

RA Ecosystem Partner Solution

Arduino UNO R4



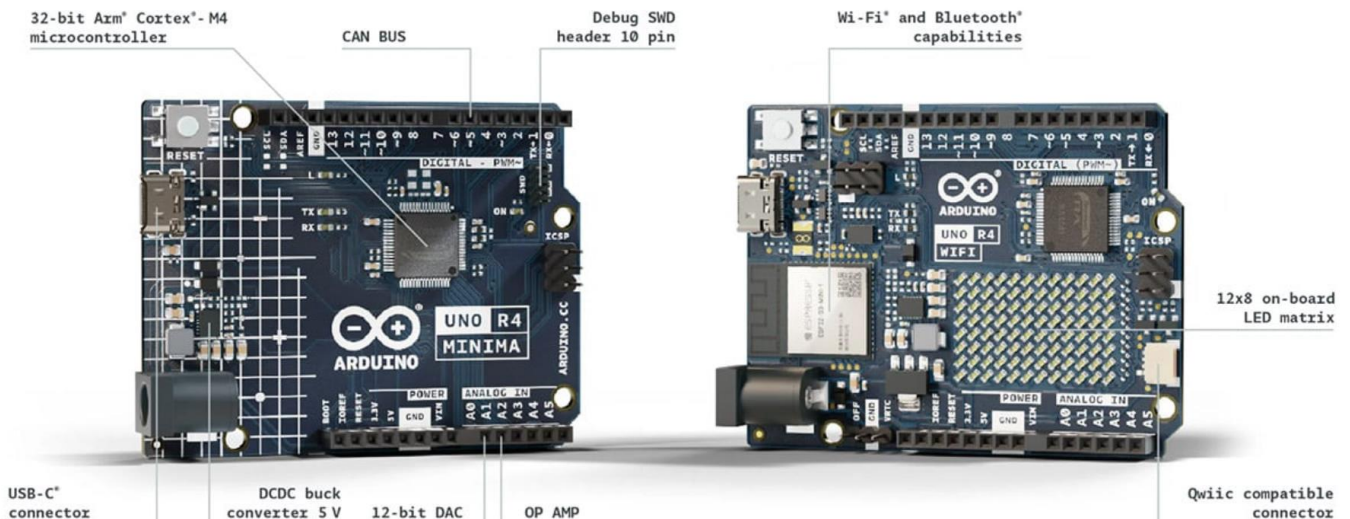
Solution Summary

Arduino UNO R4 prototyping boards preserve the standard form factor, shield compatibility, 5V power supply and robustness of the UNO range while featuring Renesas [RA4M1 32-bit microcontroller with 48MHz Arm® Cortex®-M4](#) and a 16-fold increase in memory. Thanks to enhanced thermal design, the UNO R4 boards can be powered up to 24V. You can choose between the lightweight UNO R4 Minima or the full-fledged UNO R4 WiFi depending on your skill level, general budget and project.

Features/Benefits

- UNO R4 common
 - Hardware compatibility with UNO form factor
 - Expanded memory and faster clock
 - Extra on-board peripherals
 - Extended 24 V tolerance
 - HID support
- UNO R4 Minima
 - SWD connector
- UNO R4 WiFi
 - Wi-Fi® and Bluetooth® connectivity
 - Qwiic connector
 - Support for battery-powered RTC
 - LED matrix
 - Diagnostics for runtime errors

Diagrams/Graphics



Target Markets and Applications

- IoT devices

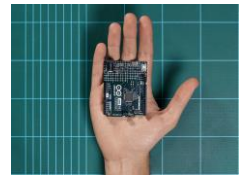


Joining the Arduino ecosystem, the UNO R4 is a trusty addition suitable for both beginners and seasoned electronics enthusiasts. Whether you're just starting out or looking to push the boundaries of your projects, this robust board delivers reliable performance every time. Easy to order through Arduino store.

Arduino® UNO R4 Minima

Enhanced and improved, the Arduino UNO R4 Minima is armed with a powerful Renesas RA4M1 microcontroller. Brace yourself for increased processing power, expanded memory, and a whole new level of on-board peripherals. Compatibility with existing shields and accessories remains intact, and there's no need to make any changes to the standard form factor or 5 V operating voltage.

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- Extra on-board peripherals
- Extended 24 V tolerance
- SWD connector
- HID support



Arduino® UNO R4 WiFi

The Arduino UNO R4 WiFi combines the processing power and exciting new peripherals of the RA4M1 microcontroller from Renesas with the wireless connectivity power of the ESP32-S3 from Espressif. On top of this, the UNO R4 WiFi offers an on-board 12x8 LED matrix, Qwiic connector, VRTC, and OFF pin, covering all potential needs makers will have for their next project.

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