

Arduino IDE Instructions

-, Use of software

 Users can download Arduino IDE from the official site. <u>http://arduino.cc/en/Main/Software</u>. There are many versions for different requirements.

Here we suggest the latest one for its compatibility with more boards and it contains more library files.

2. Unzip the package, find out the Arduino directory file, and then double-click icon "arduino.exe", as shown in 1-1:

🌗 drivers	2013-04-10 17:14	文件夹	
🌗 examples	2014-04-16 13:50	文件夹	
🌗 hardware	2014-04-16 13:50	文件夹	
🌗 java	2014-04-16 13:50	文件夹	
🌗 lib	2014-04-16 13:50	文件夹	
퉬 libraries	2014-05-27 9:14	文件夹	
🌗 reference	2014-04-16 13:50	文件夹	
퉬 tools	2014-04-16 13:50	文件夹	
💿 arduino.exe	2013-04-10 17:13	应用程序	840 KB
S cygiconv-2.dll	2013-04-10 17:13	应用程序扩展	947 KB
S cygwin1.dll	2013-04-10 17:13	应用程序扩展	1,829 KB
libusb0.dll	2013-04-10 17:13	应用程序扩展	43 KB
revisions.txt	2013-04-10 17:13	文本文档	33 KB
🚳 rxtxSerial.dll	2013-04-10 17:13	应用程序扩展	76 KB

- 1-1
- 3. Open the Arduino IDE, you can see the console panel as below (as shown 1-2):





4. Selecting the appropriate board type (as shown in 1-3). The principle of selection: 1) chooses according to the board type or board name. For example, board type: Arduino Duemilanove, CPU is Atmega328p, the user can choose these boards: Arduino Uno, Arduino Duemilanove, Arduino Duemilanove/Atmega32 etc. the wrong choice of board type will impede the download of program; therefore users should pay attention to the instructions on the board marked by manufactures when choosing board type. 2) Choose according to your own MCU model.



💿 sketch_jun21a Ar	duino 1.0.1			
File Edit Sketch To	ols Help			
sketch_jun21a §	Auto Format Ctrl+T Archive Sketch Fix Encoding & Reload Serial Monitor Ctrl+Shift+	·M		م ح ^
void setup()	Board	,	Arduino Uno	
u –	Serial Port	•	Arduino Duemilanove w/ ATmega328	
void loop()	Programmer Burn Bootloader	•	Arduino Diecimila or Duemilanove w/ ATmega168 Arduino Nano w/ ATmega328 Arduino Nano w/ ATmega168 Arduino Mega 2560 or Mega ADK Arduino Mega (ATmega1280) Arduino Leonardo Arduino Mini w/ ATmega328	
			Arduino Mini w/ ATmega168 Arduino Ethernet Arduino Fio Arduino BT w/ ATmega328	
			Arduino B1 w/ Almega168 LilyPad Arduino w/ ATmega328 LilyPad Arduino w/ ATmega168 Arduino Pro or Pro Mini (5V, 16 MHz) w/ ATmega328 Arduino Pro or Pro Mini (3.3V, 8 MHz) w/ ATmega168 Arduino Pro or Pro Mini (3.3V, 8 MHz) w/ ATmega168	
•			Arduino NG or older w/ ATmega168	•
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8	feed feed			Arduino Uno on COM2

- 1-3
- 5. Choose the correct serial port (as shown in 1-4); the serial driver installation will be introduced in next section. If there is more than one COM port in the serial port list, you can hot plug the USB connected to the board to find out the correct one.





- 6. Write code. Arduino IDE supports C programming language and Arduino programming language (Arduino language is based on C language, there is only a slight difference, such as more library
 - files), users can choose either according to your own needs. If you want to write codes that can implement specific functions, the void setup() and void loop() function must be included.
 - 7. Verify and download code. After writing, you can upload it to the corresponding board, if the code is correct, you can directly click the upload button. (As shown in 1-5)





1-5

8. As shown 1-6, that show you the code have already download successful, otherwise, it is failed.



1-6



shown in 2-3.

\Box , Arduino board driver installation

1. The first time you connect the PC and Arduino board with a USB cable, you will see the following prompt.



2. Wait for about 30 second, set up will remind you if the drive installation has complete. If it is installed automatically, please skip this step. If not, please kindly check at Device Manager, as shown in 2-2.



3. In the [Device Manager], right-click [Arduino Mega 2560], in the dialog box, select the [Update device of driver software], select [Browse my computer for driver software]. As



G 🛛 U Hov	Ipdate Driver Software - Arduino Mega 2560 w do you want to search for driver software?	
•	Search automatically for updated driver software Windows will search your computer and the Internet for the latest driver software for your device, unless you've disabled this feature in your device installation settings.	
•	B <u>r</u> owse my computer for driver software Locate and install driver software manually.	

2-3

 Open the software installation directory of Arduino IDE, copy the directory folder [drivers] to the corresponding directory (as shown), and then click Next, the driver installation is completed. As shown in 2-4

Bro	wse for driver software on your computer
Sear	ch for driver software in this location:
D:\	arduino-1.0\drivers\FTDI USB Drivers
VI	nclude subfolders
	software in the same category as the device.
	Next Ca



Ξ , Arduino board FAQ

1. I can't upload the program to the Arduino IDE?

- 1) Make sure you have chosen the correct board type and serial port.
- 2) Try to press the reset button on the board before you upload the code.
- All Arduino board have a reserved ISP interface, you can try to upload the code through ISP interface.
- 4) Reburn the Bootloader. Please refer to the following steps.

Step1. Choose the board type

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u woid loop()	Board		•	Arduino Uno
	Serial Port	•		Arduino Duemilanove w/ ATmega328
•	Programmer Burn Bootloader	Þ		Arduino Diecimila or Duemilanove v/ ATmega168 Arduino Nano w/ ATmega328
Done uploading. [81] . [80] h [6 [cf]	58]. [80]. [83]. [10]. [92]	. [c.		Arduino Nano w/ Armega108 Arduino Mega 2560 or Mega ADK Arduino Mega (ATmega1280)
avrdude: Recv: . ######### 1009	[10] 6 0.19s			Arduino Leonardo Arduino Mini w/ ATmega328 Arduino Mini w/ ATmega168
avrdude: verify:	ing			Arduino Ethernet
avrdude: 466 bytes of flash verified			1	Arduino Fio
avrdude: Send: (Q [51] [20]			Arduino BT w/ ATmega328

Step2. Choose the Bootloader Programmer type (choose according to your needs)



💿 sketch_jun21a	Arduino 1.0.1				
File Edit Sketch	Tools Help				
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	Archive Sketch				
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<pre>void setup()</pre>	Serial Monitor	Ctrl+Shift+M			*
{}	Board	•			
void loop()	Social Dort				
{ }	Senar Port				_
4	Programmer	•		AVR ISP	
	Burn Bootloader			AVRISP mkII	
Done uploading.			۲	USBtinyISP	
[81]. [80] h [[68] . [80] . [83] . [10]	. [92] . [c]		USBasp	[f8].[94].[ff].
[cf]				Parallel Programmer	
avrdude: Recv: . [10]			Arduino as ISP		
######## 100				AVR ISP	
				AVRISP mkII	
avrdude: verify	ving			USBtinyISP	
avrdude: 466 by	rtes of flash verified			LISBaco	

Step 3.Connect the PC with the reserved ISP interface through the Bootloader Programmer (USBthinyISP). (Pay attention to the connect direction), and then download the Bootloarder.

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sketch_jun21a s	Auto Format Archive Sketch Fix Encoding & Reload	Ctrl+T	<u>م</u> •
void setup()	Serial Monitor	Ctrl+Shift+M	^
{} void loop()	Board Serial Port	» »	
U	Programmer	•	
	Burn Bootloader		

Reference materials for USBtinyISP:

http://www.geeetech.com/usbtinyisp-bootloader-shield-p-179.html