## The DHT11 sensor: Temperature and Humidity



Figure 1: Connecting the DHT to a Raspberry Pi for reading on the terminal

## Steps

## Install the necessary libraries and software in your RPi

1. In order to download the necessary library for reading the sensor we will need git a version control system. Install it with

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

2. We will also need the required python tools to build and install the library, Install them with

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

3. Now we download the library with

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

- 4. Next we go into the newly created library folder with
- cd Adafruit\_Python\_DHT
- 4. And we build the library with

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

Now we are ready to use in Python the Adafruit\_DHT library for reading the temperature and humidity sensor DHT11

## Test reading the temperature and humidity with the DHT11 sensor

Create a file called readingDHT-temp\_humidity.py

and copy the code

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)
Finally, run it with python readingDHT-temp\_humidity.py (no sudo required!)