

GROOVE SHIELD

Overview

Grove shield is a modular, simple-to-use system designed to easily connect a BLE development kit to a wide range of “modules” such as sensors, motors, and inputs

Key Features

- Plug-and-play modular system – easy connection of sensors, actuators, and inputs.
- Standardized Grove interface – 4-pin connectors for I²C, UART, digital, and analog signals.
- Compatible with BLE development kits – simplifies prototyping with wireless modules.
- No soldering required – rapid prototyping and project development.
- Scalable design – supports multiple Grove modules simultaneously.



Technical Specification

- Operating Voltage: 3.3 V / 5 V (depends on development kit).
 - Interfaces Supported: Digital, Analog, I²C, and UART via Grove connectors.
 - Connector Type: Standard 4-pin Grove headers.
 - Compatibility: Works with Arduino, BLE kits, and Seeed Studio Grove ecosystem.
 - Form Factor: Shield/hat design for easy stacking onto development boards.
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Application

- Rapid Prototyping – quickly test sensors, actuators, and wireless modules without soldering.
- IoT Development – connect BLE-enabled boards with Grove sensors for smart home or industrial IoT.
- Wearables & Health Monitoring – integrate bio-sensors (heart rate, SpO₂, temperature) with BLE kits.
- STEM Education & Learning – ideal for teaching electronics and IoT concepts with modular plug-and-play design.