Monitor the surrounding air's quality using Arduino & sensors

COMPONENTS USED:

Name	Quantity	Component
U1	1	Arduino Uno R3
U2	1	LCD 16 x 2
PIEZO1	1	Piezo
GAS1	1	Gas Sensor
Rpot1	1	250 kΩ Potentiometer
R1 R2 R3	3	1 kΩ Resistor

CIRCUIT DIAGRAM:
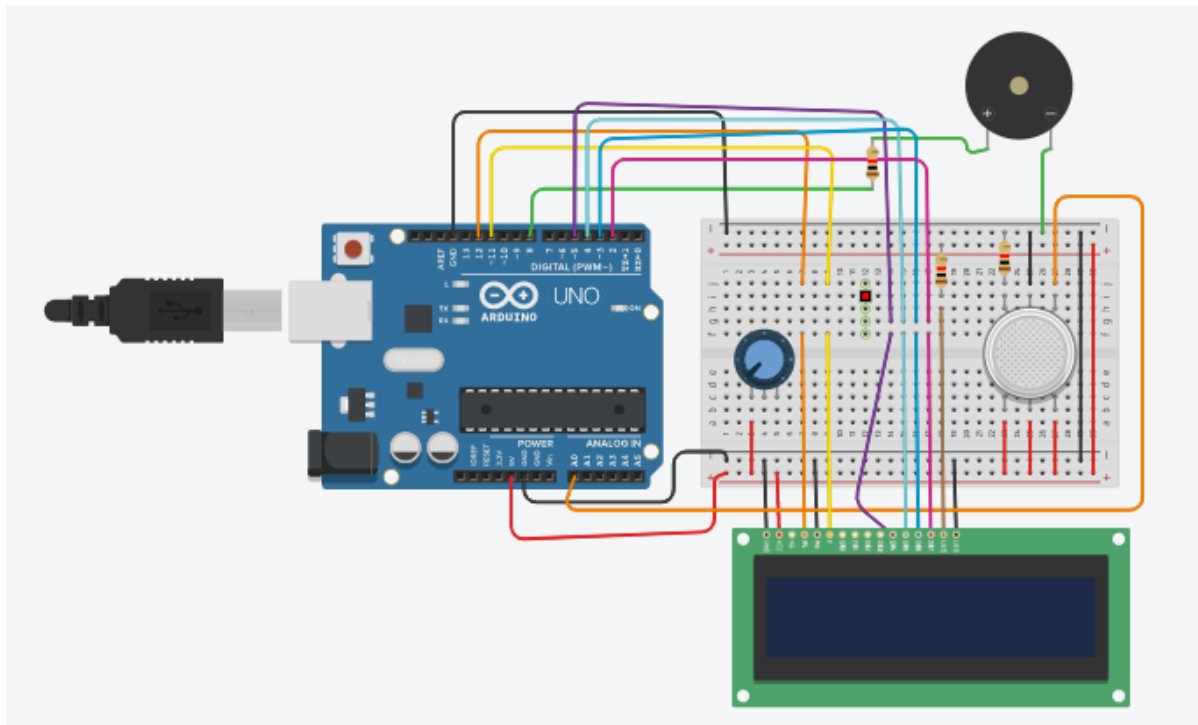
CODE:

```cpp
#include <LiquidCrystal.h>
LiquidCrystal lcd(12, 11, 5, 4, 3, 2);
int pin = 8;
int analogPin = A0;
int sensorValue = 0;
void setup()
{
  pinMode(analogPin, INPUT);
  pinMode(pin8, OUTPUT);
  lcd.begin(16, 2);
  lcd.print("what is the air");
  lcd.print("Quality Today");
  Serial.begin(9600);
  lcd.display();
}
void loop()
{
  delay(100);
  sensorValue = analogRead(analogPin);
  Serial.print("air Quality in RPM=");
  Serial.println(sensorValue);
  lcd.clear();
  lcd.setCursor(0,0);
  lcd.print("Air Quality:");
  lcd.print(sensorValue);
  if (sensorValue<=500)
  {
    Serial.print("Fresh air");
    Serial.print("\r\n");
```

```arduino
    lcd.setCursor(0,1);

    lcd.print("Fresh Air");

  }
  else if(sensorValue>=500 && sensorValue<=600)

  {

    Serial.print("Poor Air");

    Serial.print("\r\n");

    lcd.setCursor(0,1);

    lcd.print("Poor Air");

  }
  else if (sensorValue>=650)

  {

    Serial.print("Very Poor Air");

    Serial.print("\r\n");

    lcd.setCursor(0,1);

    lcd.print("Very Poor Air");

  }
}
  if(sensorValue>650)

    {

    digitalWrite(pin8, HIGH);

    }

    else

    {

      digitalWrite(pin8, LOW);

    }

  }
```