

Noise Engineering

Imitor

Adjustable multitap delay with up to 32 taps and a unique feedback processing structure. Create rhythmic delays, customizable comb filters, shimmering atmospheres, and more!



User Guide

Welcome to Imitor.

Imitor is a delay designed for customization and experimentation. Many multitap delays can be intimidating, with their complicated and cumbersome interfaces, so we designed Imitor with powerful user-friendly controls and tap displays that are fun to interact with, all of which are fully automatable. Set the pre-delay, pan your taps, warp time, crescendo or decrescendo – the delay section of Imitor has so many options at your fingertips.

Play with the Tap Delay modulation section for a wide range of control: adjust modulation, relative LFO phase, speed, and stereo effect. Finally, the Processing section adds a bit of Noise Engineering flavor. Crank Regen to 11, Shimmer your sound, add some suboctave with Doom, filter your delay with Tone, play with stereo width, or add some not-so-subtle wavefolding.

Imitor excels at long, evolving echoes and creating rhythms from a single sound, but it can also be set to extremely short delay times for comb filtering, flanging, chorus, and more.

Imitor is a delay and echo playground: if you can imagine it, you can create it with Imitor.

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Tap

Tempo Sync

When Free is checked, Imitor's delay time is unsynced, and echo timing is unrelated to the session tempo. When Sync is checked, Imitor's delays are synced with the session tempo and meter.

Time (Free selected)

Sets the amount of time between taps in seconds. At low settings, echoes occur at audio rates, useful for effects like comb filtering and flanging.

Beats (Sync selected)

Sets the amount of time between taps in seconds; divisions/multiplications are presented as a fraction. For example, a 16th note delay would be set with 4/1.



Time Warp

Bipolar; set the tap spacing. When the control is centered, taps are spaced evenly. To the left, taps start fast and slow down; to the right, they start slow and speed up. This is useful for creating bouncing ball effects where echoes accelerate over time, or impactful bursts of echoes.

This parameter only affects tap timing when Tap Total is set to 3 or greater.

Decay

Bipolar; changes whether the taps crescendo to the left, have equal level in the center, or decrescendo to the right.

Width

At left, the feedback loop is mono. Stereo width is increased as the knob is increased.

Angle and Rotate

Bipolar controls that adjust tap panning. These parameters work together: Angle sets the panning of the first tap, and Rotate offsets the pan of the following taps. Useful for creating width and variation in echo patterns.



Pre Delay

Sets the amount of time between an input sound and the first delay tap. Pre delay time presented as a fraction of the Time or Beats setting. For example, a pre delay twice the length of the delay time would be set with $\frac{1}{2}$.

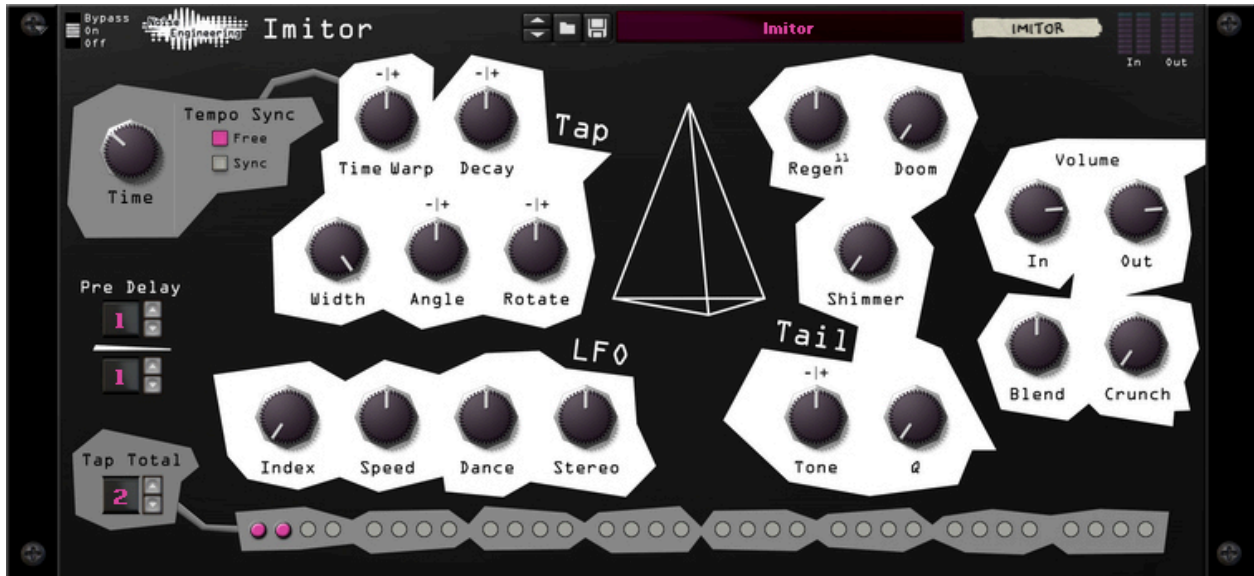
Pre delay time is useful both as a creative effect and for creating space: long pre delays are quite useful when creating rhythmic echoes, and short pre delays change the perception of sound location.

Tap Total

Sets the number of taps. With regen at minimum, this will be the number of echoes heard. Tap buttons are active when illuminated white or purple, and inactive when unlit gray.

Tap lights

Tap enable/disable buttons. Taps are enabled+audible when purple, enabled+muted when white, and disabled when gray. Useful for creating rhythmic delay patterns.



LFO

Index

Sets the amount of LFO modulation sent to the taps. Low Index and Speed settings are great for adding tape warble and texture, and higher settings create excitement and timbral changes in the echoes.

Speed

Changes how fast the LFO moves.

Dance

Changes the relative phase of the LFOs used to modulate the timing of each tap. Increasing this parameter creates more and more variation between taps.

Stereo

When set to the left, the LFOs modulate left and right taps equally. As this parameter is increased, left and right tap modulation is decoupled, creating a wider stereo sound. Even a small amount of modulation combined with this parameter can create beautiful, wide effects that embrace the stereo field.



Tail

Regen

Sets the feedback amount. Goes above 100%. With only one tap enabled, this will control the number of echoes heard. With multiple taps enabled, this will control the length of the echo tail. High settings will create drones that oscillate forever.

Doom

Adds a chaotic suboctave shift to the feedback loop. Only audible when Regen is above 0%. Perfect for adding ominous texture and low end to echoes.

Shimmer

Adds a one-octave pitch shift to the feedback loop. Only audible when Regen is above 0%. A counterpart to Doom, this parameter adds high end and a sparkling texture to echoes.

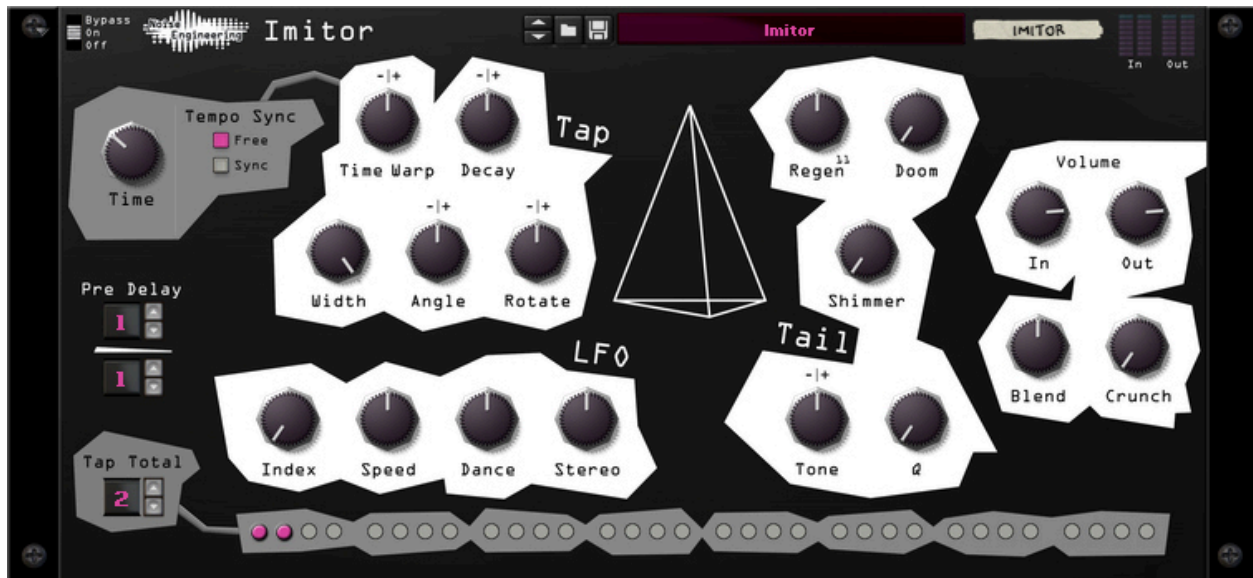
Tone

Bipolar; controls the filter in the feedback loop. Functions as a lowpass filter to the left and highpass filter to the right. Filter is bypassed in the center.

Filters are extremely useful for both creative effects and utilitarian applications. Lowpass settings can be used to emulate BBDs (bucket-brigade delays) and other traditional effects. Highpass filters can be used to emphasize high end and keep echoes out of the sub range when used on low-register instruments.

Tone Q

Resonance level for the Tone filter. Use to emphasize the frequencies around the Tone setting.



Volume

In

Controls the level of sound coming into the Rack Extension.

Out

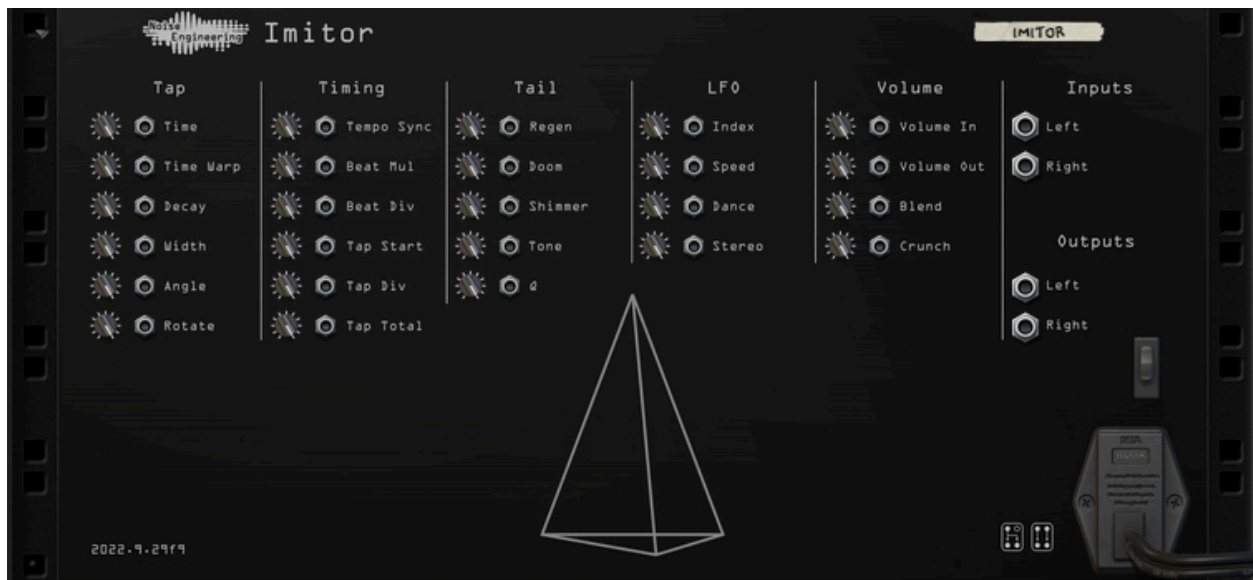
Sets the output level of the Rack Extension.

Blend

Controls the dry/wet balance. Fully left, the unmodified input signal is passed through. Fully right, only the processed signal is heard. Points in the middle give you a mix of both.

Crunch

A not-so-subtle wavfolding effect at the end of the delay signal chain. Low settings add saturation to the echoes, and high settings completely transform the delay tail. Since wavfolding is based on signal amplitude, Crunch's effect will change over time as echoes decay.



Back Panel

Back-panel knobs act as attenuators for all inputs.

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Inputs Left/Right

Audio inputs. For mono operation, patch signals to L.

Outputs Left/Right

Stereo audio outputs.

About the Preset Names

If you've purchased any other Noise Engineering Rack Extensions, you've probably seen our extensive and computer-named preset libraries. We took a different approach to Imitor. When you load it up, you'll notice three banks of presets: Bread And Butter, Sandwich, and Pudding. Imitor is an incredibly deep and versatile effect, and we wanted the presets to act as starting points that showed off some of the many things that Imitor could be used for. Bread And Butter contains some of your most basic settings: an interpretation of a tape delay, a bouncing ball, and some other simple effects. Sandwich gets more complex: rhythmic delays, evolving feedback, and more. Pudding was our most out-there and creative ideas that push Imitor to the extremes.

Unlike the automatic naming scheme for our other preset libraries, these presets were named based on descriptions of their sounds, their features, or what they reminded us of as we were using them ("Hair Commercial" and "Angry Bees" are perfect examples).

About NE

Noise Engineering is located in Los Angeles, California. We started around 2014 when Chief Noisemaker Stephen McCaul wanted a hobby for his off time from his day job and started making Eurorack modules in a spare bedroom at home. One thing led to another and a couple of years later, he and wife Kris Kaiser quit their day jobs and took the company full time. Noise Engineering has since grown in size and has established itself as a well-regarded and innovative synthesizer brand, with products in Eurorack, 5U, and multiple software platforms.

Special Thanks

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