Object Detection and Tracking

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Background

A tracking algorithm based on adaptive background sub-traction about the video detecting and tracking moving objects

Goal

project aims to detect objects from video and track objects within this video.

Steps

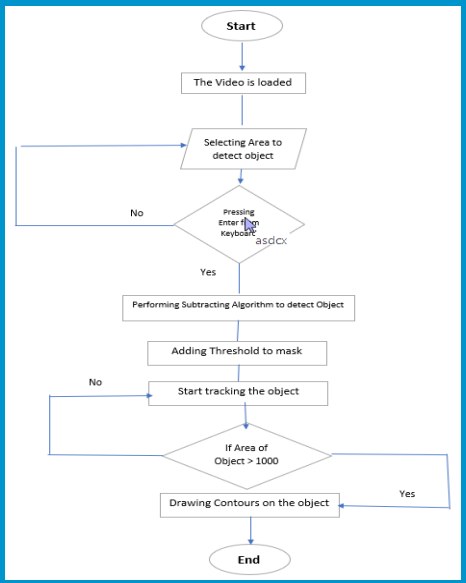
We first choose the area that we want to detect then the model will detect objects in the area we have chosen. The object is determined by a yellow rectangle that appears on the video, After reading Video and Frames we choose area that we want to detect objects within this area. Then we press Enter button from keyboard to begin tracking, Then the selected area will be separated and viewed outside the main window (In RGB Mode and Black &White Mode), Finally the objects are tracked with a yellow rectangle representing each object in the video.

Conclusion

For Object Detection and Tracking, the tracking algorithm we used is create-BackgroundSubtractorMOG2 which subtracts the object from the main frame or image and it was quite good. This model is useful for beginners who want to learn tracking but there are many powerful algorithms that are good at tracking such as

- SCRT
- Median Flow Tracker
- MOSSE

Flowchart



RESULT