

Justharmonicon is a two-track sequencer driven by four independent rhythm sections. Each sequence sets the pitch of two oscillators and their corresponding sub-oscillators. The principal and feature-set of the script is borrowed from a synthesizer of a similar name. Not a 100% clone, but close. If something is unclear, please post your questions on lines in the justharmonicon thread. Enjoy!

Requirements:

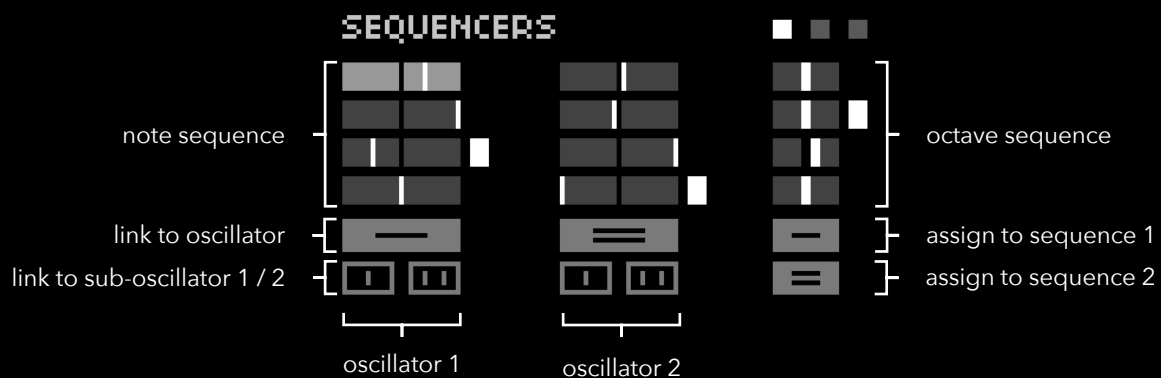
- ▷ Norns
- ▷ Crow
- ▷ Just Friends

NORNS INTERFACE:

Justharmonicon has three pages: **SEQUENCERS**, **POLYRHYTHM**, **OSCILLATORS**. Turn **ENC1** to navigate between pages.

SEQUENCERS:

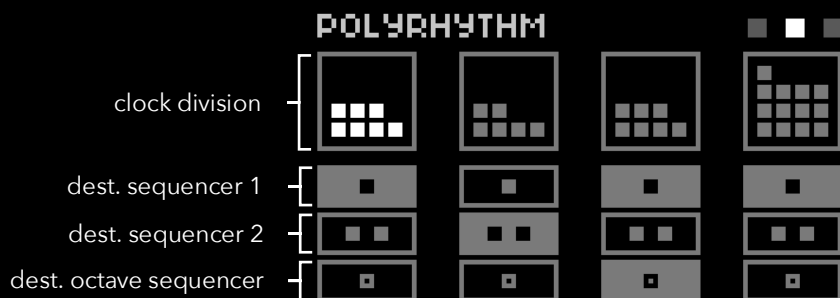
The **SEQUENCERS** page displays three 4-step-sequencers [oscillator 1 / oscillator 2 / octaves] as well as the oscillator links / octave assignments. If a sequencer is linked to its oscillator the pitch of the oscillator will change accordingly (if unlinked, it will play the root note). If a sequencer is linked to its sub-oscillator(s) the subdivision will be scaled inverse to the note pitch. If the octave track is assigned to a sequencer track, the note will be transposed by the specified number of octaves (+/- 3).



- ▶ Use **K2** and **K3** to navigate between the sequencers.
- ▶ Hold **K1** and press **K2** to start **POLYRHYTHM** section. If no polyrhythm is assigned to a sequencer the play head of the sequencer will not advance and no notes will be played.
- ▶ Hold **K1** and press **K3** to trigger the oscillators at the current step.
- ▶ Turn **ENC2** to select a sequencer **step** or **oscillator link / octave assignment**.
- ▶ Turn **ENC3** to change the value:
 - ▷ If a sequence **step** is selected the note value is changed.
 - ▷ If an **oscillator link / octave assignment** is selected it will be toggled on/off.

POLYRHYTHM:

The **POLYRHYTHM** page consists of four pulse generators that emit trigger pulses according to their clock subdivision. The pulse generators always follow norms system clock. However, under params there is a global setting to subdivide the system clock which drives the **POLYRHYTHM** section. Each of the four pulse generators can be assigned to any of the three sequencers described in the **SEQUENCERS** section. Each pulse generator can trigger an AD envelope, which is sent through the corresponding crow output (*go to parameters → rhythm*).



- ▶ Use **K2** and **K3** to navigate between the pulse generators.
- ▶ Hold **K1** and press **K2** to start **POLYRHYTHM** section. If no polyrhythm is assigned to a sequencer the play head of the sequencer will not advance and no notes will be played.
- ▶ Hold **K1** and press **K3** to reset the counter.
- ▶ Turn **ENC 2** to select the **clock division** settings or **sequencer destinations**.
- ▶ Turn **ENC 3** to change the value:
 - ▷ If **clock division** is selected the clock subdivision of the selected pulse generator is changed.
 - ▷ If a **sequencer destination** is selected it will be toggled on/off.

OSCILLATORS:

The **OSCILLATORS** page is home to the two primary oscillators and their two sub-oscillators. Use **ENC2** to select the corresponding oscillator/ sub oscillator and **ENC3** to change the value. Hold **K1** and use **ENC3** to set the levels of the oscillators / sub oscillators. **K2** triggers the sound of oscillator 1 and **K3** of oscillator 2.

