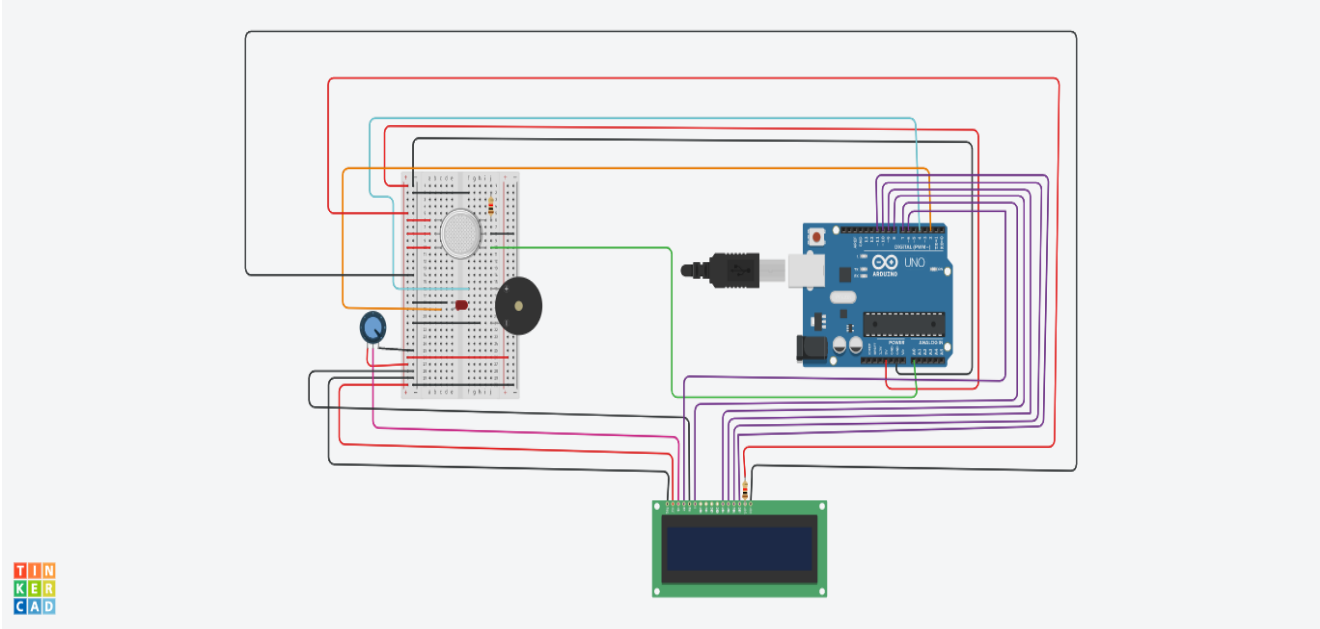
PROJECT DEVELOPMENT PHASE

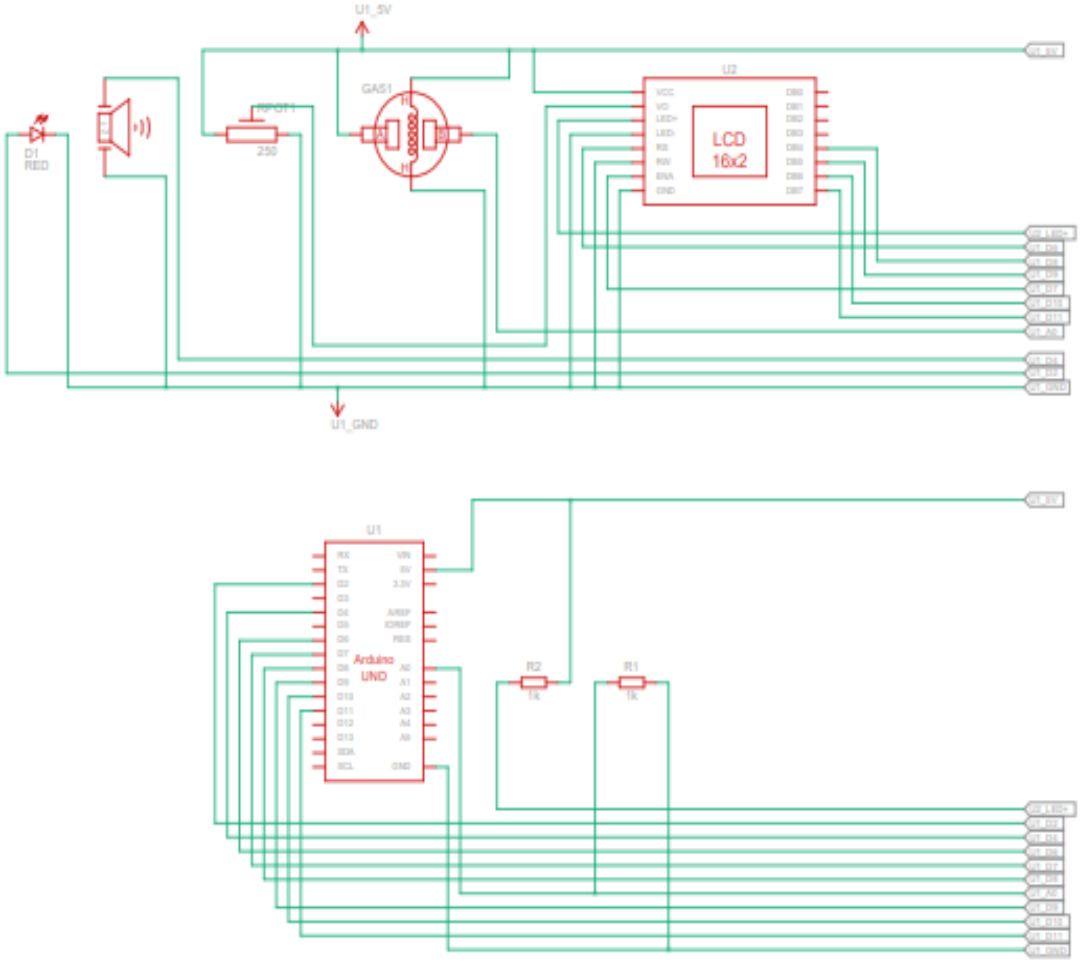
SPRINT-1

DATE	10 November 2022
TEAM ID	PNT2022TMID35489
TITLE	GAS LEAKAGE MONITORING AND ALERTING SYSTEM FOR INDUSTRIES

CIRCUIT:



SCHEMATIC DIAGRAM:



CODE:

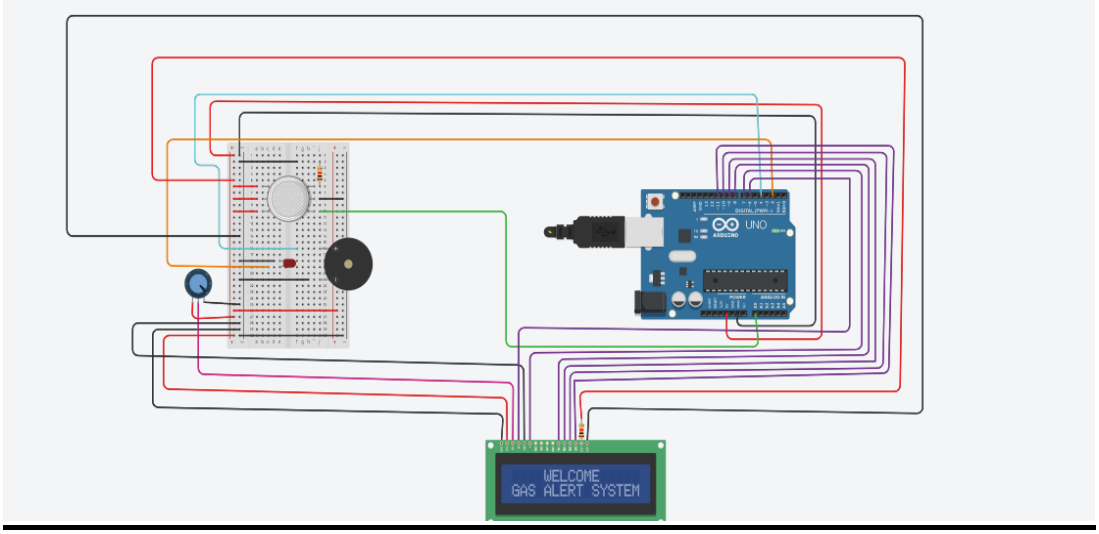
```
#include <LiquidCrystal.h>
LiquidCrystal lcd(6, 7, 8, 9, 10, 11);
float gasPin = A0;
float gasLevel;
int ledPin = 2;
int buzzPin = 4;

void setup(){
  pinMode(ledPin, OUTPUT);
  pinMode(gasPin,INPUT);
  Serial.begin(9600);
  lcd.begin(16, 2);
  lcd.setCursor(0,0);
  lcd.print("    WELCOME    ");
  lcd.setCursor(0,2);
  lcd.print("GAS ALERT SYSTEM");
  delay(1000);
  lcd.clear();
}

void loop(){
 gasLevel = analogRead(gasPin);
  gasDetected(gasLevel);
  buzzer(gasLevel);
}
```

```
void gasDetected(float gasLevel){
  if(gasLevel >= 250){
    digitalWrite(buzzPin,HIGH);
    digitalWrite(ledPin,HIGH);
    lcd.setCursor(0,0);
    lcd.print("   GAS:");
    lcd.print(gasLevel);
    lcd.setCursor(0,2);
    lcd.print("     ALERT     ");
    delay(1000);
    lcd.clear();
  }
else{
    digitalWrite(ledPin,LOW);
    digitalWrite(buzzPin,LOW);
    lcd.setCursor(0,0);
    lcd.print("   GAS:");
    lcd.print(gasLevel);
    lcd.setCursor(0,2);
    lcd.print("      SAFE      ");
    delay(1000);
    lcd.clear();
  }
}
```

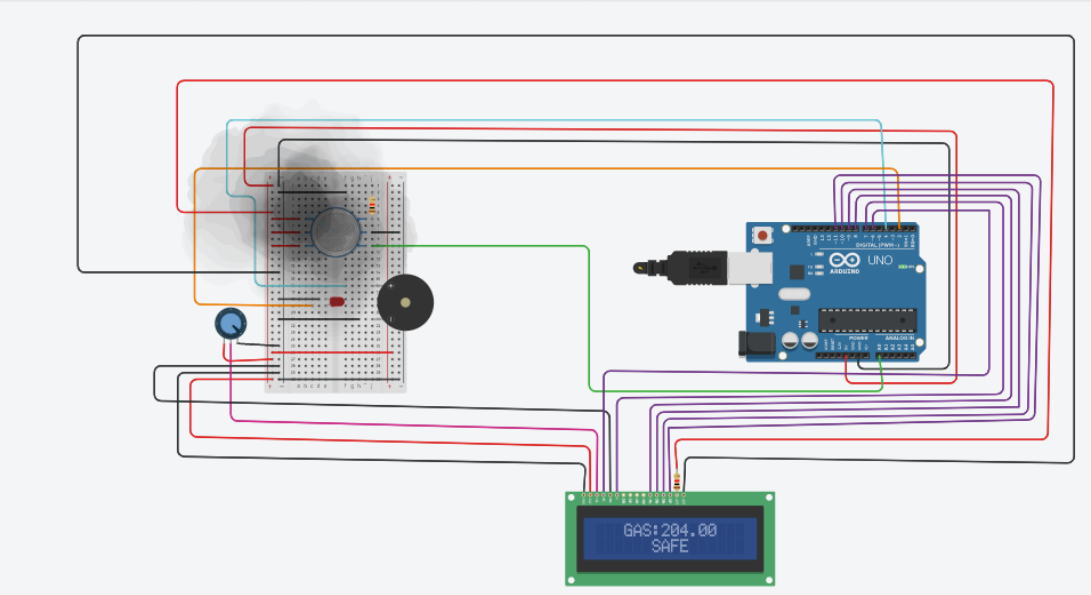
```
void buzzer(float gasLevel){
if(gasLevel>=250)
  {
  for(int i=0; i<=30; i=i+10)
  {
  tone(4,i);
  delay(400);
  noTone(4);
  delay(400);
  }
  }
}
```

OUTPUT:

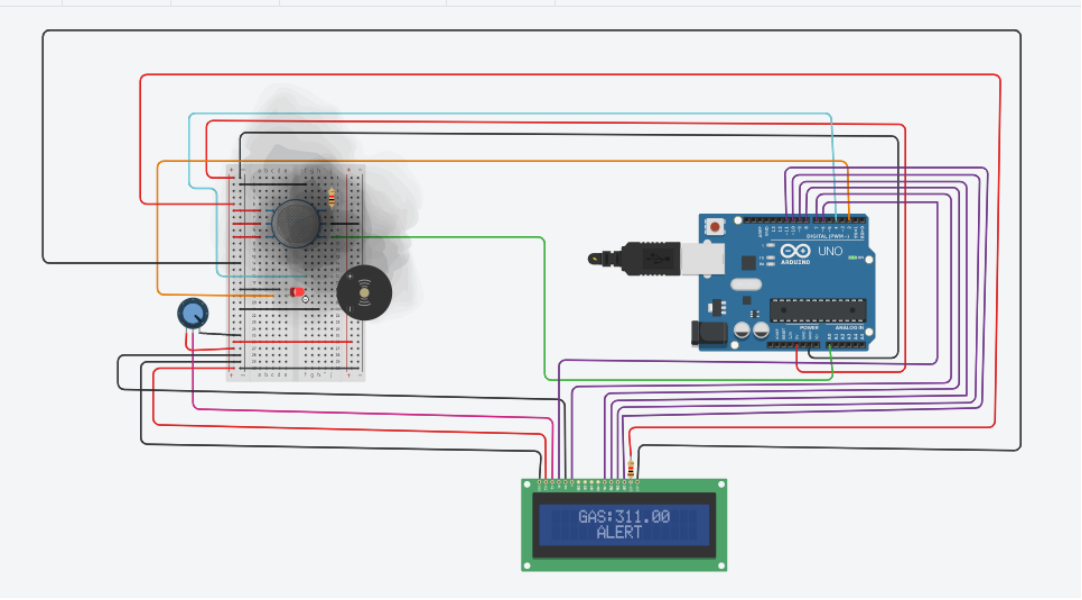
1.INITIAL SCREEN:



2.WHEN THE GAS LEVEL IS LESS THAN 250



3.WHEN THE GAS LEVEL IS MORE THAN 250:



TINKER CAD LINK:

https://www.tinkercad.com/things/i142DB6zDXB-frantic-maimu/editel?tenant=circuits

DEMO LINK:

https://drive.google.com/drive/folders/1KK4blSqflC2P_tRCt0yySBf8gn-I2vsp?usp=share_link