

## LAMPIRAN

### LAMPIRAN 1. Coding Keseluruhan

```

#include <NewPing.h>

#define BLYNK_PRINT Serial

#include <SPI.h>

#include <ESP8266WiFi.h>

#include <BlynkSimpleEsp8266.h>

#include <SimpleTimer.h>

#include <LiquidCrystal_I2C.h>

#define triggerPin D6

#define echoPin D5

#define MAX_DISTANCE 300

LiquidCrystal_I2C LCD(0x27,16,2); //lcd board
NewPing sonar(triggerPin, echoPin, MAX_DISTANCE);

int led =2; //pin 2 pada nodemcupin 4
int pump=0; //pin 0 pada nodemcupin 3

char auth[] = "k2njjdvJymb-5W7jSHZrNjDjkCjHMYT7"; //TOKEN PADA
APLIKASI BLYNX ANDROID

char ssid[] = "POCO"; //NAMA WIFI
char pass[] = "MASIHSAMADENGANDULU"; //PASSWORD WIFI

SimpleTimer timer;

WidgetLCD lcd(V1); //lcd android

void sendSensor()
{
    //lcd to android && LCD to board lcd
    int POT = analogRead(A0);
    Serial.print(POT);

```

```

lcd.print(0,0,"KEADAAN");
LCD.setCursor(0,0);LCD.print("KLMB");LCD.setCursor(5,0);LCD.print(POT);
LCD.print(" ");

lcd.print(0,1,"PUMP"); LCD.setCursor(0,1);LCD.print("PUMP");

Blynk.virtualWrite(V0, POT);

if (POT>500){
Serial.println("KERING");//ke serial monitor
lcd.print(8,0,"KERING"); LCD.setCursor(9,0);LCD.print("KERING");
lcd.print(5,1,"ON "); LCD.setCursor(5,1);LCD.print("ON ");
digitalWrite(pump,LOW);
for(int x=0; x<=10; x++){ LCD.setCursor(9,1);LCD.print(x);
lcd.print(9,1,x);delay(500);}
lcd.clear(); LCD.clear();
digitalWrite(pump,HIGH);
lcd.print(0,0,"AIR MERESAP"); LCD.setCursor(0,0);LCD.print("AIR
MERESAP");
lcd.print(0,1," WAIT"); LCD.setCursor(0,1);LCD.print(" WAIT");
for(int x=9; x>0; x--){ LCD.setCursor(9,1);LCD.print(x);
lcd.print(9,1,x);delay(500);}
lcd.clear(); LCD.clear();
}
else if (POT>400&&POT<500){
Serial.println("NORMAL");
lcd.print(8,0,"NORMAL"); LCD.setCursor(9,0);LCD.print("NORMAL");
lcd.print(5,1,"OFF"); LCD.setCursor(5,1);LCD.print("OFF");
digitalWrite(pump,HIGH);
}
else if (POT<400){
Serial.println("BASAH");
lcd.print(8,0,"BASAH "); LCD.setCursor(9,0);LCD.print("BASAH ");

```

```
lcd.print(5,1,"OFF");    LCD.setCursor(5,1);LCD.print("OFF");
  digitalWrite(pump ,HIGH);
}
}
void setup()
{
  {
    Serial.begin(9600);
    Blynk.begin(auth, ssid, pass);
    timer.setInterval(1000L, sendSensor);
    pinMode(pump, OUTPUT);
    lcd.clear();
    LCD.init();
    LCD.backlight();
    Serial.begin(9600);
    pinMode(triggerPin, OUTPUT);
    pinMode(echoPin, INPUT);
  }
}
void loop()
{
  {
    Blynk.run();
    timer.run();
    delay(100);
  }
  WidgetLCD lcd(V2); //lcd android
  {
    long duration, distance;
    digitalWrite(triggerPin, LOW);
```

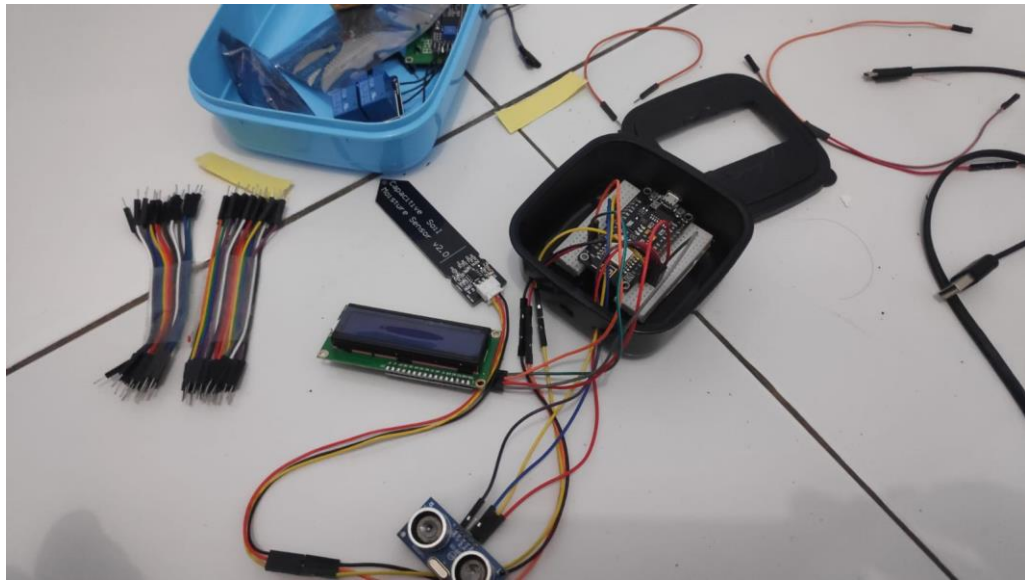
```
lcd.print(5,1,"OFF");    LCD.setCursor(5,1);LCD.print("OFF");
  digitalWrite(pump ,HIGH);
}
}
void setup()
{
  {
    Serial.begin(9600);
    Blynk.begin(auth, ssid, pass);
    timer.setInterval(1000L, sendSensor);
    pinMode(pump, OUTPUT);
    lcd.clear();
    LCD.init();
    LCD.backlight();
    Serial.begin(9600);
    pinMode(triggerPin, OUTPUT);
    pinMode(echoPin, INPUT);
  }
}
void loop()
{
  {
    Blynk.run();
    timer.run();
    delay(100);
  }
  WidgetLCD lcd(V2); //lcd android
  {
    long duration, distance;
    digitalWrite(triggerPin, LOW);
```

```
delayMicroseconds(2);  
digitalWrite(triggerPin, HIGH);  
delayMicroseconds(10);  
digitalWrite(triggerPin, LOW);  
duration = pulseIn(echoPin, HIGH);  
distance = (duration/2) / 29.1 ;
```

```
WidgetLCD lcd(V2); //lcd android
```

```
{  
int POT = digitalRead(12);  
Serial.print(POT);  
lcd.print(0,0, "Jarak Air : ");  
Serial.print(distance);  
Serial.print(" cm ");  
lcd.print(0,1, distance );  
lcd.print(3,1, " cm ");  
Serial.println();  
Blynk.virtualWrite(V0,POT);  
}  
delay(500);  
}  
}
```

LAMPIRAN 2. Dokumentasi Pembuatan Alat



## LAMPIRAN 3. Dokumentasi Pengujian Alat



## LAMPIRAN 4. Tampilan Pada Blynk

