

# Building a Developed *Environment*

### **Arduino IDE**

As an open source software, Arduino IDE, based on ongoing Processing IDE development is an integrated development environment officially launched by Arduino.

By using Arduino IDE, you just write the program code in the IDE and upload it to the Arduino circuit board. The program will tell the Arduino circuit board what to do.

## So,Where can we download Arduino IDE?

#### STEP 1:

Go to https://www.arduino.cc/en/Main/Software and you will see the following page. The version available at this website is usually the latest version, and the actual version may be newer than the version in the picture.



ARDUINO 1.8.9 The open-source Arduino Software (IDE) makes it easy to write code and upload it to the board. It runs on Windows, Mac OS X, and Linux. The environment is written in Java and based on Processing and other opensource software.

This software can be used with any Arduino board. Refer to the Getting Started page for Installation instructions. Windows Installer, for Windows XP and up Windows ZIP file for non admin install

Windows app Requires Win 8.1 or 10

Mac OS X 10.8 Mountain Lion or newer

Linux 32 bits Linux 64 bits Linux ARM 32 bits Linux ARM 64 bits

Release Notes Source Code Checksums (sha512)

#### STEP 2:

Download the development software that is suited for the operating system of your computer. Take Windows as an example here.

If you are MacOS, please open 04 For Mac Setting up development environment

You can install it using the EXE installation package or the green package. The following is the exe implementation of the installation procedures. Press the option "Windows Installer".

#### STEP 3:

Press the button "JUST DOWNLOAD" to download the software.

The download file:

og arduino-1.8.9-windows



#### STEP 4:

These are available in the materials we provide, and the versions of our materials are the latest versions when this course was made.

Choose "I Agree" to see the following interface.

Choose "Next" to see the following interface.

Press "Install" to initiate installation.

Arduino Setup: License Agreement –	Arduino Setup: Installation Options – C X     Oreck the components you want to install and uncheck the components     you don't want to install. Click Next to continue.	Installing driver software
ONU LESSER CENERAL FUBLIC LICENSE <ul> <li>Version 3, 29 June 2007</li> <li>Copyright (C) 2007 Free Software Foundation, Inc. <ul> <li><li><li><li><li><li><li><li><li><li></li></li></li></li></li></li></li></li></li></li></ul></li></ul>	Select components to install: Install USB driver Create Start Kenus shortout Create Start Kenus shortout Associate .ino files Space required: 482-448 Cancel Nullsoft Install System v3.0 < Back Next >	Windows Security  Would you like to install this device software?  Nume: Arduino USB Driver  Publisher: Arduino LLC  Always trust software from "Arduino LLC".  Always trust software from "Arduino LLC".  Multiple of the system
Arduino Setup: Installing - X	Arduino Setup: Installation Folder – – X Setup wil Instal Arduino in the following folder. To Install in a different installation.	Finally,the following interface appears, vou should choose Install to ensure
Show getals	Destination Folder     C:Program Files (v86)\//duino     Biconse	the correct installation. The installation is required to work with the installation is required to work with the stallation i
Cancel Nullsoft Install System v3.0 < Back Glose	Space required: 482.448 Space available: 78.008 Cencel Nullsoft Install System v3.0 < Beck Install	UNO board. If you don't install the softwar the computer would not be able to talk to the board

#### STEP 5:

■ Next, the following icon appears on the desktop.





#### **STEP 7:**

■ Open the Arduino IDE. Select "Tool "→ "Board "→ "Arduino/Genuino Uno". Select "Tool "→ "Port "→ "COM (Arduino/Genuino Uno)".

Each Arduino Uno board has a different COM number on the same computer and usually the COM number is associated with a suffix name "(Arduino/Genuino Uno)" in Arduino 1.8.9. You should choose the COM number that is shown.

#### **Tips:**

If you see the port "COM (Arduino/Genuino Uno)", it means that the board has been connected correctly to the computer. At this time, the Arduino development environment has been successfully built.

💿 sketch_sep05a	rduino 1.8.9	- 0	$\times$	
File Edit Sketch Too	ls Help			
	Auto Format	Ctrl+T		
	Archive Sketch			
sketch_sep05a	Fix Encoding & Reload			
<pre>void setup() {</pre>	Manage Libraries	Ctrl+Shift+I	^	
// put your	Serial Monitor	Ctrl+Shift+M		
}	Serial Plotter	Ctrl+Shift+L		
<pre>void loop() {</pre>	WiFi101 / WiFiNINA Firmware Upd	ater		
// put your	Board: "Arduino/Genuino Uno"		>	
3	Port: " COMB8 (Arduino/Geruino U	no)"	3	Serial ports
	Get Board Info	-	~	" COMB8 (Arduino/Geruino Uno)"
	Programmer: "AVRISP mkll"		>	
	Burn Bootloader			
			-	
	Arduir	no/Genuino Uno on CC	M1	

If you see the COM port associated with Arduino/Genuino UNO, your automatic installation is complete and working, go to Step 9.

Otherwise, you need to install the driver in the following way manually.

#### STEP 8:

#### Open Device Manager by right clicking My Computer—Management—Device Manager.



It shows that the driver has not been installed, and you need to click Browse my computer for driver software to find the drivers. The driver is in the Arduino folder. Normally you will install the folder in C:\Program Files (x86)\Arduino.



# Right click unknown device -- Update Driver Software.

Bevice Manager			- • ×	
File Action View Help				
(+ +) II       I II   (4	😭 🙀 🖏			
C 2-201602174TRX     Computer     Disk drives     Disk dr	s ers devices			
Unknown device	Update Driver Software			
Ports (COM & LPT)     Processors     Sound, video and gar	Disable Uninstall			
▷-1 System devices ▷-0 Universal Serial Bus c	Scan for hardware changes Properties			

#### Arduino install folder.

This PC > Win10 (C:) > Program Files (x86) > Arduino >				
^	Name	Date modified	Туре	Size
	drivers	1/16/2017 9:18 AM	File folder	
	examples	1/16/2017 9:18 AM	File folder	
	hardware	1/16/2017 9:18 AM	File folder	
	📙 java	1/16/2017 9:18 AM	File folder	
	📊 lib	1/16/2017 9:18 AM	File folder	
	📊 libraries	1/16/2017 9:18 AM	File folder	
		1/16/2017 9:18 AM	File folder	
	tools	1/16/2017 9:18 AM	File folder	
	tools-builder	1/16/2017 9:18 AM	File folder	
	💿 arduino.exe	1/9/2017 7:35 PM	Application	395 KB
	🗟 arduino.14j.ini	1/9/2017 7:35 PM	Configuration sett	1 KB
	💿 arduino_debug.exe	1/9/2017 7:35 PM	Application	392 KB
	🗟 arduino_debug.14j.ini	1/9/2017 7:35 PM	Configuration sett	1 KB
	📧 arduino-builder.exe	1/9/2017 7:32 PM	Application	3,192 KB
	🗟 libusb0.dll	1/9/2017 7:32 PM	Application extens	43 KB
	🗟 msvcp100.dll	1/9/2017 7:32 PM	Application extens	412 KB
	imsvcr100.dll	1/9/2017 7:32 PM	Application extens	753 KB
	revisions.bt	1/9/2017 7:32 PM	Text Document	81 KB
	🗃 uninstall.exe	1/16/2017 9:18 AM	Application	404 KB
	wrapper-manifest.xml	1/9/2017 7:35 PM	XML Document	1 KB

#### Install Arduino USB device.

	×		23
– 📱 Updat	e Driver Software - USB Serial Port (COM5)	Update Driver Software - Unknown Device	
Browse	for driver software on your computer	Installing driver software	
Search fo	r driver software in this location:		
C:\Progr	am Files (x86)\Arduino\drivers V Browse		
☑ Includ	e subfolders	Would you like to install this device software?  Name: Arduino USB Driver  Publisher: Arduino LLC	
→ Le Thi sof	t me pick from a list of device drivers on my computer s list will show installed driver software compatible with the device, and all driver tware in the same category as the device.	Always trust software from "Arduino LLC". Install Don't Install Vou should only install driver software from publishers you trust. How can a decide which device software is safe to install?	
	Next Cancel		

#### **STEP9:**

- After the driver is installed, please open the IDE and then click
  - "Tools "  $\rightarrow$  "Board " $\rightarrow$  "Arduino/Genuino Uno ".

And then Select "Tool " $\rightarrow$  "Select " $\rightarrow$  "Tool " $\rightarrow$  "Port: " $\rightarrow$  "COM (Arduino/Genuino Uno)".

Each Arduino Uno board has a different COM number on the same computer and usually the COM number with a suffix name "(Arduino/Genuino Uno)" in Arduino 1.8.9. You should choose the COM number that is shown.

At this time, the Arduino development environment has been successfully built !



