

# Sound Machines – Modulor 114

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- [Manual PDF](#)
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## Creative Sound Design with the MODULÖR114 Eurorack Synth

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The MODULÖR114 from soundmachines is a highly integrated eurorack-compatible analog modular synthesizer, packed with classic and unconventional modules—perfect for both bread-and-butter and experimental sound design. Let's dive into modulation techniques for creating **distorted percussive hits**, **aggressive basslines**, and **haunting atmospheric pads**.

### 1. Distorted Percussive Sounds

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#### Key Modules:

- VCO1 (with noise sources) - VCF (self-resonant) - VCA (soft saturation) - ENV (ADSR) - S&H (Sample & Hold) - FX (digital effects)

#### Patch Concept:

- **Noise/Impulse Percussion:**
  - Patch WHITE or PINK noise from VCO1 to the VCF input.
  - Envelope the noise with ENV → VCA.
  - Use the S&H output, triggered by an LFO or CLKDIV, to modulate the VCF cutoff for random percussive timbres.
  - Crank up RES (resonance) on the VCF—allow it to self-oscillate for metallic highs or sharp kicks.

- Add DRIVE: Turn up INITIAL on the VCA for soft saturation or patch the output back into itself via mixers or attenuators for dirty, clipped sounds.
- Finish the chain with FX (try using reverb for space or short delay for slap-back rhythms).

**Bonus:** Patch a LOGIC GATE output (e.g. XOR of multiple clocks or LFOs) to trigger ENV for unpredictable, “broken robot” rhythm patterns.

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## 2. Crazy, Moving Basslines (e.g. Dubstep, Drum & Bass)

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### Key Modules:

- VCO1/2 (for stacked/detuned oscillators) - MIX1 (oscillator blend) - VCF (aggressive filter movement) - ENV (snappy or slow attack) - LFO2, SLEW, RIBBON, DIGITAL - FX (Chorus/Delay for movement)

### Patch Concept:

- **Meaty, Modulated Bass:**
  - Use VCO1 SAW and SUB, and layer with VCO2 SAW/TRI. Detune VCO2 slightly (use FINE/TUNE).
  - Mix oscillators in MIX1, send to VCF.
  - Use ENV for sharp filter sweeps on VCF cutoff (classic “talking” wobble).
  - Modulate VCF cutoff with LFO2 or VC-LFO from VCO2. Patch SLEW between LFO and VCF for ever-evolving modulation (portamento-like sweeps).
  - Try inserting S&H in the modulation path for stepped/“glitched” filter motion. Or, use the QUANTIZER to lock random voltages into musical (but mental) pitch sequences.
  - For classic dubstep “wobble”: patch clocked LFOs or divide/multiply clocks with CLKDIV; patch these to VCF cutoff or VCA, or even drive FX parameters for time-synced stutters.
  - For extreme distortion, drive the VCA hard and/or feed back VCF output into the input via MIX modules.

**Tip:** The MIDI→CV section allows modwheel/CC to spit out CV; assign this to VCF or FX for hands-on, live modulation.

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## 3. Haunting Atmospheric Pads

### Key Modules:

- VCO2 as VCLFO; VCO1 TRI for smooth base tones - RIBBON for manual CV sweeps - MIX2/3 for layering and blending pitch/CV sources - VCF in Bandpass mode (for ethereal qualities) - LFO2 for subtle, slow modulation
- FX (reverb/chorus for lushness)

### Patch Concept:

#### • Dreamscapes & Movement:

- Tune VCO1/2 for close intervals, layer with SUB for added depth.
- Use ENVELOPE (long attack & release, LONG switch on) to smooth amplitude changes at the VCA.
- Modulate VCF cutoff with ultra-slow LFOs (from VCO2 in LFO mode, or LFO2), and add a bit of SLEW for gentle, laggy motion.
- Modulate the FX parameters (CV in to FX) with random voltages from S&H for evolving spaces.
- Use the RIBBON to “play” pitch and filter sweeps manually for organic, ghostly sounds.
- Patch an attenuated WHITE or PINK noise layer for texture.
- For subtle pitching, use the QUANTIZER with a low-rate LFO or S&H, then mix this with your oscillator pitch CVs.

**Extra:** Use FX tap-tempo to sync slow delays to external divisions, creating dense, rhythmic pad trails or “clouds.”

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## Modulation Patch Tricks (Advanced)

- **Dual Modulation:** Use MIX3 to combine LFO and ENV signals before sending to VCF for complex, evolving filter animation.

- **Triggered Mayhem:** Use LOGIC GATES to combine clock, LFO, and S&H outputs for “intelligent” bursts of modulation—patch to VCA CV for tremolos or to FX parameter for space “jumps.”
  - **Ring Mod Emulation:** Patch two out-of-phase oscillators (square/saw) into XOR input for ring-mod-like metallic textures.
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For further patch diagrams, the manual includes illustrated examples on pp. 26–29.

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**Have fun patching! With so many CV destinations, internal digital/logic blocks, and hands-on modulation options, the MODULÖR114 is a true playground for sound explorers.**