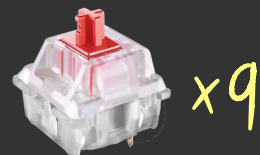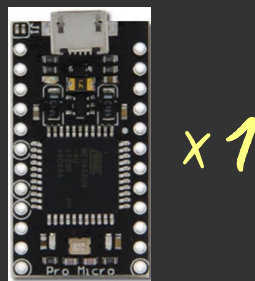# Parts List

Materials

- Arduino Pro Micro / any other 32u4 based board

- 9 cherry mix compatible switches

- rotary encoder

- 3 M3x6mm screws

- ~1.5m insulated copper wire

- 14 female DuPont connectors (optional)

- PCB header (optional)

Tools

- Soldering iron
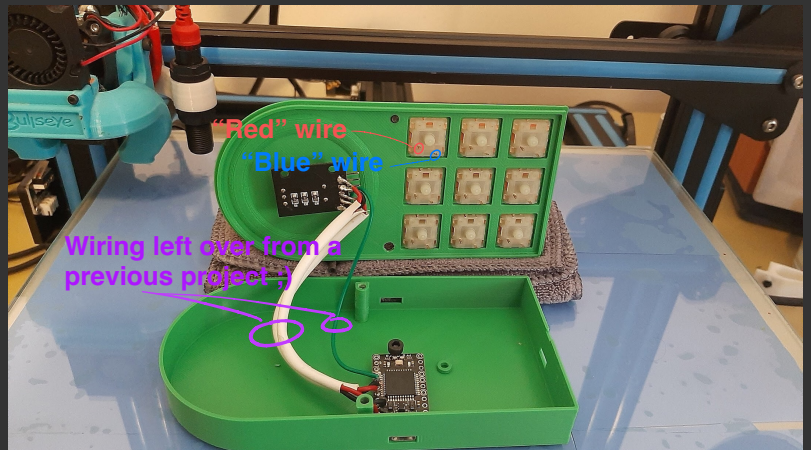
- Tin

- Wire cutter / stripper

- 3mm hex wrench

x1   x1   x9

x3   x14   x2

Optional

Assembly

1. **Assemble components:**

Insert the key switches to their holes. If they have the springy latches, you'll hear it click.

If you have switches without latches, you can glue them in place (hot glue works well and is removable, if needed)

"Red" wire
"Blue" wire
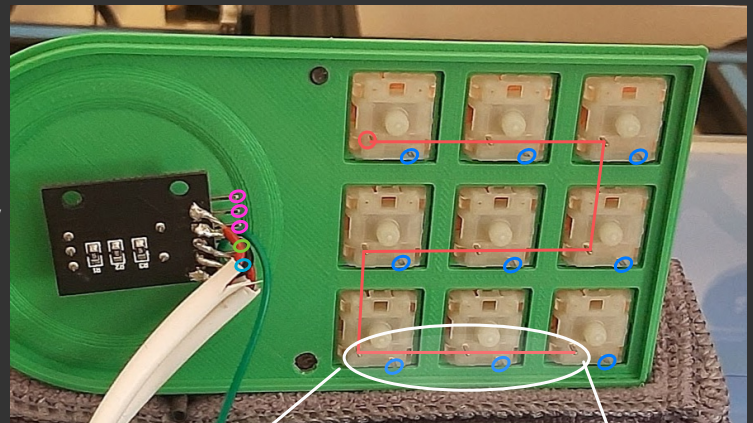Wiring left over from a previous project :)

2. **Prepare the wires:**

5 cm	x3
5 cm	x1
5 cm	x1
5 cm	x3

Color is used here just for easy reference. You can make them any color you want. (8 pieces).

2 cm	x2
10 cm	x9
10 cm	x1

Bare wire

5 cm

Cut the wires to length and strip the ends.
DuPont connectors on one end are recommended, but not necessary.

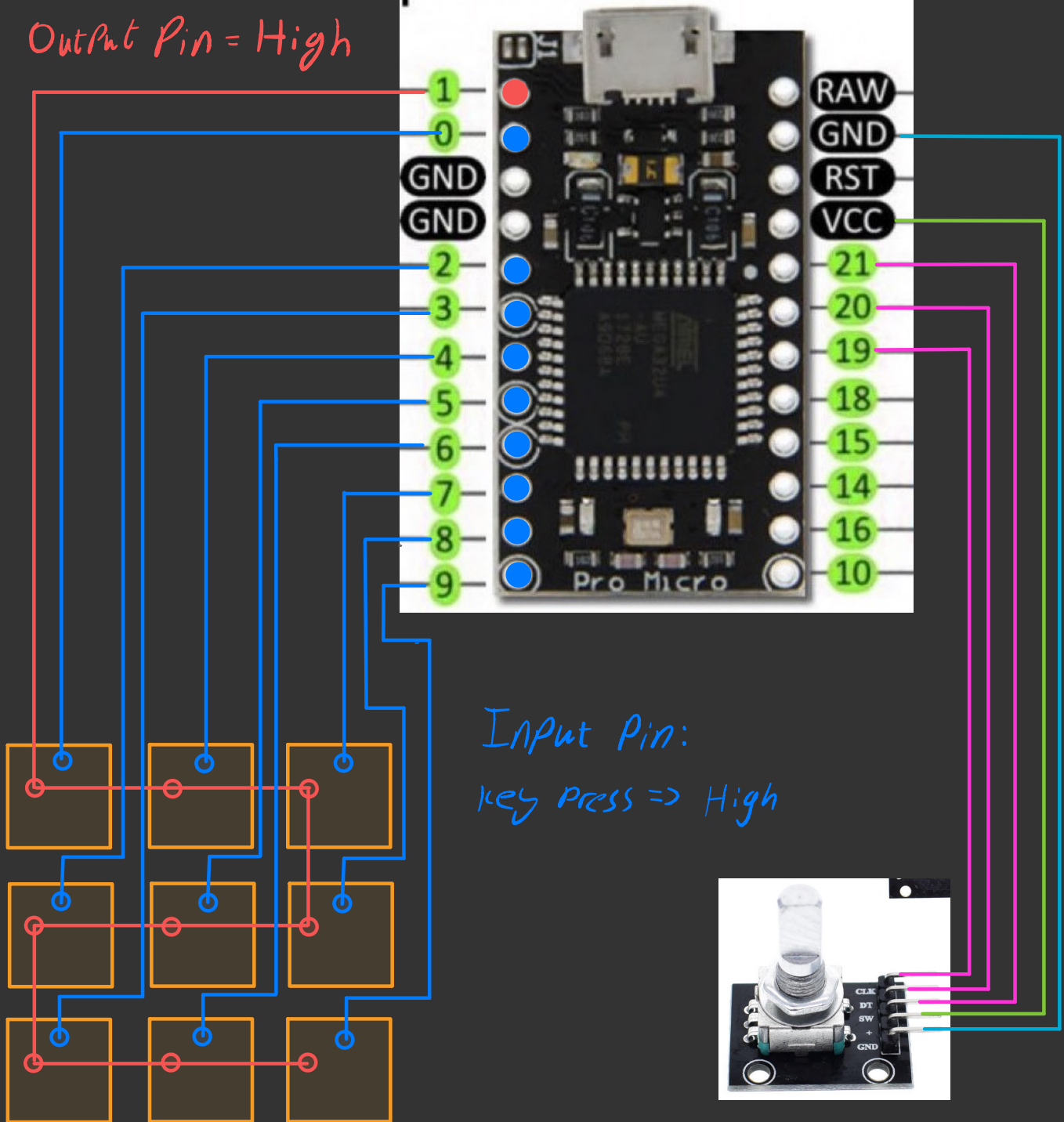* The wires for the encoder can have DuPont connectors on both ends

3. **Soldering:** Pre-tin all the bare wire ends, and the pins on the switches. This will help soldering them, because the are pretty small.

If you opted for the DuPont connectors, now is a good time to solder them to the Arduino board.

Now solder everything according to the diagram in the other page.

Soldering Instructions

Output Pin = High

1	RAW
0	GND
GND	RST
GND	VCC
2	21
3	20
4	19
5	18
6	15
7	14
8	16
9	10

Pro Micro

Input Pin:
key press => High

cherry mx switches

- Wire the inputs any way you want. Just remember which key goes to which pin! I used DuPont connectors, but it's a tight fit.

- All the red pins on the switches are connected to each other.