# Arduino UNO WiFi

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The UNO WiFi board is the Arduino UNO with integrated

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# WiFi. For beginner and advanced users alike.



The Arduino UNO WiFi board is based on the ATmega328 and it has an integrated ESP8266 WiFi Module. If you are starting out with Arduino, or starting with IoT, this is the board to get.

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## Overview

The Arduino Uno Wi-Fi is the new Arduino Uno with an integrated Wi-Fi module! The board is based on the ATmega328P (datasheet (http://www.atmel.com/images/Atmel-8271-8-bit-AVR-Microcontroller-ATmega48A-48PA-88A-88PA-168A-168PA-328-328P_datasheet_Complete.pdf)) with an ESP8266 Wi-Fi Module integrated (datasheet (http://download.arduino.org/products/UNOWIFI/0A-ESP8266-Datasheet-EN-v4.3.pdf)). It has 14 digital input/output pins (of which 6 can be used as PWM outputs), 6 analog inputs, a 16 MHz ceramic resonator, a USB connection, a power jack, an ICSP header, and a reset button. It contains everything needed to support the microcontroller; simply connect it to a computer with a USB cable or power it with an AC-to-DC adapter or

battery to get started.



The ESP8266 Wi-Fi Module is a self contained SoC with integrated TCP/IP protocol stack that can give access to your Wi-Fi network. (Or the device can act as an access point.) One useful feature of Uno Wi-Fi is support for OTA (over-the-air) programming, either for transfer of Arduino sketches or Wi-Fi firmware.



## ARDUINO MICROPROCESSOR

| | |
|---|---|
| Processor | ESP8266 |
| Architecture | Tensilica Xtensa LX106 |
| Operating Voltage | 3.3 V |
| Flash Memory | 4 MB |
| RAM | 8 MB instruction, 12 MB data |
| Clock Speed | 80 MHz |
| WiFi | 802.11 b/g/n 2.4 GHz |
| Wake up time | < 2 ms |

## ARDUINO MICROCONTROLLER

| | |
|---|---|
| Microcontroller | ATmega328 |
| Architecture | Atmel AVR 8-bit |
| Operating Voltage | 5 V |
| Flash memory | 32 KB |
| SRAM | 2 KB |
| Clock Speed | 16 MHz |
| Analog I/O Pins | 6 |
| EEPROM | 1 KB |

## GENERAL

| | |
|---|---|
| Digital I/O Pins | 20 |
| PWM Output | 6 |
| Power Consumption | 93 mA |
| PCB Size | 53 x 68.5 mm |
| Weight | 0.025 Kg |
| Product Code | A000133 |

| | |
|---|---|
| DC Current per I/O Pins | 40 mA |

FAQ

If you couldn't find what you were looking for, please see our Forum Section

HOW DO I UPLOAD A SKETCH?

You need to download the software (/download) and follow this step by step guide (/learning/tutorials/first-steps-with-arduino-ide).

WHICH CABLE USED TO PROGRAM AND / OR POWER?

HOW TO RECOVER A BOARD BLOCKED

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