

SEN-DHT22

Temperature and humidity sensor



1. GENERAL INFORMATION

Dear customer,

Thank you for purchasing our product. In the following, we will show you which things should be observed during the use.

Should you encounter any unexpected problems, do not hesitate to contact us.



PIN	Connection Arduino	Connection Raspberry Pi
+	3.3V	3.3V (Pin 1)
Out	Pin 2	GPIO4 (Pin 7)
-	GND	GND (Pin 6)

The DHT22 temperature and humidity sensor is versatile and especially flexible with its input voltage. So, it is not dependent to a voltage of exact 3.3 V but can be used with a voltage range from 3.3 to 6 V. For that reason, the sensor can be applied in many different systems. The output signal is issued digital via the 1-Wire-Protocol.

3. USAGE WITH ARDUINO



For the usage with an Arduino, you have to install the necessary libraries beforehand.

Therefore, open your Arduino IDE and choose Manage libraries in Sketch -> Implement libraries -> Manage libraries.

The Arduino library manager will now open. Here, you can enter the term **DHT** into the search bar. Install the **DHT sensor library** here.

💿 Bibliotheksverwalter	×
Typ Alle v Thema Alle V DHT	
EduIntro by Arduino LLC Library used for super-fast introduction workshops Is intended to be used with Arduino UNO / MICRO / MEGA / NANO / MKR and a set of basic components (led, button, piezo, LM35, thermistor, LDR, PIR, DHT11, and servo) as a way to introduce people to the basic aspects of Arduino during short workshops. More info	^
DHT sensor library by Adafruit Arduino library for DHT11, DHT22, etc Temp & Humidity Sensors Arduino library for DHT11, DHT22, etc Temp & Humidity Sensors More info Version 1.3.7 v Installieren	
DHT sensor library for ESPx by beegee_tokyo Arduino ESP library for DHT11, DHT22, etc Temp & Humidity Sensors Optimized libray to match ESP32 requirements. Last changes: Added getPin() function. <u>More info</u>	
Grove Temperature And Humidity Sensor by Seeed Studio Arduino library to control Grove Temperature And Humidity Sensor, it contains chip DHT11 AM2302. This temperature & humidity sensor provides a pre-calibrated digital output. A unique capacitive sensor element measures relative humidity and the Schließe	v

Enter the next term **Adafruit Unified Sensor** and install the library **Adafruit Unified Sensor by Adafruit**.

		aiter				-
yp Alle	e	V Thema	Alle	~	Adafruit Unified Sensor	
LSM30 More i	a sensor a 03 Breakou <u>info</u>	t (Accelero	ometer + May	gnetome	akout (Attelerometer - Hagnetometer) onmed sensor onver for Adamatis ler)	,
Adafr	uit MSA301	by Adaf	ruit	romata	 Designed specifically to work with the Adafauit MS8201 Brankout, and is based. 	
on Ada	afruit's Uni info	fied Senso	or Library.	erometer	. Designed specifically to work with the Adamut Monuor Dreakout, and is based	
Adafr Inifie Nore i	uit TSL256: d sensor di info	1 by Adaf river for A	ruit Adafruit's TSL	2561 bre	takouts Unified sensor driver for Adafruit's TSL2561 breakouts	
dafr	uit Unified	Sensor by	Adafruit V	ersion 1.	D.3 INSTALLED	
	red for all	Adafruit U	Inified Senso	r based l	ibraries. A unified sensor abstraction layer used by many Adafruit sensor libraries.	
Requi	info					
Requi <u>Aore i</u> Versio	<u>info</u> n auswählen	✓ Ins	stallieren			

After you have connected the sensor to your Arduino and have installed the libraries, you can test the functions of this sensor.

The installed DHT library includes already code examples which you can use for the first function test.

These can be performed in your Arduino IDE via **File -> Example ->DHT** sensor library -> DHTtester.

Transfer the code examples onto your Arduino and observe the output of the sensor on the serial display.

4. USAGE WITH RASPBERRY PI



For the usage with the Raspberry Pi it is mandatory to first install a library with the according range of functions. Therefore, open a terminal on your Raspberry Pi and enter the following command:

sudo apt-get update

sudo apt-get install build-essential python-dev
python-dev python-openssl git

git clone https://github.com/adafruit/Adafruit_Python_DHT.git && cd Adafruit_Python_DHT

sudo python setup.py install

After the sensor is connected to your Raspberry Pi and the library is installed, you can test the function of this sensor. Therefore, navigate with the following command into the example folder of the installed library:

cd examples

Start the code example with the following command:

sudo ./AdafruitDHT.py 22 4

Thereby the first digit (22) indicates that it is the sensor DHT22. The second digit (4) defines the GPIO number of the pin on which the sensor is connected to the Raspberry Pi.

Should you integrate the library in your own Python project, you can get access on the sensor like shown in the following example:

import Adafruit_DHT

Our Information and Take-back Obligations according to the German Electronic Law (ElektroG)

Symbol on Electrial and Electronic Products:

This crossed-out bin means that electrical and electronic products do not belong into the household waste. You must hand over your old appliance to a registration place. Before you can hand over the old appliance, you must remove used batteries and replacement batteries which are not enclosed by the device.

Return Options:

As the end user, you can hand over your old appliance (which has essentially the same functions as the new one bought with us) free of charge for disposal with the purchase of a new device. Small devices, which do not have outer dimensions bigger than 25 cm can be handed in for disposal independently of the purchase of a new product in normal household quantities.

1. Possibility of return at our company location during our opening hours

SIMAC Electronics GmbH, Pascalstr. 8, D-47506 Neukirchen-Vluyn

2. Possibility of return nearby

We will send you a parcel stamp with which you can send us your old appliance free of charge. For this possibility, please contact us via e-mail at service@joy-it.net or via telephone.

Information about Package:

Please package your old appliance safe for transport. Should you not have suitable packaging material or you do not want to use your own material, you can contact us and we will send you an appropriate package.

6. SUPPORT

If any questions remained open or problems may arise after your purchase,we are available by e-mail, telephone and ticket support system to answer these.

E-Mail: service@joy-it.net Ticket-system: http://support.joy-it.net Telephone: +49 (0)2845 98469 – 66 (10 - 17 o'clock)

For further information visit our website: **www.joy-it.net**

Published: 07.02.2020

www.joy-it.net Simac Electronics GmbH Pascalstr. 8, 47506 Neukirchen-Vluyn