

PROJECT NAME:

SOCIAL DISTANCING AND ALARMING CLOCK

PROJECT CODE:

```
#include<Adafruit_NeoPixel.h>

int ledPin=3;

int ledNo=12;

Adafruit_NeoPixel strip=Adafruit_NeoPixel(ledNo,ledPin,NEO_RGB+NEO_KHZ800);


int buzzerPin=2;

int echoPin=6;

int trigPin=5;

int minDistance=100;

int maxDistance=300;


void setup()
{
    pinMode(buzzerPin,OUTPUT);
    pinMode(trigPin,OUTPUT);
    pinMode(echoPin,INPUT);
    Serial.begin(9600);
    strip.begin();
    for(int i =0;i<ledNo;i++)
    {
        strip.setPixelColor(i,strip.Color(0,0,0));
    }
    strip.show();
}

void loop()
{
    int distance=calcDistance();
    Serial.println(distance);
    int leds = map(distance,minDistance,maxDistance,ledNo,1);
```

```

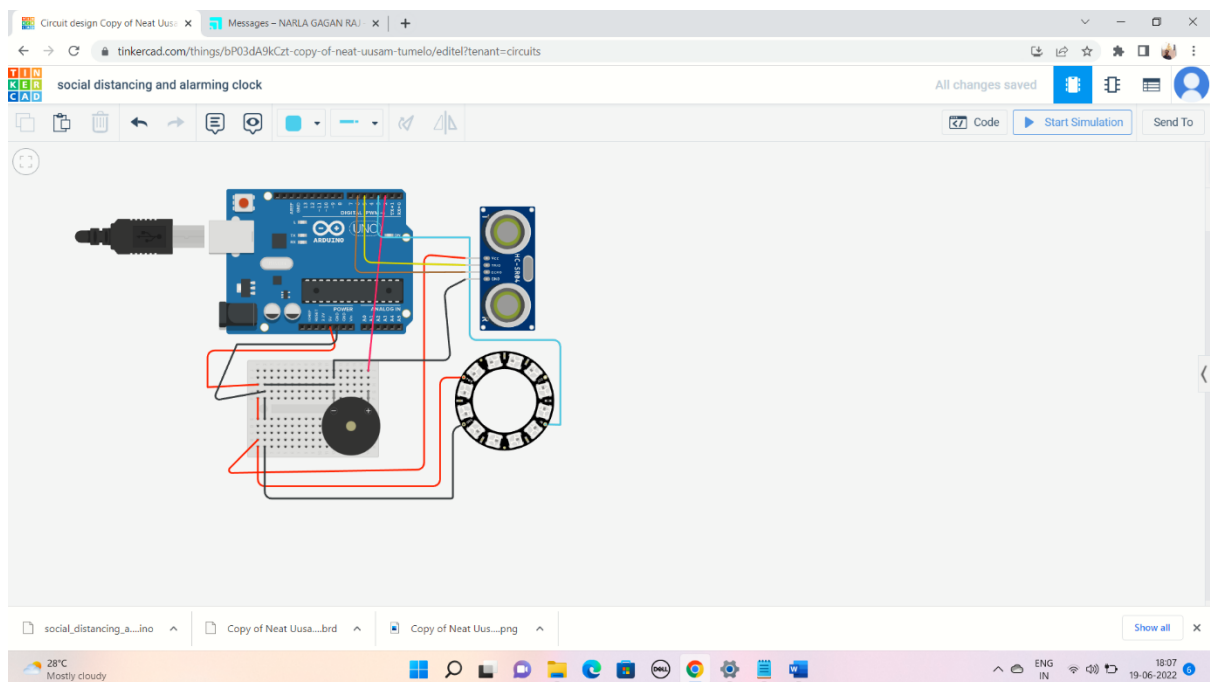
Serial.println(leds);
if(leds== 12)
{
    digitalWrite(buzzerPin,HIGH);
}
else
{
    digitalWrite(buzzerPin,LOW);
}
for(int i=0;i<leds;i++)
{
    if(i<4)
    {
        strip.setPixelColor(i,strip.Color(50,0,0)); //green,red,blue
    }
    else if(i>=4&& i<8)
    {
        strip.setPixelColor(i,strip.Color(0,50,0)); //green,red,blue
    }
    else if(i>=8&& i<12)
    {
        strip.setPixelColor(i,strip.Color(0,0,50)); //green,red,blue
    }
}
for(int i=leds;i<ledNo;i++)
{
    strip.setPixelColor(i,strip.Color(0,0,0)); //green,red,blue
}
strip.show();
delay(50);
}
int calcDistance()

```

```

{
  long distance,duration;
  digitalWrite(trigPin,LOW);
  delayMicroseconds(2);
  digitalWrite(trigPin,HIGH);
  delayMicroseconds(10);
  digitalWrite(trigPin,LOW);
  duration=pulseIn(echoPin,HIGH);
  distance=duration/29/2;
  if(distance>=maxDistance)
  {
    distance=maxDistance;
  }
  if(distance<=minDistance)
  {
    distance=minDistance;
  }
  return distance;
}

```



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tinkercad.com/things/bP03dA9kCzt-copy-of-neat-uousam-tumelo/edit?tenant=circuits

social distancing and alarming clock

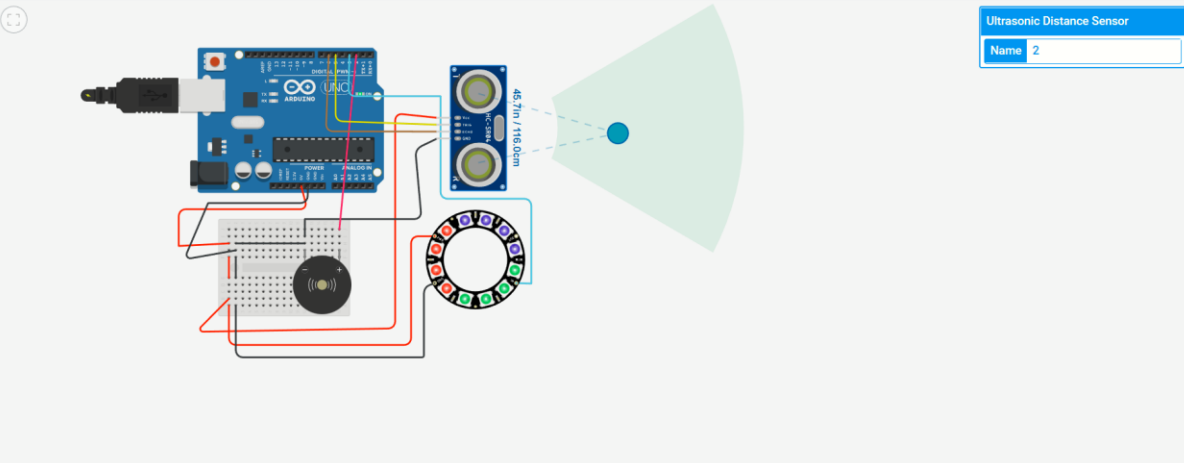
All changes saved

Simulator time: 00:00:04

Code Stop Simulation Send To

Ultrasonic Distance Sensor

Name 2



The diagram shows an Arduino Uno microcontroller board connected to an Ultrasonic Distance Sensor (HC-SR04) and a buzzer. The sensor is connected to the Arduino's digital pins (VCC to 5V, GND to GND, Trig to D2, Echo to D3). The buzzer is connected to the Arduino's ground and a 5V pin. A green cone represents the sensor's detection range. The circuit is simulated in Tinkercad, showing the components and their connections on a breadboard.

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Show all

28°C Mostly cloudy

ENG IN 18:07 19-06-2022

