

# TM



## **Description**

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TM is a probabilistic random sequence generator based on the research of Alan Turing. His Turing machine was a mathematical model of computation that could, in theory, create any output based on a set of instructions and input variables. In a similar way, the TM chooses random values for steps in a sequence based on the user's probability settings. By manipulating probability and sequence length, the module can generate an infinite number of sequences. Whether you're looking for a controlled random source, or an evolving melody generator, TM has you covered.

- Probability control from full random, to locked sequence
- Sequence length from 1-32 steps
- Amplitude control for limiting the range of new random values
- Run through a quantizer for generative melodies

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## **Installation**

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To install, locate 2 HP of space in your Eurorack case 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 TM with the red band facing the front of the module.

## **Specifications**

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**Format:** 2 HP Eurorack module

**Depth:** 47mm (Skiff Friendly)



## General Functions Overview

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### 1. TRIG LED:

LED that indicates when a change in sequence has been made

### 2. TRIG:

Trigger input

A random voltage will emit from *OUT* when a trigger or gate signal is received by the *TRIG* input

Threshold: 2.5V

### 3. PROB CV:

Control voltage input for *PROB*

Range: 0V – 5V

### 4. PROB:

Controls the probability of the random voltages assigned to each step in the sequence

If the knob is far left, probability will be set to 100% and a new random voltage will be generated for the active step of the sequence when a trigger or gate signal is present at the *TRIG* input

If the knob is far right, probability will be set to 0% and the sequence will be locked to its last random voltage value, advancing to the next successive step in the sequence without any change in voltage

### 5. STEPS CV:

Control voltage input for *STEPS*

Range: 0V – 5V

### 6. STEPS:

Controls the length of the sequence

If the knob is far left, 2 steps will be included in the sequence

If the knob is far right, 32 steps will be included in the sequence

**7. AMP:**

Amplitude control for the random voltage emitted from *OUT*

If the knob is far left, random voltage will be fully attenuated (0V)

If the knob is far right, random voltage will be full scale (5V)

**8. OUT:**

Random voltage output

Range: 0V – 5V