

## Design Development Phase

### Sprint-4

Date	19 NOVEMBER 2022
Team ID	PNT2022TMID11027
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);
}

}
```