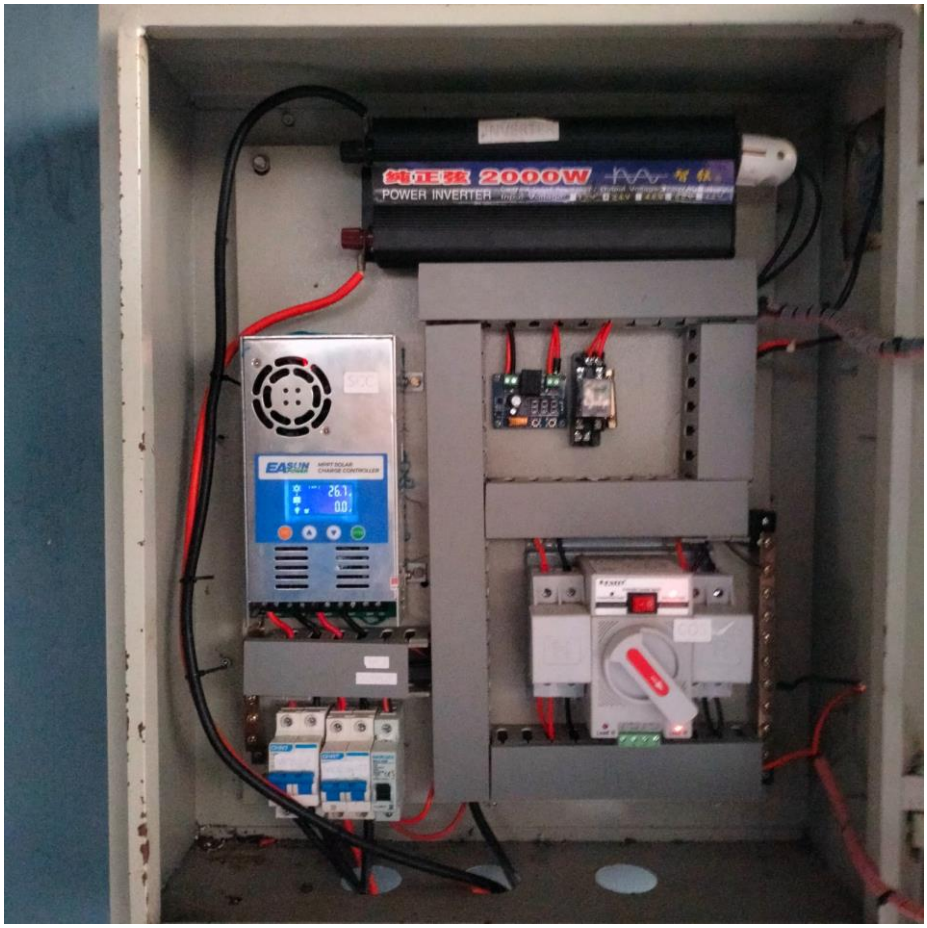
LAMPIRAN



Keterangan : Panel Box Instalasi Solar Cell

Keterangan : Pengukuran sumber tegangan

Keterangan : Pengukuran tegangan input pada ESP32

Keterangan : Percobaan pengukuran tegangan pada sensor *float switch*

```
#include <Wire.h>
#include <LiquidCrystal_I2C.h>
#define BLYNK_TEMPLATE_ID "TMPL6WBZ0-hCq"
#define BLYNK_DEVICE_NAME "KONTROL KOLAM"
#define BLYNK_AUTH_TOKEN "suRPE1hZCFUcdnW1Ic5zZcZjP1AYdhlU"
/* Comment this out to disable prints and save space */
#define BLYNK_PRINT Serial

#include <WiFi.h>
#include <WiFiClient.h>
#include <BlynkSimpleEsp32.h>

// Your WiFi credentials.
// Set password to "" for open networks.
char ssid[] = "Tselhome-F32D";
char pass[] = "71834514";

BlynkTimer timer;

#define PUMP_KURAS 18
#define PUMP_ISI 19
#define pin_ldr 39
#define floatSensor 13
```

```
int nilai;
int sensor;
int buttonState = 1; // pembacaan sensor float

// ======= TRIAL
String dataPwm ; // for incoming serial data
int input = 0 ;
char buff[5];

LiquidCrystal_I2C lcd(0x27,20,4);
void setup()
{
  Serial.begin(115200);
  lcd.init();
  lcd.backlight();
  Blynk.begin(BLYNK_AUTH_TOKEN, ssid, pass);
  pinMode(floatSensor, INPUT_PULLUP);
  pinMode(PUMP_KURAS, OUTPUT);
  pinMode(PUMP_ISI, OUTPUT);

  digitalWrite(PUMP_KURAS, HIGH);
  digitalWrite(PUMP_ISI, HIGH);
  delay(100);
}

void loop() {
  Blynk.run();
  lcd.clear ();
  nilai = analogRead (pin_ldr);
  buttonState = digitalRead (floatSensor);
  sensor = map(nilai, 4096, 0, 0, 100);
     lcd.setCursor(3,0);
     lcd.print("Kekeruhan : ");
     lcd.print(nilai);
     lcd.setCursor(0,2);
     lcd.print("    STATE NORMAL    ");
     Blynk.virtualWrite(V1, "  STATE NORMAL  ");

  if (buttonState == 0)
  {
    while (buttonState == 0)
    {
      nilai = analogRead (pin_ldr);
      buttonState = digitalRead (floatSensor);
      sensor = map(nilai, 4096, 0, 0, 100);
```

```
    digitalWrite(PUMP_ISI, LOW); // ON

    Serial.print("ISI >> PUMP_ISI ON");
    Serial.print('\t');
    Serial.print("Kekeruhan : ");
    Serial.print(nilai);
    Serial.print("\tFloat : ");
    Serial.print(buttonState);
    Serial.println('\t');
    Blynk.virtualWrite(V0, nilai);
    delay(500);

    lcd.setCursor(0,2);
    lcd.print("POMPA MENGISI.....");
    Blynk.virtualWrite(V1, " POMPA MENGISI ");
}
  digitalWrite(PUMP_ISI, HIGH); // OFF
  Serial.println("PUMP_ISI OFF");
  delay(2000);
}

if (buttonState == 1 && nilai > 60)
{
  while (buttonState == 1)
  {
    nilai = analogRead (pin_ldr);
    buttonState = digitalRead (floatSensor);
    sensor = map(nilai, 4096, 0, 0, 100);

    digitalWrite(PUMP_KURAS, LOW); // ON

    Serial.print("KURAS >> PUMP_KURAS ON");
    Serial.print('\t');
    Serial.print("Kekeruhan : ");
    Serial.print(nilai);
    Serial.print("\tFloat : ");
    Serial.print(buttonState);
    Serial.println('\t');
    lcd.setCursor(0,2);
    lcd.print("STATUS MENGURAS.....");
    Blynk.virtualWrite(V0, nilai);
    Blynk.virtualWrite(V1, "STATUS MENGURAS");
    delay(500);
  }
  digitalWrite(PUMP_KURAS, HIGH); // OFF
  Serial.println("MENUNGGU ISI KEMBALI");
```

```
 lcd.setCursor(0,2);
   lcd.print("MENUNGGU ISI KEMBALI");
   Blynk.virtualWrite(V1, "MENUNGGU ISI AIR");
 delay(3000);

 while (buttonState == 0)
 {
   nilai = analogRead (pin_ldr);
   buttonState = digitalRead (floatSensor);
   sensor = map(nilai, 4096, 0, 0, 100);
   digitalWrite(PUMP_ISI, LOW); // ON

   Serial.print("ISI >> PUMP_ISI ON");
   Serial.print('\t');
   Serial.print("Kekeruhan : ");
   Serial.print(nilai);
   Serial.print("\tFloat : ");
   Serial.print(buttonState);
   Serial.println('\t');
   lcd.setCursor(0,2);
   lcd.print("POMPA ISI AKTIF.....");

   Blynk.virtualWrite(V0, nilai);
   Blynk.virtualWrite(V1, "POMPA ISI AKTIF");

   delay(500);
 }
   digitalWrite(PUMP_ISI, HIGH);
}
   Serial.print("Kekeruhan : ");
   Serial.print(nilai);
   Serial.print("\tFloat : ");
   Serial.print(buttonState);
   Serial.println('\t');
   Blynk.virtualWrite(V0, nilai);
   delay(500);

 }
```

Keterangan : Coding Keseluruhan Alat

Keterangan : Proses Melarut PCB

Keterangan : Proses BOR Pada Komponen PCB

Keterangan : Proses Pemasangan

Keterangan : Proses Pengukuran dan Pengujian Alat

Keterangan : Box PCB

Keterangan : Pemasangan Sensor Float Switch

Keterangan : Pemasangan Solenoid Pengisian Kolam

Keterangan : Dokumentasi Pribadi