

SPRINT 1

TEAM ID:PNT2022TMID06950

```
#include<LiquidCrystal_I2C.h>
```

```
LiquidCrystal_I2C lcd(32, 16, 2);
```

```
int green = 2;
```

```
int yellow = 3;
```

```
int red = 4;
```

```
int siren = 5;
```

```
int gas = A0;
```

```
int sensorValue = 0;
```

```
void setup()
```

```
{
```

```
  Serial.begin(9600);
```

```
  lcd.init();
```

```
  lcd.clear();
```

```
  lcd.backlight();
```

```
  lcd.setCursor(3,0);
```

```
  lcd.print("GAS LEAKAGE");
```

```
  lcd.setCursor(4,1);
```

```
  lcd.print("DETECTION");
```

```
  delay(3000);
```

```
  lcd.clear();
```

```
  lcd.setCursor(0,0);
```

```
  lcd.print("Gas Value: ");
```

```
pinMode(green, OUTPUT);
pinMode(yellow, OUTPUT);
pinMode(red, OUTPUT);
pinMode(siren, OUTPUT);
digitalWrite(red, LOW);
digitalWrite(yellow, LOW);
digitalWrite(green, LOW);
}
void loop()
{
  sensorValue = analogRead(gas);
  Serial.println(sensorValue);
  lcd.setCursor(11,0);
  lcd.print(sensorValue);
  if(sensorValue > 500)
  {
    lcd.setCursor(0,1);
    lcd.print("GAS DETECTED");
    digitalWrite(red, HIGH);
    digitalWrite(yellow, LOW);
    digitalWrite(green, LOW);
    tone(siren, 200);
  }
  else if(sensorValue > 281 && sensorValue < 500)
  {
```

```
    lcd.setCursor(0,1);  
    lcd.print("    ");  
    digitalWrite(yellow, HIGH);  
    digitalWrite(red, LOW);  
    digitalWrite(green, LOW);  
    noTone(siren);  
}  
else  
{  
    lcd.setCursor(0,1);  
    lcd.print("    ");  
    digitalWrite(green, HIGH);  
    digitalWrite(red, LOW);  
    digitalWrite(yellow, LOW);  
    noTone(siren);  
}  
delay(1000);  
}
```