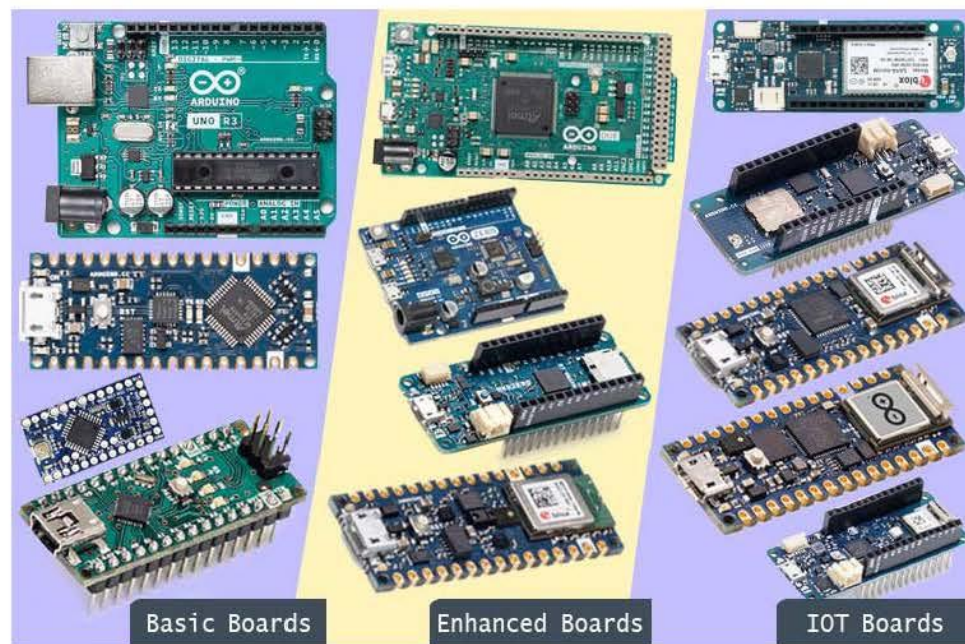


- WELCOME TO -
賽馬會科藝共融計劃
JC-Project-IDEA
Lesson 5 : Arduino (II)

甚麼是 Arduino?

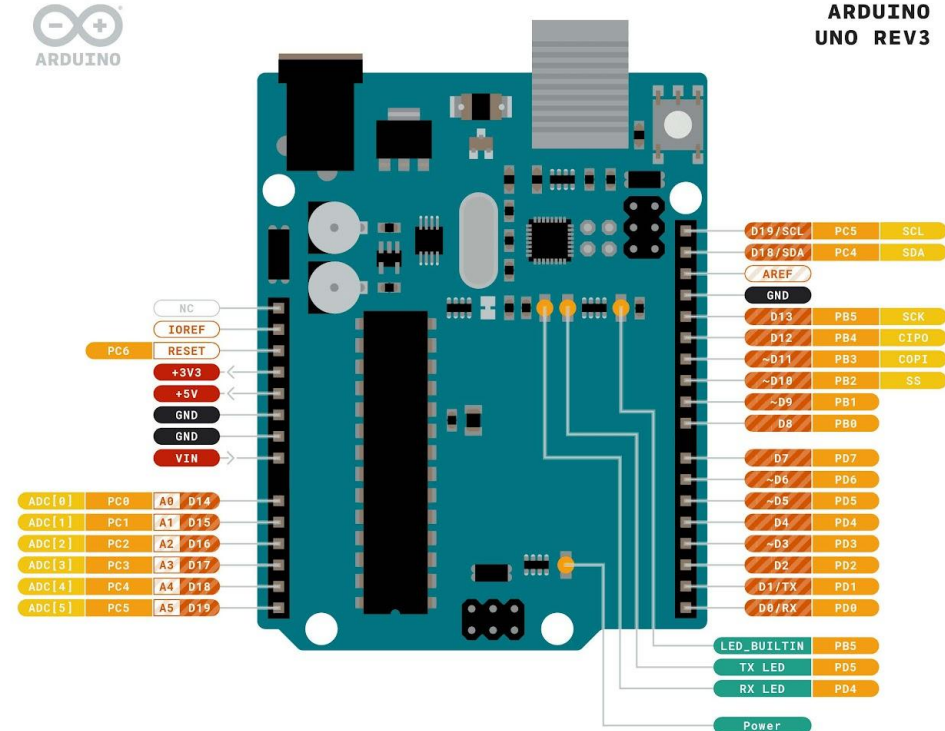
Arduino 是一個開源電子原型平台，允許用戶輕鬆創建互動式電子項目。它基於用戶友好的硬件和軟件，為創客、工程師和學生提供了一個靈活且易於使用的開發環境，促進創新和學習。源於2005年，Arduino 由一個意大利團隊開發，旨在為非專業人士提供低成本、易於使用的工具。





Basic Pinout Diagram

https://content.arduino.cc/assets/Pinout-UNOrev3_latest.pdf?_gl=1*jm7fcz*_ga*MTQ2MTMwNzk2OC4xNjgyMjc0MjYx*_ga_NEXN8H46L5*MTY4MjI3NDI2MC4xLjAuMTY4MjI3NDI2MC4wLjAuMA..



ARDUINO.CC



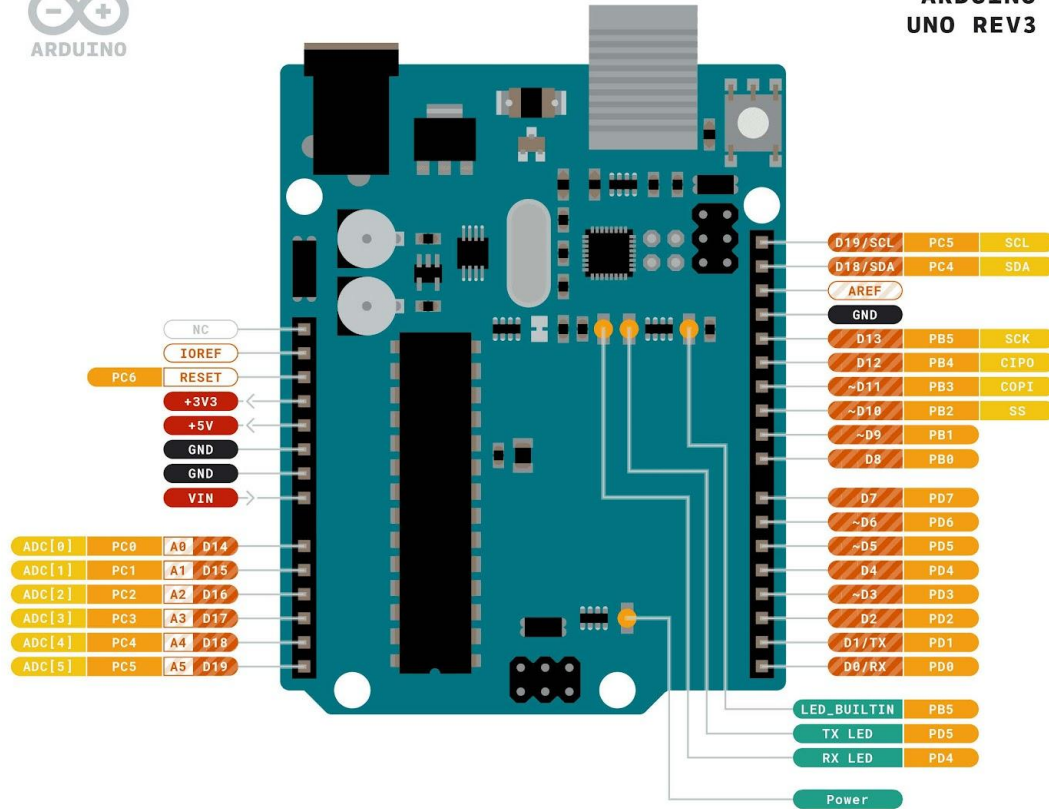
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香港城市大學
City University of Hong Kong



ARDUINO UNO REV3



Ground	Internal Pin	Digital Pin	Microcontroller's Port
Power	SWD Pin	Analog Pin	
LED	Other Pin	Default	

ARDUINO.CC



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安裝 Arduino IDE 1.8.19

link to download Arduino IDE 1.8

<https://www.arduino.cc/en/software#future-version-of-the-arduino-ide>



Arduino IDE 1.8.19

The open-source Arduino Software (IDE) makes it easy to write code and upload it to the board. This software can be used with any Arduino board.

Refer to the **Getting Started** page for Installation instructions.

SOURCE CODE

Active development of the Arduino software is **hosted by GitHub**. See the instructions for **building the code**. Latest release source code archives are available **here**. The archives are PGP-signed so they can be verified using **this** gpg key.

DOWNLOAD OPTIONS

Windows Win 7 and newer

Windows ZIP file

Windows app Win 8.1 or 10



Linux 32 bits

Linux 64 bits

Linux ARM 32 bits

Linux ARM 64 bits

Mac OS X 10.10 or newer

Release Notes

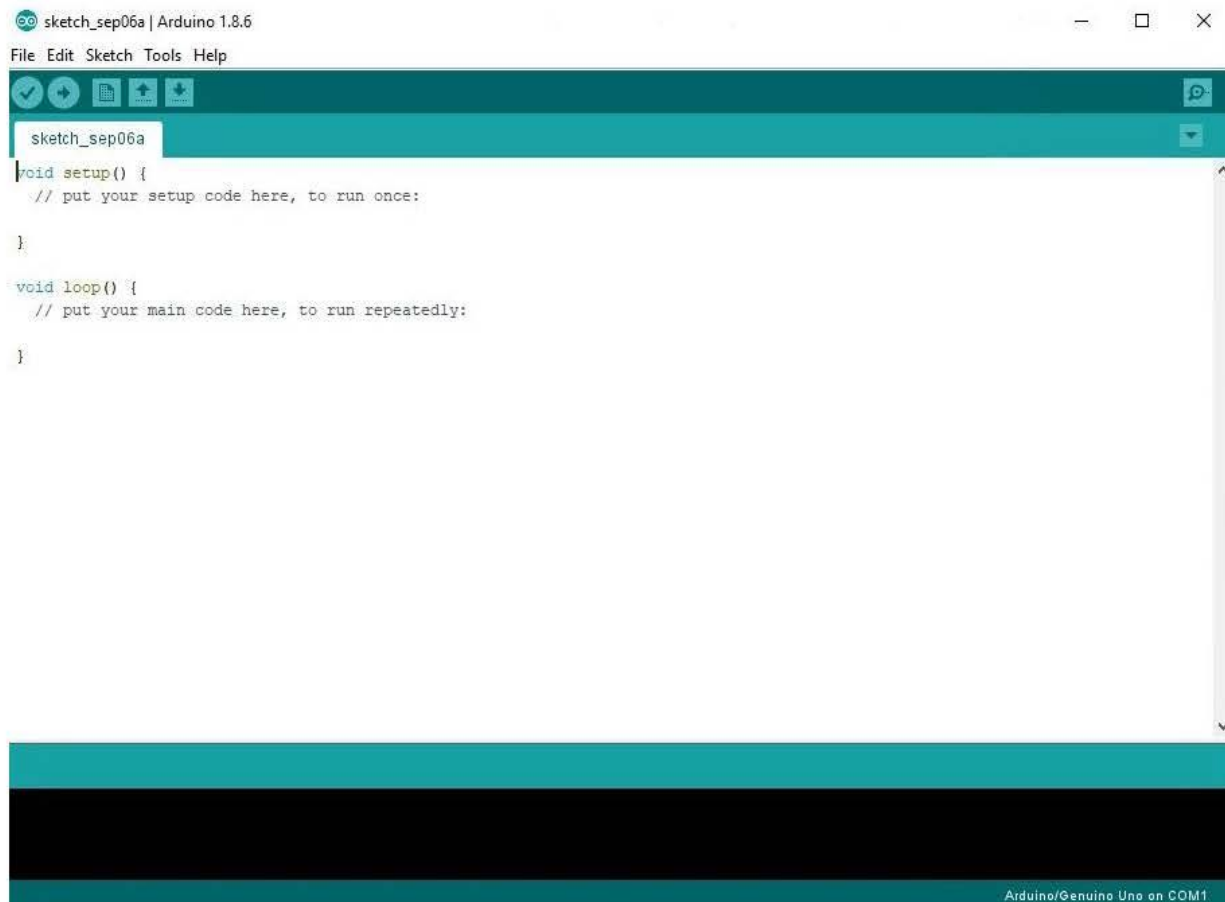
Checksums (sha512)



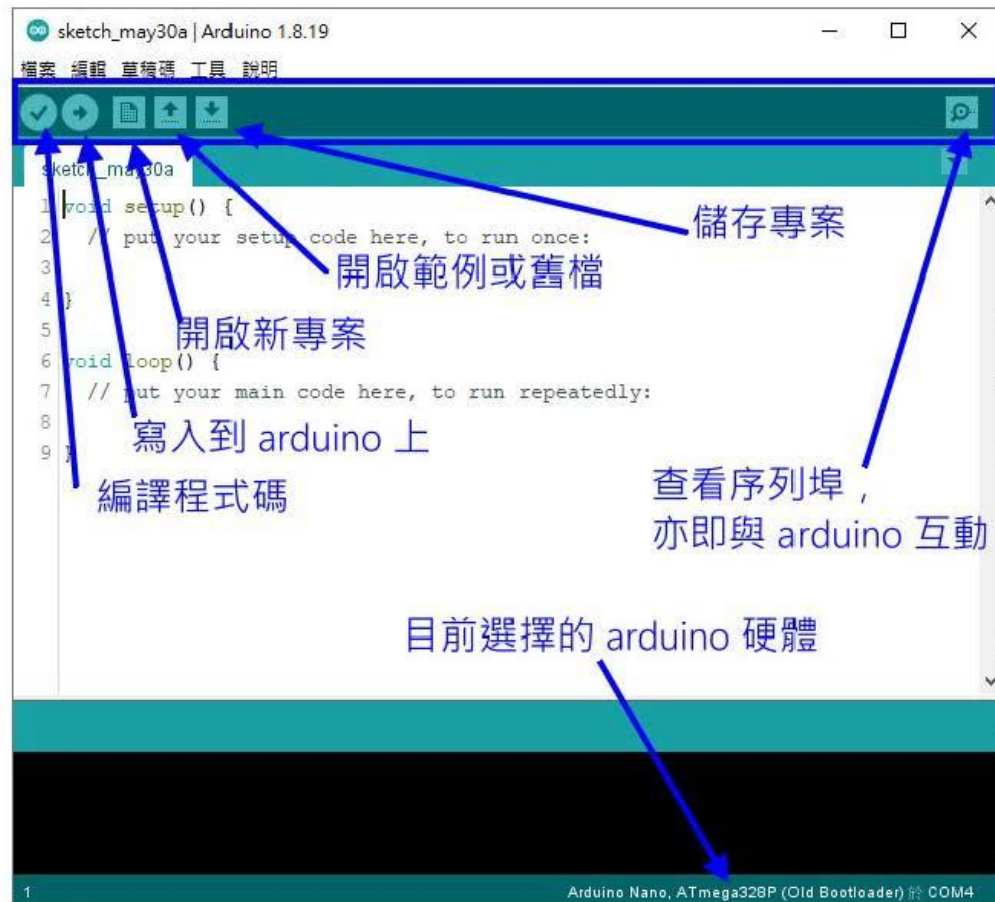
sketch_sep06a

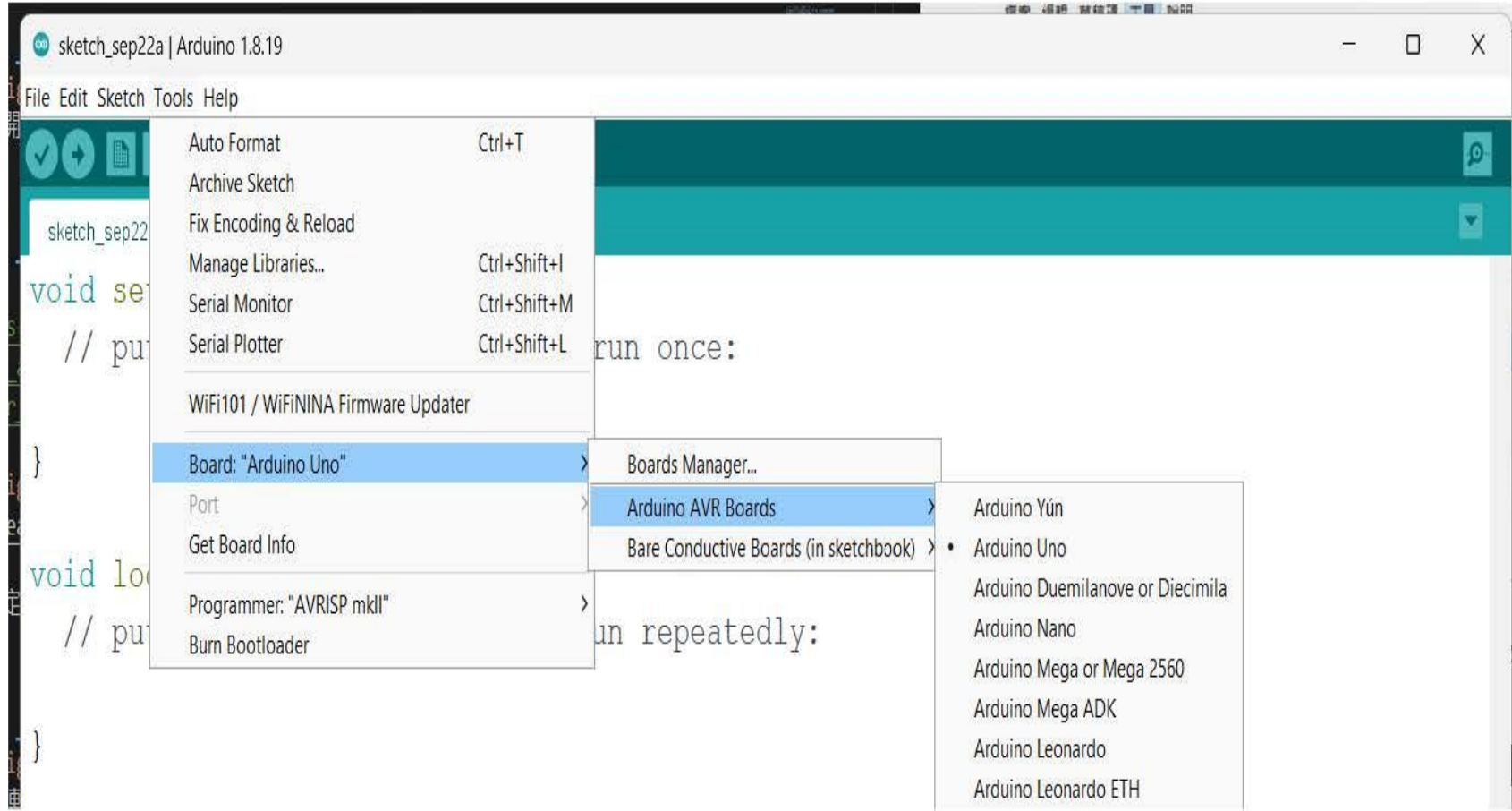
```
void setup() {  
  // put your setup code here, to run once:  
  
}  
  
void loop() {  
  // put your main code here, to run repeatedly:  
  
}
```


使用介面簡介

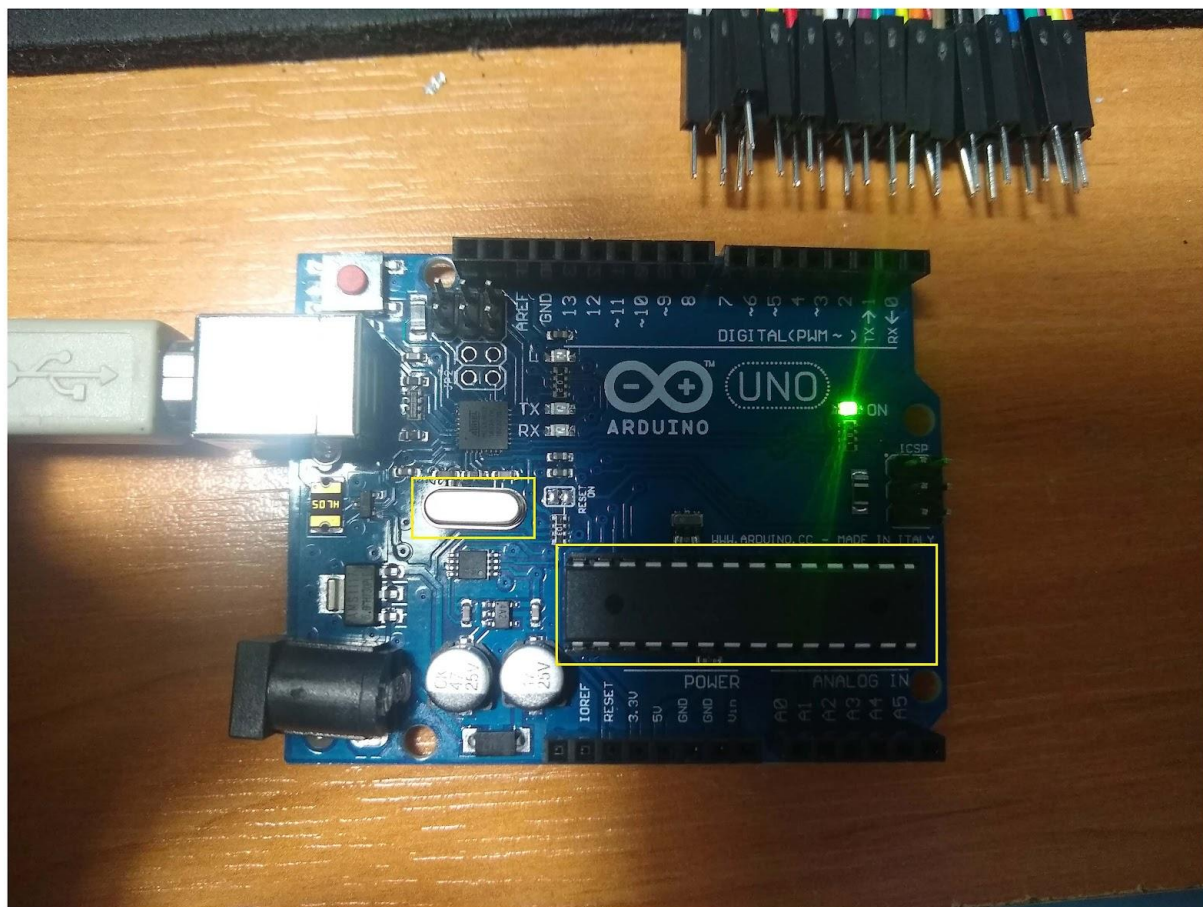


啟動 Arduino IDE：您將看到主界面，包括編輯區域、工具欄和菜單欄。

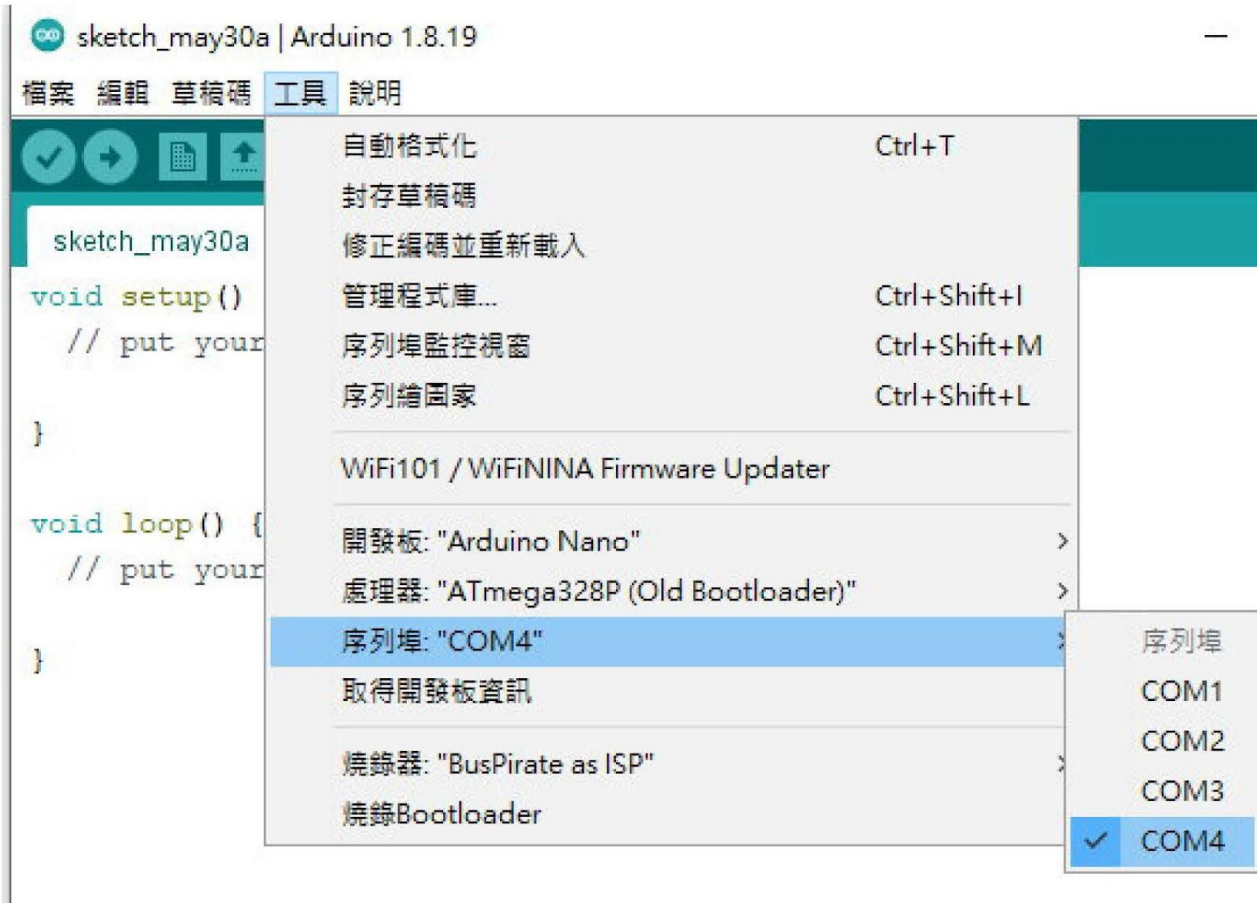




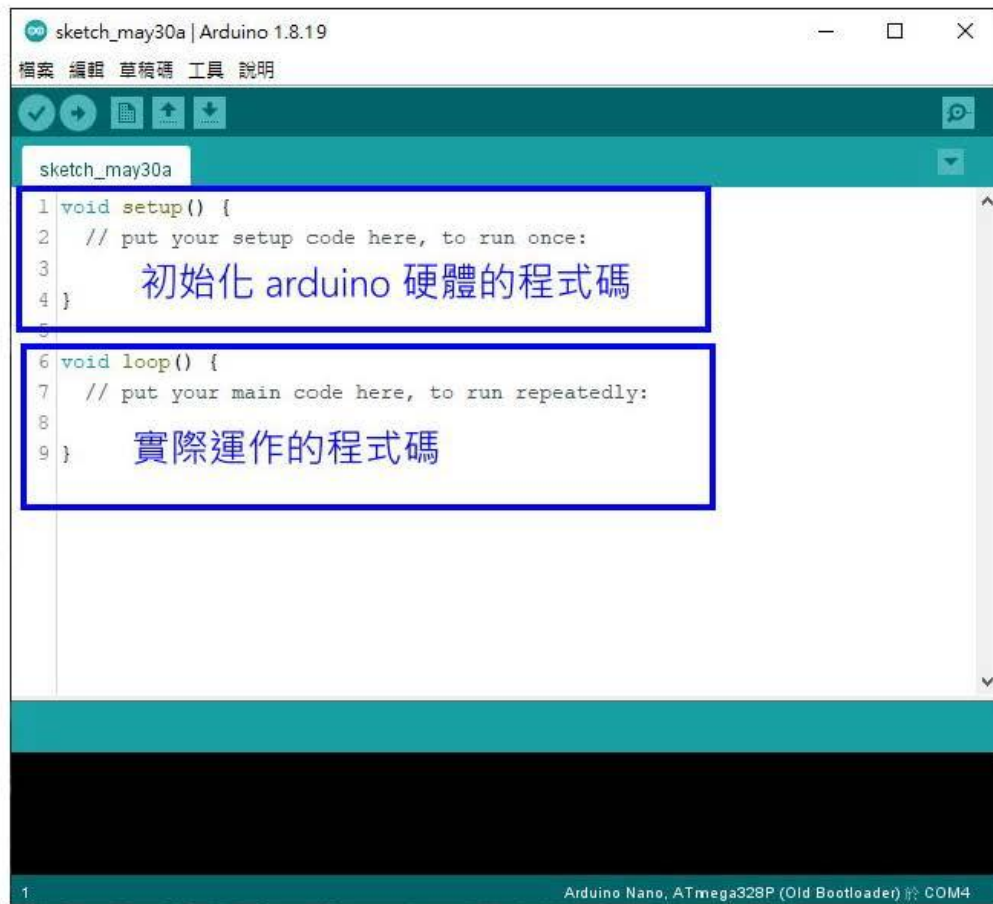
選擇開發板：在菜單欄，選擇「工具」>「開發板」，然後選擇您所使用的 Arduino 開發板。



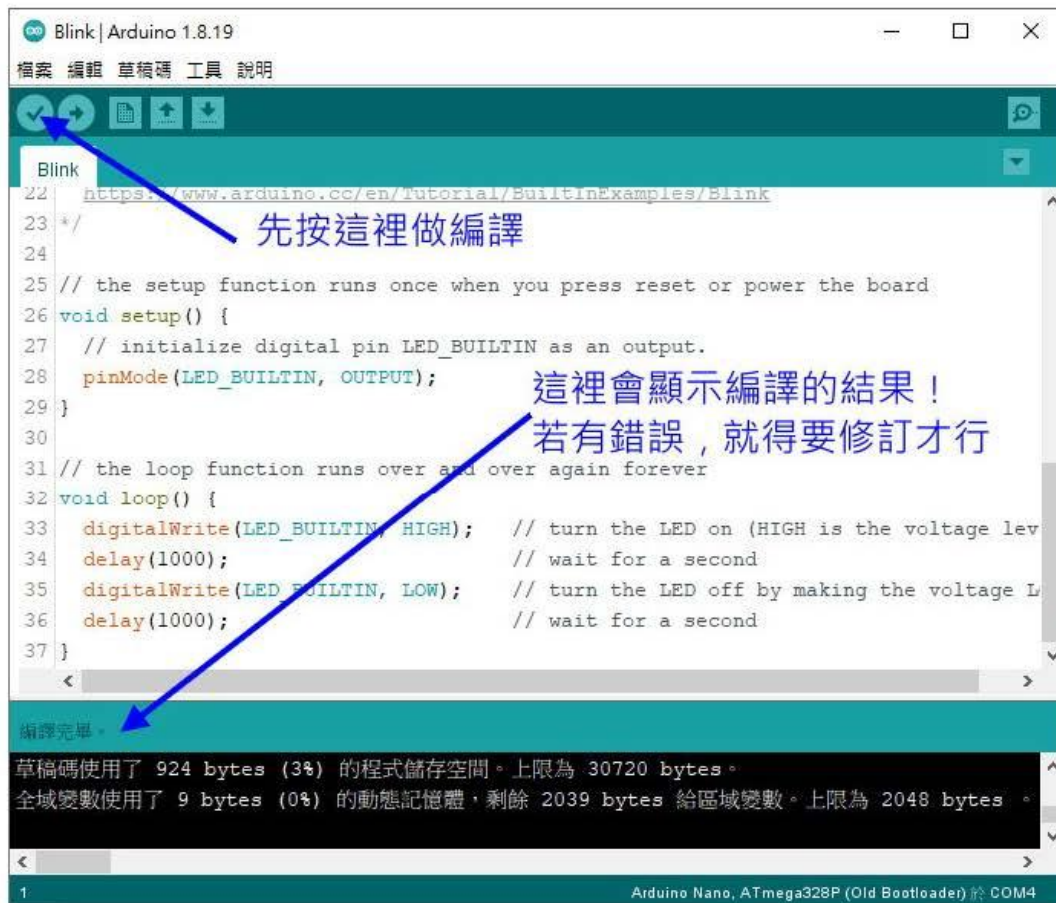
先確定 LED 燈亮起



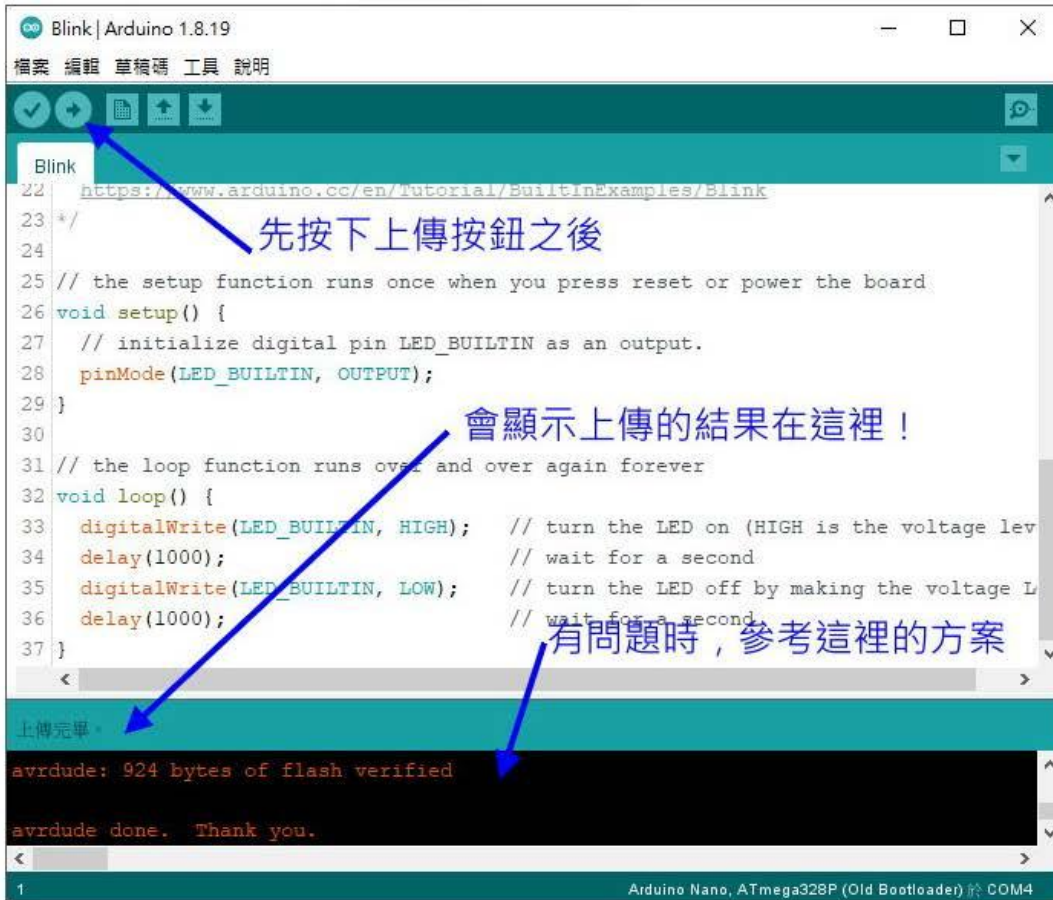
選擇連接埠：再次點擊「工具」，選擇「連接埠」，然後選擇 Arduino 開發板所連接的串口。



編寫程式碼：在編輯區域編寫您的 Arduino 程式碼，使用 `setup()` 和 `loop()` 函數組織程式結構。



驗證程式碼：點擊工具欄上的「✓」按鈕，Arduino IDE 將對您的程式碼進行編譯和錯誤檢查。



上傳程式碼：確保程式碼無誤後，點擊工具欄上的「→」按鈕，將程式碼上傳到 Arduino 開發板。

Lesson 5 完成

下一課會進入編程階段