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Social Distance Remainder

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ABSTRACT

Social distance remainder is a electronic device that is used to maintain distance between people during this pandemic. Maintaining minimum distance is the main objective of this project. As of now over 200 million people across the globe have been affected from corona virus (COVID- 19). One of the main reason for this cause is lack of social distancing. It would helpful if there was a way for these people to monitor their distance. So in this way our project focuses on how we can analyze this problem and find a solution.

Keywords: Arduino uno, lcd,Ultrasonic sensor,buzzer

1. INTRODUCTION:

The way of limiting the spread of an disease , Covid-19, is to practice social distancing. this is often not a replacement concept, but as most societies are conscious of the worth of keeping faraway from people that are affected by the disease for several generations.
It has been suggested that approximately 2 meters of distance should be maintained from another individual to make sure the marked reduction in transmission of most virus strains, including the Covid-19 itself.
The main aim of social distancing is to decrease the transmission of Covid-19 in the population by minimising the contact between infected individuals and the healthy persons.

2. METHODOLOGY:

In order to testify the working of this system, after itis designed,construction and programming we placed an object at a particular distance from the device and press the switch. Based on the data from the sensor, Arduino calculates the distance and display the distance in centimeters/meter.

BLOCK DIAGRAM

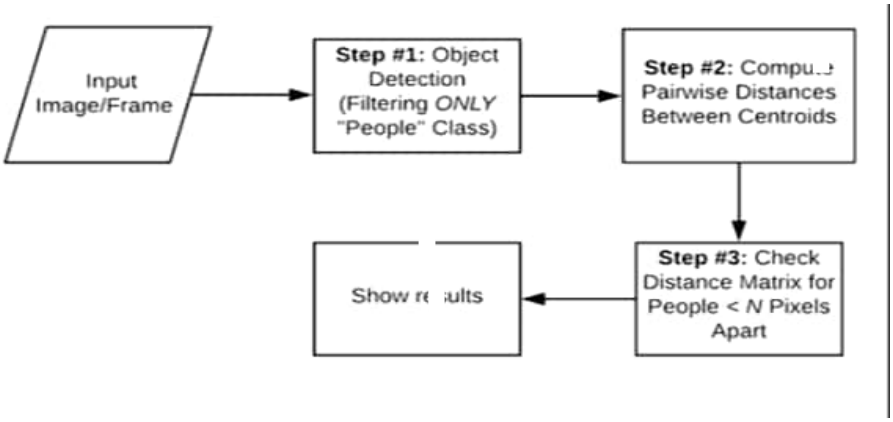

Figure1. Block diagram of social distance remainder

We have used ultrasonic sensor module to detect social distance. This sensor module ultrasonic contains an IR pair which actually detect distance from any object. Ultrasonic sensor sends waves and any object or person come in contact its radius is detected.Theirdistance is measured and compared to give the output.

3. CIRCUIT DIAGRAM:

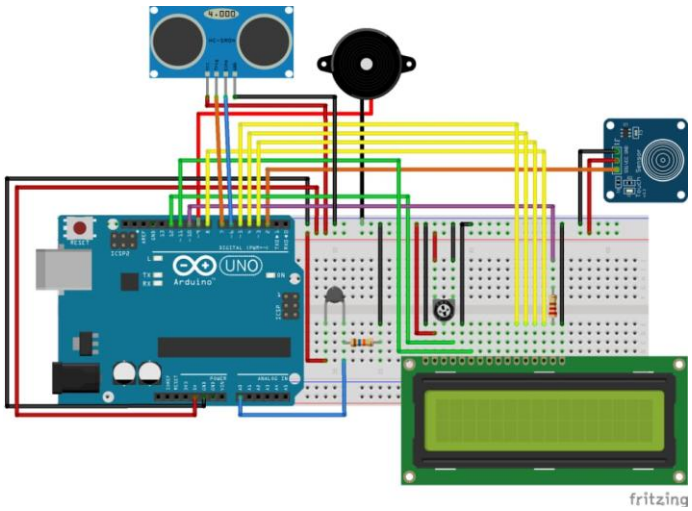

Figure 3. Circuit diagram of social distance remainder using Arduino Uno

The following image shows the circuit diagram of the Arduino based Social distance remainder using Ultrasonic Sensor. The sensor has three pins coming out of it for connecting VCC, GND and the Data.

Social distance remainder projects output pin is connected to pin 8 in the Arduino. VCC and GND are directly connected to VCC and GND. A 16x2 lcd is connected into the Arduino in 4-bit mode. Control pins RS, RW and EN are directly connected to Arduino pin 10, GND and 11. And data pin D4 is connected to pins 5, 4, 3 and 2 of Arduino.Once the circuit is connectedperfectlywe need to transfer thewiritten code into the Arduino.Ultrasonic sensor works as input by measuring the distance and output is shown at the LCD connected to Arduino and the buzzer.

4. CONCLUSION:

The proposed system contains the ultrasonic sensor and various social distance data is analysed to this system. The objective of this proposed system is operating in faster and accurate data is given to the controller and user, this system helps to monitor the social distance to the user. The prototype project is developed to monitor the social distance if any changes is occured in the sensor value the signal is sentin to controller. The use of the proposed system is measured the distance of the user from others and the data is noted to the record, so there is no need to be looking around all the time for maintaining social distance.Also the project can be available in everywhere so itis very helpful in crowded and populated places.And the proposed system gives the accurate value and faster operations of this system.

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