

Traffic Light

Traffic lights, traffic signals, stoplights or robots are signalling devices positioned at road intersections, pedestrian crossings, and other locations to control flows of traffic.

Introduction

MAHAMAT YOUNOUS Arafa

the project is a traffic light with pedestrian crossing. it consists of using of arduino, LEDs and others components.

General description

The traffic light project consists of display different LEDs (replacing here the real traffic light) as in real life and every time a LED colors change from one color to another the buzzer make a sound with different frequency and the Lcd display message according to how to behave (crossing, waiting or stopping).



Hardware Design

1. 1*Arduino Uno R3
2. 1*Breadboard
3. 1*Buzzer
4. 5*Resistors 1kohm
5. 1*Lcd i2c

6. 2*Green, 1*yellow, and 2*red LEDs

7. DuPont Wire(tata-tata)

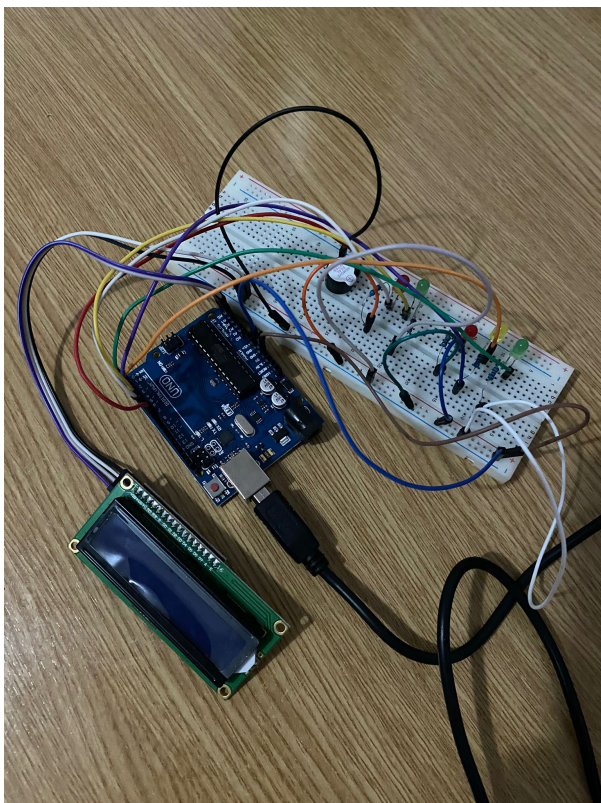


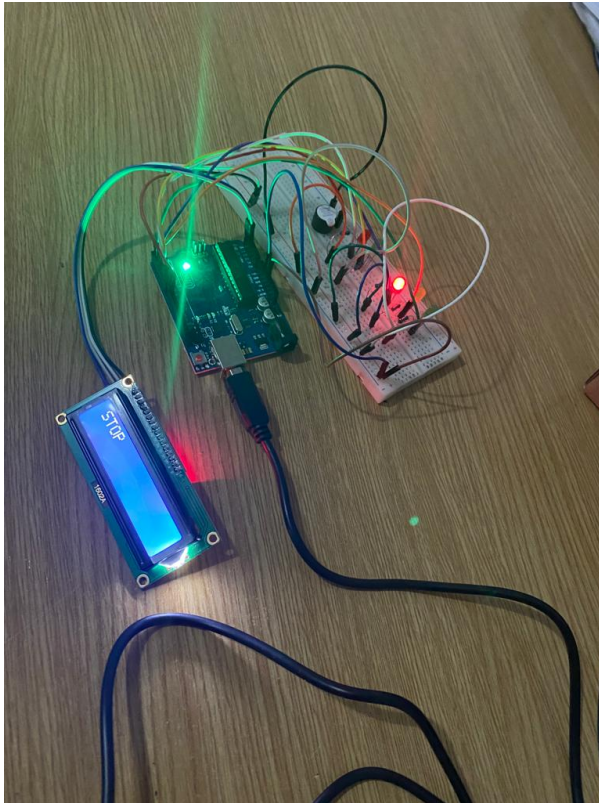
Software Design

liquid crystal i2c

Obtained Results

We all know about traffic light, and it has never been so fascinating for me until I came to Romania and everyday crossing the road to university. It comes to my mind to learn and understand how it works and I choose as my project. it was so creative to work on the phenomenon behind traffic lights. in real life. it is more fun and warning because of the song the buzzer is making. i am thinking about continuing to do more project on Arduino.





Conclusion

The project helps me to understand more working with arduino, write code of many different components on Arduino. i would like to continue having more creative projects and i will continue doing it as hobby to learn more.

Download

[arduino.zip](#)

Journal

i think about the project and get to a conclusion for traffic light. after that i search for components that are necessary for building it. Then i started adjusting other components on the arduino uno R3 and the breadboard, before this i simulate the schematic on tinkercard to see if it can work; with

brainstorming and knowlegde from how a traffic light works i wrote the code. i finally get the successful result after many changes in the code. Now everything is perfect and the project is done.



Bibliography/sources

library crystal i2c

buzzer song

[Export to PDF](#)

From:
<http://ocw.cs.pub.ro/courses/> - **CS Open CourseWare**

Permanent link:
<http://ocw.cs.pub.ro/courses/pm/prj2022/cstan/2>



Last update: **2022/06/02 11:35**