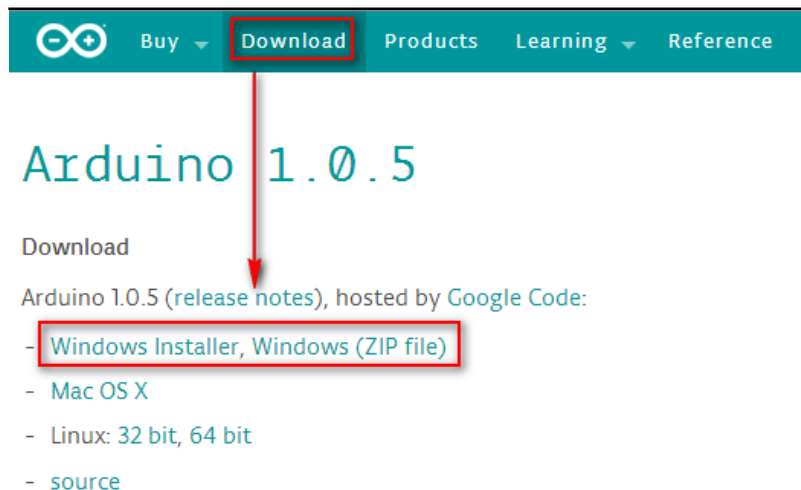


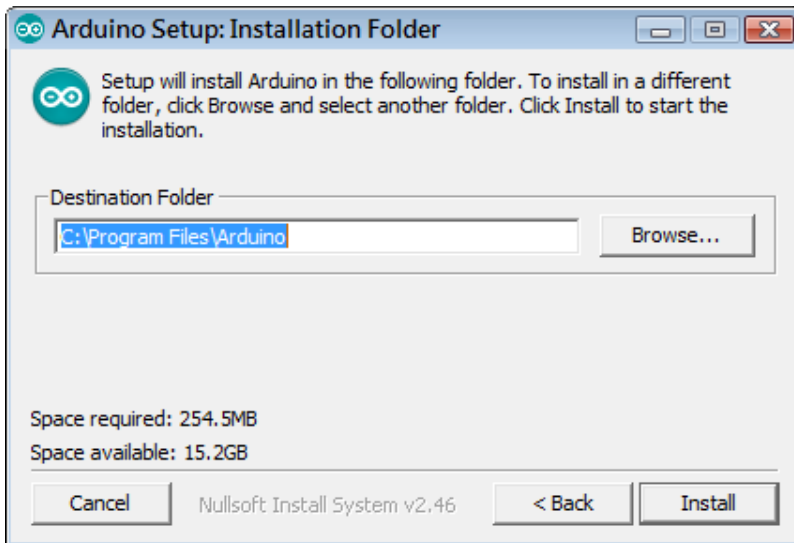
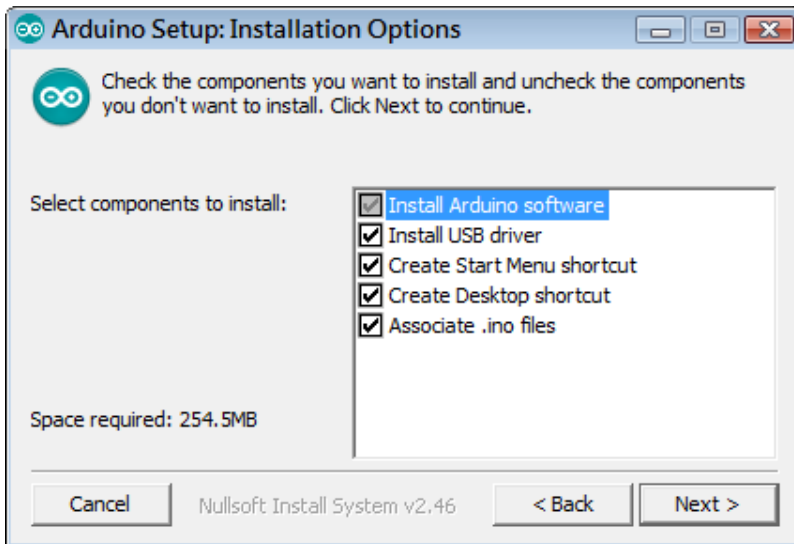
Scratch研習講義

S4A就是Scratch for Arduino , 也就是透過Scratch可以操控Arduino

1)安裝Arduino : <http://arduino.cc/en/Main/Software>

下載Windows版 , 下載完成直接安裝





提示安裝Arduino USB Driver



安裝完成後顯示Arduino Uno位於COM3



接著下載與S4A的韌體程式：<http://s4a.cat/>

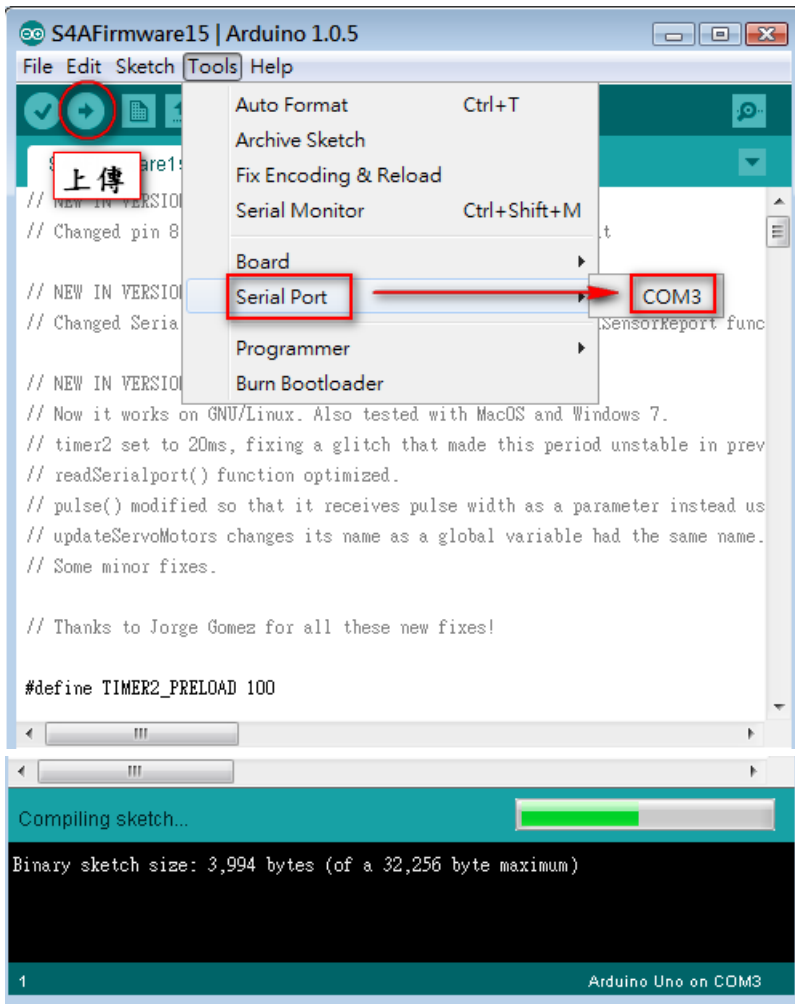
Installing the Firmware into your Arduino

This firmware is a piece of software you need to install into your Arduino board to be able to communicate with it from S4A.

- Download and install the Arduino environment by following the instructions on <http://arduino.cc/en/Main/Software>. Take in account Arduino Uno requires at least version 0022.
- Download our firmware from [here](#) ←
- Connect your Arduino board to a USB port in your computer
- Open the firmware file (S4AFirmware15.ino) from the Arduino environment
- In the Tools menu, select the board version and the serial port where the board is connected
- Load the firmware into your board through Tools > Upload

將Arduino

Uno透過USB連結電腦，啟動Arduino，開啟剛下載S4AFirmware15.ino，點選上傳按鈕進行上傳



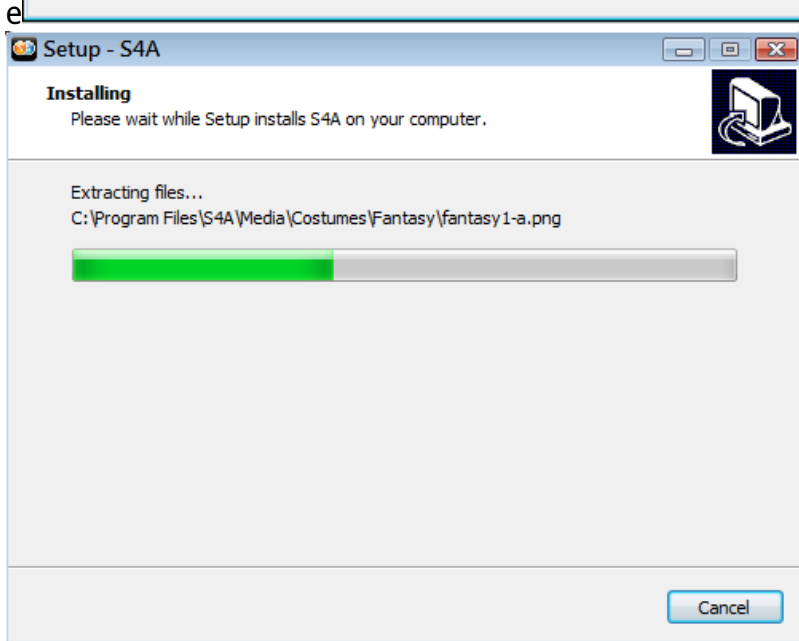
接著下載安裝S4A：<http://s4a.cat/>，選擇Windows版本

Installing S4A into your computer

S4A works in the three major consumer operating systems. Download and install the one that fits your configuration:

- Windows
- Mac
- Linux (Debian)
- Raspbian (Debian for RaspberryPi)

下載完成後直接安裝，整個過程以預設值即可



安裝完成後即會自動啟動S4A

S4A 1.5

Based on Scratch
From the MIT Media Lab

檔案 編輯 幫助

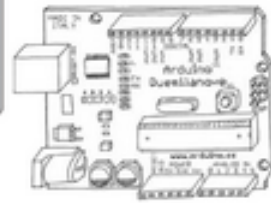
動作 控制
外觀 佈置
聲音 媒體
繪圖 特效

Arduino
x: 0 y: 0 方向: 90
程式 造型 聲音

value of sensor Analog0
sensor Digital12 pressed

digital 10 on
digital 10 off
analog 5 value 655
motor 4 off
motor 4 direction clockwise
motor 8 angle 100
reset actuators
stop connection
resume connection
show board
hide board
board go to x: 0 y: 0
搜尋

Arduino port: COM3
Analog0 112
Analog1 139
Analog2 171
Analog3 200
Analog4 300
Analog5 301
Digital2 1 read
Digital3 1 read



新角色 新背景 新布景 新物件 新聲音 新圖示

Arduino

舞台

x: 942 y: 213