting.mp4: 416x704 2 cars,
9.6ms
video 1/1 (527/538) /content/vehicle-counting.mp4: 416x704 2 cars,
12.8ms
video 1/1 (528/538) /content/vehicle-counting.mp4: 416x704 2 cars,
9.6ms
video 1/1 (529/538) /content/vehicle-counting.mp4: 416x704 2 cars,
9.6ms
video 1/1 (530/538) /content/vehicle-counting.mp4: 416x704 2 cars,
9.6ms
video 1/1 (531/538) /content/vehicle-counting.mp4: 416x704 2 cars,
9.6ms
video 1/1 (532/538) /content/vehicle-counting.mp4: 416x704 1 person, 2
cars, 9.6ms
video 1/1 (533/538) /content/vehicle-counting.mp4: 416x704 1 person, 2
cars, 9.6ms
video 1/1 (534/538) /content/vehicle-counting.mp4: 416x704 2 cars,
9.6ms
video 1/1 (535/538) /content/vehicle-counting.mp4: 416x704 2 cars,
9.6ms
video 1/1 (536/538) /content/vehicle-counting.mp4: 416x704 1 person, 2
cars, 9.6ms
video 1/1 (537/538) /content/vehicle-counting.mp4: 416x704 2 cars,
9.6ms
video 1/1 (538/538) /content/vehicle-counting.mp4: 416x704 1 person, 2
cars, 9.6ms
Speed: 0.7ms pre-process, 11.0ms inference, 1.6ms NMS per image at
shape (1, 3, 704, 704)
Results saved to yolov5/runs/detect/exp2
```