

On-demand-Traffic-light-control

Project requirements

implement a traffic lights system with an on-demand crosswalk button.

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

Prepare development environment

Implement the application

Testing the application

Hardware requirements

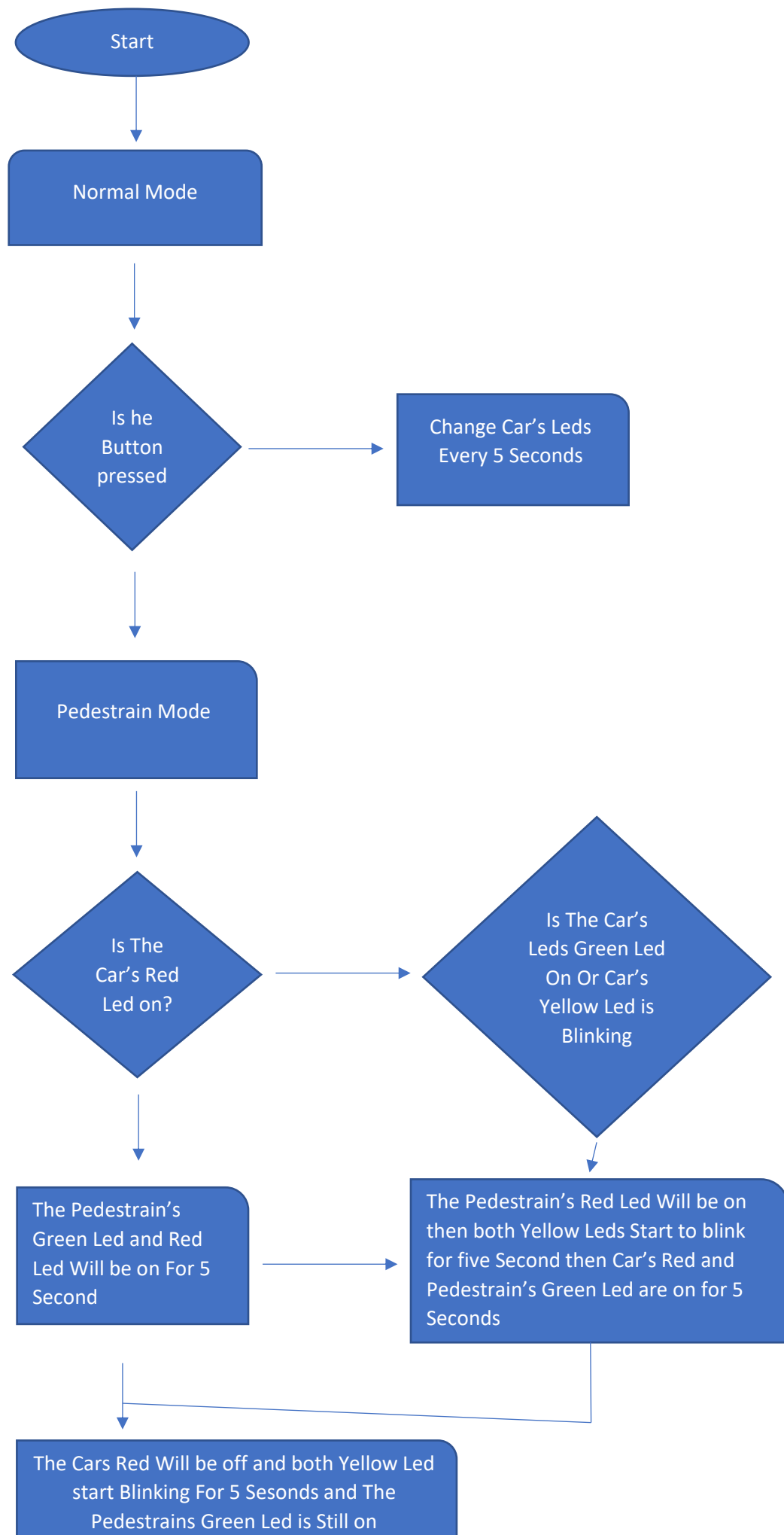
ATmega32 microcontroller

One push button connected to INTO pin for pedestrian

Three LEDs for cars - Green, Yellow, and Red, connected on port A, pins 0, 1, and 2

Three LEDs for pedestrians - Green, Yellow, and Red, connected on port B, pins 0, 1, and 2

System Design



```
graph TD; A[ ] --> B[The Pedestrian Green Led Will be off and both The Pedestrian Red Led and the Cars Green Led Will be on]; B --> C([Finish]);
```

The Pedestrian Green Led Will be off and
both The Pedestrian Red Led and the
Cars Green Led Will be on

Finish