Pseudos - User Manual

Firmware 0.0.1

Dictionary

- CV - control voltage
- FM - frequency modulation
- VOCT - voltage per octave (pitch CV)
- VCA - voltage controlled amplifier
- turing sequence - random pitch sequence locked at different lengths

Hardware

- 14 HP
- 35 mm deep
- TODO mA +12V
- TODO mA -12V
- 0 mA 5V

Usage

pseudos is a random cv generator with a built in oscillator. its buttons are used to lock turing machine sequence lengths and pick quantization chord modes. its oscillator outputs random simple waveforms locked to the turing sequence (sine, square, saw, triangle, etc.). its second cv out provides a macro random signal that updates at multiples of the turing sequence length.

Inputs:

Note 1: CV inputs do NOT have a circle graphics around their hex nuts
Note 2: shift + knobs will override default knob behaviors. knobs must be returned to their original value to return to default behaviors. when a knob returns to its normal behavior, all 8 sequence length lights will flash.

- **clock -** gate in for syncing to an external clock signal
- **rate -** knob for setting clock length. when a clock signal is plugged in, rate will act as a clock multiplier. shift + rate knob will set the number of turing sequence cv out waits before updating (0 updates every clock, 1 waits for one turing series completion before updating, etc).
- **offset -** knob and CV in for changing the offset of the random pitch signal. shift + offset knob will set key of quantization (Key changes will go through C, C#/Db, D, D#/Eb, E, F, F#/Gb, G, G#/Ab, A, A#/Ab, B).
- **rand -** knob and CV in for changing the amplitude of the random pitch signal. shift + rand knob sets glide amplitude.
- **quant -** knob and CV in for changing the quantization table. a higher quant value will include more discordant notes. Shift + quant knob sets glide time length.
- **length and chord mode buttons (02/M1, 03/M2, 04/M3, 08/M4, 16/M5, 32/M6, 64/M7) -** when shift is unpressed, buttons set the turing sequence length. when buttons are pressed together their sequence length values are summed (02/M1 + 03/M2 will result in a sequence length of 5 steps, etc.). when shift is pressed, buttons set the chord mode for the quantizer.
- **skip -** knob for changing the probability of skipping a note. shift + skip knob sets probability of skipping glide.
- **infinity -** button and gate in for unlocking the turing sequence. when a gate signal is fed into the module and the turing sequence is unlocked, a random sequence length will be chosen.
- **shift** - enables macro states for buttons and knobs

Outputs:

Note: CV outputs have a circle graphic around their hex nuts

- **clock out -** gate out for internal clock
- **gate out -** gate out for sequence notes
- **cv out -** unquantized cv out. randomization interval set by shift + clock knob
- **pitch -** quantized cv out for sequence note pitches
- **osc -** audio out. Mono oscillator shifting between random simple waveforms (sine, square, saw, triangle, etc.) with turing sequence

Additional Resources

https://github.com/rawyawmedia/eurorack/tree/main/firmware