MIT World Peace University

Object Oriented Programming with Java and C++
Second Year B. Tech, Semester 1

Mini Project for
Internet of Things
"Smart Traffic Manager"

Project Synopsis

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1 Problem Statement

Most Streets in India often undergo frequent traffic disputes, leading to the more than 450,000 Road accidents, and 150,000 Deaths Per year, and this number does not show any declining trends. A leading factor in these accidents, is frustration resulting from long waits in Traffid signals.

Our Aim then, is to Smartly control traffic signals, and try to reduce severe wait times at intersections.

2 Objectives

2.1 Literature Survey

We will have to check more than 5 research papers, and will have to refer advancements in the given problem statement to try and solve it more efficently.

2.2 Component Research

We may have to explore Components like:

1. Camera Module
2. Microcontrollers
3. Actuators
4. Demo Model
5. Breadboards or PCBs

2.3 Experimentation

This phase will consist of :

1. Testing the Components
2. Testing the Code
3. Testing Connectivity between Components
4. Working on Algorithms.

2.4 Final Presentation

This phase will consist of :

1. Making a Presentation
2. Making a Demo Model
3. Making the final Project Report

3 Platform

Operating System: Raspian OS
IDEs or Text Editors Used: Thonny
Interpreter : Python 3.10

4 Block Diagram

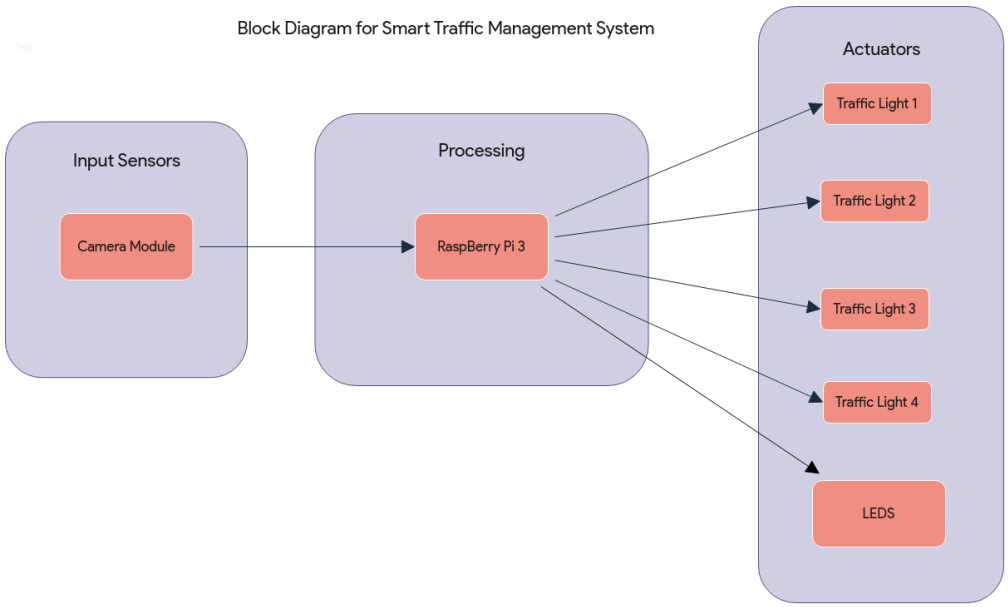

Figure 1: Block Diagram

5 Conclusion

We will aim to make a Smart Traffic Manager, which will be able to control traffic signals, and will be able to detect the number of vehicles in the intersection, and will be able to control the traffic signals accordingly.