

INDUSTRIAL PRODUCT DATASHEET

XIAO Soil Moisture Sensor

[image] Monitor your green plants effortlessly with the XIAO ESP 32-C 6-powered Soil Moisture Sensor! Running on a single AA battery, it offers ultra-low power efficiency for long-lasting operation. Seamlessly integrates with Home Assistant, keeping you connected to your soil's condition in real time. Smart, efficient, and reliable—perfect for plant lovers!

SKU

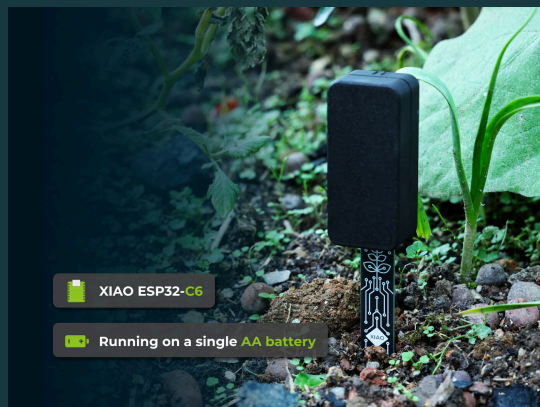
114993632

UPDATED

2026-04-29 10:15:03

PRICE

\$9.90(Excl. VAT)



Overview



Figure 1. 114993632 Seeed Studio Xiao Soil Sensor

[image] Monitor your green plants effortlessly with the XIAO ESP 32-C 6-powered Soil Moisture Sensor! Running on a single AA battery, it offers ultra-low power efficiency for long-lasting operation. Seamlessly integrates with Home Assistant, keeping you connected to your soil's condition in real time. Smart, efficient, and reliable—perfect for plant lovers!

Key Features

01

Feature 1

Comprehensive Three-Level Soil Moisture Monitoring and Alert System.

02

Normal

Indicates that the soil moisture is optimal, meaning no additional watering is required.

03

Almost Dry

Signals that the soil moisture is beginning to decline, suggesting you prepare to water soon.

04

Dry

Shows that the soil moisture is critically low, indicating an immediate need for watering.

05

Feature 2

Native ESPHome & Home Assistant Integration

06

Feature 3

Pre-Calibrated Adaptive Soil Moisture Sensing: Dynamic Monitoring Intervals with Instant Readout

07

Factory-Calibrated Plug-and-Play Operation

The sensor comes pre-calibrated from the factory, so it's ready for use right out of the box. Simply insert the sensor into the soil and start receiving moisture status without the need for additional setup.

08

Adaptive Detection Logic Based on Soil Moisture Levels

When the soil is detected as being too dry, the sensor increases its vigilance, checking the moisture level every 15 minutes. This rapid monitoring ensures that you're promptly alerted to take immediate action.

09

Normal State

When the soil moisture is optimal, the sensor automatically performs a measurement every 8 hours, ensuring that your plant's water needs are being met without unnecessary intervention.

10

Almost Dry State

As the soil begins to lose moisture, the sensor shifts to a more frequent checking schedule, monitoring the moisture once every hour. This stage serves as an early warning to prepare for watering.

11

Dry State

When the soil is detected as being too dry, the sensor increases its vigilance, checking the moisture level every 15 minutes. This rapid monitoring ensures that you're promptly alerted to take immediate action.

12

Instant Readout Feature

A single short press of the built-in button instantly wakes up the sensor and displays the current humidity level for 1 second, providing you real-time feedback at any moment.

Product Gallery



Figure 1. Hqdefault 162



Figure 2. 114993632 Seed Studio Xiao Soil Sensor



Figure 3. 114993632 Seed Studio Xiao Soil Sensor



Figure 4. 114993632 Seed Studio Xiao Soil Sensor



Figure 5. 114993632 Seed Studio Xiao Soil Sensor



Figure 6. 114993632 Seed Studio Xiao Soil Sensor



Specification

XIAO ESP32-C6

XIAO ESP32-C6	
Parameter	Description
MCU	
Button functions	Detection Status Calibration Process
RGB LED	Green: Normal Status Yellow: Almost Dry Status Red: Dry Status
Communication	Wi-Fi 2.4GHz
Power Supply	1 x AA
Enclosure	3D-Printed in Black

Visual Reference

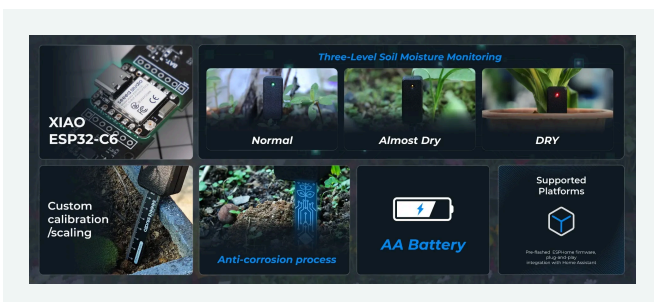


Figure 1. Image Sensor 1



Figure 2. Image Sensor 2

Hardware Overview

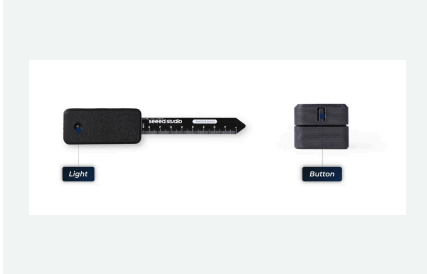


Figure 1. Image Sensor Hardware

Part List

XIAO Soil Sensor with 3D-Printed Enclosure (Black)	1
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Compliance & Logistics

HSCODE	9025800090
USHSCODE	9025801000
UPC	
EUHSCODE	9013101000
COO	CHINA

Logistics	Value
ECCN	EAR99
HSCODE	9025800090
USHSCODE	9025801000
EUHSCODE	9013101000
COO	CHINA

Resource Links

- <https://www.seeedstudio.com/XIAO-Soil-Sensor-p-6452.html>
- [Printtables](#)
- [Thingiverse](#)

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