

Shambah Assistant

An IoT Soil Testing Device



■ Shambah Assistant



The Shambah Assistant represents the most recent advancement in handheld agricultural sensing technology developed by Ycenter Shambah Solutions. This device is designed to seamlessly integrate with a smartphone it measures various soil parameters such as EC, pH, NPK, moisture, temperature, and humidity.

■ Introduction

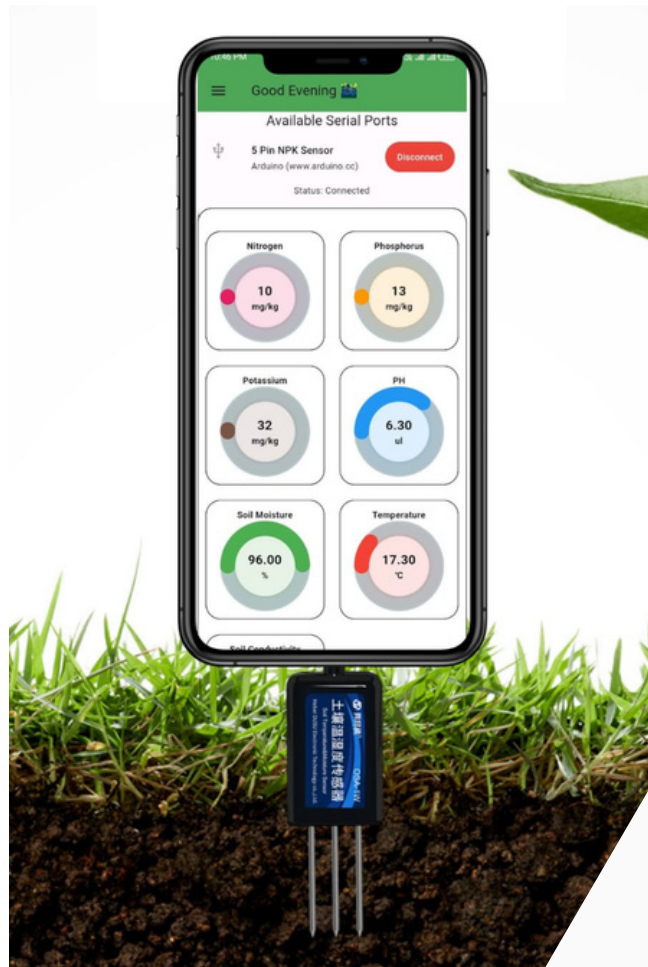
Introducing our groundbreaking 7-in-1 Soil Integrated Sensor, a pioneering device poised to elevate soil testing to new heights. Engineered to cater to the needs of small and medium-scale farmers nationwide.

■ Our Vision And Mission

At the core of our enterprise lies a profound vision and mission: to collaborate with agronomist-led farmers, governmental bodies, and non-governmental organizations. Together, we aspire to usher in a new era of data-driven agriculture, empowering stakeholders with the tools and support needed to navigate the complexities of modern farming.



■ Our Value



01

Plug and measure - 15 seconds

02

Plug on to a smartphone

03

Handheld and Portable

04

No charging

■ Soil Parameter Tested

N

Nitrogen : Nitrogen in the soil is a crucial component for plant growth and development. It plays a pivotal role in various physiological processes, serving as a key building block for proteins, enzymes, and chlorophyll—the green pigment responsible for photosynthesis. Nitrogen availability directly influences plant vigor, leafy greenery, and overall crop yield. Nitrogen is measured in **mm/kg**

P

Phosphorus in the soil is another essential nutrient critical for plant growth and development. It plays a fundamental role in energy transfer and storage, as well as the formation of DNA, RNA, and other vital molecules. Phosphorus is particularly important during the early stages of plant growth, contributing to robust root development, flowering, and fruiting. Phosphorus is measured in **mm/kg**.

K

Potassium, an essential macronutrient in soil, is integral to various physiological processes within plants. It plays a vital role in enzyme activation, photosynthesis, and the regulation of water uptake. Potassium contributes to the overall health and resilience of plants, aiding in stress tolerance, disease resistance, and the development of sturdy stems and roots. Potassium is measured in **mm/kg**



■ Soil Parameter Tested

pH

Soil pH is a measure of the acidity or alkalinity of the soil and is a critical factor influencing nutrient availability to plants. The pH scale ranges from 0 to 14, with 7 considered neutral. Values below 7 indicate acidic soil, while values above 7 indicate alkaline soil. Each plant species has an optimal pH range for nutrient uptake, and maintaining the right soil pH is crucial for ensuring the availability and absorption of essential nutrients. Our kit includes a pH measurement feature, covering the **entire pH scale from 1 to 14**.

EC

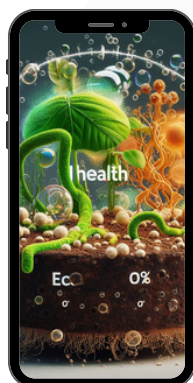
Soil Electrical Conductivity (EC) is a measure of the soil's ability to conduct electricity, which is influenced by the concentration of dissolved ions in the soil solution. EC is a key indicator of soil salinity and nutrient levels. Higher EC values can suggest elevated levels of dissolved salts, which may impact plant growth. Soil Electrical Conductivity, expressed in microsiemens per centimeter (**$\mu\text{S}/\text{cm}$**).

MOI

Soil moisture refers to the amount of water present in the soil, and it is a critical factor influencing plant growth and health. The level of soil moisture directly affects various plant processes, including nutrient absorption, root development, and overall hydration. soil moisture, represented as a **percentage (%)**.

Temp

Soil temperature refers to the temperature of the soil, a crucial parameter that directly influences seed germination, microbial activity, nutrient availability, and overall plant growth. It is a key factor in determining the suitability of the soil for various crops and plays a significant role in agricultural planning. Soil temperature, providing readings in **degrees Celsius ($^{\circ}\text{C}$)**.



■ Package List

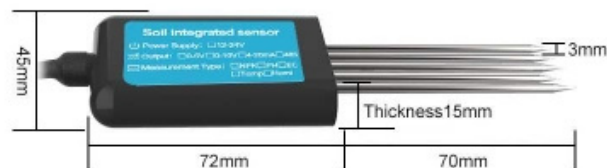
■ Hub



Our Soil Sensor Hub is the link between your phone and the sensor magic. Connect effortlessly and dive into a world of vibrant, real-time soil insights.

■ Soil Probe

The Soil Probe is a state-of-the-art 7-in-1 soil sensor designed for comprehensive soil monitoring. This versatile device simultaneously measures soil temperature, soil moisture, soil pH, soil EC, soil Nitrogen, soil Phosphorus, and soil Potassium, providing users with valuable insights into their soil's conditions.



■ Package List



■ Hub Cable

Hub Cable — it's the data highway that transforms your kit into a knowledge powerhouse.

■ OTG Cable

OTG Cable — The versatile bridge between the Hub Cable and any Android phone, be it Type C or Type B. Seamlessly connect, dive into data, and elevate your experience.



Thank You!

Hopefully, we can work together and this project will be successful.



**Let's Get
In Touch**

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Visit Our Website
www.ycenterssl.com