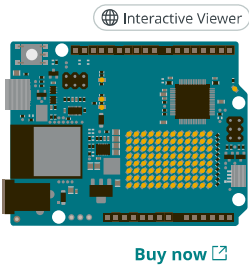


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UNO R4 WiFi

The Arduino UNO R4 WiFi is designed around the 32-bit microcontroller RA4M1 from [Renesas](#) while also featuring a ESP32 module for Wi-Fi® and Bluetooth® connectivity. Its distinctive 12x8 LED matrix makes it possible to prototype visuals directly on the board, and with a Qwiic connector, you can create projects plug-and-play style.



GET STARTED

DOWNLOADABLE RESOURCES

Pinout (PDF)

Datasheet

Schematics

CAD Files

- Features
- Tutorials
- Tech Specs
- Compatibility
- Suggested Libraries

Here you will find the technical specifications for the Arduino® UNO R4 WiFi.

Note on ESP header: the ESP32-S3 module on this board operates on 3.3 V. The ESP header located close to the USB-C® connector is 3.3V only and should not be connected to 5 V. This may damage your board.

Note on Qwiic connector: the Qwiic connector on this board is connected to a secondary I2C bus on this board, **IIC0**. This connector is **3.3 V only**, connecting higher voltages may damage your board. To initialize this bus, use `Wire1.begin()` instead.

Maximum current draw per pin: the UNO R4 series' maximum current draw per GPIO is **8 mA**, which is significantly lower than previous versions. Exceeding this limit may damage your pin / board.

Board	
Name	Arduino® UNO R4 WiFi
SKU	ABX00087
Microcontroller	
Renesas RA4M1 (Arm® Cortex®-M4)	
Radio Module	
ESP32-S3-MINI-1-N8	
USB	
USB-C®	Programming Port
Pins	
Digital I/O Pins	14
Analog input pins	6
DAC	1
PWM pins	6

Help

GO BACK

Hardware

- MKR Family
- Classic
- Boards
 - Leonardo
 - Micro
 - UNO Mini Limited Edition
 - UNO R4 Minima
 - UNO R4 WiFi
 - UNO R3
 - UNO R3 SMD
 - UNO WiFi Rev2
 - Yún Rev2
 - Zero
- Shields
 - 4 Relays Shield
 - 9 Axis Motion Shield
 - Ethernet Shield Rev2
 - Motor Shield Rev3
- Nano Family
- Portenta Family
- Pro Solutions And Kits
- Nicla Family
- Opta

KITS	>	Communication	
Mega	>	UART	Yes, 1x
		I2C	Yes, 1x
		SPI	Yes, 1x
		CAN	Yes 1 CAN Bus
		Power	
		Circuit operating voltage	5 V (ESP32-S3 is 3.3 V)
		Input voltage (VIN)	6-24 V
		DC Current per I/O Pin	8 mA
		Clock speed	
		RA4M1	48 MHz
		ESP32-S3-MINI-1-N8	up to 240 MHz
		Memory	
		RA4M1	256 kB Flash, 32 kB RAM
		ESP32-S3-MINI-1-N8	384 kB ROM, 512 kB SRAM
		Dimensions	
		Width	68.85 mm
		Length	53.34 mm

Connect and Contribute

- Project Hub

GitHub Repository

Forum
- Product Compliance

Help Center