Problems faced by migrant workers

1. Transportation facility
2. Food and shelter
3. Maintaining Social Distancing

Description:

Due to covid-19 crisis everything where it is schools , colleges , industries all are shut down . To prevent further spread of the pandemic all including the labour workers all forced to move to their homes.

So it becomes the responsibility of the govt. to safely send them to their respective homes. Since there are lakhs of migrant workers who came from one state to another . So we need to collect their data through the app and store it and by calculating the number of workers who want to go the particular region are considered at a time .

Now for means of transportation like buses , trains etc. are to be arranged for them . For that purpose seat matrix becomes an important part to maintain social distancing among them.It should be ensured that there is atleast a minimum gap of 1m(100cm).

Also as the vehicles are to be used again so they must be sanitized with disinfectants like sodium hypochlorite ,chlorine dioxide etc. each time after use.

Model:

In this project we are creating a **COVID-19 Human Detector** using Arduino, 16x2 LCD, Potentiometer, PIR Sensor & Buzzer in Tinkercad. The PIR or Passive Infrared Sensor is a digital sensor which detects the movement of infrared lights from Humans & Animals. If any infrared light is detected by the PIR sensor then the buzzer will beep and it shows the status on LCD that there is any human or not.
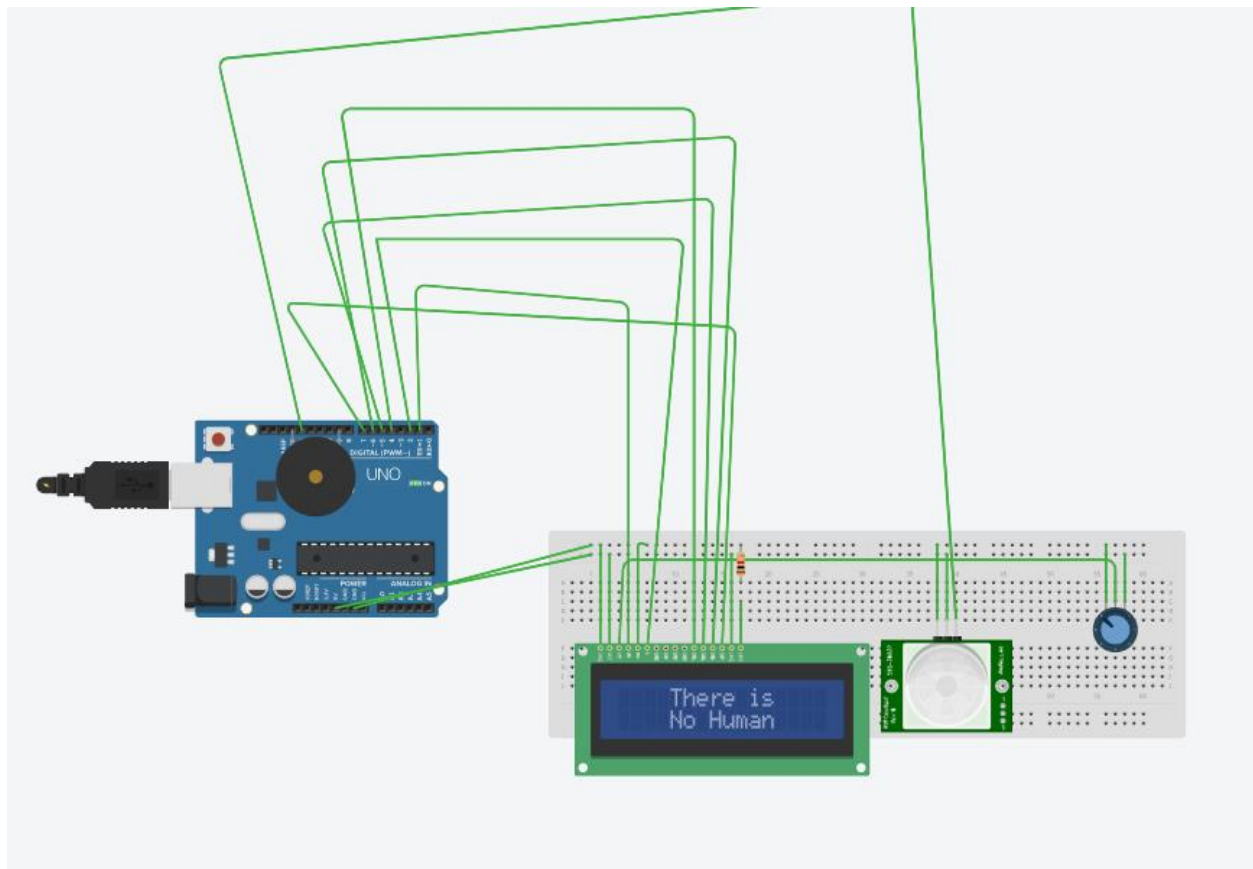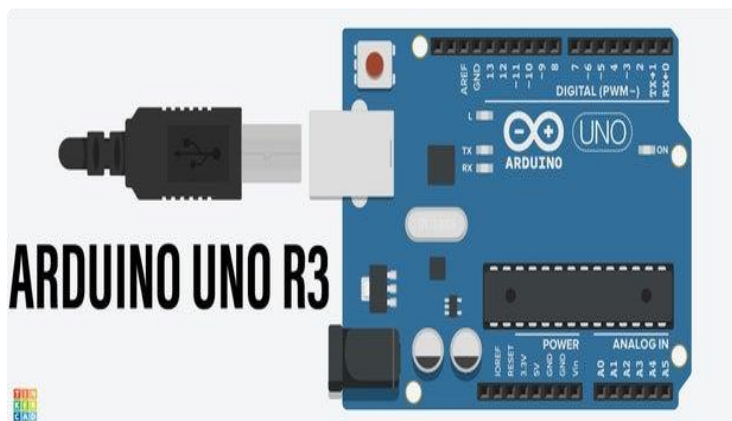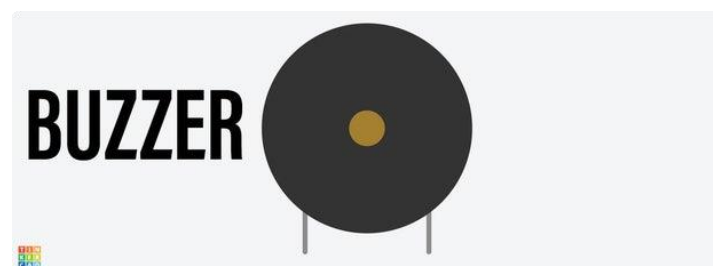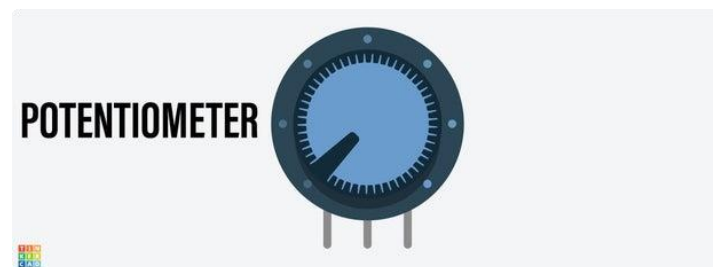
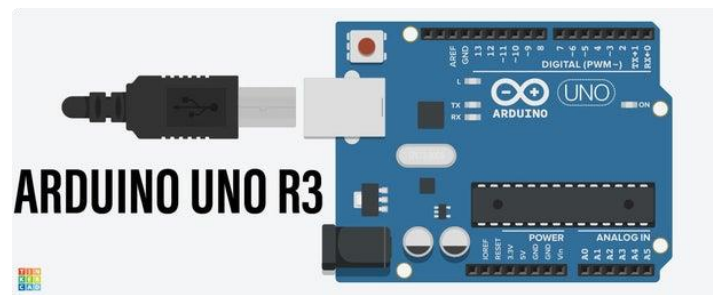# Covid-19 human Detector Using Tinkercad Circuits

COVID-19 HUMAN DETECTOR
For Sanitize Society
Using Tinkercad Circuits
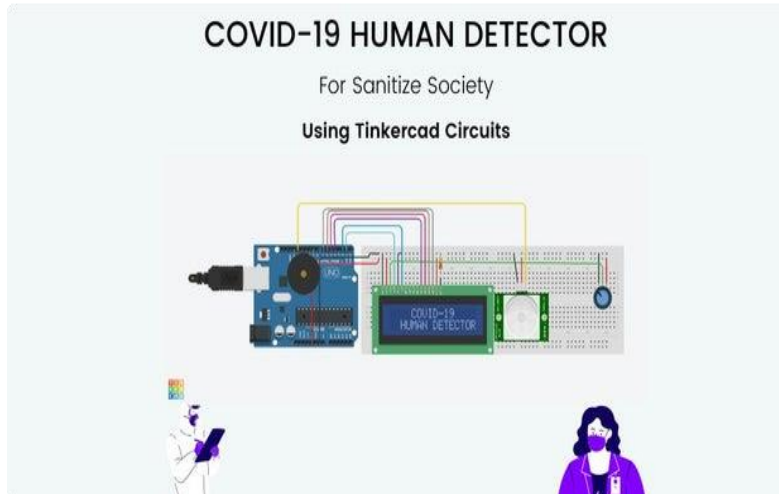
Step 1: Components and Tool

Component s

1. Arduino UNO R3,
2. Breadboard (BB),
3. 16x2 LCD,
4. 1k ohm Resistor,
5. 250 k ohm Potentiometer,
6. PIR Sensor (HC‑SR501),
7. Buzzer.

Tools

ARDUINO UNO R3

ARDUINO UNO R3

16x2 LCD

POTENTIOMETER

PIR SENSOR

BUZZER

Step 2: Setting Up the Circuit (Give Power to the BreadBoard From Arduino)

Step 3: Interface 16x2 LCD With Arduino

1. GND pin (LCD) --> GND rail (Breadboard),
2. Power pin (LCD) --> +5v rail (Breadboard),
3. LED Cathode pin (LCD) --> GND rail (Breadboard) with 1k ohm resistor,
4. LED Anode pin (LCD) --> +5v rail (Breadboard),
5. Read/Write pin (LCD) --> GND rail (Breadboard),
6. RS pin (LCD) --> Digital pin 1 (Arduino),
7. Enable pin (LCD) --> Digital pin 2 (Arduino),
8. DB4 (LCD) --> Digital pin 4 (Arduino),
9. DB5 (LCD) --> Digital pin 5 (Arduino),
10. DB6 (LCD) --> Digital pin 6 (Arduino),
11. DB7 (LCD) --> Digital pin 7 (Arduino).

Step 4: Interface Potentiometer With 16x2 LCD

Step 5: Interface PIR Sensor With Arduino

Step 6: Interface Buzzer With Arduino and Complete Your Circuit

Step7: CODE

```
include <LiquidCrystal.h>


LiquidCrystal lcd (1,2,4,5,6,7);

int pir_sensor = 13;
int pir_reader;
int buzzer = 9;

void setup()
{
 pinMode(13,INPUT);
 pinMode(buzzer,OUTPUT);
 lcd.begin(16,2);
 lcd.setCursor(4,0);
 lcd.print("COVID-19");
 lcd.setCursor(2,1);
 lcd.print("HUMAN DETECTOR");

 delay(2000);

 lcd.clear();

}

void loop()
{
 pir_reader = digitalRead(pir_sensor);
 if (pir_reader ==1){
   digitalWrite(buzzer,HIGH);

 lcd.setCursor(4,0);
 lcd.print("There is");
   lcd.clear();
   lcd.setCursor(4,1);
 lcd.print(" Human");

 }
```

```
 else{
    digitalWrite(buzzer,LOW);
lcd.clear();
lcd.setCursor(4,0);
lcd.print("There is");
 lcd.setCursor(4,1);
lcd.print("No Human");
 delay(500);
 }
;

}
```