

Rebel Technology – Stoicheia

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Rebel Technology Stoicheia: using it for melodic components

Stoicheia is **not a pitch sequencer**. It's a **dual Euclidean trigger/gate sequencer**. So its role in melody-making is to create the **rhythmic structure** that drives melodic events: when notes happen, how often they happen, how two lines interlock, and how phrase lengths evolve.

What the module does

From the manual:

- **Dual Euclidean sequencer**
- Two independent sequences
- Each side has:
 - **Length**: 1–16 steps
 - **Fills**: how many active beats
 - **Rotation**: shifts the pattern start point
 - **Mode switch**:
 - Off
 - **Trigger mode**
 - **Alternating mode**
- Shared functions:
 - **Reset input**
 - **Manual reset**
 - **Chained mode** to play seq A then seq B as one longer pattern

Outputs are gates around **0V / 5.1V**, so they're ideal for triggering envelopes, clocks, sample & holds, logic, switches, and many quantizer/sample functions.

How Stoicheia contributes to melody

To make melody in Eurorack, you usually need these building blocks:

1. **Pitch source**
quantizer, sequencer, random voltage, joystick, keyboard, S&H, etc.
2. **Rhythm / note timing**
this is where **Stoicheia** shines
3. **Articulation**
envelopes, VCAs, accents, legato/tied gates
4. **Phrase structure**
resets, polymeter, pattern chaining, variation

Stoicheia mainly handles **2, 3, and 4**.

Best melodic uses

1. Triggering notes from a pitch source

Patch idea:

- Clock/LFO → Stoicheia clock input
- Stoicheia output A → envelope gate input
- Envelope → VCA CV
- Oscillator → VCA → filter/output

- Separate CV sequencer or quantized random voltage → oscillator
1V/oct

Result: - Pitch source determines **what note** - Stoicheia determines **when the note speaks**

This is the most direct melodic use. Even a simple 8-note pitch loop becomes musical when Euclidean spacing changes the note onsets.

Why it works

Euclidean rhythms distribute pulses evenly, so note timing often feels balanced and musical: - sparse fills = airy melodic fragments - dense fills = active arpeggio-like lines - rotation = syncopation without rewriting pitches

2. Using the two channels for melody + accent

Since Stoicheia has two sequences, one can drive notes and the other can shape emphasis.

Patch idea:

- Seq A output → main envelope trigger
- Seq B output → accent envelope or filter envelope trigger
- Pitch sequencer → oscillator pitch
- Seq B also to a second VCA/CV input for louder accented notes

Result: - A note line plays on Seq A - Seq B adds accents on selected steps
- The same pitch pattern feels far more melodic because phrasing emerges

Good settings: - A = E(5,8) type density - B = E(3,8) or E(2,5)-like accent rhythm - Rotate B relative to A for evolving accents

3. Triggering sample-and-hold for stepped melodies

One of the strongest pairings:

- Noise / random CV / smooth CV / LFO → Sample & Hold input
- Stoicheia output A → S&H trigger
- S&H output → quantizer → oscillator pitch
- Same Stoicheia output or another gate → envelope

Result: - Stoicheia creates the rhythm of pitch changes - Quantizer turns random voltages into scales - You get Euclidean melodies instantly

Variations

- Use **Seq A** to sample new pitches
- Use **Seq B** to trigger the envelope

This creates: - some pitches change without sounding immediately - some notes repeat the same pitch before a new one is sampled

That's a classic trick for more intentional-sounding melodic lines.

4. Creating call-and-response melodies

Because Stoicheia is dual, you can patch two voices:

- Seq A → envelope/VCA for voice 1
- Seq B → envelope/VCA for voice 2
- Different pitch sources or related quantized voltages to each oscillator

Result: - two interlocking melodic lines - one can answer the other - differing lengths/fills create evolving counterpoint

Example: - Voice 1: length 8, fills 3 - Voice 2: length 5, fills 2 - Same master clock to both

This yields polymetric melodic interplay that cycles over a long phrase.

5. Driving a sequential switch for melodic order changes

Patch idea:

- Several fixed voltages, row outputs, or interval sources → sequential switch inputs
- Stoicheia output A → switch advance
- Switch output → quantizer → oscillator pitch
- Stoicheia output B → envelope gate

Result: - Seq A determines when the next pitch source is selected - Seq B determines when notes are articulated

This separates: - **pitch movement** - **note articulation**

That separation is extremely useful for building melodies that feel composed rather than merely random.

6. Alternating mode as melodic gate/tie generator

The manual says **Alternating Mode** toggles output high on each “on” beat and stays high until the next “on” beat.

Musically, this is excellent for:

- **tied notes**
- **legato phrasing**
- **phrase masks**
- **sub-octave or harmonic switching**
- **opening/closing a VCA or wavefolder over longer spans**

Patch idea: - Seq A in Trigger mode → main note triggers - Seq B in Alternating mode → controls: - VCA level for drone layer - filter mode switch via logic/comparator - slew enable / glide gate - sequential switch between two pitch rows

Result: - the melody has sections of connected phrasing or changing harmonic color

A very useful melodic application: - Trigger mode handles note attacks - Alternating mode defines **longer melodic gestures**

7. Chained mode for longer melodic phrases

In **Chained mode**, sequence A plays, then sequence B plays, one after another, available at both outputs.

This is powerful for melody because it creates phrase lengths beyond a single short loop.

Example: - Seq A length 12 fills 5 - Seq B length 4 fills 2

Now you have a 16-step composite rhythm with uneven internal structure.

Use this to: - trigger a quantized CV source - advance a pitch sequencer at non-uniform points - make verse-like / response-like melodic phrasing

Especially effective if the pitch material is also 16 steps or longer.

8. Rotating patterns to reshape a melody without changing pitch

The **rotation** control changes where the Euclidean pattern begins.

If your pitch sequence stays fixed and only rhythm rotates: - the melody becomes newly syncopated - downbeats shift - the same notes feel reharmonized against the bar

This is one of the easiest live-performance tools on Stoicheia.

Try: - fixed 8-step pitch sequence - Seq A length 8 fills 5 - move rotation slowly

The pitch order remains unchanged, but perceived melodic contour changes because note emphasis moves.

9. Different sequence lengths for melodic polymeter

Each channel can have independent lengths. This is gold for melody.

Example: - Seq A: length 7, fills 3 - Seq B: length 11, fills 4

Use cases: - A triggers pitch changes - B triggers envelopes - or A/B trigger two related voices

This creates long non-repeating melodic structures from simple material.

A favorite patch: - A → S&H trigger for new note selection - B → envelope trigger for audible note events

Because pitch-update rhythm and note-output rhythm differ, the line develops a semi-generative melodic identity.

Practical patch recipes

Patch 1: Euclidean arpeggio

Goal: rhythmic melodic ostinato

- Master clock → Stoicheia clock A
- Stoicheia output A → envelope trigger
- Quantized CV sequence/arpeggiator → oscillator 1V/oct
- Envelope → VCA
- Oscillator → VCA → mixer

Suggested settings: - Length 8 - Fills 5 - Rotate to taste - Trigger mode

This gives a classic syncopated arp line.

Patch 2: Generative melody with controlled repetition

Goal: melodic randomness with coherent rhythm

- Slow random CV → S&H input
- Stoicheia output A → S&H trigger
- S&H out → quantizer → oscillator 1V/oct
- Stoicheia output B → envelope trigger
- Envelope → VCA

Suggested settings: - A: length 5, fills 2 - B: length 8, fills 5

Why it works: - pitch changes and audible notes happen on different schedules - repeated notes emerge naturally - melody feels intentional instead of purely random

Patch 3: Two-voice counterpoint

Goal: interlocking melodic lines

- Same clock to Stoicheia
- Seq A → envelope 1
- Seq B → envelope 2
- Pitch source 1 → osc 1
- Pitch source 2 → osc 2
- Both voices mixed together

Suggested relationships: - Voice 1 brighter / higher register - Voice 2 lower / slower attack - Rotate B off from A

Good settings: - A = 8 steps / 3 fills - B = 5 steps / 2 fills

You get compact polymelodic interplay.

Patch 4: Accent + melody line

Goal: one melodic voice with dynamic phrasing

- Seq A → main envelope gate
- Seq B → filter envelope trigger or accent VCA CV
- Pitch sequencer → oscillator
- Main envelope → VCA
- Accent envelope → filter cutoff or VCA CV depth

Settings: - A denser than B - B rotated to avoid obvious downbeat accents

This makes a simple melody breathe.

Patch 5: Euclidean note selection

Goal: switch between pitch sources rhythmically

- Fixed voltages / sequencer rows / intervals → sequential switch inputs
- Seq A → switch advance
- Switch output → quantizer → oscillator pitch
- Seq B → envelope trigger

This creates melodies from source selection rather than from one continuous pitch sequencer.

Performance strategies

Use one channel for structure, one for surprise

A very musical setup is: - **Seq A:** stable, medium density, main notes - **Seq B:** sparse, rotated, for accents / secondary voice / pitch refresh

That gives you both familiarity and movement.

Change fills before changing length

For live melodic evolution: 1. keep length fixed 2. vary fills 3. then rotate 4. then change length

This tends to preserve groove while evolving the melody.

Use reset musically

The reset input/manual reset is useful when: - syncing phrase starts to a bar - re-aligning two melodic voices - forcing a generative patch to “come home”

Chained mode for section changes

Use chained mode to move from: - phrase A - into phrase B - then repeat

Great for melodic hooks that need asymmetry.

Limits to understand

Stoicheia does **not** generate pitch CV on its own. To build full melodic content, pair it with at least one of these:

- quantizer
- CV sequencer
- random voltage source
- sample & hold
- keyboard/controller
- precision adder
- sequential switch

Think of Stoicheia as the **rhythmic brain** of a melody patch.

Most effective module pairings for melodic work

Stoicheia works especially well with:

- **Quantizer**
turns triggered/random voltages into scale-based melodies
- **Sample & Hold**
generates stepped pitch events at Euclidean timings
- **Sequential switch**
creates melodic routing and note-order variation
- **Envelope + VCA**
articulates each note
- **Precision adder / offset source**
transposes repeating patterns
- **Clock divider / multiplier**
creates different melodic timescales
- **Logic modules**
combine Seq A and B into more complex note masks

Summary

Stoicheia is best used for melody by controlling:

- **when notes happen**
- **when pitch changes**
- **when accents happen**
- **how two melodic layers interlock**
- **how a phrase resets or extends**

Its strongest melodic applications are:

1. triggering envelopes for a pitched voice
2. clocking sample-and-hold into a quantizer
3. separating pitch-change rhythm from note-trigger rhythm
4. generating accent patterns
5. creating two-voice interlocking melodic lines
6. using alternating mode for tied/legato phrase behavior
7. using chained mode for longer melodic forms

In practice, Stoicheia turns plain pitch material into **musical phrasing**. If you already have any CV source that can produce notes, Stoicheia can make it feel alive.

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