

```
# STEP 1: Install YOLOv8 and OpenCV
!pip install ultralytics opencv-python

# STEP 2: Import necessary libraries
from ultralytics import YOLO
import cv2
import matplotlib.pyplot as plt
import numpy as np

# STEP 3: Load YOLOv8 model (you can use yolov8n, yolov8s, etc.)
model = YOLO('yolov8n.pt') # lightweight and fast

# STEP 4: Upload a video or use webcam (here we'll process a sample image to simulate)
from google.colab import files
uploaded = files.upload() # Modified to open file picker

# STEP 5: Read uploaded image/video file
import os
file_name = list(uploaded.keys())[0]

# STEP 6: Run object detection
results = model(file_name)

# STEP 7: Display result (for image only – video requires looped frame processing)
results[0].show() # Will open detected image in output
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Saving screen-20250428-222227.mp4 to screen-20250428-222227 (1).mp4

WARNING

inference results will accumulate in RAM unless `stream=True` is passed, causing potential out-of-memory errors for large sources or long-running streams and videos. See <https://docs.ultralytics.com/modes/predict/> for help.

Example:

```

results = model(source=..., stream=True) # generator of Results objects
for r in results:
    boxes = r.boxes # Boxes object for bbox outputs
    masks = r.masks # Masks object for segment masks outputs
    probs = r.probs # Class probabilities for classification outputs

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video 1/1 (frame 24/662) /content/screen-20250428-222227 (1).mp4: 640x320 5 persons, 131.5ms

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