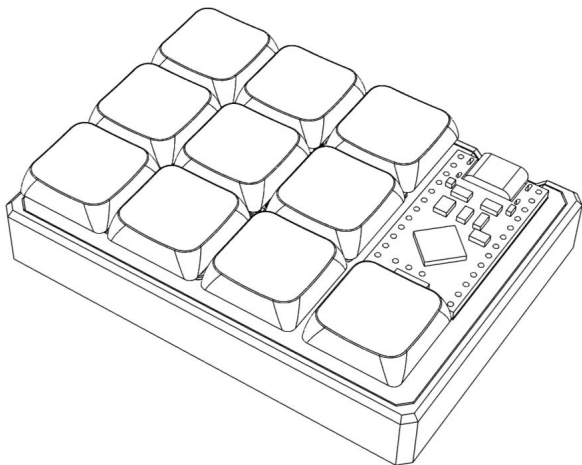# Iskra Numpad

Guide and user manual

Features

Iskra is a compact 10-key numpad with a footprint of **82 × 60 mm** and a total height of just **22 mm**.

It uses low-profile **Kailh Choc switches**, powered by a **Pro Micro nRF52840 (nice!nano v2 clone)** and supports both wired and Bluetooth operation.

It's designed primarily for **wired use over USB-C**, but when powered from a PC or power bank it can also function as a **Bluetooth numpad**.

The firmware is based on **ZMK** and is fully open source. Iskra supports **ZMK Studio**, allowing users to customize keymaps without manual compilation.

The design is fully **hand-wired and open source**, making it easy to build, modify, and adapt.
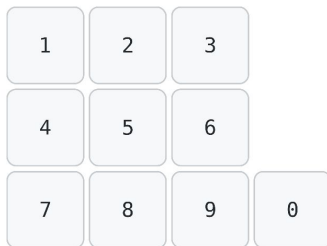
Layout

Base layer: standard numpad layout.

Base:

1	2	3
4	5	6
7	8	9	0

Bluetooth layer: Bluetooth control keys and six blank keys for user customization.

Bluetooth:

▽	▽	▽	
▽	▽	▽	
BT 1	BT 2	BT 3	BT CLR

Layer 3: preconfigured shortcuts

- previous, play/pause, next
- Ctrl+C, Ctrl+V, Ctrl+X
- Arrow keys.

Layer 3:

PREV	PLAY PAUSE	NEXT	
Ctl+C	Ctl+V	Ctl+X	
LEFT	UP	DOWN	RIGHT
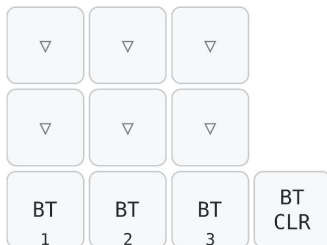
Combos

Combo for base layer
Press top three keys at the same time

Combo for Bluetooth layer
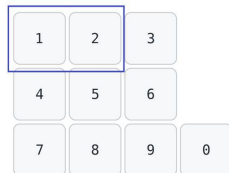Press middle three keys at the same time

Combo for Third layer
Press top bottom keys at the same time

Combo for ZMK studio unlock
Press top two keys at the same time

How to use bluetooth

1. Connect Iskra to the power (PC or powerbank)
2. Use combo to go to Bluetooth layer (three middle keys at the same time)
3. Press a key to select BT profile (you have 3 profiles to choose, you can add separate device to each profile)
4. Connect to the numpad via bluetooth, the name is "Iskra Numpad"

The numpad will be accessible on that bluetooth profile, if you want to use it on other device, change the profile

For example, PC is on BT1 and Phone is on BT2 Press BT Clear to "forget" and clear current profile

ZMK studio and customization

- Use the zmk studio either via web on https://zmk.studio/ or download their firmware https://zmk.studio/download/
- Connect Iskra Numpad to the computer and select the numpad in the Studio
- Press ZMK studio unlock combo (numpad key 1 and 2)
- Edit and customize any key, but don't change the bluetooth keys (you can change where they are, but don't remove them or you won't be able to use bluetooth)
- Press save and exit