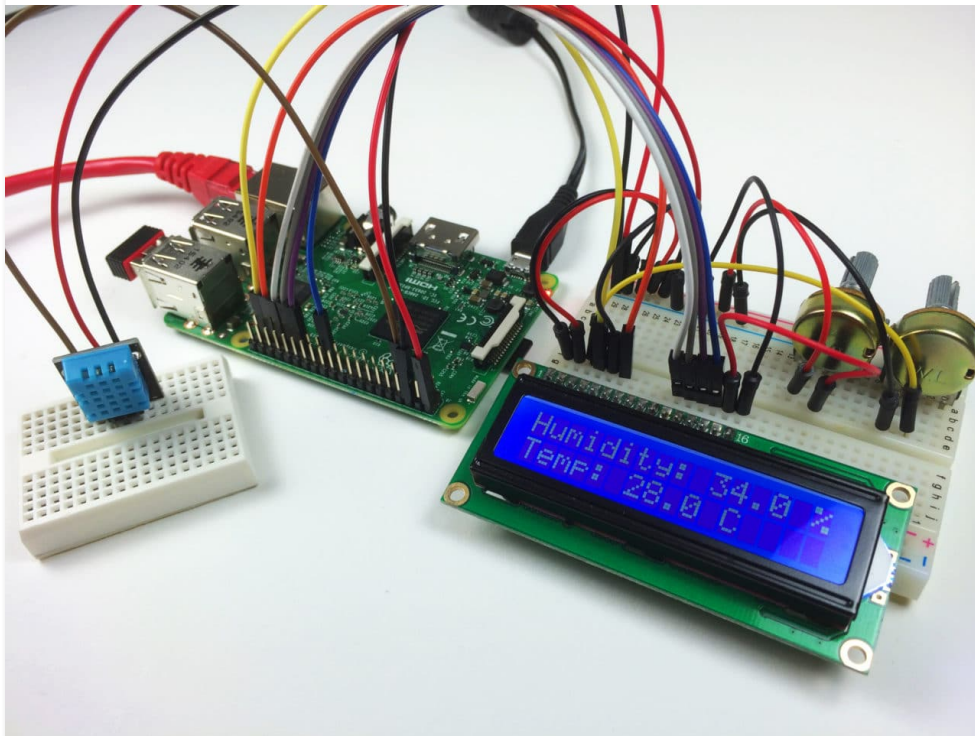




HOW TO SET UP THE DHT11 HUMIDITY SENSOR ON THE RASPBERRY PI

Posted by Circuit Basics | Raspberry Pi | 113



The [DHT11 temperature and humidity sensor](#) is a nice little module that provides digital temperature and humidity readings. It's really easy to set up, and only requires one wire for the data signal. These sensors are popular for use in remote weather stations, soil monitors, and home automation systems.

Programming the DHT11 and connecting it to a Raspberry Pi is pretty simple too. In this tutorial, I'll show you how to connect the DHT11 to the [Raspberry Pi](#) and output the humidity and temperature readings to an SSH terminal or to an LCD. Then I'll

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give you some example programs for programming it with either C or Python.

We have another tutorial on the DHT11 for the [Arduino](#) that goes into detail on relative humidity and how the DHT11 measures it. So instead of repeating all of that here, check out [How to Set Up the DHT11 Humidity Sensor on an Arduino](#), then come back for the specifics on setting it up on the Raspberry Pi.

But just to quickly summarize... The DHT11 has a surface mounted NTC thermistor and a resistive humidity sensor. An IC on the back of the module converts the resistance measurements from the thermistor and humidity sensor into digital temperature (in °C) and relative humidity measurements.

BONUS: I made a quick start guide for this tutorial that you can [download](#) and go back to later if you can't set this up right now. It covers all of the steps, diagrams, and code you need to get started.

This video will walk you through the setup steps and show you how the measurements look in real time:



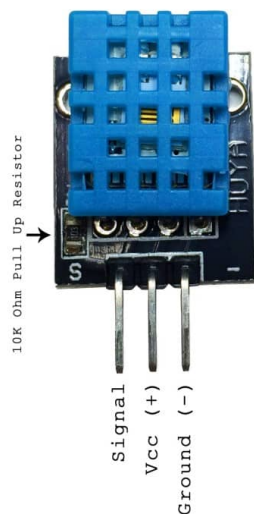
How to Set Up the DHT11 Humidity Sensor on ...

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CONNECTING THE DHT11 TO THE RASPBERRY PI

There are two variants of the DHT11 you're likely to come across. One is a three pin PCB mounted module and the other is a four pin stand-alone module. The pinout is different for each one, so connect the DHT11 according to which one you have:

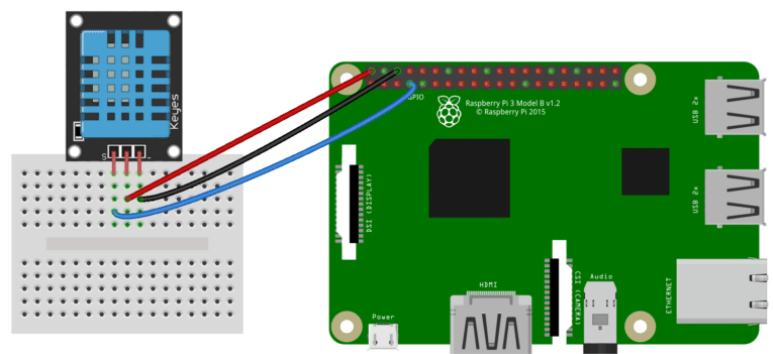


Also, some of the PCB mounted modules might have a different pinout than the one above, so be sure to check your sensor for any labels indicating which pin is Vcc, ground or signal.

WIRING FOR SSH TERMINAL OUTPUT

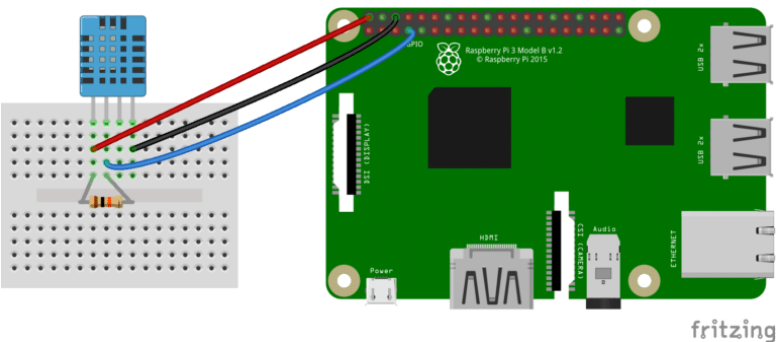
THREE PIN DHT11 WITH SSH OUTPUT

If you have a *three* pin DHT11 and want to output the humidity and temperature to an SSH terminal, wire it like this:



FOUR PIN DHT11 WITH SSH OUTPUT

If you have a *four* pin DHT11 and want to output the humidity and temperature to the SSH terminal, wire it like this:



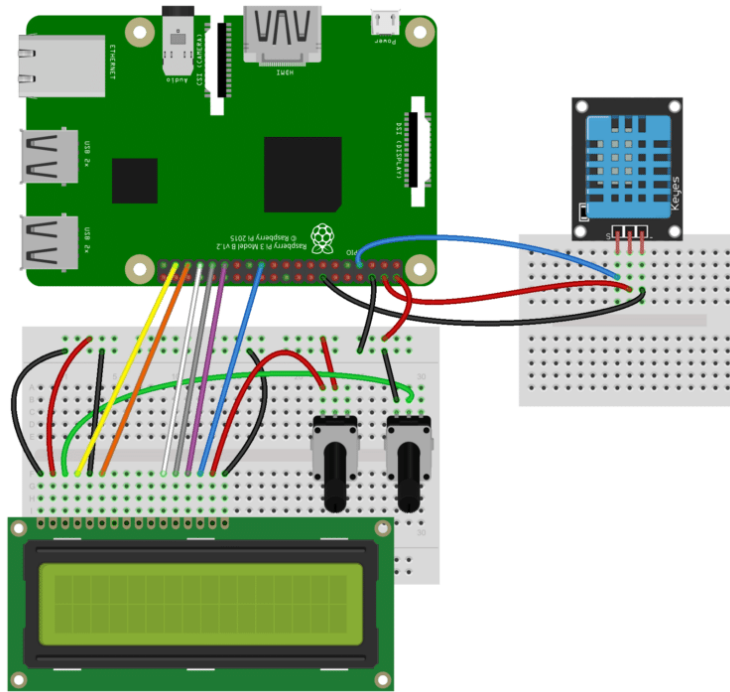
The resistor is a 10K Ohm pull up resistor connected between the Vcc and signal lines.

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WIRING FOR LCD OUTPUT

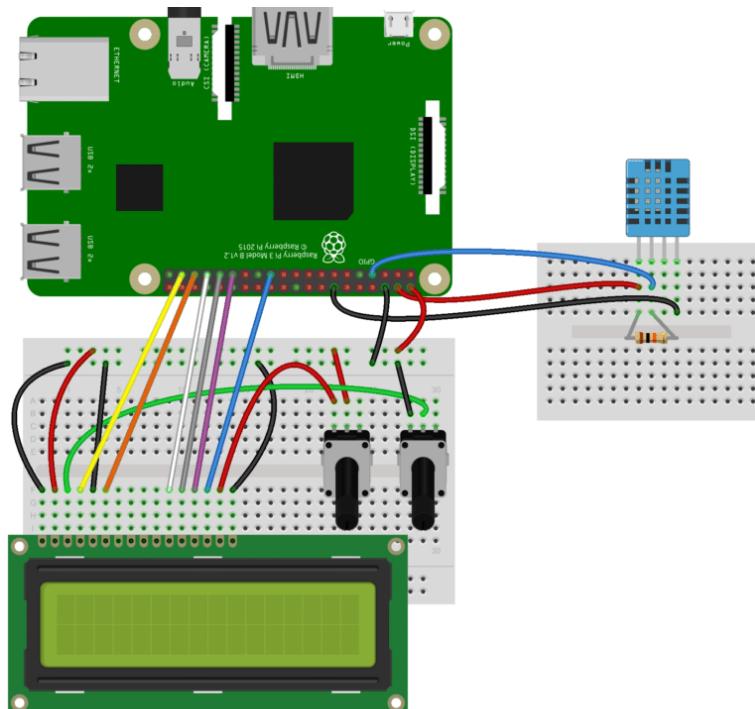
THREE PIN DHT11 WITH LCD OUTPUT

If you want to output the temperature and humidity readings to an LCD display and have a *three* pin DHT11, connect it to the Pi like this:



FOUR PIN DHT11 WITH LCD OUTPUT

If you have a *four* pin DHT11 and want to output the temperature and humidity to an LCD display, connect it like this:



fritzing

The resistor is a 10K Ohm pull up resistor connected between the Vcc and signal lines.

PROGRAMMING THE DHT11

I'll explain how to use both C and Python to get temperature and humidity from the DHT11, so you'll be able to incorporate the DHT11 into pretty much any existing RPi project.

If you're not familiar with writing and running programs in Python or C on the Raspberry Pi, check out one of these tutorials:

- [How to Write and Run a Python Program on the Raspberry Pi](#)
- [How to Write and Run a C Program on the Raspberry Pi](#)

PROGRAMMING THE DHT11 WITH C

We'll be using WiringPi to program the DHT11 in C. If you don't have WiringPi installed already, follow this link for instructions on [how to install WiringPi](#).

The examples below are stand-alone C programs, which will need to be saved to a file with a ".c" extension, then compiled by entering this at the command prompt:

```
1 gcc -o example example.c -lwiringPi -lwiringPiDev
```

(change `example` and `example.c` to the file name you want to use)

Then run the program with:

```
1 sudo ./example
```

OUTPUT TO AN SSH TERMINAL

The following C program will output the humidity and temperature (in °C and °F) readings to an SSH terminal:

```
67     exit( 1 );
68
69     while ( 1 )
70     {
71         read_dht11_dat();
72         delay( 1000 );
73     }
74
75     return(0);
76 }
```

OUTPUT TO AN LCD

This C program will output the DHT11 readings to an LCD display:

```
1 #include <wiringPi.h>
```

```

2 #include <lcd.h>
3 #include <stdio.h>
4 #include <stdlib.h>
5 #include <stdint.h>
6
7 //USE WIRINGPI PIN NUMBERS
8 #define LCD_RS 25      //Register select pin
9 #define LCD_E 24      //Enable Pin
10 #define LCD_D0 23      //Data pin 0
11 #define LCD_D1 22      //Data pin 1
12 #define LCD_D2 21      //Data pin 2
13 #define LCD_D3 20      //Data pin 3
14 #define LCD_D4 19      //Data pin 4
15 #define LCD_D5 18      //Data pin 5
16 #define LCD_D6 17      //Data pin 6
17 #define LCD_D7 16      //Data pin 7

```

For temperature in Celsius, un-comment line 72, then comment out line 73. To find out more about how to control text on an LCD with C, check out [How to Setup an LCD on the Raspberry Pi and Program it With C](#).

PROGRAMMING THE DHT11 WITH PYTHON

We'll be using the Adafruit DHT11 Python library. You can download the library using Git, so if you don't have Git installed on your Pi already, enter this at the command prompt:

```
sudo apt-get install git-core
```

- Note: If you get an error installing Git, run `sudo apt-get update` and try it again.

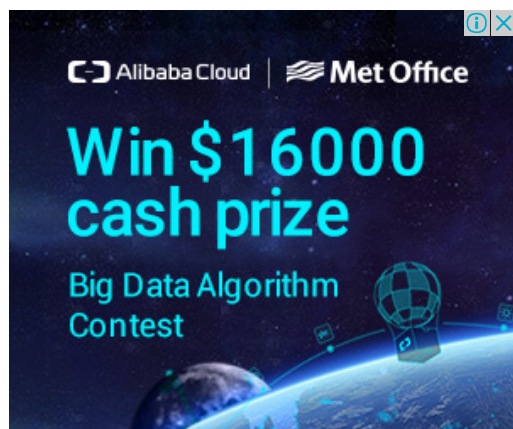
To install the Adafruit DHT11 library:

1. Enter this at the command prompt to download the library:

```
git clone
https://github.com/adafruit/Adafruit_Python_DHT.git
```

2. Change directories with:

```
cd Adafruit_Python_DHT
```



3. Now enter this:

```
sudo apt-get install build-essential python-dev
```

4. Then install the library with:

```
sudo python setup.py install
```

OUTPUT TO AN SSH TERMINAL

This Python program will output the temperature and humidity readings to an SSH terminal:

```
1 #!/usr/bin/python
2 import sys
3 import Adafruit_DHT
4
5 while True:
6
7     humidity, temperature = Adafruit_DHT.read_retry(11, 4)
8
9     print 'Temp: {0:0.1f} C Humidity: {1:0.1f} %'.format(temperature
```

OUTPUT TO AN LCD

To output the DHT11 readings to an LCD, we'll need to install another Python library called RPLCD to drive the LCD. To install the [RPLCD library](#), we first need to install the Python Package Index, or PIP. PIP might already be installed on your Pi, but if not, enter this at the command prompt to install it:

```
sudo apt-get install python-pip
```

After you get PIP installed, install the RPLCD library by entering:

```
sudo pip install RPLCD
```

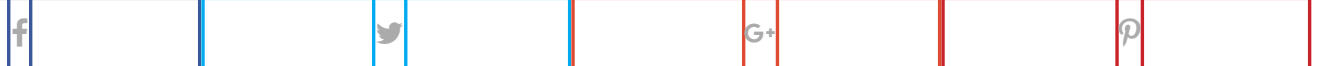
Once the library is installed, you can use the following code to output the DHT11 readings to an LCD:

```
8
9
10 while True:
11     humidity, temperature = Adafruit_DHT.read_retry(11, 4)
12
13     lcd.cursor_pos = (0, 0)
14     lcd.write_string("Temp: %d C" % temperature)
15     lcd.cursor_pos = (1, 0)
16     lcd.write_string("Humidity: %d %" % humidity)
17
```

Also, check out [Raspberry Pi LCD Set Up and Programming in Python](#) to see how to do things like scrolling and positioning text.

That should about cover most of what you'll need to get the DHT11 up and running on your Raspberry Pi. Hope this made it easier for you. Be sure to subscribe if you liked this article and found it useful, and if you have any questions or need help with anything, just leave a comment below...

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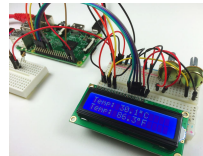
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113 COMMENTS

1. **SpaceMonkey** on March 25, 2016 at 8:51 am
I received my DHT11 yesterday. Perfect timing 😊 Thank you for this awesome tutorial, keep it up !

REPLY

2. **ashish** on March 25, 2016 at 8:51 am
Really helpful! Please try everyone:)

REPLY

3. **Alex** on March 25, 2016 at 3:44 pm
Isn't it better to use DHT22?
DHT11 has +/- 2°C accuracy while DHT22 has +/- 0.5°C
Can it be replaced?

REPLY

Scott on April 22, 2016 at 2:36 am
Actually yes, the adafruit library supports all of the DHT modules.

REPLY

4. **Neil Wallace** on June 14, 2016 at 3:54 pm
Any updates on the Adafruit code?

I seem to be getting a problem with the Raspberry_Pi_Driver

from . import Raspberry_Pi_Driver as driver



ImportError: cannot import name Raspberry_Pi_Driver

If not, I will try downloading the library etc again

Thanks

REPLY

Circuit Basics on March 25, 2017 at 4:43 am

No updates that I'm aware of... Just tested this on 3-24-17 and it still works. Maybe your internet was disconnected or there was a problem downloading the library?

REPLY

5. **Dutchbat_Pi** on August 4, 2016 at 10:09 pm

somehow the C++ path gets error's when compiling in the nano environment

I get:

DHTTEST.c: In function 'read_dht11_dat':

DHTTEST.c:52:2: error: expected ')' before '{' token

```
{
```

```
^
```

DHTTEST.c:59:1: error: expected expression before '}' token

```
}
```

```
^
```

Is there a easy fix for this or could anyone tell me what these error's are about?

Thanks

REPLY

Nagesh on February 16, 2017 at 8:19 am

I do get the same error..what's wrong?

REPLY

6. **OrangePi User** on August 7, 2016 at 12:08 pm

Is this working with OrangePi One ?

REPLY



7. **Julio Orrego** on August 14, 2016 at 12:50 am

It only works on the terminal, when I try to do it with the LCD it wont work and I don't know why. Im using a 1602A LCD, not sure if that`s

the problem.

REPLY

Circuit Basics on March 25, 2017 at 4:47 am

Is your LCD connected like it's shown in the diagrams? If not you might have to change the pin numbers in the code. Also it could be that your LCD has a different pin out. Check out this diagram to see the pin out of the LCD I used to make the diagrams: <https://i0.wp.com/www.circuitbasics.com/wp-content/uploads/2015/03/Arduino-LCD-Set-Up-and-Programming-Guide-LCD-Pinout.png>

REPLY

8. **Vijay** on August 18, 2016 at 3:52 am

I am getting the error "Data not good, skip" while programming with C. Can anyone help me solve this problem?

REPLY

Julio Orrego on August 19, 2016 at 3:39 pm

That message appears when the sensor can't read the temperture & humidity, it 's not a programming error, something must be wrong with your sensor.

REPLY

Circuit Basics on March 25, 2017 at 4:49 am

This is normal, I get the same message occasionally. It just means that one of the data transmissions was bad. The sensor should continue outputting data after a second or so.

REPLY

9. **Mete Ömerali (webmaster)** on August 19, 2016 at 1:55 pm

thanks, its just great.. i was wondering if you can help me with reading from SW420 sensor, i was able to get 0,1 values but i wanted to get if possible the actual value of the vibration

REPLY

10. **John Harper** on August 29, 2016 at 10:15 am

<http://www.circuitbasics.com/how-to-set-up-the-dht11-humidity-sensor-on-the-raspberry-pi/>



Hi. Thanks for the tutorial. got it working. i want to get more accurate than 1 degree +/- so will have a fiddle with the print line. cheers!

REPLY

11.

Jathavedas Avadhani on September 7, 2016 at 12:17 pm

May I know which file should I run after executing "sudo python setup.py install" command???

REPLY

Jan on March 22, 2017 at 6:45 pm

You can copy the text in Geany en then save as "TempHum.sh" and then execute.

REPLY

Circuit Basics on March 25, 2017 at 5:18 am

After installing the library, copy the code and save it to a file with a ".py" extension, for example dht11.py. Then run the program with: python dht11.py

REPLY

12.

Miroslav Meredà on September 7, 2016 at 6:25 pm

The code works brilliant but please can you help me how should python code look if i want to have output in two lines. ? Temperature in one line and in next line humidity. Thank you

REPLY

13.

Alexandre Strube on September 8, 2016 at 11:55 pm

Mine shows temperature 11.0C and humidity 150%. I'm pretty sure both are quite wrong in this dry summer 😊

REPLY

14.

Alexandre Strube on September 9, 2016 at 1:03 am

So, the C code works... the Python one does not.

REPLY



15. **Alexandre Strube** on September 12, 2016 at 10:17 pm

At the end, it worked. Thing is, I have it on a Raspberry Pi 3, where it works without root, and in a Raspberry Pi 2, where it only works with root. I am not sure what I am doing wrong.

REPLY

Adrin on September 19, 2016 at 1:34 am

I remember reading that the GPIO on the Pi 3 no longer required root. Maybe this is why.

REPLY

16. **Ricardo Gamba** on September 27, 2016 at 2:47 am

Hi,

Thanks for the tutorial. I got it working but with very strange readings like:

```
pi@raspberrypi:~/wiringPi $ sudo ./example
Raspberry Pi wiringPi DHT11 Temperature test program
Data not good, skip
Humidity = 1.74 % Temperature = 0.201 C (32.0 F)
Humidity = 1.74 % Temperature = 0.201 C (32.0 F)
Data not good, skip
Humidity = 1.74 % Temperature = 0.201 C (32.0 F)
Humidity = 1.74 % Temperature = 0.201 C (32.0 F)
```

The wiring seems correct.

I'm using DHT22, should I change anything in this C code? Do you have any suggestions?

Best regards,
Ricardo Gamba.

REPLY

RtfmFlo on December 26, 2016 at 11:17 pm

did you solve this having same result even when i pull every 10 sec

REPLY



17. **Nanda** on October 2, 2016 at 5:41 am

hi, thanks for this tutorial i learned a lot about raspberry pi.
dear circuit basic , do you have a tutorial about RFM12B transceiver module and do you have some suggestion about rfm12b how to set

module or do you have some suggestion about it now to set up ?

sorry for my bad english
Best regards,
Nanda muhammad

REPLY

18. **Pikkemoos** on October 19, 2016 at 1:28 pm

Works great, thanks.

REPLY

19. **potential** on October 19, 2016 at 2:45 pm

nice post really helpful,i love it...please am doing project on automation, using java and avr microcontrollers but i dont really know how to go about the part of interfacing the microcontroller with the computer using serial ports or usb i ahve already done the gui part of the project,,any help will be very helpful,,thanks in advance

REPLY

20. **Dawid** on November 14, 2016 at 8:40 pm

Getting below error when trying to run LCD script, can anyone help?

```
/usr/local/lib/python2.7/dist-packages/RPLCD/lcd.py:213:  
RuntimeWarning: This channel is already in use, continuing anyway.  
Use GPIO.setwarnings(False) to disable warnings.  
GPIO.setup(pin, GPIO.OUT)
```

REPLY

21. **eduardoinoue** on November 29, 2016 at 2:08 pm

Amazing tutorial I learned a lot with it.
I am not very familiar with developing codes but I am trying to integrate this with my zabbix Network Monitoring system. Instead of infinite loop the measures, how can I read and present just one measure.
Thanks for the great tutorial and any help is welcome.

REPLY

Brennan on March 27, 2017 at 4:30 am

I had this same error and my fix was just where I ran the Python script from. I placed my Python script inside the

Adafruit_Python_DHT directory and I got the same error you are describing.

I copied the script to the directory above it (cp name.py ..), and ran it from that directory, and the script worked perfect.

REPLY

22.

Tanay on December 15, 2016 at 5:41 pm

Need help for Rpi 3

I get this error for the given python code:

Traceback (most recent call last):

File "1.py", line 6, in

humidity, temperature = Adafruit_DHT.read_retry(11,4)

File "/home/pi/Adafruit_Python_DHT/Adafruit_DHT/common.py", line 90, in read_retry

humidity, temperature = read(sensor, pin, platform)

File "/home/pi/Adafruit_Python_DHT/Adafruit_DHT/common.py", line 76, in read

platform = get_platform()

File "/home/pi/Adafruit_Python_DHT/Adafruit_DHT/common.py", line 51, in get_platform

from . import Raspberry_Pi_2

File

"/home/pi/Adafruit_Python_DHT/Adafruit_DHT/Raspberry_Pi_2.py", line 22, in

from . import Raspberry_Pi_2_Driver as driver

ImportError: cannot import name Raspberry_Pi_2_Driver

REPLY

adabalar on February 26, 2017 at 4:40 pm

Did this ever work. I Am getting the similar error. Please let me know, how solved this?

REPLY

Circuit Basics on March 25, 2017 at 5:22 am

That's strange... Which raspbian (Jessie full or Jessie lite) are you using? Which release was it? I just set it up again on my Pi 3 and didn't have any problems. It looks like there was a problem with the library install. I would try to install it again...



REPLY

dani on May 15, 2017 at 1:39 pm

i received same error. If i use the programs .py in examples folder, all it's ok. If i use an other folder like home or desktop i receive that errors. i try also to copy the folder Adafruit_DHT that contain the module imprted, but never works. it works only in Adafruit_Python_DHT create like a clone from github

REPLY

Brennan on March 27, 2017 at 4:31 am

I had this same error and my fix was just where I ran the Python script from. I placed my Python script inside the Adafruit_Python_DHT directory and I got the same error you are describing.

I copied the script to the directory above it (cp name.py ..), and ran it from that directory, and the script worked perfect.

REPLY

23. **Rizwan Shoukat** on January 1, 2017 at 9:51 am

very nice sir

REPLY

24. **Jakub Demeter** on January 24, 2017 at 9:00 pm

I have this error then I try first script in python (without lcd)
Traceback (most recent call last):
File "./teplomer.py", line 7, in
humidity, temperature = Adafruit_DHT.read_retry(11, 4)
File "/usr/local/lib/python2.7/dist-packages/Adafruit_DHT-1.3.1-py2.7-linux-armv7l.egg/Adafruit_DHT/common.py", line 90, in read_retry
humidity, temperature = read(sensor, pin, platform)
File "/usr/local/lib/python2.7/dist-packages/Adafruit_DHT-1.3.1-py2.7-linux-armv7l.egg/Adafruit_DHT/common.py", line 77, in read
return platform.read(sensor, pin)
File "/usr/local/lib/python2.7/dist-packages/Adafruit_DHT-1.3.1-py2.7-linux-armv7l.egg/Adafruit_DHT/Raspberry_Pi_2.py", line 34, in read
raise RuntimeError('Error accessing GPIO.')
RuntimeError: Error accessing GPIO.

Can you help me? Thanks

REPLY

25. **Roshan Patel** on January 27, 2017 at 12:30 pm

thank you sir its greats

REPLY

26. **rml** on February 5, 2017 at 5:16 am

Thanks for the article. It was very helpful. I mostly used the C code, and when I upgraded to the DHT22, I modified your code to support both devices. In case anyone else wants to use it, it's below. On the command line, add two parameters for device and io_pin. Example:

```
./read_data 11 4
```

to read from a DHT11 on pin 7

or ./read_data 22 7

to read from DHT22 from pin 4

```

#include
#include
#include
#include
#define MAXTIMINGS 85
#define DHTPIN 7
int dht_dat[5] = { 0, 0, 0, 0, 0 };

int read_dht_dat(int device, int pin)
{
    uint8_t laststate = HIGH;
    uint8_t counter = 0;
    uint8_t j = 0, i;

    dht_dat[0] = dht_dat[1] = dht_dat[2] = dht_dat[3] = dht_dat[4] = 0;

    pinMode( pin, OUTPUT );
    digitalWrite( pin, LOW );
    delay( 18 );
    digitalWrite( pin, HIGH );
    delayMicroseconds( 40 );
    pinMode( pin, INPUT );

    for ( i = 0; i = 4 ) && ( i % 2 == 0 ) )
    {
        dht_dat[j / 8] < 16 )
        dht_dat[j / 8] |= 1;
        j++;
    }

```



```

}
}

if ( ( j >= 40) &&
(dht_dat[4] == ( (dht_dat[0] + dht_dat[1] + dht_dat[2] + dht_dat[3]) &
0xFF) ) )
{

if (device == 11) {
float f;

f = dht_dat[2] * 9. / 5. + 32;
printf( "Humidity = %d.%d %% Temperature = %d.%d C (%.1f F)\n",
dht_dat[0], dht_dat[1], dht_dat[2], dht_dat[3], f );
} else {
// DHT22
float hum;
float temp_c;
float f;

hum = (dht_dat[0] * 256 + dht_dat[1]) / 10.0;
temp_c = (dht_dat[2] * 256 + dht_dat[3]) / 10.0;
f = temp_c * 9. / 5. + 32;
printf( "Humidity = %.02f %% Temperature = %.02f C (%.1f F)\n", hum,
temp_c, f);

}
return 0;
}else {
printf( "Data not good, skip\n" );
return 1;
}
}

int main( int argc, char **argv )
{
int done = 0;
int device = 0;
int pin = 0;

//printf("argc: %d\n", argc);
if (argc != 3) {
printf("usage: read_dht11 [11|22] \n");
exit(1);
} else {

device = strtol(argv[1], NULL, 10);
pin = strtol(argv[2], NULL, 10);
//printf( "device: %d, pin: %d\n", device, pin);

if (device != 11 && device != 22) {

```



```

printf("usage: read_dht11 [11|22] \n");
exit(1);
}

}

printf( "Raspberry Pi wiringPi DHT11 Temperature test program\n" );

if ( wiringPiSetup() == -1 )
exit( 1 );

while ( !done )
{
int ret;
done = read_dht_dat(device, pin) ? 0 : 1;
delay( 1000 );
}

return(0);
}

```

REPLY27. **juhi** on February 6, 2017 at 6:14 pm

thank you so much
 its really working
 if you have soil moisture sensor interfacing code and logic than
 please replay me
 thank you so much

REPLY28. **Juhi** on February 13, 2017 at 4:19 pm

My code is same as pythone code
 And i got erroe like
 Value error : unknown format code 'f' for object of type 'str'
 Please give me solution

REPLY**Pkarni** on April 8, 2017 at 10:09 am

Same error here. Did you get past this?

**REPLY****juhi** on April 11, 2017 at 5:26 am

ves still not working

REPLY**Prasanna** on April 23, 2017 at 5:03 am

Ok finally got past this. The jumper wire shipped with sensor was faulty so the GPIO read was failing. Started with checking colleague's LED sensors to work with my PI which when worked tried DHT11 with colleague's PI which when worked then switched wires and tried with my PI! You may want to check wiring and sensor. The code is just fine.

REPLY29. **Daniel Sol** on February 22, 2017 at 3:24 pm

Works for me! Rocking the python code! Tnxz!

REPLY30. **Marty** on March 3, 2017 at 5:01 pm

convert Celsius to Fahrenheit with this Python Code for SSH display...

```
#!/usr/bin/python
import sys
import Adafruit_DHT
```

```
while True:
```

```
    humidity, temperature = Adafruit_DHT.read_retry(11, 4)
```

```
    convert = temperature * 1.8 + 32
```

```
    print 'Temp: {0:0.1f} C Humidity: {1:0.1f} %'.format(convert, humidity)
```

REPLY**Marty** on March 3, 2017 at 5:04 pm

OOPs C after {0:0.1f} should be F

REPLY

31.

vaibhav on March 7, 2017 at 10:10 am

i got error in #!/usr/bin/pythonwhat should i do?

REPLY**monkeybc** on March 7, 2017 at 8:09 pm

try:

which python

This will tell you the path to python on your particular computer. [It may not be installed.]

REPLY

32.

Michal on March 21, 2017 at 9:24 am

i'm trying to make this work but only works python to console when i try to make it works with lcd

i get such error:

```
./lcd.py
/usr/local/lib/python2.7/dist-packages/RPLCD/lcd.py:213:
RuntimeWarning: This channel is already in use, continuing anyway.
Use GPIO.setwarnings(False) to disable warnings.
GPIO.setup(pin, GPIO.OUT)
Traceback (most recent call last):
File "./lcd.py", line 6, in
lcd = CharLCD(cols=16, rows=2, pin_rs=7, pin_e=8, pins_data=[25, 24,
23, 18])
File "/usr/local/lib/python2.7/dist-packages/RPLCD/lcd.py", line 213, in
__init__
GPIO.setup(pin, GPIO.OUT)
ValueError: The channel sent is invalid on a Raspberry Pi
```

i cant also make it works with c program ☹ even to console my lcd is connected with 4 bit mode

<http://www.raspberrypi-spy.co.uk/2012/07/16x2-lcd-module-control-using-python/>

and this script is working and can see information on screen but for me is important to make temperature and humidity so i can have thermometer in my 3d printer enclosure..

Please help

REPLY

Circuit Basics on March 25, 2017 at 5:43 am

Are your pin numbers BOARD pin numbers or BCM pin numbers? The RPLCD library needs BOARD pin numbers. Also, do you know which version of RPi.GPIO you have? Try running this to find out: `find /usr | grep -i gpio`

If your RPi.GPIO version is 0.5.6 or earlier, there was bug that caused some pins on the expanded header to not work. You can update RPi.GPIO by running this command:

```
sudo apt-get update && sudo apt-get install python-rpi.gpio
python3-rpi.gpio
```

Let me know if that fixes it...

REPLY

33. **Colin Williams** on March 27, 2017 at 5:10 pm

#raspberrypi #diy ordered me a few more bits so I can do this ?

REPLY

34. **lkya** on April 8, 2017 at 1:53 pm

I keep getting this error

Traceback (most recent call last):

File "Tempreture.py", line 7, in

humidity, temperature = Adafruit_DHT.read_retry(35, 2)

File "build/bdist.linux-armv7l/egg/Adafruit_DHT/common.py", line 94, in read_retry

File "build/bdist.linux-armv7l/egg/Adafruit_DHT/common.py", line 78, in read

ValueError: Expected DHT11, DHT22, or AM2302 sensor value.

REPLY

AZ on December 5, 2017 at 12:39 pm

Hi lkya 😊

I have the same error as you. Did you ever solve yours ? Can't seem to find an answer anywhere 😊



REPLY

agron on December 5, 2017 at 1:39 pm

Hi,

It can't be 35 in this line

```
humidity, temperature = Adafruit_DHT.read_retry(35,
2)
```

That is refering to type of sensor and since this tutorial is about DHT 11 it should be 11

```
humidity, temperature = Adafruit_DHT.read_retry(11,
2)
```

REPLY

35. **orhangut** on April 21, 2017 at 10:53 pm

That's perfect!
You make my day, thanks a lot guys!

REPLY

36. **ayan** on April 24, 2017 at 4:02 pm

Traceback (most recent call last):
File "q.py", line 7, in
humidity, temperature = Adafruit_DHT.read_retry(7,4)
File "/home/pi/Adafruit_Python_DHT/Adafruit_DHT/common.py",
line 94, in read_retry
humidity, temperature = read(sensor, pin, platform)
File "/home/pi/Adafruit_Python_DHT/Adafruit_DHT/common.py",
line 78, in read
raise ValueError('Expected DHT11, DHT22, or AM2302 sensor value.')
ValueError: Expected DHT11, DHT22, or AM2302 sensor value.

this error is shown ..can anyone help?/

REPLY

Bogd on August 20, 2017 at 1:07 pm

The first argument to read_retry (the first number in parentheses) HAS to be 11 in this case (it refers to the type of sensor – DHT11).



REPLY

37. **sarra** on May 10, 2017 at 1:32 pm

PROGRAMMING THE DHT11 three pin PCB+LCD (16*2)+raspberrypi

HOW TO SET UP THE DHT11 HUMIDITY SENSOR ON THE RASPBERRY PI
B WITH PYTHON

REPLY

38. **apple** on May 17, 2017 at 5:56 am

I successfully setup my pi with the sensor. Great tutorial! However, I would like to know about the code about this line

```
humidity, temperature = Adafruit_DHT.read_retry(11, 4)
```

May I ask about what does (11,4) is referring to? I am thinking that it is the GPIO Address but it's not. I guess. Could somebody lend their ideas? Thank you and more power.

REPLY

RIK on June 18, 2017 at 6:27 pm

Here 11 is the temperature sensor name you are using like here it's DHT11 and the 4 is the GPIO address pin that you connect to the sensor.

REPLY

39. **Rik** on June 18, 2017 at 2:55 pm

I tried the following code into my Raspberry pi 3 and it says

Traceback (most recent call last):

File "testtemp.py", line 9, in

```
print 'Temp: {0:0.1f} C Humidity: {1:0.1f} %'.format(temperature, humidity)
```

ValueError: Unknown format code 'f' for object of type 'str'

how can I fix it?

REPLY

miki on August 2, 2017 at 1:16 pm

try to replace line print with print (temperature) so you can understand if you receive data.



REPLY

40. **Joe** on July 11, 2017 at 8:49 am

Hi guys. I have a dht11 sensor with 3 pins as shown in the post. I

... again have a sensor connected with pins as shown in the picture. I made the correct connections. But the Vcc and GND wires start to burn and the plastic insulation begins to melt. I double checked the gpio Vcc supply pin and GND pin with a multimeter and it's showing 5V. Any idea what went wrong?

REPLY

miki on August 2, 2017 at 1:27 pm

it happned also to me, maybe you invert that two pin. Vcc has to go to + or 5v and gnd has to go to ground.

REPLY

41. **bogd** on August 20, 2017 at 1:12 pm

Sorry if this is a newbie question, but I'm just curious – why did you power the DHT11 at 5V? Doesn't this mean that we get a maximum voltage of 5V on the input GPIO? (which I understand is not a great idea for a device that normally runs at 3.3V)

According to the DHT11 datasheet, power supply can be 3 to 5.5V, so it should work at 3.3V as well.

Is there another reason for this design choice?

Thank you!

REPLY

42. **agron** on September 19, 2017 at 7:39 pm

Maybe a really stupid question but better asked.

When looking at the c program I see use wiringpi PIN numbers.

For example LCD_RS 25

When I look at wiringpi documentation pin 25 doesn't exist.

In the video it says GPIO 26 pin 37???

Thanks

REPLY

BOGD on September 21, 2017 at 11:34 am

It looks like wiringpi uses its own set of numbers – it's not the BCM GPIO numbering, and it's not physical pin numbering (although it can support these two as well).

<https://projects.drogon.net/wiringpi-pin-numbering/>

A strange design decision indeed... And even more strange is that the author still stands by his original choice, and recommends using that numbering 😊

REPLY

agron on September 21, 2017 at 5:33 pm

Hmm,,,, still don't get it fully.
I found this link at that site.

<http://wiringpi.com/wp-content/uploads/2013/03/pins.pdf>

But there is no wiringpi number above 20?

Thanks

REPLY

43.

Raghu p on October 19, 2017 at 5:18 pm

hi, Thanks for the tutorial. Excellent.
My setup is RPi2, DHT11 (with board, 3 pin), reading temperature and humidity and displaying on the 16x2 LCD

Running the script

```
#!/usr/bin/python
import sys
import Adafruit_DHT

from RPLCD import CharLCD

lcd = CharLCD(cols=16, rows=2, pin_rs=37, pin_e=35, pins_data=[33, 31, 29, 23])

while True:
    humidity, temperature = Adafruit_DHT.read_retry(11, 17)

    lcd.cursor_pos = (0, 0)
    lcd.write_string("Temp: %d C" % temperature)
    lcd.cursor_pos = (1, 0)
    lcd.write_string("Humidity: %d %% " % humidity)
```

Getting the following error

```
>>>
```

Traceback (most recent call last):

```
File "/home/pi/dht11_lcd.py", line 7, in
lcd = CharLCD(cols=16, rows=2, pin_rs=37, pin_e=35, pins_data=[33, 31,
29, 23])
File "/home/pi/RPLCD/__init__.py", line 14, in __init__
super(CharLCD, self).__init__(*args, **kwargs)
File "/home/pi/RPLCD/gpio.py", line 95, in __init__
'must be either GPIO.BOARD or GPIO.BCM' % numbering_mode)
ValueError: Invalid GPIO numbering mode:
numbering_mode=None, must be either GPIO.BOARD or GPIO.BCM
>>>
```

REPLY

Raghu p on October 20, 2017 at 4:35 pm

I figured it out. Added numbering_mode parameter to the call as follows

```
#!/usr/bin/python
import sys
import Adafruit_DHT
import RPi.GPIO as GPIO
from RPLCD import CharLCD
GPIO.setwarnings(False)

## If using BOARD numbers such as PIN35, PIN31 etc,
uncomment the line below
##lcd = CharLCD(numbering_mode=GPIO.BOARD,cols=16,
rows=2, pin_rs=37, pin_e=35, pins_data=[33, 31, 29, 23])

## If using BCM numbers such as GPIO13, GPIO11 etc),
uncomment the line below
lcd = CharLCD(numbering_mode=GPIO.BCM,cols=16, rows=2,
pin_rs=26, pin_e=19, pins_data=[13,6, 5, 11])

while True:
humidity, temperature = Adafruit_DHT.read_retry(11, 17)

lcd.cursor_pos = (0, 0)
lcd.write_string("Temp: %d C" % temperature)
lcd.cursor_pos = (1, 0)
lcd.write_string("Humidity: %d %% " % humidity)
```

REPLY

girish pillai on January 2, 2018 at 9:20 am

i am getting the o/p as shown below,can someone help me whats wrong in the code?

```
import sys
import Adafruit_DHT
import RPi.GPIO as GPIO
from RPLCD import CharLCD
GPIO.setwarnings(False)

lcd = CharLCD(numbering_mode=GPIO.BCM,cols=16,
rows=2, pin_rs=26, pin_e=19, pins_data=[13,6,5,11])

while True:
    humidity , temperature = Adafruit_DHT.read_retry(11,
4)
    lcd.cursor_pos = (0, 0)
    lcd.write_string("Temp: %d C" %temperature)
    lcd.cursor_pos = (1, 0)
    lcd.write_string("Humidity: %d %% " %humidity)

pi@piadi:~$ python dhtlcd2.py
File "dhtlcd2.py", line 14
SyntaxError: Non-ASCII character '\xe2' in file
dhtlcd2.py on line 14, but no encoding declared; see
http://python.org/dev/peps/pep-0263/ for details
```

REPLY**Bogd** on January 2, 2018 at 3:05 pm

It's a stray character from the editor you used for the code. Did you by any chance copy/paste the code (including some smart quotes)?

Double-check your quotes, and make sure the editor you use is a text-only (even better, ASCII-only) one 😊

See here for more details:

<https://stackoverflow.com/questions/21639275/python-syntaxerror-non-ascii-character-xe2-in-file>

REPLY

44.

Pete W on October 23, 2017 at 9:42 pm

I had the same GPIO error as you Raghu, but your additions just give me a different set of errors...

Traceback (most recent call last):

File "th2.py", line 17, in

```
humidity, temperature = Adafruit_DHT.read_retry(11,17)
```

```
File "/home/pi/Adafruit_Python_DHT/Adafruit_DHT/common.py",
line 94, in read_retry
humidity, temperature = read(sensor, pin, platform)
File "/home/pi/Adafruit_Python_DHT/Adafruit_DHT/common.py",
line 80, in read
platform = get_platform()
File "/home/pi/Adafruit_Python_DHT/Adafruit_DHT/common.py",
line 48, in get_platform
from . import Raspberry_Pi
File
"/home/pi/Adafruit_Python_DHT/Adafruit_DHT/Raspberry_Pi.py",
line 22, in
from . import Raspberry_Pi_Driver as driver
ImportError: cannot import name Raspberry_Pi_Driver
```

Can anyone make a suggestion?? for a senior, junior pi enthusiast...
Pete

REPLY

Bogd on October 24, 2017 at 6:13 am

@Pete – To add to my previous comment – make sure that you followed all the above steps for installing the Adafruit DHT library. If you're not sure, just reinstall it 😊

REPLY

Bogd on October 30, 2017 at 12:58 pm

I have just run into the exact same issue right now, on a brand new Raspberry Pi 😊

In my case, the issue was related to the fact that the default Python interpreter is Python2, but my Python code was set to use Python3.

I just had to to "python3 setup.py install" when setting up the Adafruit DHT library, to make sure that it gets installed under the correct interpreter.

Maybe this will help you as well 😊

REPLY



45.

bogd on October 24, 2017 at 6:06 am

You have a line that says "from . import Raspberry_Pi_Driver as driver".

Do you actually have that "Raspberry_Pi_Driver.py" file?

REPLY

pete on October 30, 2017 at 1:19 pm

Hi,
i did follow all of the method, twice but had the same result...
That Pi Driver file threw me a curve ball as I cant find one on the pi and cant find what it is to locate one.
Im going to throw some more time at this through this week so if you have any suggestions I would be most grateful.

CHeers
Pete

REPLY

46. **pete** on October 30, 2017 at 1:21 pm

Awesome,
Sorry Im reading backwards up the list... Yes I am on the latest version of Pi so will try the Python3 setup, thank you,

Pete

REPLY

47. **Stephanie** on November 10, 2017 at 3:57 pm

Hello and greetings from Boston, MA. THANK YOU, THANK YOU, THANK YOU!!!

REPLY

48. **Stephanie** on November 10, 2017 at 8:35 pm

I've got an Arduino Mega 2560 R3 running on my Macbook Pro High Sierra with a DHT11 3pin sensor. If I connect the sensor to the Raspberry PI using a breadboard, and via either SSH or a Serial Console cable, this tutorial runs flawlessly. HOWEVER, if I connect the Arduino to the Macbook directly or via the Mac, I receive the following error:

Arduino: 1.8.5 (Mac OS X), Board: "Arduino/Genuino Mega or Mega 2560, ATmega2560 (Mega 2560)"

Sketch uses 6900 bytes (2%) of program storage space. Maximum is 253952 bytes.

Global variables use 318 bytes (3%) of dynamic memory, leaving 7874 bytes for local variables. Maximum is 8192 bytes.

avrdude: ser_open(): can't open device "/dev/cu.usbserial": No such file or directory

ioctl("TIOCMGET"): Inappropriate ioctl for device

ioctl("TIOCMGET"): Inappropriate ioctl for device

avrdude: ser_send(): write error: Bad file descriptor

avrdude: stk500_send(): failed to send command to serial port

avrdude: stk500v2_ReceiveMessage(): timeout

avrdude: ser_send(): write error: Bad file descriptor

avrdude: stk500_send(): failed to send command to serial port

avrdude: stk500v2_ReceiveMessage(): timeout

avrdude: ser_send(): write error: Bad file descriptor

avrdude: stk500_send(): failed to send command to serial port

avrdude: stk500v2_ReceiveMessage(): timeout

avrdude: ser_send(): write error: Bad file descriptor

avrdude: stk500_send(): failed to send command to serial port

avrdude: stk500v2_ReceiveMessage(): timeout

avrdude: ser_send(): write error: Bad file descriptor

avrdude: stk500_send(): failed to send command to serial port

avrdude: stk500v2_ReceiveMessage(): timeout

avrdude: ser_send(): write error: Bad file descriptor

avrdude: stk500_send(): failed to send command to serial port

avrdude: stk500v2_ReceiveMessage(): timeout

avrdude: stk500v2_getsync(): timeout communicating with programmer

the selected serial port avrdude: stk500v2_getsync(): timeout communicating with programmer

does not exist or your board is not connected

This report would have more information with
"Show verbose output during compilation"
option enabled in File -> Preferences.

REPLY

49.

agron on November 14, 2017 at 7:44 pm

This little thing makes me soon mad ...

I get this little import error on the module RPLCD but it claims to be installed ...

```
pi@raspberrypi ~/Adafruit_Python_DHT $ sudo pip install RPLCD
```

```
Requirement already satisfied (use --upgrade to upgrade): RPLCD in
/usr/local/lib/python2.7/dist-packages/RPLCD-0.4.0-py2.7.egg
```

```
Cleaning up...
```

```
pi@raspberrypi ~/Adafruit_Python_DHT $ sudo python3 20171114.py
```

```
Traceback (most recent call last):
```

```
File "20171114.py", line 6, in
```



```
from RPLCD import CharLCD
ImportError: No module named RPLCD
pi@raspberrypi ~/Adafruit_Python_DHT $
```

a

Any advice?

Thanks

REPLY

Bogd on November 14, 2017 at 8:22 pm

See above my previous comment (the one posted on October 30).

You do have TPLCD installed under python2, but you are using python3 to run your code 😊

Try doing a "sudo pip3 install RPLCD", then try running your program again.

REPLY

bogd on November 14, 2017 at 8:23 pm

Typo – I wrote TPLCD, but I meant RPLCD. Sorry about that 😊

REPLY

Agron on November 15, 2017 at 4:46 am

Thanks!

Will try that later today.

REPLY

agron on November 15, 2017 at 9:35 pm

Hi,

Didn't work

Got an error

Sudo: pip3 unknown command

Or something similar. Thought I posted immediately but apparently not

Thanks



REPLY**Bogd** on November 16, 2017 at 5:47 am

You need to install pip for python3:

```
sudo apt-get install python3-pip
```

REPLY50. **boubou** on November 29, 2017 at 10:52 pm

Hi

I would like to try this little project as my first one in this new hobby. But I didn't see what you use to complet your projet. I know you have a raspberry pi (obviously) and a DHT11 (or 22) sensor, projects boards, but what else?

I would like to know what kind of raspberry pi can we use to build this thing up? (previous versions of pi are usually sold bit cheap than the new version).

what kind of LCD you have used?

What kind of wires will I need to soldering to complet the project? (I'm suppose I will be able to soldering those wire together at the end after all the project work well on the projects boards right?)

What is the capacity of the SDMicro card I need to have? And what OS should I use / boot on this card?

What are those "big golden rounds things" (top right of you largest project board) look like a kind of buzzer

Thank

REPLY**Bogd** on November 30, 2017 at 7:01 am

@boubou – I will try to answer all of your questions.

1) All you need is a raspberry pi, a sensor, a breadboard, and (optionally) an LCD screen. You can make your own connection wires, but it will make things a lot easier for you if you buy them already made (with male or female connectors in the ends, like the ones you see in the pictures)



2) Any Raspberry Pi will do.

3) The LCD used is a generic "1602" (16×2, or 16 characters/2 lines).

4) If you want to solder the completed project, you will also need some kind of PCB to solder everything onto. The types of wires used doesn't really matter at this point 😊

5) I would recommend using NOOBS or Raspbian (the two "official" OSs for Raspberry Pi). IIRC, any microSD card of more than 2 GB will work.

6) The "big golden round things" are variable resistors (potentiometers). He's using them to control the brightness and contrast of the LCD screen.

One more thing – based on your questions, I assume that the Raspberry Pi is a new platform for you. I would strongly recommend that you read some "getting started" guides, and work on some simpler projects (like blinking a LED connected to a GPIO) before tackling this one. While this is not an overly complicated project, it does have multiple parts, and could be a bit overwhelming as a first Pi project 😊

REPLY

boubou on November 30, 2017 at 6:00 pm

Hi

thank alot for ansering.

Well I will buy an old version of the pi (Rasperry Pi Model A+ 512MB RAM). As I said, less expansive than the newer one.

well, I will love to see what going one with the temperature and humidity ... so the LCD screen should be good for me.

My question is: with this set up, can we record the datas? I don't need to see far away back ... but if I can see what was the temperature / humidity couple days ago I will be glad (it a projet for my "cheese cave"). That is why I asked for the capacity of the card.

Do you know what kind of PCB I will need? I found a 5 X 7 cm. will it be enough?

I didn't know we needed potentiometers to control the brightness and contrast of the LCD screen. Thought we can do it with "on screen control". I will see if I need one or not. (it may not be necessary for my project).

Yes it new for me ... but I already read a little bit on this sujet. Like you suggest, I readed some kind of magazines (like the magpi, Raspberry Pi For Beginners or for kids). I may not read it all, but I think I got the picture. The hardest part for me will certainly be the programming section wish I'm completely new to this and never code anything.

But with this kind of project I think I will be able to learn.

REPLY

Bogd on December 1, 2017 at 6:40 am

You can record them, but you will need to write your own code for that. And decide on how to do that (log to a text file? to a database?). Also, you will need to write your own code to clean up old data. And your own code to recall and display previous values.

The capacity of the card doesn't really matter – since you're only storing a few bytes of text for each entry, you can store many years' worth of data in a single GB 😊 .

For the PCB I recommend the pre-drilled kind – the size depends only on how close you want (and can 😊) solder everything together.

As for the LCD, the potentiometers are required. I would recommend you to also have a look at the I2C version of the LCDs – basically the same type of screen, but with an I2C "backpack"/"shield" already connected. That shield includes the potentiometers, and allows you to talk to the LCD by using only 4 wires. However, the code will look a bit different – google for "raspberry pi i2c lcd", and you will find plenty of examples.

REPLY

agron on December 1, 2017 at 9:32 am

If you google a bit there is code and setup to write the values to a google spreadsheet. Easy from there to export to Excel or anything else.

REPLY

51. **Jimmy** on December 2, 2017 at 10:21 am

Hi, Thanks for the tutorial. It's really excellent.
The python code works on the terminal.
When I try to do it with the LCD it won't work.
I'm using a 1602 LCD, but I think it's not the problem.
This is the error I got:

```
Traceback (most recent call last):
  File "DHT11_LCD.py", line 7, in
    lcd = CharLCD(cols=16, rows=2, pin_rs=37, pin_e=35, pins_data=[33, 31,
    29, 23])
  File "/usr/local/lib/python2.7/dist-packages/RPLCD/__init__.py", line 14,
    in __init__
    super(CharLCD, self).__init__(*args, **kwargs)
  File "/usr/local/lib/python2.7/dist-packages/RPLCD/gpio.py", line 95, in
    __init__
    'must be either GPIO.BOARD or GPIO.BCM' % numbering_mode)
ValueError: Invalid GPIO numbering mode:
numbering_mode=None, must be either GPIO.BOARD or GPIO.BCM
```

My RPi.GPIO version is 0.6.3. I hope that this can help you to solve my problem.

I'm sorry that I'm not really good at English.

Thanks for the tutorial again. This is the best tutorial I have seen.

I am looking forward to receive your reply.

REPLY

52. **Baxter** on December 9, 2017 at 8:34 pm

So I succesfully ran this program, but I always get the message "Data not good, skip". Is something wrong with my sensor? It works in python...

I might add that this is a cheap module that I bought on ebay, maybe something is wrong?

REPLY

Baxter on December 9, 2017 at 8:57 pm

Managed to solve it, had to increase the delay from 1 micro second to 2 micro seconds.

REPLY

53. **Marius** on December 28, 2017 at 9:44 pm

How the heck do you read digital input for that sensor? Raspberry doesn't have any digital or analog output.

REPLY

Bogd on December 29, 2017 at 7:27 am

@Marius – what are you talking about? Raspberry has TONS of digital I/O pins 😊

Yes, it doesn't have any analog pins (no ADC/DAC onboard), but since this is a digital sensor, you don't need those anyway 😊

REPLY

54. **Marius** on December 30, 2017 at 12:56 pm

digitalRead gives me always 1 as value...

REPLY

Bogd on December 30, 2017 at 1:04 pm

You _really_ need to provide more details... What is connected to the pin that you are reading? If it is the DHT11 sensor, you don't simply read the pin – read the datasheet (or the code in the article above) to see what you need to send, and what the sensor sends back to you on that pin.

REPLY

Marius on December 31, 2017 at 2:02 pm

Well I have the + to PIN 2, – to PIN 9 and OUT to pin 7. That's all... The code should do the magic, but seems like it does not.

I read the datasheet and I understod that input from sensor is actually a message formed by 5 bytes and all the other details, nothing too fancy... the main problem is that every single bit from my message is



REPLY**Bogd** on December 31, 2017 at 5:07 pm

Many things that could go wrong here...

- 1) Are you using the code in the article?
(exactly that code, or a modified version?)
- 2) What type of DHT11 do you have (3-pin, or 4-pin)? Do you have a pullup resistor in place?
- 3) Just in case, do you have another DHT11 you could test with?

REPLY**Marius** on December 31, 2017 at 6:25 pm

Yes, exactly the code from article.

I have the 3 pin version. Sorry but I don't know what is exactly a pullup resistor. There is only the sensor and the Raspberry.

Nope, I don't have another DHT11, but I know 100% that it's working because I just tested it today on Arduino. I think it's a configuration problem... I can't get the LCD display working, neither the gas sensor. The raspberry it's not broken neither, I have two of them and the problem is the same... also, I can turn on and off leds, and I also can get input from a button, but not from the sensors.

Thanks for your time

REPLY**MARIUS** on December 31, 2017 at 6:29 pm

Sorry for asking... are this photos and videos made by you? The problem doesn't seem to be only at me, I made some research and there are plenty of people complaining about exactly the same problem. It's still doesn't make any sense since in the datasheet it's written that the input is digital signal...

**REPLY**

Bogd on December 31, 2017 at 7:50 pm

No, the page is not mine. I'm just another user trying to help people out 😊

The pull-up resistor should be a 10K resistor connected between Vcc (+5V) and the signal pin of the DHT. The 3-pin version should already have a pull-up resistor on the board (see the first picture of the 3-pin DHT sensor in the article above) – but I did have some 3-pin DHT sensors from China that were missing that resistor. However, if the sensor works on Arduino, this is probably NOT the issue.

Right now, the only other advice I can give you is “double- and triple-check all your wiring”. Maybe also try with another GPIO pin, to make sure that is not the issue.

REPLY

marius on January 1, 2018 at 12:54 pm

Well, I think there are two resistors, but on the other side of the sensor, comparing to the image. My wiring is good, I tried to get input with the sensor disconnected... values were all 0. Right after I connected the sensor back, the values became all 1.

Thanks for trying and sorry for wasting your time! 😊

REPLY

55. **jk** on January 5, 2018 at 3:20 pm

(((((could u make it to send results in our desired regular intervals of time to our mentioned mail from this below program))))

```
#!/usr/bin/python
import sys
import Adafruit_DHT
```

```
while True:
```

```
    humidity, temperature = Adafruit_DHT.read_retry(11, 4)
```

```
    print 'Temp: {0:0.1f} C Humidity: {1:0.1f} %'.format(temperature,
    humidity)
```

REPLY

Bogd on January 6, 2018 at 11:38 am

Short answer: yes.

Long answer: you will need to read on how to send an email from python, and how to run a program at regular intervals.

For the first part, see here for some examples:

<https://docs.python.org/2/library/email-examples.html>

For the second part, you can run your program at startup and keep it running continuously (a “while True:” loop that simply sends the email, then sleeps for the desired time). Or, even better, you can run your program periodically using cron.

REPLY

56. **shuou** on January 8, 2018 at 8:03 am

Hi.

I'm new at Pi3.I have a question. I see this below message. I have no idea what to do.

Traceback (most recent call last):

File “t.py”, line 7, in

humidity, temperature = Adafruit_DHT.read_retry(11, 4)

File “/home/pi/Adafruit_Python_DHT/Adafruit_DHT/common.py”,

line 94, in read_retry



```

humidity, temperature = read(sensor, pin, platform)
File "/home/pi/Adafruit_Python_DHT/Adafruit_DHT/common.py",
line 80, in read
platform = get_platform()
File "/home/pi/Adafruit_Python_DHT/Adafruit_DHT/common.py",
line 55, in get_platform
from . import Raspberry_Pi_2

File
"/home/pi/Adafruit_Python_DHT/Adafruit_DHT/Raspberry_Pi_2.py",
line 22, in
from . import Raspberry_Pi_2_Driver as driver
ImportError: cannot import name Raspberry_Pi_2_Driver

```

Could someone tell me what is problem?
Thank you.

REPLY

Bogd on January 8, 2018 at 6:15 pm

This has been asked at least 4 times before (and answered).
Please search the comments (Ctrl-F, and type "driver", for
example) – you will find possible solutions.

REPLY

57. **adrew** on January 8, 2018 at 7:36 pm

Hi there,

How do I transfer this information to the mobile app? Is there a way
to code this simply so it shows live on the android app?

REPLY

58. **eDWARD** on January 19, 2018 at 4:08 pm

For me, my case is where 90% are failed check-sum [Data not good,
skip] and only 10% data retrieved successfully. I've modified the code
to "100% eliminated" the [Data not good, skip] statement display
during the data retrieving. The code I modified didn't actually
eliminate the fail check-sum, but to decrease the looping m/s for
faster refresh rate and removed printf("Data not good, skip\n"); to
stop displaying the [Data not good, skip]

//Modified code block

```

if ( (j >= 40) &&
(dht11_dat[4] == ( (dht11_dat[0] + dht11_dat[1] + dht11_dat[2] +
dht11_dat[3]) & 0xFF) ) )

```

```
{
f = dht11_dat[2] * 9. / 5. + 32;
printf( "Humidity = %d.%d %% Temperature = %d.%d C (%.1f F)\n",
dht11_dat[0], dht11_dat[1], dht11_dat[2], dht11_dat[3], f );
}else {
//printf( "Data not good, skip\n" );// <set this line as comment//

}
}

//and//

while ( 1 )
{
read_dht11_dat();
delay( 100 );
}
```

Correct me if I did a stupid mistake, thank you!

REPLY

LEAVE A REPLY

Your email address will not be published. Required fields are marked *

COMMENT

//

NAME *

EMAIL *

WEBSITE

☒ Send new posts to my inbox.

☐ Notify me of follow-up comments by email.

POST COMMENT

^



