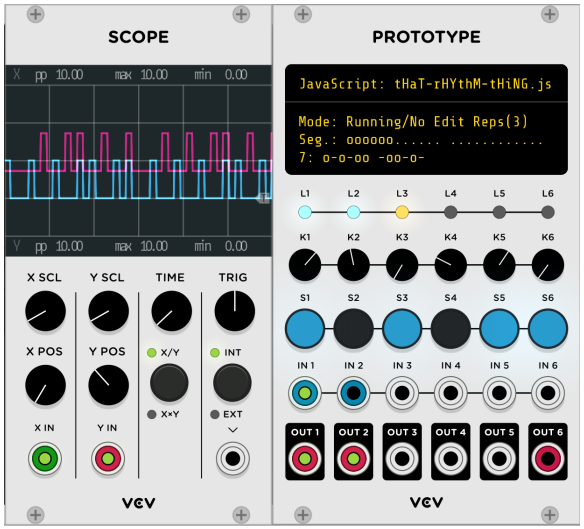
That Rhythm Thing



That Rhythm Thing is a Javascript program running in a VCV PROTOTYPE module. To get a feel for what it does, look for videos on YouTube that show how Steve Reich's 1972 piece, *Clapping Music*, works. In short, you have two tracks playing a rhythm in a loop. Each track loops for a set number of repetitions and then one of the tracks jumps ahead by one step and the cycle continues. In Reich's piece, both "tracks" are playing an identical pattern and a cycle lasts 8 repetitions at which point one of the tracks starts looping from step 2 of the pattern while the other continues to start on step 1 ...

That Rhythm Thing works in a similar way. Track 1 always starts its loop at step one of its pattern and Track 2 moves its starting point up by one step each time a new cycle starts. Unlike with Reich's piece, each Track can play a different rhythm and the number of repetitions per cycle can be changed. You can change the number of repeats and select different patterns for each Track at any time. You can also edit individual steps in a pattern, all while the module is active.

To ...	You use:	(details)
... activate	**IN 1**, **IN 2**, **OUT 1**, **OUT 2** and **OUT 6**	Patch **IN 1** (input 1) to a clock source. Optionally, patch **IN 2** to receive the clock's **RESET** trigger. Use **OUT 1** to send a trigger based on the Track 1 rhythm pattern and **OUT 2** for the Track 2 pattern. Use **OUT 6** to send an **EOC** (end of cycle) trigger. A **RESET** puts both tracks back in sync, bringing their play positions back to step one and the internal cycle count back to zero. It does not affect any of the dials or your edits.
... select a rhythm pattern	**K1** and **K2**	Knobs (or dials) **K1** and **K2** will select one of 12 predefined rhythm patterns for Track 1 and Track 2, respectively. The patterns are listed here in a separate table (page 2). When you save your patch, your pattern selection will also be saved.
... see what patterns are selected	Use the *display area* and **S1-S6**	While you are selecting a pattern (using **K1** or **K2**), a pattern number and representation of the pattern** are shown in the last line of the display area. As there are only 6 switches (buttons) – **S1-S6** – to display/edit a pattern, and there are two patterns (one for each track), each 12 beats, or steps, in length, for a total of 24 steps, the patterns are broken into 4 ***segments*** of 6 steps each (see below). You can tell which segment is shown in the 6 buttons by looking at line 2 of the display area. The text "`oooooo`" will move to indicate which segment, and which track, the buttons are showing. Although it's more difficult to interpret, connecting **OUT 1** and **OUT 2** to a scope will also show you the patterns in both tracks.
... change which pattern segment is shown in the buttons	Use **K6**	The **K6** dial will change the displayed segment. This change will be reflected both in line 2 (of the 3 lines below the Javascript name) of the display and the buttons. Each segment is displayed by the buttons using different colors. Track 1 colors are blue/blue-green. Track 2 colors are orange/yellow.
... edit a pattern	Use **K5**, **K6** and **S1-S6**	Use **K5** to enable edit mode. Turn the dial to the left or right until the display text (line 1) shows that editing is enabled (and **L4** will turn yellow). If the dial pointer is to the right of center, **OUT 1** and **OUT 2** will continue to send out triggers (**L3** will turn green). If it is instead to the left of center, the module will stop "listening" to the clock and the outputs will go "silent" (**L3** will turn red). Once in edit mode, use **K6** to display the segment you want to edit in the buttons and then click on the **S1-S6** buttons to toggle each step on or off. The changes will take effect immediately. *Any edits you make to a pattern will remain until the patch (or the module) is reloaded.*
... change the number of repeats per cycle	Use **K4**	The number of repeats is shown at the end of line 1 in the display––e.g., `(Reps(3)`. Using **K4** you can change the number anywhere between 1 and 8.

***Note: The patterns displayed in line 3 when you are selecting a rhythm are the preset patterns, not ones that have been edited.*

Rhythm Patterns

Track 1			Track 2		
0	o----- ------	Good for editing, but originally for testing.	0	o----- -----o	Good for editing, but originally for testing.
1	o---o- --o---	on the 1s (4/4)	1	o---o- --o---	on the 1s (4/4)
2	o--o-- o--o--	on the 1s (3/4)	2	o--o-- o--o--	on the 1s (3/4)
3	-o---o ---o--	on the 2s (4/4)	3	o-o--- o-o--o	
4	o-o-o- o-o-o-	on the 1s & 3s (4/4)	4	--oo-- -o--oo	
5	-o-o-o -o-o-o	on the 2s & 4s (4/4)	5	-oo-o- o---o-	primes
6	o-o-oo -o-o-o	std. bell pattern	6	o-o-oo -o-o--	inverse of standard bell
7	o-o-oo -oo-o-	bell pattern	7	o-o-o- oo-o-o	reverse of standard bell
8	oo-oo- o-oo-o	bell pattern	8	o-o-o- -o-o--	divisive rhythm pattern
9	-oo-o- -o-ooo	reverse of Reich pattern	9	oo--o- o--oo-	
10	ooo-o- -o-oo-	The *Clapping Music* pattern	10	ooo-o- -o-oo-	The *Clapping Music* pattern
11	o-o-o- oo-o-o	flipped std. bell	11	o--o-o o--o--	3/4 feel

***Note**: Information on the Bell Patterns (and divisive rhythm, #8, Track 2) can be found on Wikipedia.*

Patching Ideas

To start, trigger "short and snappy" sounds, without delay effects, and pan them hard left and right. Try different pattern combinations and let them play for a while so you hear how the shifting of Track 2 affects the rhythm. (Set the Reps–**K4**–to 2 or 3.)

Using a slow clock and sparse patterns (i.e., any of the lower numbered ones), use the triggers to alter other aspects of your patch (like pitch shifts, resets, etc.). The rhythms that the patterns create can *sound* random, but they are also predictable.

Use a track's output triggers as a clock input for a sequencer (or ?). Or logically combine both tracks' outputs and use that?

In addition to directly triggering sounds via the outs, also patch them both into logic modules and see what the AND, OR, NOR, XOR, etc. get you. Use them as related rhythms or patch them into modules that accept "accent" triggers (e.g., **Vult KNOCK**).

Use a clock divided by 4 (or 3) to directly trigger a sound (e.g., a kick). Hook the EOC trigger up to a sound, as well. These will "ground" the rhythm making it feel less random.

Use the **stoermelder 8FACE** module to record different pattern combinations (dials K1 and K2). Perhaps trigger 8FACE with the EOC trigger out?