Programmare Arduino con Scratch

Scratch per Arduino

Andare sul sito [s4a.cat](s4a.cat) e scaricare il programma **S4A**

Scegliere il proprio sistema operativo

Secondo passo

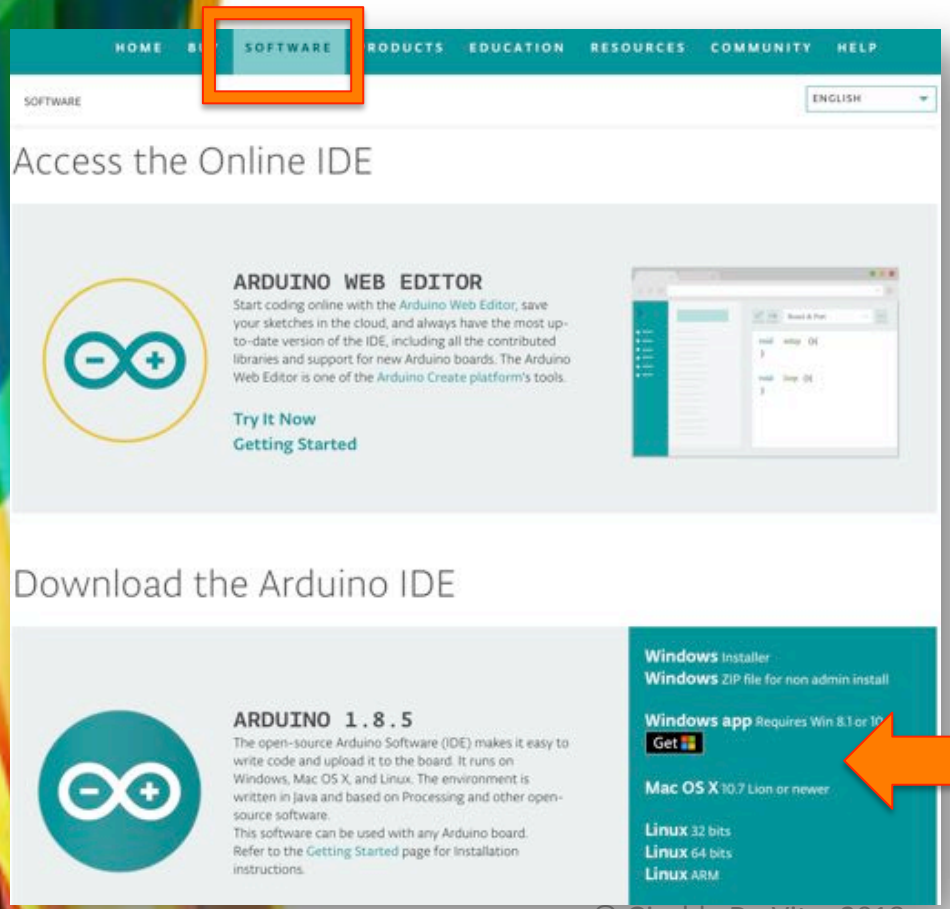
Installing the Firmware into your Arduino

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 fr m here
- Connect your Arduino boa rt in your computer
- Open the firmware file (S4AFirmwa ino) from the Arduino environment
- In the Tools menu, select the boar and the serial port where the board is connected
- Load the firmware into your board through pload

Salvare il file S4AFirmware16.ino sul nostro computer, ci servirà per far comunicare arduino con scratch.

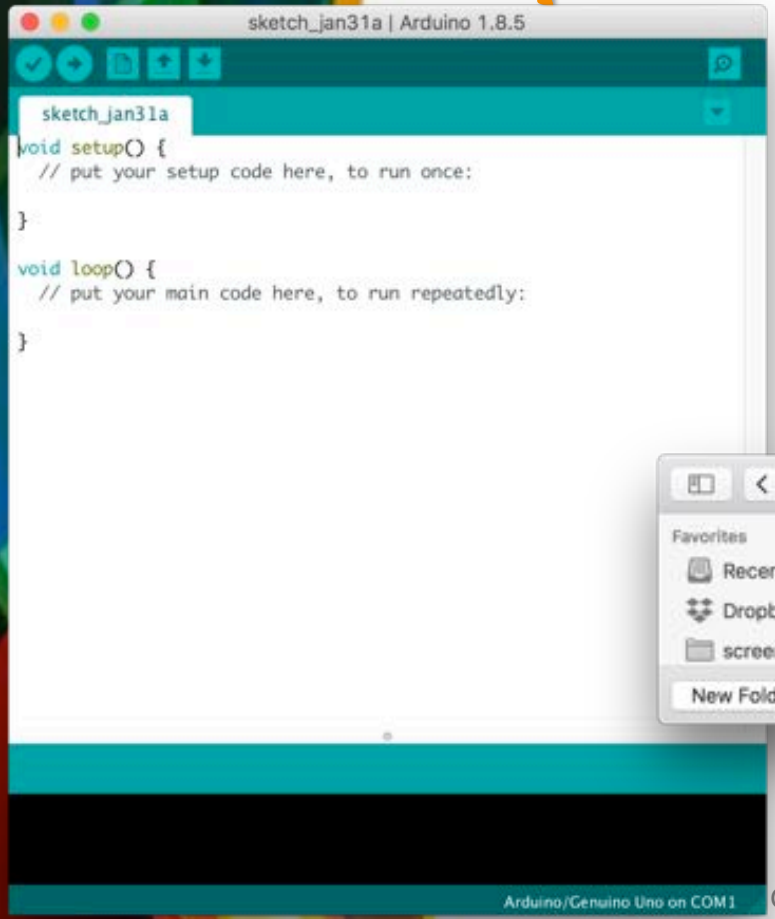
Aggiornare il firmware di Arduino



Scaricare dal sito **arduino.cc** l'ide per programmare arduino in linguaggio C.

Scegliere il proprio sistema operativo

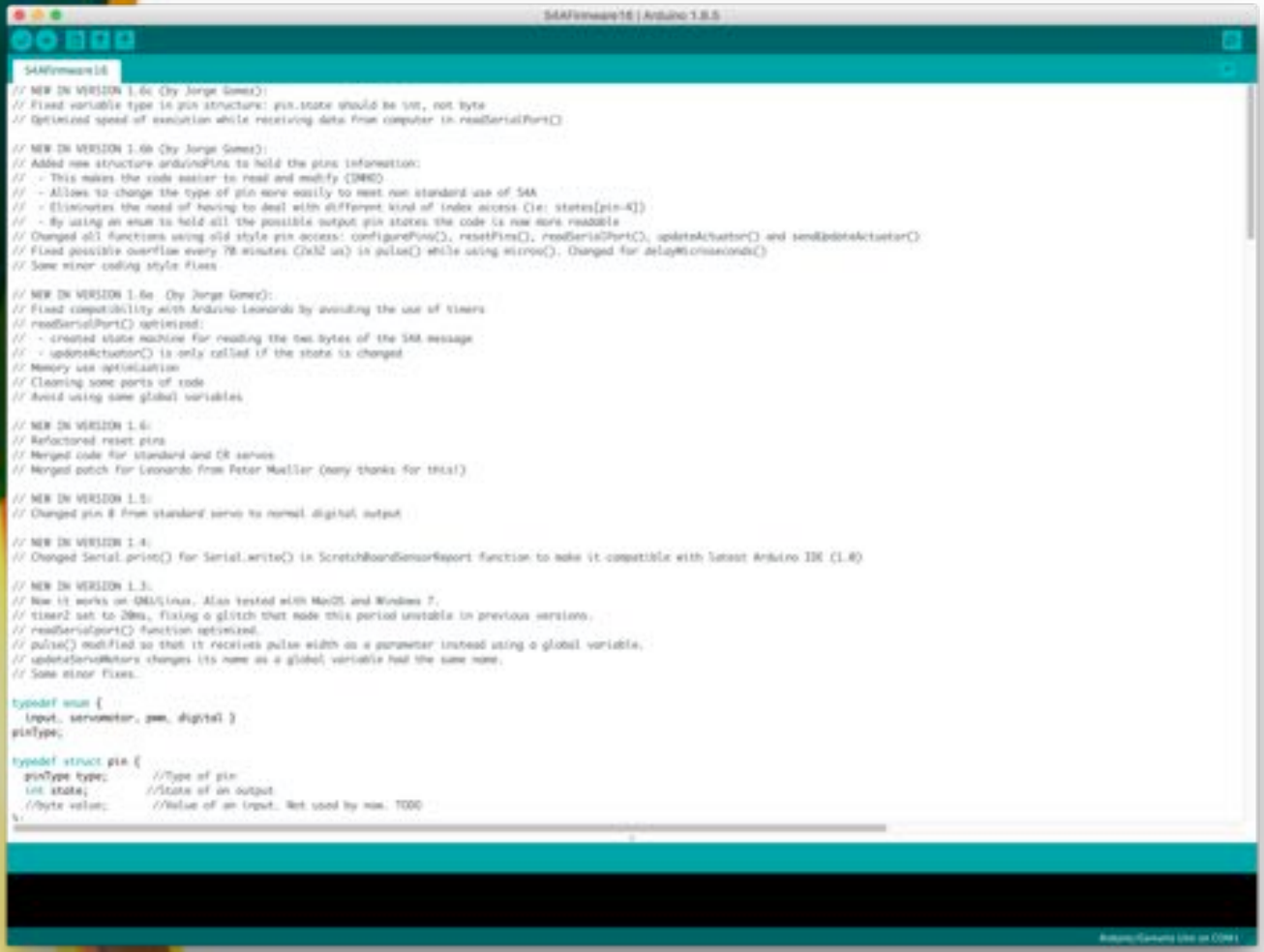
Far partire Arduino



File -> apri

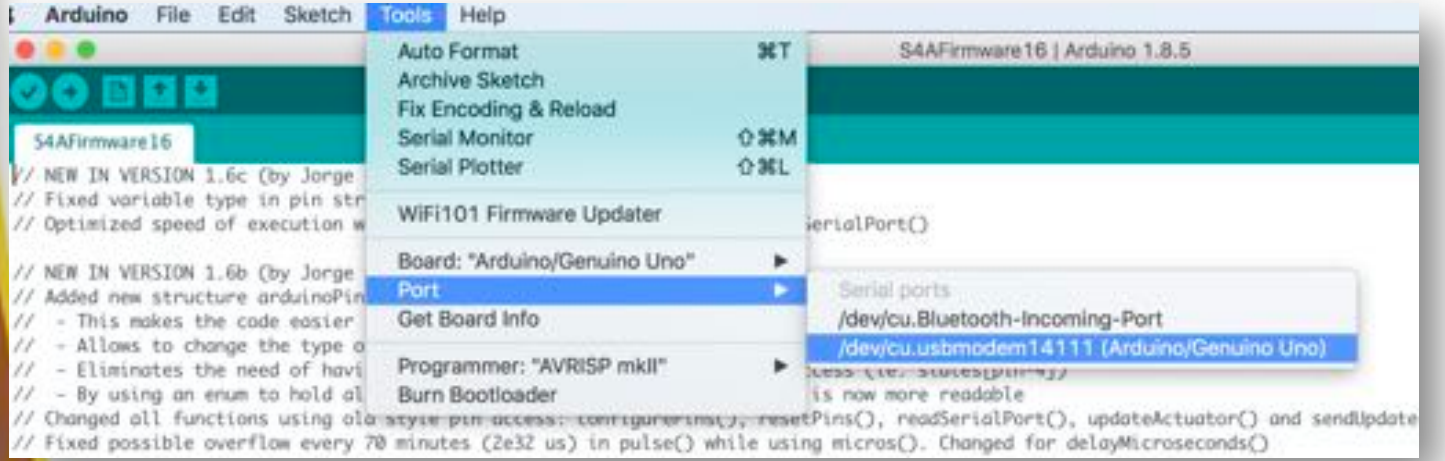
E selezionare il file

S4AFirmware16.ino



Collegare Arduino

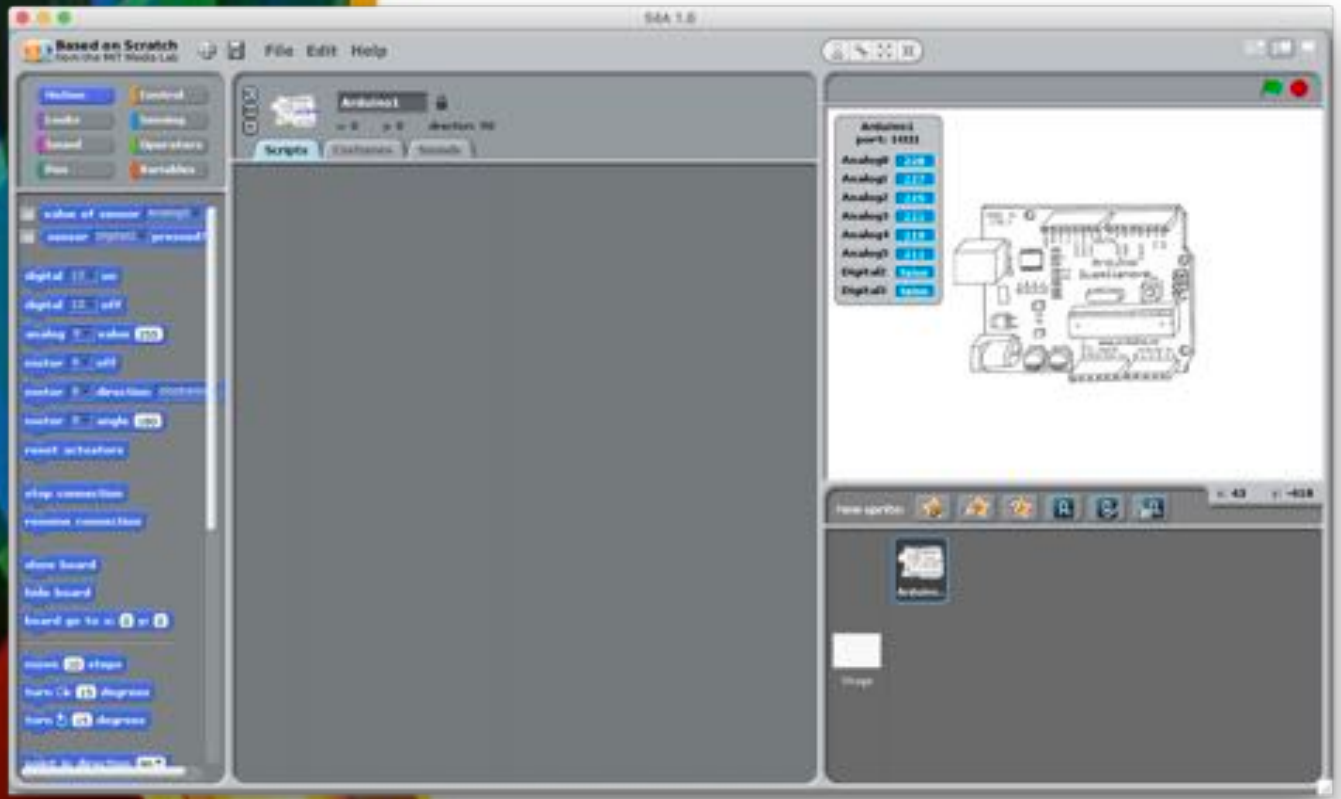
Impostare la porta dall'IDE. Tools-> Port e selezionare la porta dove si trova Arduino, in genere viene indicato tra parentesi.



Aggiornare il firmware

Fare upload del file S4AFirmware16.ino sulla scheda arduino

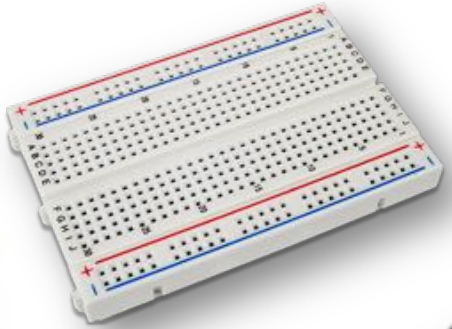
Ora apriamo S4A

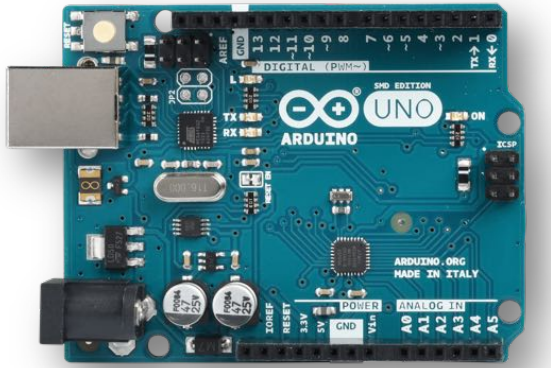


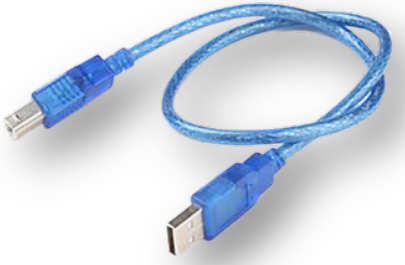
S4A, alla partenza, imposta la porta verso Arduino e si vedono i sensori Analog cambiare velocemente

Primo progetto S4A

Cosa ci serve:

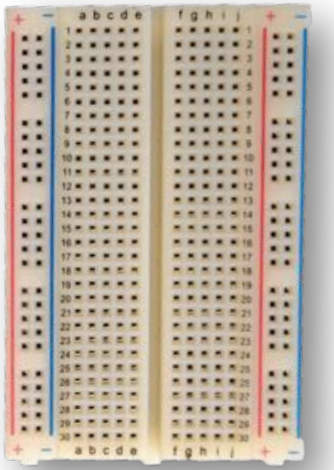






Impariamo ad usare la breadbord

Impariamo ad usare i collegamenti della breadboard

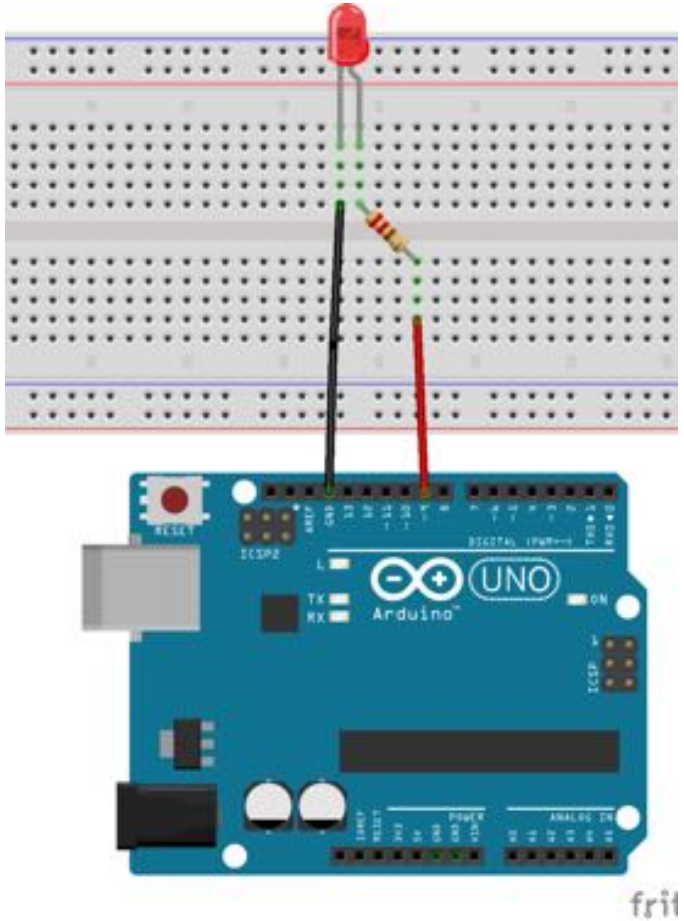


Due binari collegati di lungo

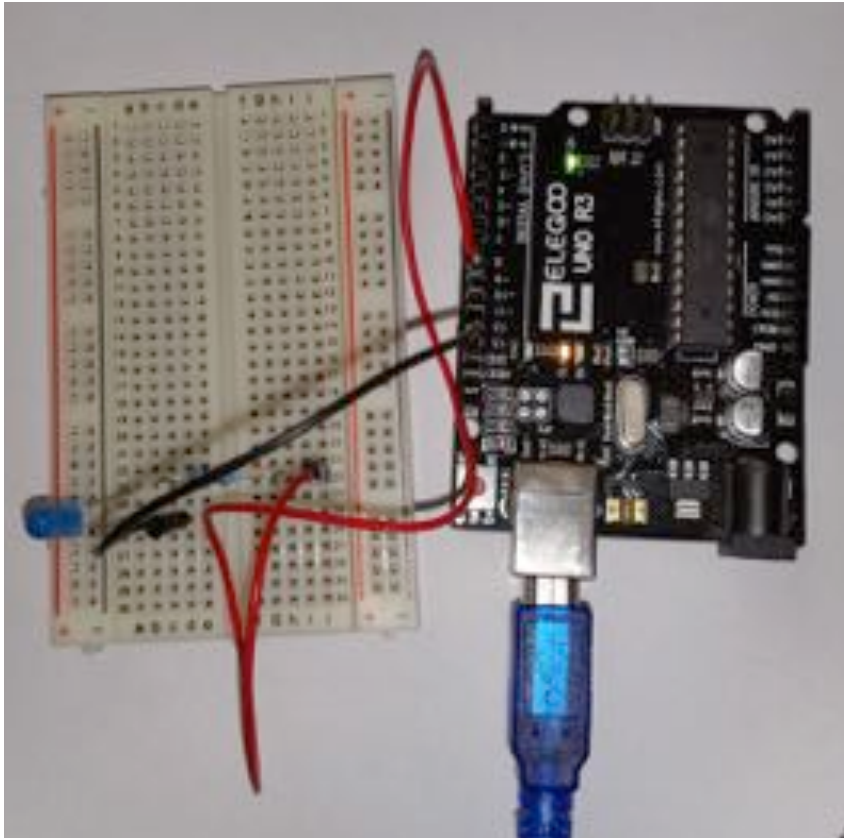
Tanti collegamenti in orizzontale

Collegamenti

Colleghiamo il led con un filo che va nel pin 9 e un cavo nero che va a ground (terra).

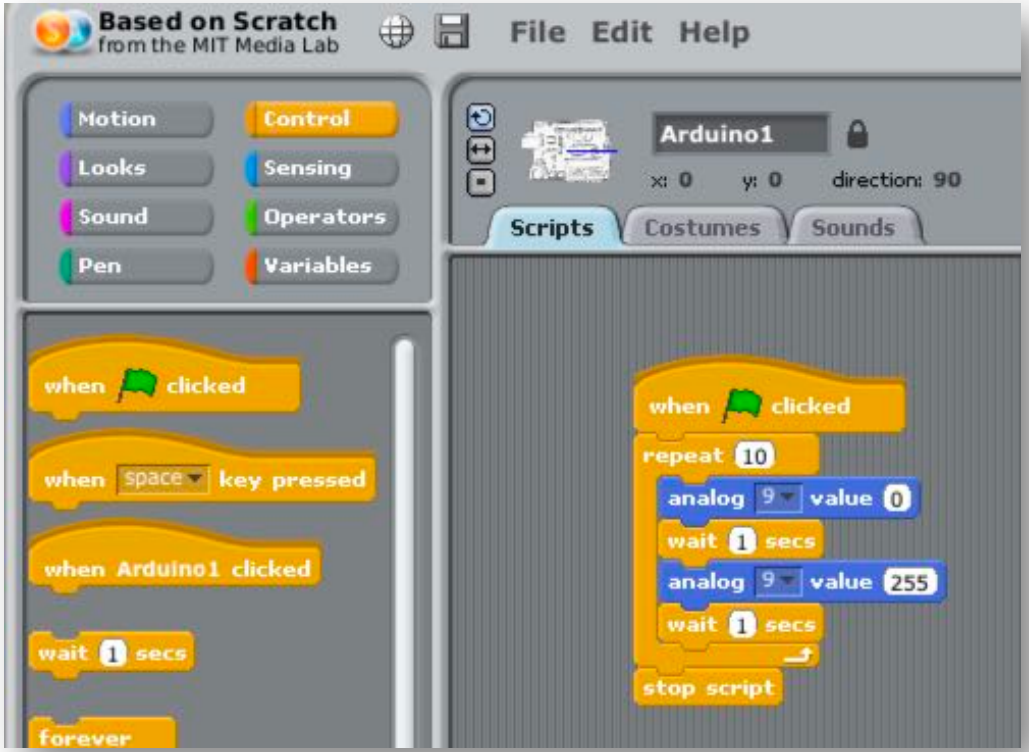


Collegamenti reali

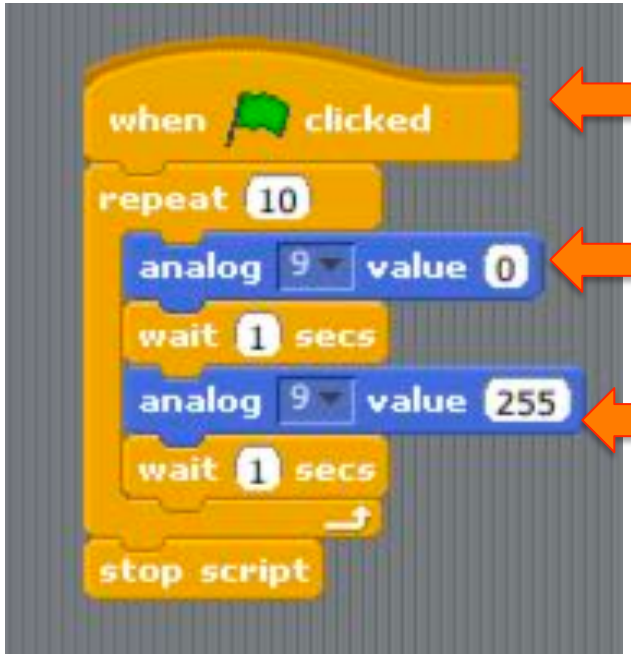


Codice S4A

Per accendere e spegnere il led



Codice S4A

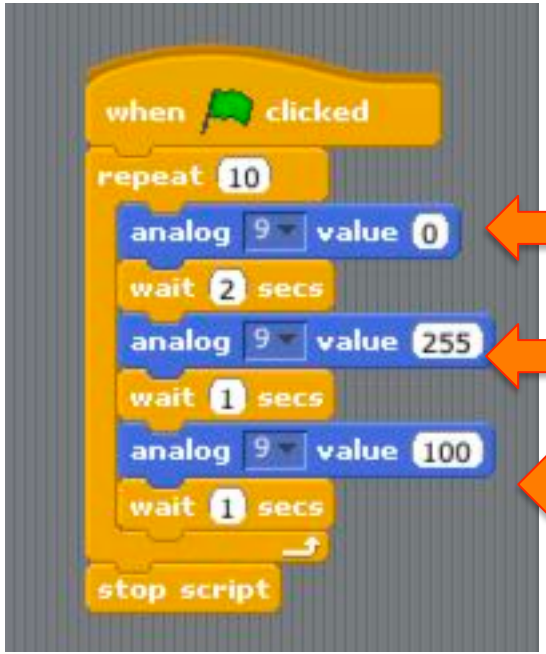


Quando si clicca la bandierina verde il programma parte

Sul pin 9 si invia 0, il led si spegne

Sul pin 9 si invia 255, il led si accende

Modifichiamo i valori



Sul pin 9 si invia 0, il led si spegne

Sul pin 9 si invia 255, il led si spegne

Sul pin 9 si invia 100, il led è fioco