

HARNESSING TECHNOLOGY FOR MODERN AGRICULTURE



**REVOLUTIONIZING CROP HEALTH
MANAGEMENT WITH ADVANCED
SENSORS & MACHINE VISION**

PRECISION FARMING

Tayrix Precision addresses the challenges faced by farmers in today's fast-paced and ever-evolving agricultural industry. This innovative service combines the best of Software-as-a-Service (SaaS) and cutting-edge hardware, such as the Crop Minder, enabling farmers to thrive in the digital age. It brings the benefits of precision farming to small farmers and commercial agricultural enterprises alike.



TAYRIX PRECISION FARMING

ABOUT US

Tayrix Precision is a pioneer in precision farming technology. It aims at resolving the challenges faced by farmers in today's fast-paced and ever-evolving agricultural industry. This innovative service combines the best of Software-as-a-Service (SaaS) and cutting-edge hardware, such as the Crop Minder, enabling farmers to thrive in the digital age. It brings the benefits of precision farming to small farmers and commercial agricultural enterprises alike.

PRECISION FARMING

Precision farming revolutionizes agriculture through technology, data, and informed decision-making, optimizing crop production while minimizing inputs and environmental impact.

THE ADVANTAGES OF PRECISION FARMING IN AGRICULTURE

Deployment of multiple technologies associated with precision farming vis-a-vis GIS, GPS, IoT sensors, gateways, actuators, multiple protocols, edge computers, Big Data, AI and Digital Twin technologies to help farmers reap the full benefits this technology has to offer.

- Digital tools enable a grower to continuously monitor a wide range of metrics, including rainfall levels, the number and the nature of nutrients that crops, soil samples, fertilizer inputs.
- Improved decision-making efficiency due to access to valuable long-term data.
- Cloud-based technologies enable data access anytime, from any device.
- One of the biggest benefits of adopting precision agriculture is to optimize pest control and use chemicals only when needed.
- By adopting centralized command-and-control tools, farming teams can tell precisely when to irrigate a given field.





OUR MISSION



Tayrix Precision is a pioneer in precision farming technology. It aims at resolving the challenges faced by farmers in today's fast-paced and ever-evolving agricultural industry. This innovative service combines the best of Software-as-a-Service (SaaS) and cutting-edge hardware, such as the Crop Minder, enabling farmers to thrive in the digital age. It brings the benefits of precision farming to small farmers and commercial agricultural enterprises alike.



OUR VISION

Help improve the profitability of the farming sector through technology- intensive sustainable methods.

OUR FEATURES

Crop Monitoring:

Our state-of-the-art sensors capture crucial data on crop health, growth, and environmental conditions. By monitoring parameters such as soil moisture, temperature, humidity, and nutrient levels, farmers gain precise insights into their crops' needs.

Variable Rate Application (VRA):

With Tayrix Precision, farmers can implement VRA techniques to precisely apply seeds, fertilizers, and pesticides based on crop requirements and variability across their fields. This targeted approach minimizes waste, reduces environmental impact, and ensures optimal crop growth.

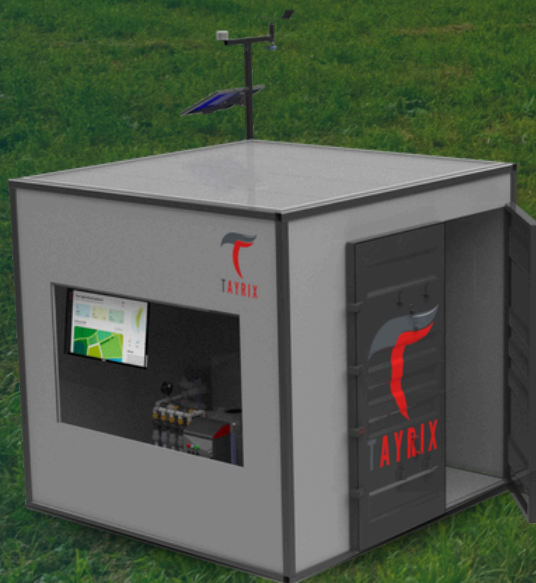
Data Analytics:

Tayrix Precision employs advanced analytics to process the collected data, generating valuable insights and predictive models. This enables farmers to anticipate potential challenges, optimize resource allocation, and implement proactive measures to prevent crop loss.

Predictive Analytics:

Tayrix Precision goes beyond monitoring and provides predictive analytics to forecast disease outbreaks, pest infestations, and weather patterns. By leveraging historical data and machine learning algorithms, farmers can proactively mitigate risks and implement timely interventions.

CROP MINDERS



CROP MINDER BASELINE

Introducing Crop Minder - Baseline, the advanced agricultural fertigation system that revolutionizes nutrient management practices for optimized crop nutrition. Seamlessly integrating data from Soil Minder, Weather Minder, and Foliage Minder, Crop Minder - Baseline combines the power of IoT technology and mobile app control to deliver precise and efficient fertigation management. With its 4G network connectivity, multiple zone control, and auto/scheduled modes, Fertigation Minder ensures accurate nutrient delivery and irrigation timing for maximum crop productivity.

PARAMETERS

- Soil Temperature
- Soil Moisture
- pH
- EC
- Air Temperature
- Relative Humidity
- Barometric Pressure





FEATURES

Integrated Data Insights: Crop Minder – Baseline integrates data from multiple sources for informed crop decisions.

Seamless IoT Connectivity: It wirelessly transmits data in real-time, enabling remote monitoring and control through a user-friendly app.

Cloud Data Storage: All data is securely stored, facilitating access for data-driven decisions.

Mobile App Convenience: The app provides real-time insights for easy monitoring on smartphones or tablets.

Reliable 4G Network Connectivity: Utilizing 4G ensures fast data transmission for timely adjustments.

Auto and Scheduled Modes: Offers automatic or scheduled fertigation management.

Multiple Zone Control: Allows precise irrigation and nutrient delivery tailored to zones or crops.

Precise Nutrient Management: Optimizes nutrient delivery for maximum productivity and minimal waste.

Remote Monitoring and Control: Enables real-time monitoring, adjustments, and proactive intervention.

Easy Installation and Setup: Designed for quick deployment and minimal configuration.

SPECIFICATIONS

Number of Nutrient Channels

1 Channel (Single)

Sensors Included

Soil Minder (Sensor)

Weather Minder (Sensor)

Control up with solenoid valves

Solenoids for Zones

Irrigation Modes

Schedule Mode

IoT Connectivity

Available (Wi-Fi/Cellular/LoRa)

Control and Monitoring

Remote control and real-time monitoring

Weather Integration

Real-time weather data integration

Compatibility

Suitable for up to 5 to 10 acres of land

DIY Kit

Includes components, tools, and assembly instructions for DIY installation

Soil Health Monitoring

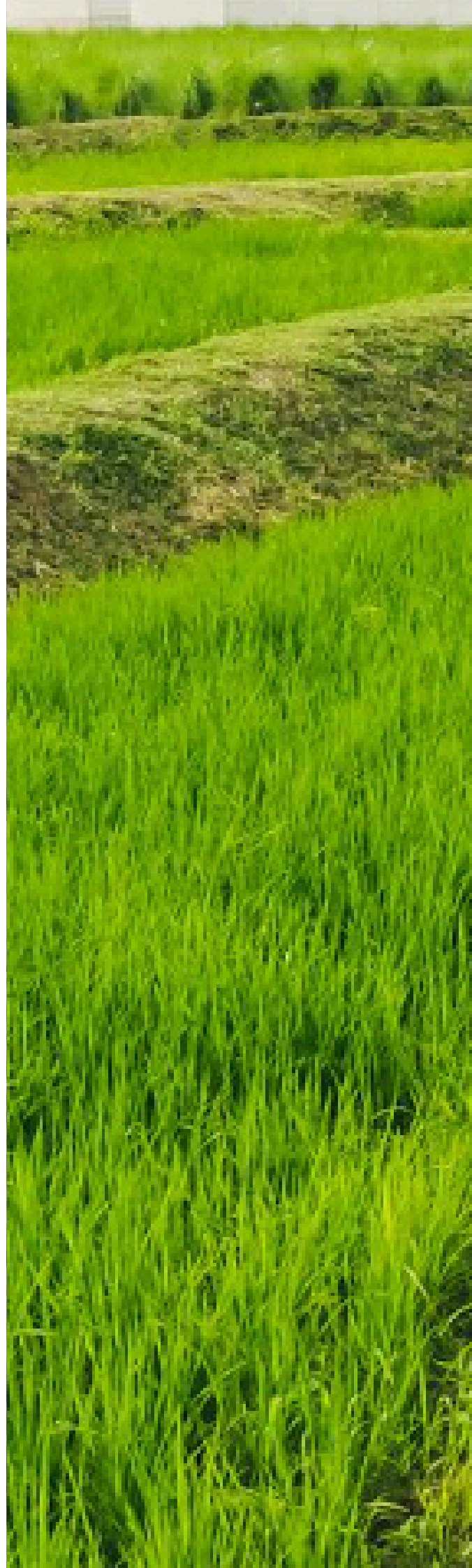
Continuous soil health assessment

Dimensions

Customizable based on user requirements

Power Supply

External power source (plug-in



USAGE BENEFITS

User-Friendly Mobile App: Offering a simple interface, it allows monitoring sensor data, viewing historical records, and receiving actionable recommendations with customizable settings.

Optimal Irrigation and Fertigation: With precise management based on real-time data, it helps avoid under or over-watering, optimizes nutrient delivery, and promotes healthier plant growth.

Alerts and Notifications: Customizable alerts keep you informed about sudden changes in soil moisture, extreme weather, or critical crop health indicators, enabling timely actions.

Remote Monitoring and Control: This feature allows access and management of the system remotely from a mobile device, offering convenience and flexibility.

Data Analysis and Insights: It enables analysis of historical data to track trends and gain valuable insights into farm performance, aiding informed decisions for optimized farming practices.

Easy Installation and Maintenance: Designed for easy deployment and minimal upkeep, the system requires minimal calibration and configuration, allowing focus on farming activities.



SOIL MONITORING

Introducing Soil Minder, the cutting-edge solution revolutionising soil monitoring for agricultural practices. With advanced features and seamless connectivity, Soil Minder empowers farmers to make data-driven decisions and optimize crop yields like never before.

SPECIFICATIONS

- Soil Moisture
- Soil Temperature
- Soil Humidity
- Soil Conductivity
- Atmosphere Temperature
- Barometric pressures
- NPK
- ETc
- pH

FEATURES

- Smart farming
- Zone Mapping
- Data visualization
- IoT Connectivity
- 4G
- LoRa
- WiFi



USAGE BENEFITS

Precise NPK Analysis: Soil Minder employs cutting-edge technology to accurately measure soil nutrient levels, aiding in optimal fertilizer application.

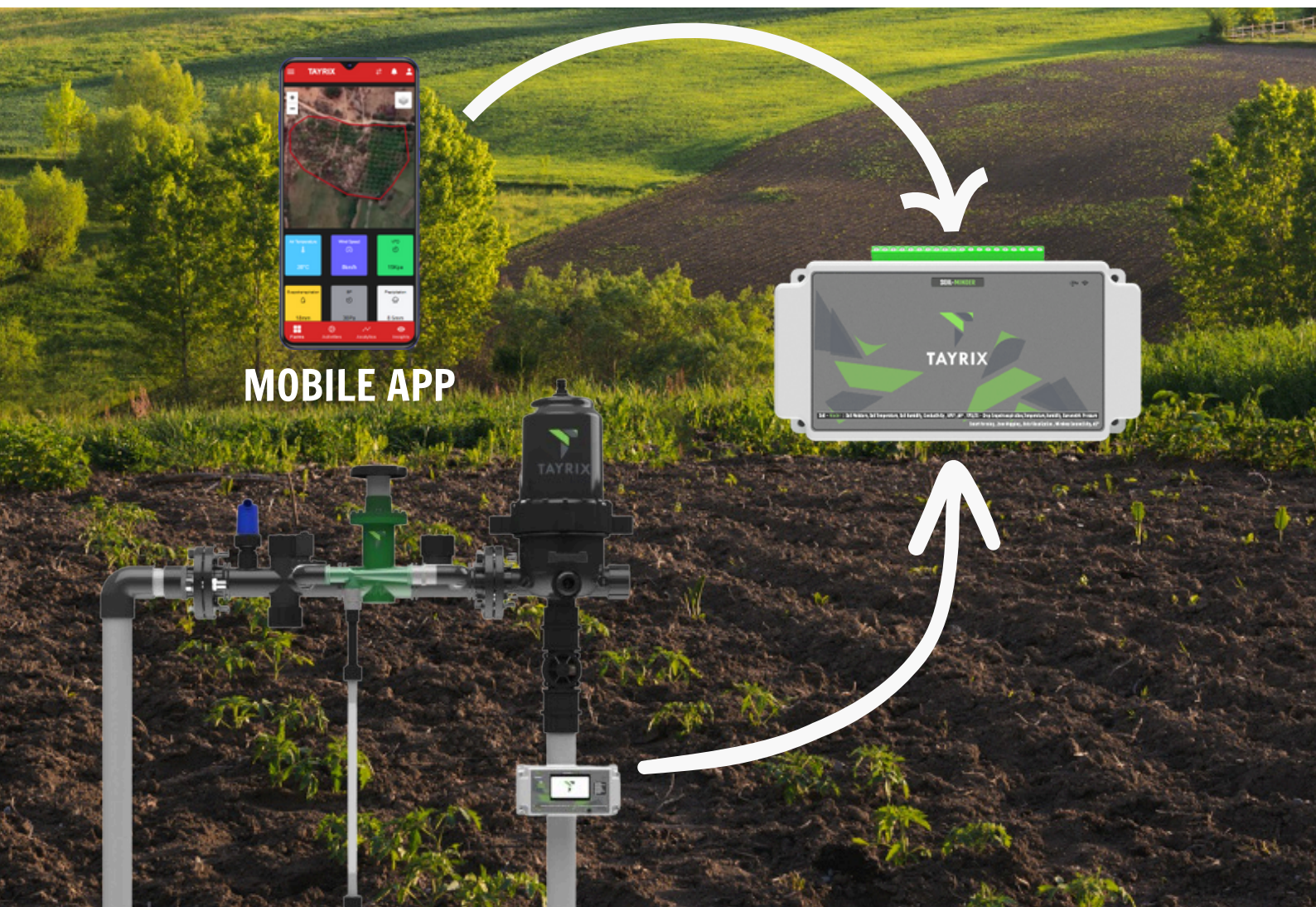
Real-Time Soil Moisture Monitoring: Integrated sensors enable farmers to monitor soil moisture levels in real-time, facilitating precise irrigation management.

Seamless IoT Connectivity: Leveraging IoT technology, Soil Minder ensures continuous connectivity between sensors and the cloud for instant data access.

Cloud-Based Data Storage: All data collected by Soil Minder is securely stored in the cloud, enabling access to historical records and long-term insights into soil health.

User-Friendly Mobile App: Soil Minder's intuitive mobile app provides real-time data insights and actionable recommendations for on-the-go decision-making.

User-Friendly Mobile App: Soil Minder's intuitive mobile app provides real-time data insights and actionable recommendations for on-the-go decision-making.



CROP MINDER HIGHLINE

Introducing Crop Minder - Highline: revolutionizing nutrient management with advanced irrigation and fertigation. Seamlessly integrating data from Soil Minder, Weather Minder, and Foliage Minder, it offers precise control through IoT technology and mobile app. With 4G connectivity, multiple zone control, and auto/scheduled modes, Fertigation Minder ensures optimal crop nutrition and productivity.



SPECIFICATIONS

Number of Nutrient Channels

1 Channel (Single)

Sensors Included

Soil Minder (Sensor)

Weather Minder (Sensor)

Control up with solenoid valves

Solenoids for Zones

Irrigation Modes

Schedule Mode

IoT Connectivity

Available (Wi-Fi/Cellular/LoRa)

Control and Monitoring

Remote control and real-time monitoring

Weather Integration

Real-time weather data integration

Compatibility

Suitable for up to 5 to 10 acres of land

DIY Kit

Includes components, tools, and assembly instructions for DIY installation

Soil Health Monitoring

Continuous soil health assessment

Dimensions

Customizable based on user requirements

Power Supply

External power source (plug-in)



USAGE BENEFITS

Integrated Sensor System: Incorporating soil moisture, weather, and crop health monitoring sensors, this device provides real-time insights on soil conditions, weather patterns, and crop health.

Seamless Data Transmission: Utilizing IoT technology, it wirelessly transmits data to the cloud in real-time, ensuring instant access through the mobile app.

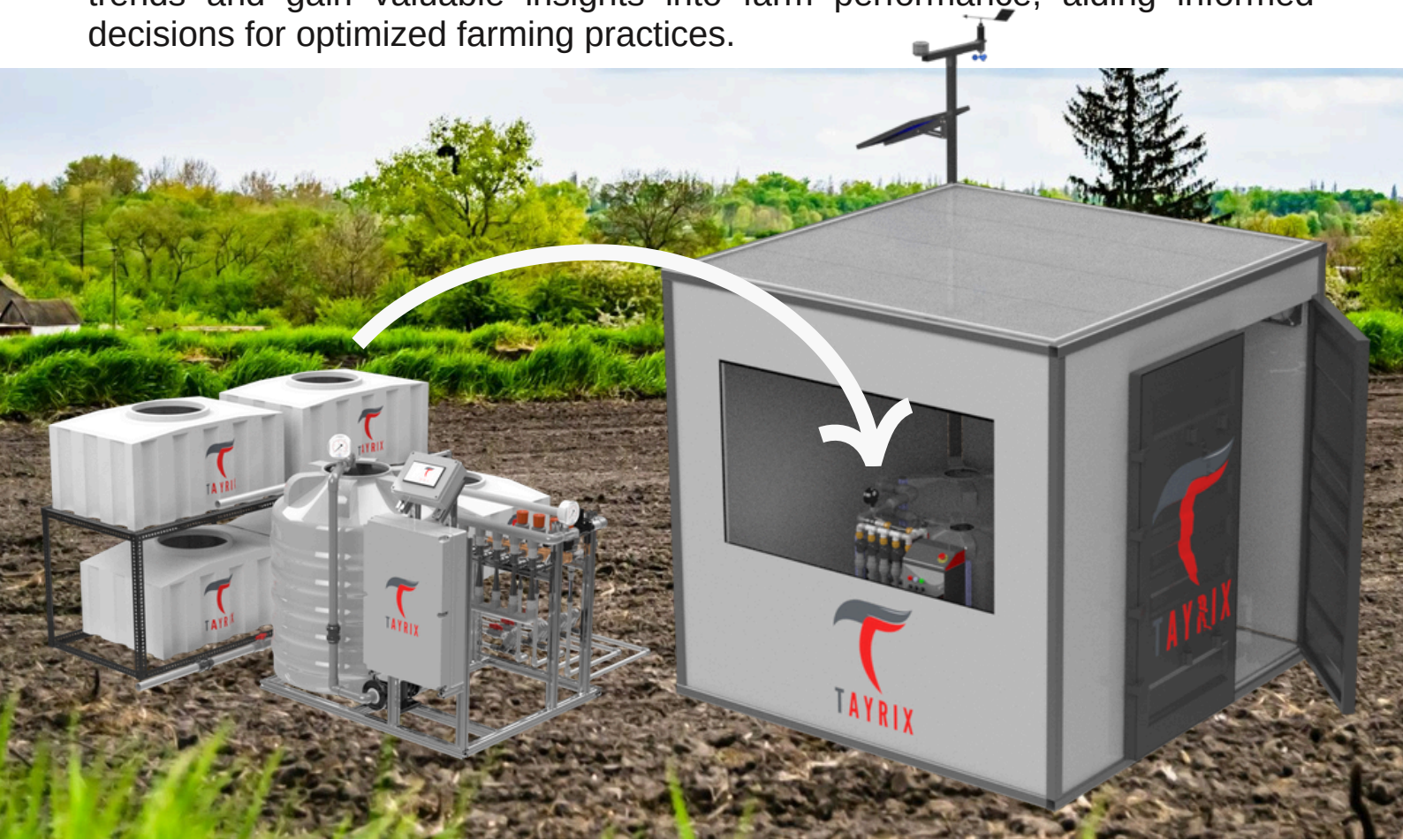
Optimal Irrigation and Fertigation: It enables management based on real-time data, helping avoid under or over-watering, optimize nutrient delivery, and promote healthier plant growth.

Alerts and Notifications: Customizable alerts keep you informed about sudden changes in soil moisture, extreme weather, or critical crop health indicators.

User-Friendly Mobile App: The app offers an intuitive interface for monitoring data, viewing historical records, and receiving actionable recommendations.

Remote Monitoring and Control: The feature enables access and management remotely, allowing monitoring, adjustments, and troubleshooting from your mobile device.

Data Analysis and Insights: It allows analysis of historical data to track trends and gain valuable insights into farm performance, aiding informed decisions for optimized farming practices.



FOLIAGE MINDER

The Foliage Minder is an advanced agricultural monitoring system designed to empower farmers with unparalleled insights into crop health and environmental conditions. Leveraging cutting-edge technology, this innovative solution combines multiple sensors, imaging capabilities, and connectivity options to revolutionize precision agriculture practices.

FEATURES

- NDVI Monitoring
- Multi-Spectral Monitoring
- Atmosphere Monitoring,
- Solar Radiation Tracking,
- Camera-based Imaging for Mapping
- Crop Zoning
- Plant Disease Identification



1. **Comprehensive Monitoring:** Monitor NDVI, multi-spectrum wavelengths, temperature, humidity, solar radiation, and utilize camera-based imaging for mapping, crop zoning, and disease identification.
2. **Real-time Data Acquisition:** Access timely data for immediate response, ensuring optimal crop management.
3. **Integrated Solar Panel and Battery:** Operates continuously, even in remote areas, ensuring uninterrupted monitoring.
4. **4G Connectivity:** Seamlessly transmit data to the cloud for remote access and informed decision-making.
5. **User-friendly Interface:** Simplifies data visualization and analysis, enabling informed decisions about crop management and resource allocation.

SPECIFICATIONS

Monitoring:

NDVI Monitoring:	Yes
Multi-Spectrum Wavelength Monitor:	Yes
Atmosphere Temperature Monitoring:	Yes
Relative Humidity Monitoring:	Yes
Solar Radiation Tracking:	Yes
Camera for 360 Images:	Yes
Mapping and Crop Zoning:	Yes
Plant Disease Identification:	Yes

Power:

- Solar Panel: Integrated
- Battery: Rechargeable

Connectivity:

- Connectivity: 4G

Interface:

- Interface: User-friendly

Design:

- Dimensions: Compact
- Weatherproof: Yes

Performance:

- Real-time Monitoring: Yes
- Data Accuracy: High precision

Features:

- Customizable Alerts: Yes
- Data Storage: Built-in & Cloud
- Scalability: Scalable



WEATHER MINDER

Weather Minder revolutionizes the way farmers monitor and manage their crops by providing a comprehensive weather sensor system designed to optimize agricultural practices. With its advanced set of sensors and seamless integration with IoT technology, Weather Minder offers real-time weather data insights, enabling farmers to make informed decisions and maximize yields. Let's explore the enhanced features of this cutting-edge solution



PARAMETERS

- Soil moisture
- Soil Temperature
- Relative Humidity
- Wind Speed
- Atmosphere Temperature
- Wind Direction
- Solar Radiation
- Atmospheric/Barometric Pressure

FEATURES

- Smart farming
- Zone mapping
- Data visualization
- Wireless connectivity
- 4G
- LoRa

FEATURES

Integrated Data Insights: Crop Minder – Baseline integrates data from Soil Minder, Weather Minder, and Foliage Minder for comprehensive crop decisions.

Seamless IoT Connectivity: Leveraging IoT technology, it wirelessly transmits data for remote monitoring and control via a user-friendly mobile app.

Cloud Data Storage: All collected data is securely stored, enabling historical analysis and data-driven long-term strategies for precise crop management.

Mobile App Convenience: Provides real-time insights on smartphones or tablets, allowing effortless monitoring and remote adjustments.

Reliable 4G Network Connectivity: Utilizes a stable 4G network for instant access to real-time information, facilitating timely adjustments.

Auto and Scheduled Modes: Offers both automatic and customizable modes for fertigation management, optimizing nutrient delivery based on real-time data.

Multiple Zone Control: Enables independent management of different field sections, ensuring tailored irrigation and nutrient delivery.

Precise Nutrient Management: Optimizes nutrient delivery by continuously monitoring soil and foliage health, maximizing productivity while reducing waste.

Remote Monitoring and Control: Empowers farmers with remote capabilities through the mobile app, facilitating proactive intervention and timely responses.

Easy Installation and Setup: Designed for quick deployment with minimal calibration, simplifying fertigation practices for enhanced efficiency.



SPECIFICATIONS

Number of Nutrient Channels

1 Channel (Single)

Sensors Included

Soil Minder (Sensor)

Weather Minder (Sensor)

Control up with solenoid valves

Solenoids for Zones

Irrigation Modes

Schedule Mode

IoT Connectivity

Available (Wi-Fi/Cellular/LoRa)

Compatibility

Suitable for up to 5 acres of land

Fertigation Capability

Supports precise nutrient delivery

DIY Kit

Includes components, tools, and assembly instructions for DIY installation

Control and Monitoring

Remote control and real-time monitoring

Weather Integration

Real-time weather data integration

Soil Health Monitoring

Continuous soil health assessment

Power Supply

External power source (plug-in)

Dimensions

Customizable based on user requirements



USAGE BENEFITS

Integrated Sensor System: Incorporates soil moisture and weather sensors for real-time insights on soil conditions, weather patterns, and crop health.

Seamless Data Transmission: Utilizes IoT technology to wirelessly transmit data to the cloud, providing instant access through the mobile app.

User-Friendly Mobile App: Offers an intuitive interface for monitoring sensor data, viewing historical records, and receiving actionable recommendations, with customizable settings.

Optimal Irrigation and Fertigation: Enables precise management based on real-time data, avoiding under or over-watering and optimizing nutrient delivery for healthier plant growth.

Alerts and Notifications: Provides customizable alerts for sudden changes in soil moisture, extreme weather, or critical crop health indicators.

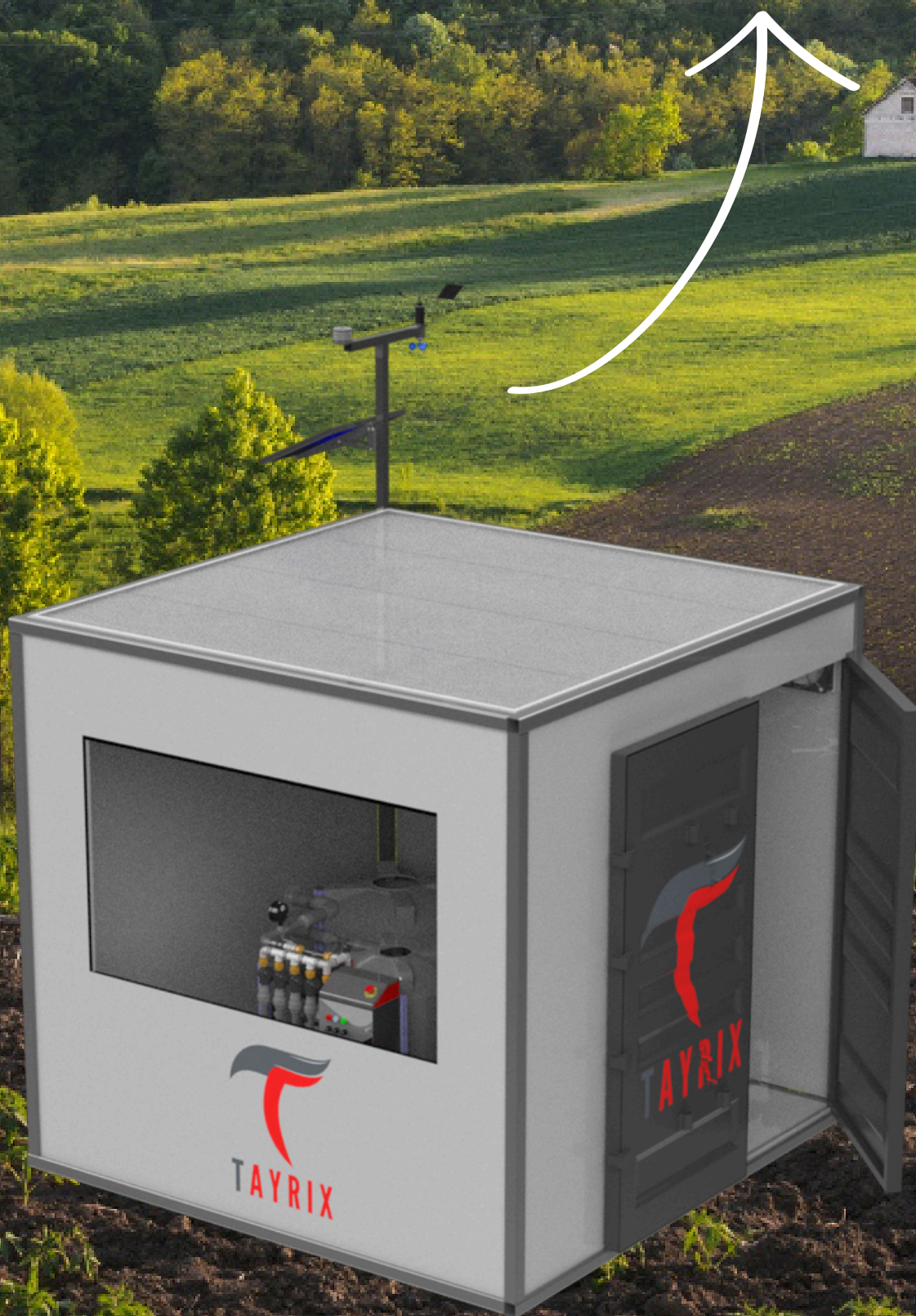
Remote Monitoring and Control: Allows access and management remotely from a mobile device, facilitating monitoring, adjustment, and troubleshooting.

Data Analysis and Insights: Enables analysis of historical data to track trends and gain insights into farm performance, aiding informed decisions for optimized farming practices.

Easy Installation and Maintenance: Designed for easy deployment with minimal calibration and configuration, allowing focus on farming activities.

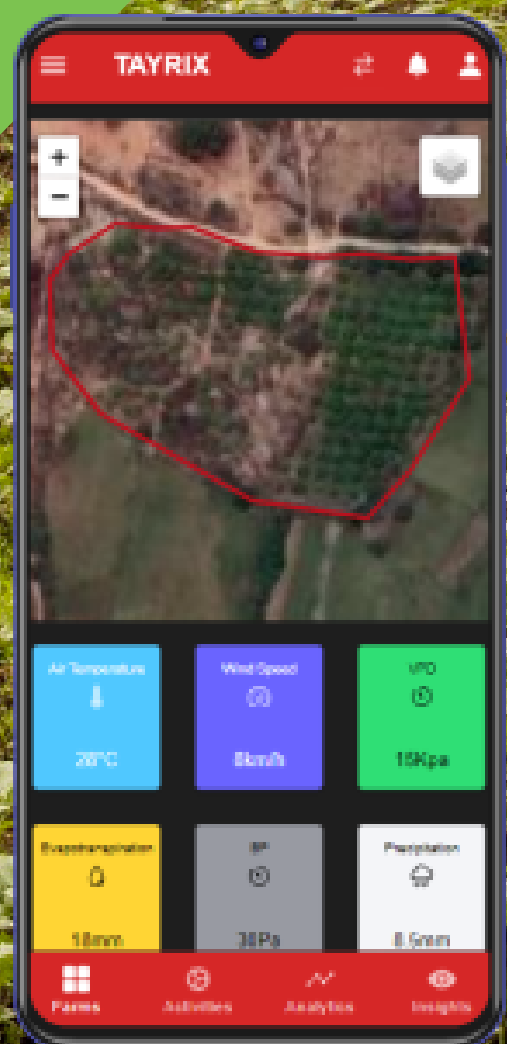
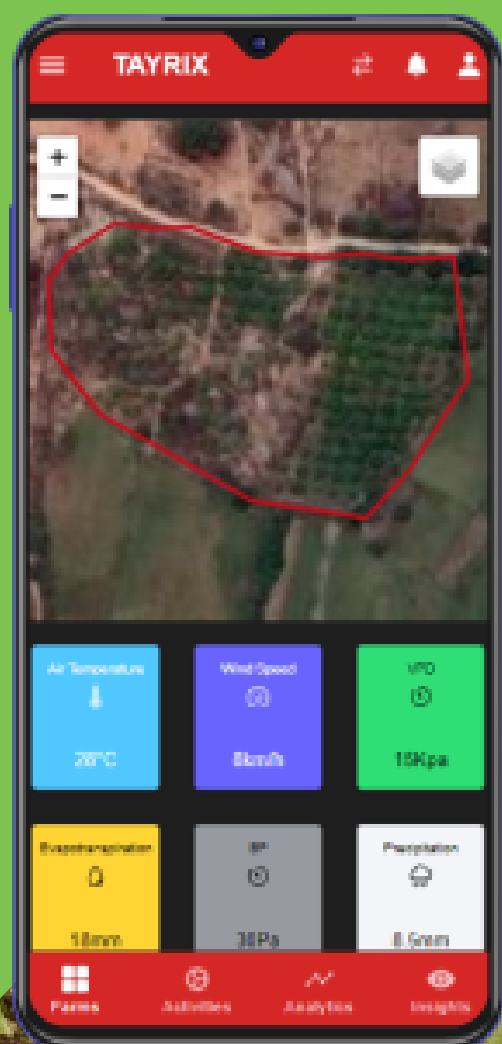


WEATHER MINDER



TAYRIX PRECISION FARMING APPS

In the rapidly evolving landscape of modern agriculture, harnessing the power of technology is the key to unlocking the full potential of farming practices. Tayrix Precision, a pioneer in precision farming solutions, is proud to introduce its groundbreaking Precision Farming as a Service (PFaaS) offering. This innovative service combines the best of Software-as-a-Service (SaaS) and cutting-edge hardware, such as the Crop Minder product, to bring the benefits of precision farming to small farmers and commercial agricultural enterprises alike.



KEY CAPABILITIES

Real-Time Data Insights:

Access to real-time weather, soil, and crop data for informed decision-making and timely actions.

Crop Monitoring and Management:

Utilizes advanced sensors and imaging technologies to track crop growth and health, allowing early issue detection and targeted interventions for improved yields.

Fertigation Management:

Seamless integration with Crop Minder for precise nutrient delivery through irrigation, optimizing crop growth.

AI-Driven Insights:

Provides predictive insights and personalized recommendations using AI, streamlining farming processes and maximizing efficiency.

Field Mapping and Zoning:

Enables field mapping and zoning based on soil, topography, and crop types, facilitating targeted resource allocation and customized farming strategies.



BENEFITS

- Easy to deploy and autonomous
- Saves time and resources
- Monitor your fields 24/7
- Reduces the pollution caused by chemical fertilizers and pesticides
- Cost-effective and reduces the amount of fertilizers
- Tracks plant root growth through the soil profile
- Reduces soil erosion and soil cracking
- Affects soil microbial biomass
- Helps to understand the relationship of soil with irrigation and water-holding capacity
- Optimizes water consumption
- Better water conservation
- Less likely to over/underwater crops
- Prevents fertilizer leakage due to heavy rainfalls/water supply promoting rapid growth



Get In Touch



contact@tayrix.com



Zeptogreens Automatic's 201 Sree Homes,
MB Society Hyderabad – 500084



tayrix.com

