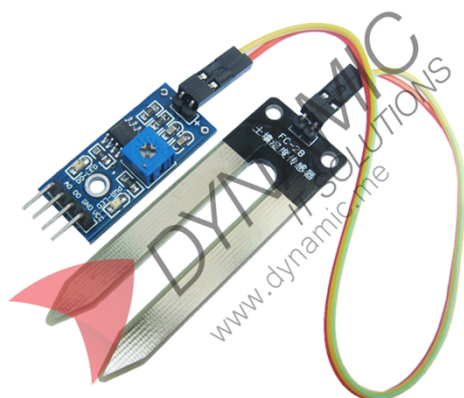


Soil Humidity Moisture Detection



Feature

The **Soil Humidity Moisture Detection Module** is designed to measure the volumetric water content in soil. It features a fork-shaped resistive probe and an LM393 comparator-based module to provide both analog and digital outputs. Adjustable threshold via a potentiometer makes it ideal for automated irrigation and environmental monitoring.

Specifications	
Model	Soil Moisture Sensor Module (LM393-based)
Sensing Method	Resistive
Output Type	Analog & Digital
Supply Voltage	3.3 V – 5 V
Operating Current	~15 mA
Analog Output Range	0 – 5 V (varies with soil moisture)
Digital Output Logic	LOW when moisture exceeds threshold (set by potentiometer), HIGH otherwise
Indicator LEDs	Power and Status (moisture threshold alert)
Comparator IC	LM393
Dimensions	Varies (probe & module combination)
Use Cases	Automated irrigation systems, soil monitoring, smart gardens, greenhouse automation

Pinouts:

Pin Name	Type	Description
VCC	Power Input	Supply voltage input (3.3 V – 5 V)
GND	Power Ground	Common ground
AO	Analog Output	Analog voltage proportional to soil moisture level
DO	Digital Output	Logic LOW when moisture > threshold, HIGH otherwise

