

(<http://cdn.instructables.com/FAF/VDOA/HZLYRMF3/FAFVDOAHZLYRMF3.LARGE.jpg>)

Quick and simple start guide for using and exploring the Rain Sensor module sometimes called a "Raindrops Sensor Module" with an Arduino.

I figured since I recently wrote up an Instructable about flame sensors (<http://www.instructables.com/id/Arduino-Modules-Flame-Sensor/>), a type of water sensor might just be a good equalizer.

#### Materials needed:

- Rain Sensor (model with an analog out) (<http://www.dx.com/p/raindrops-sensor-module-blue-black-199859#.VAaJLmOrjV>)
- 3x Male to Female jumper wires
- 2x Female to Female jumper wires
- An Arduino, any flavor
- Source of water



#### About This Instructable

26,915 views

71 favorites

License:



(/member /Reichenstein7/)

**Reichenstein7** (/member /Reichenstein7/)

Cipher Computer and Robotics  
(<http://stores.ebay.com/Cipher-Computer-and-Robotics>)

Follow

147

09/12/2015 12:42 PM

More by Reichenstein7

# Arduino Modules - Rain Sensor

by Reichenstein7 /member/Reichenstein7

<http://www.instructables.com/id/Arduino-Modules-...>

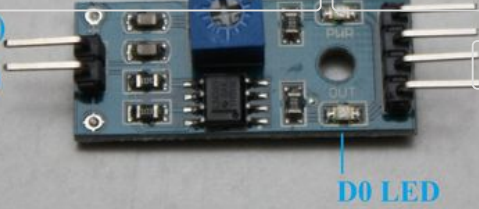
Download (/id/Arduino-Modules-Rain-Sensor/?download)

(/id/Arduino-Modules-Rain-Sen

4 Steps

(/id/How-to-properly-change-your-vehicles-oil)

Sensor Board (+)  
Sensor Board (-)



Collectio

I Made it

Favorite

Share

D0 LED



Sensor boards  
printed leads

(<http://cdn.instructables.com/FA2/3UV5/HZLYROPV/FA23UV5HZLYROPV.LARGE.jpg>)

## Usage:

Rain sensors are used in the detection of water beyond what a humidity sensor can detect.

## How it works:

The rain sensor detects water that completes the circuits on its sensor boards' printed leads. The sensor board acts as a variable resistor that will change from 100k ohms when wet to 2M ohms when dry. In short, the wetter the board the more current that will be conducted.

## Pins:

A0..... Analog output

D0..... Digital output

GND..... Ground

VCC..... Positive voltage (input: 5v for analog 3.3v for Digital.)

## Loop Pins:

+ ..... Sensor board hookup A

- ..... Sensor board hookup B

## Dimensions:

2.17 in x 1.57 in x 0.31 in (5.5 cm x 4.0 cm x 0.8 cm)

## Weight:

0.28 oz (8 g)

## Related



**Arduino Modules - Flame Sensor** (/id/Arduino-Modules-Flame-Sensor/)

by Reichenstein7 (/member



**ESP8266 WiFi water leak sensor** (/id/ESP8266-WiFi-water-leak-sensor/)

by EasyIoT (/member



**How to use MQ2 Gas Sensor - Arduino Tutorial** (/id/How-to-use-MQ2-Gas-Sensor-Arduino-Tutorial/)



**Pulse Sensor With Bluetooth and Arduino** (/id/Pulse-Sensor-With-Bluetooth-)



**Automatic Switching of light using IR proximity sensor** (/id/Automatic-Switch-ON-And-

[See More \(/tag/type-id/?q=\)](#)

## Step 2: Testing and Troubleshooting:

Download (/id/Arduino-Modules-Rain-Sensor/2download)

(/id/Arduino-Modules-Rain-Sen

4 Steps

Collectio

I Made it

Favorite

Share



(<http://cdn.instructables.com/F5A/ZYRI/HZLYRMEF/F5AZYRIHZLYRMEF.LARGE.jpg>)

## Testing:

To test the Rain Sensor and ensure that it is working correctly connect the VCC to a 5v power source and GND. Try placing a few droplets of water on the Rain sensor detection board and the D0-LED should light up.

## Troubleshooting:

If the D0-LED does not light up check the following:

- Is the module hooked up properly?
- Sometimes salinity is an issue with these units, this one worked fine with filtered, bottled water, but in some instances you may have to add a bit of salt to increase the waters conduction.
- This might be a bit more tricky, but for some reason two different models by two different manufacturers have had defects in their soldering skills. Make sure all of the little SMD's and connectors have been soldered on properly. IE - are solder joints actually soldered?
- If none of the previous makes the D0-LED light up, your sensor may be defective.

## Step 3: Wiring to an Arduino:



Download (/id/Arduino-Modules-Rain-Sensor/?download)

(/id/Arduino-Modules-Rain-Sen

4 Steps

Collectio

I Made it

Favorite

Share



(http://cdn.instructables.com/FOT/C8SZ/HZLYRME0/FOTC8SZHZLYRME0.LARGE.jpg)

To wire the Rain Sensor to the Arduino for analog, simply connect the following as shown:

**Rain Sensor ..... Arduino**

VCC..... 5v

GND..... GND

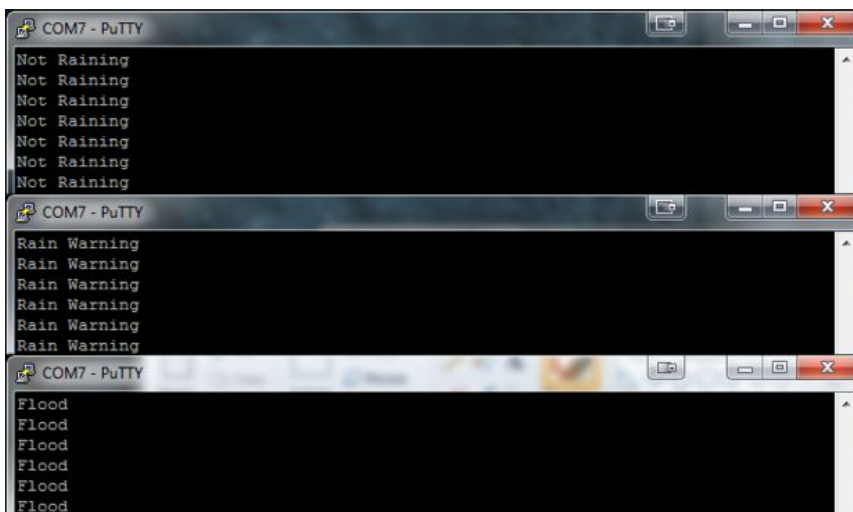
A0..... Analog in 0

**Rain Sensor ..... Sensor Board**

+..... +

-..... -

#### Step 4: Arduino Sketch Example:



(http://cdn.instructables.com/FPP/VOAQ/HZLYRIJ3/FPPVOAQHZLYRIJ3.LARGE.jpg)

4 of 7 The following code maps and reads the analog values given by the Rain Sensor (0-1024). The Rain Sensor will have the following reaction with this code:

- If the Sensor Board is completely soaked; "case 0" will be activated and "

09/12/2015 12:42 PM

# Arduino Modules - Rain Sensor

Floods will be sent to the serial monitor.

Rain Warning " will be sent to the serial monitor.

4 Steps

be sent to the serial monitor.

\* The output in "case 2", "Not Raining" is just for this demonstration. When used this code in production I omitted the output for this case and just had the alert for "Rain Warning" and "Flood".

\* To view the output, point a serial monitor such as Putty at your Arduino.

\* This code is constantly updating in order to provide a real time feedback of the Rain Sensor.

**Code:**

**Attached due to formatting.**



**Rain\_Sensor\_by\_Reichenstein7.ino**

(/files/orig/FV9/QZY5/HZLYRIU8

/FV9QZY5HZLYRIU8.ino)1 KB

Moyenne des commentaires client Amazon.fr  
(186)

**Une machine parfaite**

“ Elle démarre en cinq secondes, montre en main (...) On y dispose de toutes les applis courantes (GoogleDocs, Sheet etc...) ou de tout ce qui est dispo sur le Net ”

## Elasticsearch in Paris

elastic.co/elasticon/tour/2015/  
Elastic{ON} 2015 Global Tour  
November 5th - Register Now

## New: C10 Force Sensor



We have a **be nice** comment policy.  
Please be positive and constructive.

I Made it!

Add Images

Make Comment



**bask185** (/member/bask185/)

26 days ago

Reply

(/member/bask185/)

Is there also some documentation about this sensor, so I can transform the analog reading in a more saying variable, for instance liter/meter^2?

I cant find anything



**Reichenstein7** (/member/Reichenstein7/) (author)

bask185

13 days ago

Reply

(/member/Reichenstein7/)

This sensor is really more of just an on or off variable sent back to your controller when it gets smattered by water.

**babymii** (/member/babymii/)

can i buy this?



