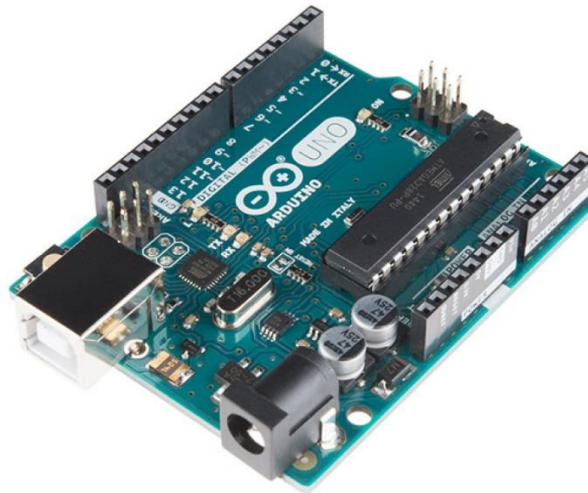


## Arduino UNO R3 Development Board



Arduino Uno is a microcontroller board based on the ATmega328P (datasheet). It has 14 digital input/output pins (of which 6 can be used as PWM outputs), 6 analog inputs, a 16 MHz ceramic resonator (CSTCE16M0V53-R0), 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 a AC-to-DC adapter or battery to get started.

The Uno differs from all preceding boards in that it does not use the FTDI USB-to-serial driver chip. Instead, it features the Atmega16U2 (Atmega8U2 up to version R2) programmed as a USB-to-serial converter. While the Arduino UNO can be powered via the USB connection or with an external power supply, the power source is selected automatically.

External (non-USB) power can come either from an AC-to-DC adapter (wall-wart) or battery. The adapter can be connected by plugging a 2.1mm centre-positive plug into the board's power jack. Also leads from a battery can be inserted in the Gnd and Vin pin headers of the Power connector. The board can operate on an external supply of 6 to 20 volts. If supplied with less than 7V, however, the 5V pin may supply less than five volts and the board may be unstable. If using more than 12V, the voltage regulator may overheat and damage the board. The recommended range is 5v to 12v for Arduino Uno.

### Specifications:

Model Type	UNO Rev R3
Microcontroller Chip	ATmega328P
Operating Voltage	5V
Input Voltage (Recommended)	7-12V
Input Voltage (limit)	6-20V

Analog I/O Pins	6
Digital I/O Pins	14 (of which 6 provide PWM output)
PWM Digital I/O Pins	6
DC Current per I/O Pin	20 mA
DC Current for 3.3V Pin	50 mA
Clock Speed	16 MHz
SRAM	2 KB (ATmega328P)
EEPROM	1 KB (ATmega328P)
Flash Memory	32 KB (ATmega328P) of which 0.5 KB used by bootloader
On Board LEDs	On/Off, L (PIN 13), TX, RX
Dimensions in mm (LxWxH)	68.6 x 53.4 x 12 mm
Weight	25 g

## Applications:

- DIY project prototyping.
- Developing varied varieties of projects that require a code-based control.
- Automation System development.
- Learning AVR programming.
- Entry level circuit designing.

## Pinout Diagram:

