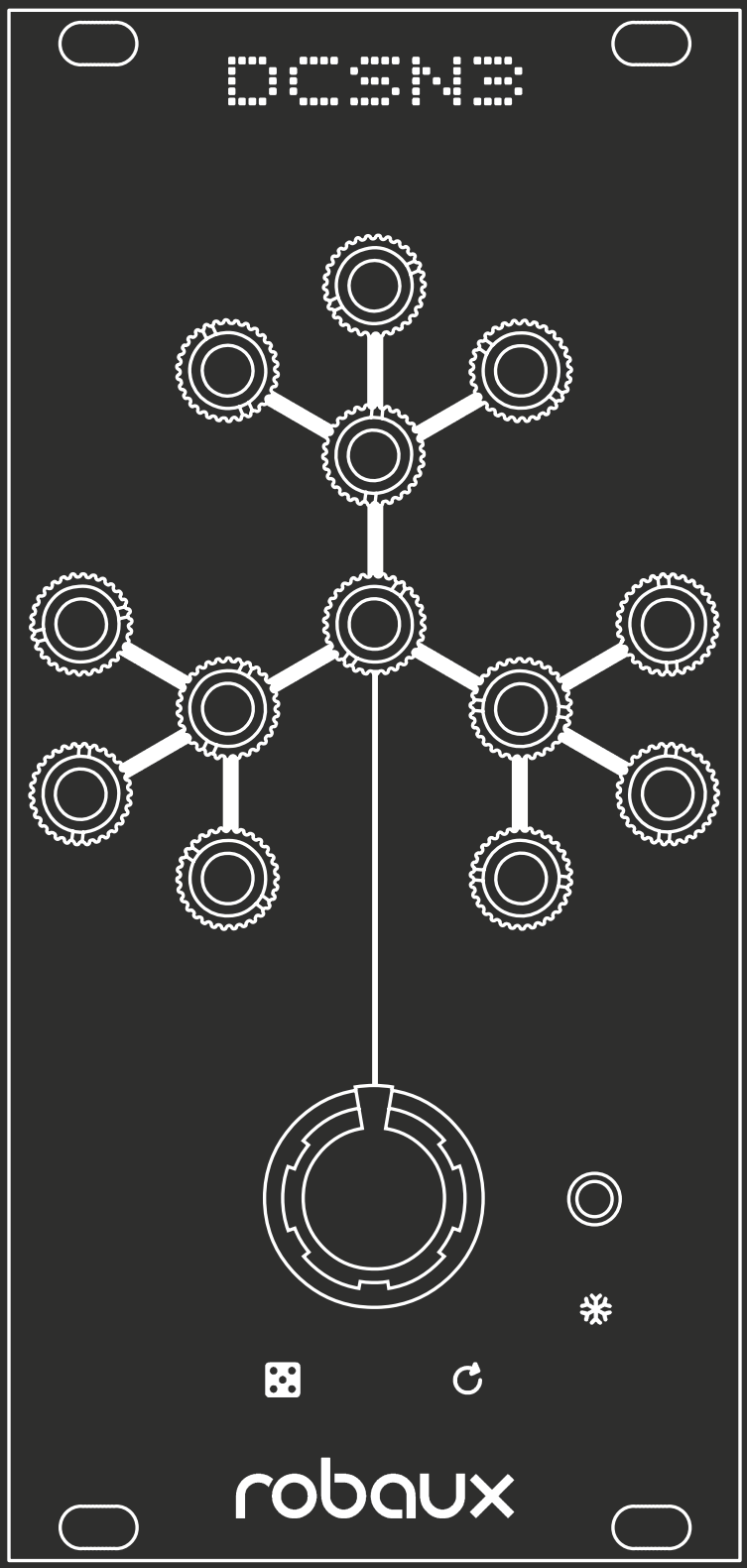



# User Manual

# Plant a tree in your rack.

The Robaux Decision Tree module is a versatile tool for generating a wide range of patterns, rhythms, and timing effects.

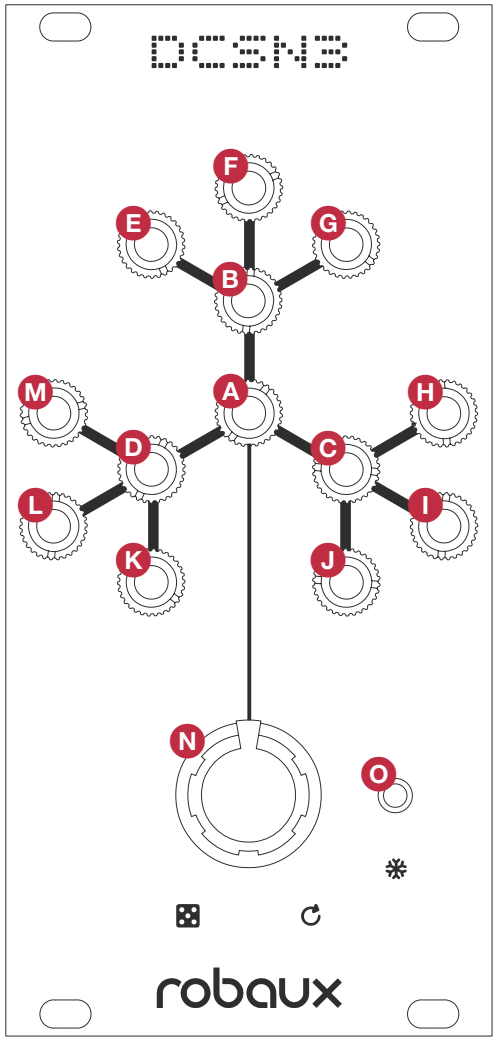
## Installation

The DCSN3 requires a ±12V power supply (2x5-pin connector). The red strip of the ribbon cable (-12V side) must be oriented on the same side as the «Red Stripe» mark on the board. The module draws about 30mA from the +12V rail.

## Operation

It takes a gate or trigger signal via input A and randomly directs it to one of the three outputs B, C or D.

From there, it is further directed to one of sub-outputs E F G, H I J or K L M. This process creates a dynamic and unpredictable pattern of signals for creative sound generation and rhythmic experimentation.




By using the rotary knob N, you can smoothly adjust whether the output stays completely random ⚄ or shifts to a repeating 16-Step pattern ↻. A quick press of the O key generates a new random sequence.

This feature allows you to easily switch between dynamic randomness and structured repetition.

If the input signal pauses for an extended period, the module automatically resets to the first step. This feature ensures that the rhythmic sequence remains synchronized and consistent.

You can also use the hidden reset input described on the last page.

# Modes

You have the option to choose between monophonic or polyphonic triggers, as well as whether the signal should be sustained until the next gate.

To select a mode, press and hold the O key while simultaneously turning the rotary knob N.

While the O key is held down, the chosen mode is visually represented by a distinct pattern of illumination.

This intuitive interface allows users to easily switch between different modes and access the specific features they desire.

## Mono/Mono

In this mode, the input signal is randomly routed to one of the three outputs Ⓑ, Ⓒ or Ⓓ and then further randomly directed to one of the corresponding sub-outputs Ⓔ Ⓕ Ⓖ, Ⓗ Ⓘ Ⓙ or Ⓚ Ⓛ Ⓜ.

## Poly/Mono

In this mode, the input signal is randomly directed to one or more of the outputs Ⓑ, Ⓒ or Ⓓ, and then further randomly routed to one of the respective sub-outputs Ⓔ Ⓕ Ⓖ, Ⓗ Ⓘ Ⓙ or Ⓚ Ⓛ Ⓜ.

## Poly/Poly

In this mode, the signal is randomly output polyphonically via the three outputs and their corresponding sub-outputs.

## Latch Mono/Mono

Identical to the Mono/Mono mode, with the exception that the signal is held until a new input is detected. Indeed, this functionality makes the module an excellent choice for acting as a random switch in various setups.

## Latch Poly/Mono

Identical to the Poly/Mono mode, with the exception that the signal is held until a new input is detected.

## Latch Poly/Poly

Identical to the Poly/Poly mode, with the exception that the signal is held until a new input is detected.

# Clock Divider

In addition to the random generator mode, the Decision Tree module can also serve as a clock divider.

This means that it can take an incoming clock signal and divide it by a set ratio to generate slower clock pulses.

This functionality is useful for creating complex rhythms and timing variations in musical compositions or other applications where precise timing is required.

## Types

The module offers three distinct clock divider types. These can be accessed by simply turning knob O.

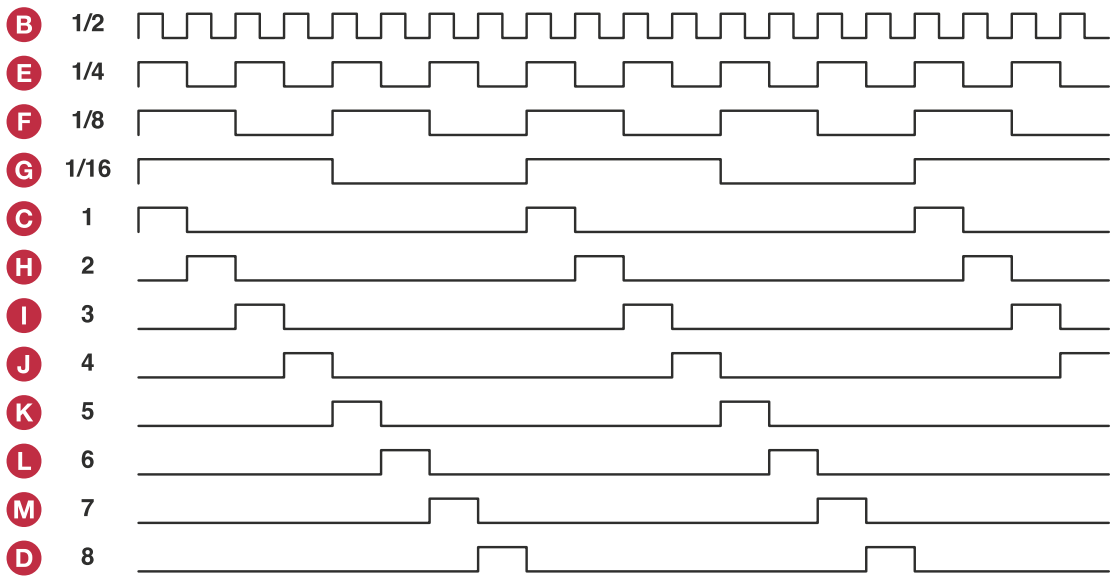
The following pages contain detailed information on the three different modes Classic Divider, 2 / 3 / 5 Divider and Spread.

## Classic Divider

To activate the classic Clock Divider mode, turn knob O completely to the left. In this mode, the module's outputs are configured as follows:

B outputs a signal divided by 2, E by 4, F by 8 and G by 16. Additionally, the lower jacks serve as an 8-step clock sequencer, sequentially cycling through the outputs C H I J K L M D.

The diagram visualizes the signals produced by each output.



## 2 / 3 / 5 Divider

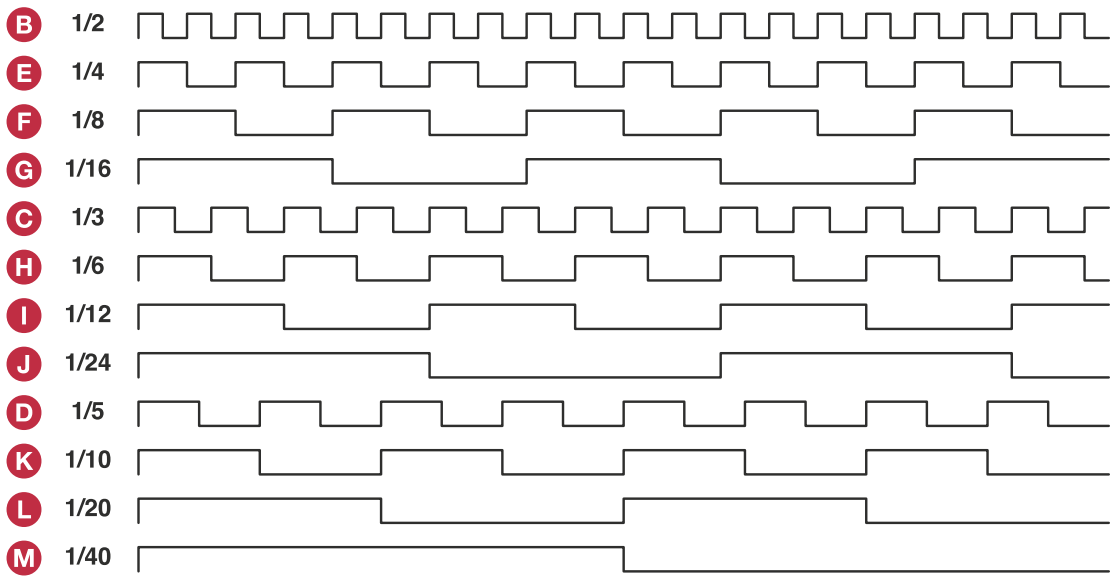
Set knob O to center for 2-3-5 mode.

On outputs B E F G the signal is output in divisions of 1/2, 1/4, 1/8, and 1/16.

On outputs C H I J the signal is output in divisions of 1/3, 1/6, 1/12, and 1/24.

On outputs D K L M the signal is output in divisions of 1/5, 1/10, 1/20, and 1/40.

The diagram visualizes the signals produced by each output.



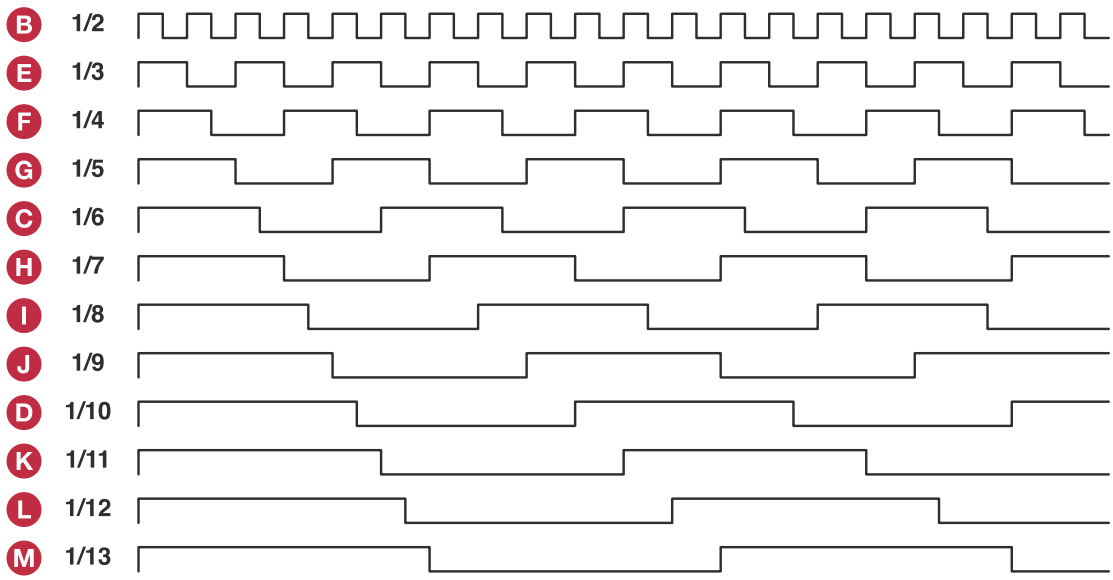
## Spread

To activate the Spread Mode, turn knob O fully to the right.

In this mode, the signal undergoes successive divisions of 1/2, 1/3, 1/4, 1/5, 1/6, 1/7, and so forth. This mode provides a wide range of signal divisions for creative experimentation.

Utilize it at audio rate for polyphonic chords using just one square VCO.

The diagram visualizes the signals produced by each output.



## Debug Mode

When starting the module, hold down the Freeze button O to enter the debug mode. In debug mode you can check if all outputs and LEDs are working correctly.

Add a clock signal to the input A and the outputs B C D E F G H I J K L M and their corresponding LEDs are switched on and off one after the other.

## Hidden Reset-Input

The module features a hidden reset input via jack M, which is handy in loop mode to return to first step.

In debug mode, simply turn the rotary knob right to activate it or left to deactivate it, causing inverted LED display when activated. Activating the reset input disables autoreset and makes the socket M unavailable as an output until it is deactivated.

Press the O button to exit debug mode.

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