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SparkFun Soil Moisture Sensor (with Screw Terminals)

SEN-13637

★★★☆☆ 1

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DESCRIPTION   DOCUMENTS

The SparkFun Soil Moisture Sensor is a simple breakout for measuring the moisture in soil and similar materials. The soil moisture sensor is pretty straightforward to use. The two large, exposed pads function as probes for the sensor, together acting as a variable resistor. The more water that is in the soil means the better the conductivity between the pads will be, resulting in a lower resistance and a higher SIG out. This version of the Soil Moisture Sensor includes a 3-pin screw pin terminal pre-soldered to the board for easy wiring and setup.

To get the SparkFun Soil Moisture Sensor functioning, all you will need is to connect the VCC and GND pins to your Arduino-based device (or compatible development board). You will receive a SIG out, which will depend on the amount of water in the soil. One commonly known issue with soil moisture senors is their short lifespan when exposed to a moist environment. To combat this, we've had the PCB coated in gold finishing (ENIG, or Electroless Nickel Immersion Gold).

Note: Check the Hookup Guide below for assembly and weatherproofing instructions, as well as a simple example project that you can put together yourself!

GET STARTED WITH THE SOIL MOISTURE SENSOR GUIDE

Tags

BIOMETRICS   MOISTURE   SENSOR   SOIL   WEATHER

SparkFun Soil Moisture Sensor (with Screw Terminals) Product Help and Resources

TUTORIALS   VIDEOS   hackster.io   SKILLS NEEDED

SparkFun Inventor's Kit for Photon Experiment Guide
SEPTEMBER 3, 2015

Dive into the world of the Internet of Things with the SparkFun Inventor's Kit for Photon.

Soil Moisture Sensor Hookup Guide
JULY 23, 2015

A quick hookup guide and project to get you started with the Soil Moisture Sensor from SparkFun.

BadgerHack: Sensor Add-On Kit
FEBRUARY 16, 2016

Turn your Badger or Redstick into a temperature and soil moisture sensing display with the BadgerHack Sensor Add-On Kit

Logging Data to Google Sheets with the Tessel 2
DECEMBER 12, 2016

This project covers how to log data to Google Sheets two ways: using IFTTT with a web connection or a USB pen drive and "sneakernet" without.

COMMENTS 2   REVIEWS ★★★☆☆ 1

Customer Reviews

★★★☆☆ 3 out of 5

Based on 1 ratings:

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2 star		0
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★★★☆☆ **I got some stange value**

about 4 months ago by Member #374496   ✓ verified purchaser

Hello, I am using this part since a couple of weeks. I am tetsing it with my plant and I am suprised to see some stange value (if it is). First I mesure the value with the sensor outside of the soil. It return me something like 12. The I insert in glass of fully dreid soil. It return me a value of 860. Then into a soil humid. It return me something like 700, and a soil dry. Instead of a value close to 100 or below 300, it return a value of 700.

Then I tried with my plant. I gave to my plant a lot of water and then inserted the sensor into soil for one week. At the beging, the sensor return me a value of 779. During the week, I expected to see the value going down, but not. Now the soil is fully dried and the sensor return me a value of 650. It's strange because it should print a value below 300. If I remove the sensor from the soil, it print me a value of 12.

I do not understand when the soil is fully dried, I do not have a value below 300 or around 100.

FYI: I inserted the ¾ of the "legs" into the soil. If I insert only 50% of the legs, the values seam to be better...

Cheers

> 🔥 Kansukee/f replied on October 16, 2017:
>
> Sorry to hear about the trouble with the moisture sensor. Have you reached out to our technical support department? They can be reached at techsupport@sparkfun.com - they're usually very good at helping make sense out of abnormal readings.

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In 2003, CU student Nate Seidle blew a power supply in his dorm room and, in lieu of a way to order easy replacements, decided to start his own company. Since then, SparkFun has been committed to sustainably helping our world achieve electronics literacy from our headquarters in Boulder, Colorado.

No matter your vision, SparkFun's products and resources are designed to make the world of electronics more accessible. In addition to over 2,000 open source components and widgets, SparkFun offers curriculum, training and online tutorials designed to help demystify the wonderful world of embedded electronics. We're here to help you start something.

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