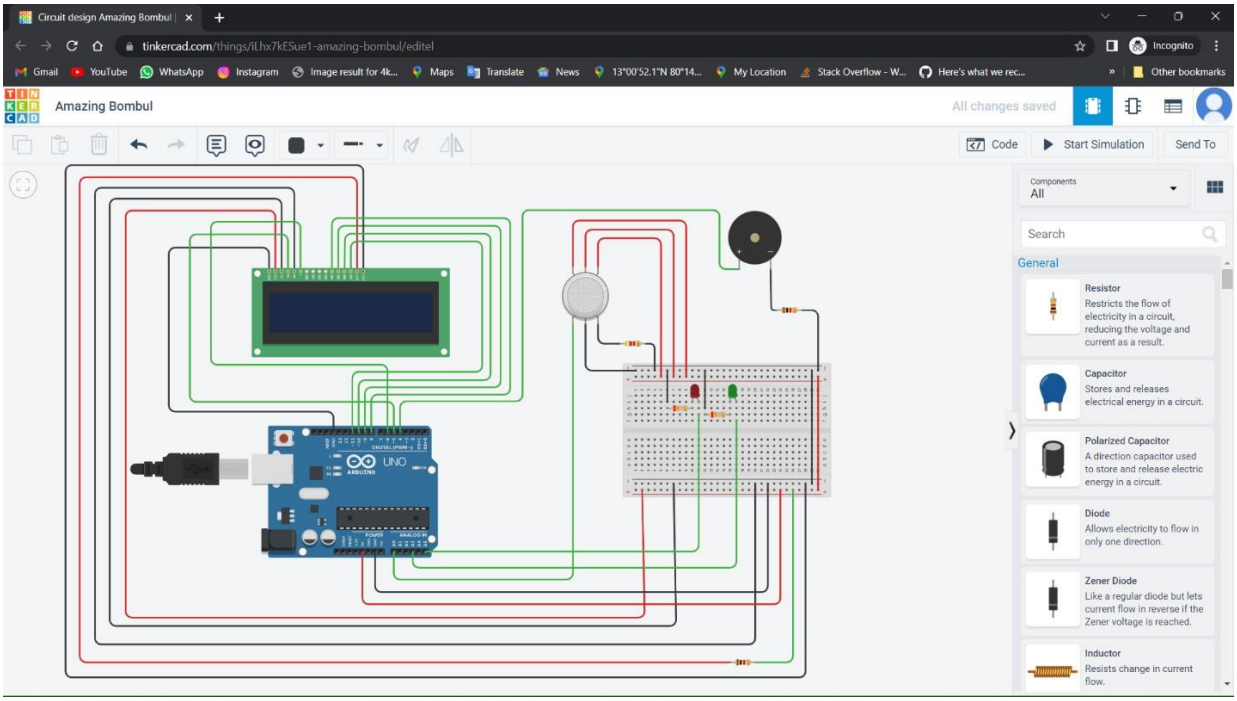
SPRINT-I
SIMULATON CREATION

Date	29th OCTOBER 2022
Team ID	PNT2022TMID29330
Project Name	Gas Leakage Monitoring and Alerting System

Connect Sensor with Python Code:

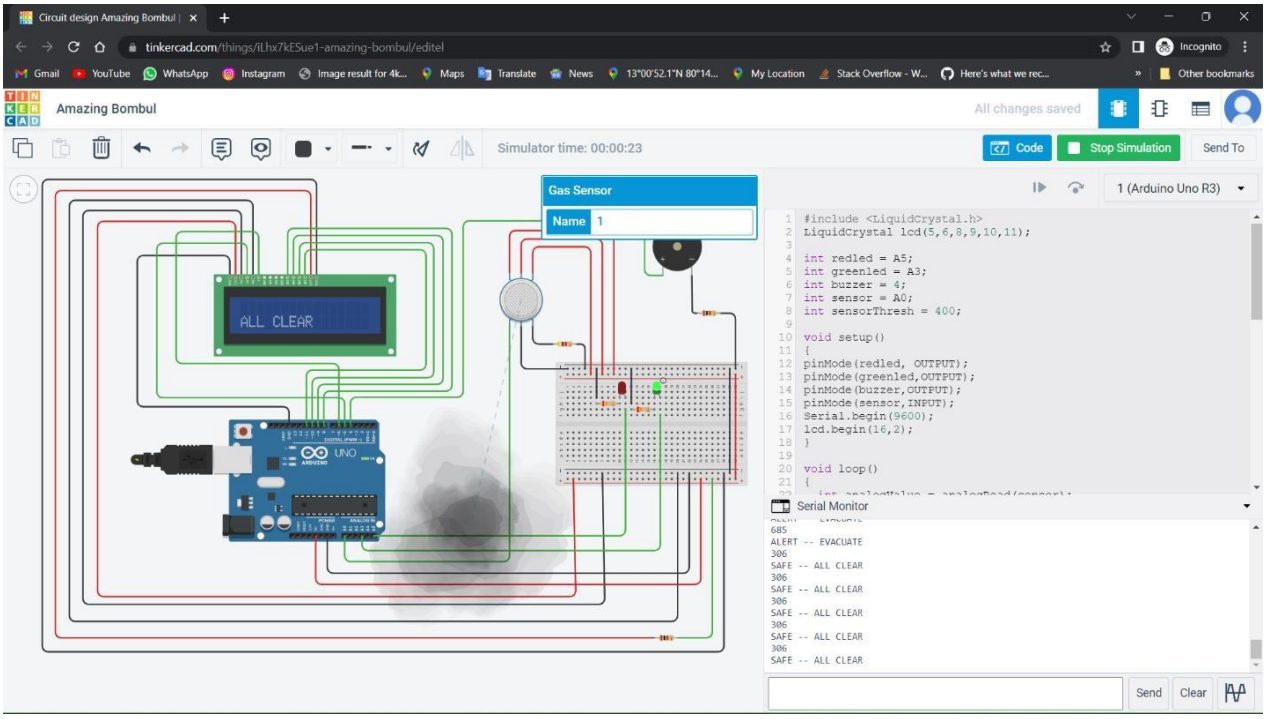


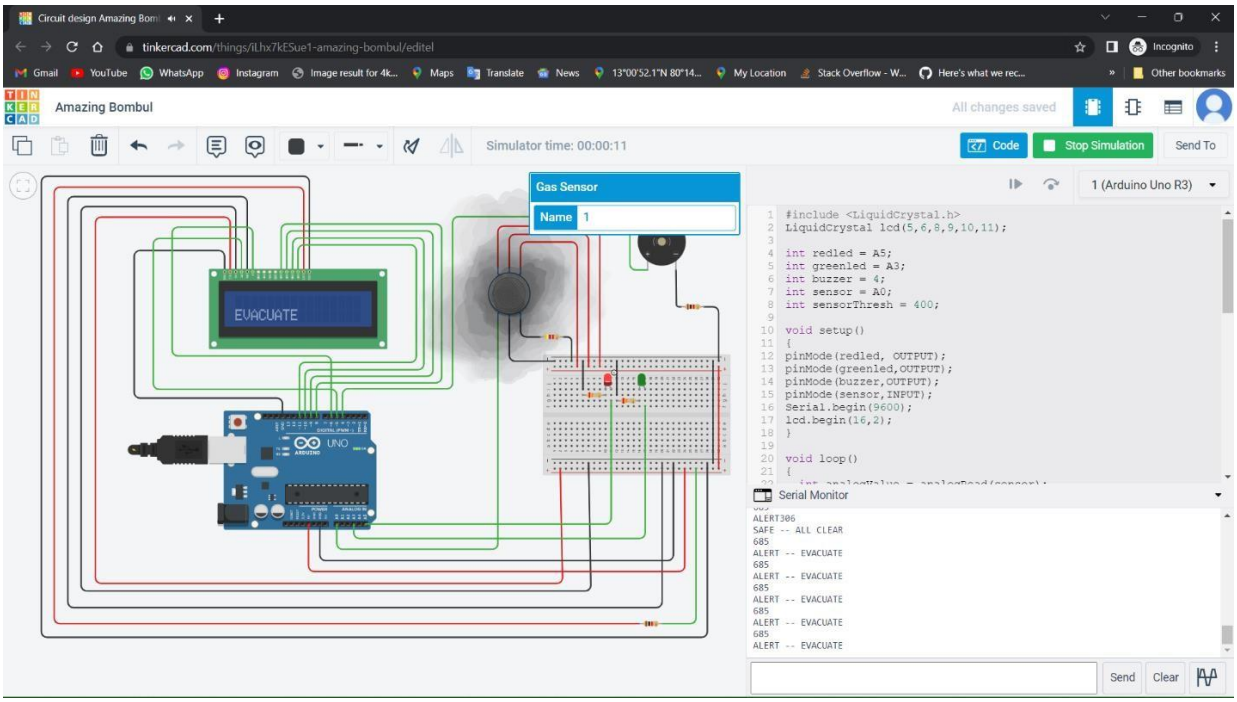
CODE:

```
#include <LiquidCrystal.h>
LiquidCrystal lcd(5,6,8,9,10,11);

int redled = A5;
int greenled = A3;
int buzzer = 4;
int sensor = A0;
int sensorThresh = 400;

void setup()
{
pinMode(redled, OUTPUT);
pinMode(greenled,OUTPUT);
pinMode(buzzer,OUTPUT);
pinMode(sensor,INPUT);
Serial.begin(9600);
lcd.begin(16,2);
}

void loop()
{
  int analogValue = analogRead(sensor);
  Serial.println(analogValue);
  if(analogValue>sensorThresh)
  {
    digitalWrite(redled,HIGH);
    digitalWrite(greenled,LOW);
    tone(buzzer,1000,10000);
    lcd.clear();
    lcd.setCursor(0,1);
    lcd.print("ALERT");
    Serial.print("ALERT");
```

```
    delay(1000);
    lcd.clear();
    lcd.setCursor(0,1);
    lcd.print("EVACUATE");
    Serial.println(" -- EVACUATE");
    delay(1000);
  }
  else
  {
    digitalWrite(greenled,HIGH);
    digitalWrite(redled,LOW);
    noTone(buzzer);
    lcd.clear();
    lcd.setCursor(0,0);
    lcd.print("SAFE");
    Serial.print("SAFE");
    delay(1000);
    lcd.clear();
    lcd.setCursor(0,1);
    lcd.print("ALL CLEAR");
    Serial.println(" -- ALL CLEAR");
    delay(1000);

  }

}
```

OUTPUT:


Circuit design Amazing Bombul
tinkercad.com/things/iLhx7kESue1-amazing-bombul/editel
Amazing Bombul
All changes saved
Simulator time: 00:00:23
Code
Stop Simulation
Send To
Gas Sensor
Name 1
ALL CLEAR
1 (Arduino Uno R3)
#include <LiquidCrystal.h>
LiquidCrystal lcd(5,6,8,9,10,11);
int redled = A5;
int greenled = A3;
int buzzer = 4;
int sensor = A0;
int sensorThresh = 400;
void setup()
{
pinMode(redled, OUTPUT);
pinMode(greenled,OUTPUT);
pinMode(buzzer,OUTPUT);
pinMode(sensor,INPUT);
Serial.begin(9600);
lcd.begin(16,2);
}
void loop()
{
Serial Monitor
685
ALERT -- EVACUATE
306
SAFE -- ALL CLEAR
306
SAFE -- ALL CLEAR
306
SAFE -- ALL CLEAR
306
SAFE -- ALL CLEAR
306
SAFE -- ALL CLEAR
Send
Clear


Circuit design Amazing Bom
tinkercad.com/things/iLhx7kESue1-amazing-bombul/editel
Amazing Bombul
All changes saved
Simulator time: 00:00:11
Code
Stop Simulation
Send To
Gas Sensor
Name 1
EVACUATE
1 (Arduino Uno R3)
#include <LiquidCrystal.h>
LiquidCrystal lcd(5,6,8,9,10,11);
int redled = A5;
int greenled = A3;
int buzzer = 4;
int sensor = A0;
int sensorThresh = 400;
void setup()
{
pinMode(redled, OUTPUT);
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pinMode(buzzer,OUTPUT);
pinMode(sensor,INPUT);
Serial.begin(9600);
lcd.begin(16,2);
}
void loop()
{
Serial Monitor
ALERT306
SAFE -- ALL CLEAR
685
ALERT -- EVACUATE
685
ALERT -- EVACUATE
685
ALERT -- EVACUATE
685
ALERT -- EVACUATE
685
ALERT -- EVACUATE
Send
Clear