

Macropad per tutti

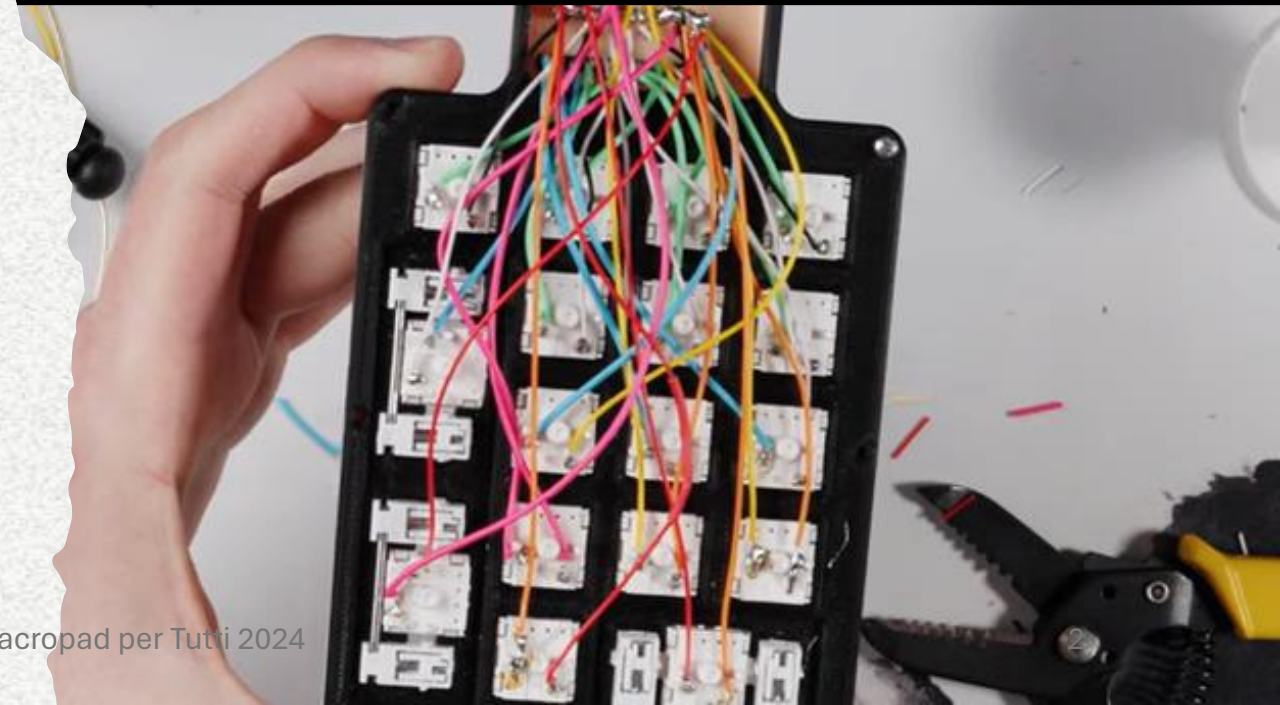
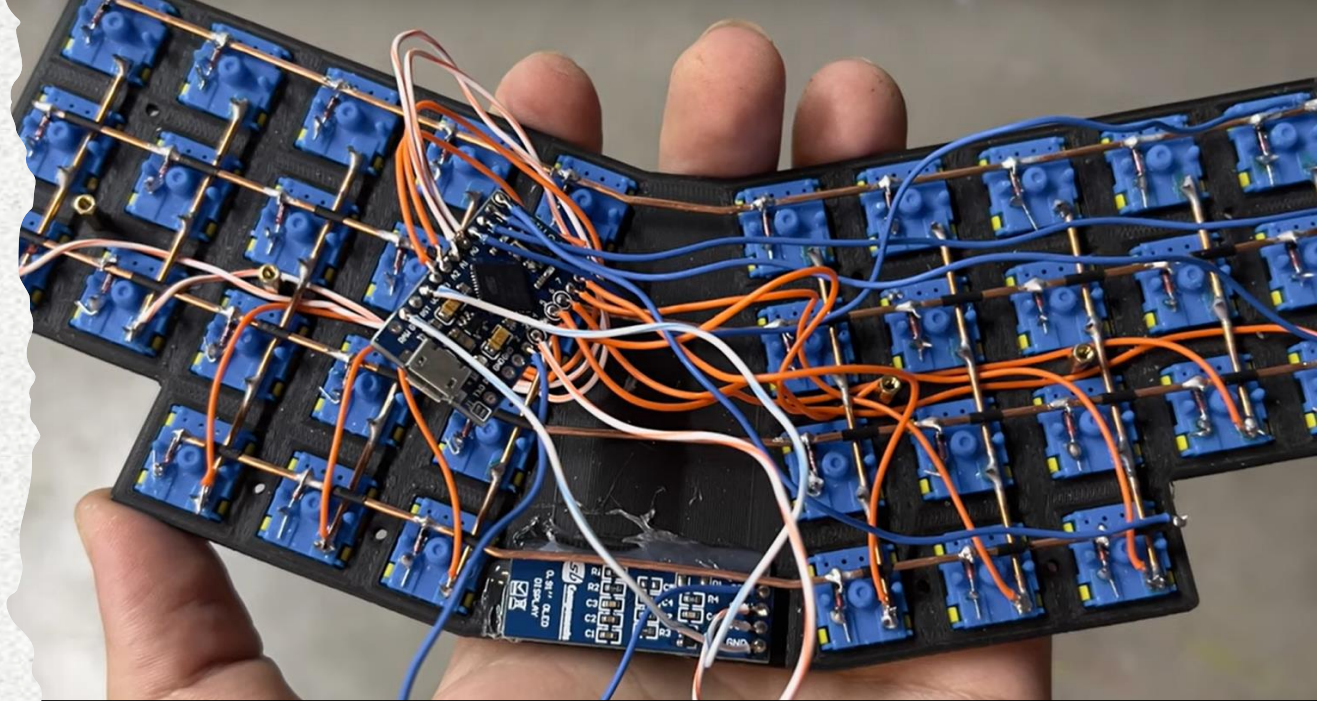


Gruppo Telegram

2024-05-15

Francesco Penasa - Macropad per Tutti 2024

KISS (keep it simple)





Ispirazioni

2024-05-15

Francesco Penasa - Macropad per Tutti 2024

Indispensabili

Microprocessore

Cavo

Qualcos'altro

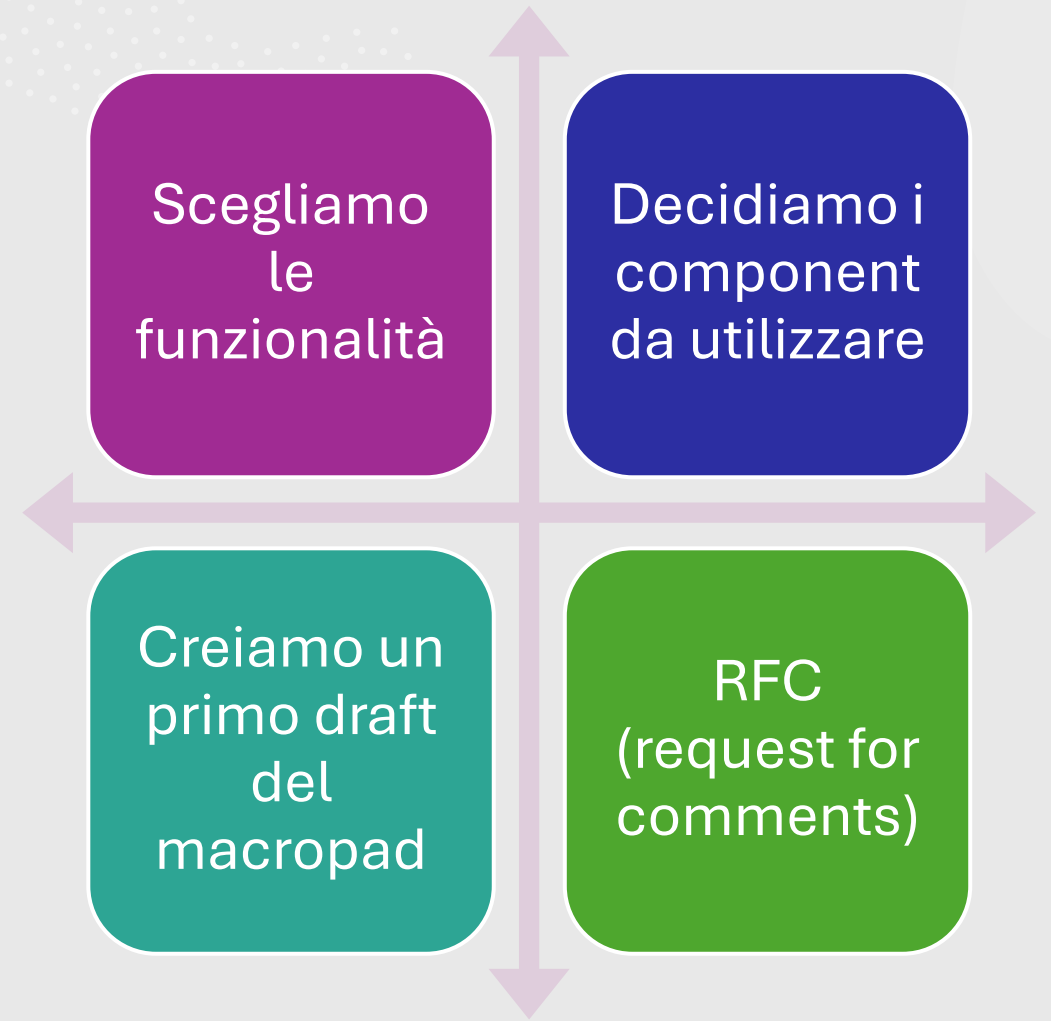
Componenti

Rotatory
encoder

Potentiometer

Key Switch

Step 1: Design e progettazione



Step 2: Disegno (Fusion 360)

Switch 14mm x 14mm

OSBF 24mm x 24mm

OSBF 30mm x 30mm

Rotatory encoder e potentiometer->
diametro 7.75mm

Potentiometer slider ->
9.2mmx75.4mm

Step 3: Stampa

Esportare il Progetto
(Fusion360)

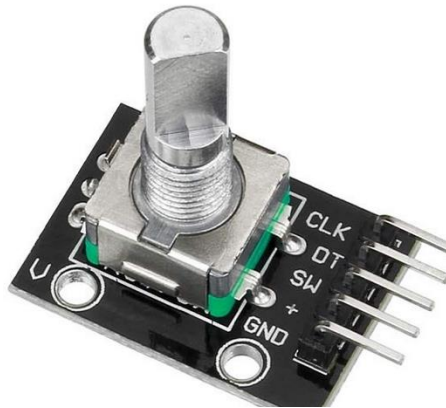
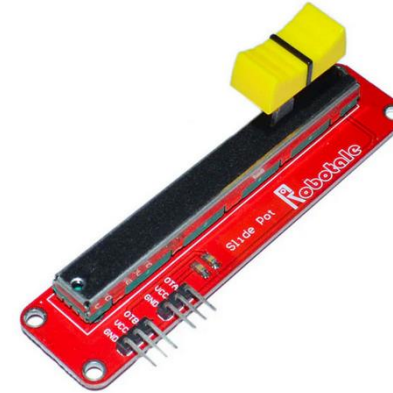
Importare il file .stl in uno
slicer (FlashForge)

Creare il file di stampa .gcode
o .gx e metterlo su chiavetta

Stampare e rimuovere con
cautela

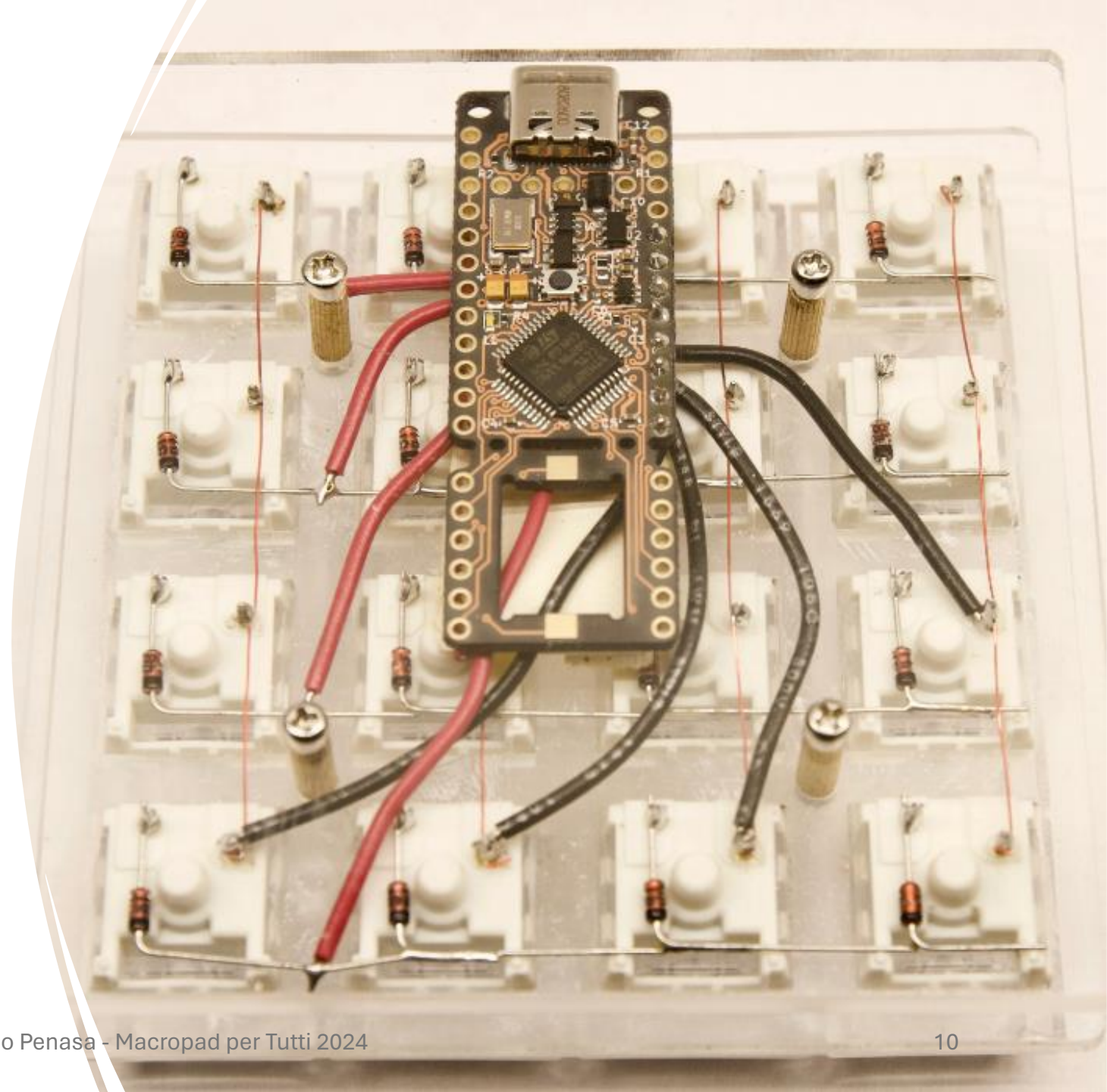
Step 4.0: shopping list

- Slider e potenziometro
- Bottoni (verdi o blue) o switch (rossi o marroni)
- Keycaps (Bianchi o neri)
- Rotary encoder



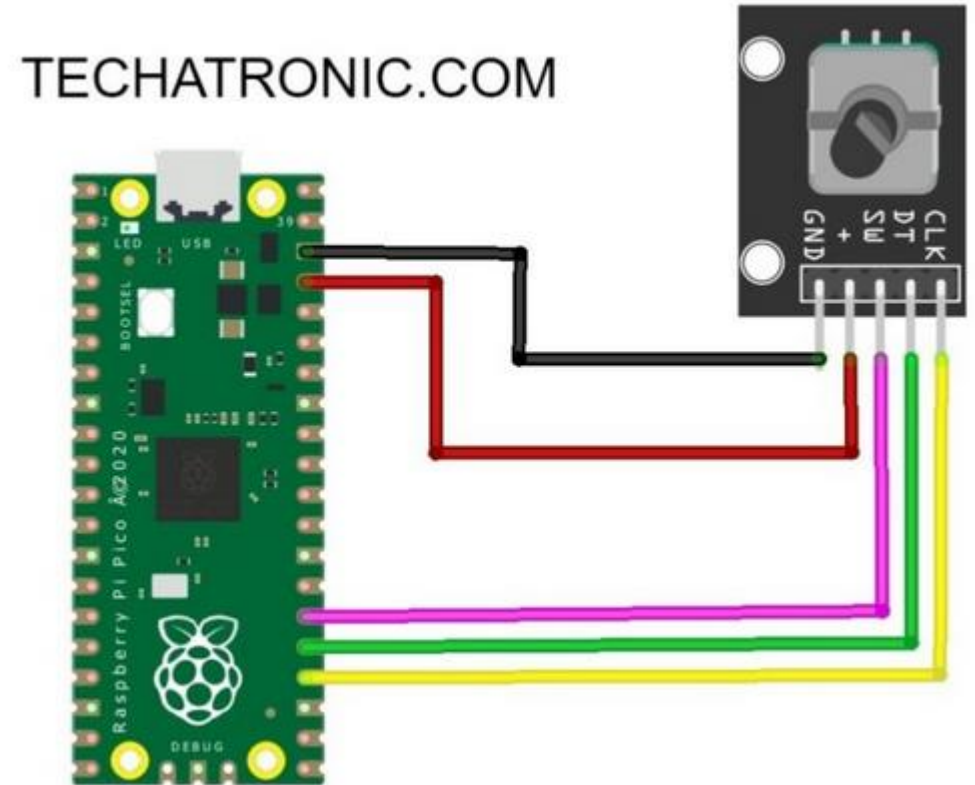
Step 4.1: buttons (switch)

- Immaginiamo i tasti in righe e colonne
- Ogni riga/colonna sono collegate ad un pin
- Su ogni riga aggiungiamo un diodo
- Usiamo il filo di rame e i cavi per collegare i tasti al microprocessore



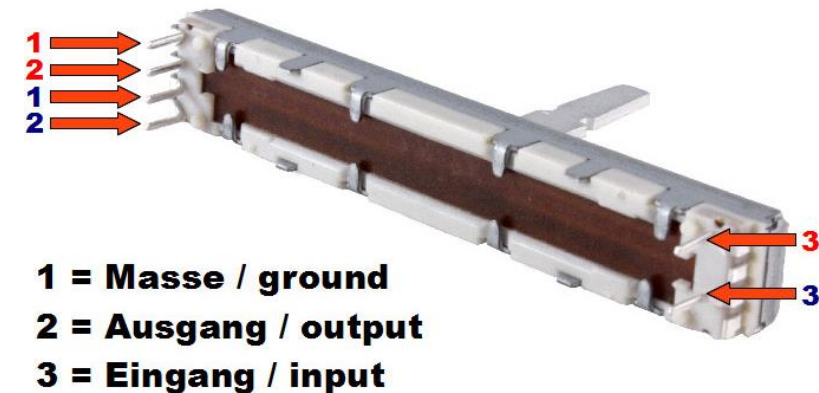
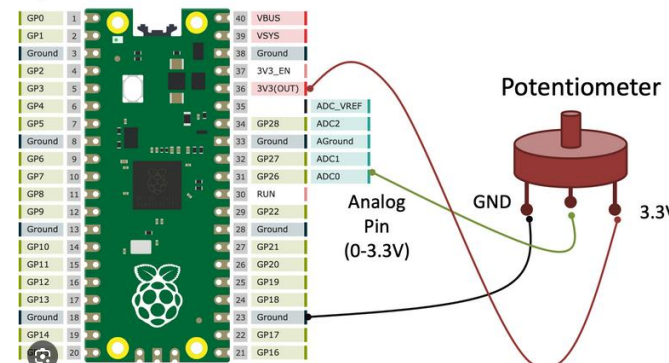
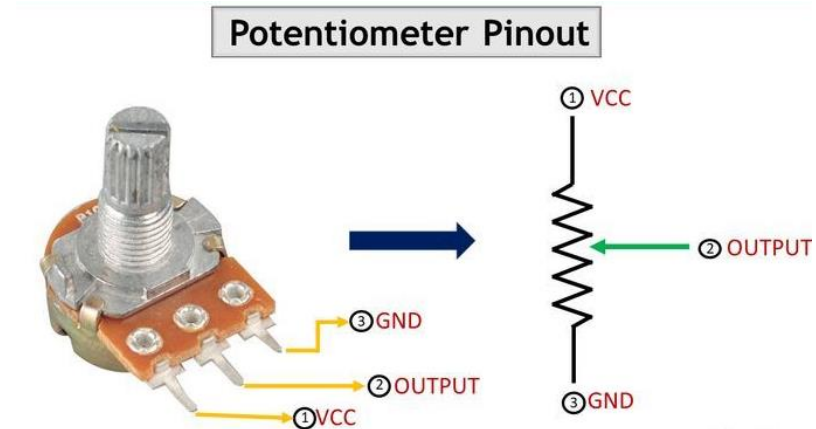
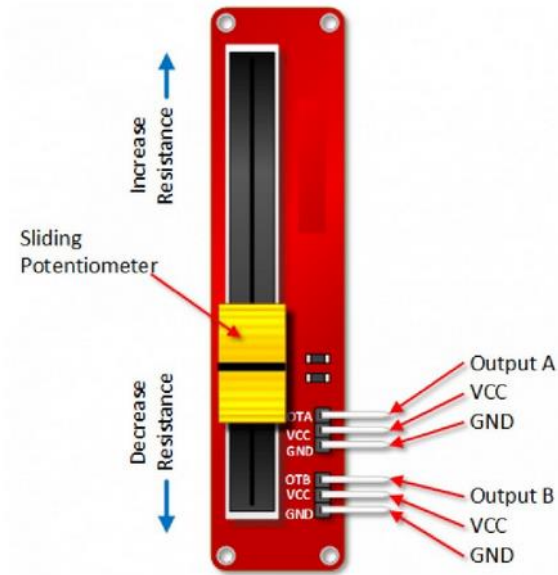
Step 4.2: encoder

- Tutti i PIN tranne 22,23,24,25,28,29
- DT e SW su n. pari e successive (es. 6 e 7; 10 e 11; 16 e 17)



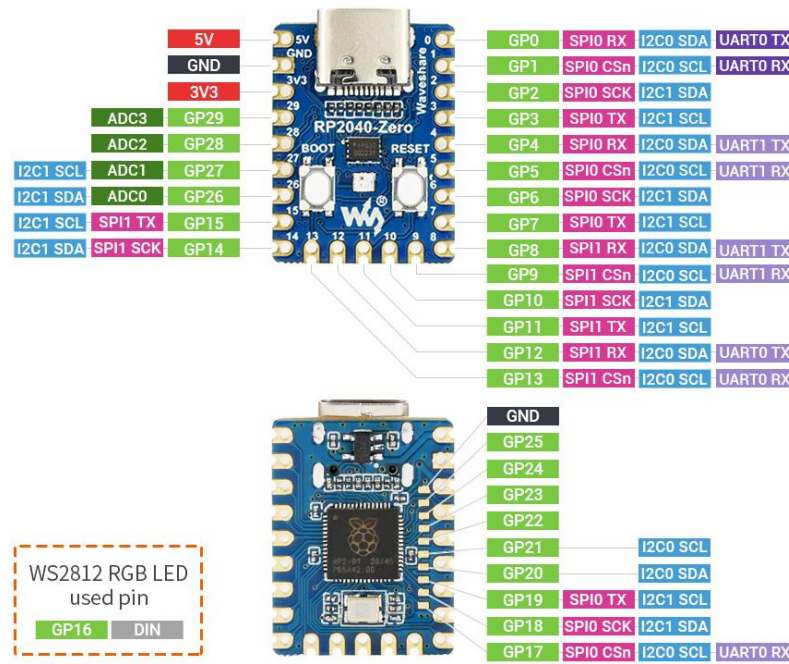
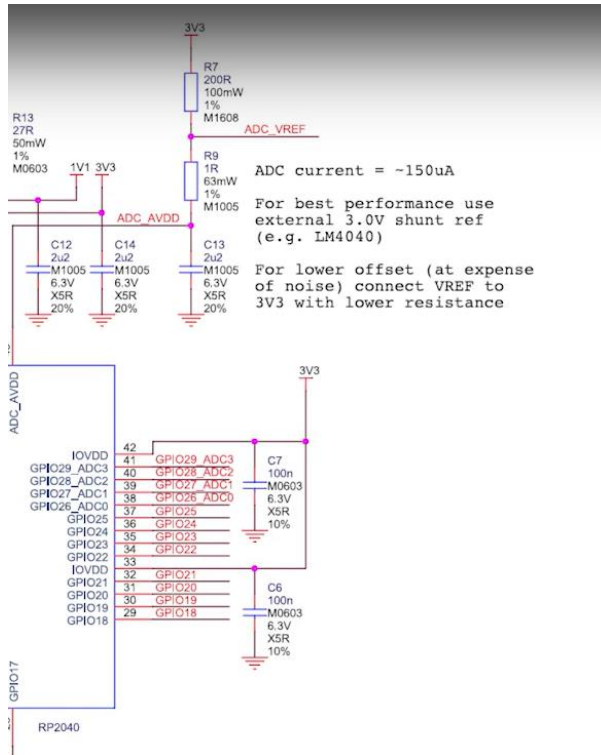
Step 4.3.1: analog potentiometer

- 1 pin a 3.3V
- 1 pin a GND
- 1 pin nei GPIO

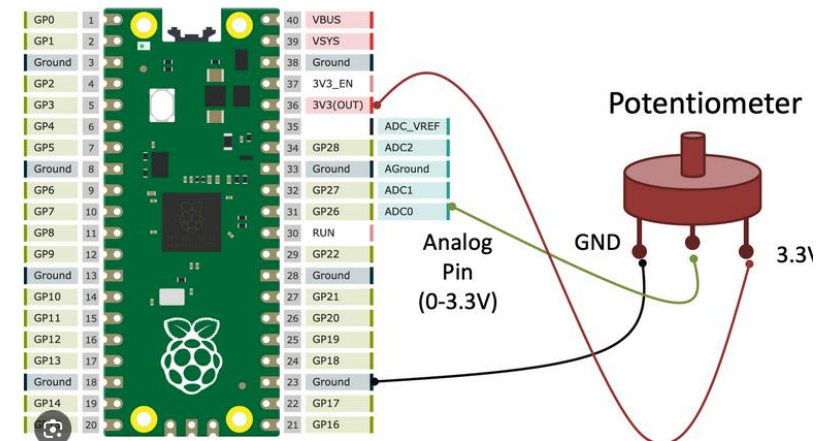


Step 4.3.2: analog potentiometer

Su RP2040
SOLO su GPIO 26-27-28-29



WS2812 RGB LED
used pin
GP16 DIN



Potentiometer

GND

Analog Pin
(0-3.3V)

3.3V

Step 5: programmazione

- <https://www.waveshare.com/rp2040-zero.htm>
- <https://kmkfw.io/> Firmware consigliato
- <https://docs.qmk.fm/#/> Firmware alternativo

