HANATECH

Bringing Smart IT to Life.

HANATECH
Smart Farming

Micro (μ) Weather Station   (μWS)

Using field sensors and agricultural data points we gain a holistic perspective that will help improve crop production and yield.

Sense: We integrate sensors and meters on key devices, collecting & storing data.

Analyze: Our cloud-based dashboard presents data in user-friendly charts, highlighting opportunities.

Optimize: Through a combination of monitoring and controls, your business become more efficient.

- Soil moisture
- Soil temperature
- Air temperature
- Humidity
- Outdoor light monitoring

LoRaWAN®

Up to 20KM Range

Smart Farming & Agriculture provides improved decision-making support and helps optimize resource utilization, increased yields and decreased operating expenses with the deployment of this versatile device.

www.hanatech.ca

Remote weather stations prove their value to farmers. Farmers all over depend daily on weather-tracking.

Hanatech's Micro (μ) Weather Stations (μWS) collects a range of atmospheric & agricultural data such as SOIL MOISTURE & TEMPERATURE, HUMIDITY, AIR TEMPERATURE and OUTDOOR LIGHT from our remote monitoring **Micro (μ) Weather Station** and relays the information over our Secured Geographically dispersed **LoRaWAN®** network to our **OneSmartView™** Cloud Portal.

LoRaWAN® is a low-power, wide area networking protocol built on top of LoRa radio modulation. It wirelessly connects devices to the internet and manages communication between the end-node micro weather stations and network gateways. Usage of **LoRaWAN®** in industrial spaces, smart cities and smart farming is growing because it is an affordable and offers long-range, bi-directional communication with very low power consumption, such as devices can run for ten years on a small battery. It uses the unlicensed ISM (Industrial, Scientific, Medical) radio bands for network deployments. LoRa uses license-free sub-gigahertz radio frequency bands such as (902-928 MHz) in North America. Devices in the network are asynchronous and transmit when they have data available to send. Data transmitted by an end-node device can be received by multiple gateways, which forward the data packets to a centralized network server. Data is then finally forwarded to application servers.

• As a completely wireless, reliable, cost-effective and unattended ground sensor this latest innovation in weather sensing technology combines **LoRaWAN®** cloud-based data logging communication to autonomously gather and report environmental parameters over large distances, with up to 10 year Battery life and over a wide range of temperatures.

• This is the ideal solution to streamline and simplify the collection of key soil and environmental metrics for farms, crops, parks, residential & commercial lawns, gardens and golf courses.

Key Features

» 10 Year Battery Life

» IP67 Design

» Internal or Optional External Antenna

» C Cell LTC Battery

» Battery Status Indicator

» All Global ISM Bands

» Soil Surface or Elevated Mounting Options

Applications

» Soil Moisture & Temperature

» Ambient Humidity & Temperature

» Mounting Orientation Status

» Movment or Orientation Change Detection

» Light Detection & Measurement

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Hanatech's subscription based OneSmartView™ Portal provides:

- **One unified view** of your key IoT data points empowers you with data analytics that will improve operational efficiencies.

- Take charge with **alerts and controls customized for your business** and management using our mobile-friendly dashboard application.
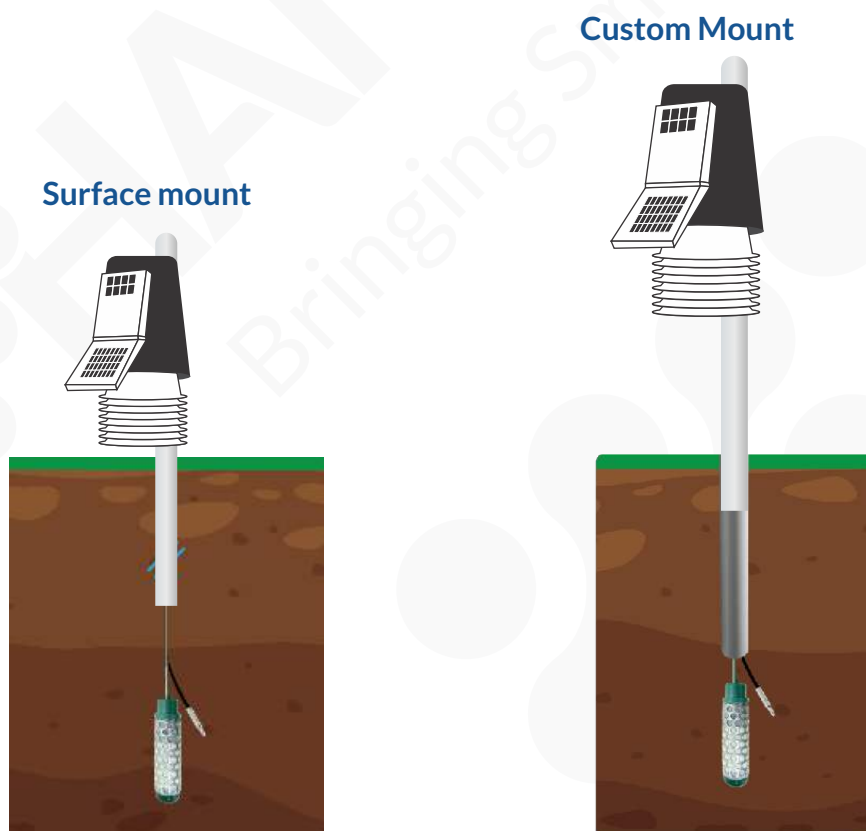
One Smart View

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Smart Farming provides farmers with improved decision-making support and helps optimize resource utilization Hanatech's subscription based OneSmartView™ Portal:
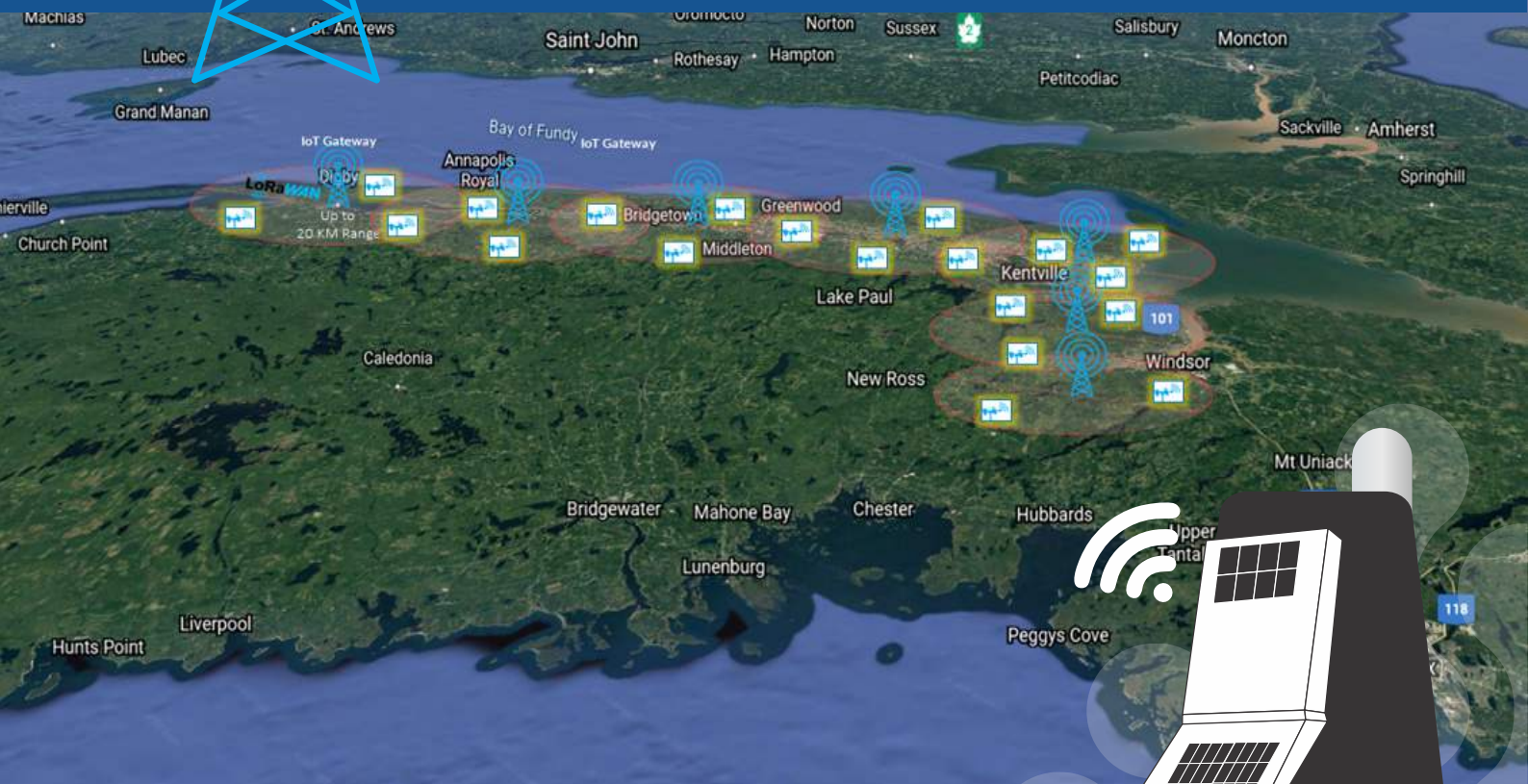
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Different configurations of the sensor in pictures below

Custom Mount

Surface mount

Contact us today
For more information

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