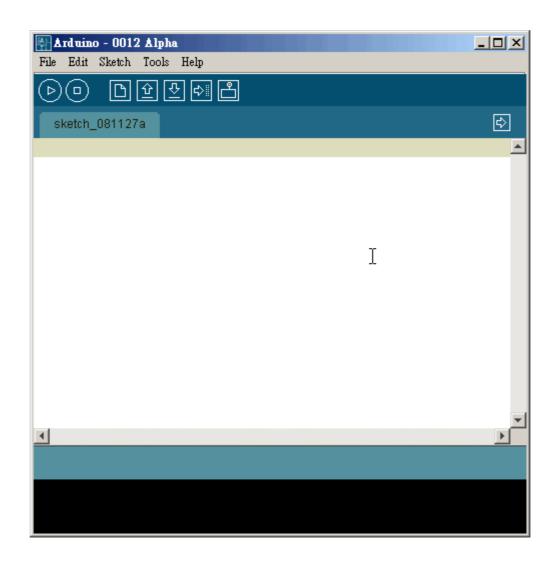
Arduino 快速上手



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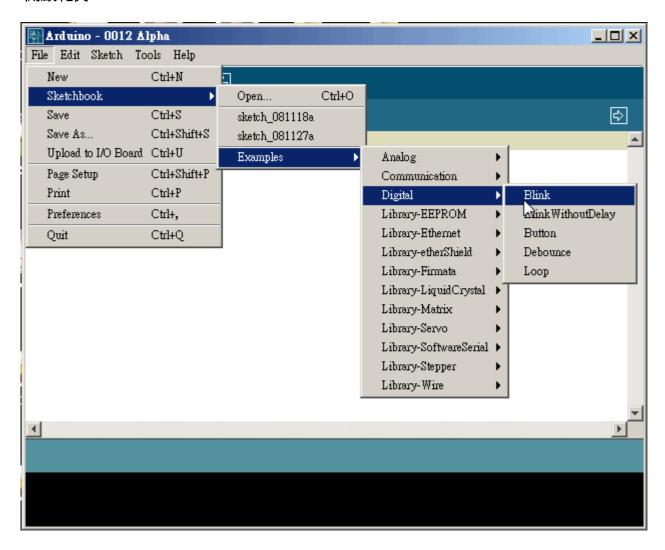
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1.啟動開發工具

解壓縮開發工具後點選 arduino.exe



2.開啟範例

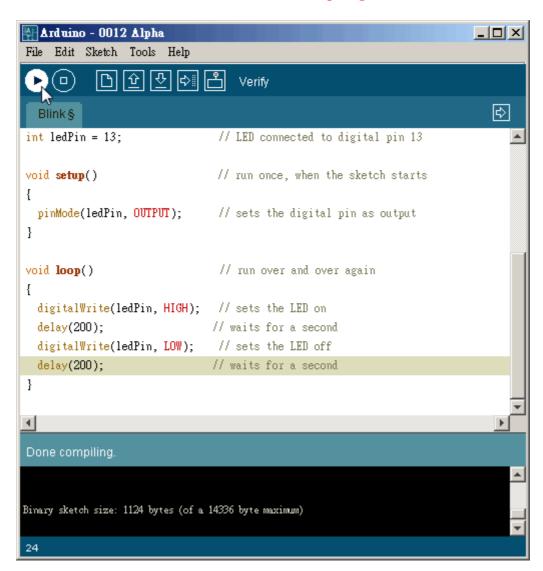


3.修改範例

將範例中的 delay(1000)改成 delay(200),縮短 LED 閃爍的間隔

4.編譯程式

- 1.點選工具列上的編譯(三角形圖示)
- 2.注意開發工具底部的訊息列,出現 Dome compiling 才表示完成

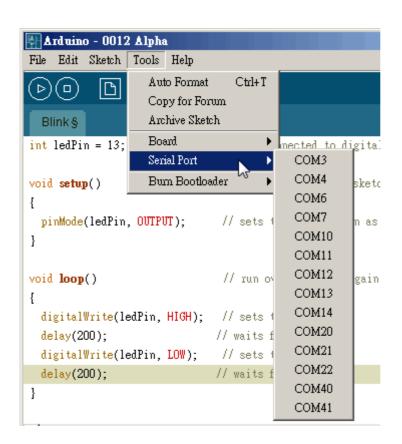


5.設定連接的序列埠(重要)

- 1.啟動工作管理員
- 2.展開連接埠選項,找尋 USB Serial Port 項目
- 3.記住項目後面的硬體位置(下圖為 COM4)



4.在開發工具中設定 Arduino 使用的連接埠



6.上傳程式到單晶片

- 1.點選開發工具上的上傳圖示(指向右邊的箭頭)
- 2.注意開發工具底部的訊息列,出現 Dome uploading 才算完成

```
👫 Arduino - 0012 Alpha
                                                                                        File Edit Sketch Tools Help
(⊳)(□)
                                  Upload to I/O Board
                                                                                           ➾
  Blink§
                              // LED connected to digital pin 13
int ledPin = 13;
void setup()
                              // run once, when the sketch starts
{
  pinMode(ledPin, OUTPUT); // sets the digital pin as output
}
                   // run over and over again
void loop()
  digitalWrite(ledPin, HIGH); // sets the LED on
                             // waits for a second
  delay(200);
 digitalWrite(ledPin, LOW); // sets the LED off
delay(200);
                             // waits for a second
}
4
Done uploading
Binary sketch size: 1124 bytes (of a 14336 byte maximum)
24
```

如果出現下列兩種錯誤,請檢查連接埠是否選擇正確

```
Serial port 'COM8' not found. Did you select the right one from the Tools > Serial Port menu?

at java.awt.EventDispatchThread.pumpEvents(Unknown Source)

at java.awt.EventDispatchThread.pumpEvents(Unknown Source)
```

```
Problem uploading to board. See http://www.arduino.cc/en/Guide/Troubleshooting#upload for suggestions.

avrdude: stk500_getsync(): not in sync: resp=0x00
avrdude: stk500_disable(): protocol error, expect=0x14, resp=0x51
```

練習:使用兩個 LED 燈作交互閃爍的效果

- 1.選擇一個 LED,將兩隻腳分別插在數位輸出 11 孔(長腳)與 GND
- 2在開發工具中,修改 LED 閃爍的範例加上四行程式.

```
Arduino - 0012 Alpha
                                                                                    File Edit Sketch Tools Help
           B 호 코 리
                                                                                       ₽
  Blink§
int ledPin = 13;
                              // LED connected to digital pin 13
int myLed=11;
                             //定義一個變數來儲存針腳位置
                             // run once, when the sketch starts
void setup()
  pinMode(ledPin, OUTPUT);
                             // sets the digital pin as output
                             //設定第11支針腳為輸出模式
 pinMode(myLed,OUTPUT);
                             // run over and over again
void loop()
  digitalWrite(ledPin, HIGH);
                             // sets the LED on
digitalWrite(myLed,LOW);
                             //設定關閉LED
 delay(200);
                             // waits for a second
                             // sets the LED off
  digitalWrite(ledPin, LOW);
                             //設定開取LED
 digitalWrite(myLed,HIGH);
 delay(200);
                             // waits for a second
Done uploading.
Binary sketch size: 1156 bytes (of a 14336 byte maximum)
```