

Alarm system to high Temperature

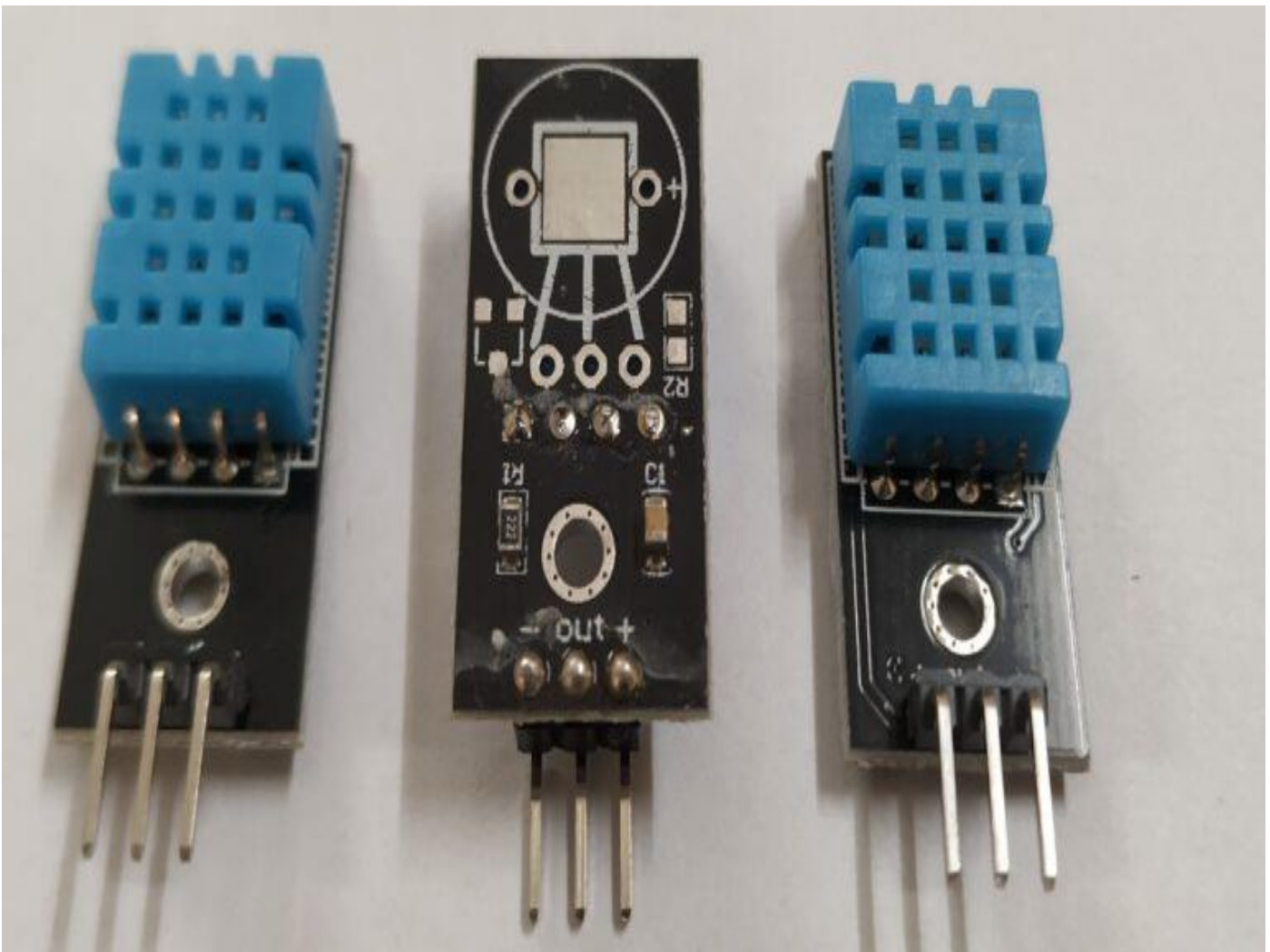
Assignment -2

By

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This article, we'll discuss interacting DHT11 with Raspberry Pi and see it working using Python code. Also, we'll display real-time Data on the 16×2 LCD. The code and explanation used in the code will be explained further below also all the modules regarding 16×2 LCD will be included with its article home page. So let's begin.

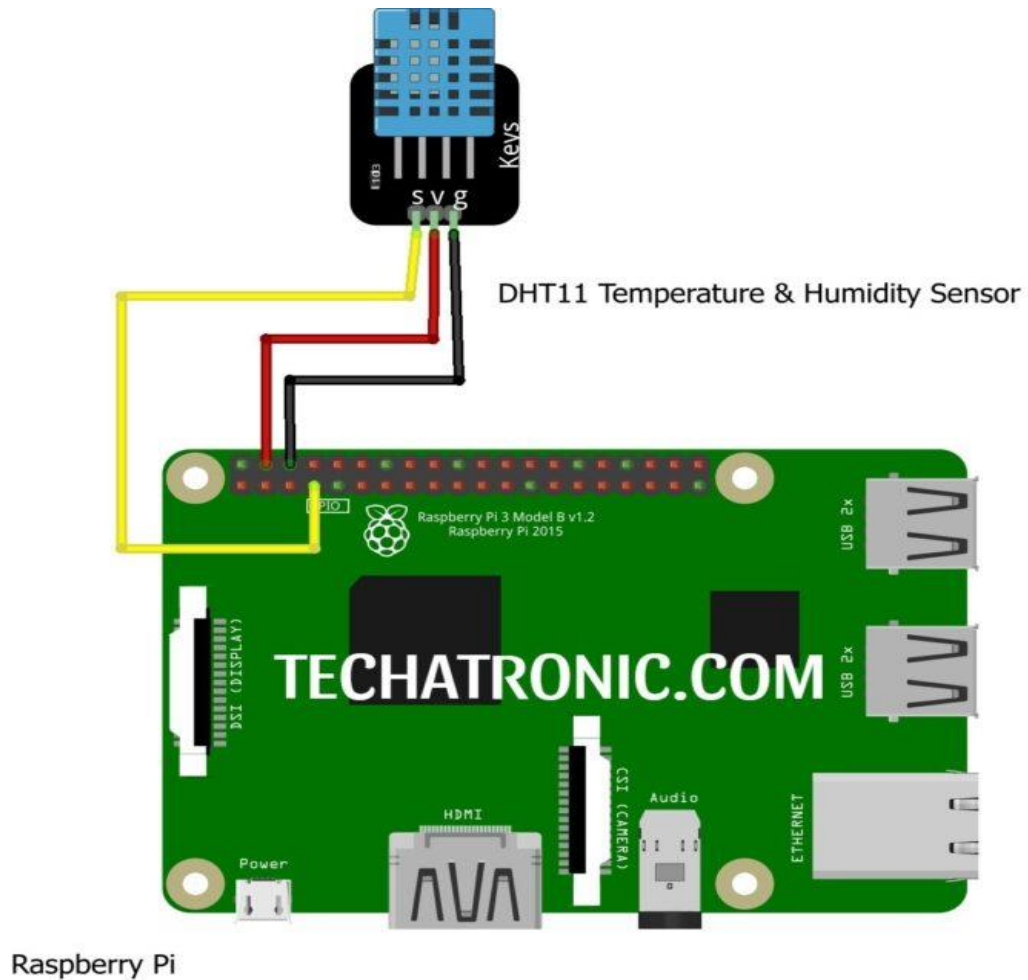


- It is the most common and famous temperature and humidity combined sensor you'll ever come to know. It has many tutorials with boards similar to Arduino.
- You may visit It's Arduino Tutorial to have a more clear Idea of Its working if you are working so, here we are giving you the tutorial on how to connect dht11 with Raspberry Pi.
- DHT11 is a simple sensor and has a very simple structure for measuring temperature and humidity. Basically, it is an enclosed structure that consists of two wires which are responsible for checking humidity and temperature.



- Raspberry Pi with keyboard and mouse. Or putty terminal.
- Breadboard
- Jumper wires
- DHT11 Sensor

DHT11 with Raspberry pi Circuit Diagram



Import Adafruit_DHT

DHT11=Adafruit_DHT.DHT11 # Adafruit_DHT.DHT22 for DHT22 sensor.

While True:

Try:

Temp,humid=Adafruit_DHT.read_retry(DHT11,4) # 4 is the GPIO number you can change

this to your required need

```
Print("TEMP={0:0.1f}°C HUMIDITY={1:0.1f}%".format(temp,humid))
```

```
Except KeyboardInterrupt:
```

```
Break
```

The first line as we have said we have imported the library for the DHT11 Sensor to work i.e., Adafruit_DHT. You can use this library with DHT22 also, but you need to change the DHT11 object line.

Then we create a DHT object which store the DHT11 sensor configuration details and further in code we use this object name to refer to all working statements.

Next we create an infinite while loop within Try and except method to create a keyboard interrupt terminating condition i.e., Ctrl+C

In next line we read data from the DHT11 sensor and stores it in two variable as two values are being received, one for temperature and other for humidity.

Next, we print the values in the Python IDE. The statement written is used for printing formatting more information and detailed tutorial video of this will be available on our