Social distancing alarm using Arduino

As you all know, our honorable Prime Minister Mr. Narendra Modi has spoken about keeping social distance to fight against COVID 19. So we thought why not make such a gadget to track **social distancing** even more. In this article, we will make a **social distancing alarm using Arduino.**

Components Required

1. Arduino Uno
2. Ultrasonic sensor
3. Led
4. Buzzer

Introduction

To make a social distancing alarm we are using Arduino Uno, Ultrasonic sensor, BUZZER, and LED. An ultrasonic sensor that has an Echo pin. It is connected to Arduino digital pin number 10 and the Trig is connected Digital Pin 9. Talking about LED and Buzzer Negative is connected together and buzzer positive wire will be connected to a (D12) pin and LED positive wire will be connected to the (D11) pin. After making all these connections our circuit is ready.

Working

How does it work? Ultrasonic sensors send waves. These waves are absolutely invisible and come back after hitting an optical. The Trig pin activates (D11) Or (D12). In which we have connected LED and Buzzer. We have kept a distance of 100 cm. You can increase this parameter by modifying the code.

Circuit Schematics
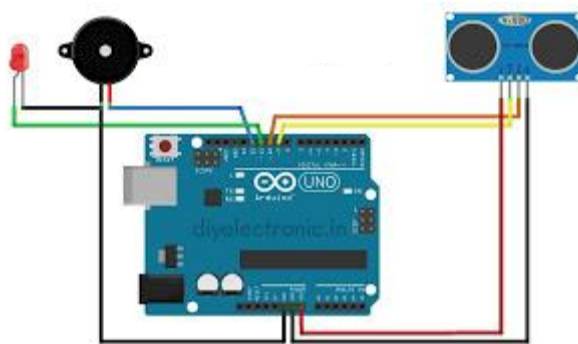
Code

```
const int trigPin = 9;

const int echoPin = 10;

long duration;

int distanceCm, distanceInch;

void setup()

{

Serial.begin(9600);

pinMode(trigPin, OUTPUT);

pinMode(echoPin, INPUT);

pinMode(11,OUTPUT);

pinMode(12,OUTPUT);

}

void loop()

 {

digitalWrite(trigPin, LOW);

delayMicroseconds(2);

digitalWrite(trigPin, HIGH);

delayMicroseconds(10);

digitalWrite(trigPin, LOW);

duration = pulseIn(echoPin, HIGH);

distanceCm= duration*0.034/2;

distanceInch = duration*0.0133/2;

Serial.println("Distance: ");
```

```
Serial.println(distanceCm);

if(distanceCm < 100)

{

  digitalWrite(11,HIGH);

  digitalWrite(12,HIGH);

}

else

{

  digitalWrite(11,LOW);

  digitalWrite(12,LOW);

}

}
```