MINI PROJECT-1

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IOT based smart gate

Final Report

MINI PROJECT-I

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1.INTRODUCTION

1.1 GENERAL INTRODUCTION :-

At the time of covid-19, as we all know how this virus affect our life it changes our life styles we carry sanitizers everywhere because of the fear of corona instead of this some people are kept by corona. Because mainly we touch gates at banks, homes, shops, etc.

At those places we want gate keepers for checking temperature at gate they also become patient of corona.

With the use of this type of gate specially gate keepers are protected from corona. With the use of temperature sensor they can check the body temperature.

1.2 EXISTING SYSTEM:-

At that time we have this machine but in this we don't need any person standing at the gate all time it can be operate on computer.

1.3 OBJECTIVE OF THE PROJECT:-

The main objective is to protect someone from corona or any virus.

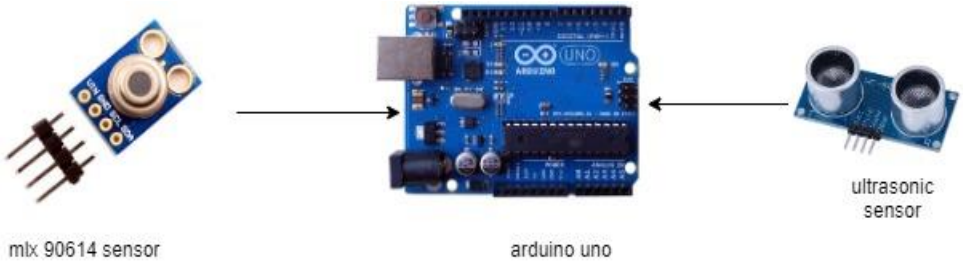
2. METHODOLOGY:-

When any person passes through this machine check the body pulse rate,temperature,alcohol.

This happen when it applies at public space.

When it apply at home.

3. Layout:-



4.Hardware :-

4.1 ARDIUNO UNO :-

The Arduino UNO is an open-source micro controller board based on the Microchip ATmega328P micro controller.

Fig.1 Arduino UNO

4.2. ULTRA SONIC SENSOR :-

Ultrasonic Sensors measure the distance to the target by measuring the time between the emission and reception.

Fig.2 Ultra sonic sensor

4.3 MLX90614 SENSOR :-

MLX90614 Contact less Infrared Temperature Sensor .The MLX90614 is an infrared thermometer for non-contact temperature measurements capable of measuring temperature between -70 to 380°C. The sensor uses IR sensitive thermopile detector chip.

Fig.3 MLX 90614 sensor

5.SOFTWARE REQUIRMENTS:-

- Windows 7 or Higher
- Any operating systems

6.Code :-

```
#include <Wire.h>
#include <Adafruit_MLX90614.h>
#define trigPin 7
#define echoPin 6
Adafruit_MLX90614 mlx = Adafruit_MLX90614();
void setup() {
  Serial.begin(9600);
  pinMode(trigPin, OUTPUT);
  pinMode(echoPin, INPUT);
  mlx.begin();
}
void loop() {
  long duration, distance;
  digitalWrite(trigPin, LOW);
```

```
  delayMicroseconds(2);
  digitalWrite(trigPin, HIGH);
  delayMicroseconds(10);
  digitalWrite(trigPin, LOW);
  duration = pulseIn(echoPin, HIGH);
  distance = duration*0.034/2;
  Serial.print("distnace:");
  Serial.println(distance);
  Serial.print("temp   :");
  Serial.print(mlx.readObjectTempC());
  Serial.println("*C");
  delay(2000);
}
```

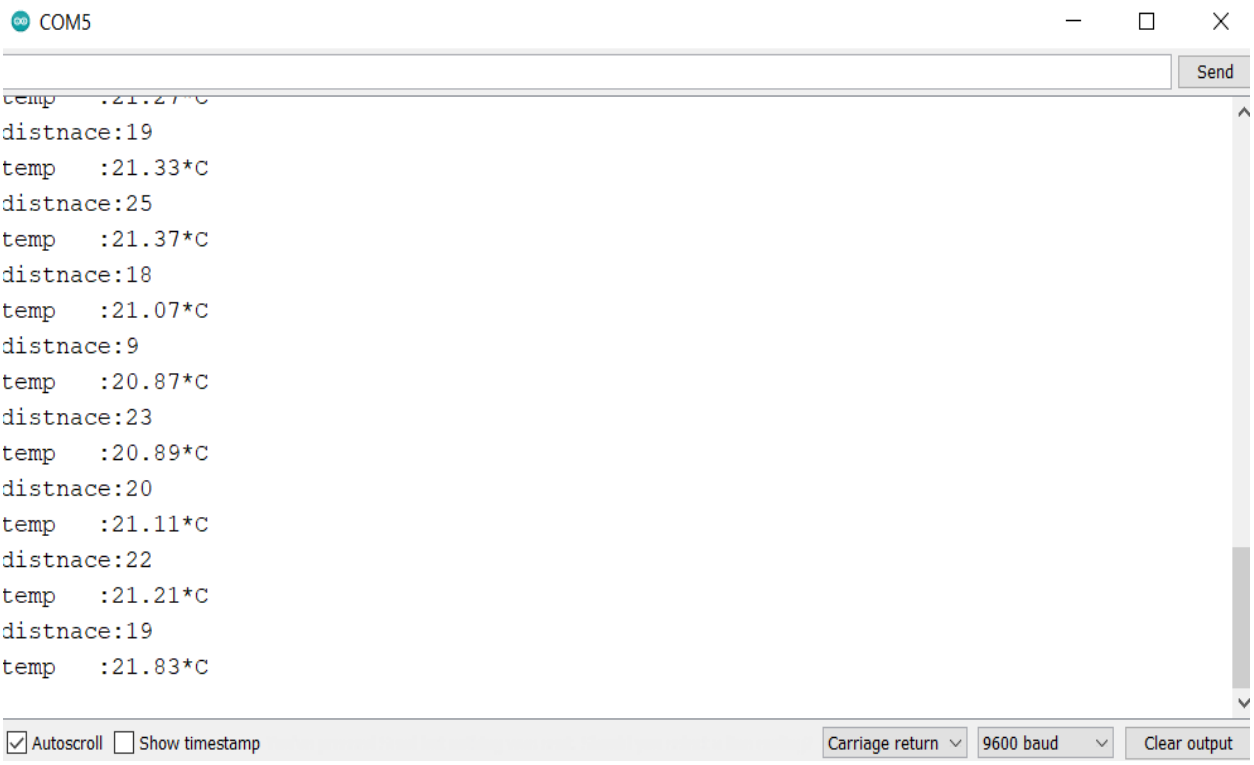

COM5
Send
distnace:19
temp :21.33*C
distnace:25
temp :21.37*C
distnace:18
temp :21.07*C
distnace:9
temp :20.87*C
distnace:23
temp :20.89*C
distnace:20
temp :21.11*C
distnace:22
temp :21.21*C
distnace:19
temp :21.83*C
Autoscroll
Show timestamp
Carriage return
9600 baud
Clear output

Fig.7 output

7.Pic of working model

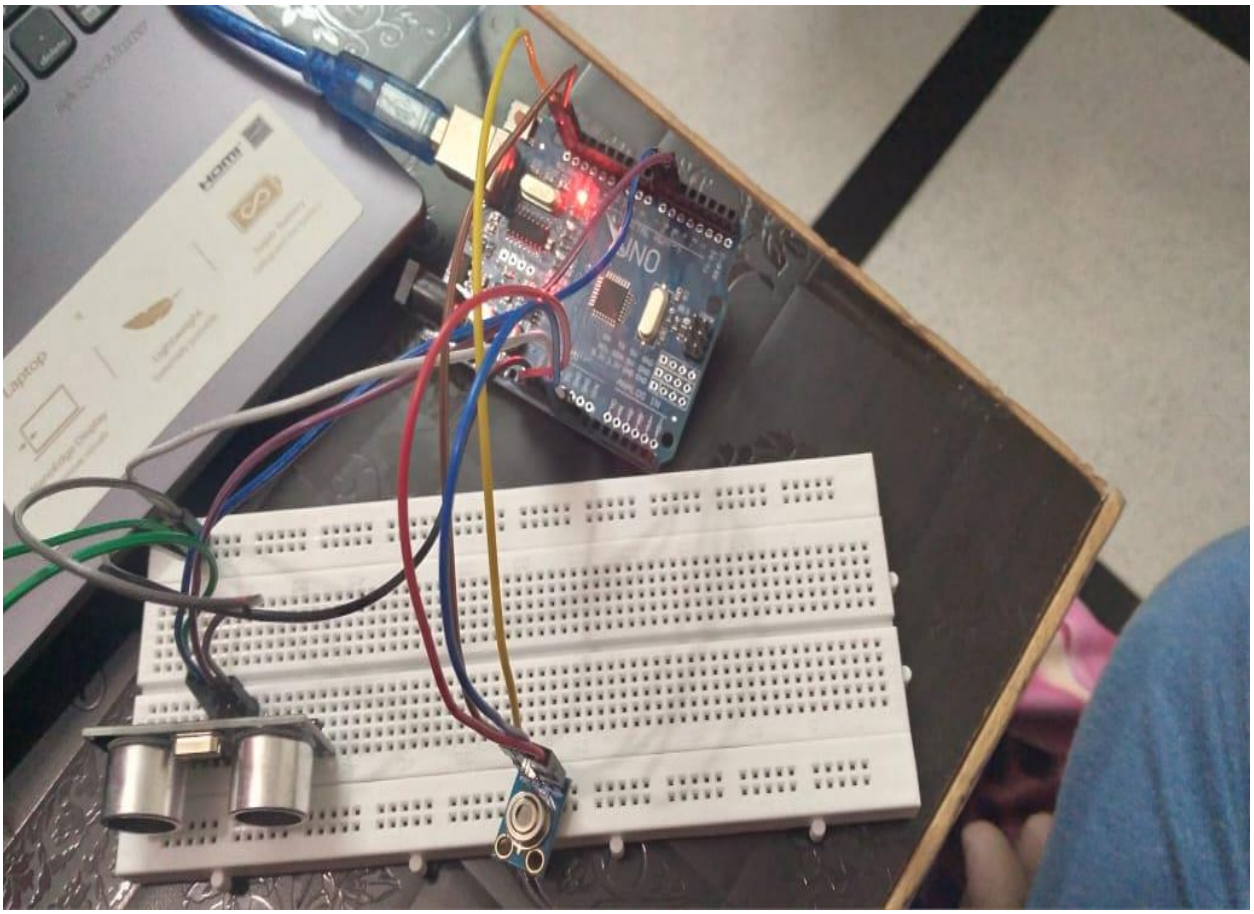


Fig.8 Working model

8. Future scope

•We can use this gate in smart gate or smart home automation by using some more sensors

•We can send health info which generated by this gate to our doctor.

•We can make this gate a security gate.

•This gate can share the info about home to the owner of the house.

9.Conclusion

This is just a overview of project. We have may things to research for that type of gate.