A Novel Technique to Protect Car from Accident

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Abstract :- As the automation is in use in our day to day life and increasing with a great pace and this paper is made for helping everyone who is willing to know about how a Smart Automatic Protection System and how it works and how to build up by using components. This paper will help anyone who wants to understand about the automation help of Arduino Uno. Focused on making this paper as simple as possible so everyone can understand it easily. In this project used different type of sensors like Ultrasonic sensors and have used servo motor to make it work with programming of Arduino Uno. Focused on increasing it efficiency by using the efficient code and doing connections properly.

Keywords: Arduino Uno with Arduino software, Breadboard, High beam of Light, Ultrasonic sensor, Relay.

INTRODUCTION

Today day by day car back accident problem is increase when anyone drives the car in limited speed but another car driver ran into other car. To overcome this problem, we use Arduino technology solve this problem we attach a ultrasonic sensor to back side of car. When some other cars very close in my car high beam of light falls (automatic) to other car driver. Automatic High beams of light attach to back side of my car. when anyone car driver close to back side of my car that's time ultrasonic sensor operates to give signal to High beam of light. Light fall to another car driver. Driver control car speed to solve accident problem.

THEORETICAL CONSIDERATIONS ARDUINO:

Arduino Uno is microcontroller based. It has 6 pin can be used as PWM an 6 other in analog pins 2 for supply, USB connection, power jack ,supply connect to the computer. Microcontroller ATmega328 operating voltage is 5v. The Arduino Uno is simple to use is there have a combination of two language c and c++. In This software have different components like transistor, microcontroller, SCR family etc. Arduino programming have some inbuilt function when we upload the sketch or programming then most import information is there have some band depend upon the which Arduino we use otherwise show the some error when compile the program that's why need to choice band those depend to arduino other most important is port number port number choice which port you use .Arduino Uno is most simple language to make any project most important is have a knowledge about two languages c , c++. this programming is used.
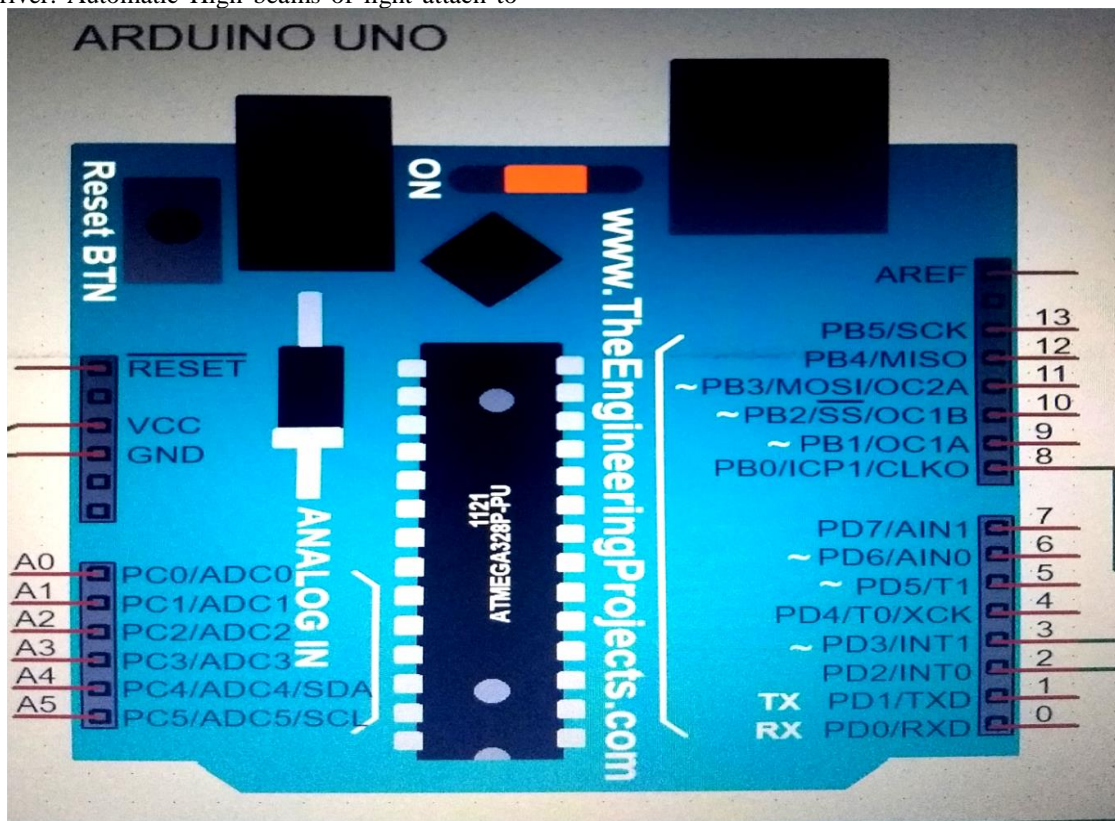

Languages is c , c++ , or java. most of the engineers who need to program make a project etc.

ULTRASONIC SENSOR:

Ultrasonic sensor is sense proximity they detect of high reliability. They measure the distance a ultrasonic sensor send and receive signal (ultrasonic pulses) reflect back information to proximity .ultrasonic sensor have two waves one is the Original Transmit Waves and other is reflected Waves. Ultrasonic are not depend upon the Light, Dust, Color etc.There have 4 pin is used one is used for +5v, second is fore TXD, next is for RXD and last is used for ground. Range of this sensor is variable ultrasonic sensor are work on 5v in this sensor most advantages is that they not operate to color or light.
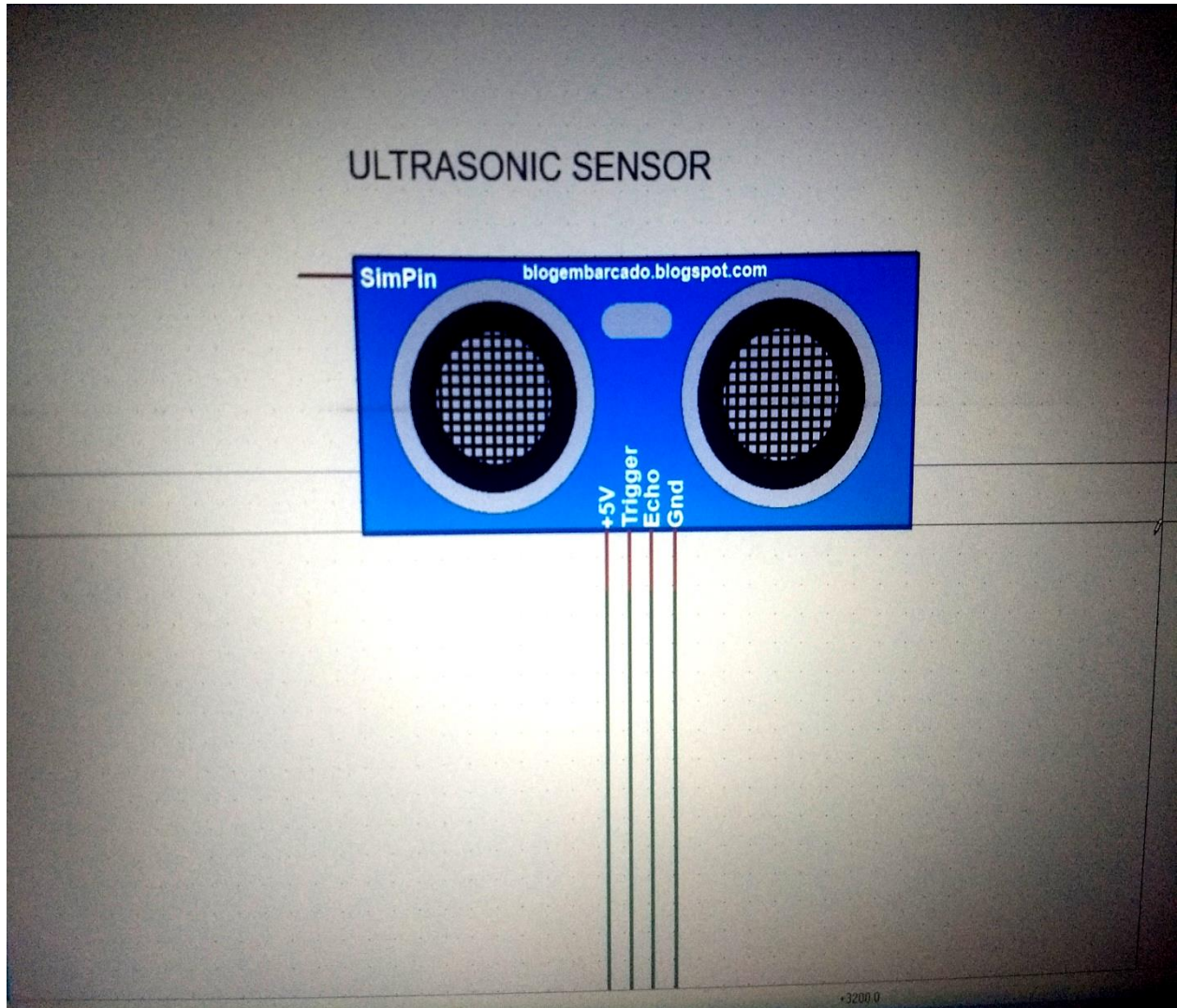
METHODOLOGY

 Ultrasonic sensor connect to back side of my car when other car driver drive car very close or nearby my back side of car that's time ultrasonic sensor sense other car (object) give signal to Relay operate High beam Light fall to other car driver to indicate Driver control their car speed to solve accident problem.
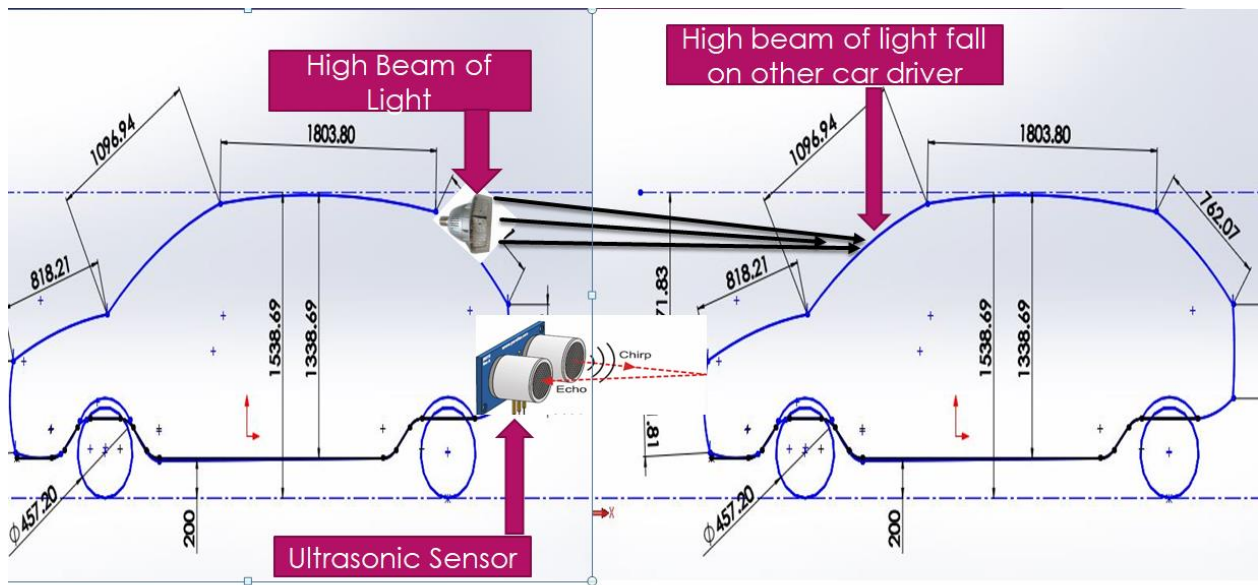
In this circuit we use LCD to display Distance of my car and other car. Ultrasonic sensor range we will change help of programming. this project ultrasonic range we define 2cm when other car close to back side of my car when distance range is 5cm to 6cm that time ultrasonic display range into my car other car is which distance display or we used small led to indicate other car is back side to your car. When other car is very close to my car that's time HIGH BEAM of LIGHT fall on another car driver. Driver control their car speed to solve accident problem.
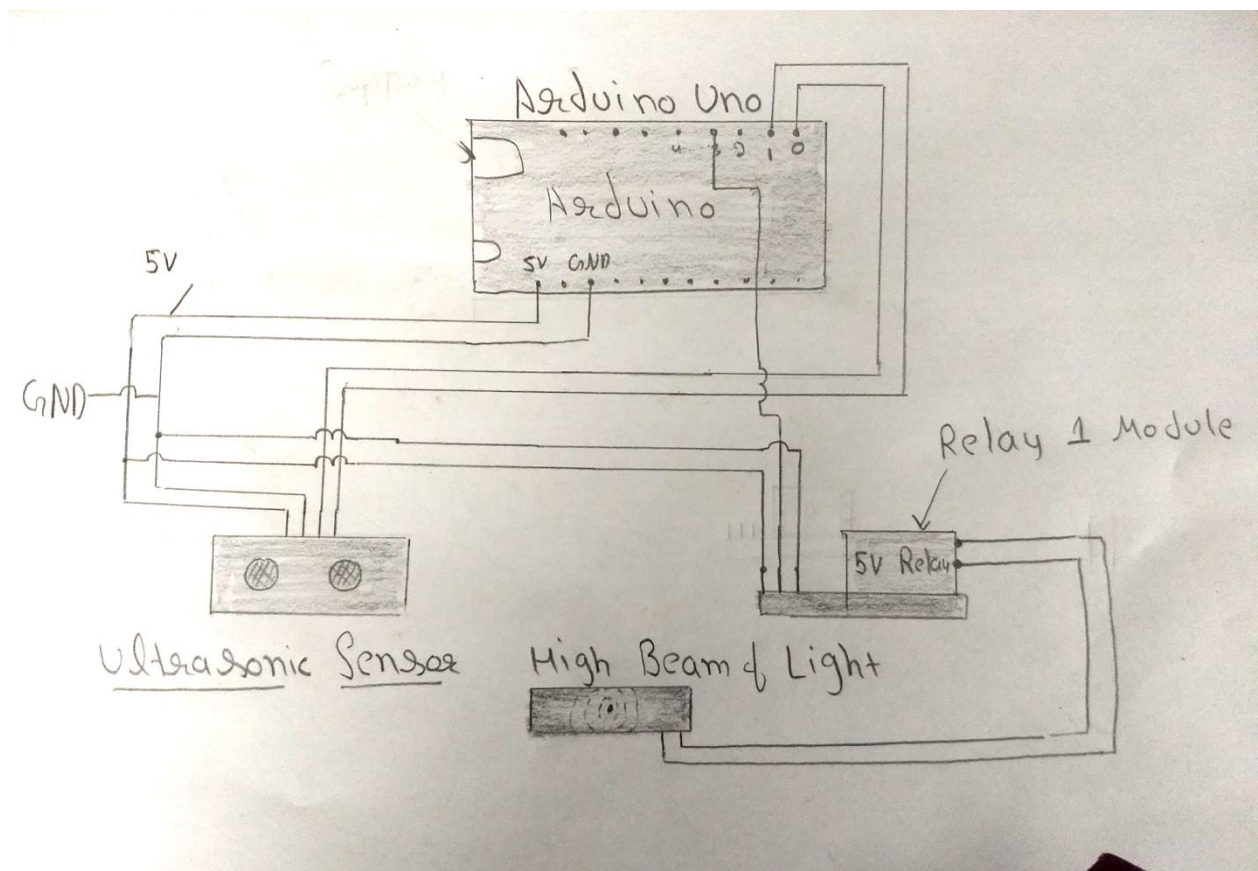
CIRCUIT DIAGRAM:

fig 0.1

RESULT:

project is successfully complete this project implements on car When other car is very close to my car that's time HIGH BEAM of LIGHT fall on another car driver. Driver control their car speed to solve accident problem.

CONCLUSION:

Chances of getting an accident are going to minimized, implementing this project we can save life.

REFERENCE

[1] http://www.robotics.com/robomenu/index.html
[2] http://www.arrickrobotics.com/robomenu/index.html
[3] http://www.engineersgarage.com/electronic-components/atmegal16- microcontroller
[4] http://en.m.wikipedia.org/wiki/Stepper-motor
[5] http://en.m.wikipedia.org/wiki/Android