

Arcus Audio – Unity Mixer

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[Unity Mixer Manual PDF](#)

Creative Uses for the Arcus Audio Unity Mixer in Eurorack Systems

The Unity Mixer from Arcus Audio is a compact (2hp) dual 3:1 unity gain summing mixer that can also serve as a single 6:1 mixer. With DC-coupled inputs (for audio or CV), bi-color LEDs for signal level and polarity, and minimal power draw, it's a versatile utility.

1. Merging Multiple Modulation Sources

How: Patch several LFOs, envelopes, or random CV sources into the inputs, sum them, and send the mixed output to a filter cutoff, oscillator pitch, or effect parameter.

Creative Tip: Combining static (LFO), dynamic (envelope), and chaotic (Sample & Hold) modulation sources through the Unity Mixer results in unique, evolving modulations for more nuanced patches.

Module Recommendations:

- Make Noise Maths (LFO/Envelope) - Mutable Instruments Tides (LFO/Envelope) - Doepfer A-148 (Sample & Hold)

2. Mixing Audio Signals Before a Waveshaper or Effects

How: Patch multiple VCO waveforms (for example, sine, triangle, and PWM square) into one section of the Unity Mixer. Sum them into a single chain—then process through a wavefolder, ring mod, or distortion.

Creative Tip: Unity gain summing allows you to blend waveforms without changing their amplitude. This can introduce interesting harmonic content when run into distortion, wavefolders, or resonators.

Module Recommendations:

- Befaco Wavefolder - Intellijel Bifold - Mutable Instruments Rings (resonator)

3. Creating a Submix for FX Sends

How: Use the Unity Mixer to sum a few drum or percussion voices and send the output to a delay or reverb module's input.

Creative Tip: This enables you to apply collective FX processing (like sidechained reverb, compressed delay) to grouped signals—fine-tune your submix before the effect.

Module Recommendations:

- ALM S.B.G (for pedal interface) - Erica Synths Pico DSP (FX) - 2hp Verb (reverb)

4. Summing Envelope or Gate Triggers for Rhythmic Complexity

How: Send multiple gate or trigger sources (sequencers, clock dividers, manual buttons) into the mixer and use the summed output for percussive voices, envelopes, or as a logic function (mixing triggers as 'OR').

Creative Tip: Summed gates can create slight timing overlaps, great for polyrhythmic or humanized percussion.

Module Recommendations:

- Mutable Instruments Grids (trigger sequencer) - 4ms QCD (Clock Divider)
- Intellijel Steppy (trigger sequencer)

5. Layering CV for Stereo or Multichannel Patches

How: Use each half of the mixer for left and right channel signals, layering stereo modulations or audio sources before routing to stereo processing or panning modules.

Creative Tip: Contrasting modulations per channel can create immersive stereo movement or spatialization.

Module Recommendations:

- Happy Nerding PanMix Jr (stereo panner) - WMD Overseer (stereo filter) - Make Noise Mimeophon (stereo delay)

6. Mixing Audio for Feedback Patching

How: Patch the output of a filter or delay back into itself via the Unity Mixer, blending in external signals or modulations to control feedback level and timbre.

Creative Tip: Controlled feedback with summed signals can yield unique, evolving drones, textures, or noise beds.

Module Recommendations:

- Mutable Instruments Clouds (granular) - Make Noise QPAS (filter) - Tiptop Echoz (delay)

7. Utility Functions

- **CV Normalization:** Take several unipolar or bipolar modulation signals and use the bi-color LEDs to visualize overall polarity—helpful for finding phase-correct blends.
- **Unity Gain Mixing:** Mix multiple pitch CVs (multiple sequencers/arpeggiators) to drive a single VCO and create evolving melodic sequences (works best with precise sources so tuning isn't affected).

For further ideas, you can pair the Unity Mixer with logic modules, complex envelopes, granular processors, or stereo imaging tools—the possibilities are wide open for creative utility!

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