

Learn about Arduino and install the Arduino IDE

Introducing Arduino

Arduino is an open source electronics platform based on easy-to-use hardware and software. Suitable for anyone working on interactive projects . Generally speaking, an Arduino project is composed of hardware circuits and software codes.

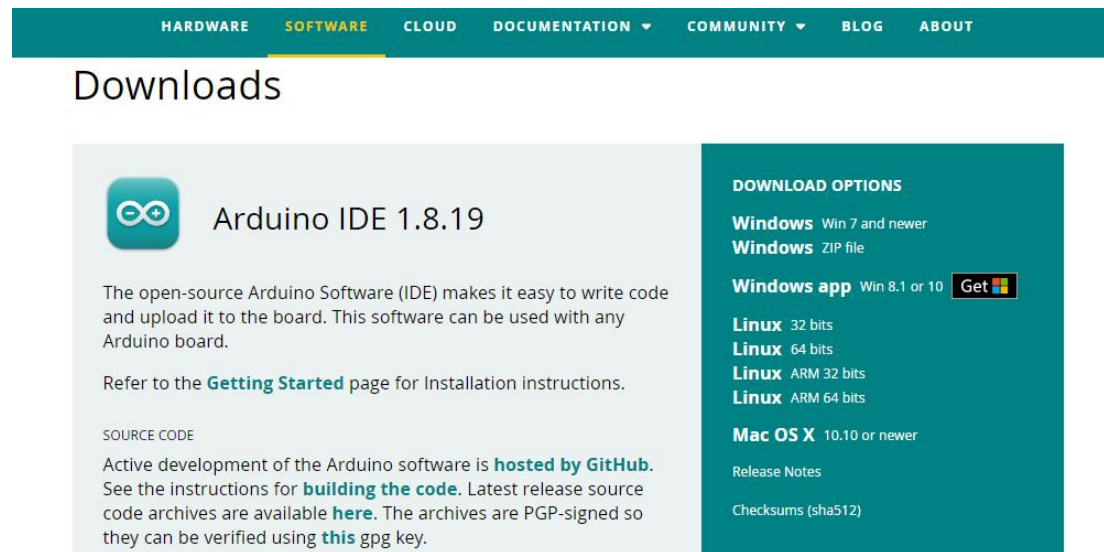
Arduino Board

Arduino Board is a circuit board that integrates a microcontroller, input and output interfaces, etc. The Arduino Board can sense the environment using sensors and receive user actions to control LEDs, motor rotation, and more. We only need to assemble the circuit and write the code for burning to make the product we want . Currently, there are many models of Arduino Board, and the code is common between different types of boards (due to differences in hardware, some boards may not be fully compatible).

Arduino software

Arduino Integrated Development Environment (IDE) is the software side of the Arduino platform. For writing and uploading code to the Arduino Board. Follow the tutorial below to install the Arduino software (IDE) .

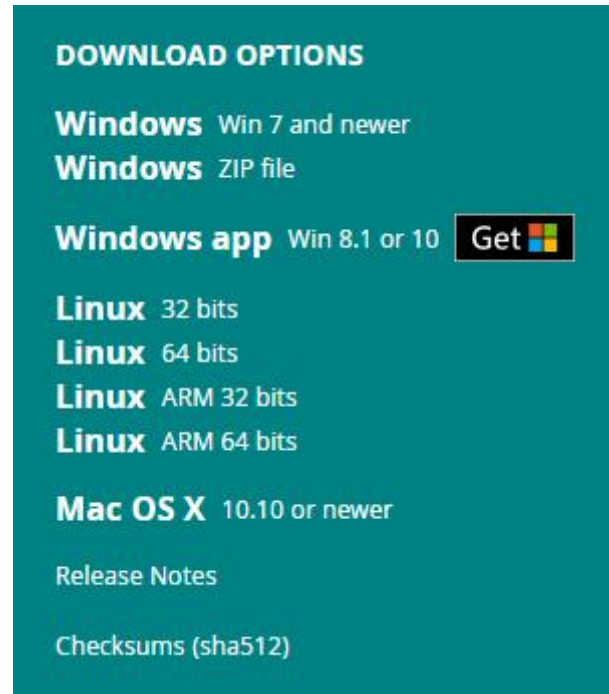
Step 1: Click to go to <https://www.arduino.cc/en/software> webpage and find the following webpage location:



There may be a newer version on the site when you see this tutorial!

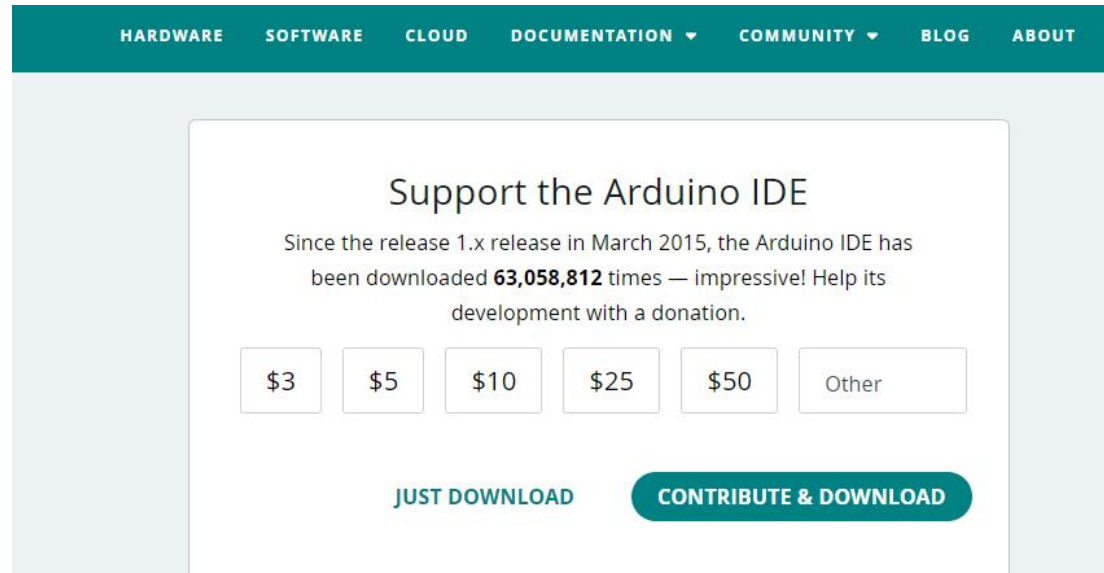
Step 2: Download the development software compatible with your computer system, here we take Windows as an

example.



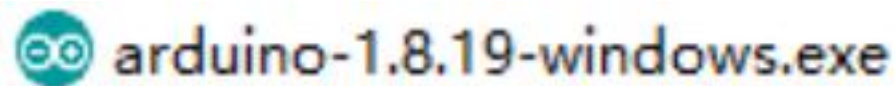
You can choose between an installer (.exe) and a Zip package. We recommend that you use the first "Windows Win7 and newer" to directly install everything you need to use the Arduino software (IDE), including drivers. With the Zip package, you need to install the driver manually. Of course, Zip files are also useful if you want to create portable installations.

Click on "Windows Win7 and newer"



Click on "JUST DOWNLOAD".

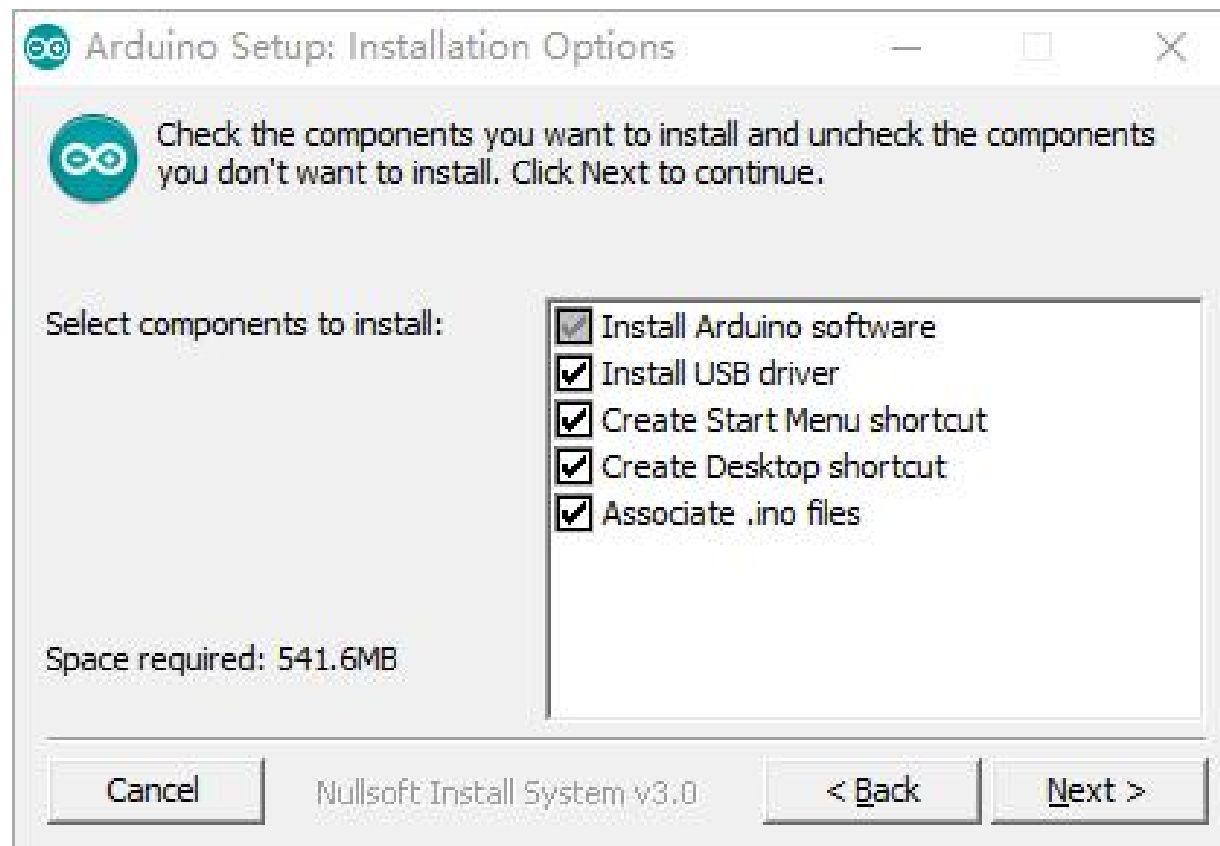
After the download is complete, the installation package file with the "exe" suffix will be obtained



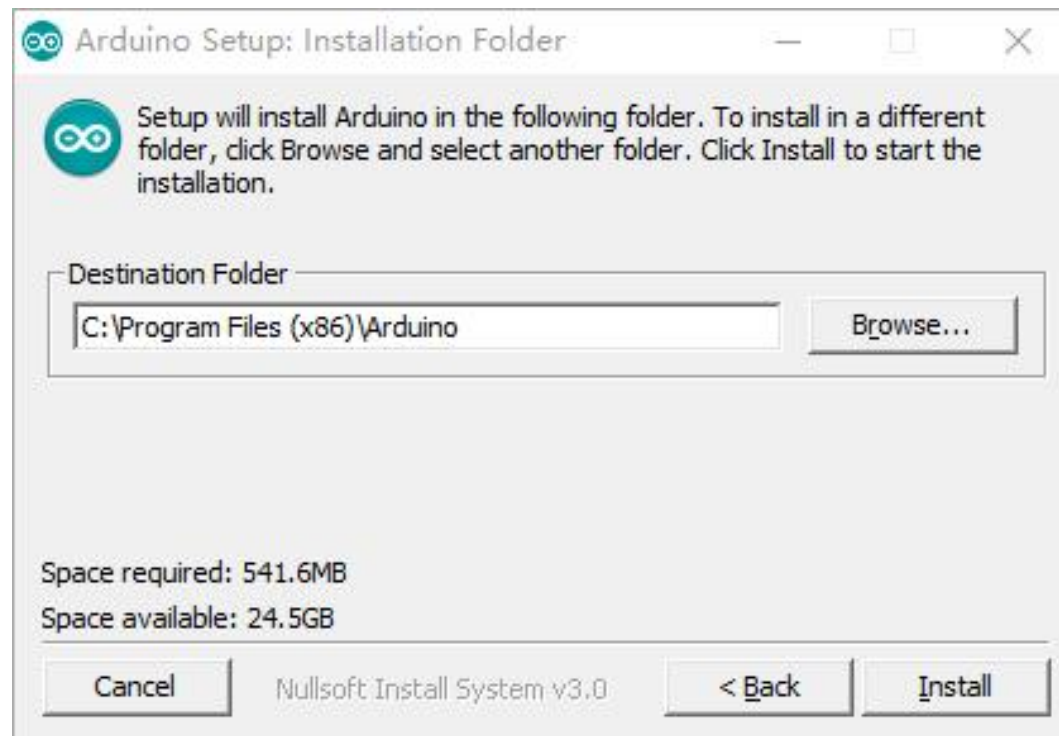
Double click to run the installer



Click "I Agree" to see the following interface



Click "Next"

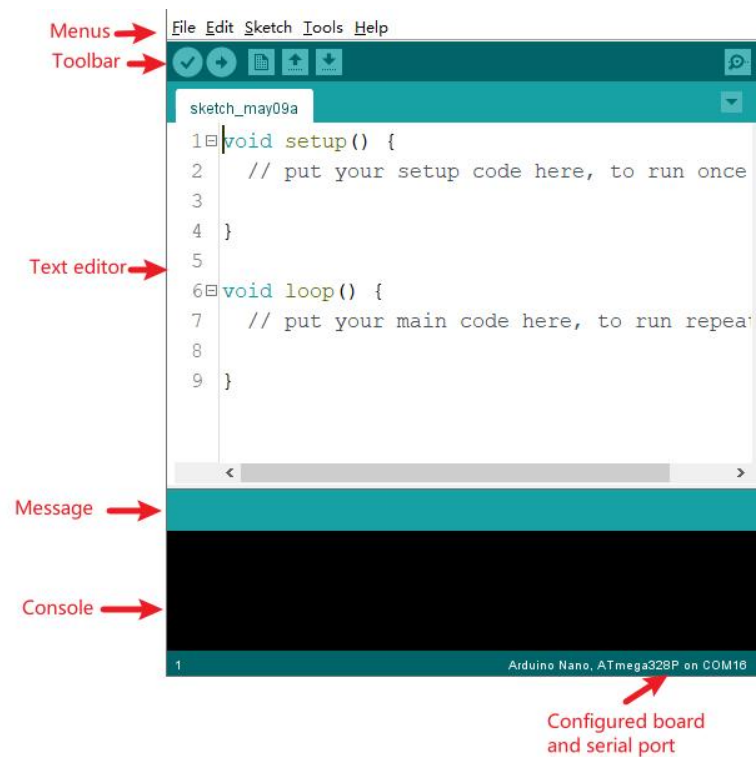


You can press "Browse..." to select the installation path or directly enter the directory you want. Then click "Install" to install. (For Windows users, the driver installation dialog may pop up during the installation process , when it pops up, please allow the installation)



After the installation is complete, an Arduino software shortcut will be generated on the desktop, double click to enter the Arduino software platform environment .

After the installation is complete, open the software to see the software platform interface as shown below:



Programs written using the Arduino software (IDE) are called "Sketch". These "Sketch" are written in a text editor and saved with the file extension ".ino".

The editor has functions for cutting, pasting, and searching and replacing text. The message area provides feedback and displays errors when saving and exporting. The console displays text output by the Arduino software (IDE), including full error messages and other information. The lower right corner of the window displays the configured boards and serial ports. Toolbar buttons allow you to verify and upload programs, create, open and save projects, and open the serial monitor. The positions of the corresponding functions in the toolbar buttons are as follows:



Verify : Compile code to check for errors



Upload : Compile code and upload to circuit board



New : Create a project file



Open : Select an item from an existing library and open it in a new window



Save : Save your project files



Serial Monitor : Open the serial monitor

(It is worth noting that the "ino" file must be saved in a folder with the same name as itself. If the program is not opened in a folder with the same name, it will be forced to automatically create a folder with the same name.

Install Arduino (Mac OS X)

Download and unzip the zip file, double-click Arduino.app to enter the Arduino IDE; if there is no Java runtime library in your computer, you will be asked to install it, after the installation is complete, you can run Arduino IDE.

Install Arduino (Linux)

You will have to use the make install command. If you are using Ubuntu system, it is recommended to install Arduino ID from Ubuntu Software Center