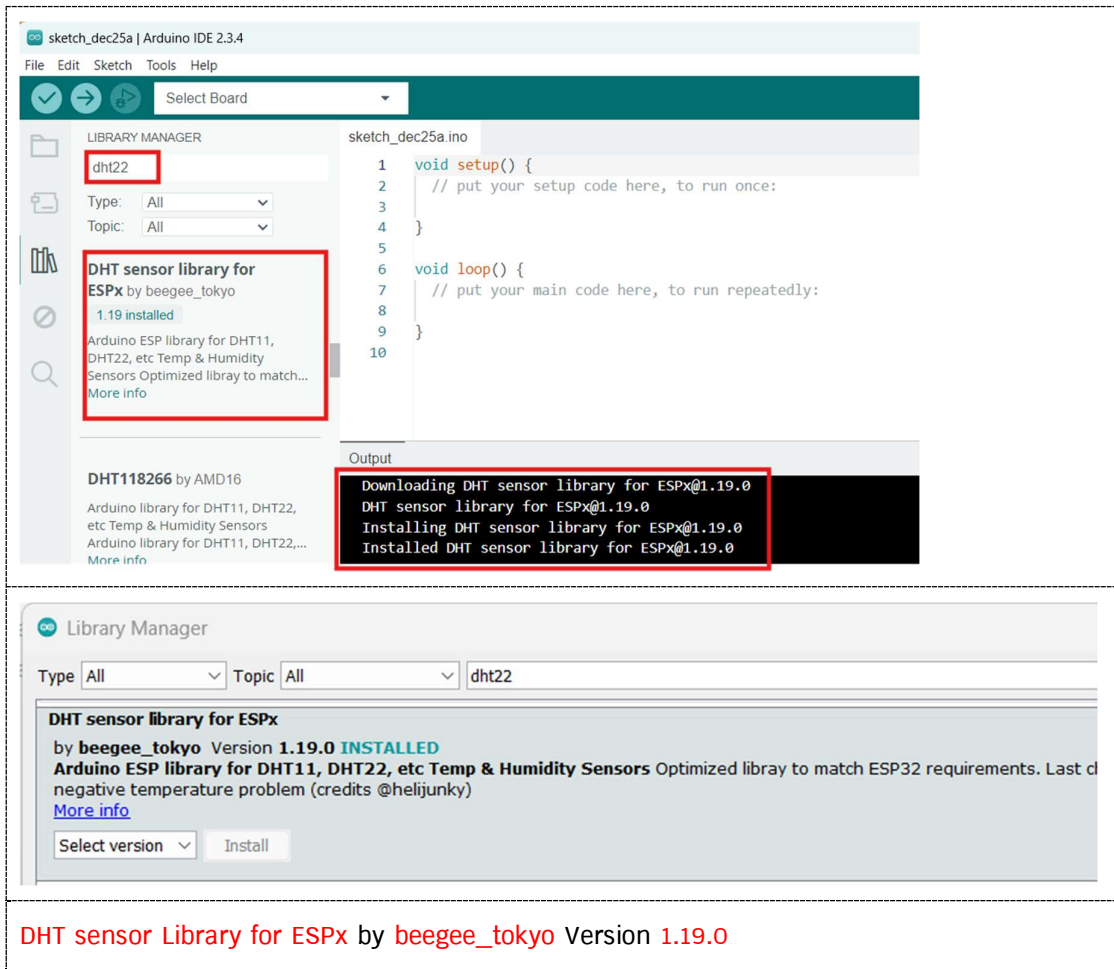


Getting Start ESP32: ESP32 GPIO + ESP32 Interface

Mission 8/12 – ESP32 + DHT22

1. Read <https://randomnerdtutorials.com/esp32-dht11-dht22-temperature-humidity-sensor-arduino-ide/>
2. Add Library: Sketch → Include Library → Manage
3. Filter with “dht22”, Select DHT sensor Library for ESPx by beegee_tokyo Version 1.19.0



The screenshot shows the Arduino IDE 2.3.4 interface. The Library Manager is open, and the search filter is set to 'dht22'. The 'DHT sensor library for ESPx' by beegee_tokyo is selected, and its version 1.19.0 is installed. The output window shows the following messages:

```
Downloading DHT sensor library for ESPx@1.19.0
DHT sensor library for ESPx@1.19.0
Installing DHT sensor library for ESPx@1.19.0
Installed DHT sensor library for ESPx@1.19.0
```

The Library Manager details for the selected library are as follows:

Type	Topic	Library Name	Version	Status
All	All	dht22	1.19.0	INSTALLED

DHT sensor library for ESPx
by beegee_tokyo Version 1.19.0 **INSTALLED**
Arduino ESP library for DHT11, DHT22, etc Temp & Humidity Sensors Optimized libray to match ESP32 requirements. Last d negative temperature problem (credits @helijunky)
[More info](#)
Select version Install

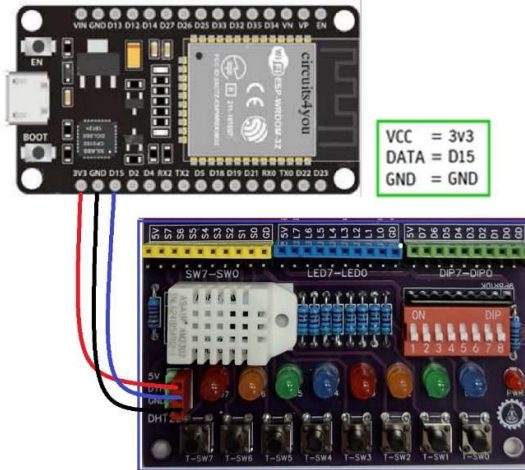
4. Test Code "Test0801-Hello DHT22"

```
#include "DHTesp.h"
#define pinDHT22 15
DHTesp dht;

void setup()
{
  Serial.begin(115200);
  Serial.println();
  String thisBoard = ARDUINO_BOARD;
  Serial.println(thisBoard);
  Serial.println("Status\tHumidity (%)\tTemperature (C)\t(F)\tHeatIndex (C)\t(F)");
  dht.setup(pinDHT22, DHTesp::DHT22);
}

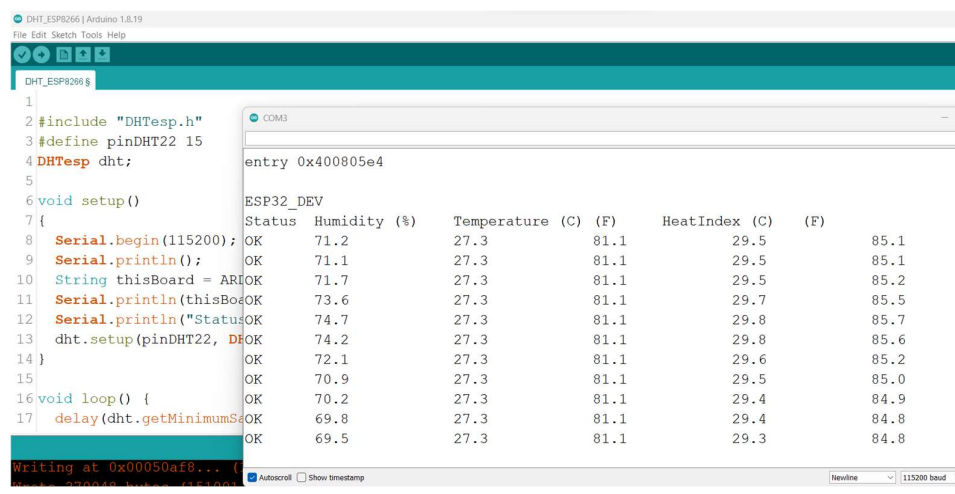
void loop() {
  delay(dht.getMinimumSamplingPeriod());
  float humidity = dht.getHumidity();
  float temperature = dht.getTemperature();

  Serial.print(dht.getStatusString());
  Serial.print("\t");
  Serial.print(humidity, 1);
  Serial.print("\t");
  Serial.print(temperature, 1);
  Serial.print("\t");
  Serial.print(dht.toFahrenheit(temperature), 1);
  Serial.print("\t");
  Serial.print(dht.computeHeatIndex(temperature, humidity, false), 1);
  Serial.print("\t");
  Serial.print(dht.computeHeatIndex(dht.toFahrenheit(temperature), humidity,
true), 1);
  delay(2000);
}
```

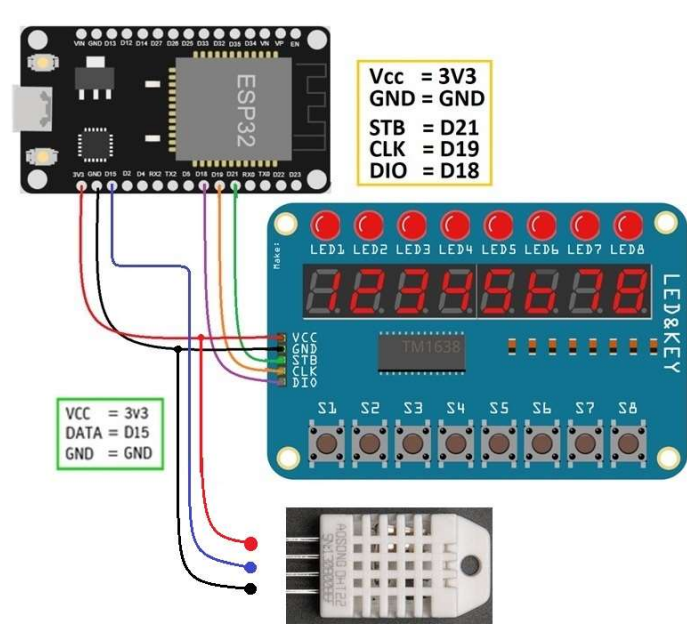


← Serial Monitor

← 115200



5. Test Code “Test0802 – DHT22 on TM1638”

<pre> #include "DHTesp.h" #include <TM1638plus.h> #define pinDHT22 15 #define pin_STB 21 #define pin_CLK 19 #define pin_DIO 18 TM1638plus tm(pin_STB, pin_CLK, pin_DIO); DHTesp dht; void setup() { Serial.begin(115200); tm.displayBegin(); tm.brightness(6); dht.setup(pinDHT22, DHTesp::DHT22); } void loop() { int intData, singleData; tm.reset(); float Humid = dht.getHumidity(); float Temp = dht.getTemperature(); Serial.print("\n Temp(C),Humid(%) = "); Serial.print(Temp, 1); Serial.print(", "); Serial.print(Humid, 1); intData = (int)(Temp * 10); tm.displayASCII(0, 't'); singleData = intData % 10; intData /= 10; tm.displayHex(3, singleData); singleData = intData % 10; intData /= 10; tm.displayASCIIwDot(2, 0x30 + singleData); singleData = intData % 10; intData /= 10; tm.displayHex(1, singleData); intData = (int)(Humid * 10); tm.displayASCII(4, 'h'); singleData = intData % 10; intData /= 10; tm.displayHex(7, singleData); singleData = intData % 10; intData /= 10; tm.displayASCIIwDot(6, 0x30 + singleData); singleData = intData % 10; intData /= 10; tm.displayHex(5, singleData); delay(2000); } </pre>	 <p>Vcc = 3V3 GND = GND STB = D21 CLK = D19 DIO = D18</p> <p>VCC = 3V3 DATA = D15 GND = GND</p> <p>VCC = 3V3 GND = GND DATA = D15</p>
	<ul style="list-style-type: none"> How display on MAX7219 7Segment Board?