

TRAFFIC LIGHT CONTROL SYSTEM

-TLCS -

System Description

Traffic lights are signaling devices positioned at road intersections, pedestrian crossings, and other locations to control the flow of traffic.

Traffic lights normally consist of three signals, transmitting meaning to drivers and riders through colors and symbols including arrows and bicycles.

The regular traffic light colors are red, yellow, and green arranged vertically or horizontally in that order.

Although this is internationally standardized, variations exist on national and local scales as to traffic light sequences and laws.

Crosswalk buttons let the signal operations know that someone is planning to cross the street, so the light adjusts, giving the pedestrian enough time to get across.

System Design

Traffic Light Control System consists of three layers:

1. Application Layer
2. Library Layer
 - a. Standard Library
 - b. Math Library
3. Microcontroller Layer
 - a. Digital Input Output
 - b. Global Interrupt
 - c. External Interrupt
 - d. Timer

System Flowchart

