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Arduino UNO WiFi Rev2

Overview

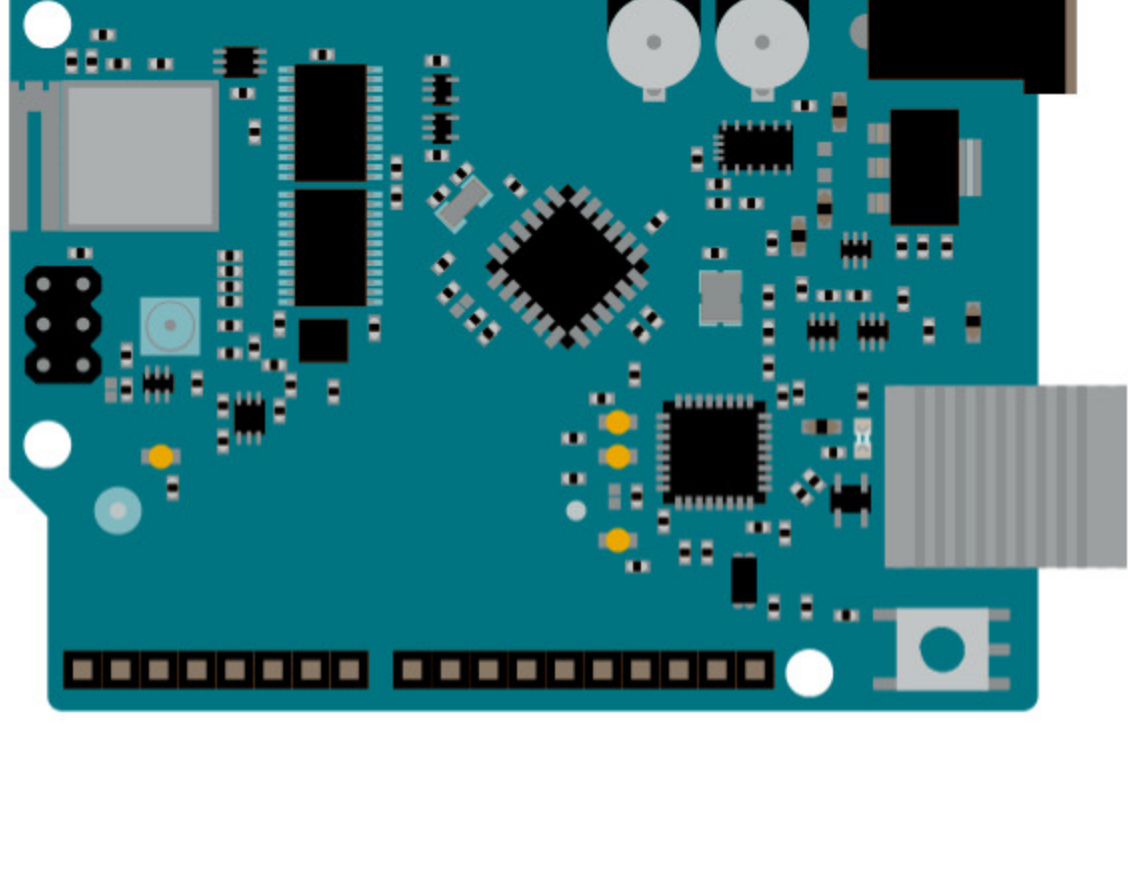
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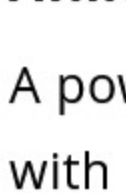
UNO WiFi Rev2

The Arduino UNO WiFi Rev 2 is the easiest point of entry to basic IoT with the standard form factor of the UNO family. Whether you are looking at building a sensor network connected to your office or home router, or if you want to create a Bluetooth® Low Energy device sending data to a cellphone, the Arduino UNO WiFi Rev 2 is your one-stop-solution for many of the basic IoT application scenarios.

QUICKSTART GUIDE →

PINOUT 🔍

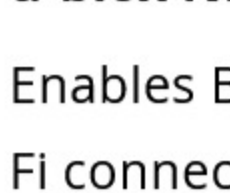
Main Features



ATmega4809

A powerful microcontroller with low-power architecture from the megaAVR® 0-series.

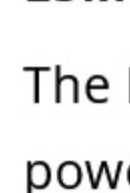
DATASHEET ↗



u-blox NINA-W102

Enables Bluetooth® and Wi-Fi connectivity for the UNO WiFi Rev2 board.

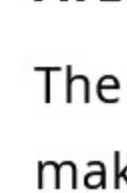
DATASHEET ↗



LSM6DS3TR

The **LSM6DS3TR** is a low-power IMU module that includes a 3D digital accelerometer & gyroscope.

DATASHEET ↗



ATECC608 crypto chip

The **ATECC608** crypto chip makes sure your data remains secure and private, and can store up to 16 keys in an EEPROM array.

DATASHEET ↗

Tech Specs


Here you will find the technical specifications for the Arduino UNO WiFi Rev 2.


Board	Name	Arduino® UNO WiFi Rev 2
	SKU	ABX00021
Microcontroller	ATmega4809	
USB connector	USB-B	
Pins	Built-in LED Pin	25
	Digital I/O Pins	14
	Analog input pins	6
	PWM pins	5
Connectivity	Bluetooth®	Nina W102 uBlox module
	Wi-Fi	Nina W102 uBlox module
	Secure element	ATECC608A
Sensors	IMU	LSM6DS3TR
Communication	UART	Yes
	I2C	Yes
	SPI	Yes
Power	I/O Voltage	5V
	Input voltage (nominal)	6-20V
	DC Current per I/O Pin	20 mA
	Power Supply Connector	Barrel Plug
Clock speed	Processor	ATmega4809 16 MHz
Memory	ATmega4809	6KB SRAM, 48KB flash, 256 bytes EEPROM
	Nina W102 uBlox module	448 KB ROM, 520KB SRAM, 2MB Flash
Dimensions	Weight	25 g
	Width	53.4 mm
	Length	68.6 mm


Compatibility

Software & Cloud

The following software tools allow you to program your board both online and offline.


 Arduino IDE


 Arduino CLI

 Web Editor

Hardware


The hardware listed below is compatible with this product.

 4 Relays Shield

 Motor Shield Rev3


Essentials

First Steps


 [Quickstart Guide](#)

All you need to know to get started with your new Arduino board.


Suggested Libraries

 [WIFININA](#)

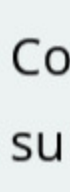
The WIFININA library is designed to use the NINA-W102 module, which allows your Arduino to connect to the Internet, either as a server accepting incoming connections or a client making outgoing ones.

 [ArduinoBLE](#)

The ArduinoBLE library is designed for Arduino boards that have hardware enabled for Bluetooth® Low Energy and Bluetooth® 4.0 and above.


 [Arduino_LSM6DS3](#)

The Arduino_LSM6DS3 library allows you to use the LSM6DS3 IMU module, which includes a 3-axis accelerometer and gyroscope.

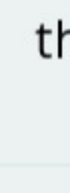
 [ArduinoMqttClient](#)

The ArduinoMqttClient library allows you to send and receive MQTT messages using Arduino. Connect to brokers, publish and subscribe to topics. A great library for devices to communicate over the Internet.

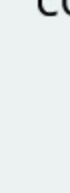
Arduino Basics

 [Built-in Examples](#)

Built-in Examples are sketches included in the Arduino IDE and demonstrate all basic Arduino commands.


 [Learn](#)

Discover interesting articles, principles and techniques related to the Arduino ecosystem.

 [Language References](#)

Arduino programming language can be divided in three main parts: functions, values (variables and constants), and structure.

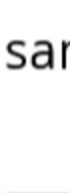
Tutorials

 [UNO WIFI Rev 2 Chromebook Setup](#)

A quick tutorial on how to setup your UNO WiFi Rev 2 board with a Chromebook, using the Web Editor & the Arduino Chrome App.

Chromebook

Installation


 [Host a Web Server on the Arduino UNO WiFi Rev2](#)

Learn how to access your board through a browser on the same network.

IoT

Wi-Fi

Web Server

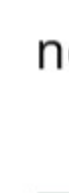
 [Sending Data over MQTT](#)

Learn how to use the MQTT (Message Queuing Telemetry Transport) protocol to send data between the Arduino UNO WiFi Rev2 and another device.

IoT

MQTT


Wi-Fi

 [Scanning Networks with Arduino UNO WiFi Rev2](#)

Learn how to setup your board to scan nearby Wi-Fi networks, and print them out in the Serial Monitor.

IoT

Wi-Fi

 [Web Server Using Access Point with Arduino UNO WiFi Rev2](#)

Learn how to set up your board as an access point (AP), allowing other devices to connect to it.

IoT

Wi-Fi


Access Point

Resources

Interactive Viewer

Interact with the schematics, the PCB and a 3D model of the product.


Open Viewer



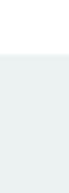
Pinout Diagram

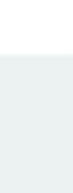
A diagram showing the functions and the arrangement of the pins on your product.

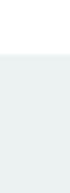
Open Diagram



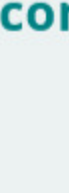
Downloads

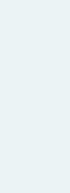
 [Full Pinout](#)


 [Schematics](#)

 [CAD Files](#)

Troubleshooting

 [Check and update the firmware for WIFININA and WIFI101](#)

 [When I create an access point with WIFI Nina, it fails](#)

 [How to Create a simple web server with static IP and control builtinLED using WIFININA library](#)

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