Raspberry Pi with DHT11:

Introduction: The DHT11 is a low-cost temperature and humidity sensor. It isn't the fastest sensor around but its cheap price makes it useful for experimenting or projects where you don't require new readings multiple times a second. The device only requires three connections to the Pi. +3.3v, ground and one GPIO pin.

Components:

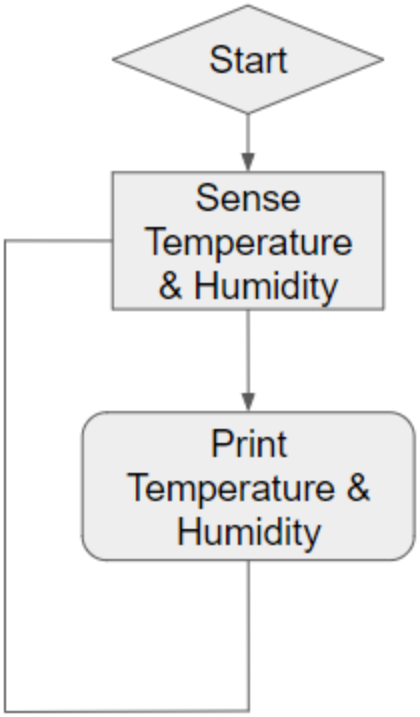
- Raspberry Pi
- Breadboard
- DHT11 Sensor module
- Jumper wires

Application:

- Weather station
- Temperature controlled Fan

Objectives:

Flowchart:



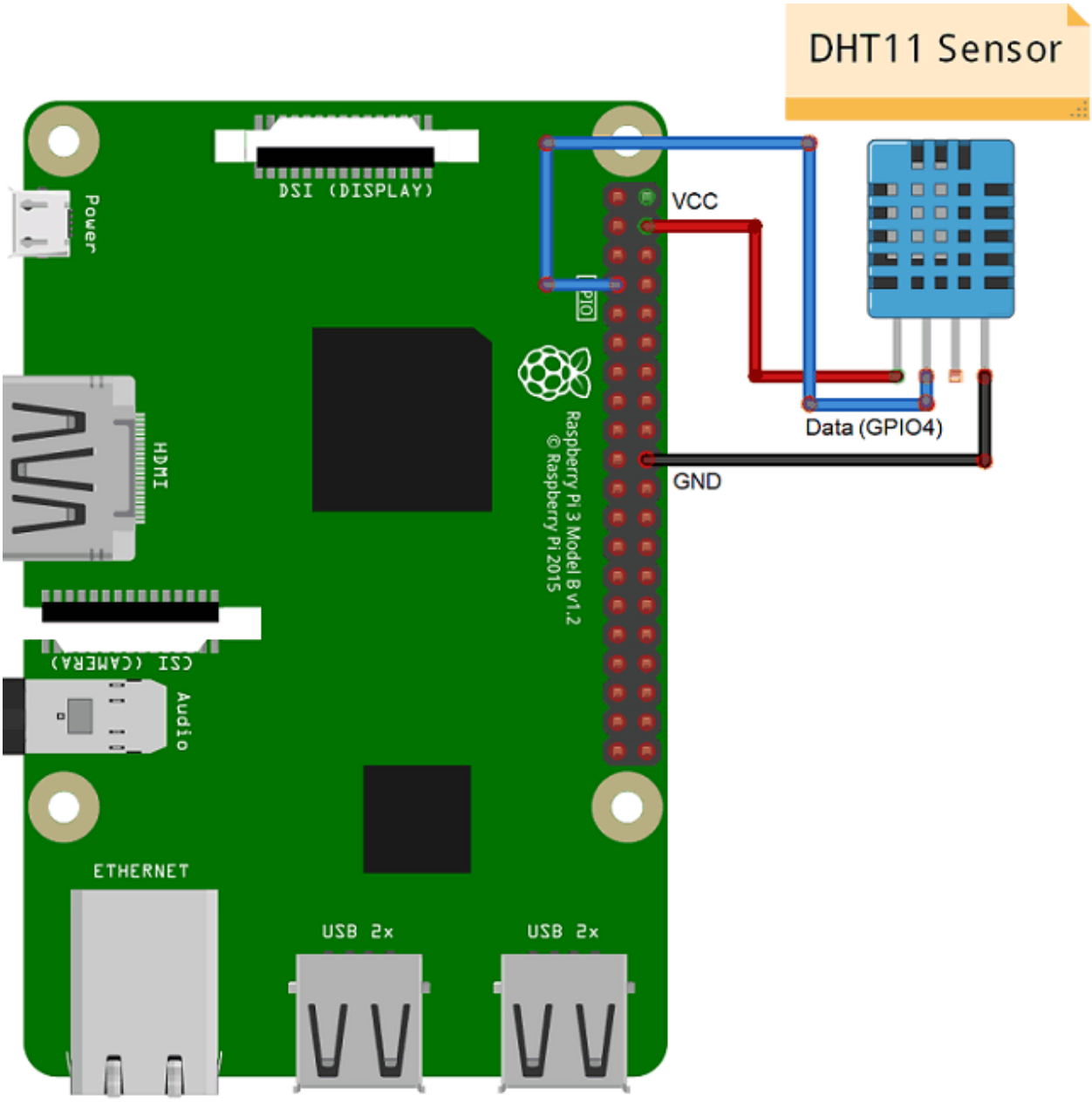
Code:

```
import Adafruit_DHT

sensor = Adafruit_DHT.DHT11

pin = 4

while True:
    humidity, temperature = Adafruit_DHT.read_retry(sensor, pin)
    print('Temp={0:0.1f}*C  Humidity={1:0.1f}%'.format(temperature,
humidity))
```

Hardware connection:

DHT11 Vcc - 3.3V
DHT11 Data - GPIO4
DHT11 GND - GND

Circuit Diagram:


DHT11 Sensor
DSI (DISPLAY)
Power
HDMI
CSI (CAMERA)
Audio
ETHERNET
USB 2x
USB 2x
GPIO
Raspberry Pi 3 Model B v1.2
© Raspberry Pi 2015
VCC
Data (GPIO4)
GND