# Free Modular

# **RNG**

**RNG** 

Chance

Spread

Clock Enable

Uni 🚚

Time

Bias

Bias

Gate

Trig

RNG outputs a randomly evolving loop of CV and gates. On each clock pulse, the sequence is advanced one step. But, there is a chance for that the value at that step to be randomly mutated, resulting in musical but always-evolving sequences. While the left side of the module controls the CV output, the right side controls a trigger output. Each step, a trigger will be played on one of two channels based on the primary output.

#### **LEDs**

LEDs show a section of the current sequence. Lit LEDs indicate a value above the bias threshold. The center LED is the active value.

#### Chance

Adjusts the probability values in the loop being mutated before they are played. At full CCW, the sequence is locked. At full CW, every value is random.

#### Time

Changes the length of the loop from 1 to 32. LEDs briefly indicate the new length in binary. Normally adjusts in powers of 2; hold down the encoder to step by 1. Negative lengths (indicated by left-most LED) will cause the sequence to alternate direction.

## Spread

Attenuates the range of primary CV output.

#### **Bias**

Sets the cutoff point for the gate/trigger output. On each step, if the output value is above the cutoff it will trigger output A. Otherwise, B.

## Polarity

Switches output between unipolar (0v to 5v) and bipolar (-10v to 10v).

## Trig/Gate Switch

A or B will output a trigger at each step.
A or B will stay high (maybe for multiple steps) until they switch.

# **Clock Input**

Trigger rotate the loop forward one step and sends a new value to all outputs.

### **Mutation Enabled Gate**

Normalled HIGH. When pulled LOW, the sequence is locked

## **Primary Output**

Outputs the main semilooping, semi-random stepped CV value.

## Trig/Gate outputs

Either A or B will output a trigger or gate based on the main output and bias.