

Arduino UNO R4 Minima

Product Page

Short Description

Introducing the Arduino UNO R4 Minima! This board boasts the RA4M1 microprocessor from Renesas, delivering increased processing power, expanded memory, and additional peripherals. And the best part? It stays true to the reliable UNO form factor and operates at a practical 5 V voltage. Brace yourself for an upgrade like no other with the Arduino UNO R4 Minima!

Overview

Enhanced and improved, the Arduino UNO R4 Minima is armed with a powerful 32-bit microcontroller courtesy of Renesas. Brace yourself for increased processing power, expanded memory, and a whole new level of on-board peripherals. The best part? 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.

Joining the Arduino ecosystem, the UNO R4 Minima is a trustworthy 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.

Here's what the UNO R4 Minima brings to the table:

- **Hardware compatibility with UNO form factor:** The UNO R4 Minima maintains the same form factor, pinout, and 5 V operating voltage as its predecessor, the UNO R3. This ensures a seamless transition for existing shields and projects, leveraging the extensive and unique ecosystem already established for the Arduino UNO.

- **Expanded memory and faster clock:** Prepare for more precise calculations and the ability to handle complex projects with ease. The UNO R4 Minima boasts increased memory and a faster clock speed, empowering you to tackle demanding tasks effortlessly.
- **Extra on-board peripherals:** The UNO R4 Minima introduces a range of on-board peripherals, including a 12-bit DAC, CAN BUS, and OP AMP. These additional components provide you with expanded capabilities and flexibility in your designs.
- **Extended 24 V tolerance:** The UNO R4 Minima now supports a wider input voltage range, allowing power supplies up to 24 V. This enables seamless integration with motors, LED strips, and other actuators, simplifying your projects by utilizing a single power source.
- **SWD connector:** Debugging is a critical aspect of any project. Simply connect an external debugger to the UNO R4 Minima and effortlessly monitor the inner workings of your system. Stay in control and gain valuable insights.
- **HID support:** The UNO R4 Minima comes with built-in HID (Human Interface Device) support, enabling it to simulate a mouse or keyboard when connected to a computer via a USB cable. This convenient feature makes it a breeze to send keystrokes and mouse movements to a computer, enhancing usability and functionality.

Get ready to unlock a world of possibilities with the Arduino UNO R4 Minima. Its exceptional features and enhanced capabilities make it the perfect companion for your innovative ventures.

Tech Specs

Board	Name	Arduino® UNO R4 Minima
	SKU	ABX00080

Microcontroller	Renesas RA4M1 (Arm® Cortex®-M4 with Floating Point Unit)	
USB	USB-C®	Programming Port / HID
Pins	Digital I/O Pins	14
	Analog input pins	6
	DAC	1
	PWM pins	6
	Misc	SWD connector
Communication	UART	1
	I2C	1
	SPI	1
	CAN	1 (requires an external transceiver)
Power	Circuit operating voltage	5 V
	Input voltage (VIN)	6-24 V
	DC Current per I/O Pin	8 mA
Clock speed	Main core	48 MHz
Memory	RA4M1	256 kB Flash, 32 kB RAM
Dimensions	Width	68.85 mm
	Length	53.34 mm

Logistics

Weight

0.03 kg

Dimensions

8 cm x 5.8 cm x 2.3 cm