

Design Development Phase

Sprint-3

Date	16 NOVEMBER 2022
Team ID	PNT2022TMID07798
Project Name	Gas Leakage Monitoring and Alerting System

Program:

```
#include <LiquidCrystal.h>
```

```
LiquidCrystal lcd(5,6,8,9,10,11);
```

```
int redLed = 2; int greenLed = 3; 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.print(analogValue);
```

```
  if(analogValue > sensorThresh)
```

```
  {
```

```
    digitalWrite(redLed, HIGH);
```

```
    digitalWrite(greenLed, LOW);
```

```
    digitalWrite(buzzer, HIGH);
```

```

{
    digitalWrite(redled,HIGH);
    digitalWrite(greenled,LOW);
    tone(buzzer,1000,1000);
    lcd.clear();
    lcd.setCursor(0,1);
    lcd.print("ALERT");delay(
        1000);lcd.clear();
    lcd.setCursor(0,1);
    lcd.print("EVACUATE");
    delay(1000);
}
Else
{
    digitalWrite(greenled,HIGH);
    digitalWrite(redled,LOW); noTone(buzzer);
    lcd.clear(); lcd.setCursor(0,0);
    lcd.print("SAFE");
    delay(1000);lcd.clear();
    lcd.setCursor(0,1);
    lcd.print("ALL CLEAR");
    delay(1000);
}
}

```