### Wemos DHT Shield

Het DHT Shield is een shield voor de D1 mini met een temperatuur en een luchtvochtigheids sensor gebaseerd op de DHT11.

**Specifications**

Temperature: 0~60°C (±2°C)

Humidity: 20-90%RH (±5%RH)

**Datasheet**

https://akizukidenshi.com/download/ds/aosong/DHT11.pdf

**Pins**

**Pin** **Function**

D4 Data

G Grond

5V 5V

3V3 3.3V

Alle IO pinnen draaien op 3.3V.

**Example code**

/\* DHT Shield - Simple

\*

\* Example testing sketch for various DHT humidity/temperature sensors

\* Written by ladyada, public domain

\* Depends on Adafruit DHT Arduino library

\* https://github.com/adafruit/DHT-sensor-library

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#include "DHT.h"

#define DHTPIN D4 // what pin we're connected to

// Uncomment whatever type you're using!

#define DHTTYPE DHT11 // DHT 11

//#define DHTTYPE DHT22 // DHT 22 (AM2302)

//#define DHTTYPE DHT21 // DHT 21 (AM2301)

// Initialize DHT sensor.

DHT dht(DHTPIN, DHTTYPE);

void setup() {

Serial.begin(9600);

Serial.println("DHTxx test!");

dht.begin();

}

void loop() {

// Wait a few seconds between measurements.

delay(2000);

// Reading temperature or humidity takes about 250 milliseconds!

// Sensor readings may also be up to 2 seconds 'old'

// (its a very slow sensor)

float h = dht.readHumidity();

// Read temperature as Celsius (the default)

float t = dht.readTemperature();

// Read temperature as Fahrenheit (isFahrenheit = true)

float f = dht.readTemperature(true);

// Check if any reads failed and exit early (to try again).

if (isnan(h) || isnan(t) || isnan(f)) {

Serial.println("Failed to read from DHT sensor!");

return;

}

// Compute heat index in Fahrenheit (the default)

float hif = dht.computeHeatIndex(f, h);

// Compute heat index in Celsius (isFahreheit = false)

float hic = dht.computeHeatIndex(t, h, false);

Serial.print("Humidity: ");

Serial.print(h);

Serial.print(" %\t");

Serial.print("Temperature: ");

Serial.print(t);

Serial.print(" \*C ");

Serial.print(f);

Serial.print(" \*F\t");

Serial.print("Heat index: ");

Serial.print(hic);

Serial.print(" \*C ");

Serial.print(hif);

Serial.println(" \*F");

}