

# SOUP



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**MIKI**

## What is SOUP?

SOUP is a semi-stubborn MIDI sequencer based on Hanne Darboven's *Opus 17a*. It can generate a number of patterns derived from the original sequence of notes in Darboven's piece. The seven colour-coded knobs on the box can be used to tweak the order, speed and frequency of the notes, as well as the MIDI channels they are played through (see below for more details).

SOUP does not produce any sound on its own – it sends out MIDI events over USB to trigger and drive software and hardware synths, drum machines, or modular systems (after the appropriate routing).

The easiest way to use SOUP is with a computer, but there are other ways too:

### A) Using SOUP with a computer

Connect the USB cable to your computer. That's it. SOUP should now be available as a MIDI source on your software of choice. It will come up as "Teensy", as that is the name of the microcontroller inside. You can use a computer to route the MIDI data out to other gear if you want.

### B) Using SOUP with a MIDI interface/router/splitter

If you want to send MIDI data to other gear WITHOUT the use of a computer in between, you'll need to use a MIDI box that can get MIDI messages over USB, and then output standard 5-pin DIN MIDI, or CV, or whatever your box does. After that you should be able to send the data to drum machines, synths, Eurorack systems, lights, and so on.

## Now what?

SOUP is designed to give you an endless, constant stream of MIDI messages, Hanne Darboven style. But YOU decide what to do with them. That means you need to assemble whatever patch/setup you need on your system to turn those triggers into cool music. The possibilities are endless.

You could make it so that:

- Each note plays a different note on a mono synthesizer
- Each note triggers a different sample on a sampler
- Each note triggers a different instrument in your setup
- Each channel triggers a different instrument
- etc.

To send data to a computer, you will need to check your available MIDI source devices and select it from that list. This will largely depend on your operating system, your software of choice, and your setup in general, but look for TEENSY in that list. SOUP is based on a microcontroller called TEENSY, so that's the name you need to look for.

Enjoy.

For further ideas, solutions, questions and soup recipes, feel free to contact us at [slimerave@gmail.com](mailto:slimerave@gmail.com)

## What do the knobs do?

SOUP's 7 knobs are not labelled – they are colour-coded. If you are colour blind, you may need to remember where each knob is, rather than rely on the colours. For the non-colour-blind, here's an overview of each of the knobs:

Purple — pattern length

Tweak this to select the length of the pattern. All the way to the left, it will play only 1 step, so the first note of Opus 17A. All the way to the right, it will play Opus from start to finish. Any value in between will give you an in between sequence length. VERY subtle tweaking is the key here!

Green — time-wonker

This knob affects the duration of each step, from left (steady, regular tempo) to right (wonky). For further wonkification of the time pattern, see Brown below.

White — jump!

This is a crucial control in SOUP. It allows you to specify a jump value for the sequence playback head. When all the way to the left, with a value of 1, the playback head jumps 1 step at a time. Increase it just a tiny bit and you will start to hear drastic changes in the sequence. The original Opus (especially if the Purple knob is at max value, full sequence) starts to get weird, or becomes totally unrecognisable. As you keep turning it to the right, the sequence advances in even larger jumps, skipping many notes/steps each time. Combining and fine tuning the Purple and White knobs is what will allow you to come up with weird new sequences. Again, VERY subtle tweaking is the key here!

Red — pitch transpose

This knob transposes the pitch of the notes being played, from left (lower pitch) to right (higher pitch).

Blue — lower MIDI channel

Orange — higher MIDI channel

Blue and Orange deserve to be explained together, because they work together, though they can also work against one another if you prefer. These select the MIDI channel(s) to send the notes to. This selection is always random but you can tame the randomness with these two: Blue acts as a selector for the LOWER random value, from 1 to 16. Orange acts as a selector for the HIGHER random value, from 1 to 16.

If they are both set to the same value, say channel 4, SOUP will always send data to that channel, since both lower and higher values for the random selector are the same. Think of this as imagining a random value from 1 to 16, but telling yourself to pick a number between 4 and, well, 4. If you then move the Blue knob all the way to the left (1), SOUP will try to select a channel between 1 and 4, and will jump between these in a random way. This can be utilised for many tricks: you may have different instruments on different channels, or instances of the same plugin on adjacent channels, etc.

Brown — timewarper

Brown is friends with the Green knob: they are both related to metrics, durations, tempo, etc. If you want to add further wonkiness to the sequence, this one will go from left (no warping) to right (tempo jumps in a random way in sudden steps up to 350 milliseconds). Extremely rave-friendly.

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