

PM Presets – PM Sequencer 4

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Overview

This step sequencer is rather complex and shows a way to generative music. It's heart consists of three chained *P.moon* Steppers with different numbers of steps. Key tracking is possible.





Functional Sections

Clock Generator

A *Voltage MINI LFO* gives the heart beat. It's square signal is not direct input to *CLOCK DIVIDERS*. A *P.moon Pulser* forms short pulses of it in order to get divided frequencies with equal phases.

“Transport Control”

P.moon Buttons 2/1 module lets you reset *LFO*, *CLOCK DIVIDERS* and *Steppers* with one click onto button 2. Toggle button 3 works as *PLAY* switch.

Tone Frequency

A set of seven *Voltage DC Sources* is adjusted to obtain 14 half tones. Not all outputs are used in this setup.

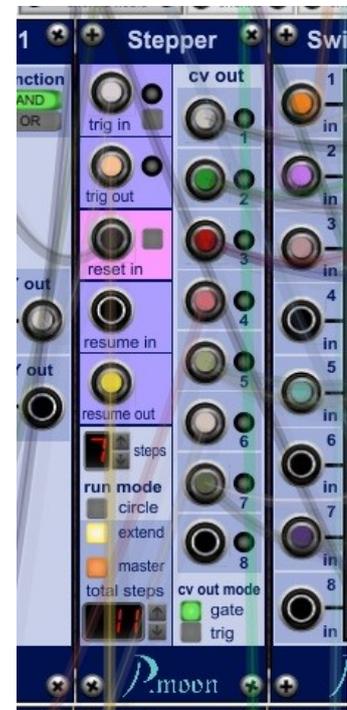
Step Generator

In this setup three cooperating *P.moon Steppers* are running in “extended mode”.

Stepper #1 (in 2nd bay) is configured as “master”. That means that additionally to the number of it's steps (7) the total step number of Stepper's chain (11) has to be defined.

Stepper #3 (in 4th bay) serves as regular chained slave stepper with 4 steps. It gets it's “trig in” and “resume in” signals from Stepper #1.

While Steppers #1 and #3 play $\frac{1}{4}$ notes, Stepper #2 (in 3rd bay) is included in a special way in order to obtain some $\frac{1}{8}$ notes. Therefore it gets double speed “trig in” pulses from first *Cherry Clock Divider* via a *P.moon Logic 8 to 1* device. Another *Logic 8 to 1* forms the “resume in” signal. So Stepper #2 runs twice, at steps 4 and 6 of Stepper chain.



KEYB signal

As in the above described setups, the steppers control the selection of CV by means of *Switch 8 to 1* devices. A further *Switch 8 to 1* is used to collect their three CV outputs to one signal, that is usable as oscillator's KEYB IN.



Sound variation

“Resume out” of Stepper #3 gets active, when all steps are done and next trig in pulse arrives. This signal marks the beginning of next step cycle and is used to add a third oscillator at every 2nd, 4th, 6th ... cycle.

Example preset: [PM Sequencer 4.voltagepreset](#)