

# **Seeed Studio Introduces Advanced Solutions for Smart City: Getting Secured and Smart Data Using LoRaWAN and Low-Code Edge AI**

Seeed Studio releases its advanced hardware solutions at LoRaWAN® Live Orlando, aiming to provide more accurate and secured data for smart city applications. By leveraging LoRaWAN technology and Edge AI, these solutions simplify the deployment process for system integrators.

“Smart cities put data and digital technology to work to make better decisions and improve the quality of life. ” said Joey Jiang, General Manager of the Industry and Application Group at Seeed Studio. “We’re excited to exhibit our advanced perception systems here at LoRaWAN® Live Orlando and share how they can be applied to smart city scenarios with the world. We believe real-time data gives agencies in the cities the ability to watch events as they unfold, understand how demand patterns are changing, and respond with faster and lower-cost solutions.”

## **No-Code Vision AI to Get Smart Data**

Seeed Studio's Vision AI sensors bring inferencing to where data is generated and send smart data results to the Cloud. By working with Edge Impulse, the SenseCAP Vision AI sensor will soon ensure our customers a no-code training and one-stop deployment experience, enabling system integrators to include AI in their solutions. Moreover, Seeed Studio now also offers customization services of model training and hardware customization for tailor-made applications. For example, the sensor can be customized to read water/electric/gas meters in a more efficient shape.



## Powerful Edge Inference Server for Smart City Management

In addition to sensing devices, Seeed Studio also exhibits a multifunctional edge device that is powered by NVIDIA Jetson Orin and its wm1302 modules. By connecting it with a legacy video analytics system, it can perform video analytics tasks on-site without investing human resources, targeting applications of city-wide intelligent monitoring and surveillance.

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Jetson Orin Series Edge Gateways

- 4 PoEs support multiple 4K streams with real-time processing complex tasks.
- Expand local storage with SATA HDD/SSD
- Hybrid connectivity: Support 5G, 4G LTE (modules optional )

## LoRaWAN Location Proofing Tracker

To get indoor and outdoor location data, a credit card size SenseCAP Tracker, which is based on the Semtech LR1101 module, is released to provide an accurate and reliable solution for assets and personnel tracking, searching and rescuing. Featuring

ultra-low power consumption, it can work for up to 2 years with a single charge. It also comes with a revolutionary proof of location, which is secured by both tamper-proof decodings via Semtech LoRa Cloud and data transmission via a decentralized Helium network.



### Reliable Weather Sensor for Blockchain-Based Physical Infrastructure

By working closely with WeatherXM, Seeed Studio offers an 8-in-1 home weather station to collect secured and reliable weather data for Web3 applications. Also powered by the WM1101 chipset, it comes with hardware-secured location proof. Together with Helium's decentralized network and blockchain technology, the WeatherXM weather sensor aims to offer hyper-local accurate forecasts for your location, suitable for city management, agriculture, energy, outdoor sports venue, or any other use case.



### **Compact Industrial level Weather Stations for City Monitoring**

For city-level environmental monitoring, Seeed Studio has developed a series of compact weather sensors that can closely monitor urban living conditions, including noise level, PM2.5, PM10, and all regular weather parameters. The compact weather stations are designed to be maintenance-free, compact, and durable. To ensure reliability for harsh environments in the city, energy, agriculture, and carbon offsets monitoring, the sensors have passed various reliability tests including calibration in a wind tunnel, capable of generating 80m/s wind. Incorporating professional algorithms, it provides accurate outdoor CO2 level detection which brings valuable insights for city planners and policymakers.



### **About Seeed Studio**

Seeed Studio is your IoT hardware partner for digital transformation. Since 2008, they have been working closely with global technology ecosystems to provide modules, devices, solutions, and services to digital innovators. With their professional and industrial expertise in smart sensing, networking, edge computing, and embedded machine learning, their ready-to-deploy products are increasingly accelerating myriads of emerging digital solutions in the real world for vertical industries, especially smart city, smart energy, digital field operation, precise agriculture, and scientific research.

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