NB: This UNO uses the CH340 USB <> Serial chip and requires downloading of the Windows Drivers or Mac OS Drivers depending on the operating system that you utilise.

This Arduino UNO R3 CH340 is a clone of the original Arduino UNO R3, but has been modified to bypass the standard (expensive) FTDI drivers with the CH340 USB serial chip. By doing so, it not only makes this type of Prototyping and development more accessible to students and hobbyists, but also encourages the open-source Maker movement – which is why we choose to support it by making it accessible to you and providing the drivers necessary to operate it.

In terms of upgrades since previous versions of the Arduino UNO, the Arduino UNO R3 CH340 offers a variety of major upgrades that improve the power and efficiency of the board, but also a few minor quality-of-life upgrades to simply make your life as a Maker a little bit easier. These include the addition of solder pads from pins PB4 through PB7 to the USB header, ICSP header pins rather than simple solder pads, and a 10-pin connector for the I2C, AD4/SDA and AD5/SCL. These seemingly insignificant improvements have made the Arduino UNO R3 much easier and simpler to utilize, making it an obvious upgrade from the original versions.

Arduino UNO R3 CH340 - Technical Specifications:

- **Microcontroller** – ATmega16U2
- **Input Voltage (Recommended)** – 7 to 12V
- **Input Voltage (Limits)** – 6 to 20V
- **Digital I/O Pins** – 14
- **PWM Channels** – 6
- **Analog Input Channels** – 6
- **DC Current per I/O Pin** – 40mA
- **DC Current for 3.3V Pin** – 50mA
- **Flash Memory** – 32KB of which 0.5 KB is reserved by bootloader
- **SRAM** – 2KB
- **EEPROM** – 1KB
- **Clock Speed** – 16MHz
- **Dimensions** – 2.7” x 2.1” / 68.6mm x 53.4mm
- **Weight** – 25g

Typical Applications for the Arduino UNO R3 - CH340:

This Arduino UNO R3 CH340 is part of the Arduino Range, which is a series of Development Platforms designed to help Makers, hobbyists and students learn about Electronics and the wiring/processing language with which machines and circuits are programmed. This particular model is an excellent choice for any teacher or tutor, as it's a far more affordable board compared to genuine models. This translates to cheaper costs for you or your students, and more potential for learning as that extra capital can be spent elsewhere.

As this board excels within learning environments, it has often been used for applications such as:

- Equipment for a classroom, or for a tutor to provide to students who want to learn about electronics and circuitry.
- Easy-to-use, hard-to-break development platforms for beginners to practice with, without the risk of damaging an expensive board.
- Within prototyping projects, where capital is limited but results need to be maximised in order to gain further funding or good marks for a project.

Aside from the change in drivers from FTDI to CH340, there are practically no differences between this board and the standard Arduino UNO R3. Just be sure to get your drivers from the links shown above, and this board should offer no extra hassle – while offering excellent value for money.

***Note**: This is not supplied by Arduino, although it is manufactured to the same specs and quality controlled locally to ensure it functions exactly as expected - while saving you money.*