```cpp
#include <LiquidCrystal_I2C.h>

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LiquidCrystal_I2C lcd(0x3F,16,2);

#include <SoftwareSerial.h>

SoftwareSerial mySerial(9, 10);

#include<Servo.h>

Servo s1;

int a=0;

int buzzer = 12;

int green = 7;

int red = 6;

int fan = 2;

int GASA0 = A0;

int gasvalue;


void setup() {


  lcd.init();               // initialize the lcd//SDA =BROWN A4

  lcd.init();

  lcd.backlight();

  mySerial.begin(9600);

  Serial.begin(9600);

  lcd.setCursor(3,0);

  lcd.print("welcome to");

  lcd.setCursor(6,1);

  lcd.print("ECE");

  delay(3000);

  lcd.clear();

  pinMode(buzzer, OUTPUT);
```

```
  pinMode(green, OUTPUT);

  pinMode(red, OUTPUT);

  pinMode(fan, OUTPUT);

  s1.attach(8);              // servo motor



}

void loop()

{

  int analogSensor = analogRead(GASA0);

  int gasvalue=(analogSensor-50)/10;

  lcd.setCursor(0,0);

  lcd.print("GAS Level:");

  lcd.setCursor(10,0);

  lcd.print(gasvalue);

  lcd.setCursor(12,0);

  lcd.print("%");

  if (gasvalue >= 50)

  {

    SendTextMessage();

    lcd.setCursor(0,1);

    lcd.print("!!!!!DANGER!!!!!");       // functions when gas exceeds

    digitalWrite(7,LOW);//white

    digitalWrite(2,HIGH);//fan

    if(a==0)

    {

     s1.write(180);

     a=1;
```

```arduino
  }
  do
  {
   analogSensor = analogRead(GASA0);
   gasvalue=(analogSensor-50)/10;
   digitalWrite(6,HIGH);//red
   delay (200);
   digitalWrite(6,LOW);//red
   delay (200);
   digitalWrite(12,HIGH);//buzzer
   delay (200);
   digitalWrite(12,LOW);//buzzer
   delay (200);
   Serial.println("DANGER LEVEL");
   Serial.println(gasvalue);
  }while(gasvalue >= 50);
 }
 else
 {
  lcd.setCursor(0,1);
  lcd.print("--NORMAL level--");     // gas in normal level
  digitalWrite(2,LOW);//fan
  digitalWrite(6,LOW);//red
  digitalWrite(12,LOW);//buzzer
  digitalWrite(7,HIGH); //white
  Serial.println("Normal LEVEL");
  Serial.println(gasvalue);
  delay(1000);
 }
```

```
}


void SendTextMessage()
{
 mySerial.println("AT+CMGF=1");    //To send SMS in Text Mode
 delay(1000);
 mySerial.println("AT+CMGS=\"+916301638529\"\r");
 delay(1000);
 mySerial.println("Gas Leaking!! in Home house num:123 ");//the content of the message
 delay(200);
 mySerial.println((char)26);//the stopping character
 delay(1000);

}
```