AINT308 - OpenCV Assignment 2 2022

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***Abstract*—Machine vision is a mature technology that is becoming more prevalent within modern engineering practises. It is being utilised more in the rapidly evolving fields of autonomy and automation. This report outlines some of the functionalities of a popular C/C++ based computer visions library *OpenCV*. The Assignment has been split into three tasks; Task 1, Task 2, and Task 3. The first task, Task 1, is to evaluate the colors of pixels in a picture to determine the colour of a given object in the frame (car). The second task, Task 2, was to track on object across multiple frames of a video to track its motion (swinging pendulum). The final task, Task 3, was to identify and cross correlate components on a circuit to check for any missing components.**

Keywords:

Computer Vision, OpenCV, Object Detection, C++, Object Tracking

The code can be found on GitHub here!

APPENDIX