LAMPIRAN

Coding_Level_air_Terbaru

```
#include "CTBot.h"
CTBot myBot;

const int trigPin = D6;
const int echoPin = D7;

// Atur max dan min dari sensor jarak
const long maxDistanceCM = 3;
const long minDistanceCM = 18;

String ssid  = "icewind"; // REPLACE mySSID WITH YOUR WIFI SSID
String pass  = "qazwsxzx"; // REPLACE myPassword WITH YOUR WIFI PASSWORD, IF ANY
String token = "6532811864:AAHj7CCInkp8XncSqhK2bVBjAJQ5661Wyhg"; // REPLACE myToken WITH YOUR TELEGRAM BOT TOKEN
long distance;
long distancePercentage;
String response;

void setup() {
    // initialize the Serial
    Serial.begin(115200);
    Serial.println("Starting TelegramBot...");

    // connect the ESP8266 to the desired access point
    myBot.wifiConnect(ssid, pass);

    // set the telegram bot token
    myBot.setTelegramToken(token);
```

```
    if (myBot.testConnection()) {
        Serial.println("\ntestConnection OK");
    } else {
        Serial.println("\ntestConnection NOK");
    }

    // initialize the HC-SR04 sensor pins
    pinMode(trigPin, OUTPUT);
    pinMode(echoPin, INPUT);
}

long readUltrasonicDistance() {
    // Clear the trigPin by setting it LOW
    digitalWrite(trigPin, LOW);
    delayMicroseconds(2);

    // Trigger the sensor by setting the trigPin high for 10 microseconds
    digitalWrite(trigPin, HIGH);
    delayMicroseconds(10);
    digitalWrite(trigPin, LOW);

    // Read the echoPin, returns the sound wave travel time in microseconds
    long duration = pulseIn(echoPin, HIGH);

    // Calculate the distance
    distance = (duration * 0.0343) / 2; // Speed of sound wave divided by 2 (go and back)
    return distance;
}
```

```
void loop() {
  TBMessage msg;

  // if there is an incoming message...
  if (CTBotMessageText == myBot.getNewMessage(msg)) {
    if (msg.text == "/cek") {
      while (true) {
        distance = readUltrasonicDistance();

        distancePercentage = map(distance, maxDistanceCM, minDistanceCM, 100, 0);
        distancePercentage = constrain(distancePercentage, 0, 100);

        response = "Ketinggian air: " + String(distancePercentage) + "%";
        myBot.sendMessage(msg.sender.id, response);
        Serial.println("Message sent: " + response);

        // Check water level conditions
        if (distancePercentage <= 10) {
          response = "Pemberitahuan air habis, Ketinggian air: " + String(distancePercentage) + "%";
          myBot.sendMessage(msg.sender.id, response);
          Serial.println("Message sent: " + response);
        } else if (distancePercentage >= 90) {
          response = "Pemberitahuan air penuh, Ketinggian air: " + String(distancePercentage) + "%";
          myBot.sendMessage(msg.sender.id, response);
          Serial.println("Message sent: " + response);
        }
        delay(10000);
```

DAFTAR PUSTAKA

Lenardo, G. C., Herianto, & Irawan, Y. (2020). Pemanfaatan boot telegram sebagai Media Informasi Akademik di STIMIK Hang Tuah Pekanbaru. JTIM : *Jurnal Teknologi Informasi dan Multimedia.* 1(4): 351-357. DOI: https://doi.org/10.35746/jtim.vli4.59

Nabila, D. W., Pramudita, R., Informatika, F., Insani, U. B., Lembaga, L., & Ekonomi, P. (2022). Sistem Pendeteksi Sampah Logam Dengan Sampah Non Logam. 6(2): 415-419.

Nely. (2012). Kajian Sistem Monitoring Dokumen Akreditasi Teknik Informatika Unikom. *Teknologi Informasi dan Ilmu Komputer (JTIIK)*. 1(3): 51-58.

Panjaitan, B., Si, S., Kom, M., & Mulyadi, R. R. (2020). *Jurnal Ilmiah Fakultas Teknik Limit's.* 16 (2): 21-22.

Ridho, I. A. (2017). Pedoman Pembuatan Flowchart. Academia.edu/24767055/Pedoman_Pembuatan_Flowchart

Rizon, F. M., & Kom, M. (2018). Alat Pendeteksi Udara Di Dalam Mobil Menggunakan Arduino Uno.

Elga Aris. (2022). *Pengertian, Jenis dan Cara Kerja Kabel Jumper Arduino*. Yogyarkata: arduinoindonesia

Ogedebe, P.M.,& Jacob, B.P. , 2012, Software Prototyping: A Strategy to Use When User Lacks Data Processing Experience. ARPN Journal of Systems and Software. VOL. 2, NO.6 , 2012, http://scientificjournals.org/journalofsystemsandsoftware/archive/vol2no6/vol2no6_4.pdf

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