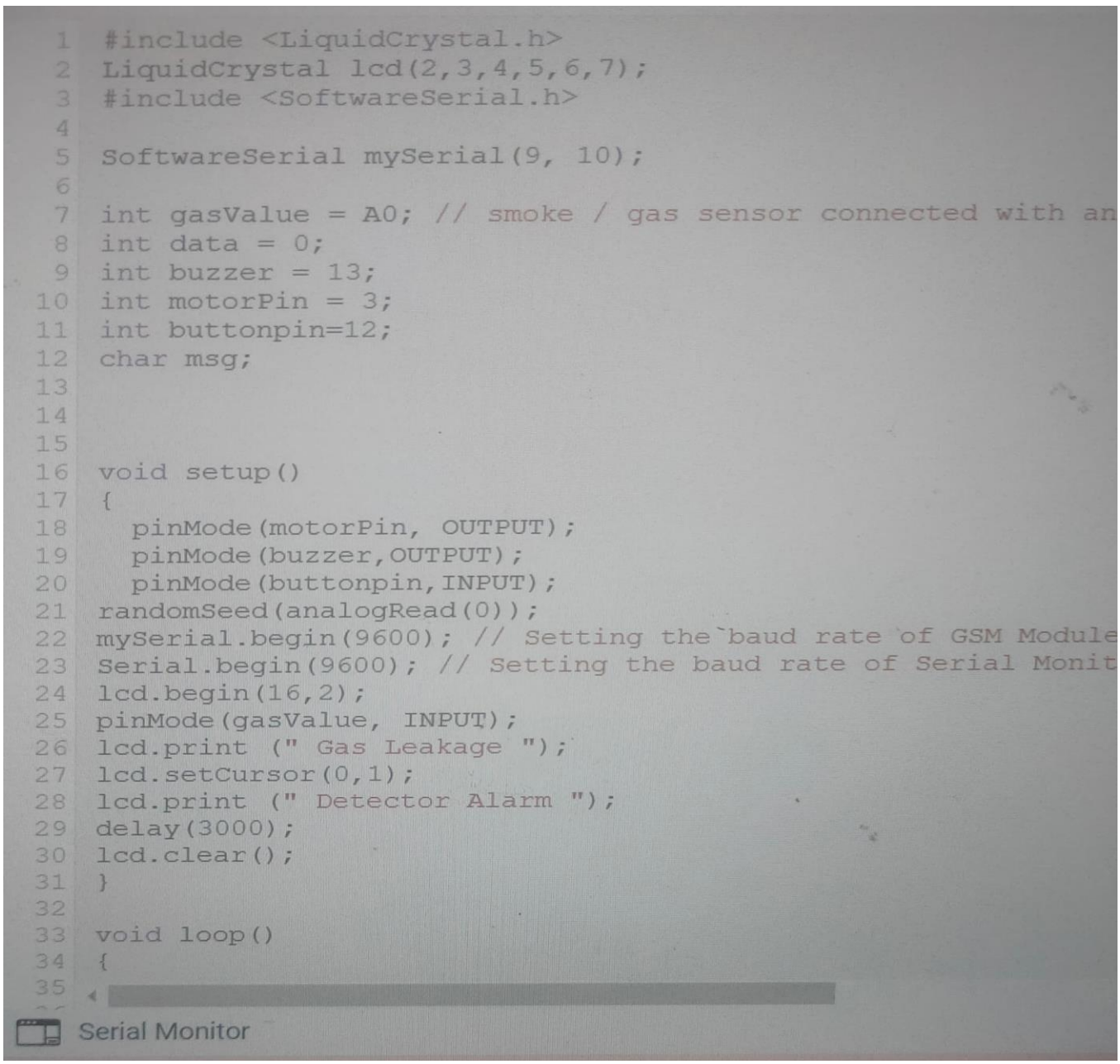
Project development phase
Sprint 3

Date	14 November 2022
Team ID	PNT2022TMID06193
Project Name	Project – Gas Leakage Monitoring and Alerting System



```
#include <LiquidCrystal.h>
LiquidCrystal lcd(2,3,4,5,6,7);
#include <SoftwareSerial.h>

SoftwareSerial mySerial(9, 10);

int gasValue = A0; // smoke / gas sensor connected with an
int data = 0;
int buzzer = 13;
int motorPin = 3;
int buttonpin=12;
char msg;



void setup()
{
  pinMode(motorPin, OUTPUT);
  pinMode(buzzer,OUTPUT);
  pinMode(buttonpin,INPUT);
randomSeed(analogRead(0));
mySerial.begin(9600); // Setting the baud rate of GSM Module
Serial.begin(9600); // Setting the baud rate of Serial Monit
lcd.begin(16,2);
pinMode(gasValue, INPUT);
lcd.print (" Gas Leakage ");
lcd.setCursor(0,1);
lcd.print (" Detector Alarm ");
delay(3000);
lcd.clear();
}

void loop()
{
```

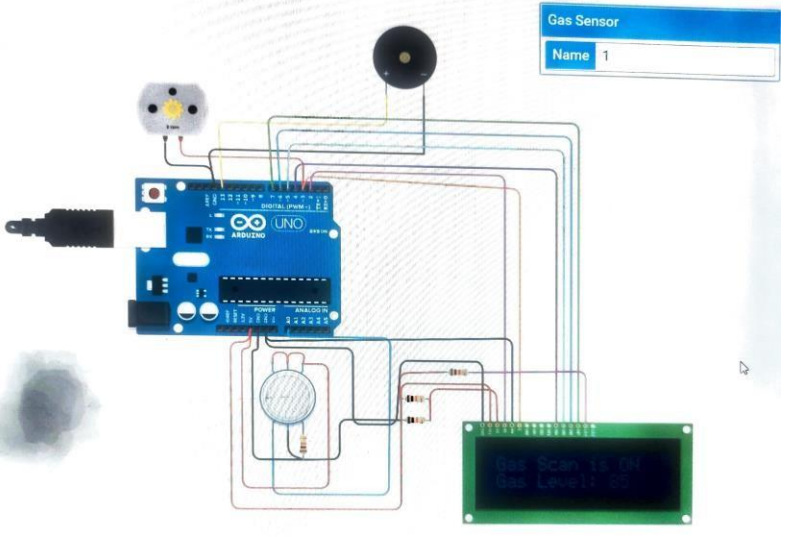
Serial Monitor

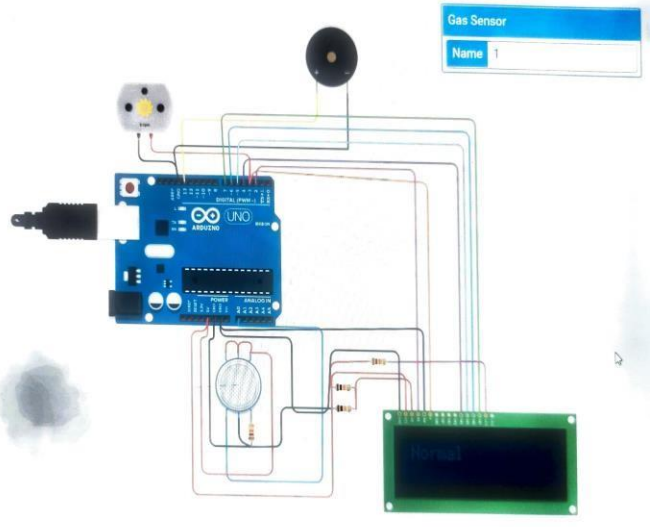
```
data = analogRead(gasValue);
Serial.print("Gas Level: ");
Serial.println(data);
lcd.print ("Gas Scan is ON");
lcd.setCursor(0,1);
lcd.print("Gas Level: ");
lcd.print(data);
delay(1000);

if ( data > 100) //
{
  digitalWrite(motorPin, HIGH);
  digitalWrite(buzzer, HIGH);
SendMessage();
Serial.print("Gas Leakage is Detected");
lcd.clear();
lcd.setCursor(0,0);
lcd.print("WARNING:Gas Level Exceed");
lcd.setCursor(0,1);
lcd.print("Sending SMS");

delay(1000);

}
else
{
  digitalWrite(motorPin, LOW);
  digitalWrite(buzzer, LOW);
Serial.print("No Leakage is Dected");
lcd.clear();
lcd.setCursor(0,0);
lcd.print("Normal");

delay(1000);
}
```

Serial Monitor

```
lcd.setCursor(0,1);
lcd.print("Sending SMS");

delay(1000);

}
else
{
  digitalWrite(motorPin, LOW);
  digitalWrite(buzzer, LOW);
Serial.print("No Leakage is Dected");
lcd.clear();
lcd.setCursor(0,0);
lcd.print("Normal");

delay(1000);
}

lcd.clear();
}

void SendMessage()
{
Serial.println("I am in send");
mySerial.println("AT+CMGF=1"); //Sets the GSM Module in Text
delay(1000); // Delay of 1000 milli seconds or 1 second
mySerial.println("AT+CMGS=\"+916374616361\"\r"); // Replace x
delay(1000);
mySerial.println("Excess Gas Detected.");// The SMS text you
mySerial.println(data);
delay(1000);
mySerial.println((char)26);// ASCII code of CTRL+Z
delay(1000);
}
```

Serial Monitor


Gas Sensor
Name 1
Gas Scan is ON
Gas Level: 32


Gas Sensor
Name 1
Normal

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