TECHNIQUE POLYTECHNIC INSTITUTE

AUTOMATIC ANTI COLLISION SYSTEM

By
Anwesha Chakraborty

HARDWARE PROJECT

GUIDED BY: Mr. Dipra Mitra (In-Charge of DCST)
Lecturer in Computer Science & Technology
Technique Polytechnic Institute

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PROJECT OBJECTIVE

To stop the unwanted road accident due to traffic signal breaking, using sensor to sense at a safe distance to stop on road vehicle for a signal violent vehicle which will be detected on the other side and make signal automatically into red.

Most of the traffic signal post are in automatic mode but if any vehicle came from other side nothing is not their for stop the other the side vehicle.

FEATURES OF PROJECT

There are various features of our project. It can offer number of advantages to user. Our project has some of the most countable features that have mentioned below:
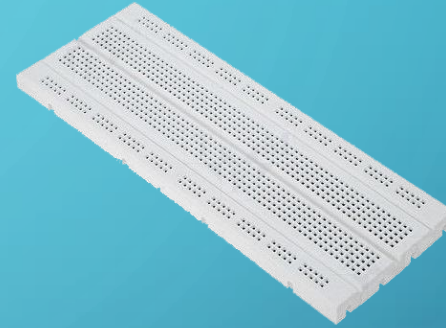
i.   This system act automatically no human interface required until the system will damaged.

ii. The vehicle is detected on a certain distance to alert the another vehicle.

iii. It can detect up to 2-3 vehicles at a time at any speed.

iv. We set an alarm to alert stongly.

REQUIRED HARDWARE COMPONENTS:

i.   Ardrino UNO

ii.   Bread Board

iii. Jumper wires

iv.   Buzzer

v.   Ultrasonic Sensor

vi.   220v register

vii. LED(Red , Green , Blue)

viii. 9V Battery

(i)

(ii)

(iii)

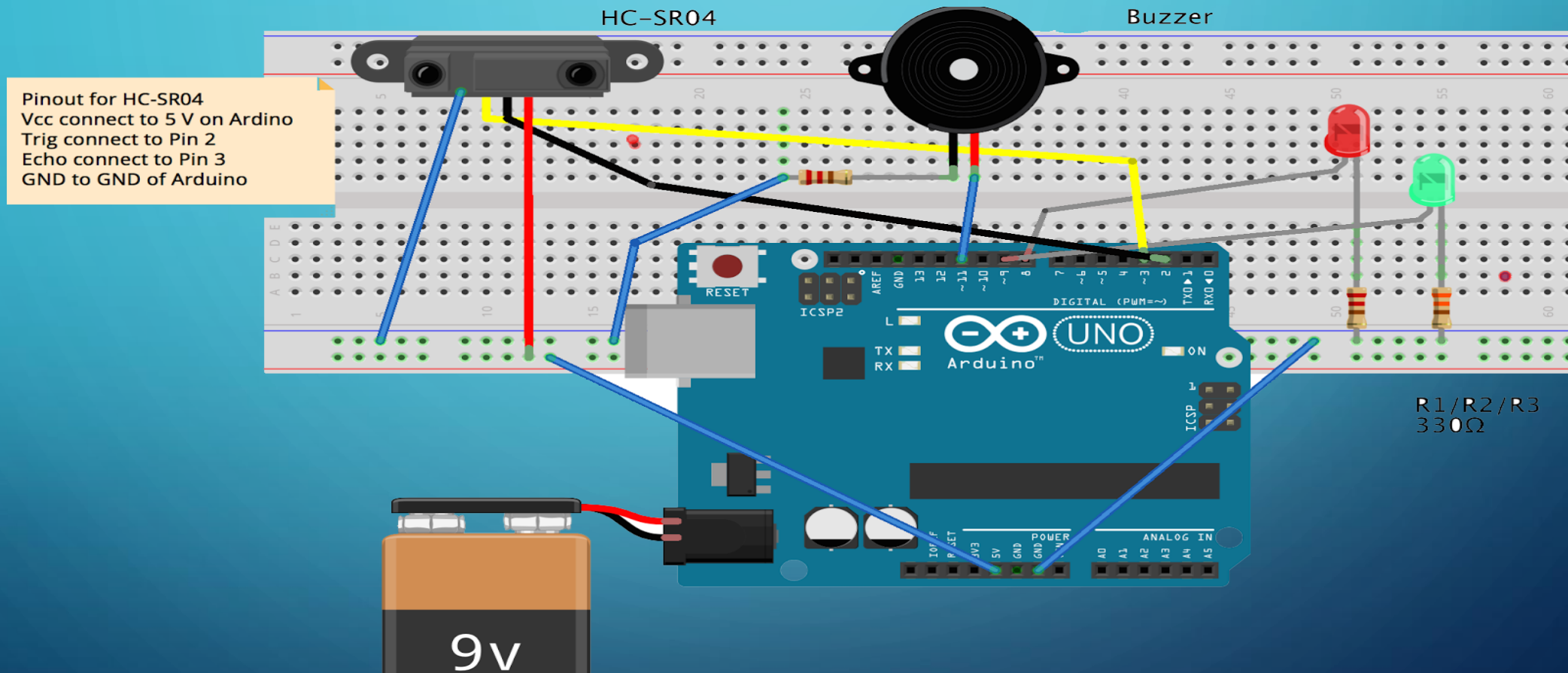

(iv)

(v)

(vi)

(vii)

(viii)

CIRCUIT DIAGRUM

Pinout for HC-SR04
Vcc connect to 5 V on Ardino
Trig connect to Pin 2
Echo connect to Pin 3
GND to GND of Arduino

HC-SR04

Buzzer

R1/R2/R3
330Ω

9v

PROJECT APPLICATIONS

- Traffic Signalling/Lane Changing

- Railway Engines

- Aeroplane

- Automatic cars

- Drone

FUTURE ENHANCEMENT

This project is based on object detector sensor technology. It will be applied on traffic system also side by side in future after adding some more features as like sensing from a long distance for aeroplane, railway engines, automatic car, drones etc.

ACKNOWLEDGEMENT

I would like to express my gratitude to our guide **Mr. Dipra Mitra(In-Charge of DCST) and Dr. Abhijit Chakraborty(Principal)** who gave me the opportunity to do this project ,which also helped me in doing a lot of research and I came to know about so many things, I am really thankful.

I am also proud of all my friends and family members, for their continuous encouragement and help and support at all the stage of my endeavour, without that active co-operation this project would not have seen the light of success.

THE END