

CIRCUIT AND COMPONENTS FOR GAS LEAKAGE MONITORING AND ALERTING SYSTEM FOR INDUSTRIES

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TEAM ID	PNT2022TMID36136
PROJECT NAME	GAS LEAKAGE MONITORING AND ALERTING SYSTEM FOR INDUSTRIES
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Code for Arduino :

```
#include <LiquidCrystal.h>
LiquidCrystal lcd(5,6,8,9,10,11);

//pin variables
int redled = 3;
int greenled = 2;
int buzzer = 4;
int exhaustfan = 7;
int sensor = A0;
int sensorThresh = 400;

void setup()
{
  pinMode(redled,OUTPUT);
  pinMode(greenled,OUTPUT);
  pinMode(buzzer,OUTPUT);
  pinMode(exhaustfan,OUTPUT);
  pinMode(sensor,INPUT);
  Serial.begin(9600);
  lcd.begin(16,2);
}

void loop()
{
  int analogValue = analogRead(sensor);
  Serial.print(analogValue);

  //gas concentration condition
  if(analogValue>sensorThresh)
  {
    digitalWrite(redled,HIGH);
    digitalWrite(greenled,LOW);
    tone(buzzer,1000,10000);
    tone(exhaustfan,1000,10000);
    lcd.clear();
  }
}
```

```

//to print on LCD
lcd.setCursor(0,1);
lcd.print("ALERT ALERT");
delay(1000);
lcd.clear();
lcd.setCursor(0,1);
lcd.print("EXHAUST FAN ON ");
delay(1000);
}
else
{
  digitalWrite(greenled,HIGH);
  digitalWrite(redled,LOW);
  noTone(buzzer);
  noTone(exhausterfan);
  lcd.clear();
  lcd.setCursor(0,1);
  lcd.print("GAS NOT DETECTED");
  delay(1000);
}
}
}

```



