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SOURCE CODE :

```

#define BLYNK_TEMPLATE_ID "TMPL65KfIHX1A"
#define BLYNK_TEMPLATE_NAME "tongkat"
#define BLYNK_AUTH_TOKEN "WZrHGTjFzUkjaxS5c2QafW3y56rssfoo"
#define BLYNK_PRINT Serial
#include <BlynkSimpleESP32.h>
#include <Blynk.h>
#include <BlynkSimpleESP32.h>

// Deklarasi variabel untuk menyimpan nilai sensor
int Ultrasonic1;
int Ultrasonic2;
int SensorAir;

// Wi-Fi Configuration
const char* ssid = "Apaantuh";
const char* pass = "87654321";

```

```
// Blynk auth token dari aplikasi Blynk
char auth[] = BLYNK_AUTH_TOKEN;

// inisialisasi pin ultrasonic 1
const int pinTrigger1 = 27;
const int pinEcho1 = 14;

// inisialisasi pin ultrasonic 2
const int pinTrigger2 = 25;
const int pinEcho2 = 26;

// inisialisasi pin sensor air di pin analog
const int pinAir = 33;

// inisialisasi pin Buzzer
const int pinBuzzer = 13;

// inisialisasi pin Modul Getar 1 dan 2
const int pinGetar1 = 12;
const int pinGetar2 = 12;

// inisialisasi variabel durasi dan jarak untuk perhitungan sensor
ultrasonic
int durasi1, jarak1, durasi2, jarak2;

// inisialisasi variabel pembacaan sensor air
int dataAir;

void setup()
{
```

```

// Kode inisialisasi lainnya
Blynk.begin(auth, ssid, pass);
// inisialisasi status I/O pin
pinMode(pinTrigger1, OUTPUT);
pinMode(pinEcho1, INPUT);
Serial.begin(9600);
pinMode(pinTrigger2, OUTPUT);
pinMode(pinEcho2, INPUT);
pinMode(pinAir, INPUT);
pinMode(pinGetar1, OUTPUT);
pinMode(pinGetar2, OUTPUT);
pinMode(pinBuzzer, OUTPUT);

// Connect to Wi-Fi
Serial.print("Connecting to WIFI");
WIFI.begin(ssid, pass);
while (WIFI.status() != WL_CONNECTED) {
    delay(200);
    Serial.print(".");
}
Serial.println();
Serial.println("WIFI connected");
Serial.print("IP address: ");
Serial.println(WIFI.localIP());

// Connecting to Blynk
while (Blynk.connect() == false) {
    // Wait until connected to Blynk
}
Serial.println("Blynk connected");
}

```

```

void loop()
{
    //Mengaktifkan pin Trigger ultrasonic
    digitalWrite(pinTrigger1, HIGH);
    //Delay 10 mikrodetik
    delayMicroseconds(10);
    //Mematikan pin Trigger
    digitalWrite(pinTrigger1, LOW);

    //Durasi adalah waktu tunggu pin Echo menjadi bernilai HIGH
    //Setelah mendapat pantulan gelombang ultrasonic dari pin Trigger
    durasi1 = pulseIn(pinEcho1, HIGH);
    //Konversi nilai durasi ke jarak (cm)
    jarak1 = ((durasi1 * 0.034) / 2);

    //Mengaktifkan pin Trigger ultrasonic
    digitalWrite(pinTrigger2, HIGH);
    //Delay 10 mikrodetik
    delayMicroseconds(10);
    //Mematikan pin Trigger
    digitalWrite(pinTrigger2, LOW);

    //Durasi adalah waktu tunggu pin Echo menjadi bernilai HIGH
    //Setelah mendapat pantulan gelombang ultrasonic dari pin Trigger
    durasi2 = pulseIn(pinEcho2, HIGH);
    //Konversi nilai durasi ke jarak (cm)
    jarak2 = ((durasi2 * 0.034) / 2);
    dataAir = analogRead(pinAir);

    // Perbarui nilai variabel sebelum mengirim ke Blynk

```

```

Ultrasonic1 = jarak1;
Ultrasonic2 = jarak2;
SensorAir = dataAir;

Blynk.virtualWrite(V0, Ultrasonic1);
Blynk.virtualWrite(V1, Ultrasonic2);
Blynk.virtualWrite(V2, SensorAir);

// ===== SENSOR ULTRASONIC 1 (Obstacle)
===== //
if (jarak1 >= 60)
{
    digitalWrite(pinGetar1, LOW);
    digitalWrite(pinGetar2, LOW);
    digitalWrite(pinBuzzer, LOW);
    delay(200);
}
else if (jarak1 <= 59)
{
    digitalWrite(pinGetar1, HIGH);
    digitalWrite(pinGetar2, HIGH);
    digitalWrite(pinBuzzer, HIGH);
    Serial.begin(9600);
    Serial.print("ultrasonic1: ");
    Serial.println(jarak1);
    delay(200);
    digitalWrite(pinGetar1, LOW);
    digitalWrite(pinGetar2, LOW);
    digitalWrite(pinBuzzer, LOW);
    delay(200);
}

```

```

// ===== SENSOR ULTRASONIC 2 (Lubang)
===== //

if (jarak2 <= 30)
{
    digitalWrite(pinGetar1, LOW);
    digitalWrite(pinGetar2, LOW);
    digitalWrite(pinBuzzer, LOW);
    delay(200);
}
else if (jarak2 >= 31)
{
    digitalWrite(pinGetar1, HIGH);
    digitalWrite(pinGetar2, HIGH);
    digitalWrite(pinBuzzer, HIGH);
    delay(200);
    Serial.begin(9600);
    Serial.print("ultrasonic2: ");
    Serial.println(jarak2);
    digitalWrite(pinGetar1, LOW);
    digitalWrite(pinGetar2, LOW);
    digitalWrite(pinBuzzer, LOW);
    delay(200);
}
// ===== SENSOR AIR ===== //

if (dataAir >= 400)
{
    digitalWrite(pinGetar1, HIGH);
    digitalWrite(pinGetar2, HIGH);
    digitalWrite(pinBuzzer, HIGH);
    Serial.begin(9600);
    Serial.print("Air: ");

```

```
Serial.println(dataAir);  
delay(200);  
digitalWrite(pinGetar1, LOW);  
digitalWrite(pinGetar2, LOW);  
digitalWrite(pinBuzzer, LOW);  
delay(200);  
}  
else  
{  
    digitalWrite(pinGetar1, LOW);  
    digitalWrite(pinGetar2, LOW);  
    digitalWrite(pinBuzzer, LOW);  
    delay(200);  
}  
Blynk.run();  
}
```

