

Grone Manecolin



This eurorack model takes remote inspiration from **Rob Hordijk** 's Benjolin, but based on different architecture and electronics.

The whole concept takes place around two digital oscillators , Oscillator one is based on Wavetable , and the second is a wavefolder one . Several cross modulation options exist , and both are combined to generate chaotic modulations via a shift register, which is called **Rungler** .

Both oscillators are also combined by a comparator that outputs square waves with variable duty cycles .

Further processing includes an MS20 filter, also with modulation options , and a final reverb capable of massive self oscillation.

Oscillators:

Contain controls for

Pitch , Rungler modulation, external CV with 1v/ oct (approx) , normalized to the other oscillator audio output for FM type generation , LFO modulation , Wave 1 in osc1 is wave select , wave 2 is crossfade between two waves , while in oscillator 2 Wave 1 is wave folding and wave 2 is overtones .

connections for both oscillators are CV control and individual output.

Noise : adds white noise to the oscillators mix

PWM mix : sums square wave from oscillators comparator

LFO :

controls for rate and wave selection, led indicator and corresponding output.

Filter:

Low pass MS20 like filter , controls for cut frequency and resonance ,with LFO and Rungler modulation , connections for external audio input , external CV control and direct filter output

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Rungler :

Shift register whose data is derived from oscillator one square wave output , and clock from selectable oscillator two square out or LFO rate , switch control.

Both clock and data have external inputs normalized to the internal sources.

its output and XOR signal also has dedicated outs

Reverb :

Datorro architecture reverb with controls for blend and decay, will turn infinite on higher decay settings. Can also process external signals via dedicated input

Output finally has a GRIT option for saturating audio and level control

Width : 33HP

Power : +12V 250 milliamps

-12V 30 milliamps