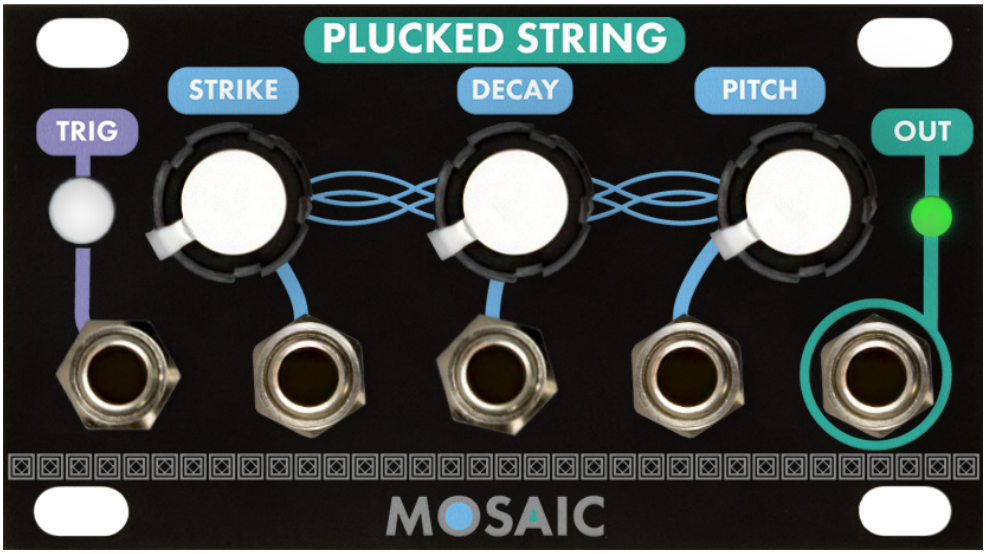
PLUCKED STRING

Manual



MOSAIC

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MOSAIC

THINGS TO KNOW

What is 1U?

1U is a measurement of height in the 19" rackmount standard. Eurorack modules adhere to 3 rack units, or 3U. Mosaic tiles adhere to 1 rack unit in height, and require appropriate rails to mount in a rack or modular case.

What 1U format are Mosaic modules?

We ship our modules with Intellijel 1U formatted front panels. If you use the Pulp Logic format, don't worry! You can purchase Pulp Logic replacement front panels on our Replacement Panels page.

Mosaic Color Guide

Each color indicates a function across the Mosaic lineup.

Green: Audio Signals

Purple: Gate Signals

Blue: Control Voltage

OVERVIEW

Description

Plucked String is a physical modeling voice that emulates plucked string timbres. Utilizing the Karplus-Strong synthesis technique with eight voices of polyphony, Plucked String is a powerful sound engine for any modular system, without sacrificing rack space.

- Physical modeling voice
- Emulates strings, guitars, and more
- High Fidelity Sound: 24-bit, 96kHz
- 6 voices

Tech Specs

- Width: 14HP
- Depth: 28mm
- Front Panel: Ships in Intellijel format. Pulp Logic replacement panels available here.
- Current Consumption: +12V = 82mA, -12V = 8mA

Installation

To install, locate space in your Eurorack case for your 1U module, and confirm the positive 12 volts and negative 12 volts sides of the power distribution lines. Plug the connector into the power distribution board of your case, keeping in mind that the red band corresponds to negative 12 volts. In most systems, the negative 12 volt supply line is at the bottom. The power cable should be connected to the module with the red band facing the front of the module.

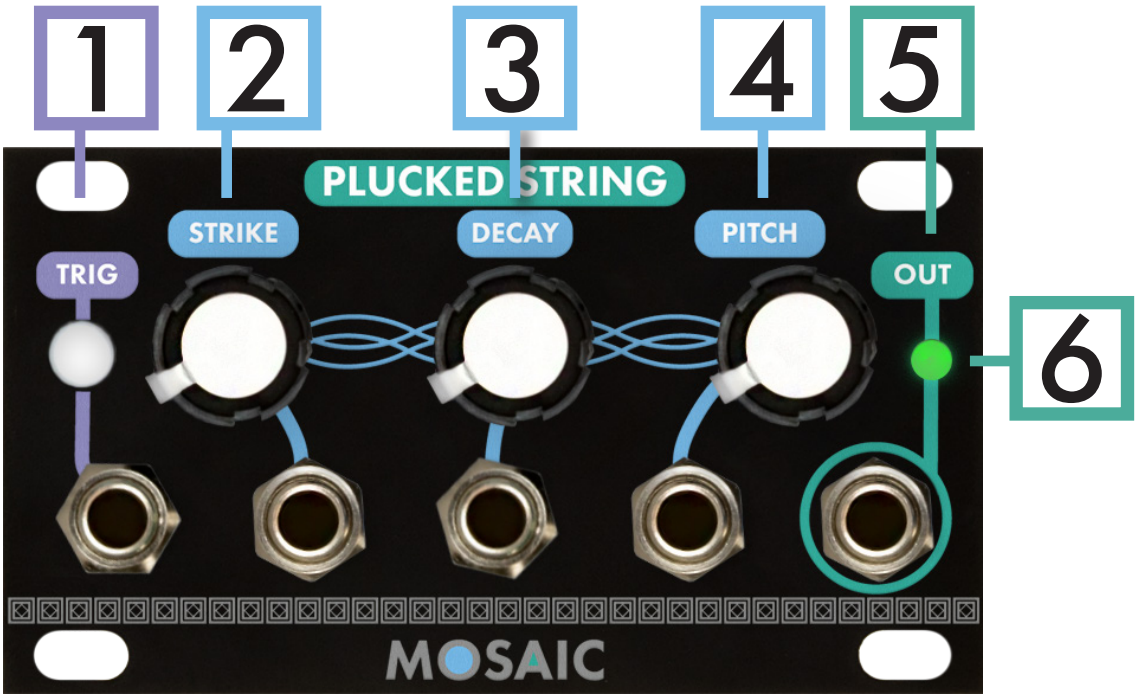
DETAILS

How It Works

Physical Modelling synthesis involves replicating the natural forms of sound production using mathematical models to recreate the sound of a plucked string, acoustic drums, or even speech. The instrument is struck, usually with a short burst of noise or other rapid waveform for excitation, then the output is fed back into a delay line and subsequently through a filter. The filtered output is both mixed into the output and back into the delay line, culminating into the string-like outputted sound.

In the case of Plucked String, so aptly named, models determine the sound produced by the interaction between "physical" constants, and gives users control over certain variables to better shape the sound.

Diagram



DETAILS

1. Trigger Input

Input jack and button for triggering the module. The button triggers the module upon release, and when held down for more than 1 second, triggers a choke effect on the decay.

Threshold: 2.5V

2. Strike

Controls the striking quality of the string. When knob is fully left, the strike has a palm mute effect. When the knob is fully right, the strike is rich with transients and harmonic content.

Range: 0V - 5V

3. Decay

Controls the decay of each voice. When the knob is fully left, the decay is at its shortest. When the knob is fully right, the decay is as its longest.

Range: 0V - 5V

4. Pitch

Controls the string pitch at 1V/oct.

Range: 0V - 5V

5. Output

Audio output signal.

Range: 10Vpp

6. Output LED

Voltage indicator of the output signal.