**DHT11 Code Guide** - [Datasheet](https://components101.com/sites/default/files/component_datasheet/DHT11-Temperature-Sensor.pdf) - [Library](https://github.com/beegee-tokyo/DHTesp)

make sure you’ve installed the library first (see part 5 of main guide)

1. Add the following to the **top of your code** to initiate the sensor library and create variables for temperature and humidity:

#include "DHTesp.h"

DHTesp dht;

float temperature;

float humidity;

1. Add the following code to the as the **setup()** to set up the connection over USB and initialise the DHT11 and tell the wemos we’ve wired it to pin D7 (or a different digital pin - change the code accordingly!)

void setup(){

Serial.begin(115200);

dht.setup(D7, DHTesp::DHT11);

}

1. Now lets make a **loop()**  where we read the DHT11 values and relay it back to our computer to see what values we’re getting :

void loop(){

humidity = dht.getHumidity();

temperature = dht.getTemperature();

Serial.print("Humidity (%): ");

Serial.print(humidity);

Serial.print(", Temperature (C): ");

Serial.println(temperature);

delay(5000);

}

What this code does:

* **Serial begin –** sets the data rate over the USB cable in bits per second
* **Float** “temperature” and “humidity” are **variables** – we're storing the values we’re getting off the DHT-11
* We’ll then **Serial** **print -** display that value on the computer over serial (USB)
* and then **delay** 5000 miliseconds (wait 5 seconds)
* and do another measurement over and over again as this bit of code is inside the loop { }, writing new values to the floats then printing the values.

1. Click the  verify button to check your code for any errors. If it’s ok it should say ”Done Compiling” at the bottom. If not, double check your code against the code above for any mistakes, if you’re not sure, do ask for help.
2. Now we’ve created some code to read the sensor lets test it! Plug the USB cable into the wemos and click the upload button.
3. Once the code is fully uploaded click the  serial monitor button. Make sure at the bottom right of the serial monitor the baud is set to 115200 baud. Every 5 seconds you should see a value appear from the sensor.

* You can test the sensor by breathing on it - you should see the humidity and temperature go up because of your breath!