

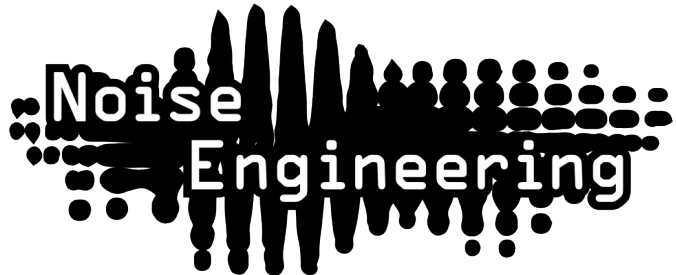
Noise Engineering

Yester Versio

A simple three-tap delay with wavefolding and pitch shifting

Overview

Type	Simple delay
Size	10 HP
Depth	1.5 inches
Power	2x5 Eurorack



Yester Versio is the long-awaited answer to the request for a simple delay on the Versio platform. Yester is designed to be straightforward to control and easy to use. It's the perfect background for the other instruments in your patch, with just enough character to stand out if you want it to. With clock sync, tap tempo, and adjustable divisions – plus settings for triplets and dotted timing – it's easy to make Yester sync to the rest of your patch and create interesting rhythms. If simple echoes aren't your style, use Fold to add some grit, or change their pitch and stereo position with the Chorus and Pan controls!

Etymology

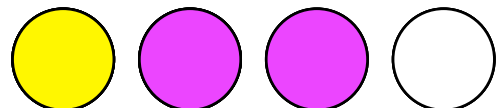
Yester -- from old English: "Of former, earlier, or previous times."

Versio -- from Latin: "versatile"

"A variety of times"

Color code

On boot, Yester's LEDs will shine with this color pattern to indicate that it is running the current Yester firmware.



Installation

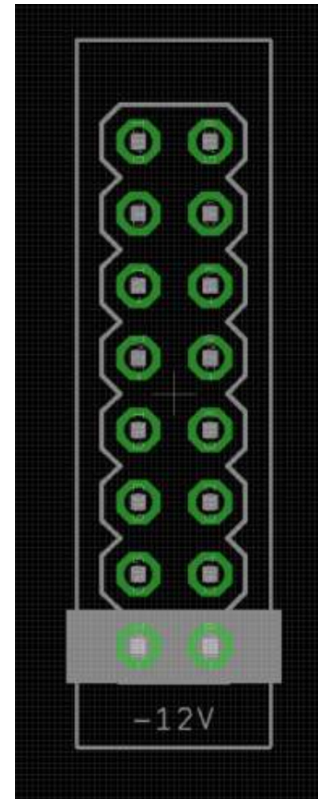
To power your Noise Engineering module, turn off your case. Plug one end of your ribbon cable into your power board so that the red stripe on the ribbon cable is aligned to the side that says -12v and each pin on the power header is plugged into the connector on the ribbon. Make sure no pins are overhanging the connector! If they are, unplug it and realign.

Line up the red stripe on the ribbon cable so that it matches the white stripe and/or -12v indication on the board and plug in the connector.

Screw your module into your case BEFORE powering on the module. You risk bumping the module's PCB against something metallic and damaging it if it's not properly secured when powered on.

You should be good to go if you followed these instructions. Now go make some noise!

A final note. Some modules have other headers -- they may have a different number of pins or may say NOT POWER. In general, unless a manual tells you otherwise, DO NOT CONNECT THOSE TO POWER.



Warranty

Noise Engineering backs all our products with a product warranty: we guarantee our products to be free from manufacturing defects (materials or workmanship) for one year from the date a new module is purchased from Noise Engineering or an authorized retailer (receipt or invoice required). The cost of shipping to Noise Engineering is paid by the user. Modules requiring warranty repair will either be repaired or replaced at Noise Engineering's discretion. If you believe you have a product that has a defect that is out of warranty, please contact us and we will work with you.

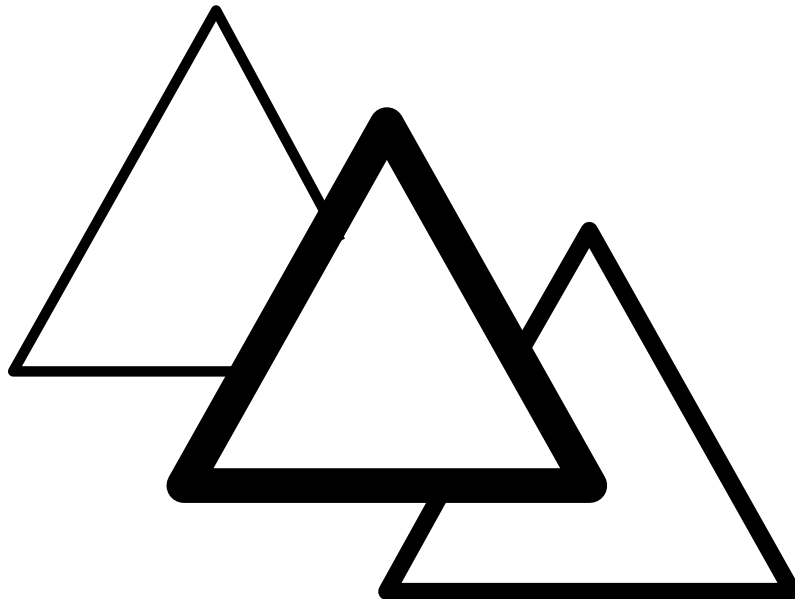
This warranty does not cover damage due to improper handling, storage, use, or abuse, modifications, or improper power or other voltage application.

All returns must be coordinated through Noise Engineering; returns without a Return Authorization will be refused and returned to sender.

Please contact us for the current rate and more information for repairs for modules that are not covered by our warranty.

Power

If your Versio looks like the left picture, it requires 70mA +12v and 70mA -12v. If it looks like the right picture, it requires 125mA +12v and 10mA -12v. Versio does not use the +5v rail.



Interface

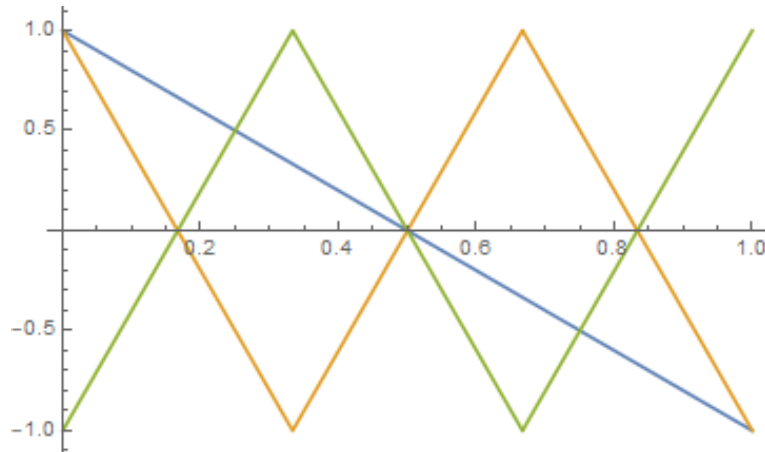
Note: Yester is a 3-tap delay, meaning that the minimum number of repeats you will hear is 3.

Blend

Dry/wet balance control. When turned 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.

Pan

Changes the panning of the three taps. The graph below shows the pan position of the three taps as the knob is turned from fully counterclockwise to fully clockwise:



Tone (bipolar)

To the left of 12:00, Tone acts as a lowpass filter. To the right of 12:00, Tone acts as a highpass filter.

Chorus (bipolar)

Changes the pitches of the echoes. To the left of 12:00, a constant pitch shift is applied, creating clean harmonies. To the right of 12:00, an LFO is applied to the pitch shift, creating a chorus effect.

Regen

Controls the amount of delay feedback from 0% to about 95%. Yester was designed to not oscillate on most settings, making it easy to control... but if you work for it, you can get it to do it!

Time

When there's no clock input at the Tap jack and a tap tempo hasn't been entered, this controls the rate of the internal delay clock. If a tap tempo has been entered, this acts as a clock divider/multiplier, in conjunction with the Even/Triplet/Dotted switch. Divisions are to the left of 12:00 and multiplications to the right.



Fold

A distortion parameter of many flavors, applied to the delay output. Roughly the first 1/4 of the knob adds saturation. In the next 1/2 of the parameter, a wavefolder is applied. Finally, the top 1/4 of the knob adds in slightly chaotic suboctaves (aka Doom).

Even/Triplet/Dotted

This changes the delay timing to be even, multiplied for triplet timing, or divided for dotted timing. Works in conjunction with the Time knob.

Fade/Octave/Jump

Changes how the delay responds to timing changes (either from external clock, tap tempo, or by changing the Time or Even/Triplet/Dotted settings)

- **Fade:** Interpolates as smoothly as possible with no repitching or artifacts.
- **Octave:** Rate-limits time changes to create octave harmonies.
- **Jump:** Changes delay time as quickly as possible, creating lots of artifacts.

Tap

Tap a tempo here to overwrite the internal delay clock. Even/Triplet/Dotted switch and Time parameters both affect delay times when tap tempo is present.

Holding down the button for a few seconds clears the tap tempo/external clock timing, and the module goes back to using its internal clock. The LEDs will flash blue when the clock has been cleared.

Holding the button even longer will entirely clear the delay feedback and the LEDs will flash white.

Tap (input)

Patch a clock here for synced delays! Even/Triplet/Dotted switch and Time parameters both affect delay times when tap tempo is present.

To go back to using the module's internal clock, unpatch the clock and hold the Tap button until the LEDs flash blue.



Input and output voltages

All CV inputs expect 0-5 V. All pots act as offsets and sum with the input CV. The Tap gate input responds to signals above +2 V. The audio inputs clip around 16 V peak to peak.

Patch tutorial

First patch

Patch a sound to In L (and In R if your sound is stereo), and monitor Out L and R. Set Fold to minimum and all other parameters to 12:00.

Experiment with different Time and Regen settings to change the amount and timing of echoes.

Use Pan to change how the echoes are placed in the stereo field.

Turning Chorus to the left will pitch-shift the echoes, and to the right echoes will smear and sound more like a chorus.

Use Tone and Fold to change the timbre of your delays. Subharmonics are added to the delay when the Fold knob is turned past 3:00, which sounds especially good on high-frequency input signals.

Patch a clock signal to the Tap control to sync your delay to the rest of your patch, and use the Even/Triplet/Dotted switch to change the delay rhythm.



Swapping firmware

Yester Versio's firmware can be changed to a growing number of alternate firmwares via our firmware webapp.

Webapp link: <https://portal.noiseengineering.us/>

To update the firmware on your Versio:

1. Turn off the power to your case and unscrew your Versio.
2. Remove the power connector on the back of Versio.
3. Plug a micro USB connector suitable for data transfer into the port on the pack of the module, and the other end into your computer.
4. Follow the instructions in the webapp.

Design notes

Near the end of 2020, we released the Imitor Versio, a 12-tap delay designed for experimentation. Its controls were designed for easy control over the relative dynamics, panning, and timbre of all 12 taps. It also featured a Regen algorithm similar to the one on Desmodus, going well beyond 100%. It's a beautiful delay that invites exploration and rewards experimentation, but it always wants to be the center of attention in a patch.

After its release, we received quite a few requests for a simple Versio delay that was easy to tame and could be used for more straightforward atmospheric uses. We agreed that this would be a wonderful addition to the Versio ecosystem, and added it to the firmware ideas list.

Once development on Yester began, we discussed what exactly it should be: a simple echo is easy to make, but doesn't fit the style of module that we like to create. The challenge became one of designing features that left lots of space for simple echoes and could be pushed to an extreme, but were still easy to control.

Initially, we had a modulation section similar to the one on Desmodus, but we quickly realized that we could tailor something for Yester that was more interesting for a delay and could live happily on just one knob. A discussion around controlled pitch shifting led to further experimentation, and the Chorus knob evolved as a way to accommodate a few different styles of delay-line modification. Adding on a few different delay-line interpolation modes rounded out all of the modulation features we wanted, and we were well on our way to a fully-fledged firmware.

In the middle of all of this, we got really stuck on a name for Yester. Names are normally quite a fight here and this was no different. We have already allotted firmwares for Versios for most letters of the alphabet so we were hoping to keep this one named as a Y, but the original name was not going to fly. This started a flurry of naming over Slack, Zoom calls, and randomly sitting at our desks for several days. At one point we were almost ready to just name it Y. Stephen recommended a symbol, like Prince. Things went off the rails. Brandon started throwing out names that were not Y. It rained cats and dogs and frogs. And then the clouds parted and we came up with Yester, which connotes time and is easy to say, and we breathed a collective sigh of relief.

After a few rounds of testing, and furiously dropping firmwares into slack so everyone could grab it and try it, we realized that we needed more control of the stereo field. The Pan knob was the final addition to the firmware, and after some final tweaks we were ready to ship.

Special thanks

All of you who've asked for more delays on the Versio!