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#include <LiquidCrystal.h> //Header file for LCD
const int rs=12, en=11, d4=5, d5=4, d6=3, d7=2; //Pins of LCD connected
to Arduino
LiquidCrystal lcd(rs,en,d4,d5,d6,d7); //lcd function from LiquidCrystal
int buz=8; //buzzer connected to pin 8
int led=9; //led connected to pin 9
const int aqsensor=A0 // output of mq135 connected to A0
pin of Arduino.

int threshold=250; //Threshold level for Air quality.

void setup()
{
  pinMode(buz,OUTPUT); //buzzer is connected as Output from
  pinMode(led,OUTPUT); // Arduino led is connected as output from
  Arduino
  pinMode(aqsensor,INPUT); //MQ135 is connected as INPUT to
  Arduino
  Serial.begin(9600); //begin serial communication with baud
  rate of 9600

  lcd.clear(); //clear lcd
  lcd.begin(16,2); //consider 16,2 lcd
}

void loop()
{
  int ppm = analogRead(aqsensor); //read MQ135 analog
  outputs at A0 and store
  it in ppm.

  Serial.print("Air Quality: "); //print msg in Serial Monitor.
  Serial.println(ppm); //print value of ppm in serial monitor.
  lcd.setCursor(0,0); //set cursor of lcd to 1st row and 1st column
  lcd.print("Air Quality: ") //print msg on lcd
  lcd.print(ppm); //print value of MQ135

```

if (ppm > threshold) //check is ppm > threshold or not

```
{  
  lcd.setCursor(1,1); //jump here if ppm > threshold.  
  lcd.print("AQ level HIGH");  
  Serial.println("AQ level HIGH");  
  tone(led, 1000, 200); //blink led with turn on time 1000ms,  
                           turn off time 200ms  
  digitalWrite(buz, HIGH); //Turn ON Buzzer  
}
```

else

```
{  
  digitalWrite(led, LOW); //jump here if ppm < threshold and  
                           turn off LED  
  digitalWrite(buz, LOW); //Turn off Buzzer  
  lcd.setCursor(1,1);  
  lcd.print("AQ level Good");  
  Serial.println("AQ level Good");  
}  
delay(500);  
}
```

