

PROJECT DEVELOPMENT PHASE

DELIVERY OF SPRINT-3

Team ID	PNT2022TMID44431
Project Name	Gas Leakage Monitoring System and Alerting System

```
#include <LiquidCrystal.h>
```

```
LiquidCrystal lcd(6, 7, 8, 9, 10, 11);
```

```
float gasPin = A0;
```

```
float gasLevel;
```

```
int ledPin = 2;
```

```
int buttonPin = 3;
```

```
int buzzPin = 4;
```

```
int buttonState;
```

```
int fan = 5;
```

```
void setup(){  
  pinMode(ledPin, OUTPUT);  
  pinMode(buttonPin, INPUT);  
  pinMode(gasPin,INPUT);  
  pinMode(fan,OUTPUT);  
  Serial.begin(9600);  
  lcd.begin(16, 2);  
  lcd.setCursor(0,0);  
  lcd.print(" Welcome");  
  lcd.setCursor(0,2);
```

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

delay(500);
lcd.clear();
}
void loop(){
// Read the value from gas sensor and button
gasLevel = analogRead(gasPin);
buttonState = digitalRead(buttonPin);
// call the function for gas detection and button work
gasDetected(gasLevel);
buzzer(gasLevel);
exhaustFanOn(buttonState);
}
// Gas Leakage Detection & Automatic Alarm and Fan ON
void gasDetected(float gasLevel){
if(gasLevel >= 300){
digitalWrite(buzzPin,HIGH);
digitalWrite(ledPin,HIGH);
digitalWrite(fan,HIGH);
lcd.setCursor(0,0);
lcd.print("GAS:");
lcd.print(gasLevel);

lcd.setCursor(0,2);
lcd.print("FAN ON");
delay(1000);

lcd.clear();
}else{
digitalWrite(ledPin,LOW);
digitalWrite(buzzPin,LOW);
digitalWrite(fan,LOW);
lcd.setCursor(0,0);
lcd.print("GAS:");
lcd.print(gasLevel);
```

```
lcd.setCursor(0,2);  
lcd.print("FAN OFF");  
delay(1000);  
lcd.clear();  
}  
}  
//BUZZER  
void buzzer(float gasLevel ){  
  
if(gasLevel>=300)  
{  
for(int i=0; i<=30; i=i+10)  
{  
tone(4,i);  
delay(400);  
noTone(4);  
delay(400);  
}  
}  
}
```