

# PM Setups – 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.

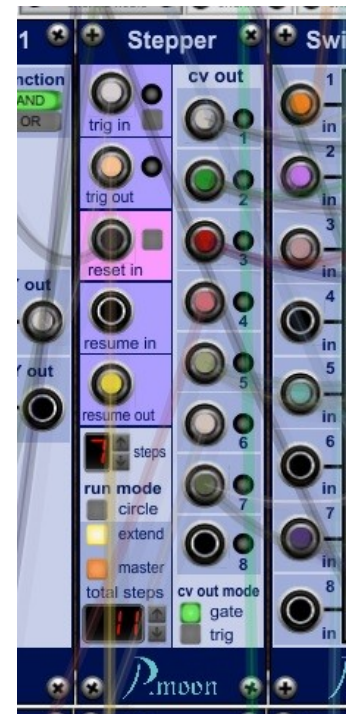
### Step Generator

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

**Stepper #1** (in 2<sup>nd</sup> 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 4<sup>th</sup> 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 3<sup>rd</sup> 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 2<sup>nd</sup>, 4<sup>th</sup>, 6<sup>th</sup> ... cycle.

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