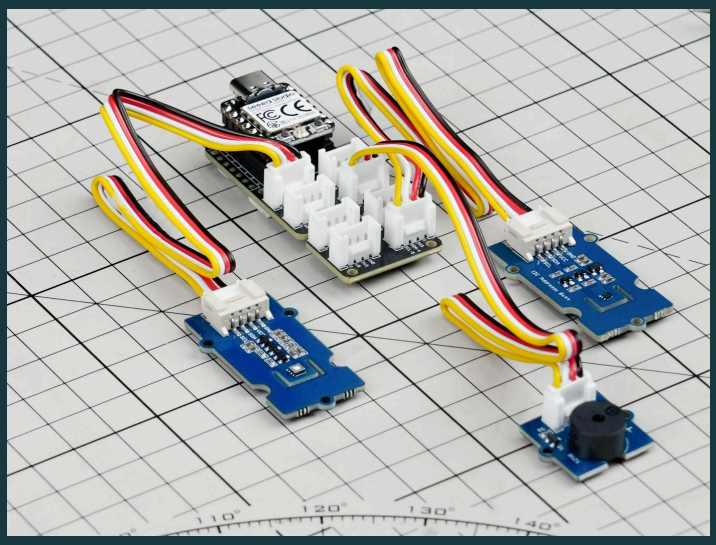
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INDUSTRIAL PRODUCT DATASHEET

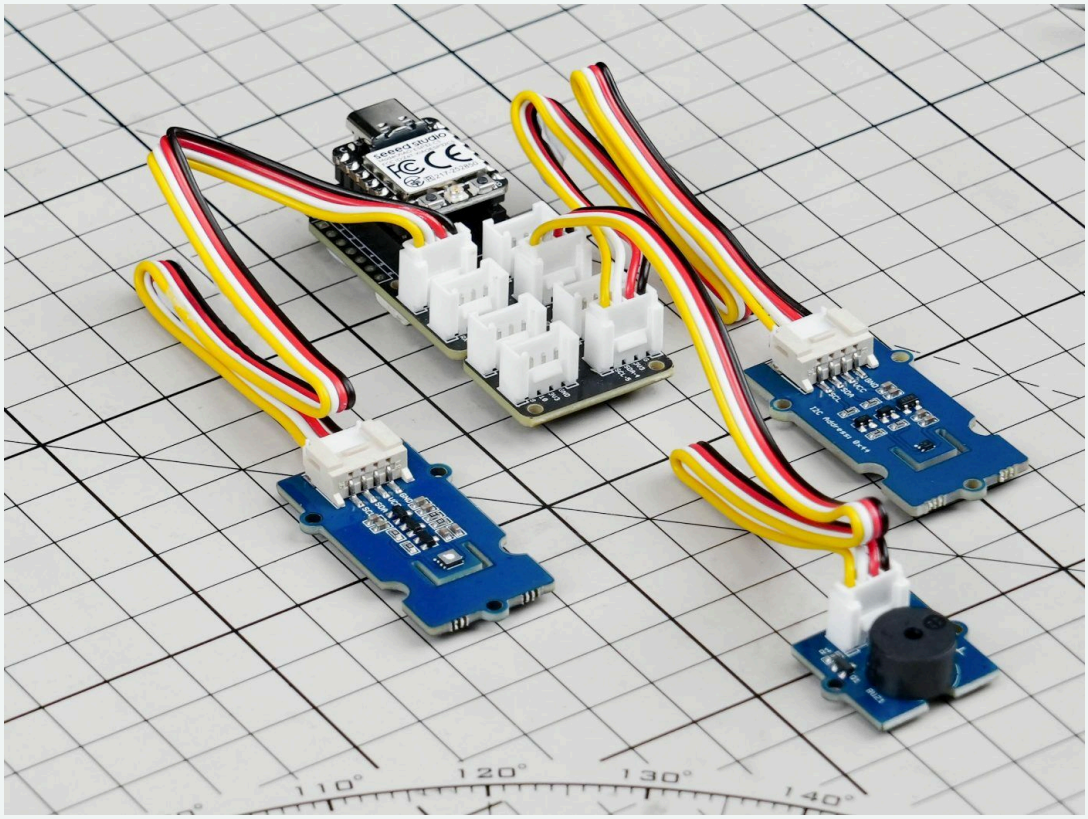
Air Quality Monitor ESPHome DIY Kit for Home Assistant - Solderless, Local, Custom

Solderless, modular air quality monitoring kit with full-spectrum sensors and 100% local control for Home Assistant.

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Overview



The Air Quality Monitor ESPHome DIY Kit offers a 100% solderless, plug-and-play experience using the Grove ecosystem and XIAO dev boards, with modular sensors for full-spectrum monitoring of temperature, humidity, pressure, CO2, VOCs, NOx, and particulate matter. It provides 100% local control via ESPHome and Home Assistant, enabling smart ventilation, HVAC automation, and historical air quality tracking without any cloud reliance.

Key Features

1. 100% Solderless & Plug-and-Play: Zero-Barrier for Beginners

- No Soldering Iron Required: Say goodbye to complex wiring diagrams, loose breadboard cables, and hot soldering tools.
- The Power of Grove Ecosystem: Simply snap your XIAO dev boards onto the Expansion Base, and connect your chosen sensors using unified Grove cables. It's as simple as building blocks—making it 100% foolproof for absolute beginners.

2. Full-Spectrum Air Monitoring: From Starter to Professional

Whether you need basic bedroom monitoring or high-precision industrial data, this kit covers all price points and accuracy levels.

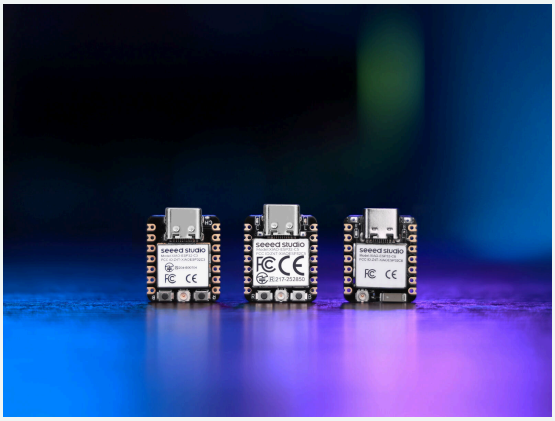
- Comprehensive Detection: Monitor Temperature, Humidity, Barometric Pressure, CO2, VOCs, NOx, and PM1.0/2.5/4/10 esc. with premium, modular sensors.
- Flexible Component Selection: Mix and match sensors to fit your budget and tracking needs—from entry-level to high-end modules like the BME688 or SEN55. Add a sleek ePaper screen or OLED screen for visual data, or keep it screen-free. You only buy what you need.

3.100% Local Control via ESPHome & Home Assistant

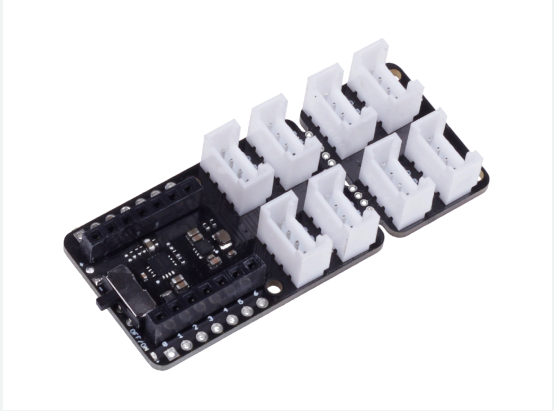
- Native ESPHome Integration: Every single sensor and display in this kit is officially supported by ESPHome.
- Effless YAML Configuration: Thanks to ESPHome's latest updates, writing and deploying YAML configurations has never been faster or smoother.
- Privacy-First Smart Home: Zero reliance on external cloud servers, zero subscription fees. All environmental data stays 100% local, pushing instant updates directly to your Home Assistant dashboard for advanced automations.

Product Gallery









Applications

- Smart Ventilation & Climate Control
- HVAC & Air Purifier Automation
- Custom Notifications & Dashboard Alerts
- Historical Air Quality Tracking

Resource Links

- https://www.seeedstudio.com/Air-Quality-Monitor-ESPHome-DIY-Kit-for-Home-Assistant-Solderless-Local-Custom.html

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