

3. Hasil pembacaan suhu di telegram



4. List Program Alat

```
#include "DHT.h"
#define DHTPIN1 7
#define DHTPIN2 A1
#define DHTTYPE DHT11

DHT dht1 (DHTPIN1, DHTTYPE);
DHT dht2 (DHTPIN2, DHTTYPE);

float suhu1 ;
float suhu2 ;
float rata2suhu ;

////////////////////////////////////

#include <LiquidCrystal_PCF8574.h>

LiquidCrystal_PCF8574 lcd(0x27);
```

```
void setup() {  
    // put your setup code here, to run once:  
    Serial.begin(115200);  
    lcd.begin(16,2);  
    lcd.setBacklight(255);  
  
    dht1.begin();  
    dht2.begin();  
}  
  
void loop() {  
    // put your main code here, to run repeatedly:  
  
    delay(500);  
  
    // Reading temperature or humidity takes about 250 milliseconds!  
    // Sensor readings may also be up to 2 seconds 'old' (its a very slow sensor)  
  
    suhu1= dht1.readTemperature();  
    //suhu2= dht2.readTemperature();  
    //rata2suhu=(suhu1+ suhu2)/2 ;  
  
    // lcd.setCursor(0, 0);  
    // lcd.print("SUHU:");  
    // lcd.setCursor(5, 0);  
    // lcd.print(rata2suhu);
```



```
Serial.print( "Temperature1: ");
Serial.println(suhu1 );
// Serial.print(" Temperature2: ");
// Serial.print( suhu2);
// Serial.print(" rata-rata suhu: ");
// Serial.println( rata2suhu);

}

#include <ESP8266WiFi.h>
#include <WiFiClientSecure.h>
#include <UniversalTelegramBot.h>
char ssid[] = "M24s";
char password[] = "sugengdwi";
#define BOTtoken "811124886:AAEnOKdKlw7-B7uZJin7tpx04Yw0glBkHx0"
String chat_id = "862365314" ;
WiFiClientSecure client;
UniversalTelegramBot bot(BOTtoken, client);
String data;
////////////////////////////////////////////////////////////////
```

```
#include "DHT.h"
#define DHTPIN1 D5
#define DHTPIN2 D6
#define DHTTYPE DHT11
```

```
DHT dht1 (DHTPIN1, DHTTYPE);
```

```
DHT dht2 (DHTPIN2, DHTTYPE);
```

```
float suhu1 ;
```

```
float suhu2 ;
```

```
float rata2suhu ;
```

```
float kelembaban1 ;
```

```
float kelembaban2 ;
```

```
float rata2kelembaban ;
```

```
#define SEMPROT D7
```

```
#define LAMPU D8
```

```
#define SETSUHUMIN 24
```

```
#define SETSUHUMAX 28
```

```
////////////////////////////////////////////////////////////////
```

```
#include <LiquidCrystal_PCF8574.h>
```

```
LiquidCrystal_PCF8574 lcd(0x27);
```

```
////////////////////////////////////////////////////////////////
```

```
#define waktu 300000
```

```
void setup() {
```

```
    // put your setup code here, to run once:
```

```
    Serial.begin(115200);
```

```
    lcd.begin(16,2);
```



```
lcd.setBacklight(255);

dht1.begin();
dht2.begin();
WiFi.mode(WIFI_STA);
WiFi.disconnect();
delay(100);

// Attempt to connect to Wifi network:
Serial.print("Connecting Wifi: ");
Serial.println(ssid);
WiFi.begin(ssid, password);
lcd.setCursor(0, 0);
lcd.print("CONETTING...");
lcd.setCursor(5, 1);
lcd.print(" TO WIFI");
while (WiFi.status() != WL_CONNECTED) {
  Serial.print(".");
  delay(500);
}

Serial.println("");
Serial.println("WiFi connected");
Serial.print("IP address: ");
Serial.println(WiFi.localIP());

delay(2000);
bot.sendMessage(chat_id,"KEBUN JAMUR SUDAH SIAP");
lcd.clear();
lcd.setCursor(2, 0);
```

```
lcd.print("KHOIRUL MUNIR");  
lcd.setCursor(5, 1);  
lcd.print("17520459");  
delay(2000);  
lcd.clear();  
pinMode(SEMPROT,OUTPUT);  
pinMode(LAMPU, OUTPUT);  
}
```

```
void loop() {
```

```
    // put your main code here, to run repeatedly:
```

```
    bacaSENSOR();
```

```
    if (rata2suhu>=SETSUHUMIN && rata2suhu<=SETSUHUMAX )
```

```
    {  
        digitalWrite(SEMPROT, LOW);  
        digitalWrite(LAMPU, LOW);  
        return;  
    }
```

```
    if (rata2suhu<=SETSUHUMIN )
```

```
    {  
        digitalWrite(SEMPROT, LOW);  
        digitalWrite(LAMPU, HIGH);  
        return;  
    }
```

```
    if (rata2suhu>=SETSUHUMAX )
```

```
    {
```



```
digitalWrite(SEMPROT,HIGH);  
delay(2000);  
digitalWrite(SEMPROT,LOW);  
digitalWrite(LAMPU, LOW);  
return;  
}
```

```
}
```

```
void bacaSENSOR()  
{  
  suhu1= dht1.readTemperature();  
  suhu2= dht2.readTemperature();  
  rata2suhu=(suhu1+ suhu2)/2 ;  
  
  kelembaban1= dht1.readHumidity();  
  kelembaban2= dht2.readHumidity();  
  rata2kelembaban=(kelembaban1+ kelembaban2)/2 ;
```

```
  lcd.setCursor(0, 0);  
  lcd.print("SUHU:");  
  lcd.setCursor(5, 0);  
  lcd.print(rata2suhu);
```



```
lcd.setCursor(0, 1);  
lcd.print("kelembaban:");  
lcd.setCursor(11, 1);  
lcd.print(rata2kelembaban);
```

```
for (long x=0; x < waktu ; x++) {  
    delay(1);  
    if (x==100) {
```

```
String welcome ="SUHU:";  
    welcome +=rata2suhu;  
    welcome += "\nKELEMBABAN:";  
    welcome +=rata2kelembaban;  
    bot.sendMessage(chat_id, welcome);  
    }  
}  
}
```





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