

Moog — Subharmonicon

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[Moog Subharmonicon User Manual \(PDF\)](#)

Creative Eurorack Patching Ideas

Using the Moog Subharmonicon with Modular Synthesizers

The **Moog Subharmonicon** is a unique analog polyrhythmic semi-modular synthesizer, excelling in generating subharmonic undertones and intricate polyrhythms. Its extensive patchbay (32 points: 17 ins/15 outs, CV/audio-compatible) opens broad creative potential in a Eurorack system. Below are ways to leverage its features with other modules—specific and generic—plus patch ideas for expanding its sonic territory.

1. Expand Subharmonic Voices

Patch Idea:

- Take VCO 1/2 or SUB 1/2 audio outputs and route them to external waveshapers (e.g., [Intellijel Bifold](#) or [WMD Geiger Counter](#)).
- Use the individual outs to feed external filters—parallel them with the Subharmonicon's filter for “multi-filter” timbres (e.g., [Make Noise QPAS](#)).

Benefit:

Layer subharmonics with different textures, stereo positions, or process just subs for massive growls, percussive depths, or evolving spectral composites.

2. Polyrhythmic Control Over Other Modules

Patch Idea:

- Use SEQ 1 CLK and SEQ 2 CLK outputs to clock external sequencers ([Mutable Instruments Marbles](#) or [Pamela's Pro Workout](#) for extra modulation/rhythm layers).
- Send CLOCK OUT (or polyrhythmic triggers) to drum modules (e.g., [2hp Kick/Snare](#), [Jomox ModBase](#)) or sample players.

Benefit:

Build layered, evolving polyrhythmic patterns—Subharmonicon can “drive” the pulse and/or complex groove logic of your whole system.

3. Intricate CV Cross-Patching & Logic

Patch Idea:

- Self-patch CV outs (e.g., SEQ, EG, or clock) to rhythm CV ins to create generative rhythmic movement.
- Send VCA EG or VCF EG OUT to modulate parameters in other modules, such as Morphagene's Morph CV or FX parameters in [Tiptop Z-DSP](#).
- Take external gate logic (e.g., XOR from a [Doepfer A-166-2](#)) to the PLAY or RESET input—Subharmonicon as a polyrhythmic performer, modulated by evolving patch logic.

Benefit:

Interconnective generative-patch techniques make your Subharmonicon a modular heart of an evolving composition or live system.

4. External Modulation & Randomness

Patch Idea:

- Patch LFOs/S&H/random CVs (e.g., [Make Noise Maths](#), [Mutable Tides](#)) to VCO or subharmonic CV ins for unconventional microtonal or fluctuating undertone divisions.
- Use complex envelopes or DAW-controlled CV sequencers (cv.OCD, Expert Sleepers modules) to “play” Subharmonicon’s parameters in sync with external systems.

Benefit:

Infuse organic expressions—wobbly rhythms, generative tuning shifts, controlled chaos—blurring the line between “melody” and “modulation.”

5. Eurorack Integration as a Sequencer/Modulator

Patch Idea:

- Use SEQ outputs to modulate oscillator pitch, filter cutoff, or effect depth in entirely different modules (e.g., send SEQ 1 OUT to the DPO’s 1V/oct in and SEQ 2 OUT to a quantizer and then LPG).
- Use MIDI input (with a Type A 3.5mm adapter) to clock/gate Subharmonicon, synchronized with DAW or other MIDI hardware—expand Subharmonicon’s role as a part of a hybrid setup.

Benefit:

Subharmonicon is not just a sound source but an expressive polyrhythmic CV/gate generator, integrating with broader modular or hybrid environments.

6. Stereo and Spatial Experimentation

Patch Idea:

- Process each oscillator output through stereo effect modules ([Happy Nerding FX Aid XL](#), [Strymon Magneto](#)), then send their returns to a stereo mixer ([Intellijel Mixup](#)).
- Pan separate VCO and Sub outputs, automate pans via external VCAs—add motion to your polyrhythms.

Benefit:

Transform Subharmonicon's rich harmonic output into huge, moving, spacious sound textures for immersive performances or recordings.

7. Feedback, Self-Patching & Harmonic Chaos

Patch Idea:

- Patch filter or envelope outs back into frequency/division/rhythm CV ins (carefully!), or externally loop audio through wavefolder, comp, or ring mod modules then back into Subharmonicon's audio path.
- Use external fixed filter banks ([Doepfer A-128](#)) to sculpt subharmonic content for unique spectral drones.

Benefit:

Push the boundaries into chaos, rich noise, harmonics, and generative soundscapes—tap into the Subharmonicon's semi-modular roots!

Module Recommendations for Synergy

- **Effect Processing:** Strymon Magneto, Mimeophon, FX Aid, Clouds, Z-DSP

- **Rhythm & Logic:** Pamela's Pro Workout, A-166-2, Mutable Grids or Marbles, Erica Pico Seq
 - **Utility CV:** Maths, Quad VCA (Intellijel, Doepfer A-135-2), VCAs, Attenuverters
 - **Randomness:** Turing Machine, Wogglebug, Marbles, Ornament & Crime ("CopierMaschine" mode)
 - **Wave Shaping:** Serge Wave Multipliers, Bifold, Doepfer A-137-2
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Let the Subharmonicon become a living, breathing part of your modular system—its rhythmic and harmonic "logic" as much a generator of melody as of evolving, multifaceted control voltages, audio textures, and system-wide interaction.

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