2hp — Pluck

- Manual PDF

Manual PDF

Module analyzed: Pluck

Pluck is a **2HP Karplus-Strong string synth voice** designed for **melodic, plucked, string-like sounds**. From the manual, it is a **complete sound source** with:

- **Trig input**
- **Damp CV + knob**
- **Decay CV + knob**
- **1V/Oct input**
- **Pitch knob**
- **Audio output**
- **4-voice polyphony**

That means this module is especially good at creating: - plucked melodies - pseudo-harp and mallet lines - bass plucks - ringing chordal arpeggios - layered polyphonic trigger patterns from a single voice output

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What this module does musically

Pluck uses a **Karplus-Strong algorithm**, which is essentially a synthesized string model. In practice, that gives you:

- bright plucks
- muted string tones
- short percussive notes
- longer resonant string sounds

• bassy, dirty “half-strung” textures as the manual describes

Because it has **1V/Oct tracking**, it can be used like a melodic oscillator/voice. Because it has a **Trig input**, it behaves more like a self-contained plucked instrument than a continuously droning oscillator.

Key performance behavior from the manual

A few details in the manual are very important for patching melodic material:

1. Trigger creates new notes

Each incoming trigger creates a new note using the current settings of: - Pitch - V/Oct - Damp - Decay

So the module “samples” those settings at note onset.

2. Four voice polyphony

It can generate **up to four notes simultaneously**, and when a fifth trigger arrives, the **oldest voice is replaced**.

Musically, this means: - overlapping melodies work well - arpeggios can smear into chord-like textures - fast note sequences can build harmonic clouds - long decay settings can create accidental harmony from monophonic trigger streams

3. Damp and Decay affect only new notes

This is crucial.

Per the manual, **Damp** and **Decay** only affect **newly generated notes**, not notes already ringing.

That means you can: - sequence timbral variation per note - make each new pluck brighter/darker - make accents by increasing decay on certain

steps - create evolving melodies where older notes retain their own character

4. Pitch knob remains active on the most recently generated note

This is a very interesting detail. The manual says the pitch control remains active for the **most recently generated note**, allowing: - vibrato - pitch slew - easier tuning while a note rings

So while older polyphonic voices stay where they were triggered, the newest note can still be “played” with the pitch control.

How to use Pluck for melodic components

1. Basic melodic voice

This is the simplest patch.

Patch: - Sequencer pitch CV -> **V/Oct** - Gate or trigger sequencer -> **Trig** - **Out** -> VCA, LPG, mixer, filter, or directly to output chain

Result: A straightforward plucked melodic line.

Tips: - Use shorter **Decay** for staccato lines - Use longer **Decay** for harp-like overlap - Use **Damp** lower for more muted tones - Use **Damp** higher for brighter, harmonically rich notes

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2. Polyphonic arpeggio texture

Since the module has **4-voice polyphony**, one sequencer can generate more than just a monophonic line.

Patch: - Fast clocked pitch sequence -> **V/Oct** - Matching triggers -> **Trig** - Set **Decay** medium to long

Result: As notes overlap, you get a shimmering arpeggiated texture that can imply chords.

Why it works: Each trigger creates a new voice, and older voices continue ringing. With the right sequence, a simple melodic pattern becomes a harmonic bed.

Best use cases: - ambient arps - generative melodic figures - pseudo-harp cascades - Berlin-school pluck lines

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3. Bass plucks

The manual specifically suggests it can move into “grungy half-strung bass.”

Patch: - Low-register sequence into **V/Oct** - Trigger pattern into **Trig** - Lower **Damp** - Medium-short **Decay**

Result: Short, punchy bass notes with string character rather than pure analog oscillator tone.

Variation: Add CV to **Decay** so some notes sustain longer than others. This gives a more “played” bassline feel.

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4. Humanized melodic phrasing with Damp CV

Because **Damp CV** is bipolar and added to the knob position, you can animate tone on a per-note basis.

Patch ideas: - Random stepped CV -> **Damp** - Slow sequencer row -> **Damp** - Accent CV -> **Damp**

Result: Each note can be: - brighter - duller - tighter - more open

This is extremely useful for making repetitive melodic lines feel expressive.

Musical application: - brighter notes on accented beats - muted notes between accents - alternating timbre in ostinatos - pseudo-picking variation like a guitarist or harpist

Manual range: - **-5V to +5V**

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5. Dynamic note-length melody with Decay CV

Decay is one of the best modulation points for musical phrasing.

Patch ideas: - Accent lane from sequencer -> **Decay CV** - Random CV -> **Decay CV** - Slow LFO -> **Decay CV** - Euclidean accent pattern -> **Decay CV**

Result: Some notes become short and dry, others bloom and ring.

Because **Decay only affects new notes**, you can get very nuanced melodic articulation: - ghost notes - accents - phrase endings with longer sustain - occasional blooming harmonic tails

This is one of the easiest ways to make Pluck feel “performed” rather than mechanically sequenced.

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6. Chord illusion from a monophonic sequencer

Even though there is only one V/Oct input and one trigger input, the polyphony allows chord-like results.

Patch: - Send a melodic sequence with medium/long decay - Use repeated triggers and intervals in the sequence - Let notes overlap

Result: You can imply chords with: - broken triads - 1-5-8 patterns - pedal-note figures - repeated upper chord tones over changing bass roots

Example sequence ideas: - C, G, E, G - C, E, G, B - root, 5th, 9th, 3rd - octave displacement arpeggios

Because 4 notes can ring at once, Pluck can behave almost like a mini chord resonator when sequenced this way.

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7. Vibrato and expressive pitch movement

The manual notes that the **Pitch knob remains active for the most recently generated note**.

This means after triggering a note, you can manually perform: - slight vibrato - subtle pitch bends - tuning nudges - glides on the newest note

Musical use: - expressive leads - live performance embellishment - bending the final note of a phrase - making a repeated pattern feel less rigid

If you're hands-on with the system, this is a strong performance feature.

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8. Generative melody voice

Pluck is a strong candidate for generative systems.

Patch: - Random quantized CV -> **V/Oct** - Irregular trigger source -> **Trig** - Slow random voltage -> **Damp** - Another slow random voltage -> **Decay CV**

Result: An evolving, self-playing plucked instrument with tonal and rhythmic variation.

Because of the 4-voice overlap, even sparse generative triggers can create rich melodic/harmonic fields.

Best pairings with other Eurorack module types

The manual only covers Pluck, but as a Eurorack musician, here's how it works best with common companion modules to create melodic parts.

Sequencer

A sequencer is the most obvious partner.

Use it to send: - **pitch CV** to V/Oct - **gate/trigger** to Trig - optional modulation lanes to Damp/Decay

This gives you: - basslines - melodies - arpeggios - repeating motifs

Quantizer

If using random or unquantized CV, a quantizer before **V/Oct** keeps the output musical and scale-locked.

Great for: - generative plucks - modal runs - harmonic consistency

Trigger sequencer / Euclidean trigger source

Since notes are initiated by triggers, rhythmic trigger design strongly shapes the melody.

Use this for: - syncopation - ratchets - sparse note entries - polyrhythmic pluck patterns

Modulation source

LFOs, envelopes, random voltages, or sequencer CV lanes can animate: - **Damp** - **Decay**

This adds phrasing and timbral movement.

Filter

Even though Pluck already has a strong timbral identity, a filter after the output can: - soften brightness - emphasize bass use - create motion with filter envelopes - place the sound better in a mix

VCA / LPG

Pluck already produces decaying notes, but a VCA or LPG afterward can still help: - shape overall dynamics - add accenting - shorten or gate the result further - create more percussive articulation

Delay / Reverb

Pluck excels with effects.

Use delay/reverb to turn simple melodic figures into: - ambient string clouds - shimmering arpeggios - bell-like melodic trails - cinematic harmonic beds

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Practical melodic patch recipes

Patch 1: Harp arpeggio

Connections - Sequencer CV -> V/Oct - Clocked trigger pattern -> Trig - Out -> Reverb

Settings - Damp: high - Decay: medium-long - Pitch: tune to desired register

Result Bright, sparkling plucked arpeggios with overlap.

Patch 2: Muted ostinato

Connections - 8-step sequencer -> V/Oct - Trigger sequencer -> Trig - Slow CV -> Damp

Settings - Damp: lower range - Decay: short to medium

Result A tight, repetitive melodic phrase with subtle tonal variation.

Patch 3: Polyphonic pseudo-chords

Connections - Arpeggiator or sequencer -> V/Oct - Fast regular triggers -> Trig - Out -> Stereo delay / reverb

Settings - Decay: long - Damp: medium to high

Result Overlapping notes create chord impressions from a single line.

Patch 4: Expressive bassline

Connections - Bass sequence -> V/Oct - Gate pattern -> Trig - Accent CV -> Decay CV

Settings - Pitch low - Damp low-medium - Decay mostly short

Result Punchy bass plucks with accented longer notes.

Patch 5: Generative melodic texture

Connections - Quantized random CV -> V/Oct - Random trigger source -> Trig - Slow random CV -> Damp - Slow random CV -> Decay CV - Out -> Reverb

Settings - Decay medium-long - Damp around center

Result An evolving, self-playing melodic texture with harmonic smear.

Performance tips

Use decay to control harmonic density

Because Pluck is polyphonic, **longer decay = more overlap = more harmony**.

So if your melodic line feels too crowded: - shorten Decay

If it feels too dry or empty: - lengthen Decay

Use damp to place the sound in the mix

- **Higher damp setting**: brighter, more present, more harmonics
- **Lower damp setting**: darker, more muted, more supportive

This makes Damp a great “arrangement” control.

Be aware that old notes are replaced

With only **4 voices**, dense trigger streams can start cutting off earlier notes.

This can be used creatively: - for rolling arps - for controlled harmonic churn - for pseudo-strumming

But if you want clearer sustained harmony, reduce trigger density or shorten the phrase.

Exploit the newest-note pitch behavior

Since the newest note can still respond to the pitch control, you can manually add: - microtonal bends - vibrato - phrase-end bends

That makes the module more performable than many tiny digital pluck voices.

Limitations to keep in mind

From the manual:

- There is only **one audio output**, so polyphony is internally mixed
- **Damp** and **Decay** affect only newly triggered notes
- Polyphony is limited to **four voices**
- Voice allocation replaces the **oldest** note first

These are not drawbacks so much as characteristics to compose around.

Summary

Pluck is best thought of as a **compact melodic string voice** for Eurorack. It is especially strong for:

- sequenced plucks
- basslines
- arpeggios
- generative melodies
- overlapping harmonic figures
- compact polyphonic textures from a single module

Its most musically useful features are: - **1V/Oct pitch control** - **triggered note generation** - **4-voice polyphony** - **per-note timbral articulation via Damp** - **per-note sustain articulation via Decay**

If you pair it with even a basic sequencer and trigger source, it becomes a very flexible melodic tool. Add modulation to Damp and Decay, and it starts to sound expressive and alive rather than static.

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