

Project development phase
Sprint 3

Date	14 November 2022
Team ID	PNT2022TMID06950
Project Name	Project – Gas Leakage Monitoring and Alerting System

```
1  #include <LiquidCrystal.h>
2  LiquidCrystal lcd(2,3,4,5,6,7);
3  #include <SoftwareSerial.h>
4
5  SoftwareSerial mySerial(9, 10);
6
7  int gasValue = A0; // smoke / gas sensor connected with an
8  int data = 0;
9  int buzzer = 13;
10 int motorPin = 3;
11 int buttonpin=12;
12 char msg;
13
14
15
16 void setup()
17 {
18     pinMode(motorPin, OUTPUT);
19     pinMode(buzzer, OUTPUT);
20     pinMode(buttonpin, INPUT);
21     randomSeed(analogRead(0));
22     mySerial.begin(9600); // Setting the baud rate of GSM Module
23     Serial.begin(9600); // Setting the baud rate of Serial Monitor
24     lcd.begin(16,2);
25     pinMode(gasValue, INPUT);
26     lcd.print (" Gas Leakage ");
27     lcd.setCursor(0,1);
28     lcd.print (" Detector Alarm ");
29     delay(3000);
30     lcd.clear();
31 }
32
33 void loop()
34 {
35
```



Serial Monitor

```
36 data = analogRead(gasValue);
37 Serial.print("Gas Level: ");
38 Serial.println(data);
39 lcd.print ("Gas Scan is ON");
40 lcd.setCursor(0,1);
41 lcd.print("Gas Level: ");
42 lcd.print(data);
43 delay(1000);
44
45 if ( data > 100) //
46 {
47     digitalWrite(motorPin, HIGH);
48     digitalWrite(buzzer, HIGH);
49     SendMessage();
50     Serial.print("Gas Leakage is Detected");
51     lcd.clear();
52     lcd.setCursor(0,0);
53     lcd.print("WARNING:Gas Level Exceed");
54     lcd.setCursor(0,1);
55     lcd.print("Sending SMS");
56
57     delay(1000);
58
59 }
60 else
61 {
62     digitalWrite(motorPin, LOW);
63     digitalWrite(buzzer, LOW);
64     Serial.print("No Leakage is Dected");
65     lcd.clear();
66     lcd.setCursor(0,0);
67     lcd.print("Normal");
68
69     delay(1000);
70 }
71
```



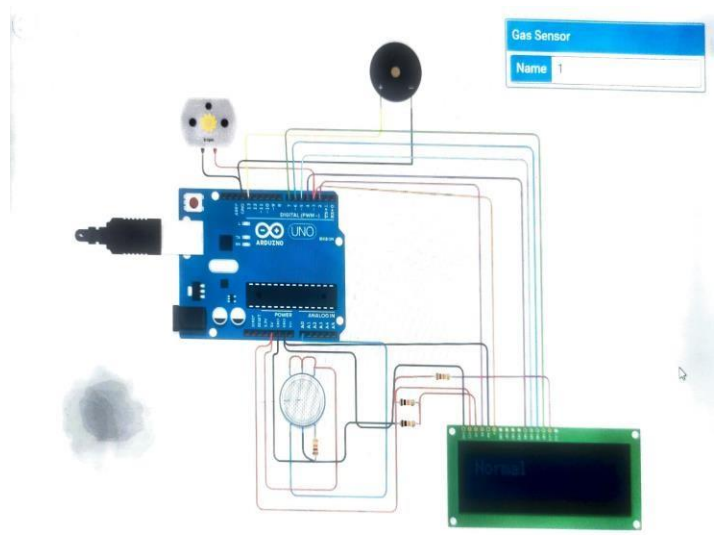
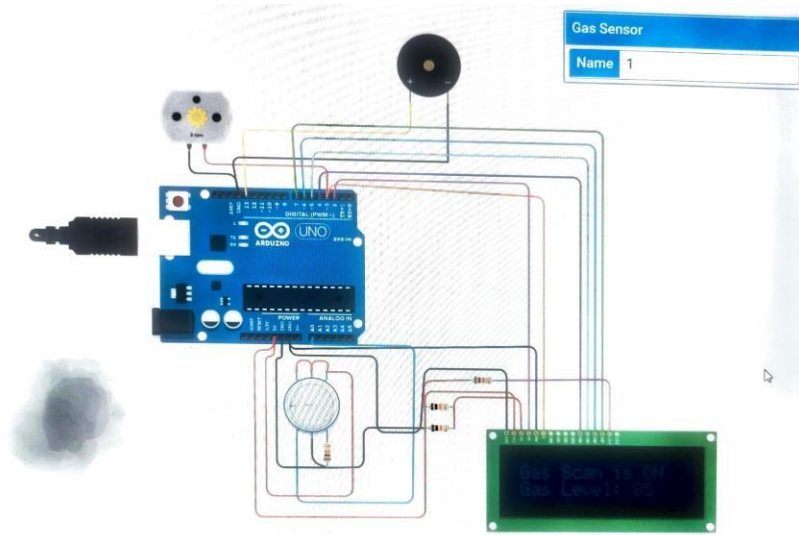
```

54 lcd.setCursor(0,1);
55 lcd.print("Sending SMS");
56
57 delay(1000);
58
59 }
60 else
61 {
62     digitalWrite(motorPin, LOW);
63     digitalWrite(buzzer, LOW);
64     Serial.print("No Leakage is Dected");
65     lcd.clear();
66     lcd.setCursor(0,0);
67     lcd.print("Normal");
68
69     delay(1000);
70 }
71
72 lcd.clear();
73 }
74
75 void SendMessage()
76 {
77     Serial.println("I am in send");
78     mySerial.println("AT+CMGF=1"); //Sets the GSM Module in Text
79     delay(1000); // Delay of 1000 milli seconds or 1 second
80     mySerial.println("AT+CMGS=\"+916374616361\"\\r"); // Replace x
81     delay(1000);
82     mySerial.println("Excess Gas Detected."); // The SMS text you
83     mySerial.println(data);
84     delay(1000);
85     mySerial.println((char)26); // ASCII code of CTRL+Z
86     delay(1000);
87 }

```



Serial Monitor





Serial Monitor

No Leakage is DectedGas Level: 85
No Leakage is DectedGas Level: 85
No Leakage is DectedGas Level: 85
No Leakage is DectedGas Level: 85
No Leakage is DectedGas Level: 85
No Leakage is DectedGas Level: 92
No Leakage is DectedGas Level: 134
I am in send

Send

Clear



