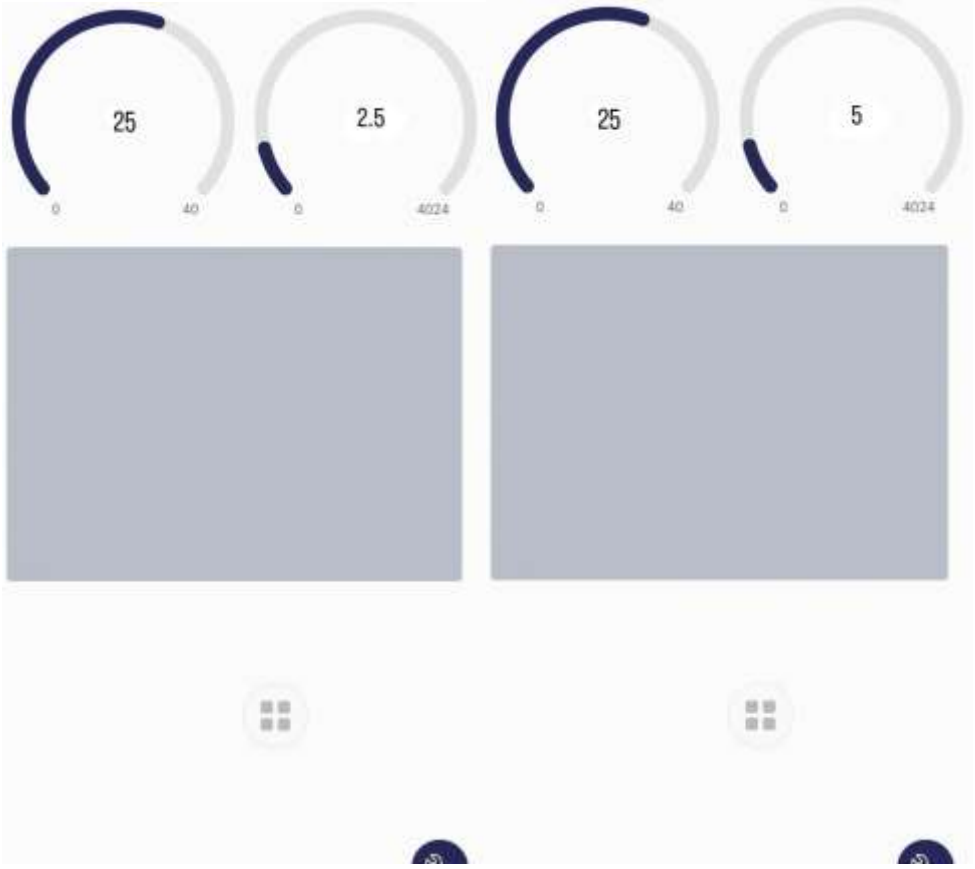
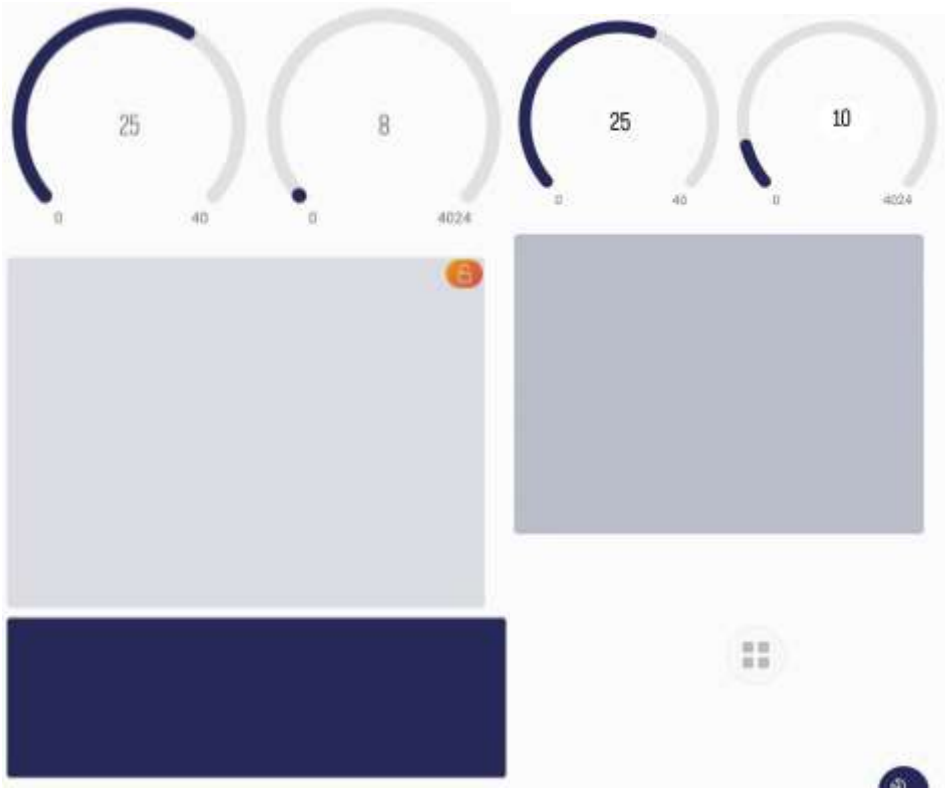
LAMPIRAN




25
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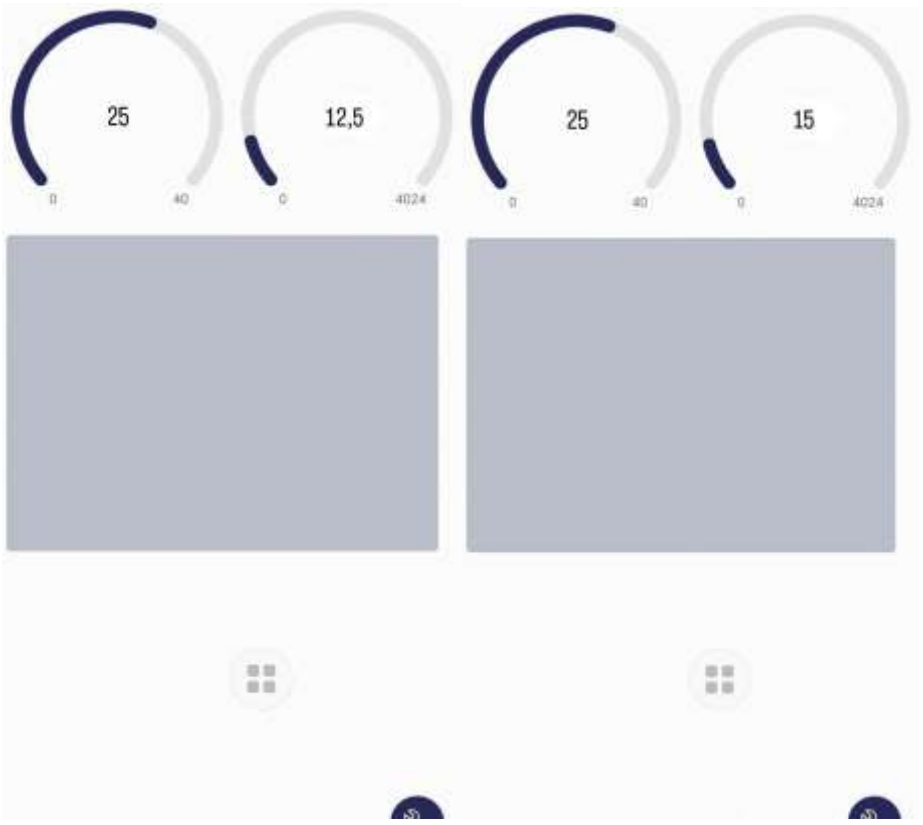
40
8
0
4024
25
0
40
10
0
4024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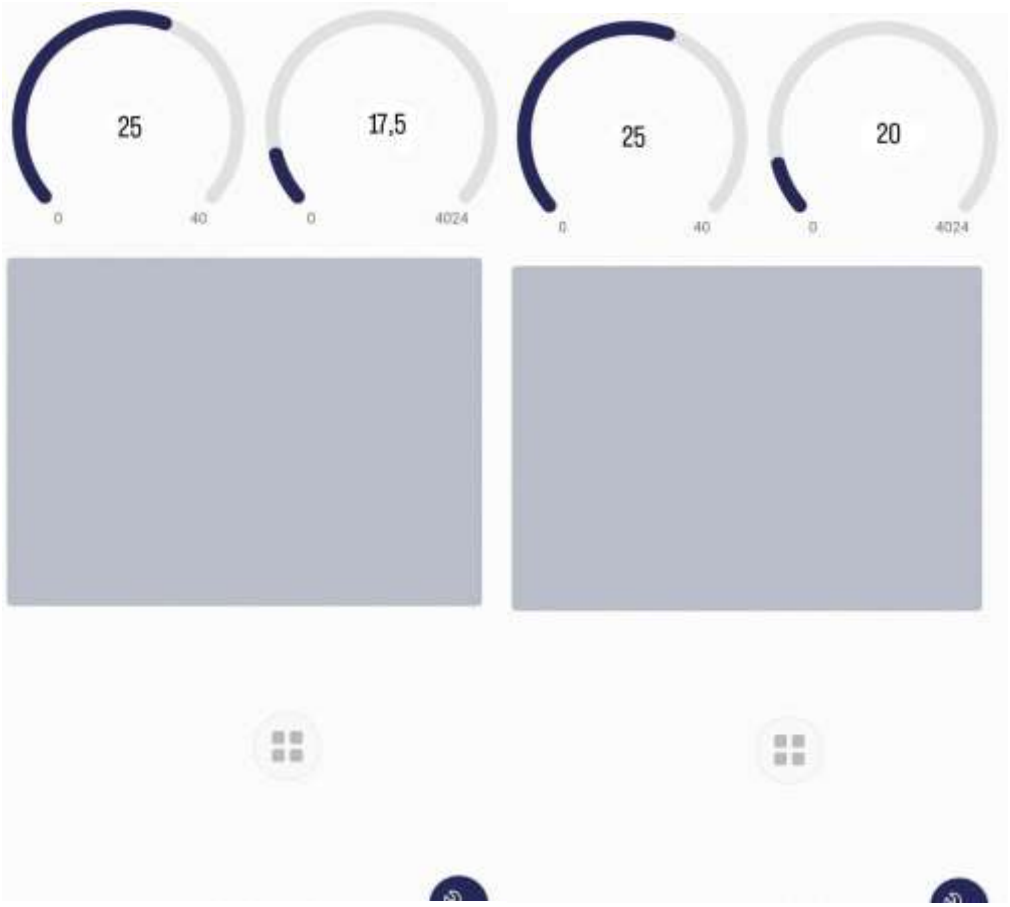
25
0
40
15
0
4024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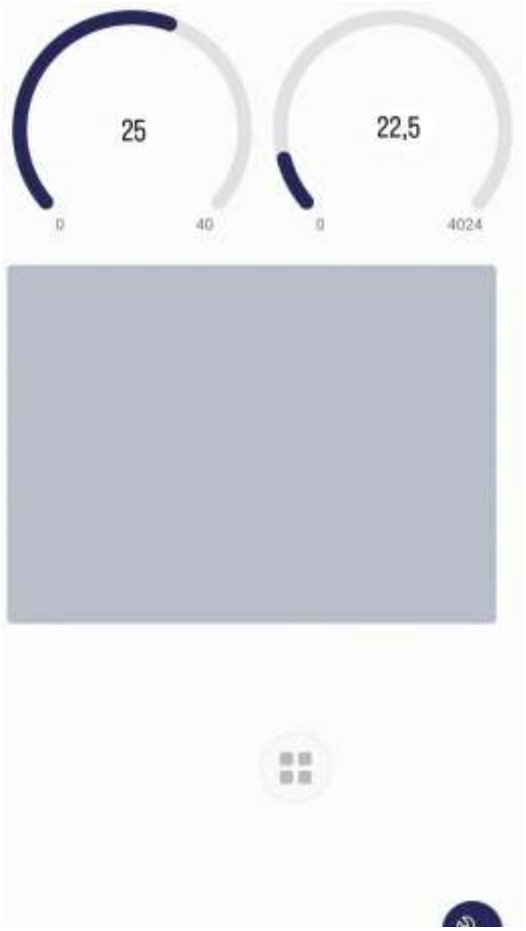
0
4024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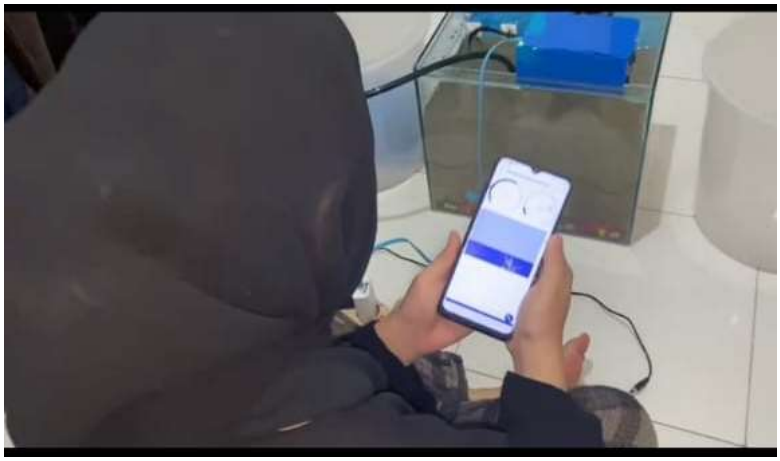
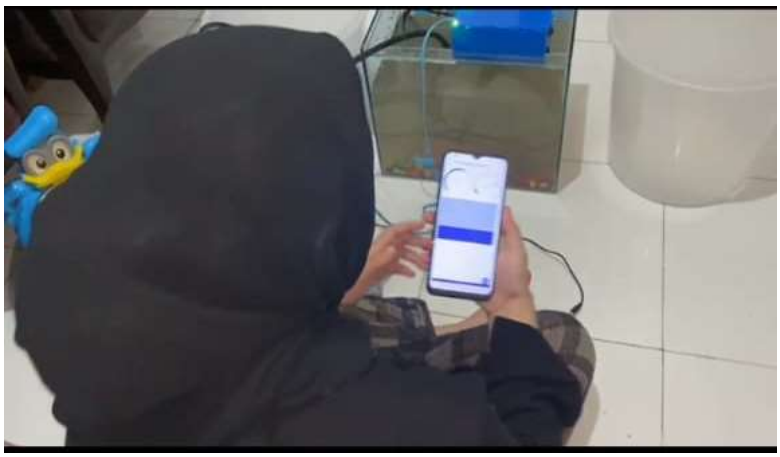
40
22,5
0
4024

DOKUMENTASI





Tampilan Codingan "Rancang Bangun Sistem Monitoring Kekeruhan Air pada Akuarium Otomatis Berbasis Internet Of Things"

```
#define BLYNK_TEMPLATE_ID "TMPL6UysO_oi-"
#define BLYNK_TEMPLATE_NAME "Nessa Putri Salsabila"
#define BLYNK_AUTH_TOKEN "BA8rROvmmPoL1IOYVce7b-mOia1QB6ZK"
#define BLYNK_PRINT Serial

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

// You should get Auth Token in the Blynk App.
// Go to the Project Settings (nut icon).
char auth[] = BLYNK_AUTH_TOKEN;

// Your WiFi credentials.
// Set password to "" for open networks.
char ssid[] = "vivo"; //nama hotspot yang digunakan
char pass[] = "12345678";

int teg;
int kekeruhan;
#include <OneWire.h>

#include <DallasTemperature.h>

#define ONE_WIRE_BUS 32


OneWire oneWire(ONE_WIRE_BUS);
```

```
DallasTemperature sensorSuhu(&oneWire);

int nilai_suhu;

//===== HCSR =====
int trigPin = 12;
int echoPin = 13;
long duration, cm;

int pompa2 =14; //isi
int pompa1=27 ; //buang
WidgetLCD layar(V3);
void setup() {
  Serial.begin(115200);
     Blynk.begin(auth, ssid, pass);
   Blynk.begin(auth, ssid, pass, "blynk.cloud", 80);
//===== HCSR04 =====
  pinMode(trigPin, OUTPUT);
  pinMode(echoPin, INPUT);
  pinMode(pompa1, OUTPUT);
  pinMode(pompa2, OUTPUT);
  digitalWrite(pompa1,HIGH);
    digitalWrite(pompa2,HIGH);
}

void loop() {
    Blynk.run();
   bacaHCSRde();
   nilai_suhu=baca_suhu();
```

```
 int val=analogRead(33);
  teg=val*(5.0/1024);
kekeruhan=100.00+(teg/4.16)*100.00;
int kek=map(kekeruhan,0,1024,0,25);
  Blynk.virtualWrite(V1, kek);
  Blynk.virtualWrite(V2, 152+nilai_suhu);
 //  Blynk.virtualWrite(V4, kekeruhan);
  delay(250);
//Serial.println();
//  layar.clear();
//   layar.print(0, 0, "Monitoring Kekeruhan ");
//   layar.print(0, 1, "Pompa OFF");
//     delay(300);
 //Serial.print(150+nilai_suhu);
 // Serial.println("Celcius");
// bacaHCSRde();

//364
if (kekeruhan>1){
 // while(1){
   digitalWrite(pompa2,LOW);
     digitalWrite(pompa1,LOW);
     layar.clear();
     layar.print(0, 0, "Medeteksi ");
       layar.print(0, 1, "kekeruhan Air");
        Blynk.logEvent("Deteksi Kekeruhan");
  // break;
//}
}
else if (kekeruhan<1){
```

```
  digitalWrite(pompa2,HIGH);
    digitalWrite(pompa1,HIGH);
     layar.clear();
      layar.print(0, 0, "Tidak Medeteksi ");
        layar.print(0, 1, "Kekeruhan Air");
}
 }

void bacaHCSRde() {
  digitalWrite(trigPin, LOW);
  delayMicroseconds(5);
  digitalWrite(trigPin, HIGH);
  delayMicroseconds(5);
  digitalWrite(trigPin, LOW);
  pinMode(echoPin, INPUT);
  duration = pulseIn(echoPin, HIGH);
  cm = (duration / 2) / 29.1;
   Serial.print(cm);
   // Serial.println("cm");
     Blynk.virtualWrite(V0, 20-cm);
     if (cm>20){
      Blynk.logEvent("AIR PENUH");
      //digitalWrite(pompa2,HIGH);
     }

    delay(250);
}

float baca_suhu(){
```

```
  sensorSuhu.requestTemperatures();

  float suhu = sensorSuhu.getTempCByIndex(0);

  return suhu; }

BLYNK_WRITE(V1)
{
  int pinValue1 = param.asInt();
  if (pinValue1 == 1)
  {
  // digitalWrite(pompa1,LOW);

     layar.clear();
  layar.print(0, 0, "FILL OUT");
  layar.print(0, 1, "POMPA 1 ON");
    delay(300);
     digitalWrite(pompa2,LOW);

    //delay(5000);
     //digitalWrite(pompa1,HIGH);

   //break;
  //}

}
}
BLYNK_WRITE(V2)
{
  int pinValue2 = param.asInt(); // assigning incoming value from pin V1 to a variable
```

```
 if (pinValue2 == 1)
 {
  //while(1){
  // digitalWrite(pompa2,LOW);
   //delay(5000);
   // digitalWrite(pompa1,HIGH);
    digitalWrite(pompa2,HIGH);
     layar.clear();
 layar.print(0, 0, "Monitoring ");
 layar.print(0, 1, "Kekeruhan Air");
  delay(300);

  //break;
 //}
}
}

BLYNK_WRITE(V3)
{
 int pinValue3 = param.asInt();
 if (pinValue3 == 1)
 {
 // digitalWrite(pompa1,LOW);
  layar.clear();
   layar.print(0, 0, "FILL OUT");
 layar.print(0, 1, "POMPA 2 ON");
  delay(300);
   digitalWrite(pompa1,LOW);
   //delay(5000);
    //digitalWrite(pompa1,HIGH);
```

```
   //break;
  //}

}
}
BLYNK_WRITE(V10)
{
  int pinValue2 = param.asInt(); // assigning incoming value from pin V1 to a variable
  if (pinValue2 == 1)
  {
    //while(1){
    // digitalWrite(pompa2,LOW);
     //delay(5000);
     // digitalWrite(pompa1,HIGH);
      digitalWrite(pompa1,HIGH);
       layar.clear();
  layar.print(0, 0, "Monitoring ");
  layar.print(0, 1, "Kekeruhan Air");
    delay(300);
    //break;
  //}
}
}
```