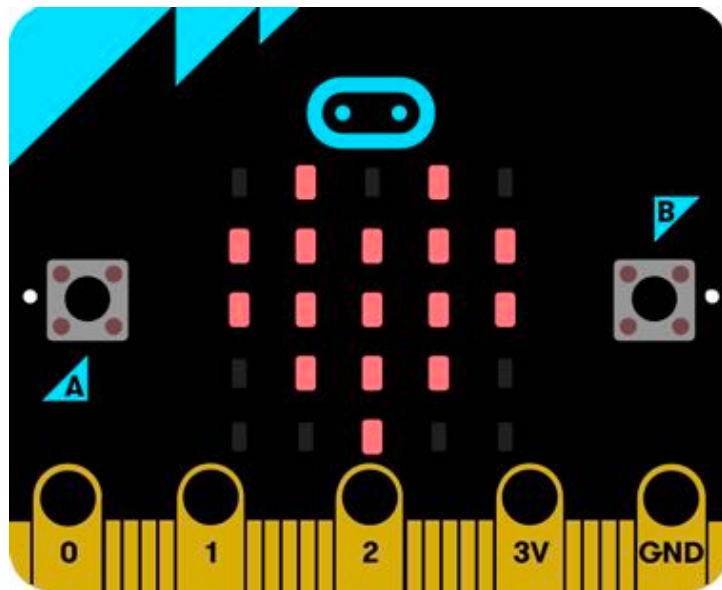


Micro:bit

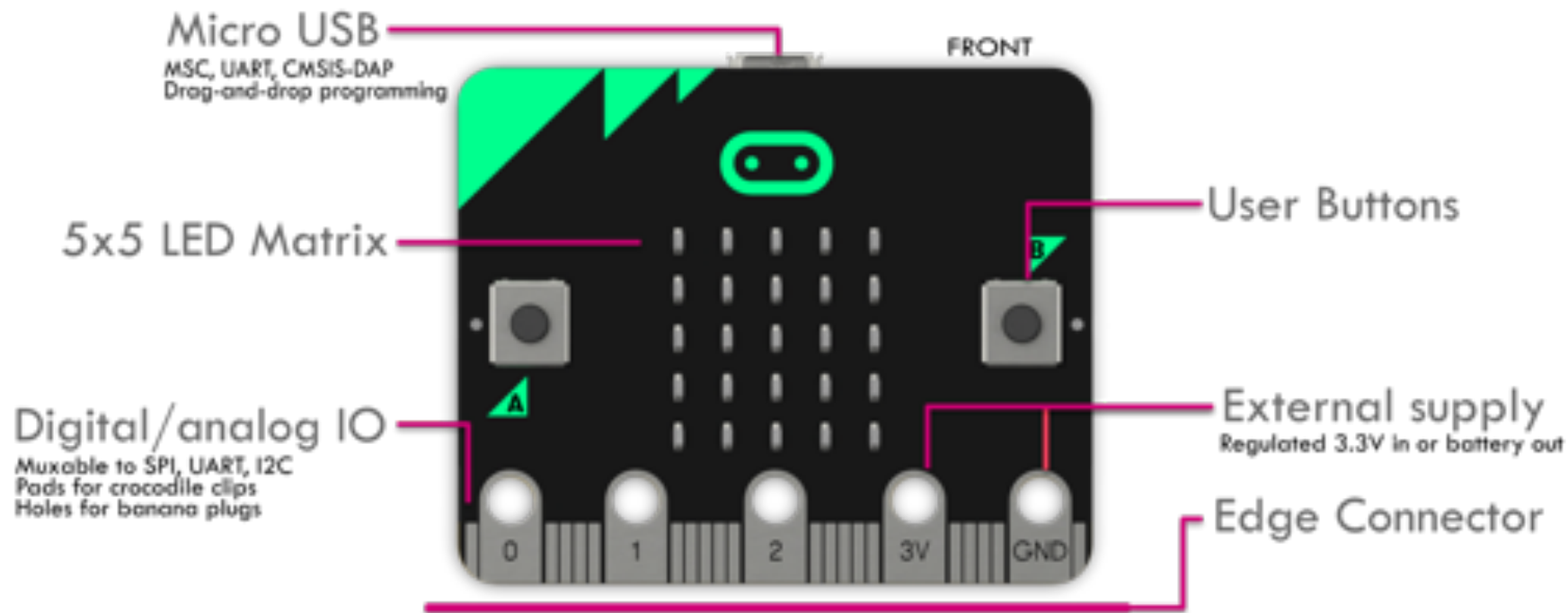
Board programmabile per tutte le età

Giugno 2019

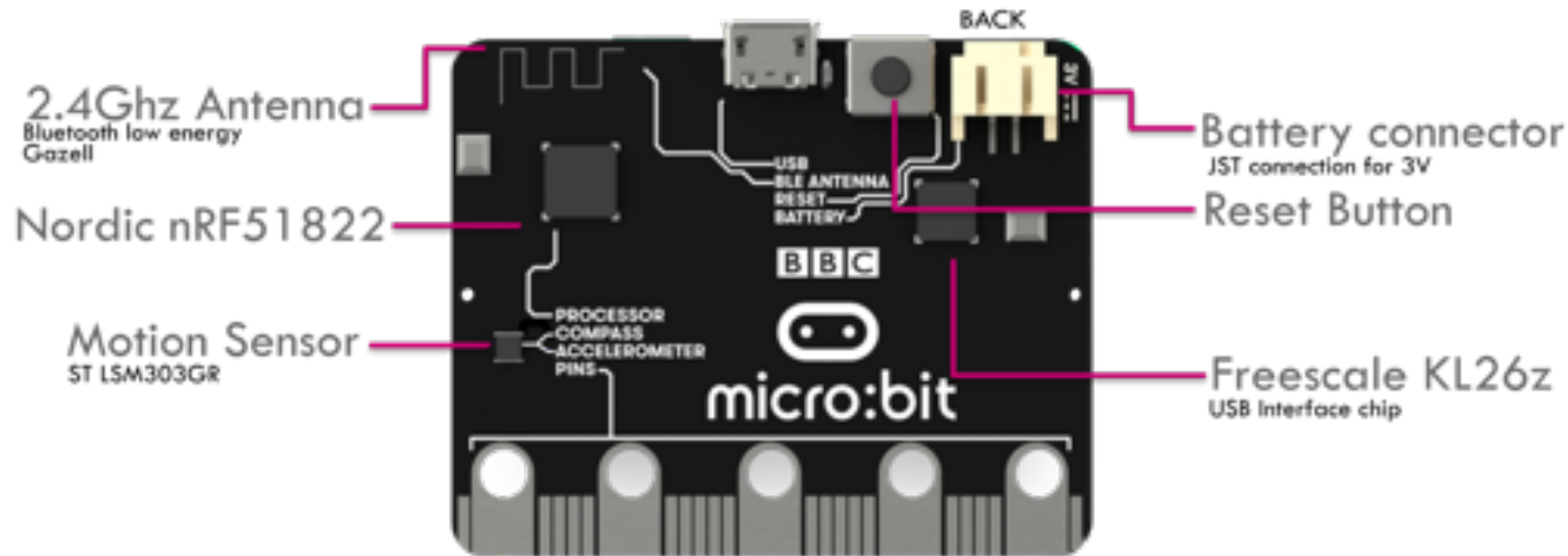
Vi presento micro:bit

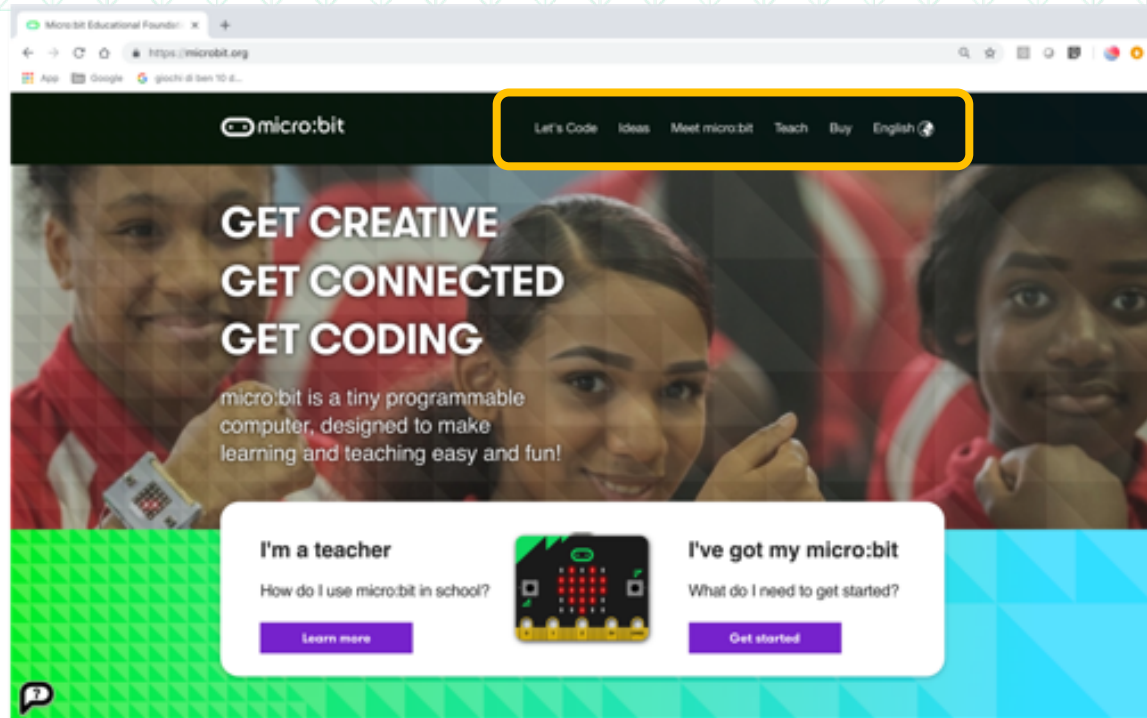


Selezionare tutte le celle

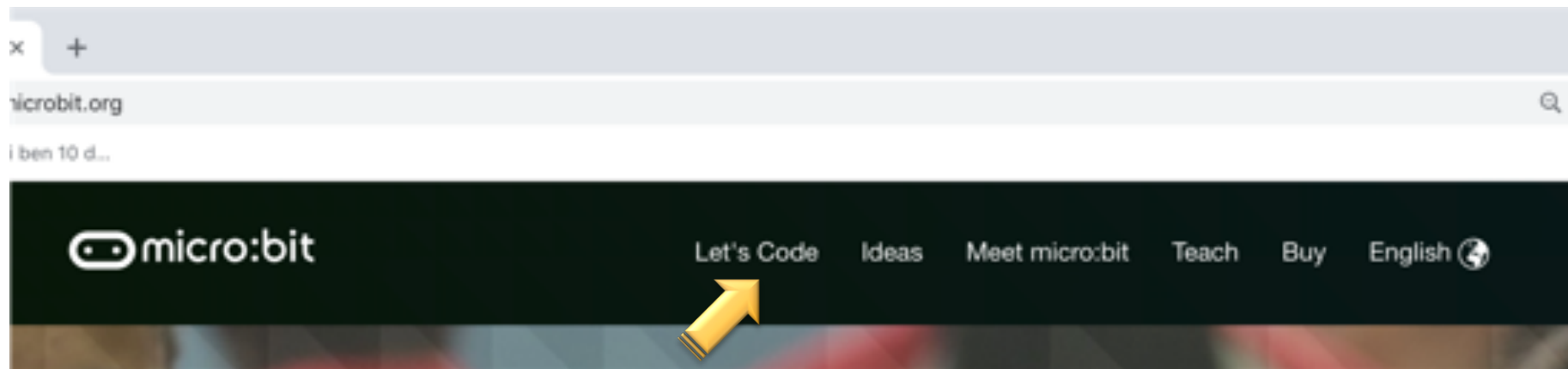


Selezionare tutte le celle

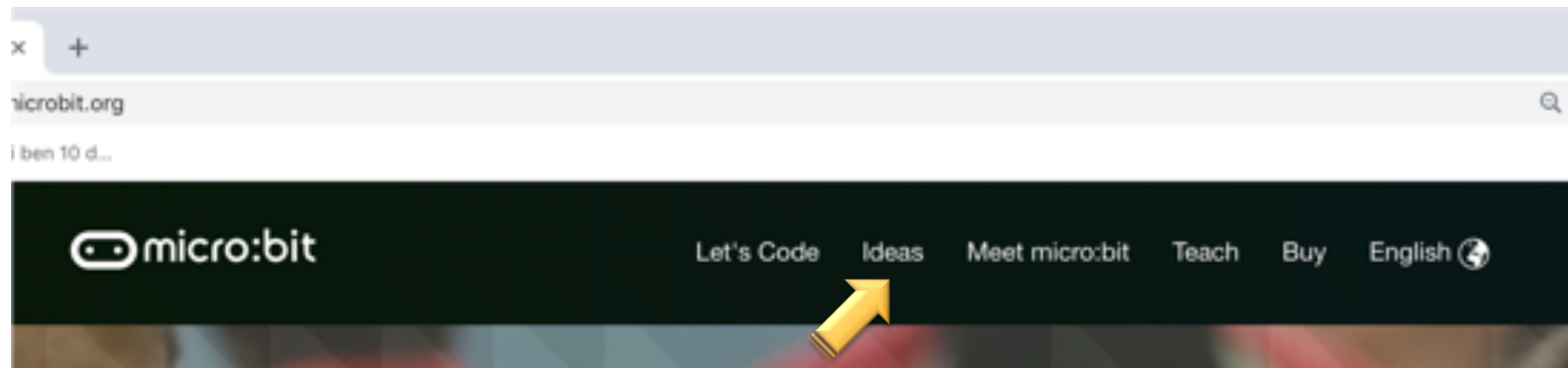




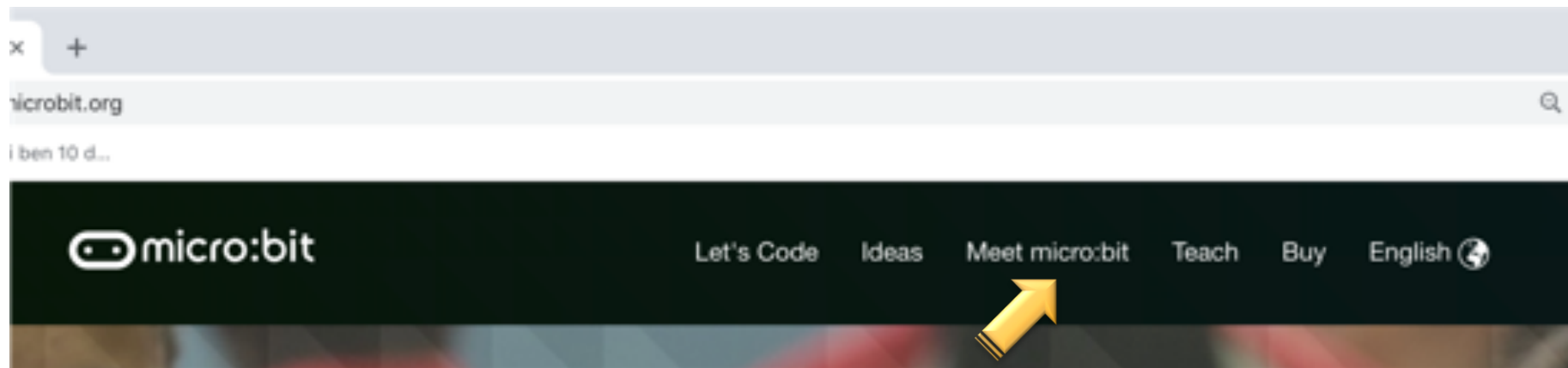
<https://makecode.microbit.org/>



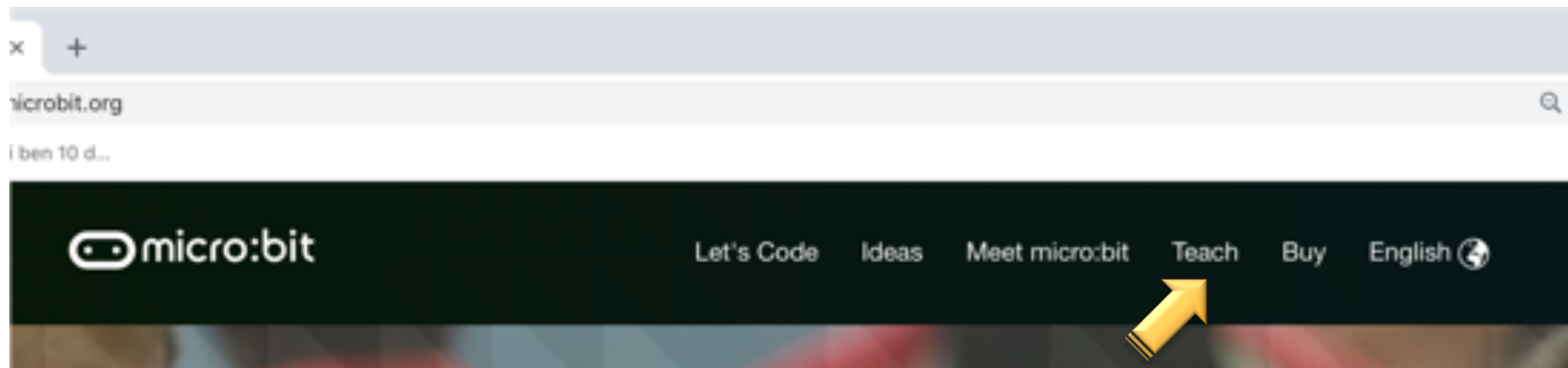
Ambiente di sviluppo per la programmazione



Raccolta di idee utili



Caratteristiche e Quick Start Guide

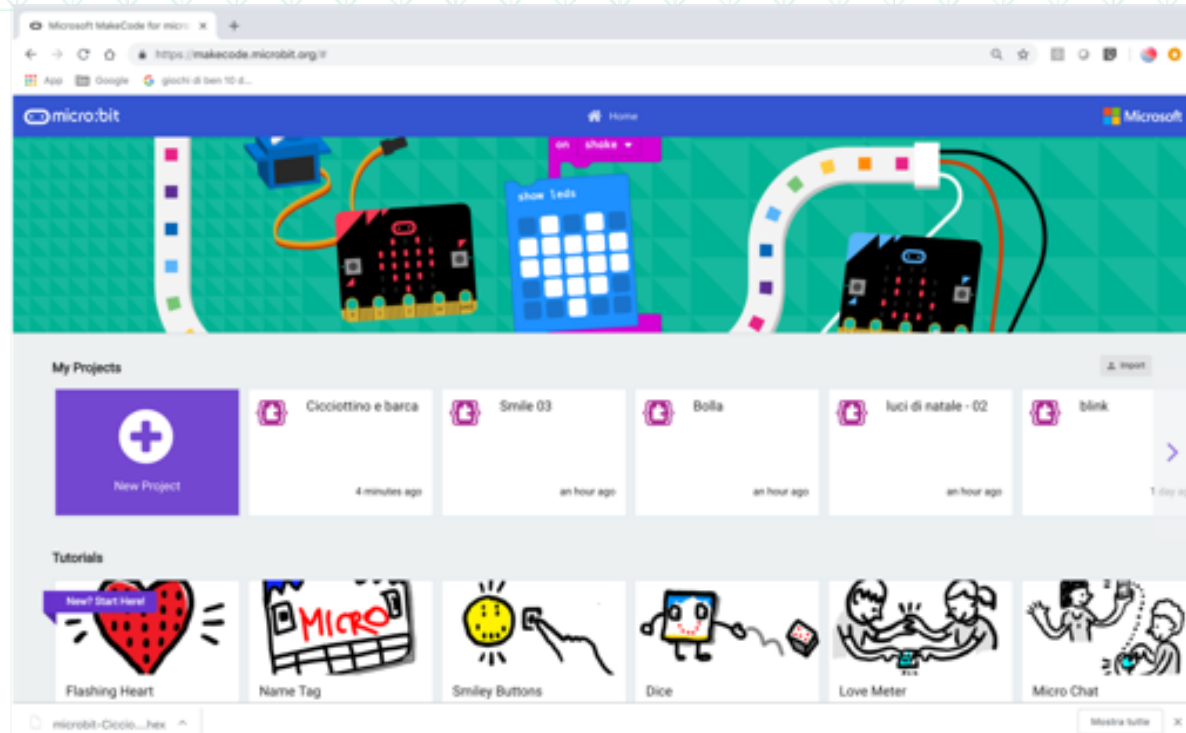


Raccolta di risorse per Insegnanti e Educatori
(suddivise per materie di insegnamento)

Risorse on line e supporto

micro:bit – Help

Risorse on line e supporto



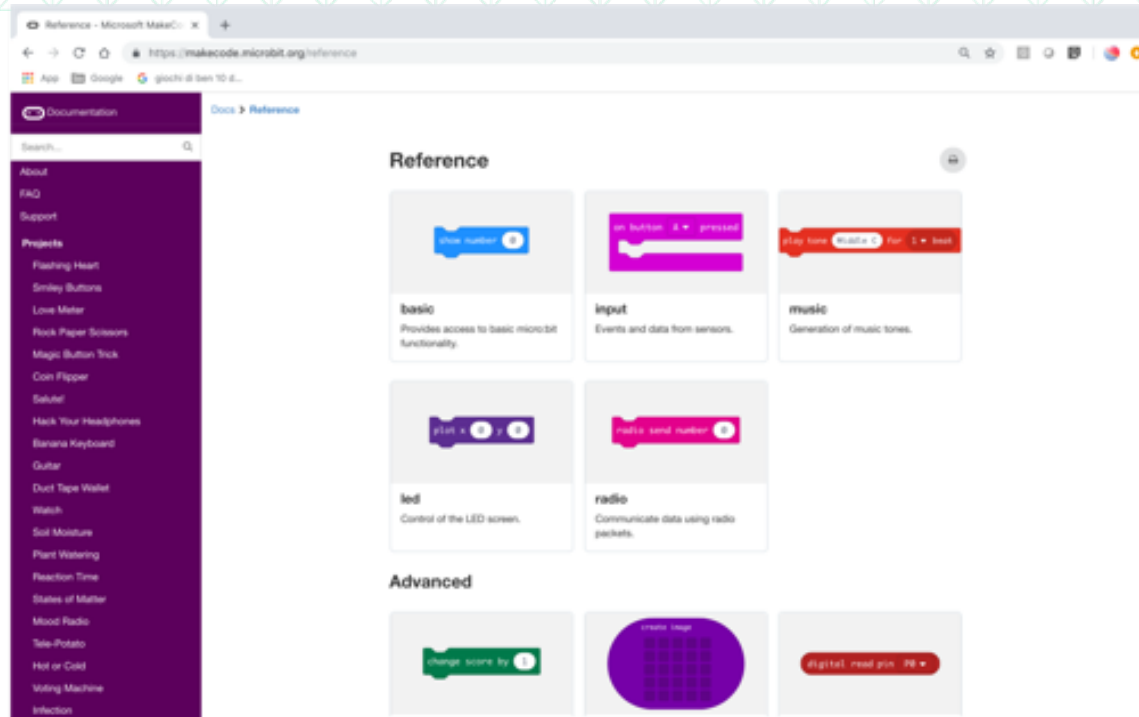
Scorri verso il basso!!



<https://makecode.microbit.org/>

micro:bit – Help

Risorse on line e supporto



<https://makecode.microbit.org/reference>

micro:bit – Help

Quick Start Guide

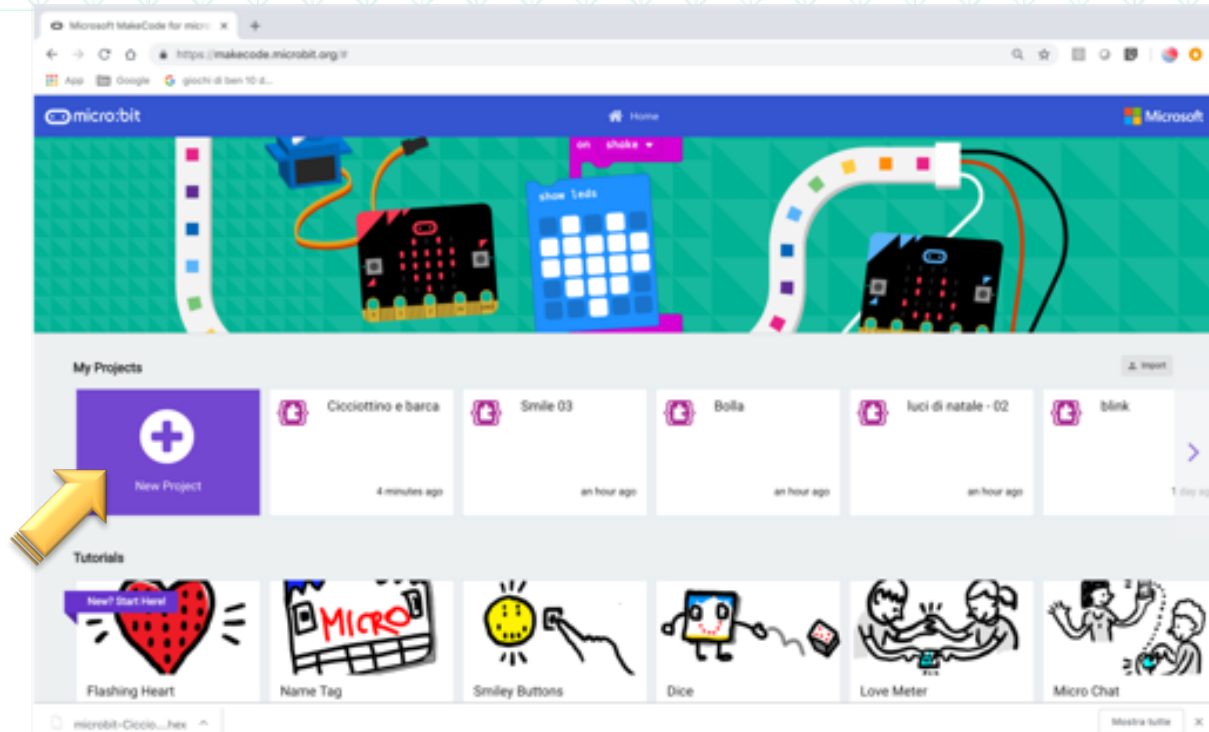


<https://microbit.org/guide/quick/>

Ambiente di programmazione

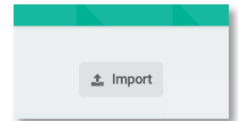
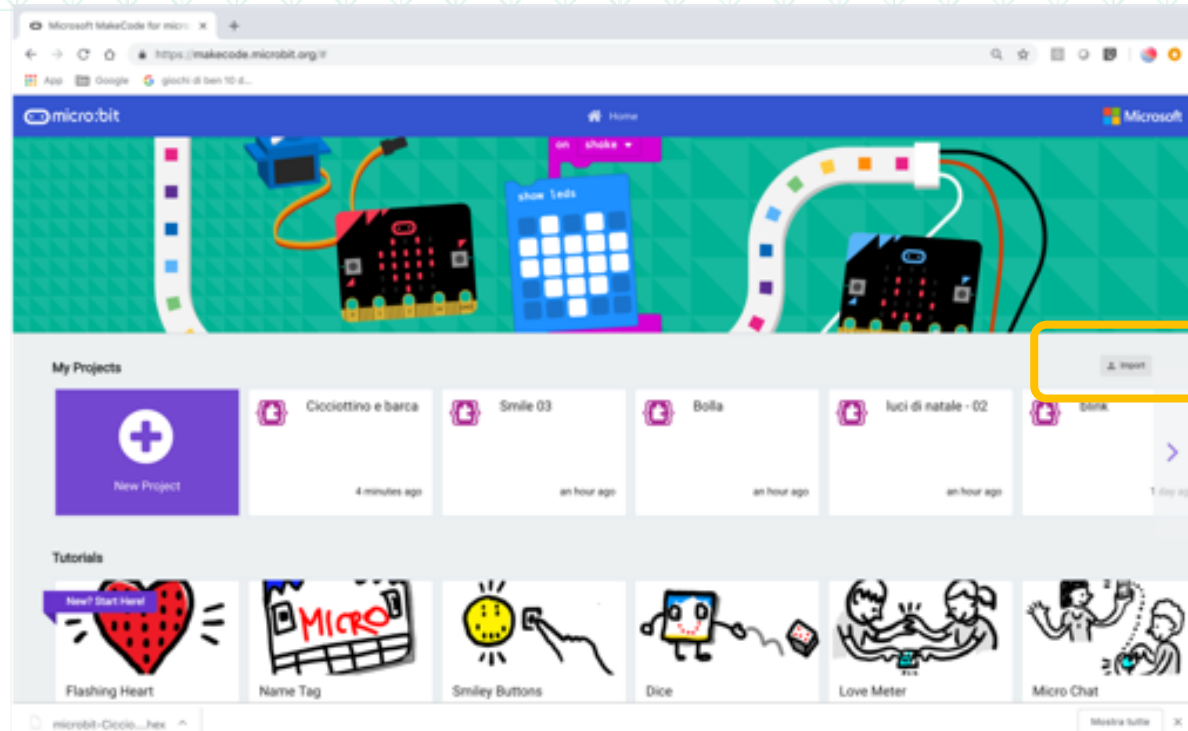
micro:bit – Help

Ambiente di programmazione



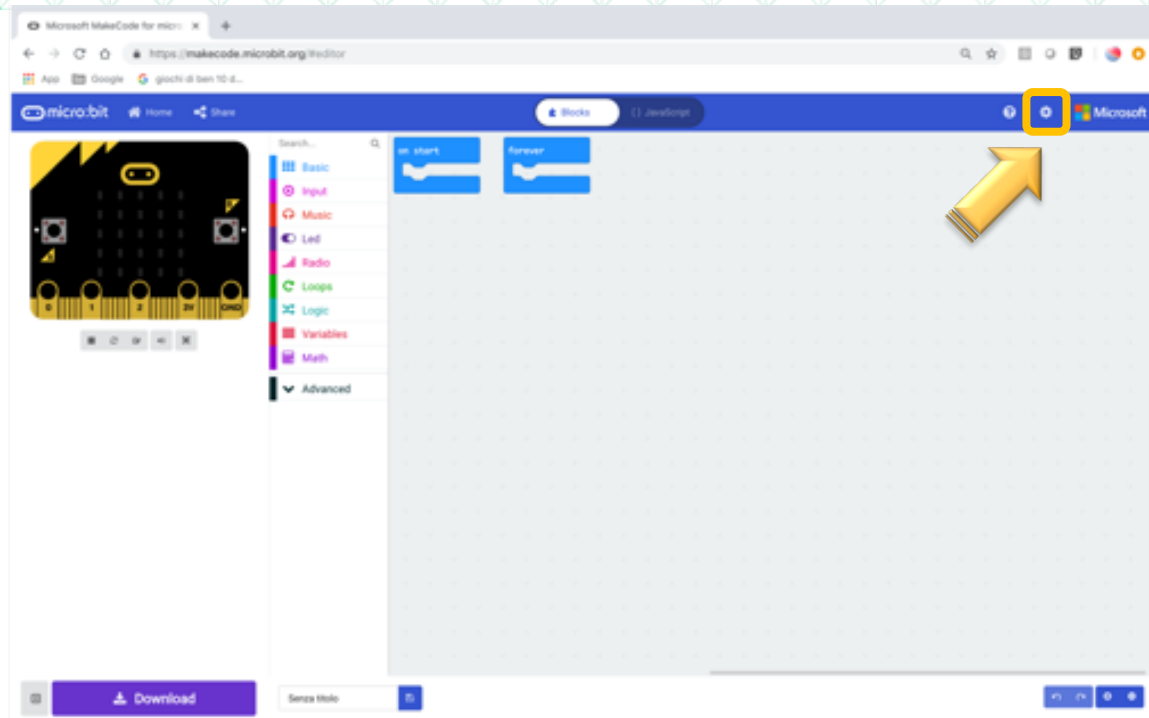
micro:bit – Help

Ambiente di programmazione



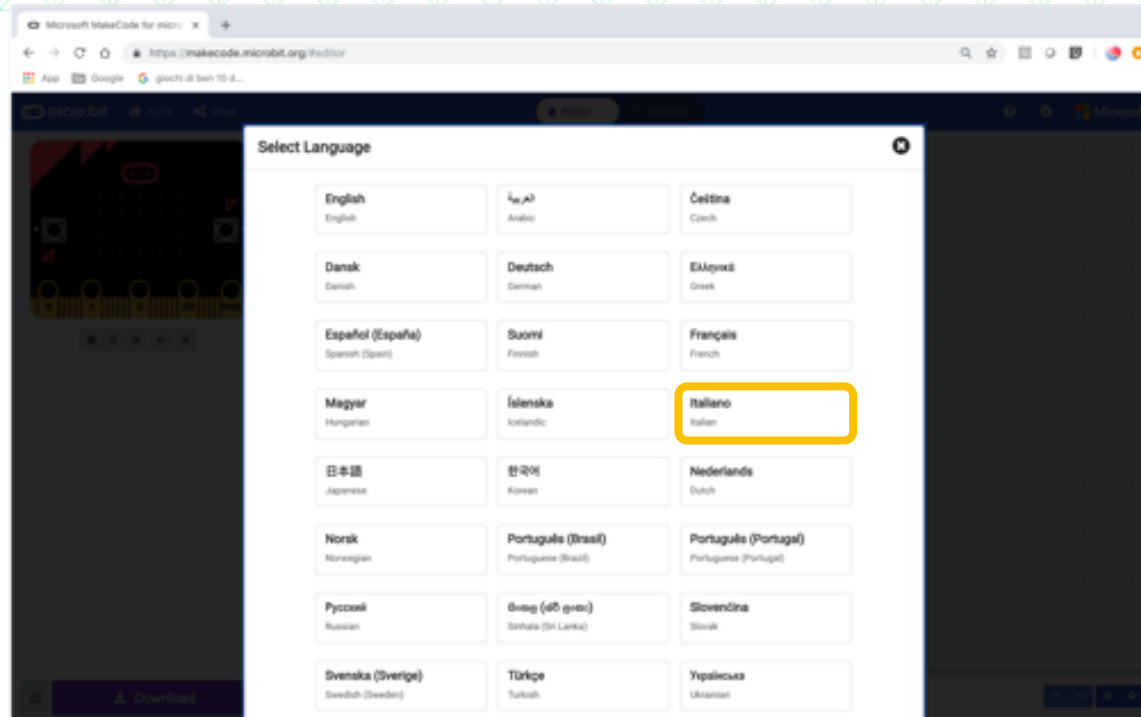
micro:bit – Help

Ambiente di programmazione



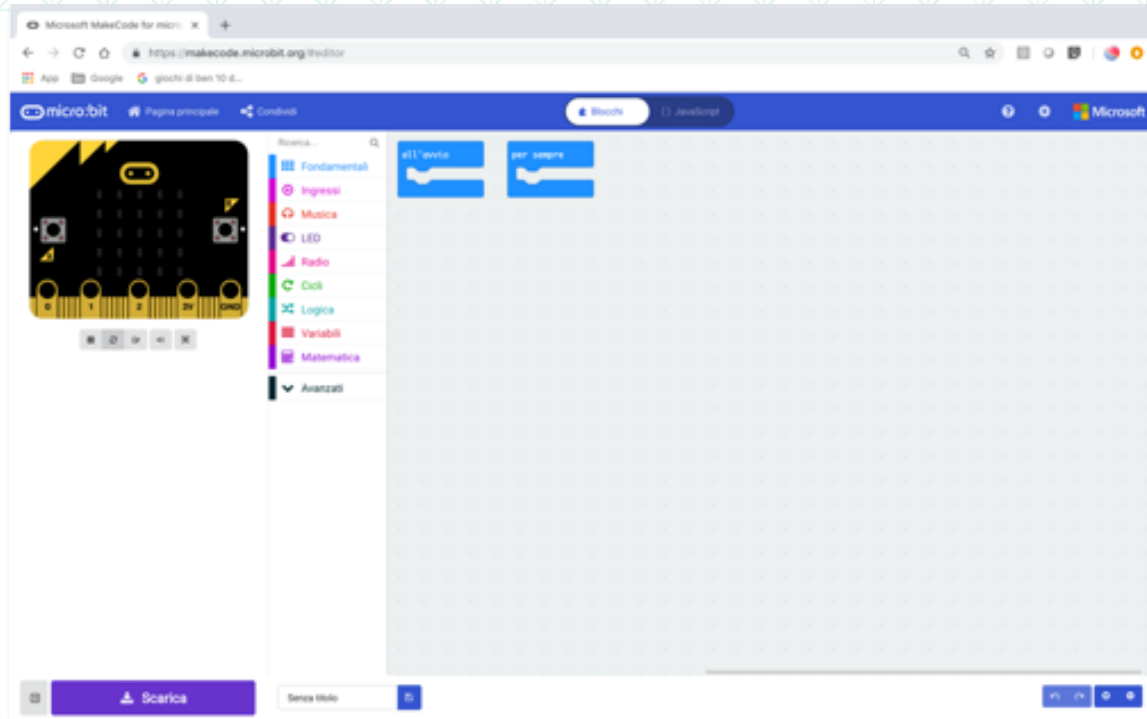
micro:bit – Help

descrizione dei singoli blocchi



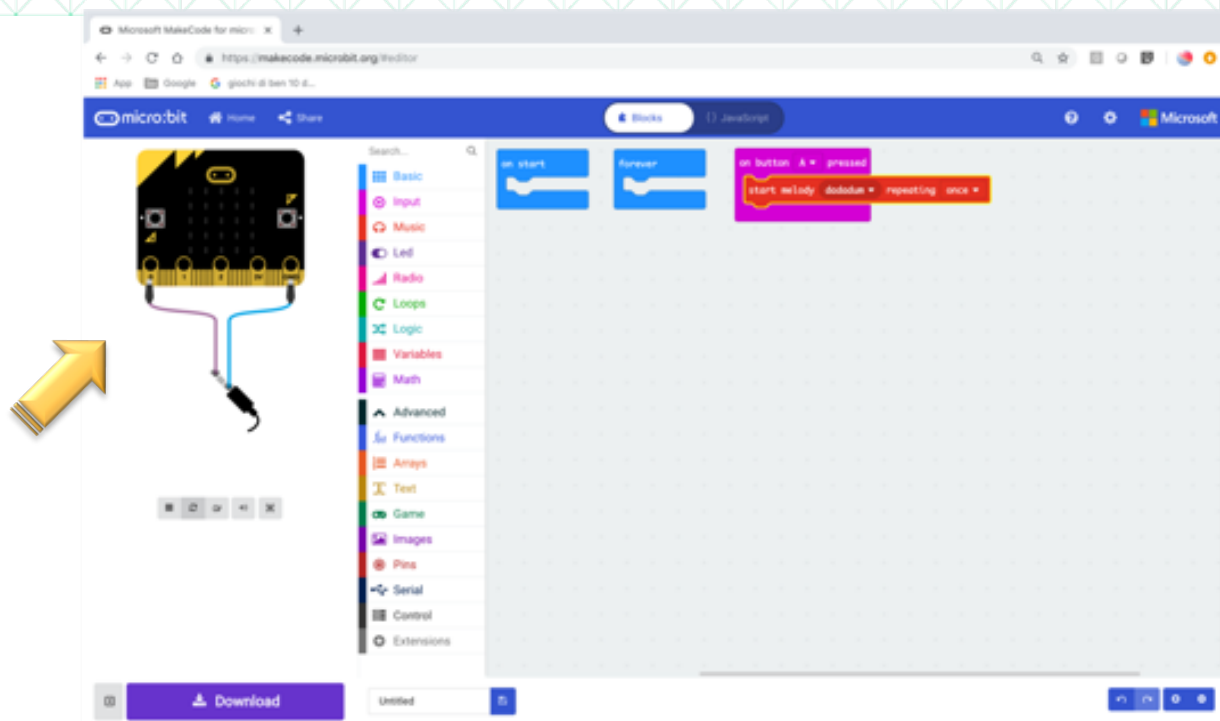
micro:bit – Help

Ambiente di programmazione



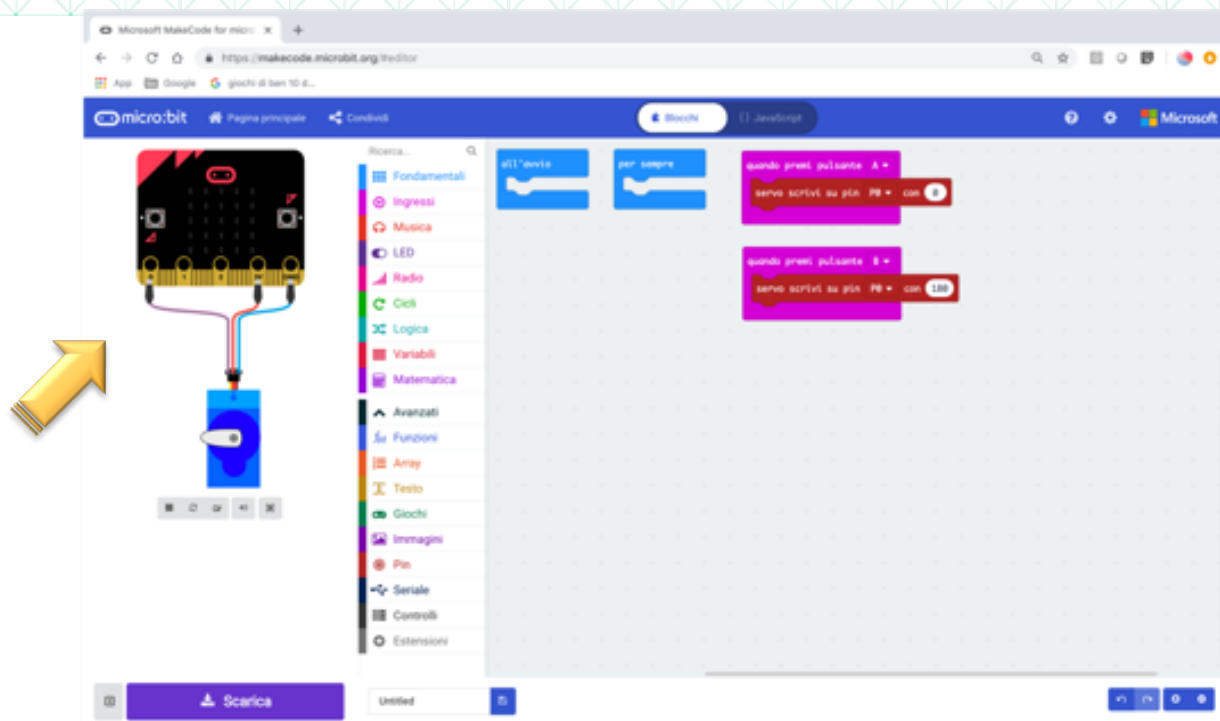
micro:bit – Help

Ambiente di programmazione



micro:bit – Help

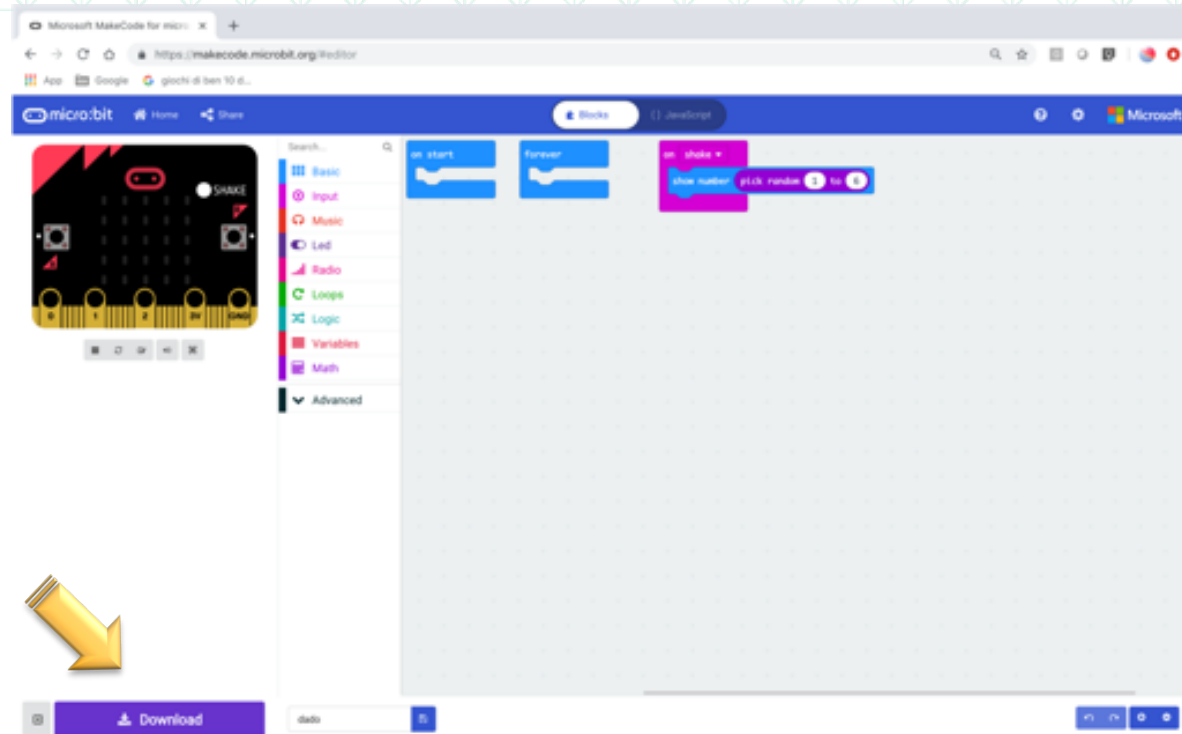
Ambiente di programmazione



Come scaricare il programma su micro:bit

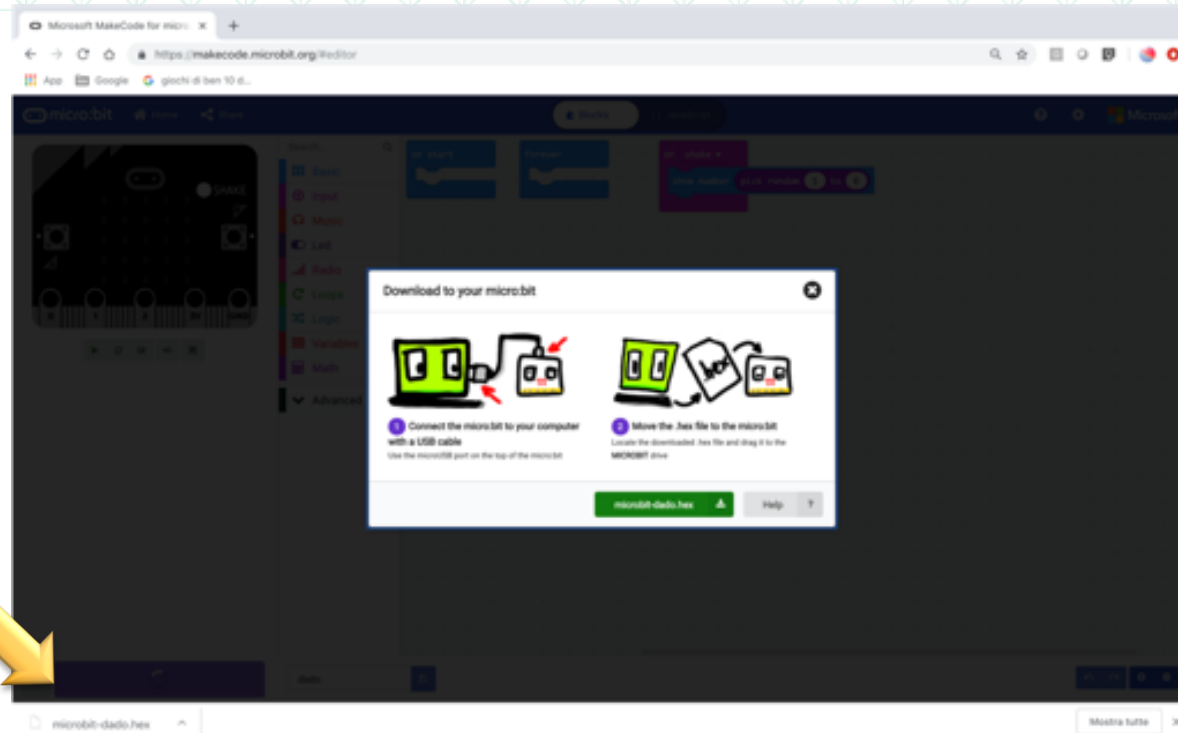
micro:bit – Help

descrizione dei singoli blocchi



micro:bit – Help

descrizione dei singoli blocchi



Download to your micro:bit



- 1 Connect the micro:bit to your computer with a USB cable

Use the microUSB port on the top of the micro:bit



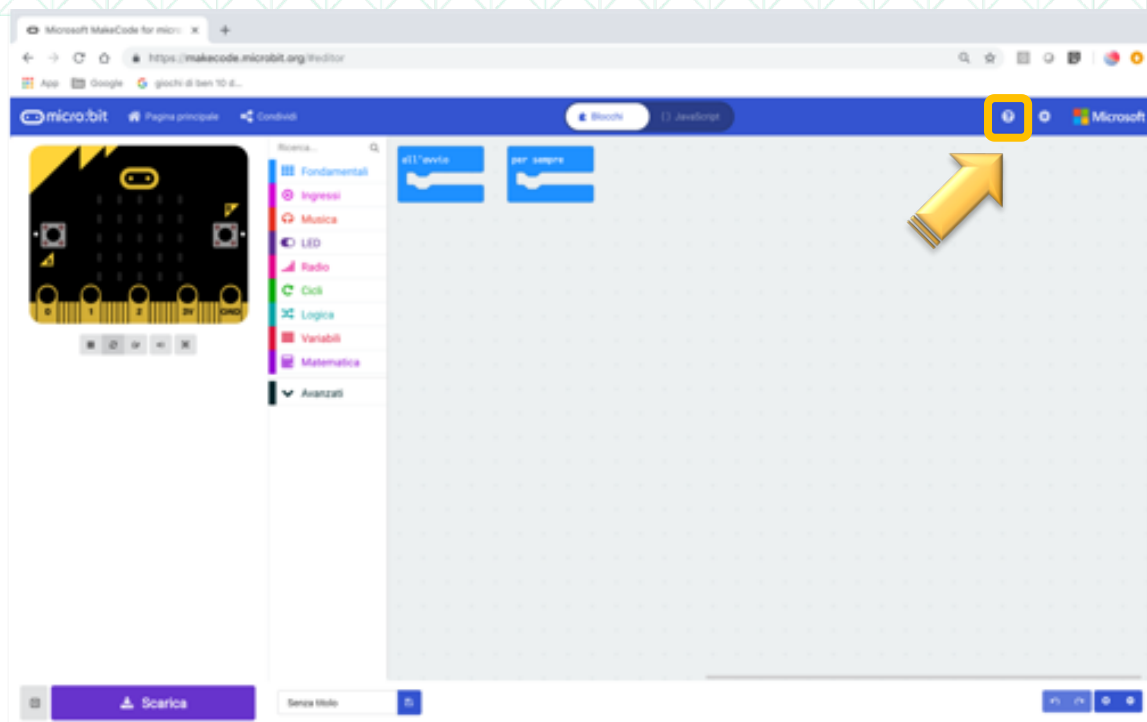
- 2 Move the .hex file to the micro:bit

Locate the downloaded .hex file and drag it to the MICROBIT drive

Aiuto!

micro:bit – Help

Quick Start Guide





<https://microbit.org/guide/quick/>

Let's code!

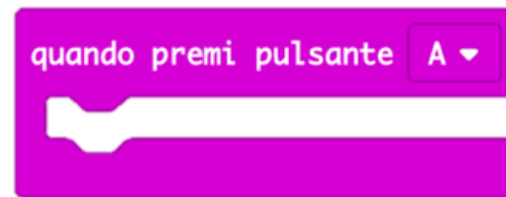
I blocchi più significativi



Inizializzazioni



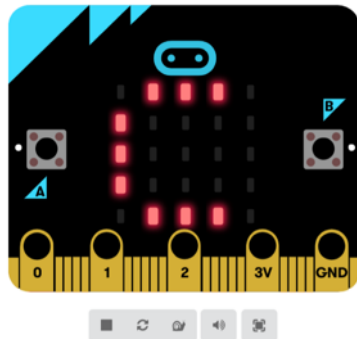
Ciclo Infinito



Evento

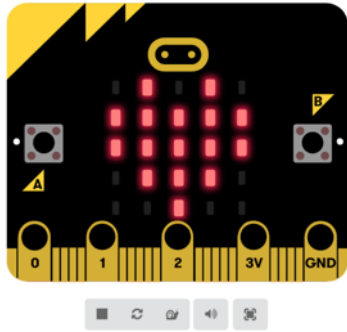
micro:bit – Esempi

01 - microbit-ciao.hex



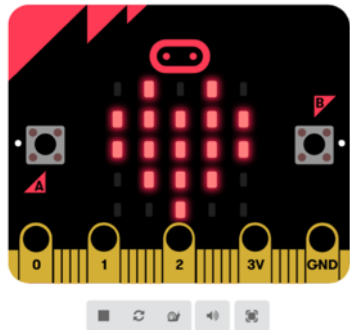
micro:bit – Esempi

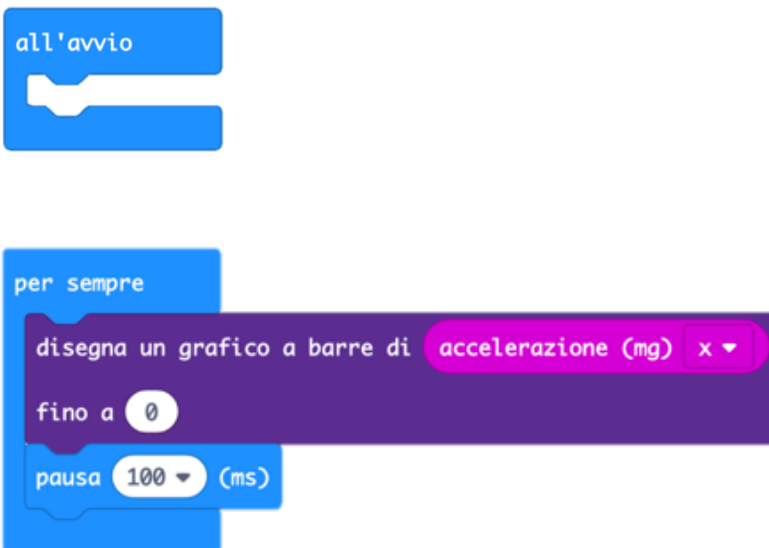
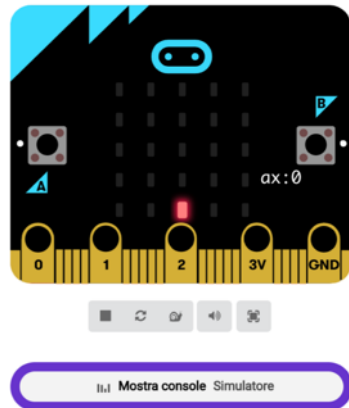
02.a - microbit-cuore-statico.hex

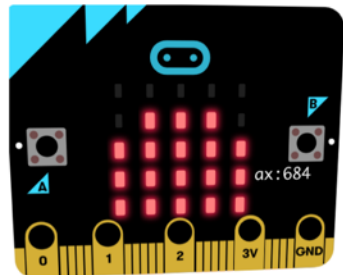


micro:bit – Esempi

02.b - microbit-cuore-dinamico.hex







Mostra console Simulatore

all'avvio



per sempre

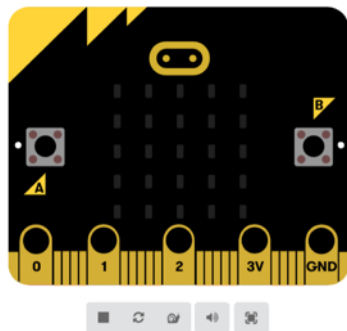
disegna un grafico a barre di accelerazione (mg) x

fino a 0

pausa 100 (ms)

micro:bit – Esempi

04.a - microbit-smile-01.hex



all'avvio

per sempre

quando premi pulsante A ▼

mostra icona



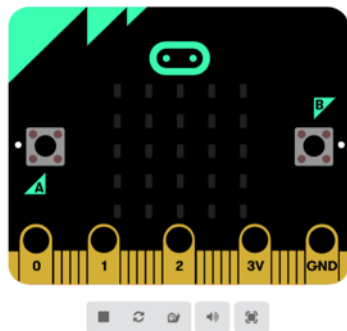
quando premi pulsante B ▼

mostra icona



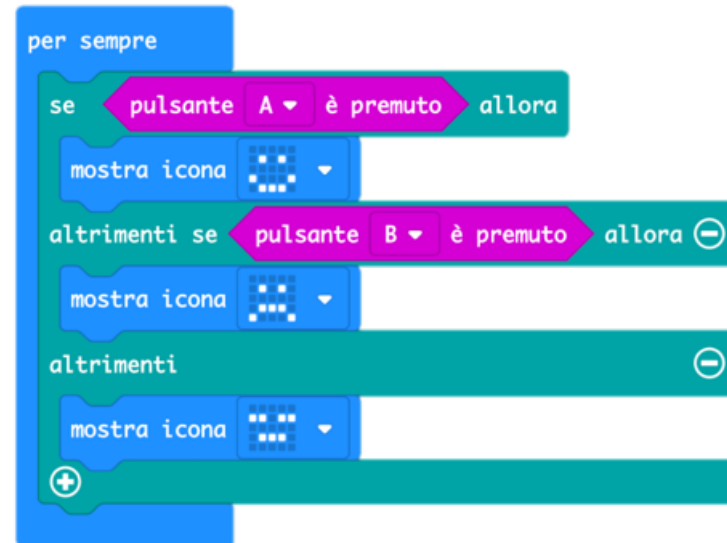
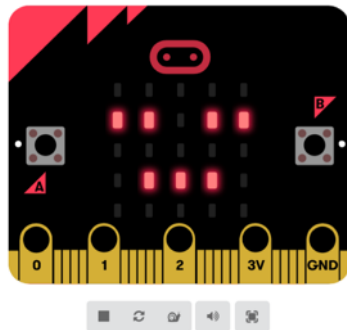
micro:bit – Esempi

04.b - microbit-smile-02.hex



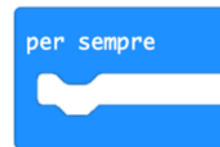
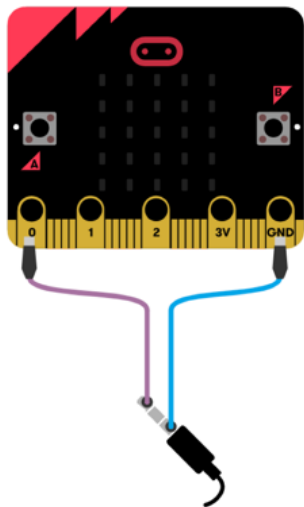
micro:bit – Esempi

04.c - microbit-smile-03.hex



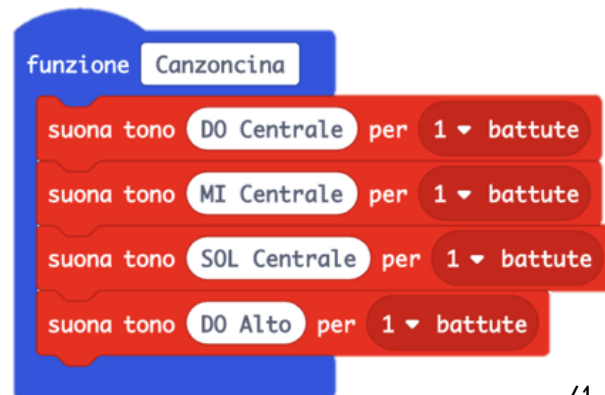
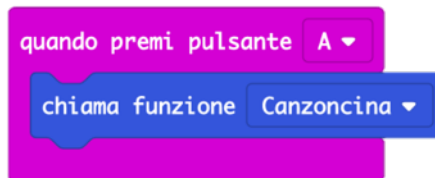
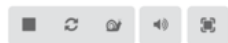
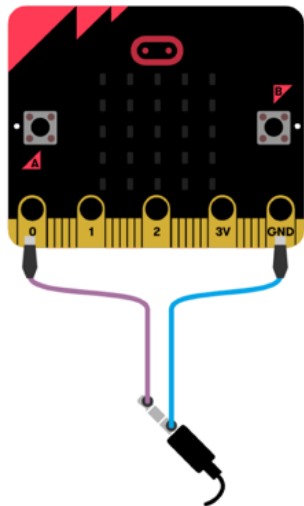
micro:bit – Esempi

05.a - microbit-suoni-01.hex



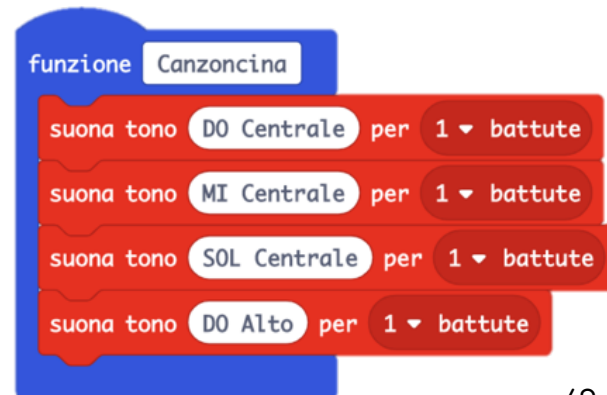
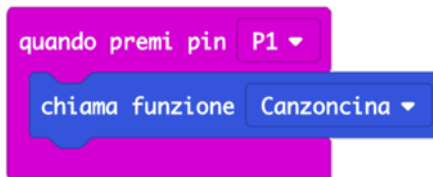
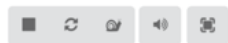
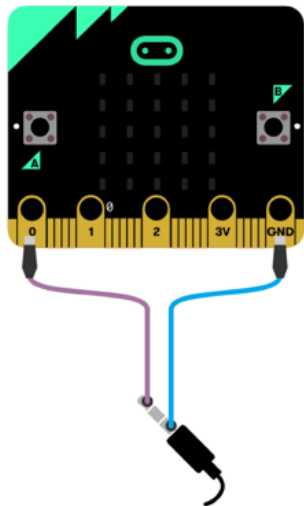
micro:bit – Esempi

05.b - microbit-suoni-02.hex



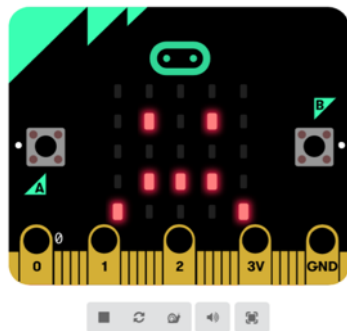
micro:bit – Esempi

05.c - microbit-suoni-con-input.hex



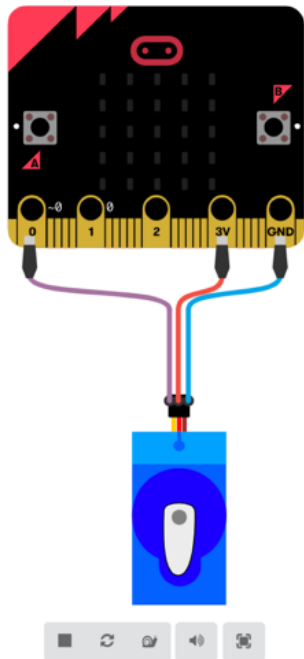
micro:bit – Esempi

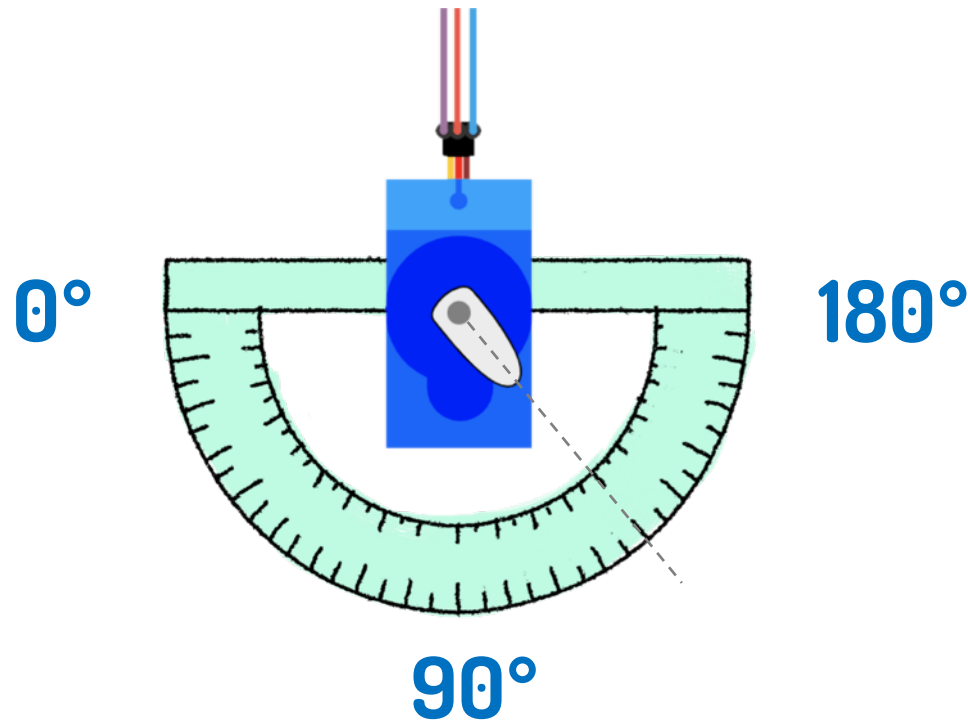
06 - microbit-input-esterno-magneto-e-smile.hex



micro:bit – Esempi

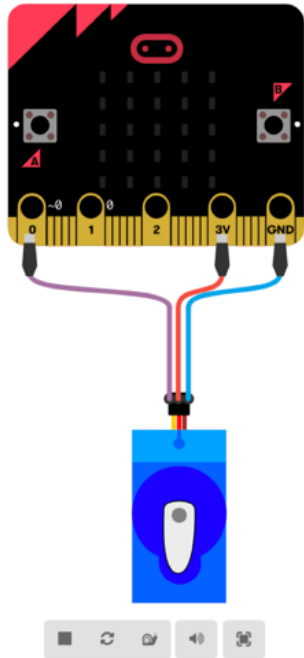
07.a - microbit-passaggio-a-livello-01.hex





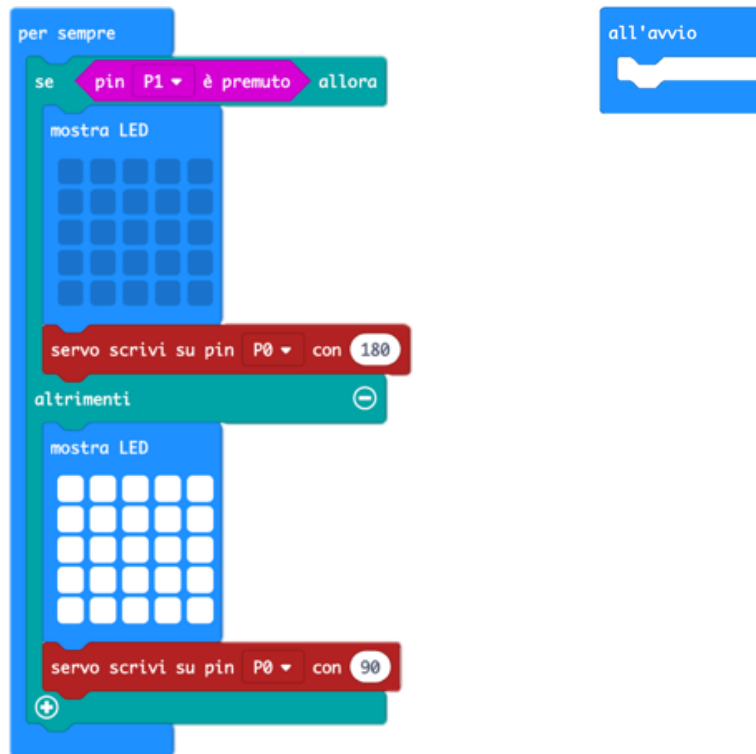
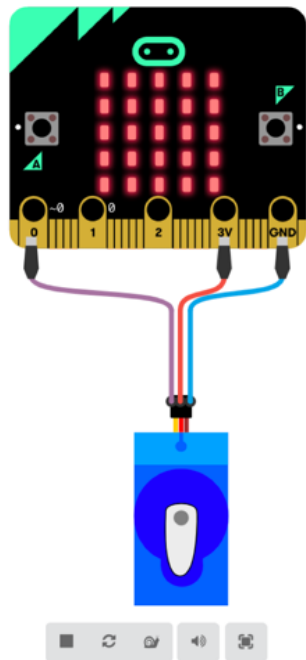
micro:bit – Esempi

07.a - microbit-passaggio-a-livello-01.hex



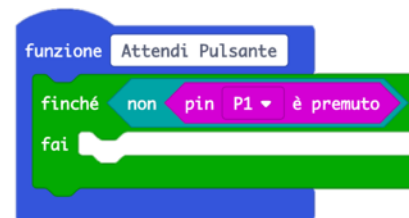
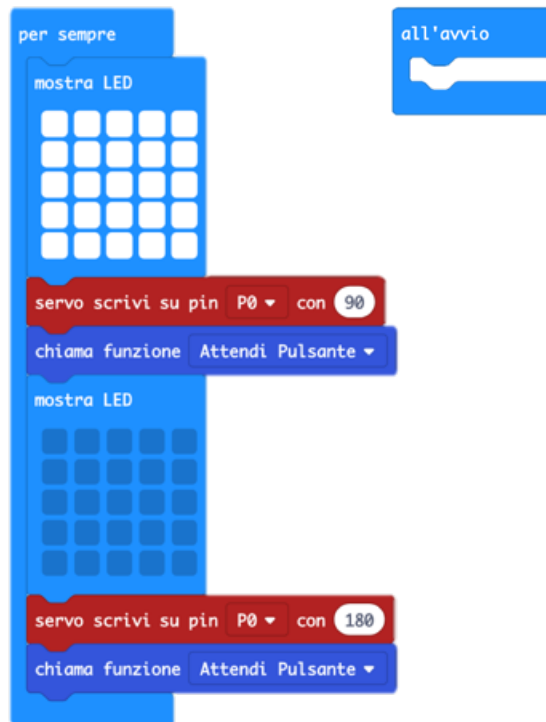
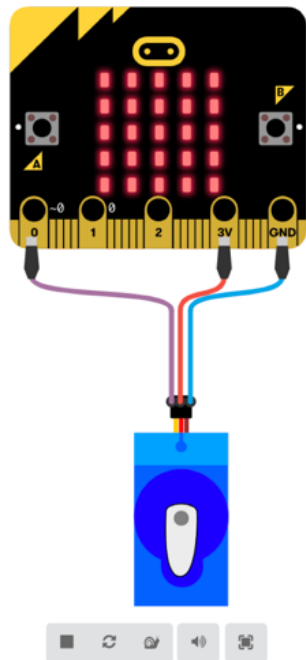
micro:bit – Esempi

07.b - microbit-passaggio-a-livello-02.hex



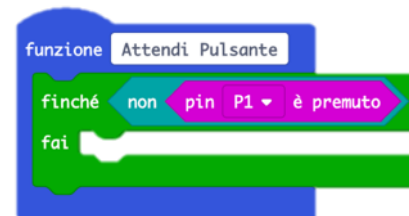
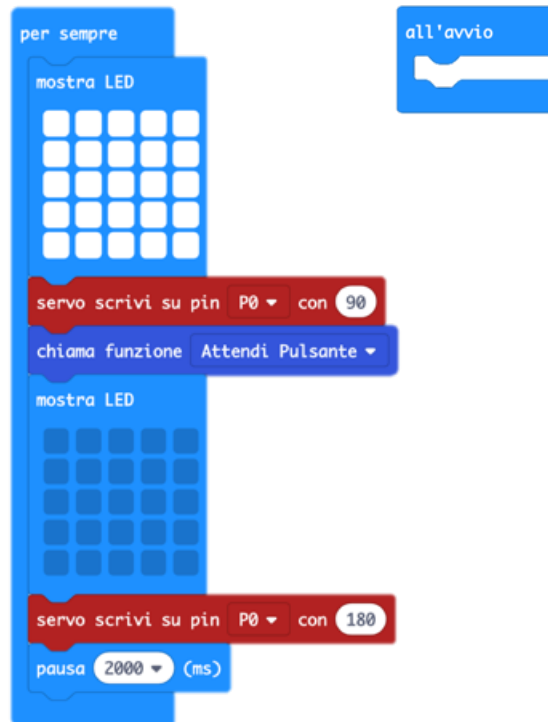
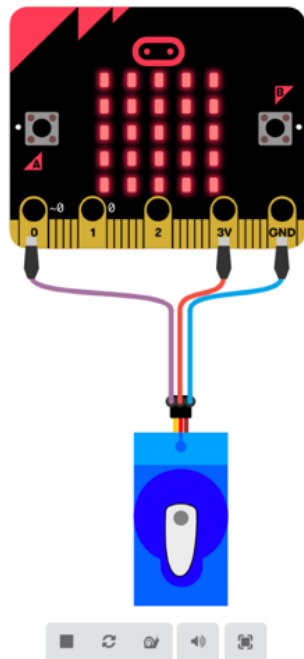
micro:bit – Esempi

07.c - microbit-passaggio-a-livello-03.hex



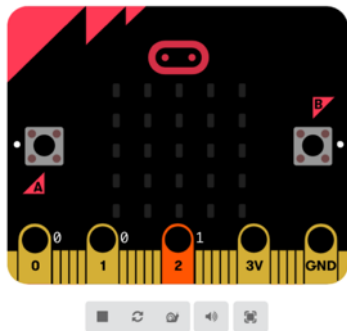
micro:bit – Esempi

07.d - microbit-passaggio-a-livello-04.hex



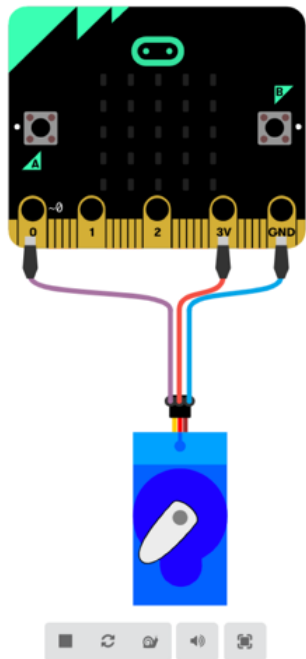
micro:bit – Esempi

08 - microbit-semaforo.hex



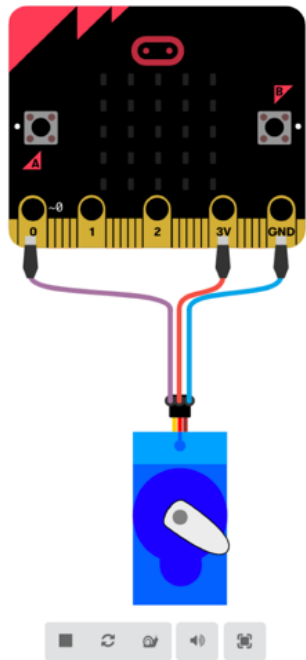
micro:bit – Esempi

09.a - microbit-tergicristallo-01.hex



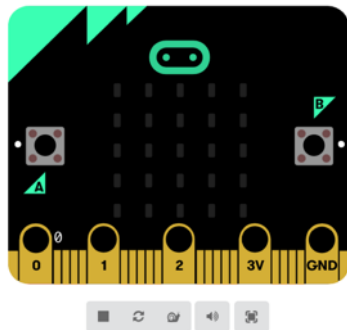
micro:bit – Esempi

09.b - microbit-tergicristallo-02.hex



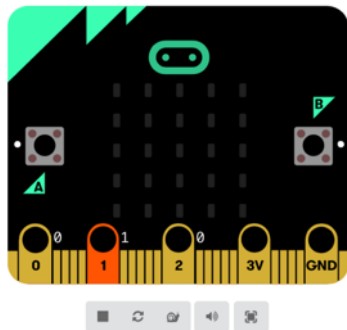
micro:bit – Esempi

10 - microbit-il-cerchio-dell'amicizia.hex



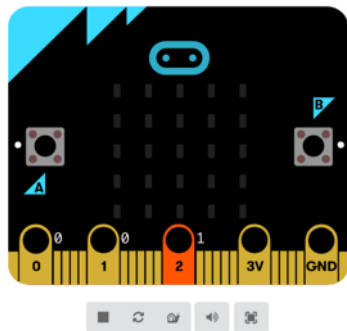
micro:bit – Esempi

11.a - microbit-luci-di-natale-01.hex



micro:bit – Esempi

11.b - microbit-luci-di-natale-02.hex



all'avvio

per sempre

chiamata funzione LED 1
chiamata funzione LED 2
chiamata funzione LED 3

funzione LED 1

segnale digitale - scrivi su pin P0 con 1

pausa 500 (ms)

segnale digitale - scrivi su pin P0 con 0

funzione LED 2

segnale digitale - scrivi su pin P1 con 1

pausa 500 (ms)

segnale digitale - scrivi su pin P1 con 0

funzione LED 3

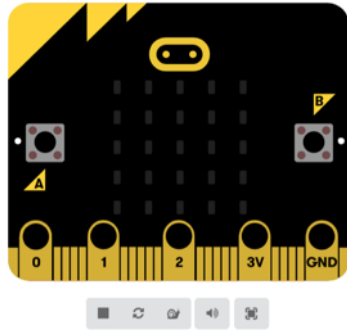
segnale digitale - scrivi su pin P2 con 1

pausa 500 (ms)

segnale digitale - scrivi su pin P2 con 0

micro:bit – Esempi

12.a - microbit-luci-di-casa-01.hex



all'avvio

per sempre

quando premi pulsante A ▼

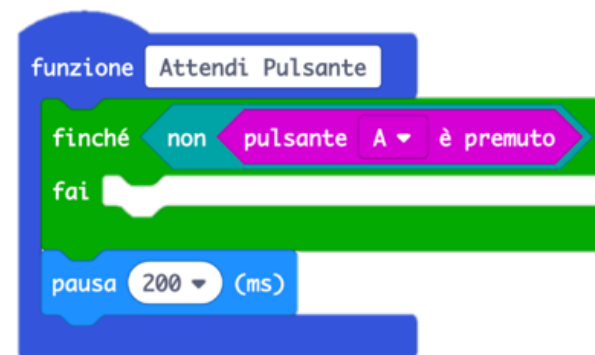
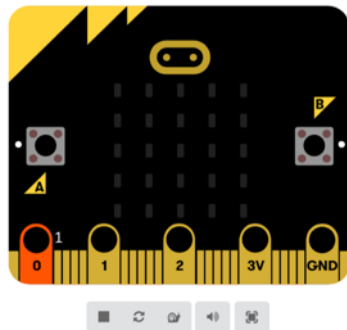
segnale digitale - scrivi su pin P0 ▼ con 1

quando premi pulsante B ▼

segnale digitale - scrivi su pin P0 ▼ con 0

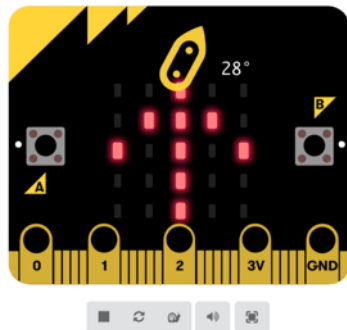
micro:bit – Esempi

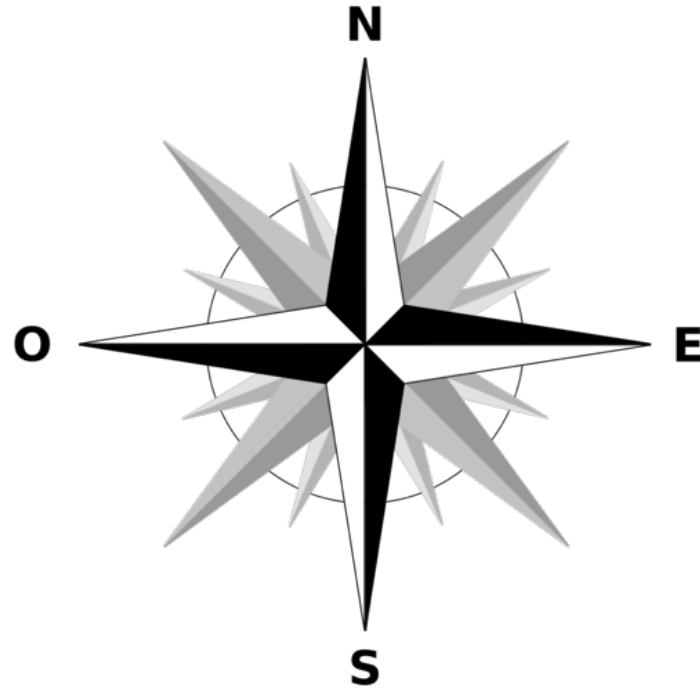
12.b - microbit-luci-di-casa-02.hex

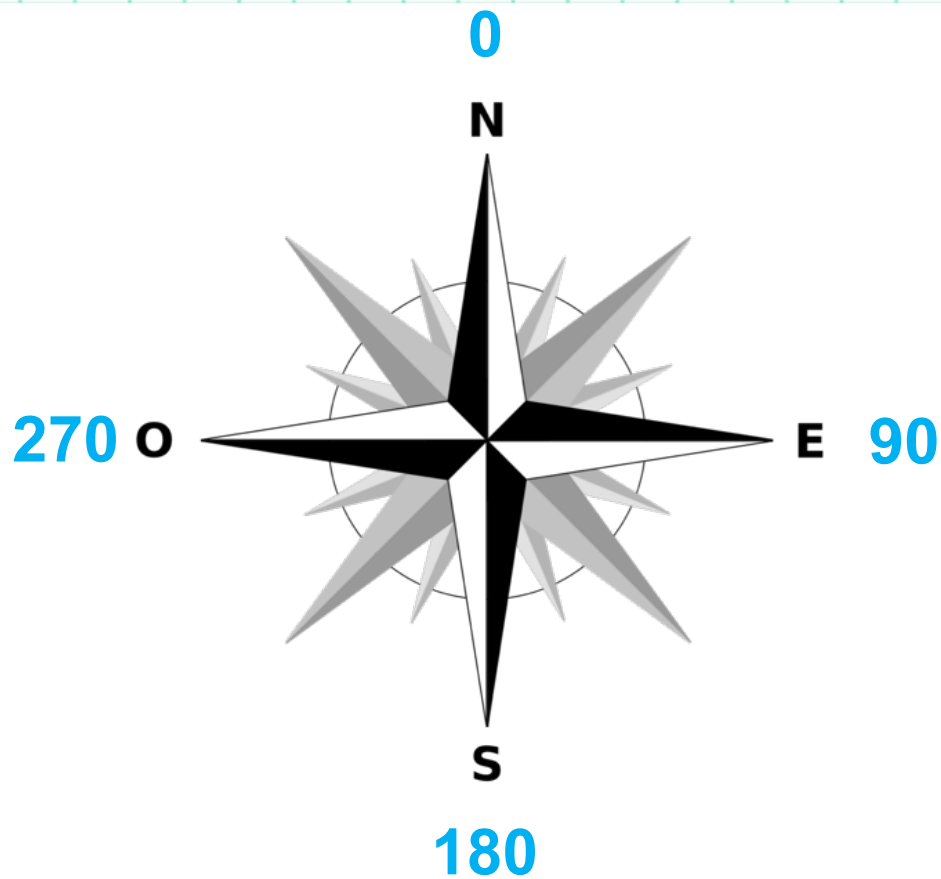


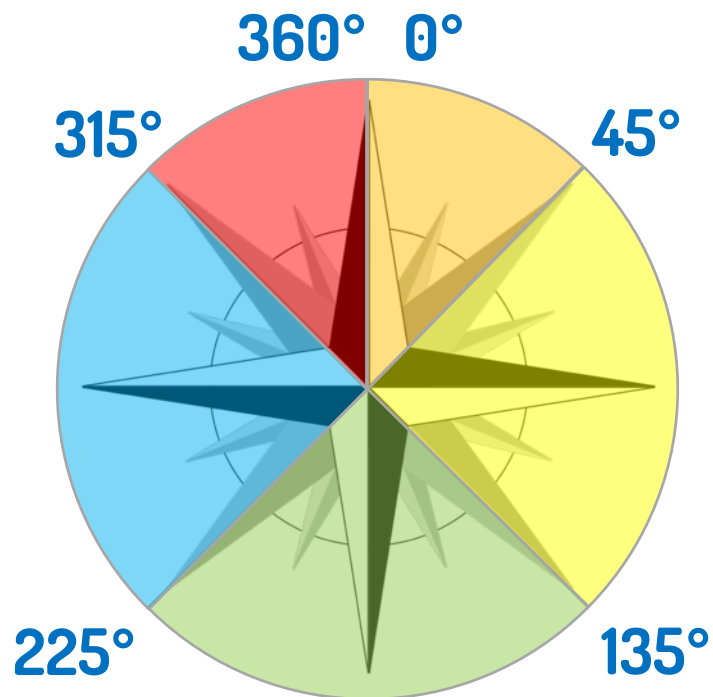
micro:bit – Esempi

13 - microbit-bussola.hex



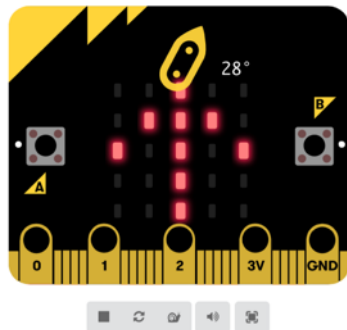






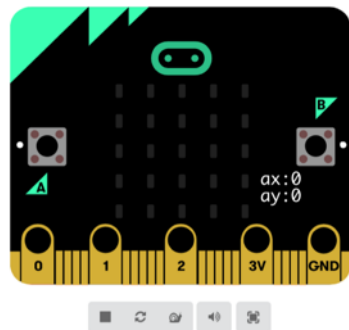
micro:bit – Esempi

13 - microbit-bussola.hex



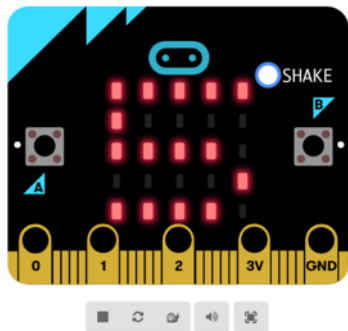
micro:bit – Esempi

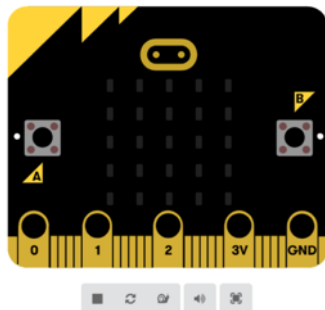
14 - microbit-bolla.hex



micro:bit – Esempi

15 - microbit-dado.hex





all'avvio

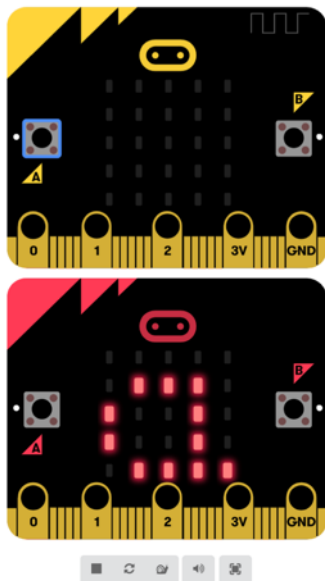
per sempre

quando premi pulsante A ▼

radio - spedisci la stringa "Ciao!"

radio - quando ricevi segnale receivedString ▼

mostra stringa receivedString ▼



all'avvio

per sempre

quando premi pulsante A ▼

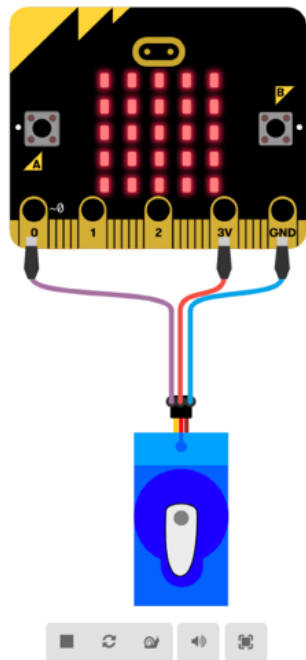
radio - spedisci la stringa "Ciao!"

radio - quando ricevi segnale receivedString ▼

mostra stringa receivedString ▼

micro:bit – Esempi

16.b - microbit-radio-passaggio-a-livello.hex



all'avvio
chiama funzione Chiuso ▾

per sempre

quando premi pulsante A ▾
radio - spedisci la stringa "Apriti Sesamo!"

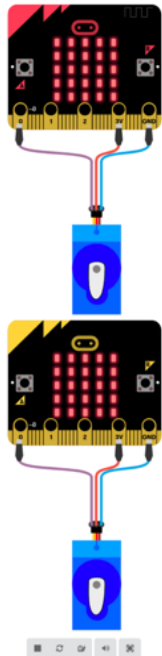
radio - quando ricevi segnale receivedString ▾
chiama funzione Aperto ▾
pausa 2000 ▾ (ms)
chiama funzione Chiuso ▾

funzione Aperto
mostra LED
servo scrivi su pin P0 ▾ con 180

funzione Chiuso
mostra LED
servo scrivi su pin P0 ▾ con 90

micro:bit – Esempi

16.b – microbit-radio-passaggio-a-livello.hex



all'avvio
chiama funzione Chiuso ▾

per sempre

quando premi pulsante A ▾
radio - spedisci la stringa "Apri ti Sesamo!"

radio - quando ricevi segnale receivedString ▾
chiama funzione Aperto ▾
pausa 2000 (ms)
chiama funzione Chiuso ▾

funzione Aperto

mostra LED

servo scrivi su pin P0 ▾ con 180

funzione Chiuso

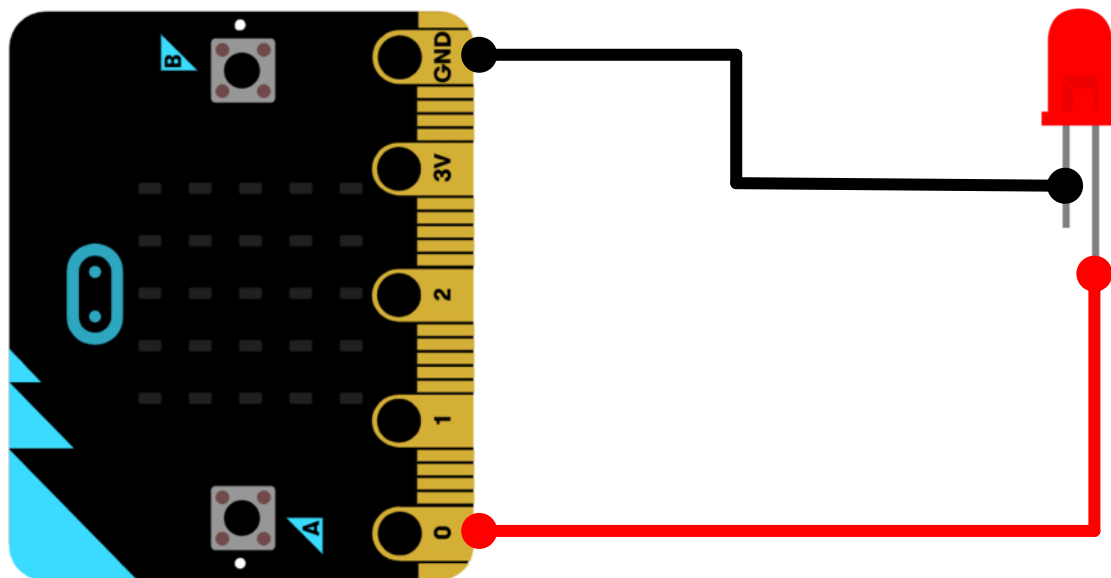
mostra LED

servo scrivi su pin P0 ▾ con 90

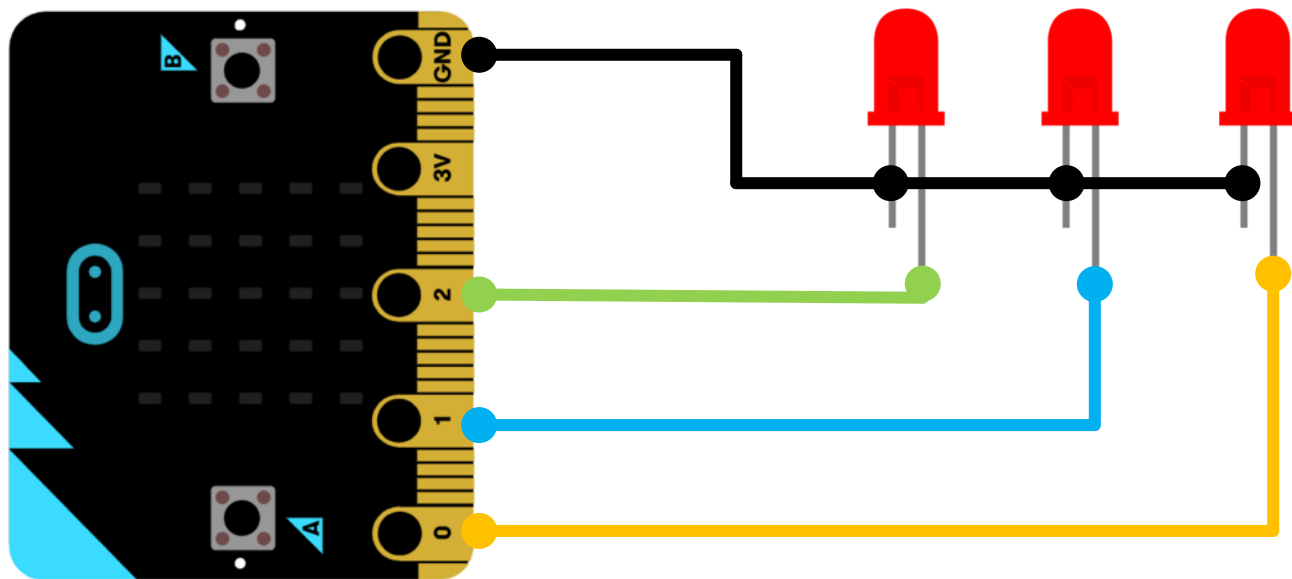
Collegamenti

Connessioni

LED singolo

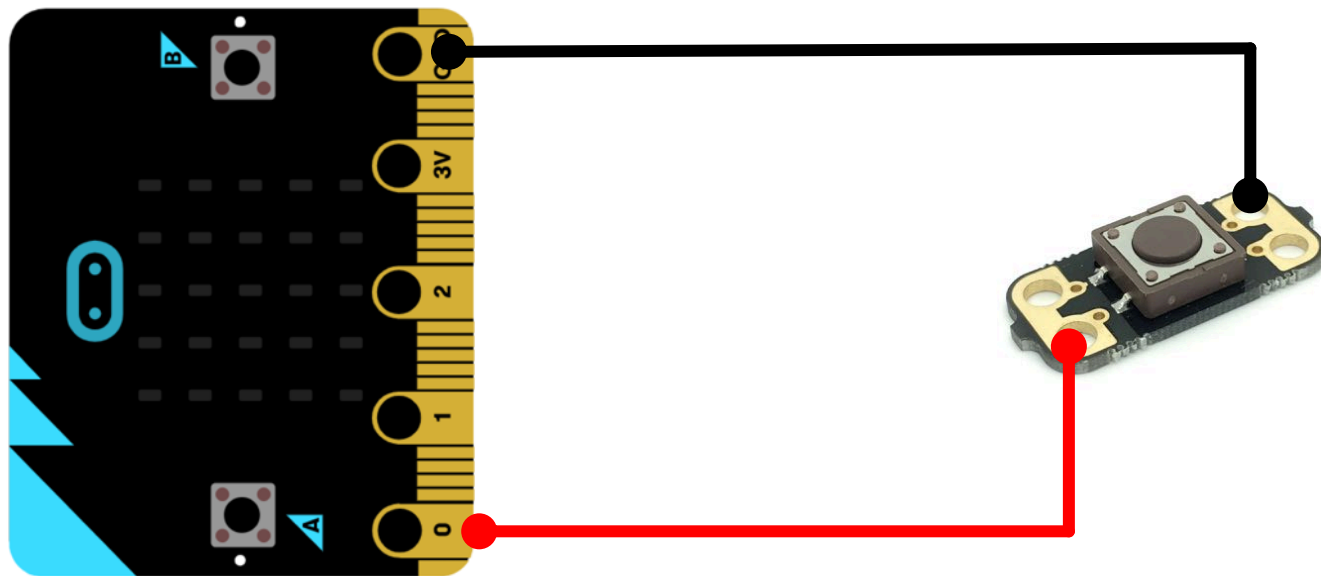


Conessioni LED multipli



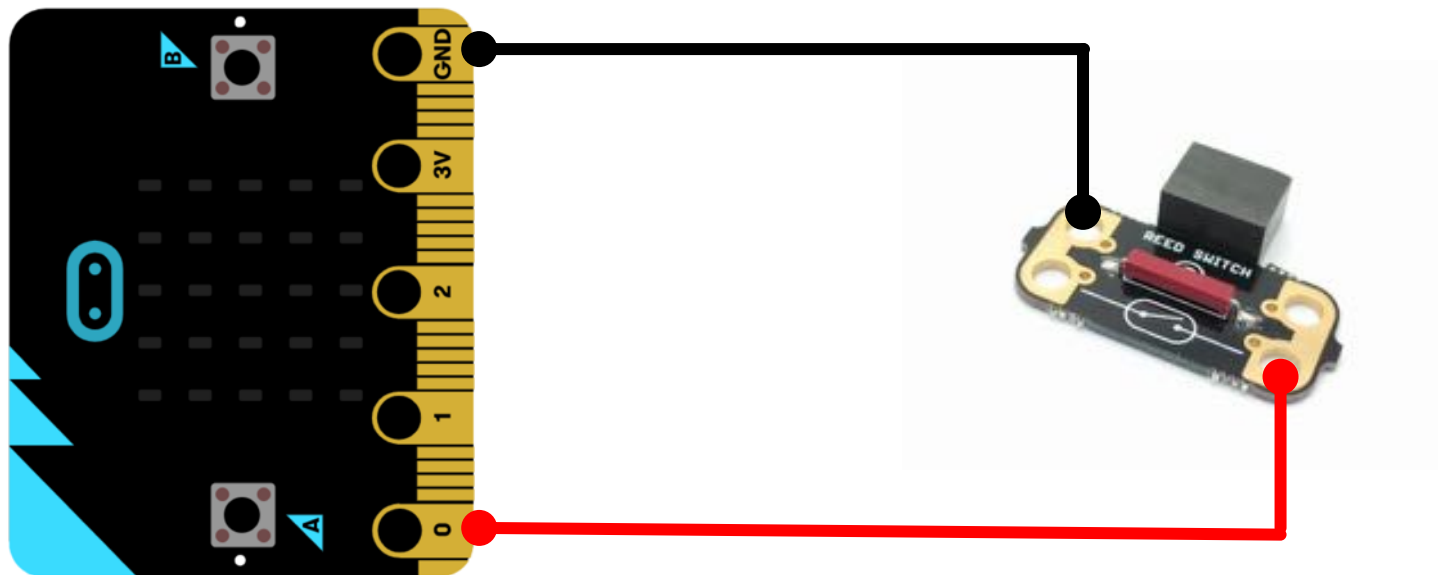
Connessioni

Pulsante esterno



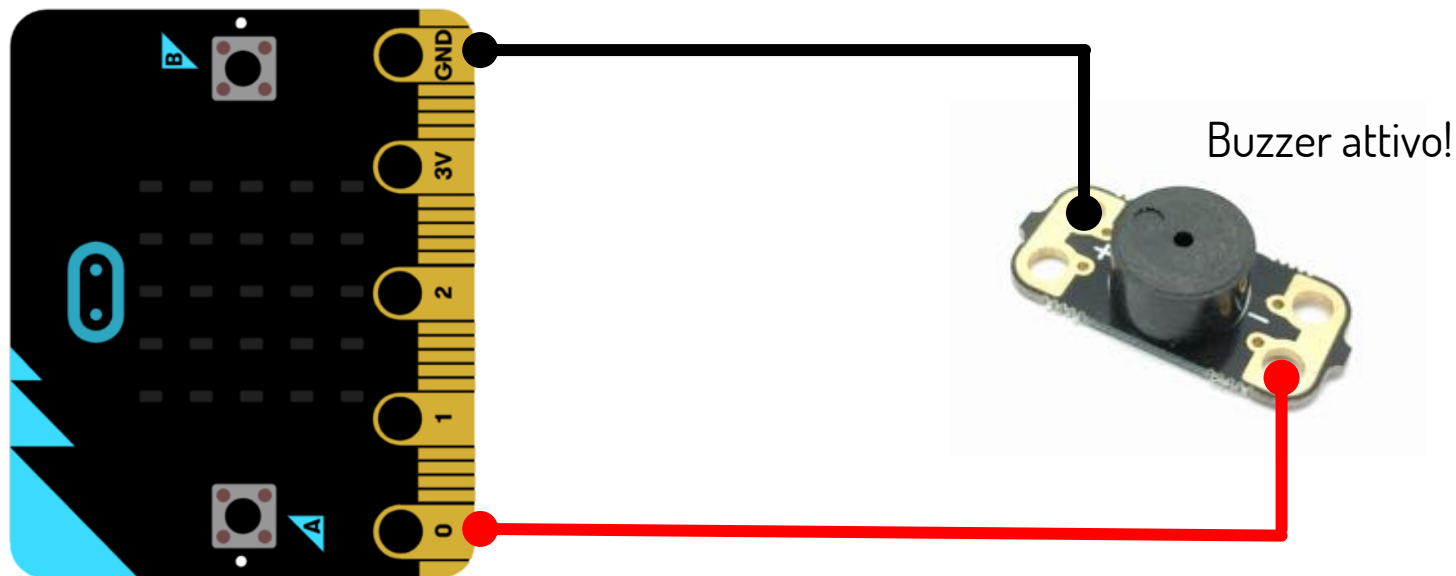
Connessioni

Interruttore magnetico



Connessioni

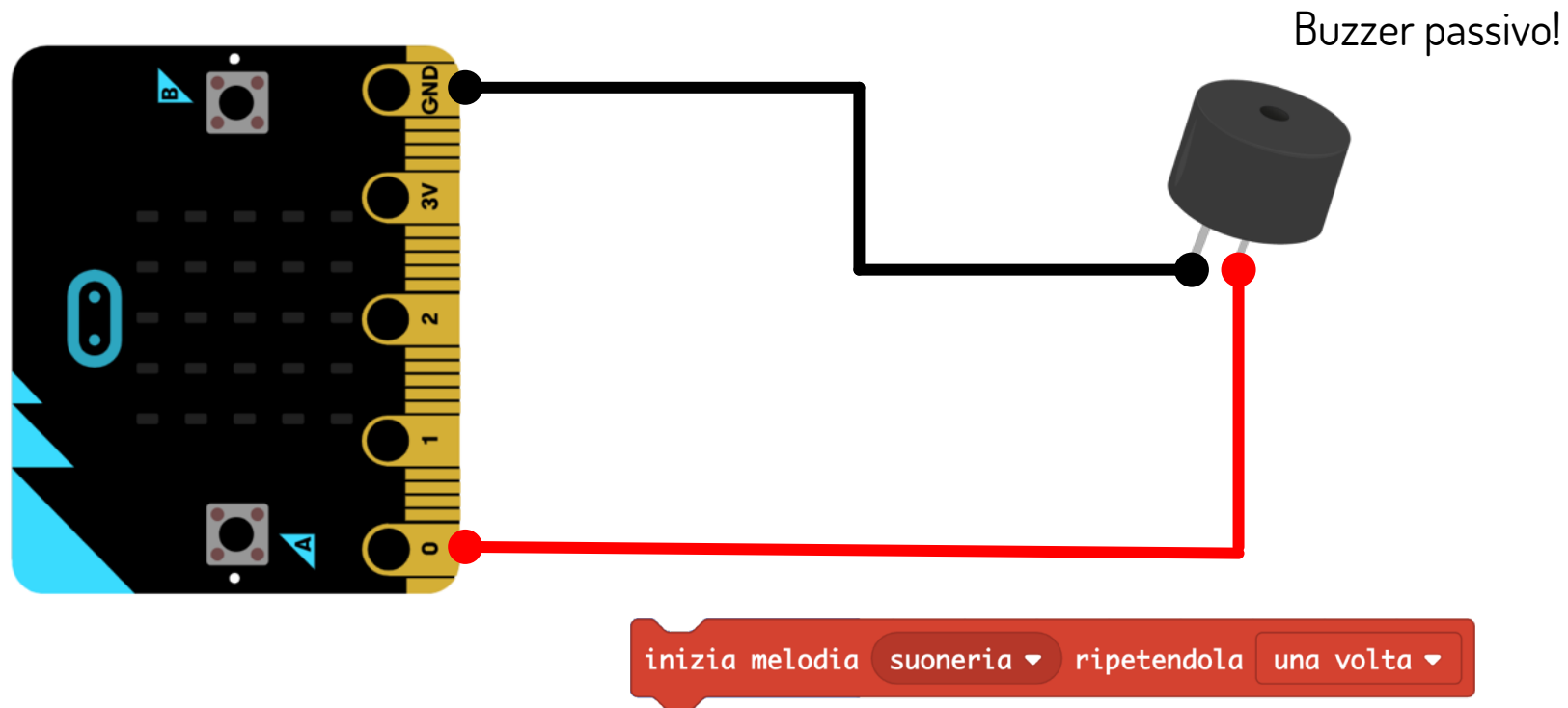
Buzzer attivo



segnale digitale - scrivi su pin P0 ▼ con 1

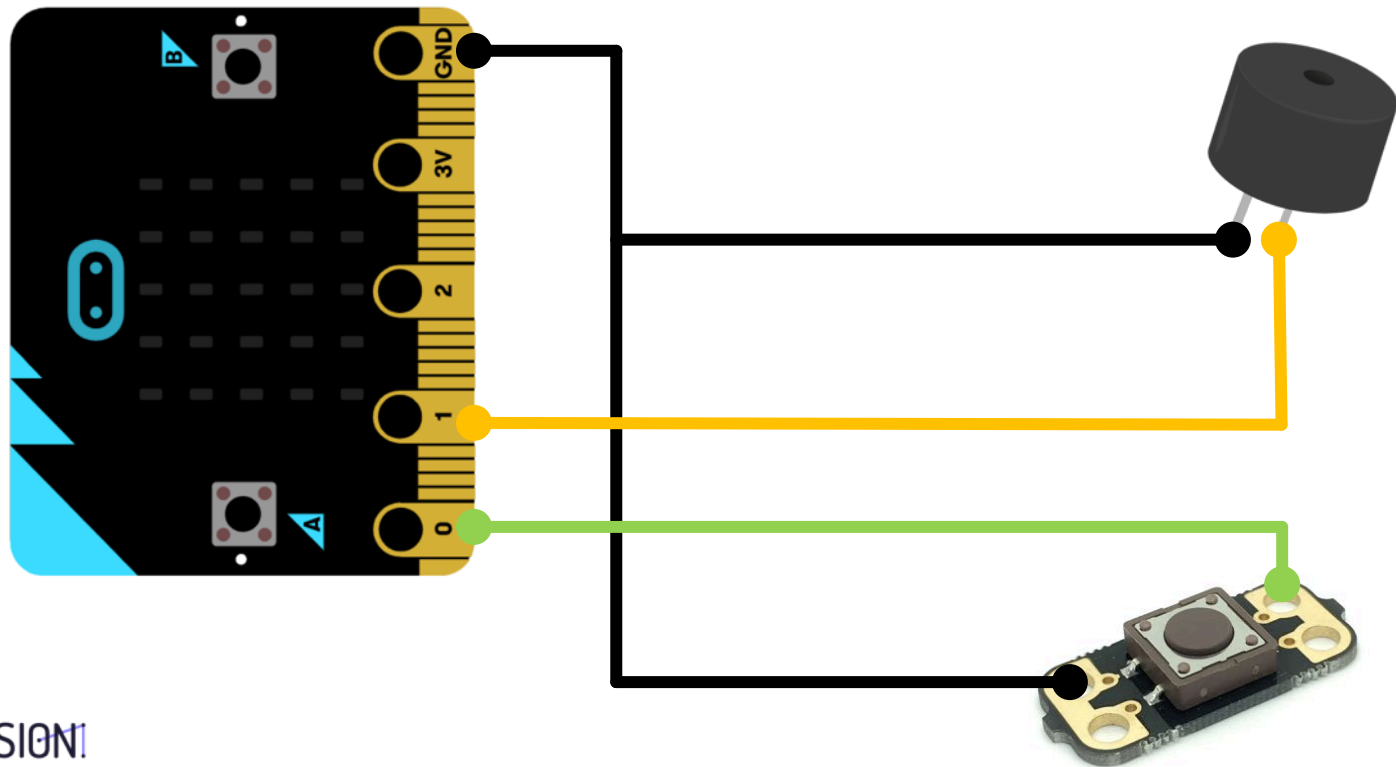
Conessioni

Buzzer passivo



Conessioni

Pulsante esterno + Buzzer



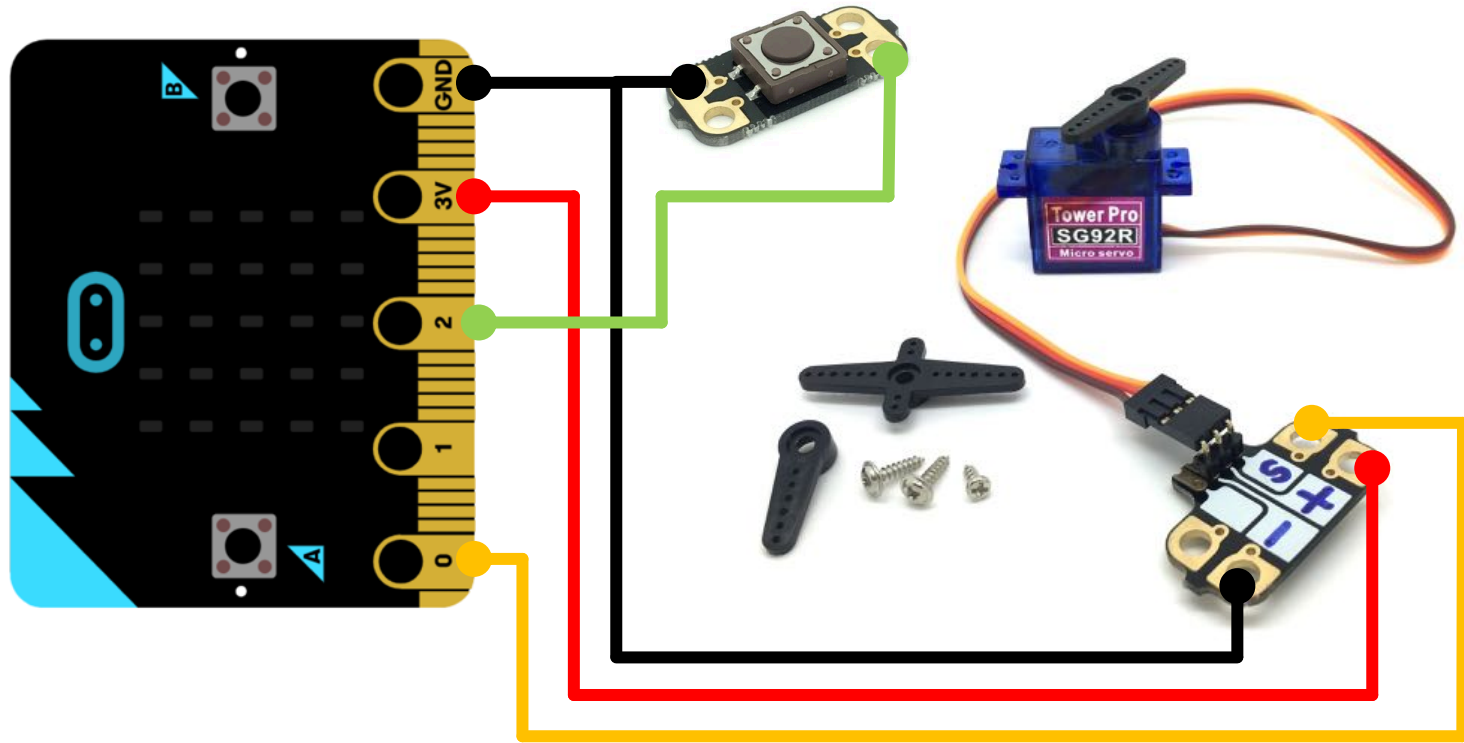
Connessioni

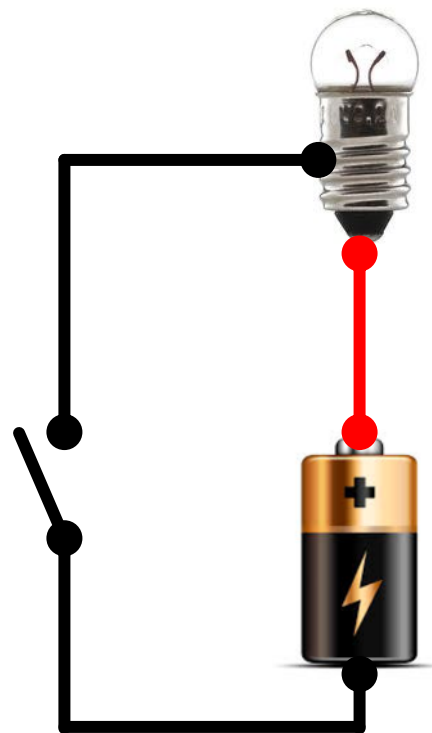
Servo



Conessioni

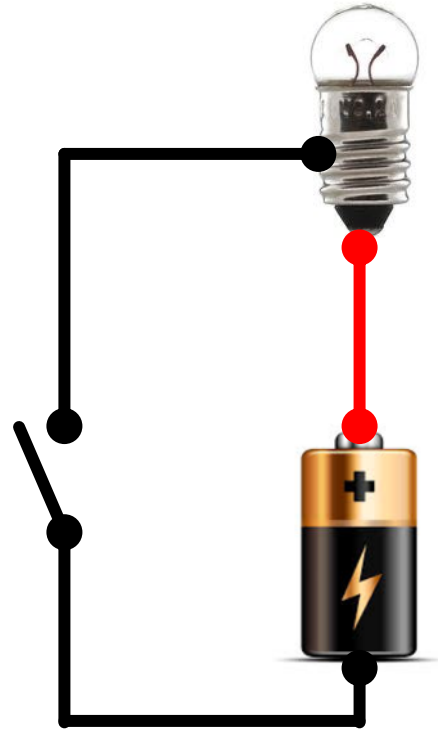
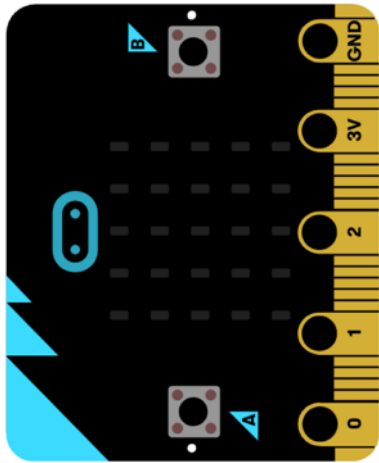
Pulsante esterno + Servo

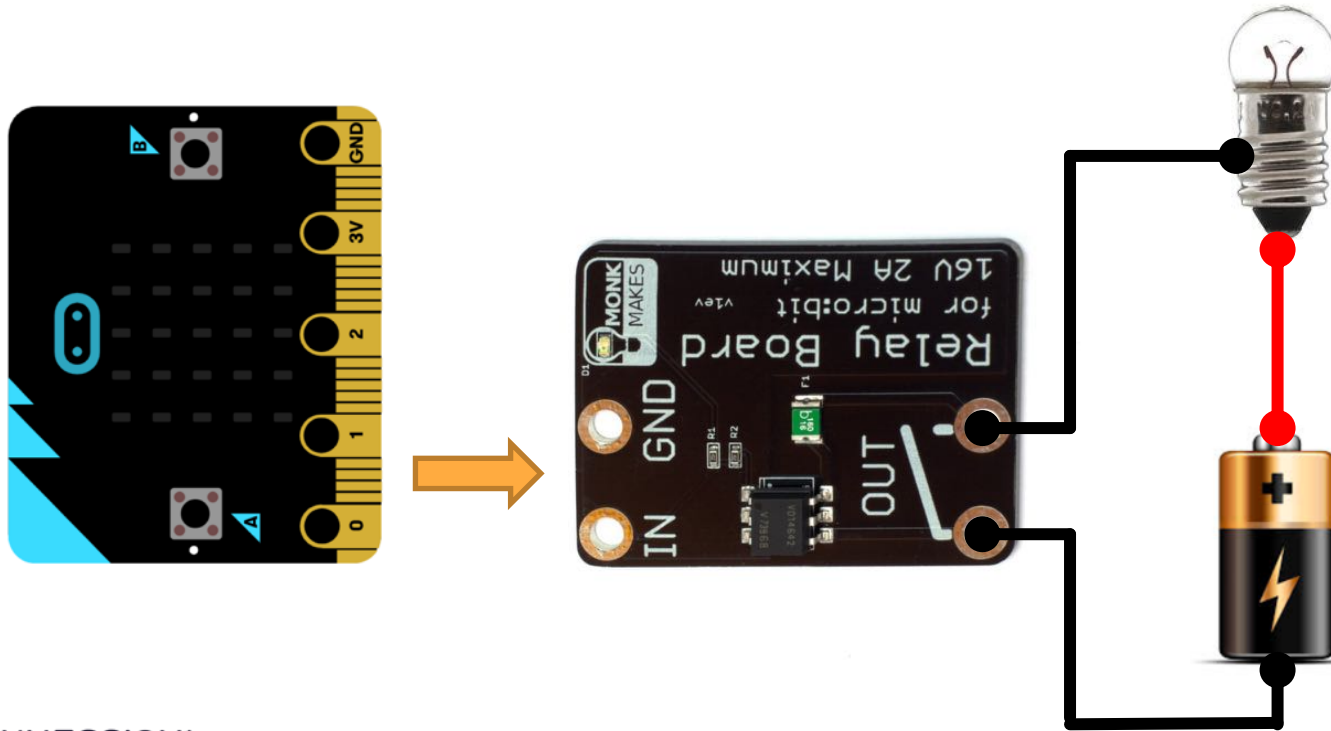


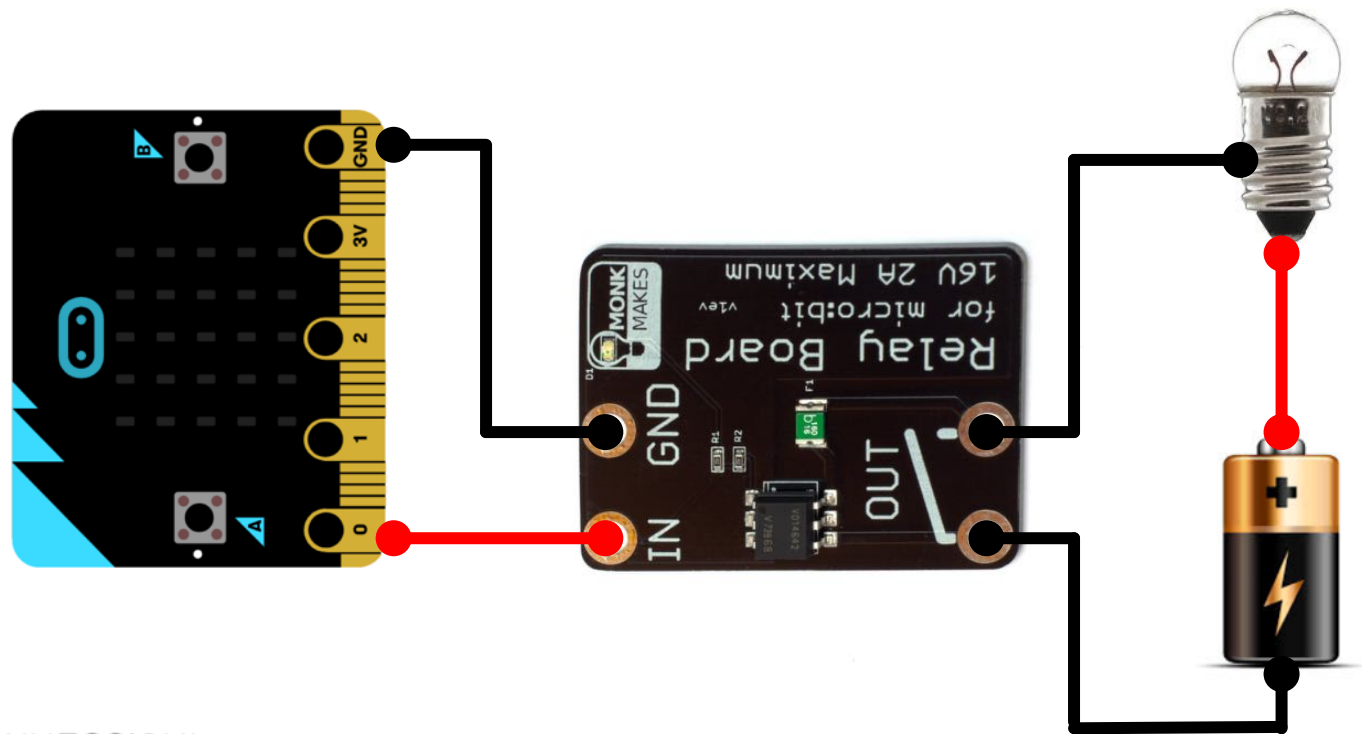


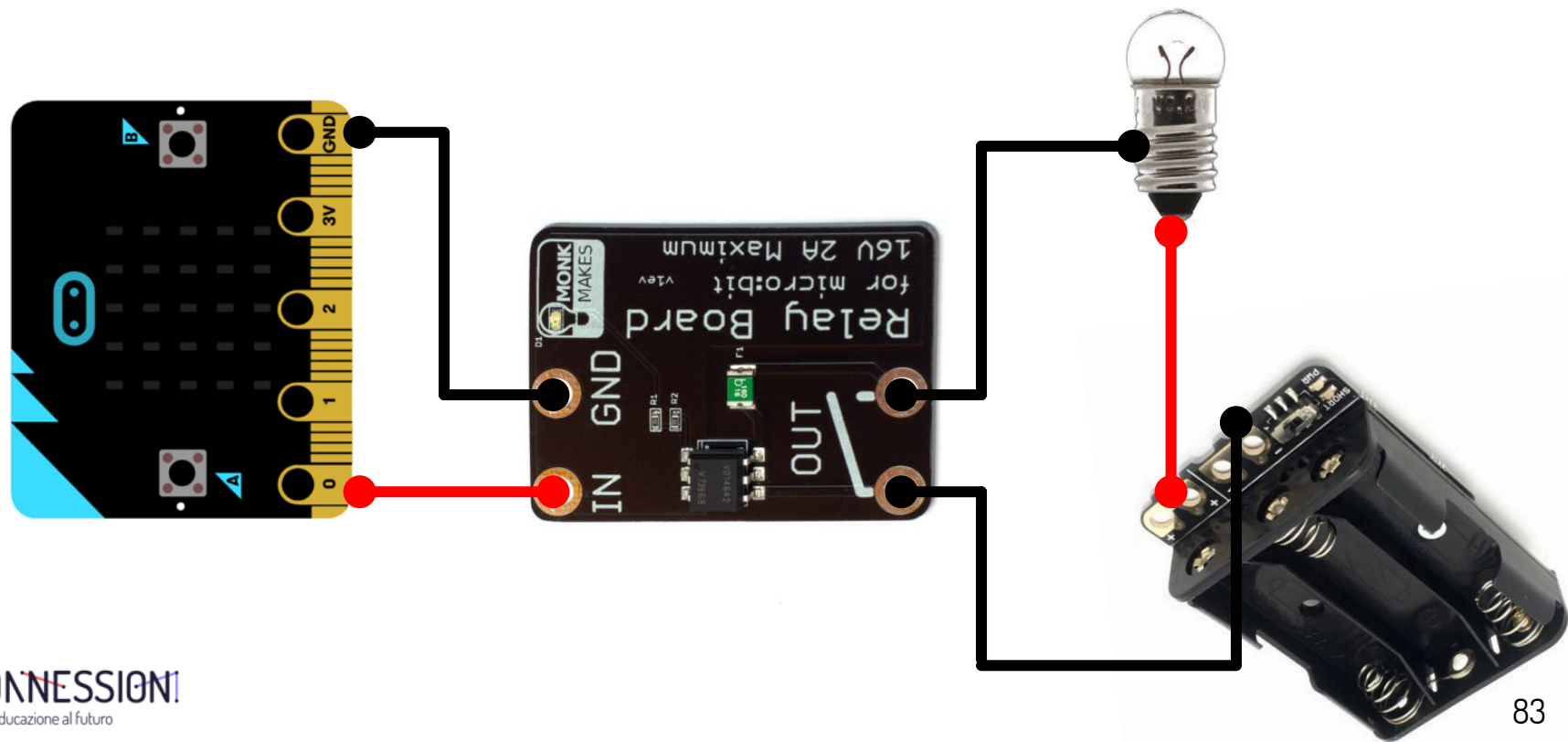
Connessioni

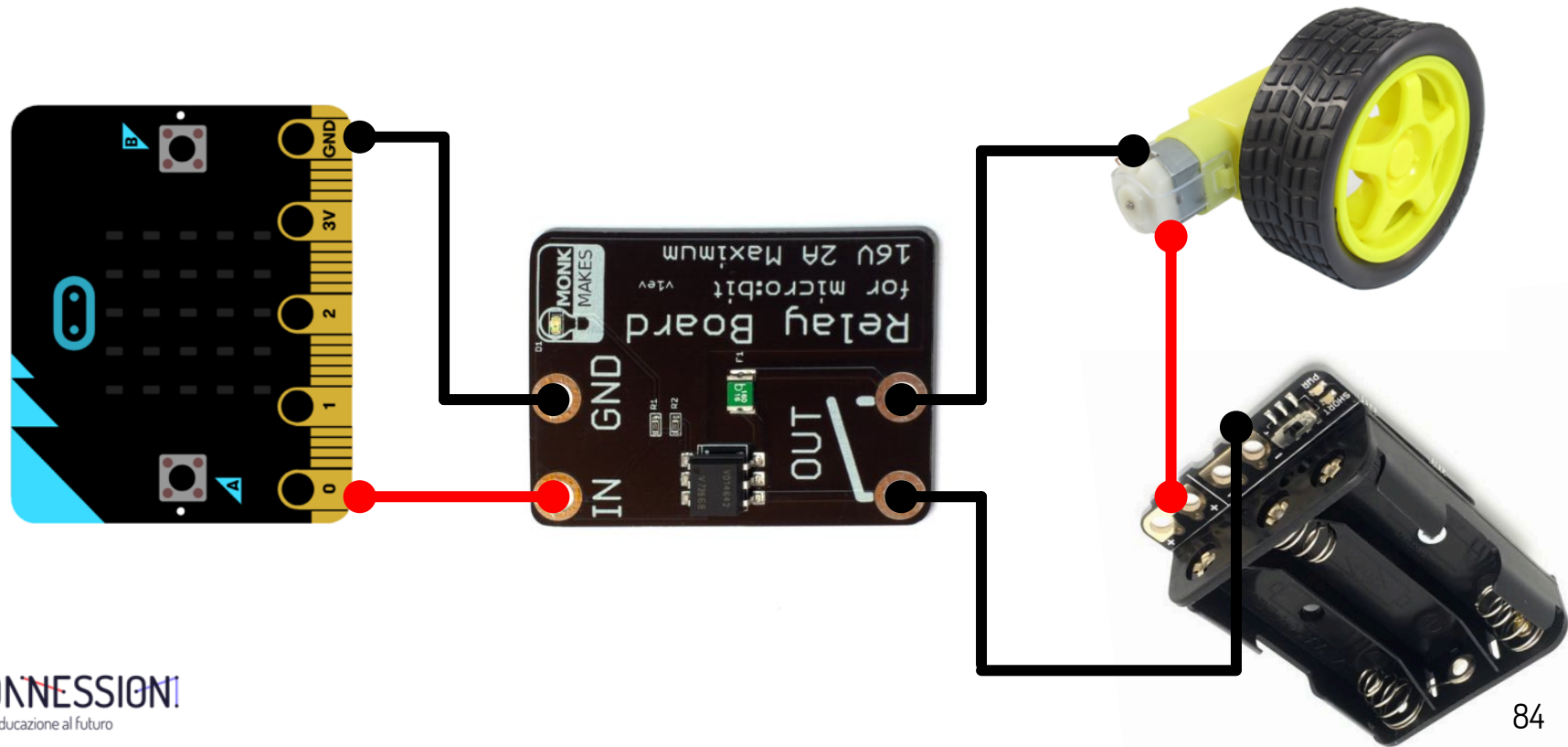
Dispositivi di potenza







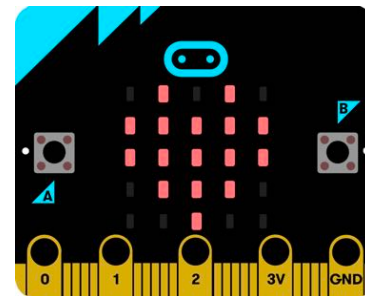
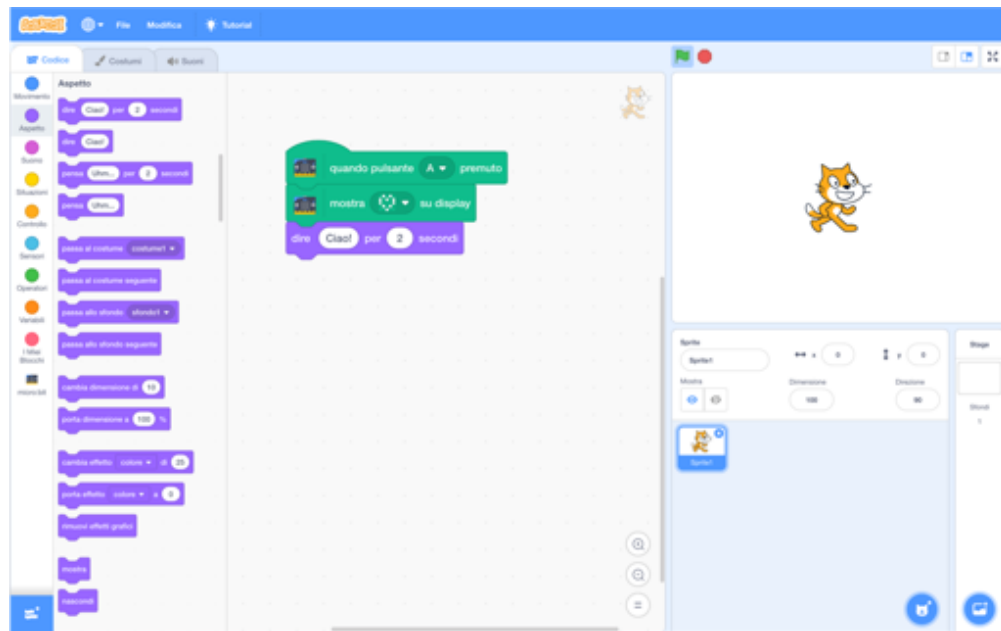




Approfondimenti

micro:bit e Scratch

Come interfacciare Scratch con micro:bit



micro:bit e Scratch

Come interfacciare Scratch con micro:bit

Cosa ti serve	Dove trovarlo
Scratch 3.0	https://scratch.mit.edu/download (offline) https://scratch.mit.edu/projects/editor/ (online)
Scratch Link	https://scratch.mit.edu/microbit
Istruzioni passo passo	https://scratch.mit.edu/microbit

Buon coding a tutti!

flavio.renga@fondazione scuola.it

www.riconessioni.it