

PROGRAM:

```
#include <LiquidCrystal_I2C.h>
#include <DHT.h>;
LiquidCrystal_I2C lcd(0x27, 16, 2);
#define DHTPIN 2
#define DHTTYPE DHT22
DHT dht(DHTPIN, DHTTYPE);
int chk;
float H;
float T;
int buzzer = 12;
void setup(){
    lcd.init(); lcd.backlight(); dht.begin(); pinMode(buzzer, OUTPUT);
    Serial.begin(9600); Serial.println("DHT22 sensor with Arduino Uno
R3!");
    pinMode(9, OUTPUT); pinMode(10, OUTPUT); pinMode(11, OUTPUT);
}
void loop(){
    delay(2000);
    H = dht.readHumidity();
    T = dht.readTemperature();
    Serial.print("Humidity: ");
    Serial.print(H);
    Serial.println(" %; ");
    Serial.print("Temperature: ");
    Serial.print(T);
    Serial.println(" Fehernheat.\n");

    if(H >= 30.00 && T >= 30.00){
        digitalWrite(9, HIGH);
        digitalWrite(10, LOW);
        digitalWrite(11, LOW);
        lcd.println("    Too warm!    ");
        lcd.setCursor(0, 1);
        lcd.println("    Cool down!    ");
        lcd.setCursor(0, 0);
        digitalWrite(buzzer, 1); tone(buzzer, 900, 100);
        delay(400);
        digitalWrite(buzzer, 0); tone(buzzer, 900, 100);
        delay(400);
        digitalWrite(buzzer, 1); tone(buzzer, 900, 100);
        delay(400);
        digitalWrite(buzzer, 0); tone(buzzer, 900, 100);
        delay(400);
    }else{

        digitalWrite(9, LOW);
```

```
digitalWrite(10, LOW);  
digitalWrite(11, HIGH);  
lcd.println("Temp. & hum. are"); lcd.setCursor(0, 1);  
lcd.println("in normal limits"); lcd.setCursor(0, 0);  
digitalWrite(buzzer, 0);  
}  
}
```

CIRCUIT:

WOKWI

SAVE SHARE

Docs

sketch.ino

```
34 Serial.print(T);
35 Serial.println(" Fehernheat.\n");
36
37
38 if(H >= 30.00 && T >= 30.00){
39   digitalWrite(9, HIGH); digitalWrite(10, LOW); digitalWrite(11, LOW);
40
41   lcd.println(" Too warm! ");
42   lcd.setCursor(0, 1);
43   lcd.println(" Cool down! ");
44   lcd.setCursor(0, 0);
45
46   digitalWrite(buzzer, 1); tone(buzzer, 900, 100);
47   delay(400);
48   digitalWrite(buzzer, 0); tone(buzzer, 900, 100);
49   delay(400);
50   digitalWrite(buzzer, 1); tone(buzzer, 900, 100);
51   delay(400);
52   digitalWrite(buzzer, 0); tone(buzzer, 900, 100);
53   delay(400);
54 }else{
55
56   digitalWrite(9, LOW); digitalWrite(10, LOW); digitalWrite(11, HIGH);
57   lcd.println("Temp. & hum. are"); lcd.setCursor(0, 1);
58   lcd.println("in normal limits"); lcd.setCursor(0, 0);
59   digitalWrite(buzzer, 0);
60 }
61
62
63
```

Simulation

Humidity: 40.00 %;
Temperature: 24.00 Fehernheat

WOKWI

SAVE SHARE

Docs

sketch.ino

```
34 Serial.print(T);
35 Serial.println(" Fehernheat.\n");
36
37
38 if(H >= 30.00 && T >= 30.00){
39   digitalWrite(9, HIGH); digitalWrite(10, LOW); digitalWrite(11, LOW);
40
41   lcd.println(" Too warm! ");
42   lcd.setCursor(0, 1);
43   lcd.println(" Cool down! ");
44   lcd.setCursor(0, 0);
45
46   digitalWrite(buzzer, 1); tone(buzzer, 900, 100);
47   delay(400);
48   digitalWrite(buzzer, 0); tone(buzzer, 900, 100);
49   delay(400);
50   digitalWrite(buzzer, 1); tone(buzzer, 900, 100);
51   delay(400);
52   digitalWrite(buzzer, 0); tone(buzzer, 900, 100);
53   delay(400);
54 }else{
55
56   digitalWrite(9, LOW); digitalWrite(10, LOW); digitalWrite(11, HIGH);
57   lcd.println("Temp. & hum. are"); lcd.setCursor(0, 1);
58   lcd.println("in normal limits"); lcd.setCursor(0, 0);
59   digitalWrite(buzzer, 0);
60 }
61
62
63
```

Simulation

DHT22 sensor with Arduino Uno R3!
Humidity: 40.00 %;
Temperature: 24.00 Fehernheat.

Humidity: 40.00 %;
Temperature: 24.00 Fehernheat.