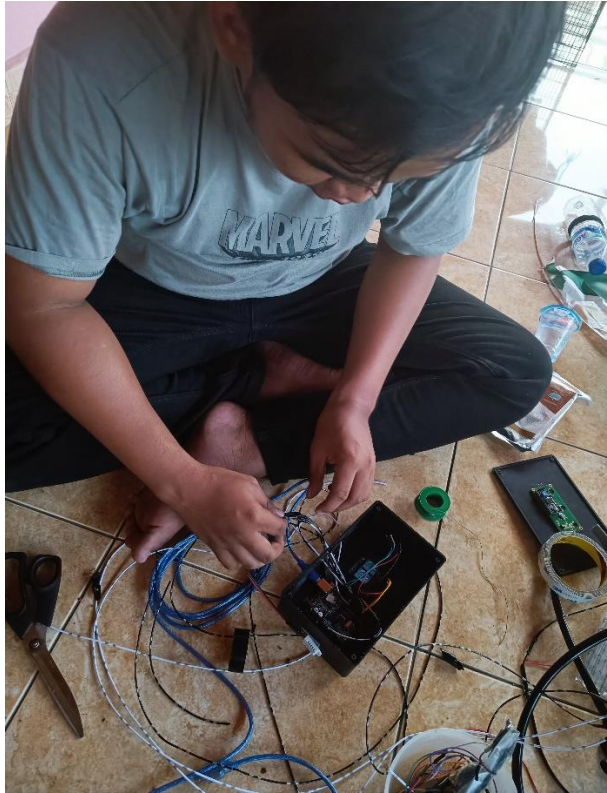


LAMPIRAN

Dokumentasi

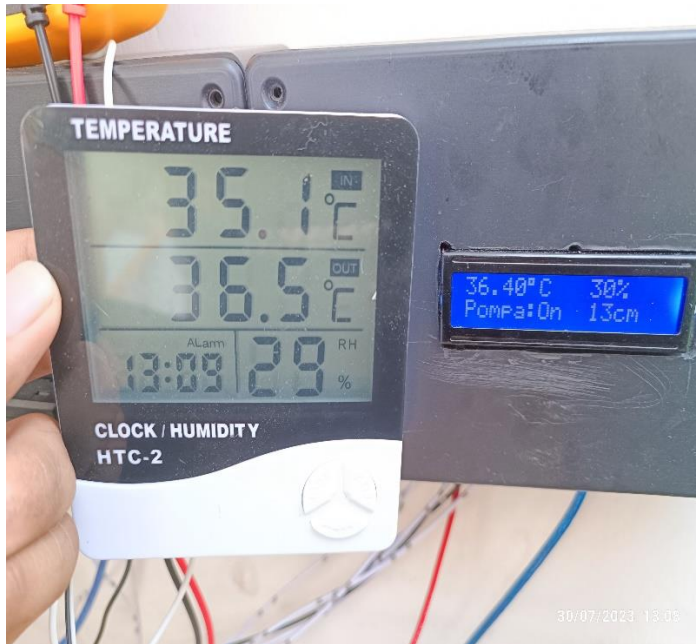


Perancangan Box Sistem



Perakitan Wiring Pada Box

Dokumentasi



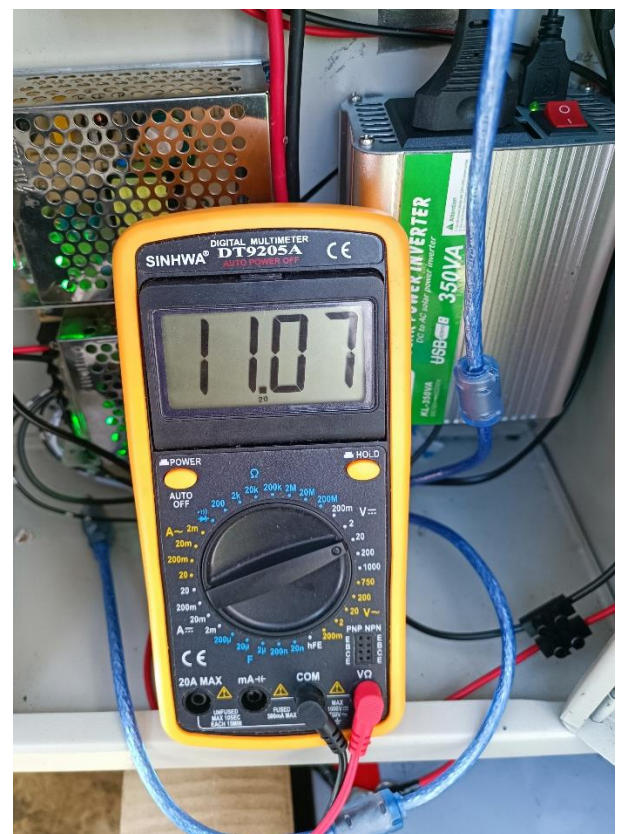
Pengukuran Suhu dan Kelembapan Sensor DHT 22



Pengukuran Sensor Ultrasonic



Pengukuran Tegangan Pada Sensor DHT 22



Pengukuran Tegangan Pada Pompa DC

Coding Sistem

<pre>#include <LiquidCrystal_I2C.h> #include <Wire.h>; #include <DHT.h>; // Konfigurasi Pin #define TRIG_PIN 9 #define ECHO_PIN 10 #define RELAY_PIN 3 #define RELAY_PIN1 4 #define DHTPIN 2 #define DHTTYPE DHT22 DHT dht(DHTPIN, DHTTYPE); int cek; float hum; //kelembaban float temp; //suhu float VDHT; // Inisialisasi Objek LCD I2C LiquidCrystal_I2C lcd(0x27, 16, 2); void setup() { // Inisialisasi Pin pinMode(RELAY_PIN, OUTPUT); pinMode(RELAY_PIN1, OUTPUT); pinMode(TRIG_PIN, OUTPUT); pinMode(ECHO_PIN, INPUT); dht.begin(); // Inisialisasi LCD lcd.init(); lcd.backlight();</pre>	<pre>lcd.clear(); lcd.setCursor(0, 0); lcd.print("Selamat Datang!"); delay(1000); // Serial Monitor Serial.begin(9600); } void loop() { // Inisialisasi Ultrasonic long duration, distance; digitalWrite (TRIG_PIN, LOW); delayMicroseconds (2); digitalWrite(TRIG_PIN, HIGH); delayMicroseconds (10); digitalWrite(TRIG_PIN, LOW); duration = pulseIn(ECHO_PIN, HIGH); digitalWrite(TRIG_PIN, HIGH); delayMicroseconds (10); digitalWrite(TRIG_PIN, LOW); duration = pulseIn(ECHO_PIN, HIGH); distance = duration*0.0343 / 2; // Inisialisasi DHT 22 temp = dht.readTemperature(); hum = dht.readHumidity(); bool pompaStatus = digitalRead(RELAY_PIN); // Tampilkan Data Suhu dan Kelembapan pada LCD</pre>
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<pre>lcd.clear(); lcd.setCursor(0, 0); lcd.print(temp); lcd.print((char)223); lcd.print("C"); lcd.setCursor(10, 0); lcd.print(hum); lcd.print("%"); lcd.setCursor(10, 1); lcd.print(distance); lcd.print("cm"); lcd.setCursor(0, 1); if (pompaStatus) { lcd.print("Pompa:Off"); } else { lcd.print("Pompa:On"); } // Keadaan Pompa Terhadap DHT 22 if (temp > 30 && hum < 60) { digitalWrite(RELAY_PIN, LOW); } else { digitalWrite(RELAY_PIN, HIGH); } // Keadaan Pompa 2 Terhadap Ultrasonic if (distance > 10.0) { digitalWrite(RELAY_PIN1, LOW); } else { digitalWrite(RELAY_PIN1, HIGH); } // OFF }</pre>	<pre>// Tampilkan nilai jarak pada Serial Monitor Serial.print("Jarak: "); Serial.print(distance); Serial.println(" cm"); Serial.print("Humidity: "); Serial.print(hum); Serial.print(" %, Temp: "); Serial.print(temp); Serial.println(" Celsius"); // Delay Sensor delay(2000); }</pre>
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