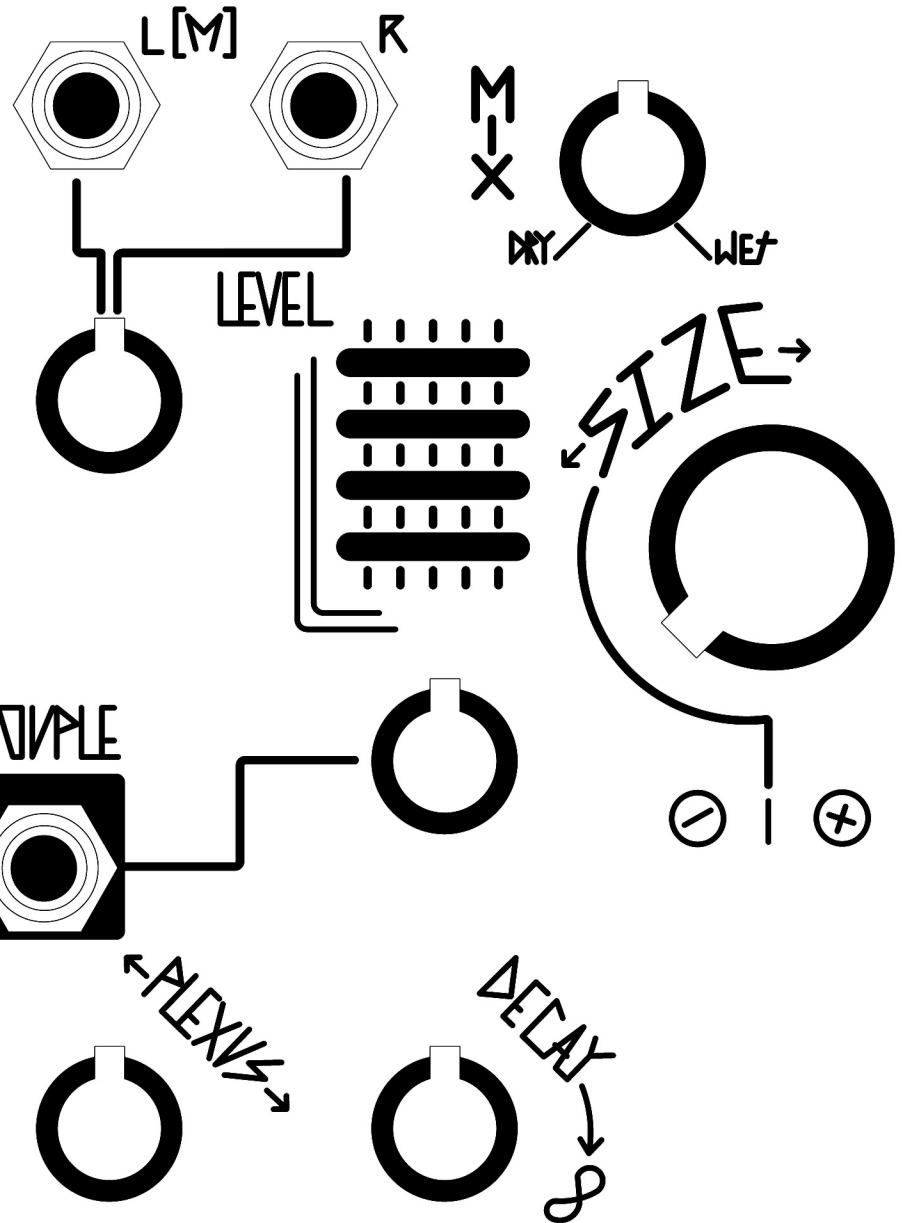
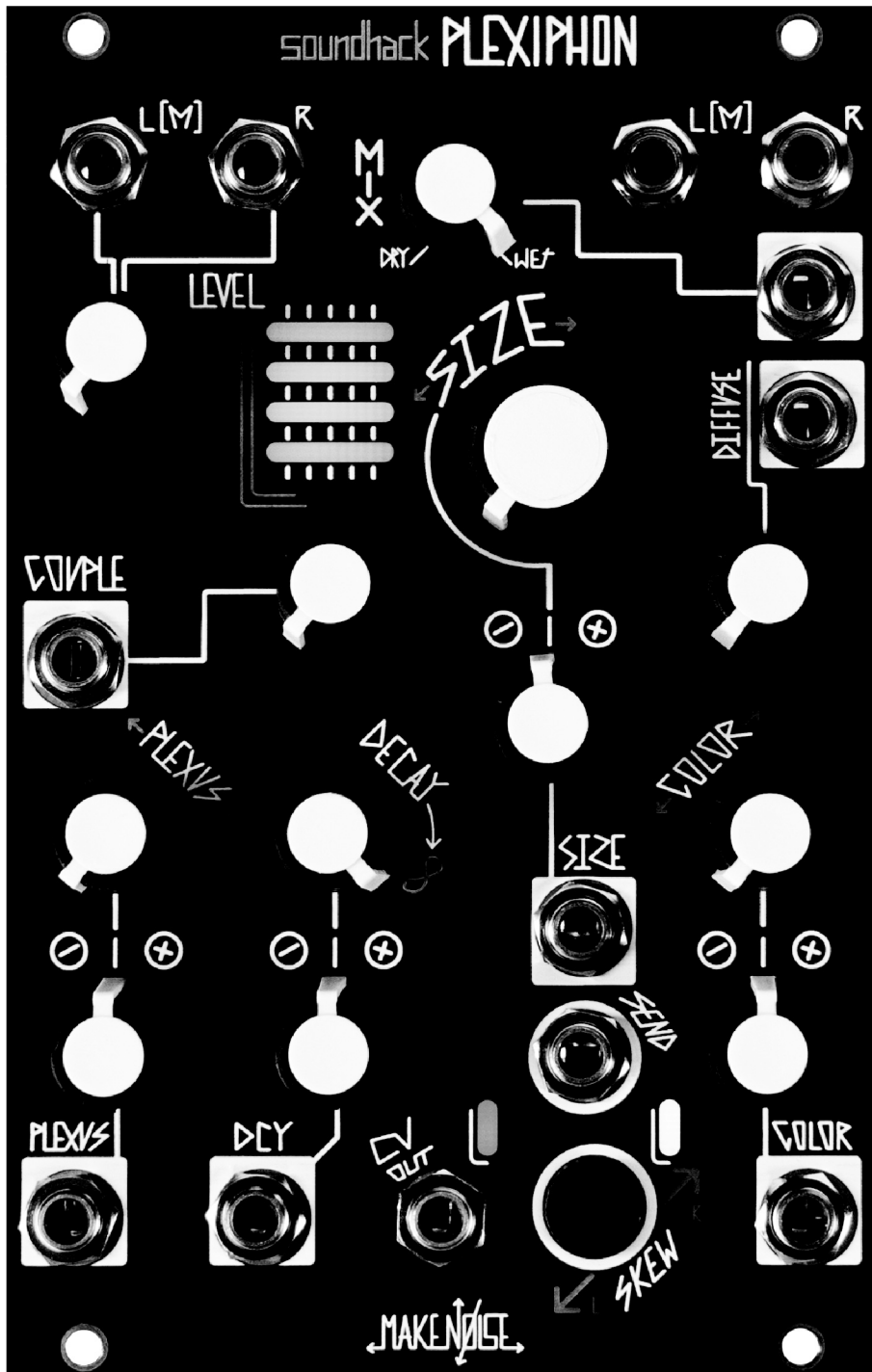


# MAKE NOISE ZINE

## ISSUE #9 / MAY, 2026



# ALEXIPHON



# soundhack PLEXIPHON

The Make Noise Soundhack Plexiphon is a stereo, modeless spatial texturizer, which allows for continuously morphing between reverberations and multi-tap echoes, the widest range of possible results being neither reverb nor echo, and all results highlighting and amplifying character previously hidden in the source material being processed.

The Plexus control simultaneously modulates the number of feedback paths in the algorithm, and their entanglement together. The Size of the paths determines the temporal relation between them, operating like a "delay time," or a "room size," at either extreme of Plexus.

Diffuse and Color offer softening/sharpening/darkening/brightening effects over time.

Couple and Skew are stereo operations: Couple determines to what degree the left and right sides are isolated or intermingled (from "dual mono" to fully interlaced stereo), while Skew offers simultaneous inverse or tandem control of the left and right paths on the Plexus, Size, and Color parameters.

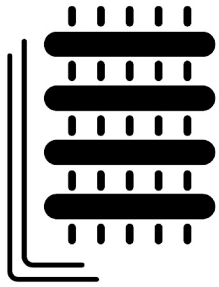
The Send gate input (normalised high, or patchable) determines whether and when the input signal will be fed into the Plexus.

An envelope follower is provided at the CV output for re-integration of the Plexus into its own controls or elsewhere in the voltage controlled system.

Plexiphon is built from entirely new code by Tom Erbe, specifically for Make Noise's newest digital hardware.

Width: 16hp  
Max Depth (incl. power cable): 34mm

240mA @ +12V  
5mA @ -12V



PLEXIPHON DESIGN NOTES WITH  
**TOM ERBE**  
OF SOUNDHACK

**Plexiphon is your latest temporal effect module, and like your previous designs it sounds entirely unique from anything in the Soundhack line of Make Noise modules. What were some of your design goals with Plexiphon?**

I had a few ideas on how a reverb could work well in an experimental electronic environment. The first goal was to develop a larger reverb model with a wide range and a central neutral character. Not so focused on warm or dark sounds but able to go to extremes as well: dark, bright, subtle, aggressive, and so on. Second, like Erbe Verb, it had to be fun to spin knobs, explore, and interconnect with other modules. Finally, I had been experimenting with untangling and tangling the feedback network. My goal was to have Plexiphon go smoothly from a reverb to a delay and back, with lots of interesting sonic spaces between the two.

**Were there pieces of historical hardware that influenced the sound or parameter choices of Plexiphon?**

To be honest this one was inspired more by crazy ideas than EM history. However, I did initially get the tangled network idea from Michael Gerzon's classic articles on reverb in Studio Sound where he showed how to couple 2 small reverb networks. Also influential were F. Alton Everest's chapters on room acoustics, as well as an article on velvet noise by Järveläinen and Karjalainen, though ultimately I didn't use that technique.

**Was the sound or functionality of Plexiphon more influenced by your work as a recording engineer or as a software engineer?**

More "adjacent to" than "influenced by". In all of these modes, I like to try out new ideas, insert some challenges, find something beautiful and captivating.

**Plexiphon contains a number of unique controls, such as Couple. In simple terms, what does Couple do and how is it integrated into the signal path?**

Couple opens up multiple connections between the left and right reverb networks so that you can go from two separate "rooms" to a single "room" with stereo ins and outs. As you go between the extremes you can hear the sounds flowing between the channels, like a really complex autopan.

**The ability to smoothly morph between discrete delay and reverb effects with the Plexus control feels totally natural, despite the difference in number of delay taps from one side of the parameter to the other. What were some of the design hurdles involved in making Plexus a reality?**

Getting it to work was just like solving a small Rubik's cube - not that difficult, but every step counts. The other difficulty was keeping it stable to keep it from feeding back wildly, and then destabilizing it a little to make it a bit more interesting. The final challenge was to find a name for this process. When I found that plixi meant "to braid" or "to weave", it seemed a perfect description of this feature.

**Skew is a familiar term from the Mimeophon, but its function within the Plexiphon is more comprehensive. What were some of the aims in designing a Skew functionality with three Skew-able parameters (Size, Color and Plexus)?**

Really a single aim, to find the parameters in which contrast between the channels would be most dramatic or useful, and allow those to be skewed (offset).

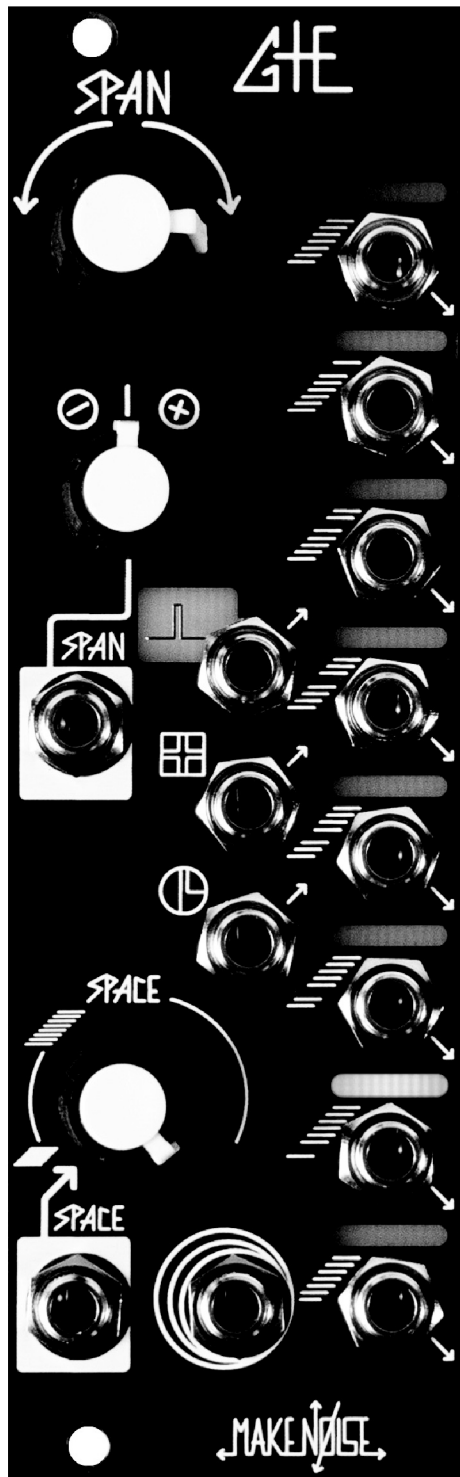
**What are some of your favorite sounding spaces or rooms (in the world)?**

The Vigeland Mausoleum in Oslo, any whisper room (Grand Central Station, Allerton Park, Anza-Borrego Slot Canyons, Precious Moments Chapel in Joplin (jk).

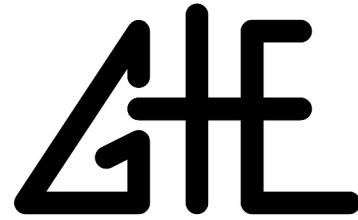
**What were the first time-based effects you owned and do you still have them?**

Roland Space Echo (yes), Echoplex I (yes), Lexicon Super Prime Time (no), Yamaha SPX90 (no), Eventide H3000 (no), Alesis Quadraverb (no), Furman Spring Reverb (no), Gibson Oil Can Echo (no). I could go on.... love them all. Also I love setting up reverb chambers (speaker and microphone in cool space), slinky reverbs, reel-to-reel delay, etc.

GESTURE IN



PULSE OUT



**The Gestural Time Extractor (GTE) is an analog pulse extractor and Channel Index Translator for the New Universal Synthesizer System or any Eurorack modular system.**

From the motion of the signal at the **Span** input, it derives up to eight individual channel pulses, as well as a GTE pulse stream representing the speed of motion of the input signal, and two gate outputs representing activity at the even and odd channels.

The **Space** parameter determines the threshold proximity of the channels to each other and thereby also the sensitivity and reactivity of the GTE and other outputs.

When the **Clock** input is in use, the GTE's output channel will only change upon reception of a trigger or gate, allowing for changes to easily be synchronized with other existing events in the system.

With all controls set to starter min-max positions, the GTE also operates as a **Channel Index Translator** for PoliMATHS and other New Universal Synthesizer System modules that generate Channel Index signals, allowing the accurate derivation of individual channel gates from activity at the respective channels of the source module.

**The GTE can be used to generate repeatable and controllable rhythm and timing information from any analog synthesizer signal, whether arbitrary or targeted, and is also useful for individual voice timing signal generation within a multi-voice N.U.S.S. system.**

- Extract rhythms, clocks and pulse streams from any control voltage source
- Opens up the patch programmability of the N.U.S.S.
- Synchronize GTE to any clock source with the Clock input
- Use GTE to synchronize any event in your system with Activations from PoliMATHS and MultiWAVE - regardless of Span mode
- Compact and powerful analog module
- Pairs well with MATHS, PoliMATHS or Jumbler

Width: 8hp  
Max Depth (incl. power cable): 29mm  
Power:  
25mA @ +12V  
2mA @ -12V  
MSRP: \$179

**AVAILABLE NOW!**



DESIGN NOTES WITH  
THE MAKE NOISE ENGINEERING ZONE:  
TONY ROLANDO, MARK CROWLEY  
& BEN SERGENTANIS

### What was the original spark that kicked off Gestural Time Extraction as an idea to pursue?

**Tony:** The idea was to have a CV input that had infinite range. You wouldn't be able to clip it really— instead of measuring voltage level it would measure voltage activity. And the knob that was associated with it, instead of attenuating it or flipping the phase like a normal attenuverter would, it would determine where the voltage was being disseminated to.

The idea was it would look at how fast the voltage was changing, as opposed to the level, and the speed of that change would determine the depth of the modulation. We experimented with that, but it didn't really pan out. And then it developed into what it became.

### GTE as a concept has been around since the earliest days of the New Universal Synthesizer System. How did it evolve into a standalone GTE module?

**Tony:** it evolved because Ben started coding up the original concept which evolved into something else and then Mark, being a very motivated designer, thought to himself: "hey, I could do this in analog."

**Ben:** On my end, we started prototyping some ideas for what a GTE module might look like, and eventually one of the ways we settled on implementing it was having those zones that you would push a voltage through and every time you changed zones it would fire off a trigger.

We knew something like the PoliMATHS was coming down the pike and so someone suggested what if you hook up envelope generators to the different zones so that when you strum through it's firing off different envelopes. That sort of evolved into the PoliMATHS, which integrated the original idea into it but left the idea of a standalone GTE module on the table.

**Tony:** to elaborate on what Ben is saying, the GTE simplified a great deal and rolled into the Channel Index Span mode, essentially.

**Mark:** we settled on it as the Span mode, at least for the PoliMATHS, which was the module we were heading towards, and that was when we were also defining Channel Index. We realized we could also make Span in analog pretty easily and (1) have it be a breakout for the Channel Index from a PoliMATHS and (2) allow you to have access to the Span modes outside of N.U.S.S. so you can have just that modular part of it.

### Has this original content carried on as a component of other New Universal Synthesizer System modules?

**Mark:** in the NUSS all the envelopes are broken out so you could re-patch them, so then it was a nice thing to get the Span modes outside of it as a module but also like, "oh what if you want to filter a different envelope on Voice 4" you can use the Channel Index on the GTE to get that out at a different patch for a sub-voice or something. It allows you to have gates at the End of Cycle (or a trigger at the beginning of the envelope).

### What are some of the patch possibilities that the GTE module opens up?

**Tony:** I think the name Gestural Time Extraction points to the gesture, and in my mind when I think of gesture I'm thinking of control voltages, so that the gesture is a voltage and the most obvious example would be the pressure output on a Pressure Points or something similar. But you could even look at the act of speeding up an LFO manually as a control voltage gesture. If you patch an LFO into the GTE module and then manipulated the rate of that LFO manually that's a gesture and the GTE module is extracting event-based timing information from that gesture. It can be very off-the-grid, so to speak, which is an exciting thing in a modular system where so many things are on-the-grid. It's nice to have a module that lends itself to the notes between the notes. The events between the events, and the GTE really excels in that area.

**Mark:** one way to get between on and off the grid is triggering a Maths function, where you can get the triggers associated with a Bouncing Ball patch to go wherever you want.

### Span is a parameter familiar to the New Universal Synthesizer System modules, but Space is new. How do the two controls interact?

**Mark:** they are very inter-related. If the attenuverter for Span reduces its range, reducing Space is like an amplifier for Span. It spaces the zones that cause the triggers, so you can use it to make more dense blasts of triggers. It's really like an 8-point window comparator (or 16 because it flips it around the zero point) so you're comparing these two voltages so Space sets the range of the comparison— like a ladder that you're climbing, Space sets how far apart the rungs are.

**Tony:** I think Space, from a musical standpoint, I think of it like compressing the event potential. So that if you've got potential for these events to happen as you make Space a lower value it's compressing them into a smaller range and they're more likely to happen and more likely to happen in closer proximity and as you expand them they're less likely to happen and if they do happen less likely to be in proximity to each other. So musical speaking, as Mark noted, it creates density. As you turn it down you get a burst of events that are going to be more compressed together and dense feeling.



THOUGHTS ON  lamplight avl

AND THE EAST WEST ASHEVILLE ART WALK

BY KELLY KELBEL

The evening of Friday, April 3, Make Noise opened our doors to welcome in our neighbors for some experimentation and exploration. This was the first East West Asheville Art Walk, organized by Lamplight. If Lamplight sounds familiar, that's because I wrote about their important work after Hurricane Helene.

And Lamplight wrote about us: "Make Noise has long been a force for creativity and community here in Asheville. They are generous contributors of hometown initiatives, and we are so grateful for their ongoing support over the years. From their collaboration in Art Recovers, to their generous (QMMG) raffle supporting our Art Remains fundraiser, to being among our very first artists in residence, their commitment to our work runs deep, and we're so grateful. Their latest gift (to Art Thrives) will directly support the operations of our new artists studios at 2 Westwood, the development of a community-funded event venue, and affordable, inclusive creative spaces for artists throughout Asheville."

Lamplight opened applications for these subsidized artist studios in December of 2025, and filled the space with brilliant, interesting, exciting artists spanning a variety of mediums like experimental music, printmaking, documentary filmmaking, zine-making, and metalsmithing. One artist, Jade, shows people the moon through their telescope pop-ups and takes incredible polaroids of what we see.

In partnership with these artists, and several nearby artist studios and creative businesses, Lamplight ignited a celebratory art walk. It felt like the whole town was there! It felt like a reunion! Smiles. Cheer. Laughter. Hugs. The heart mending and opening we needed after the heartbreak of Hurricane Helene.

A few highlights:

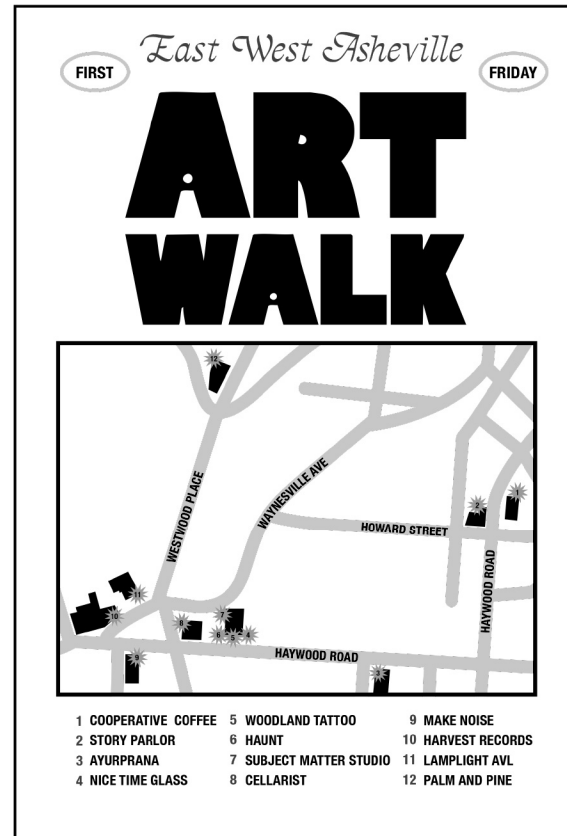
**Tony:** "I built an aleatoric remix patch for recordings by Zach Cooper, an Asheville based acoustic bass player. The Make Noise modular system containing this patch was installed on the front porch

of the Lamplight House. The patch incorporated Zach's recordings as well as his infrasonic microphone, which provided modulation related to activity at the Lamplight house as people visited the exhibits."

**Ryan:** "we set up a camera that used peoples movements to control a patch on our demo system. It allowed people with no prior exposure to synthesis to instantly engage with our instruments. It was such a fun way to introduce folks to modular synthesis."

**Pete:** "watching folks draw with sound (by turning knobs marked with googly eyes in a Skiff full of modules whose stereo output was patched into an X-Y display from the '60s) and then excitedly call their friends over to see what they had created was pure joy."

**Walker:** "two kids (under 5) hung out for about twenty minutes at the Big Three station with headphones, tweaking controls on the 0-Coast, 0-CTRL, and Strega. Every fifteen seconds or so they burst into synchronized, high pitched, joyous laughter. No instructions necessary."



At the Art Walk, I got to witness the creative innovation of our team, and felt so proud of what they made. Since the Art Walk, folks keep telling me, "I loved coming to Make Noise & playing with your synths" or "I couldn't get my kid off the googly eyes drawing machine" and many other enthusiastic thanks. When I hear these comments, I'm reminded that our team is made up of brilliant, interesting, exciting artists and that we make instruments that are deeply inspiring and big fun!



# "WHAT ARE YOU LISTENING TO?"

MUSIC / FILM / BOOK RECOMMENDATIONS  
FROM THE MAKE NOISE CREW!

## TONY

The Cosmic Tones Research Trip - "All is Sound"

Redolfi - "Pacific Tubular Waves"

Walker Farrell - "Crocus"

Brett Naucke - "Ground Fault Matinee"

## MEG

La Bouche - Sweet Dreams

U96 - Replugged

Sophie - Product

## WALKER

Kim Gordon - "PLAY ME"

Nana Rizinni - "Epiblast"

John Coltrane/Rashied Ali - "Interstellar Space"

## BAYLEY

Baggie - "Dirt Washes Off"

Frasier (TV show)

"Gateway" by Frederik Pohl (book)

## RYAN

Takashi Kabuki - "Get the Wave"

Steve Roach & Serena Gabriel -

"Entering Elysium"

CAVS - "Sojourn"

## MARK

House Lords & Andrew Dreyblatt - "FRKWYS VOL.18: Extended Field"

Shane Parish - "Autechre Guitar"

"Shadow Ticket" by Thomas Pynchon (book)

## LEE

Yellow Jackets - "Four Corners"

"Christine" by Stephen King (book)

Kolchak The Night Stalker (TV show)

## PETE

"No New York" by Adele Bertei (book)

Cecil Leuter - "Pop Electronique"

Bülent Aral, Daria Semegen -

"Electronic Music for Dance"

## SAM

Mitch Murder - "Inertia" EP

"Sirat" (film)

"100 Years of Solitude" by Gabriel García Márquez

## ERIC

Brett Naucke - "Ground Fault Matinee"

Walker Farrell - "Crocus"

"Interview with the Vampire" (TV show)

## LEWIS

Rayborn - "s/t"

Joe Taurone - "Rocking Band"

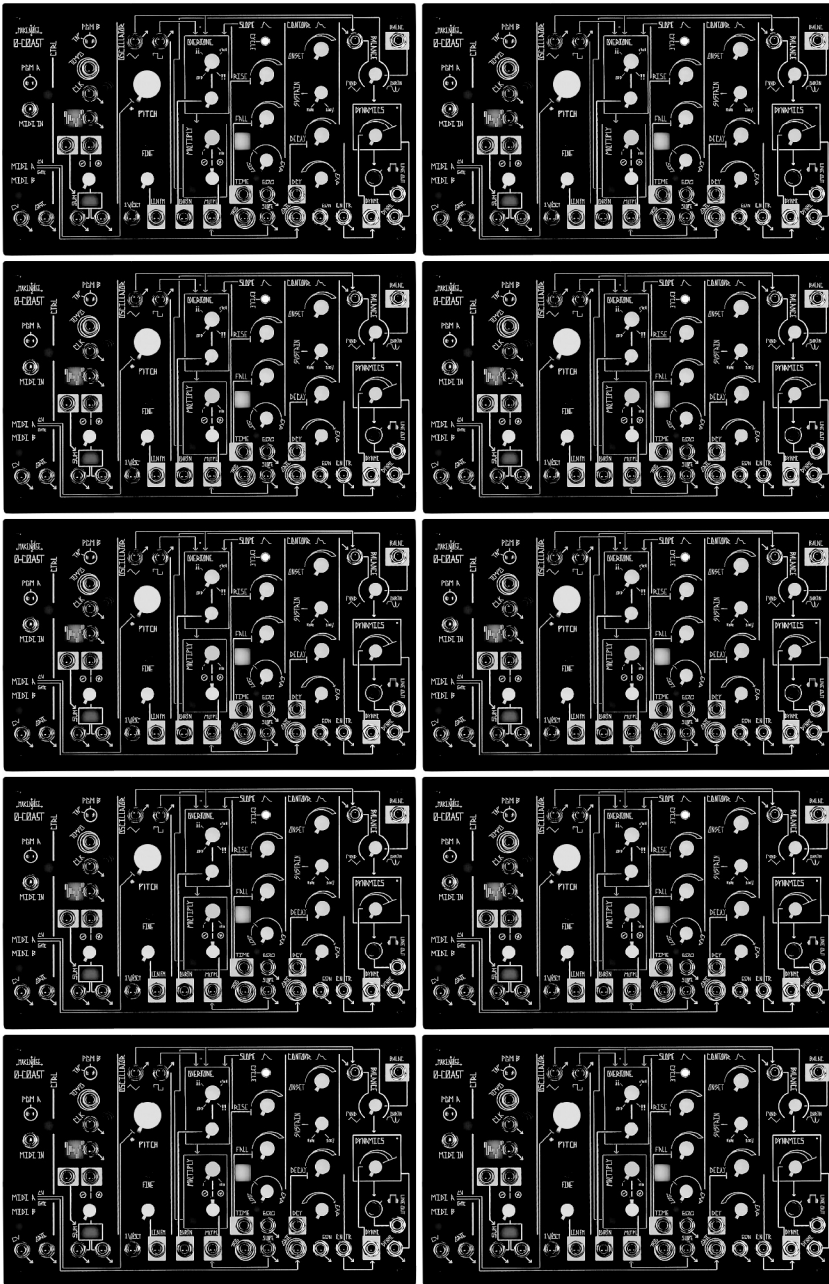
Mike H Johnson - "Chronicles"

## BEN

Bobo & Behaja - "Aia Haja?"

Angine de Poitrine - "Vol.1"

Passepartout Duo - "Pieces from Places"



HAPPY 10TH BIRTHDAY 0-COAST

The 0-Coast made its debut at NAMM in 2016 and has been a source of joy and inspiration for a decade! Long live "No Coast Synthesis!"