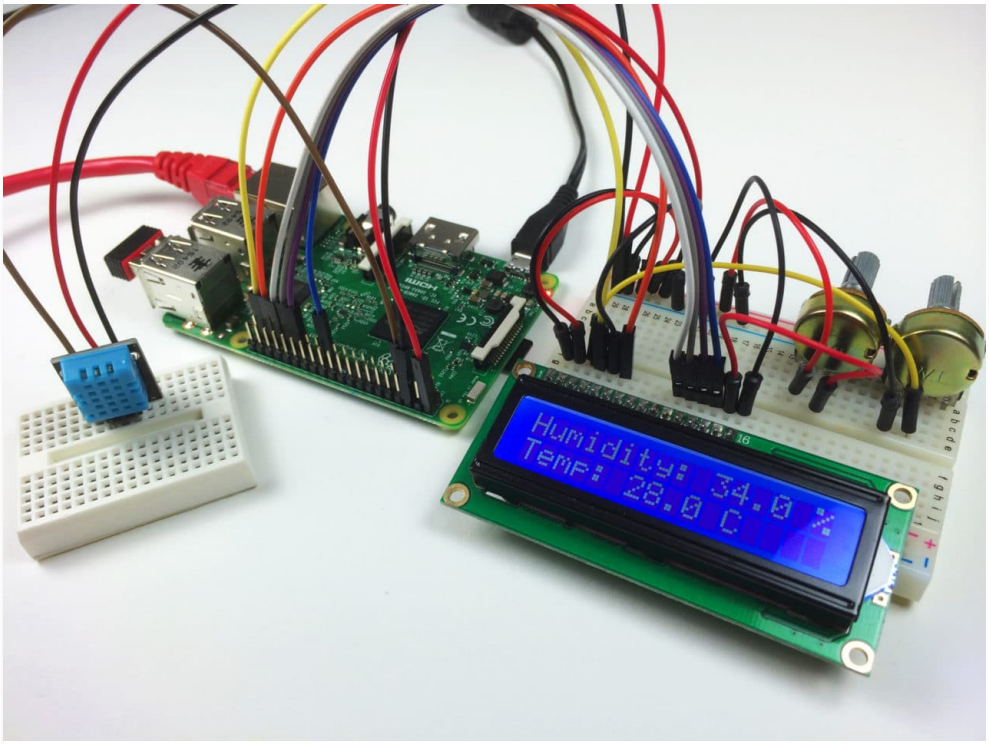
HOW TO SET UP THE DHT11 HUMIDITY SENSOR ON THE RASPBERRY PI

Posted by Circuit Basics | Raspberry Pi | 62



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

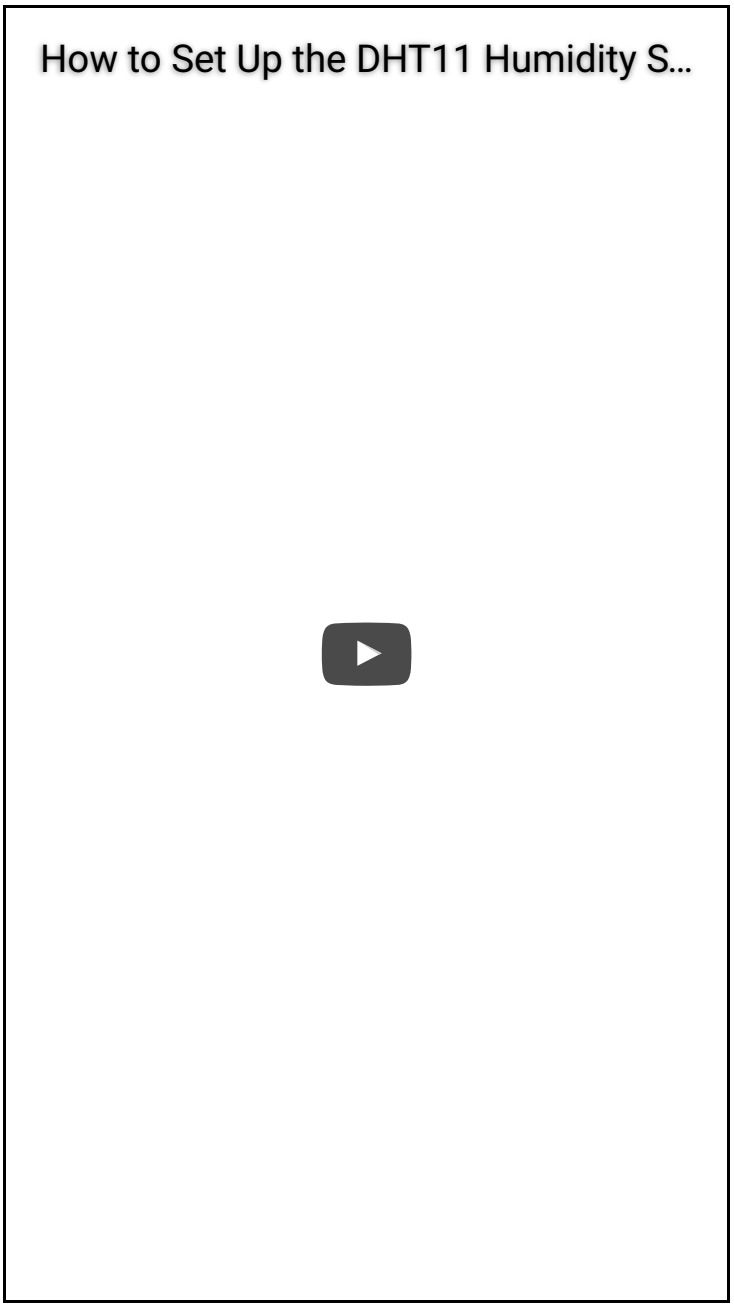
We have another tutorial on the DHT11 for the Arduino that goes into detail on relative humidity and how the DHT11 measures it. So instead of repeating all of that here, check out How to Set Up the DHT11 Humidity Sensor on an Arduino, then come back for the specifics on setting it up on the Raspberry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

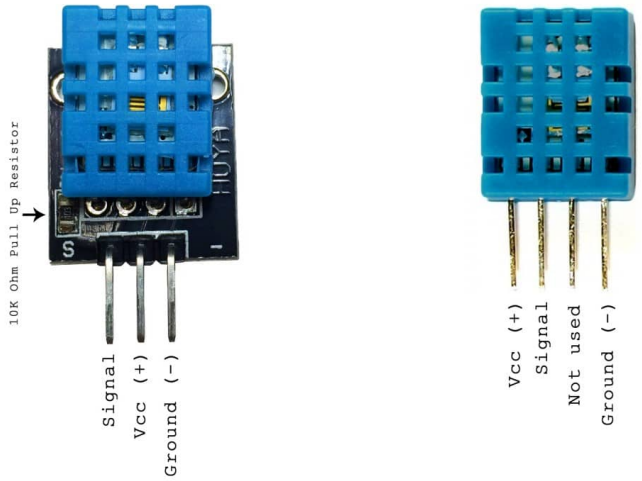
This video will walk you through the setup steps and show you how the measurements look in

real time:



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:

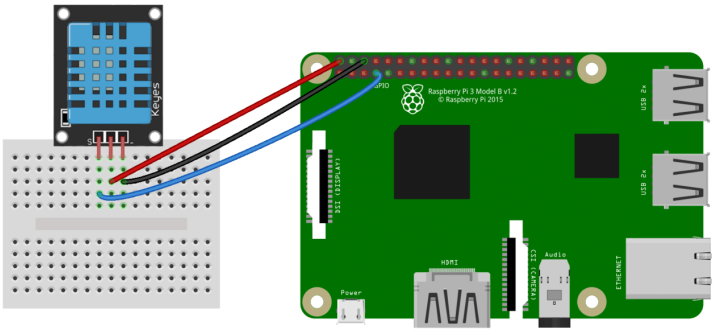


Also, some of the PCB mounted modules might have a different pinout than the one above, so be sure to check your sensor for any labels indicating which pin is Vcc, ground or signal.

WIRING FOR SSH TERMINAL OUTPUT

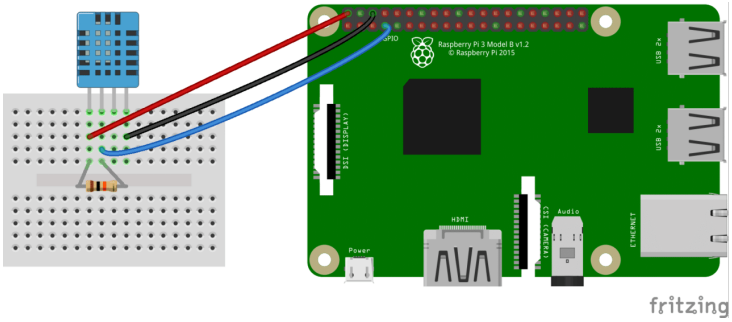
THREE PIN DHT11 WITH SSH OUTPUT

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:

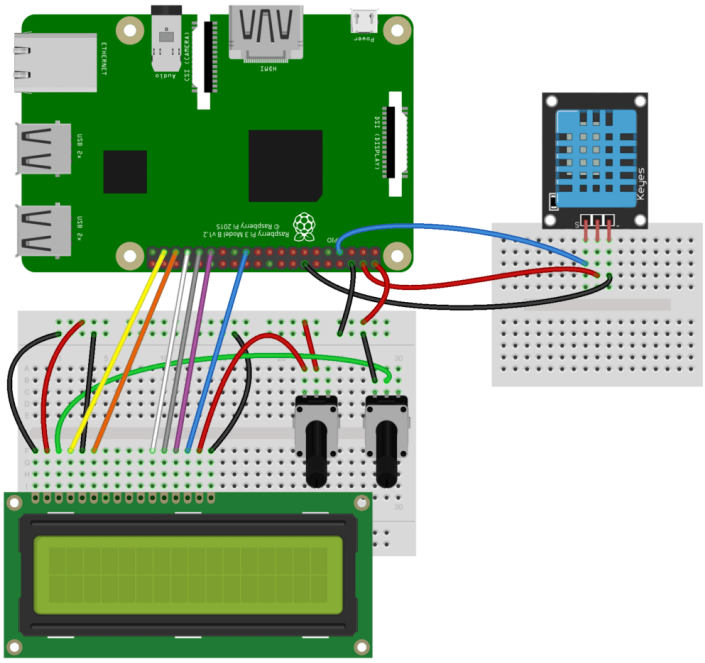


The resistor is a 10K Ohm pull up resistor connected between the Vcc and signal lines.

WIRING FOR LCD OUTPUT

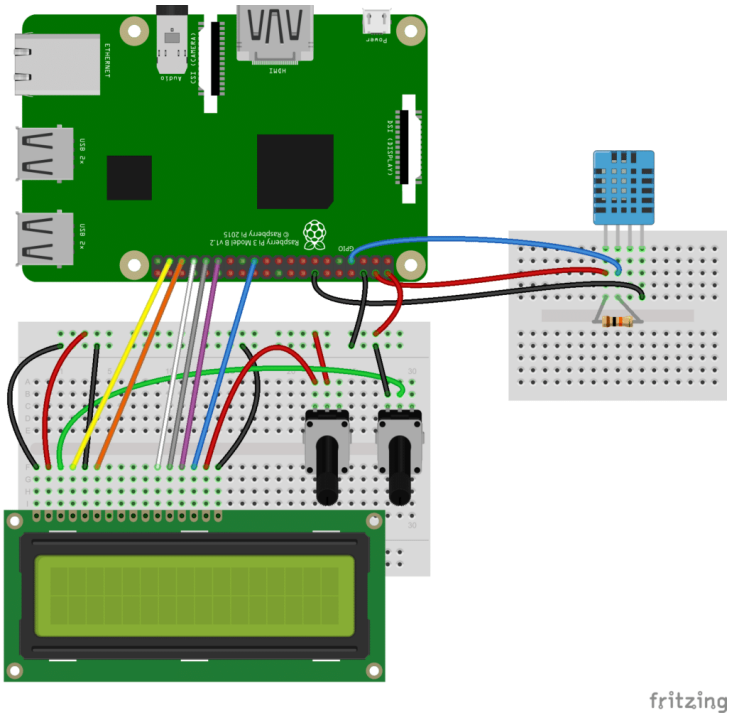
THREE PIN DHT11 WITH LCD OUTPUT

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:



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 complied by entering this at the command prompt:

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

(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
 9  #define LCD_E   24                //Enable P
10  #define LCD_D4  23                //Data pir
```

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_Pyt
hon_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:

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

while True:

    humidity, temperature = Adafruit_DHT.read_

    print 'Temp: {0:0.1f} C  Humidity: {1:0.1f
```

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:

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

from RPLCD import CharLCD

lcd = CharLCD(cols=16, rows=2, pin_rs=37, p


while True:
```

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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ABOUT THE AUTHOR

Circuit Basics

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62 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

Isnt 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

tempeture & 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

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 Mereďa** on September 7, 2016 at 6:25 pm

The code works briliant but please can you help me how should python code looks 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 transciever module or do you have some suggestion about rfm12b how 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 realy 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. **eduardoinoueardo Inoue** 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/Ad
afruit_DHT/common.py”, line 90, in
read_retry
humidity, temperature =
read(sensor, pin, platform)
File
“/home/pi/Adafruit_Python_DHT/Ad
afruit_DHT/common.py”, line 76, in
read
platform = get_platform()
File
“/home/pi/Adafruit_Python_DHT/Ad
afruit_DHT/common.py”, line 51, in
get_platform
from . import Raspberry_Pi_2
File
“/home/pi/Adafruit_Python_DHT/Ad
afruit_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);
}
```

REPLY

27. **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

REPLY

28. **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

yes still not workin g

REPLY

Prasanna on April 23, 2017 at 5:03 am

O k

finally got past this. The jumper wire shipped

with sensor was faulty so the GPIO read was fail

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REPLY

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

Works for me! Rocking the python code! Tnxz!

REPLY

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

convert Celsius to Farenheit 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/python ….what 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/2012/07/16×2-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. **Ikya** 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

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/Ad
afruit_DHT/common.py”, line 94, in

read_retry
humidity, temperature =
read(sensor, pin, platform)
File
"/home/pi/Adafruit_Python_DHT/Ad
afruit_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

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

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

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

Hi guys. I have a dth11 sensor with 3 pins as shown in the post. 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

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