

FINAL DELIVERABLES

Date	12 November 2022
Team ID	PNT2022TMID00641
Project Name	GAS LEAKAGE MONITORING AND ALERTING SYSTEM FOR INDUSTRIES

PROJECT DEMO LINK

<https://www.tinkercad.com/things/1xP2c2fgH5y>

Circuit diagram

Gas leakage alarm

React



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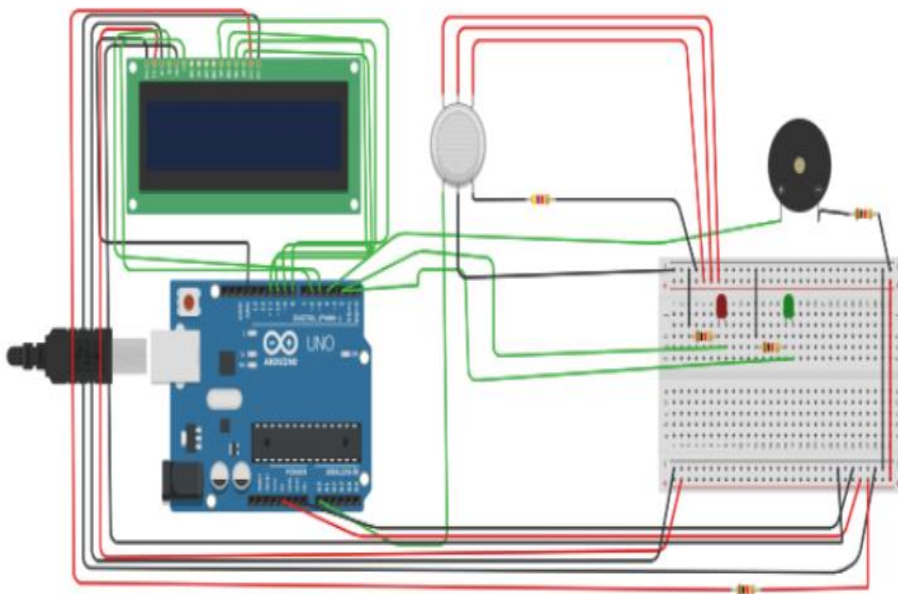
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components

Gas leakage alarm

React  0  



Gas leakage alarm

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Name	Quantity	Component
GAS1	1	Gas Sensor
U1	1	Arduino Uno R3
R1	1	4.7 kΩ Resistor
R2 R3 R4 R5	4	1 kΩ Resistor
D2	1	Red LED
D3	1	Green LED
PIEZ01	1	Piezo
U3	1	LCD 16 x 2

Source code

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

int redled = 2;
int greenled = 3;
int buzzer = 4;
int sensor = A0;
int sensorThresh = 400;

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

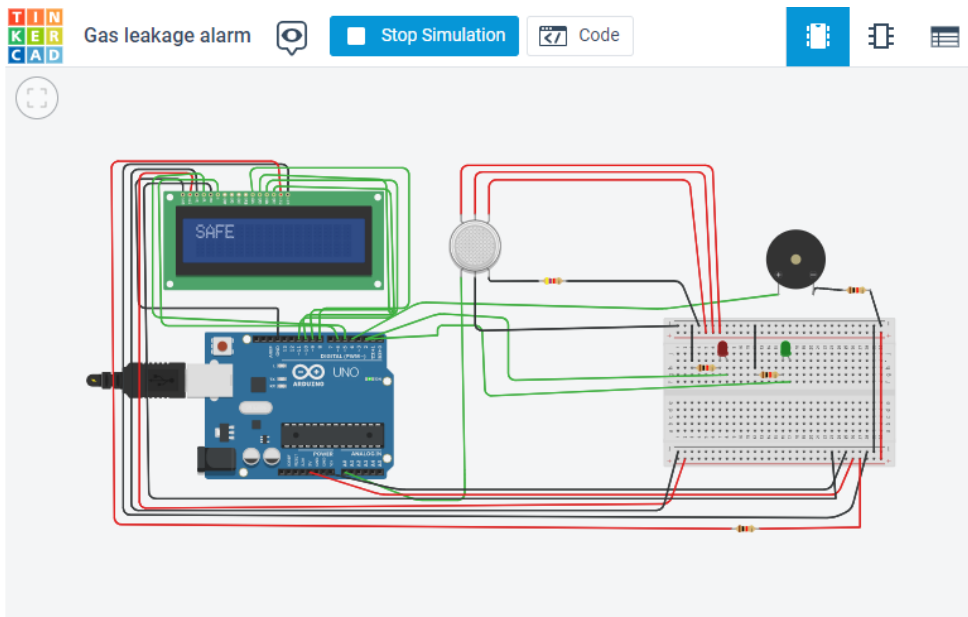
void loop()
{
  int analogValue = analogRead(sensor);
  Serial.print(analogValue);
  if(analogValue > sensorThresh)
  {
    digitalWrite(redled, HIGH);
    digitalWrite(greenled, LOW);
  }
}
```

```

tone(buzzer,1000,10000);
lcd.clear();
lcd.setCursor(0,1);
lcd.print("ALERT");
delay(1000);
lcd.clear();
lcd.setCursor(0,1);
lcd.print("EVACUATE");
delay(1000);
}
else
{
digitalWrite(greenled,HIGH);
digitalWrite(redled,LOW);
noTone(buzzer);
lcd.clear();
lcd.setCursor(0,0);
lcd.print("SAFE");
delay(1000);
lcd.clear();
lcd.setCursor(0,1);
lcd.print("ALL CLEAR");
delay(1000);
}
}

```

output



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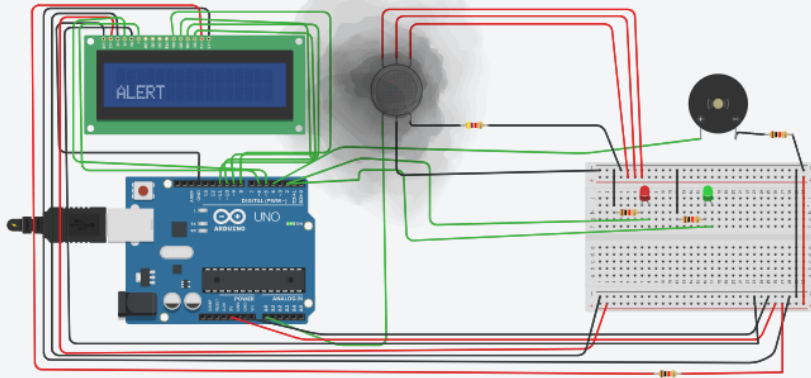


Gas leakage alarm



Stop Simulation

Code



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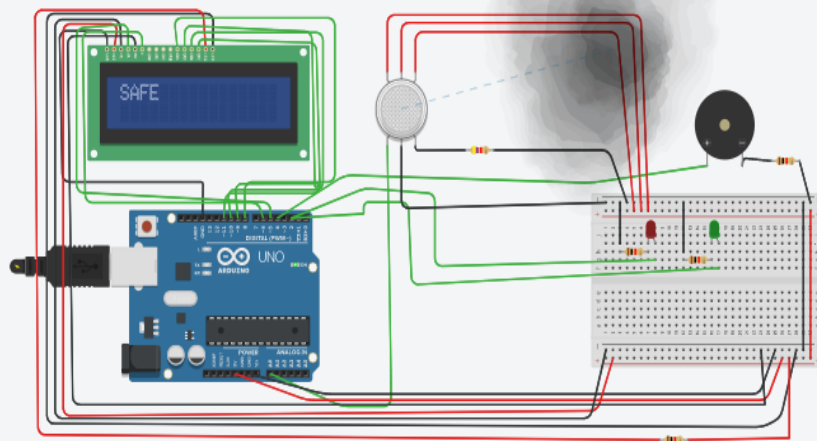


Gas leakage alarm



Stop Simulation

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