Cluck Manual

SV Modular

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Cluck Users Manual

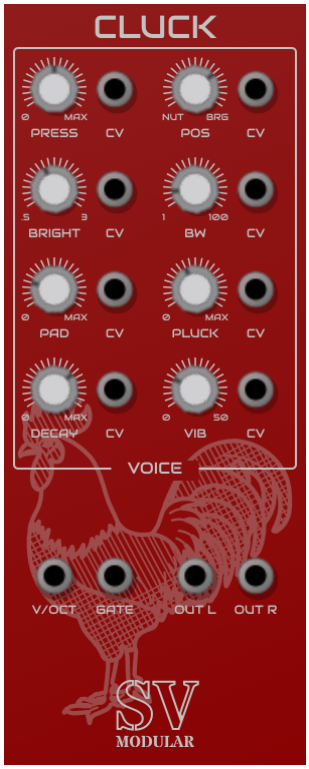


Figure 1: Cluck

Cluck is a physically modelled bowed and plucked string with a PADSynth layer underneath it. It is polyphonic, with up to 16 voices, and provides two polyphonic (stereo) outputs. Unlike the other drone modules, Cluck has a gate: a rising gate bows and plucks the string, and a falling gate lifts the bow.

Signal Path

Each voice combines three sources. A *waveguide* models a string being bowed, a short Karplus-Strong pluck is struck at the start of the note, and a PADSynth layer of detuned voices is mixed in beneath them to thicken the sound. A gentle vibrato is applied to the string, and the note is shaped by an envelope with a fast attack and a release of about one and a half seconds.

When a gate falls, the voice is left to ring out through its release, even if the cable loses its channel in the meantime, so a short gate never cuts a note.

Panel Controls and Functions

Cluck has eight knobs, each with a CV input to its right. A CV of `10v` sweeps the knob across its whole range, and the result is clamped to the range of the knob.

Bow

Press The *Press* parameter is the pressure of the bow on the string, from `0` to the maximum. Light pressure gives a soft, airy tone, heavy pressure a loud and rough one.

Pos The *Pos* parameter moves the bow along the string, from the *Nut* to the *Bridge*. Near the bridge the tone is bright and edgy, near the nut it is rounder.

Vib The *Vib* parameter sets the depth of the vibrato, from `0` to `50` cents. The vibrato runs at about 5.5 Hz and fades in over 200 milliseconds after each note starts.

Pluck

Pluck The *Pluck* parameter sets the level of the plucked attack at the start of the note, from `0` to the maximum.

Decay The *Decay* parameter sets how long the plucked attack rings, from `0` to the maximum.

Pad

Pad The *Pad* parameter mixes in the PADSynth layer, from `0` to the maximum. At `0` only the string is heard.

Bright The *Bright* parameter controls how quickly the higher harmonics of the pad fall off, from `0.5` to 3.

BW The *BW* parameter controls the bandwidth of the pad harmonics, from `1` to `100` cents. At low values the pad sounds like strings in unison, at high values it spreads into a chorus.

Inputs

V/OCT The *V/OCT* input sets the pitch, at 1 volt per octave, with `0v` as C4. The input is polyphonic, and up to 16 channels will each play a voice.

Gate The *Gate* input starts and releases each voice. A rise of `0.5v` or more bows and plucks the string, and a fall lifts the bow. The input is polyphonic, and channel *n* gates voice *n*.

Output

OUT L / OUT R The *OUT L* and *OUT R* outputs carry the left and right channels of the sound at about +/-5 volts. Both outputs are polyphonic: channel *n* carries voice *n*, and the channel count follows the highest voice that is still sounding, so release tails are kept. Use a polyphonic mixer to sum the voices.

Cluck has no reverb of its own. Patch an external reverb after it for a sense of space.