LAMPIRAN

Kode progam keseluruhan

```
//skripsi sangrai kopi keren

#include <ESP8266WiFi.h>

#include <ESP8266HTTPClient.h>

#include <WiFiClient.h>

#include "max6675.h"


const char* ssid = "Redbull";

const char* password = "yogaganteng";

String serverName = "http:// 192.168.43.232/yoga/data/connect.php";

String serverRelay = "http:// 192.168.193.232/yoga/data/cekRelay.php";

String apiKeyValue = "tPmAT5Ab3j7F9";


//thermokopel pin

int thermoDO = D3;

int thermoCS = D4;

int thermoCLK = D5;

MAX6675 thermocouple(thermoCLK, thermoCS, thermoDO);

int termo = thermocouple.readCelsius();

//motor dc pin

int motor_dc = D8;

int motor_dc1;
```

```
void connectToWifi(const char *ssid, const char *password)
{
  Serial.printf("[WiFi] : Connecting to %s \n", ssid);
  WiFi.mode(WIFI_STA);
  WiFi.begin(ssid, password);
  while (WiFi.status() != WL_CONNECTED)
  {
    delay(500);
    Serial.print(".");
  }
  Serial.printf("[WiFi] : Connected to %s \n", ssid);
  Serial.print("[WiFi] : IP ");
  Serial.println(WiFi.localIP());
}

void setup () {
  Serial.begin(9600);
  WiFi.begin(ssid, password);
  connectToWifi(ssid, password);
  pinMode(motor_dc, OUTPUT);
  Serial.println("MAX6675 test");
```

```
  // wait for MAX chip to stabilize
  delay(500);
}

void loop() {
  //koding upload ke web relay
  if (WiFi.status() == WL_CONNECTED) { //Check koneksi wifi
    WiFiClient client;
    HTTPClient Http;  //Declare an object of class HTTPClient
    String serverPath = serverRelay + "?data";
    Http.begin(client, serverPath.c_str());
    int httpCode1 = Http.GET();                                    //Send the request
    if (httpCode1 > 0) { //Check the returning code
      String payload = Http.getString();   //Get the request response payload
      motor_dc1 = payload.toInt();
      Serial.print("Device 1 Status=");
      Serial.print(motor_dc1); //Print the response payload
      Serial.println();
    }
    Http.end();   //Close connection
  }
  //koding upload ke web termokopel
```

```
if ((WiFi.status() == WL_CONNECTED)) {
  WiFiClient client;
  HTTPClient http; // Your Domain name with URL path or IP address with path
  http.begin(client, serverName);
  http.addHeader("Content-Type", "application/x-www-form-urlencoded");
  // Prepare your HTTP POST request data
  String httpRequestData = "api_key=" + apiKeyValue + "&temperature=" + termo;
  Serial.print("httpRequestData: ");
  Serial.println(httpRequestData);
  int httpResponseCode = http.POST(httpRequestData);
  if (httpResponseCode > 0) {
    Serial.print("HTTP Response code: ");
    Serial.println(httpResponseCode);
  }
  else {
    Serial.print("Error code: ");
    Serial.println(httpResponseCode);
  }
  http.end();
  delay(10000);
 }
```

```
  //baca sensor termokopel
  Serial.print("C = ");
  Serial.println(thermocouple.readCelsius());
  Serial.print("F = ");
  Serial.println(thermocouple.readFahrenheit());
  delay(1000);

  //relay on/off
  if (motor_dc1 == 1) {
    Serial.println("Device 1 ON");
    digitalWrite(motor_dc, LOW);
    delay(5000);
    digitalWrite(motor_dc, HIGH);
    delay(100);
    Serial.println("Device 1 ON");
  } else if (motor_dc1 == 0) {
    digitalWrite(motor_dc, HIGH);
    Serial.println("Device 1 OFF");
  }
}
```