

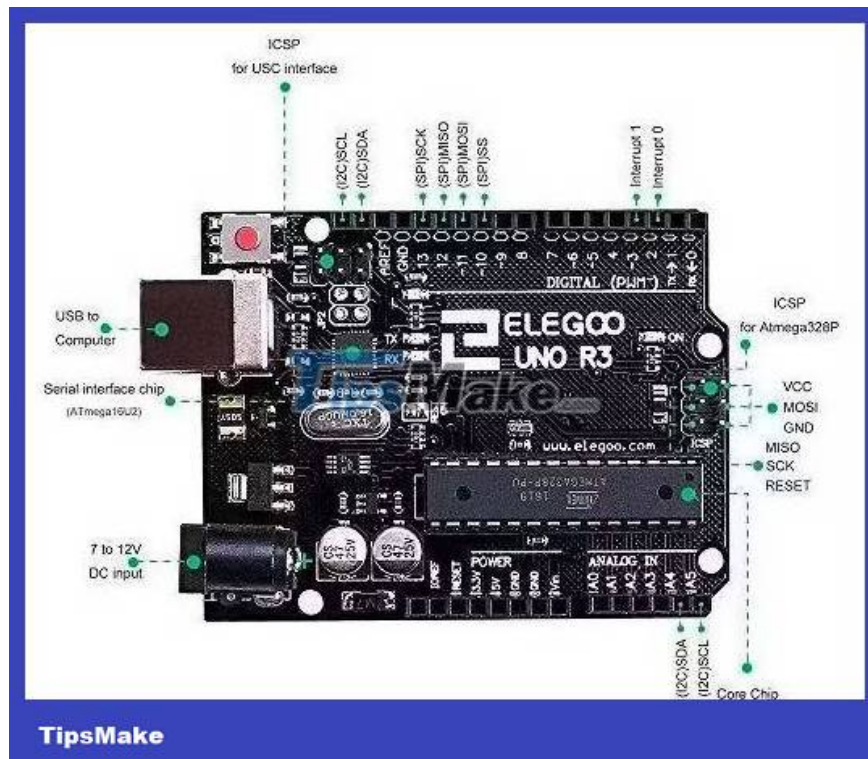
Difference between Elegoo and Arduino

If you've ever bought an Arduino board, you may have seen Elegoo boards with a cheaper starter kit. Both are good options. So what is the difference between Elegoo and Arduino?

Arduino has become extremely popular among manufacturers and electronics enthusiasts as a general-purpose microcontroller platform. However, you can often come across clone boards like Elegoo that closely resemble regular Arduino boards.

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What is elegoo?



Shenzhen Elegoo Technology Co., Ltd. is a company focused on manufacturing, researching and marketing open source hardware. It is a relatively new player in the microcontroller market, offering a wide range of development boards, components and kits similar to the Arduino. It builds on the success of Arduino by using Arduino's freely available schematics to mass-produce low-cost replacement boards.

Elegoo products are designed with affordable prices in mind, making them accessible to a wider audience. The company makes microcontroller boards, including the Elegoo UNO R3. Similar to other microcontrollers such as the NodeMCU, the Elegoo Uno R3 is based on the ATmega328P chip, as used in the Arduino Uno.

Elegoo Uno R3



Elegoo Uno R3 is the main microcontroller board from Elegoo, heavily inspired by the Arduino Uno R3. Here is a breakdown of the features of the two boards:

Feature	Elegoo Uno R3	Arduino Uno R3
Microcontrollers	ATmega328P-PU	ATmega328P-PU
Operating voltage	5V	5V
Digital I/O pins	14	14
Analog input pins	6	6
PWM output pin	6	6
Flash memory	32kB	32kB
SRAM	2kB	2kB

Feature	Elegoo Uno R3	Arduino Uno R3
EEPROM	1kB	1kB
Clock speed	16MHz	16MHz
USB Interface	ATmega16U2	ATmega16U2
Compatible with	Arduino IDE and Shields	Arduino IDE and Shields

The two boards are almost identical in terms of design and specifications. Unlike some other cheap Arduino clones, Elegoo has an ATmega16U2 chip for USB-serial communication (as used on the Arduino Uno), instead of the good old CH340.

Is it possible to program Elegoo using the Arduino IDE?

A significant advantage of Elegoo over some other clones is its compatibility with Arduino tools. Elegoo boards can be programmed using the Arduino IDE, which means you can leverage your existing knowledge and codebase. Just select the relevant Arduino model in the **Boards** menu, for example, Arduino Uno for Elegoo Uno R3.

Compare Elegoo and Arduino directly

Branding

Arduino has become a well-known brand in the microcontroller industry, backed by a strong community. The company is the original manufacturer of the board and the supporting software. Elegoo, despite its growing popularity, is still establishing its brand presence as a manufacturer of inexpensive Arduino-compatible boards.

Build quality

Arduino boards are known for their high-quality construction and reliable performance. The Elegoo board also offers good build quality, considering the affordable price tag, but you might notice a slight difference in durability.

Expense

Elegoo products are often more competitively priced than Arduino's, making them an attractive option for users on a tight budget. Arduino is relatively expensive but users are assured by its long-standing brand, reliability and

wide support.

Support/tools

Arduino's large community and rich documentation provide excellent user support. Elegoo also offers community forums, tutorials, and customer support, but resources can be relatively limited. However, you can use the official Arduino online resources and example programs for your Elegoo board, using the same Arduino IDE.

Starter Kit

Both Arduino and Elegoo provide a beginner's kit that includes the board, components, and instructions. Arduino starter kits tend to have a higher price tag, reflecting the brand's reputation and additional resources. Elegoo's Starter Kit not only offers a cost-effective option for beginners, but also tends to include more components.

Elegoo or Arduino better?

Arduino and Elegoo are both good microcontroller boards with very similar specifications and designs. Arduino has a long reputation, strong community support, and high build quality. Elegoo offers affordability, compatibility with the Arduino platform and growing ecosystem.

All choices depend on your specific project needs, your budget, and the level of community support you desire.

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