

## DAFTAR PUSTAKA

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## **LAMPIRAN A**

### **Program Arduino**

```
// dht
#include <DHT22.h>
DHT22 dht22(A0);
// lcd
#include <LiquidCrystal_I2C.h>
LiquidCrystal_I2C lcd(0x27, 16, 2);

// kipas
#define pin_blower 22
// mist
#define pin_mist 23

static float temp = 43;
static float range = 2;

void setup() {
    // serial
    Serial.begin(9600);
    Serial3.begin(9600);
    // lcd
    lcd.init();
    lcd.backlight();
    lcd.clear();

    // blower
    pinMode(pin_blower, OUTPUT);
    // mist
    pinMode(pin_mist, OUTPUT);
}

int lastT = 0;
int r = 0;

void loop() {
    float t = dht22.getTemperature();
```

```
float h = dht22.getHumidity();

if (t != h) {

    Serial.print(t);
    Serial.print('\t');
    Serial.print(h);
    Serial.print('\t');

    lcd.setCursor(0, 0);
    switch (r) {
        case 0:
            lcd.print('l');
            break;
        case 1:
            lcd.print('/');
            break;
        case 2:
            lcd.print '-';
            break;
        case 3:
            lcd.print('l');
            break;
        case 4:
            lcd.print('/');
            break;
        case 5:
            lcd.print '-';
            break;
    }
    if (r < 5) {
        r++;
    } else {
        r = 0;
    }

    lcd.setCursor(1, 0);
    lcd.print("Temp : ");
    lcd.print(t);
}
```

```

lcd.setCursor(1, 1);
lcd.print("Humidity: ");
lcd.print(h);

if (t > temp + 0.5) {
    digitalWrite(pin_blower, HIGH);
} else {
    digitalWrite(pin_blower, LOW);
}

if (h < 50) {
    digitalWrite(pin_mist, HIGH);
} else {
    digitalWrite(pin_mist, LOW);
}

int power = 0;
if (t < temp) {
    power = 98;
} else if (t > temp + range) {
    power = 1;
} else {
    power = mapFloat(t, temp, temp + range, 98, 1);
}
Serial.println(power);
Serial3.println(power);

delay(500);
}

float mapFloat(float x, float fromLow, float fromHigh, float toLow, float toHigh) {
    return (x - fromLow) * (toHigh - toLow) / (fromHigh - fromLow) +
        toLow;
}

```

## LAMPIRAN B

### Dokumentasi hasil Pengujian

Suhu	Kondisi Awal	Hasil
42°C		
43°C		
44°C		

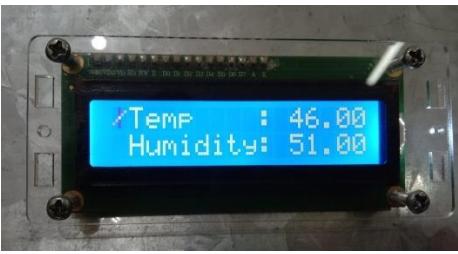
$45^{\circ}\text{C}$		
$46^{\circ}\text{C}$		
$47^{\circ}\text{C}$		

$48^{\circ}\text{C}$		
$49^{\circ}\text{C}$		

## LAMPIRAN C

### Dokumentasi Tampilan LCD

Suhu	Tampilan LCD
42°C	 A photograph of a blue LCD screen mounted on a metal frame. The screen displays the text "Suhu : 42.1" and "Kelembaban: 61.2" in white. The screen is backlit, and the entire assembly is held in place by four screws.
43°C	 A photograph of a blue LCD screen mounted on a metal frame. The screen displays the text "Temp : 43.50" and "Humidity: 49.90" in white. The screen is backlit, and the entire assembly is held in place by four screws.
44°C	 A photograph of a blue LCD screen mounted on a metal frame. The screen displays the text "-Temp : 44.70" and "Humidity: 53.40" in white. The screen is backlit, and the entire assembly is held in place by four screws.

45°C	 A photograph of a digital display module mounted in a metal frame. The display shows two lines of blue text on a black background. The first line reads "Temp : 45.00" and the second line reads "Humidity: 51.00".
46°C	 A photograph of a digital display module mounted in a metal frame. The display shows two lines of blue text on a black background. The first line reads "Temp : 46.00" and the second line reads "Humidity: 51.00".
47°C	 A photograph of a digital display module mounted in a metal frame. The display shows two lines of blue text on a black background. The first line reads "Suhu : 47.9" and the second line reads "Kelembaban: 60.2".

48°C			
49°C			

## **BIODATA PENULIS**



Nama	:	Izmi Dyah Setia Arum
Tempat, Tanggal, Lahir	:	Cilacap, 12 Desember 2002
Alamat	:	Jl. ML.Wiratno no.18, Cilacap.
Email	:	<a href="mailto:izmidya@gmail.com">izmidya@gmail.com</a>
Telepon/HP	:	081215789731
Hobi	:	Jalan-jalan
Motto	:	Allah bersama prasangka hamba-Nya
Riwayat Pendidikan	:	<ul style="list-style-type: none"><li>SD Negeri Sidakaya 03 Cilacap Tahun 2008-2014</li><li>SMP Negeri 3 Cilacap Tahun 2014-2017</li><li>SMK Negeri 1 Cilacap Tahun 2017-2020</li><li>Politeknik Negeri Cilacap Tahun 2020-2923 Prodi D3 Teknik Elektronika</li></ul>

Penulis telah mengikuti Seminar Tugas Akhir pada tanggal 3 Agustus 2023 sebagai salah satu persyaratan untuk memperoleh gelar Ahli Madya (A.Md.).