

Temperature and Humidity Module

DESCRIPTION:

DHT11 digital temperature and humidity sensor is a composite Sensor contains a calibrated digital signal output of the temperature and humidity. Application of a dedicated digital modules collection technology and the temperature and humidity sensing technology, to ensure that the product has high reliability and excellent long-term stability. The sensor includes a resistive sense of wet components and an NTC temperature measurement devices, and connected with a high-performance 8-bit microcontroller.



Specification:

Model No : DHT11

Voltage: 5V DC

Temperature Range : 0~50 ℃

Humidity Range: 20~90%

Accuracy : +/-0.2 °C,+/-5%

PIN CONFIGURATION:

1、 "S": Analog output pin,real-time output voltage signal

2、 "+":+5V

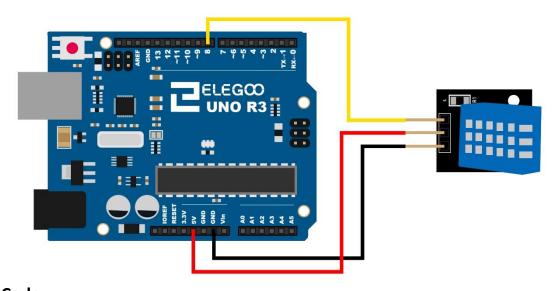
3、 "-":GND



Example:

Here is an example for displaying realtime temperature and ambient humidity. You can open the serial monitor to see the display effect.

The connection is as follows:



Code:

```
#include <dht_nonblocking.h>
#define DHT_SENSOR_TYPE DHT_TYPE_11
static const int DHT_SENSOR_PIN = 8;
DHT_nonblocking dht_sensor( DHT_SENSOR_PIN, DHT_SENSOR_TYPE );

void setup()
{
    Serial.begin( 9600);
}
void loop()
{
    float temperature;
    float humidity;
```



```
if(dht_sensor.measure(&temperature, &humidity)){
    Serial.print( "T = " );
    Serial.print( temperature, 1 );
    Serial.print( " deg. C, H = " );
    Serial.print( humidity, 1 );
    Serial.println( "%" );
}
```

Result:

```
COM6 (Arduino/Genuino Uno)
                                                                             ×
                                                                                  Send
T = 30.0 \text{ deg. C}, H = 52.0\%
T = 30.0 deg. C, H = 53.0%
T = 30.0 \text{ deg. C}, H = 53.0\%
T = 30.0 \text{ deg. C}, H = 53.0\%
T = 30.0 \text{ deg. C}, H = 62.0\%
T = 30.0 \text{ deg. C}, H = 71.0\%
T = 30.0 deg. C, H = 75.0%
T = 30.0 \text{ deg. C}, H = 78.0\%
T = 30.0 \text{ deg. C}, H = 82.0\%
T = 27.0 \text{ deg. C}, H = 47.0\%
T = 27.0 \text{ deg. C}, H = 47.0\%
T = 28.0 deg. C, H = 48.0%
T = 28.0 \text{ deg. C}, H = 48.0\%
T = 28.0 deg. C, H = 50.0%
T = 28.0 \text{ deg. C}, H = 49.0\%
T = 28.0 \text{ deg. C}, H = 48.0\%
T = 28.0 \text{ deg. C}, H = 48.0\%

✓ Autoscroll

                                                         9600 baud
                                       No line ending V
                                                                             Clear output
```