TRAFFIC MANAGEMENT USING IOT

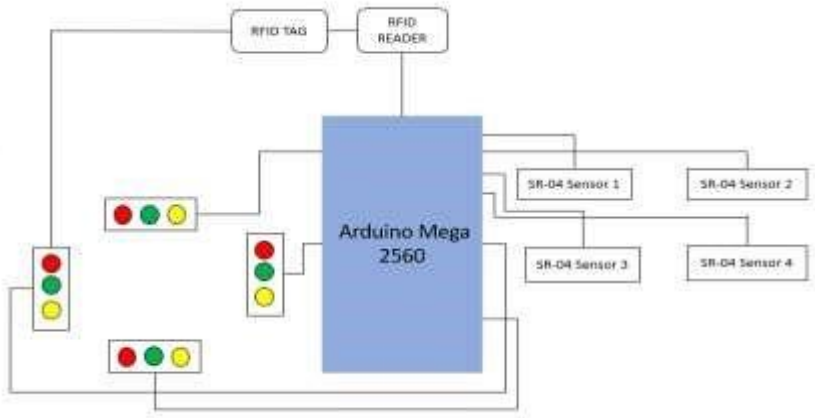
The exertion of our project is carried out utilising following hardware:

1) Arduino Mega 2560 Micro-Controller
2) LED Lights (Red, Yellow & Green)
3) Radio Frequency ID Tag
4) Radio Frequency ID Scanner

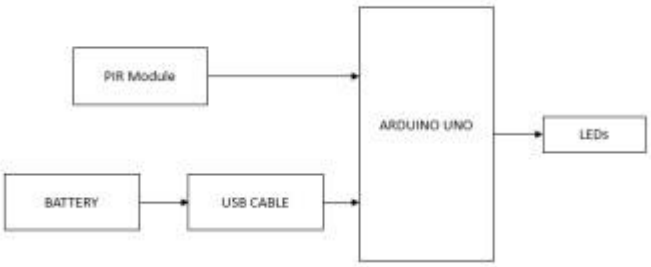
5)Patch cards

5) Model ambulances and vehicles
6) LCD Display with Arduino
7) SR-04 ultrasonic sensors
8) Infrared sensors

The Arduino Mega 2560, which serves as the system's. The amygdala interprets data from the SR-04 sensors indefinitely. Figure 2 depicts a comprehensive flowchart of the different procedures required. According on the information collected by the sensors, it will estimate traffic density and govern traffic lights based on the traffic density of each lane, which will then employ traffic stagnation. The system's traffic signals are made from LEDs. Each signal is made up of two red and green LEDs. Crafted a four-lane crosswalk traffic control system. every alley will include four electronic SR-04 camera sensors and eight LEDs that will operate as traffic signals.

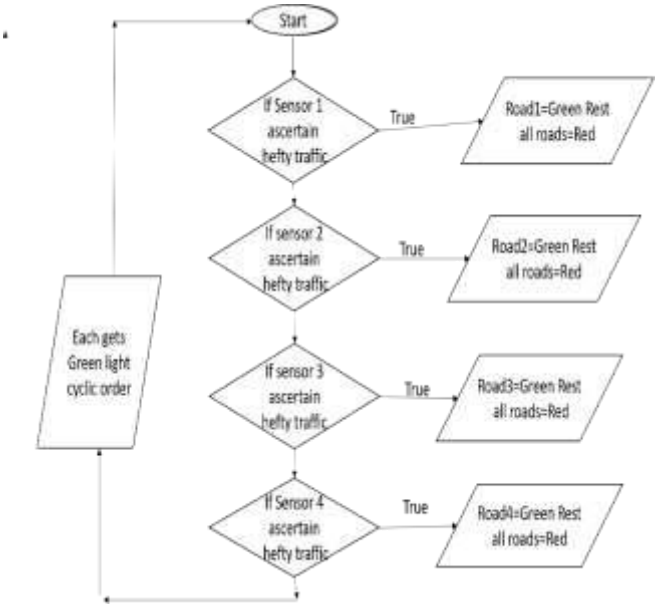


Block Design



. Block diagram 2

Each ambulance is outfitted with just an Radio Frequency ID tag. This usually leads to our first portion, the ambulance segment. It comprises an ambulance with an Radio Frequency ID tag attached to it. The second section discusses traffic lights. It is made up of an Radio Frequency ID reader that scans Radio Frequency ID tags. Following the scanning of the tag, the Radio Frequency ID reader retains the data and transfers it to a server through cloud computing. The initiative, which is powered by the Internet of Things, aims to establish a "Green zone" for compulsion vehicles. The internet of things is transformed into a smart project, which acts as the cornerstone for any Sustainable urban. By combining cloud computing and delving more into the notion of Sustainable commuting, the project may be improved.



Flow chart to control Traffic density system

This technique may be used to continually update updates on traffic and keep them safe in the cloud. An Android smartphone application might be used to command this [16]. This technology enables traffic lights to be regulated electronically by logging the time and dimensions of the compulsion vehicle and more effectively. A PIR Sensing element is also part of this setup. It's on all four sides of the

traffic signals. When a human or animal crosses the road, the PIR sensor detects infrared rays released by all heat-emitting barriers and stops the cars by flashing red until the person or animal passes the road.