

Media Release

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Sensirion inside: Grove all-in-one environmental sensors SEN54 and SEN55 by Seeed Studio

Seeed Studio launches the Grove all-in-one environmental sensors featuring Sensirion's new SEN54 and SEN55 environmental sensor nodes. The environmental sensors detect multiple indoor air quality parameters and are designed for HVAC and air quality applications.

Many people are unaware of the potential negative health impacts of poor indoor air quality. Exposure to air pollution can lead to various short-term effects like headaches and throat irritations and long-term health issues like respiratory diseases. As we spend around 80% of our lives indoors, it is important to know the indoor air quality and reduce air pollution to ensure an ideal and safe environment for a healthy life.

The Grove all-in-one environmental sensors detect various pollution indicators and can be used to monitor air quality in enclosed spaces. The Grove environmental sensor SEN54 measures environmental parameters like VOC (volatile organic compounds), particulate matter as well as humidity and temperature. In addition to these parameters, the Grove environmental sensor SEN55 also detects nitrogen oxides (NO_x). The integrated ambient sensor assembles 8 types of data signal output and is designed for HVAC and air quality applications.

"Sensirion has been providing various chipsets for data collection, which enable global developers to get insights from the data," added Eric Pan, founder and CEO of Seeed Studio. "At Seeed Studio, we have been delivering hardware solutions for the global IoT ecosystem since 2008. We are happy to apply Sensirion's new technologies to our IoT modules and devices. Together, we will enable global developers to build scalable IoT solutions efficiently and empower them to digitalize the world."

With the Grove cable, the environmental sensors can easily be connected through a single interface with existing development platforms from Seeed Studio, Arduino, Raspberry Pi and many more. The single-cable solution also allows device manufacturers an easy integration in applications, saving design-in efforts and assembly costs. To help developers get started with prototyping quickly, Seeed Studio offers a tutorial platform with documentations explaining how to utilize the Grove all-in-one environmental sensors to connect to Arduino, Raspberry Pi and STM32.

"We are proud of the strong relationship we have built with Seeed Studio during the last years. Seeed Studio's development platforms are designed to assist experimentation and prototyping with our innovative sensors in different applications, helping our customers reduce development effort and speeding up hardware design", says Johannes Winkelmann, Director Developer Experience at Sensirion.

Learn more about Seeed Studio's Grove SEN54 environmental sensor [here](#) and SEN55 environmental sensor [here](#).

For more information about Sensirion's SEN5x environmental sensor series, please visit: www.sensirion.com/sen5x

About Sensirion – Experts for Environmental and Flow Sensor Solutions

Sensirion is one of the world's leading developers and manufacturers of sensors and sensor solutions that improve efficiency, health, safety, and comfort. Founded in 1998, Sensirion now employs around 1'000 people at its headquarters in Stäfa, Switzerland and in numerous international subsidiaries. Sensirion sensors can be used to measure a wide range of environmental parameters and flow rates precisely and reliably. The company's aim is to make the world smarter with pioneering sensor technology. As a pioneer in innovation, Sensirion develops solutions for the specific needs of customers and partners from the automotive, industrial, medical technology and consumer electronics markets, as well as high-quality products for cost-efficient mass production. More information and current key figures at www.sensirion.com.

About Seeed Studio – The IoT Hardware Partner

Seeed Studio is the IoT hardware partner for digital innovators. Since 2008, they have been working closely with global technology ecosystems to provide hardware modules, devices, and related services. They integrate the latest technology into thousands of open-source hardware modules so that millions of developers, makers, and innovators coming from different backgrounds can innovate interdependently. With professional and industrial expertise in Embedded Machine Learning, Edge Computing, LoRaWAN sensors, and networks, their ready-to-deploy products are increasingly accelerating myriads of

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emerging digital solutions in the real world. On this backdrop, their work has been well recognized by both technology and mainstream media, thanks to their avid services for smart energy, digital factory, smart retail, precise agriculture, and scientific research, to mention a few. For more information visit: www.seeedstudio.com.