

# **PROJECT PROPOSAL**

We are creating a traffic simulator.

## **What will it do?**

The traffic simulator will work like a real time traffic light system. It will also check if there is any pedestrian and will change the light accordingly. It will contain an internal timer which will change the color of the lights after the time period for that particular light is over.

## **Major Software Components**

- Arduino IDE

## **Major Hardware Components**

- LED
- Arduino Uno
- Breadboard
- Jumper Wires
- Arduino USB Data Cable
- Resistor (100 ohm)

## **Prototype**

Our Prototype is evolutionary, because we will present a portion of our project that we will develop as we make progress in our project.

## **Challenges Anticipated**

- Setting the time intervals for the traffic lights can be a challenge for us.
- Placing the LEDs and the resistors on the correct side of the breadboard.
- Also, the LEDs can pose a challenge for us. LEDs can get damaged if they are supplied a voltage higher than what it can withstand. Also,