

Smart Traffic system

Problem statement:

Traffic in our city can be very crowded, and this can cause a lot of pollution from cars waiting in traffic jams. Sometimes, ambulances need to get to people quickly, but the traffic can slow them down. How can we use new technologies to reduce traffic congestion and pollution and help ambulances reach people in emergencies faster?

General Objective:

In this Project students will learn about the traffic systems and how they work, what are the different types of rules which vehicles need to follow and how they can improve the traffic systems so that emergency vehicles can pass without any difficulties.

Specific Objective:

Learning about Traffic rules and regulations

TLM:

Laptop, Arduino kit, RFID sensor & card, 3 Colour LED (red, green, blue), wires, cardboard, colors, batteries, Mblock, arduino ide, pen, pencil, book.

Previous Knowledge:

The student should know about the basics of using an arduino kit and laptop.

Activity:

In the starting the teacher will read and explain the problem statement to students and then the students have to search for the working of traffic signals how they work and what are the traffic rules for ambulance after searching all this they will have to think of a id that how they can solve the problem given in the question after coming on to the idea the teacher will provide the TLM and then the students can make the diagram of the project like how many signals need to be added from which direction the ambulance will go and many more things

After that then they will start making the connections of 3 leds with each other using wires and then connect it to arduino after connecting all the LED's, RFID sensors the students will start the coding using MBlock and arduino ide once the code is completed they can color and decorate the whole project.