Octopus Soil Moisture Sensor Brick can read the amount of moisture present in the soil surrounding it. Ideal for monitoring an urban garden, or your pet plant's water level. This is a must have tool for a connected garden!

This sensor uses the two probes to pass current through the soil, and then it reads that resistance to get the moisture level. More water makes the soil conduct electricity more easily (less resistance), while dry soil conducts electricity poorly (more resistance).

This sensor isn't hardened against contamination or exposure of the control circuitry to water and may be prone to electrolytic corrosion across the probes (Also it can be switched on, take the reading and switched off to minimize electrolytic corrosion), so it isn't well suited to being left in place or used outdoors.

**Specification**

<table>
<thead>
<tr>
<th>Item</th>
<th>Condition</th>
<th>Min</th>
<th>Typical</th>
<th>Max</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage</td>
<td>-</td>
<td>3.3</td>
<td>/</td>
<td>5</td>
<td>V</td>
</tr>
<tr>
<td>Current</td>
<td>-</td>
<td>0</td>
<td>/</td>
<td>35</td>
<td>mA</td>
</tr>
<tr>
<td>Output Voltage</td>
<td>Supply Voltage 5 V</td>
<td>0</td>
<td>~</td>
<td>4.2</td>
<td>V</td>
</tr>
<tr>
<td>Output Value</td>
<td>Sensor in dry soil</td>
<td>0</td>
<td>~</td>
<td>300</td>
<td>/</td>
</tr>
<tr>
<td></td>
<td>Sensor in humid soil</td>
<td>300</td>
<td>~</td>
<td>700</td>
<td>/</td>
</tr>
<tr>
<td></td>
<td>Sensor in water</td>
<td>700</td>
<td>~</td>
<td>950</td>
<td>/</td>
</tr>
</tbody>
</table>
Pinout:

- G: GND (Black wire)
- V: Voltage Supply (+) (Red wire)
- S: Signal out (Yellow wire)

3P buckled wires connector and cable included:

Applications

- Moisture sensing
- Botanical gardening
- Flood detection
- Liquid level detection
Internal Schematic

Mechanic Dimensions
Arduino Example

Connection Diagram
Sample Code

/*
 * Example code for the moisture sensor
 * Editor     : Lauren
 * Date       : 13.01.2012
 * Version    : 1.0
 * Connect the sensor to the A0 (Analog 0) pin on the Arduino board

 * the sensor value description
 * 0 ~300     dry soil
 * 300~700    humid soil
 * 700~950    in water
 */

void setup(){
    Serial.begin(57600);
}

void loop(){
    Serial.print("Moisture Sensor Value:");
    Serial.println(analogRead(0));
    delay(100);
}

The Result in different condition after open the “serial monitor” of Arduino IDE (Under tools menu):