

Design Development Phase

Sprint-4

Date	16 NOVEMBER 2022
Team ID	PNT2022TMID13963
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);
```

```
tone(buzzer,1000,10000);  
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);  
}  
}
```