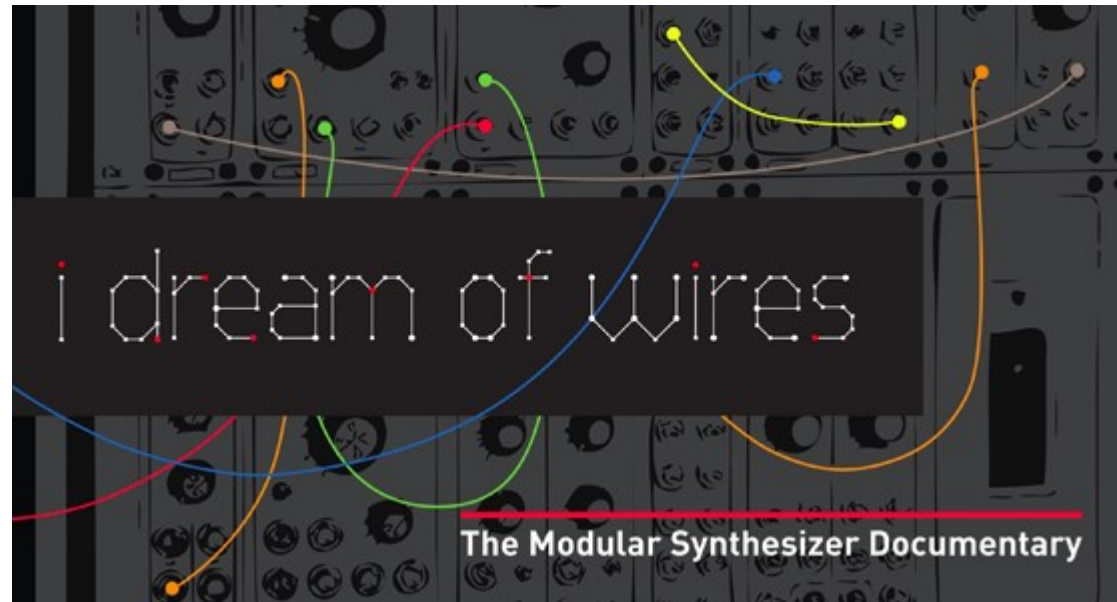


Y. Collette ([ycollette.nospam@free.fr](mailto:ycollette.nospam@free.fr))  
<https://audinux.github.io/>



# Modular Synthesis

<http://www.idreamofwires.org/>



A documentary on modular synthesis.

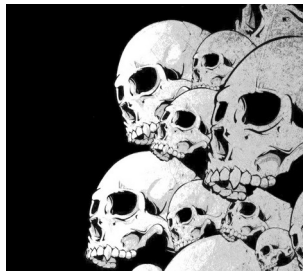


# Modular Synthesis

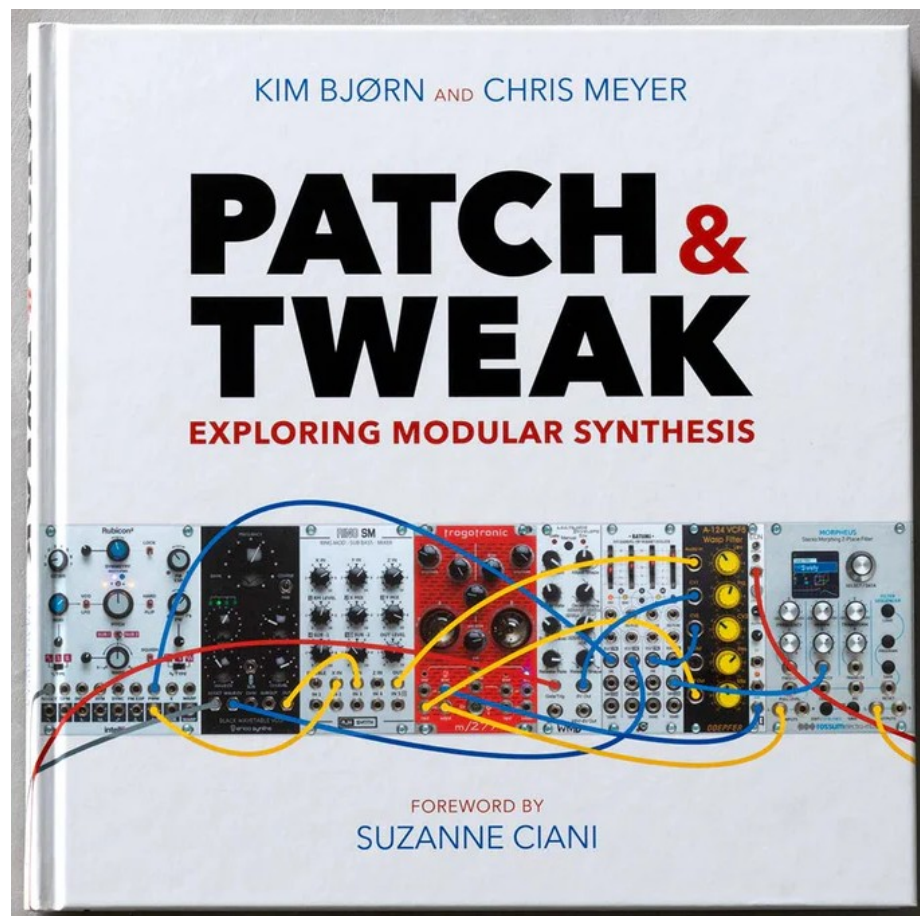
<https://sisterswithtransistors.com/>



A documentary on the female pioneers of modular synthesis.

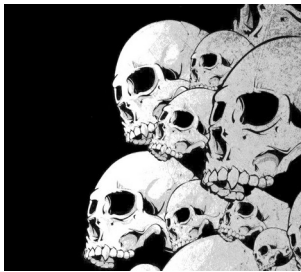


# A Good book

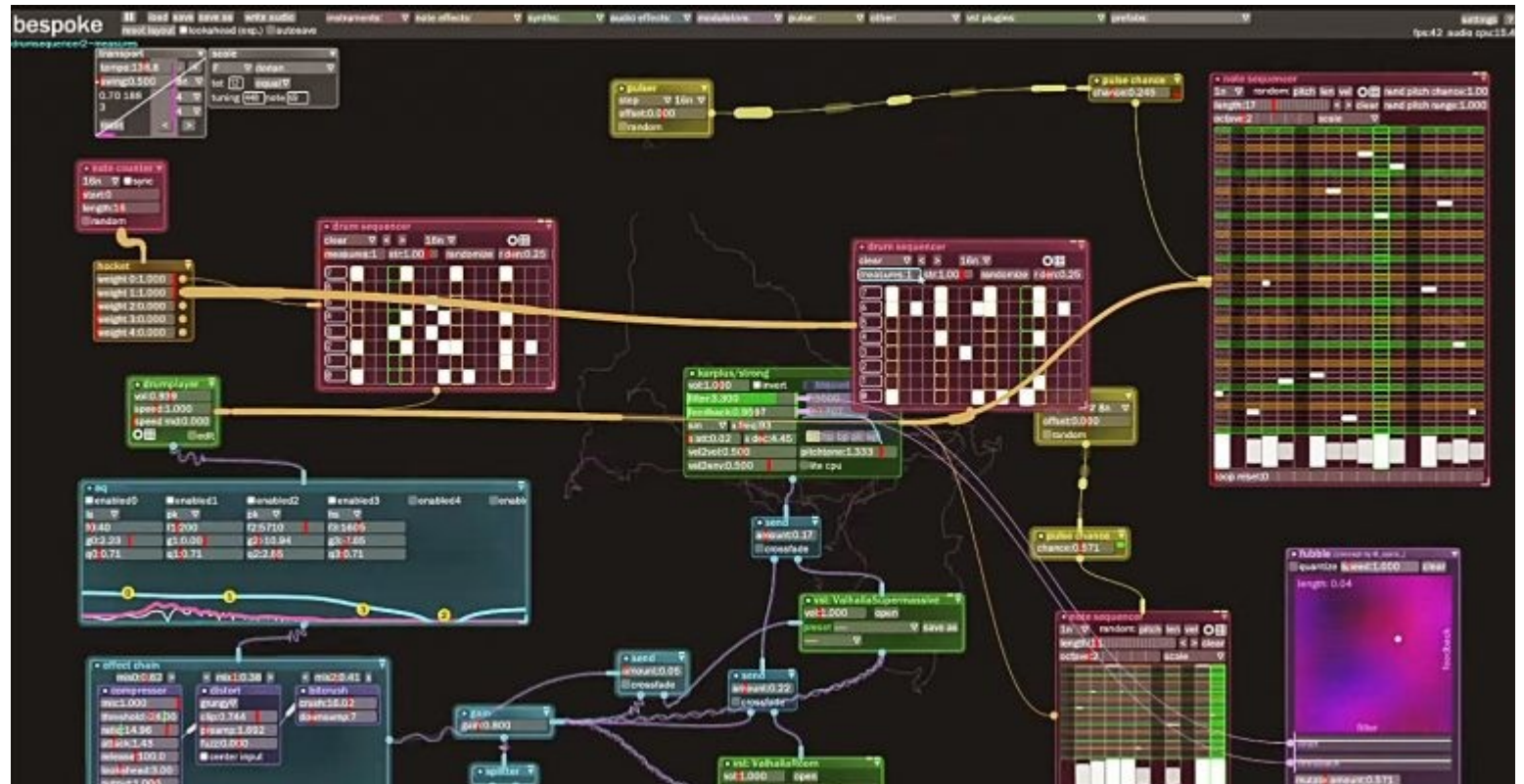


<https://bjooks.com/products/patch-tweak-exploring-modular-synthesis>

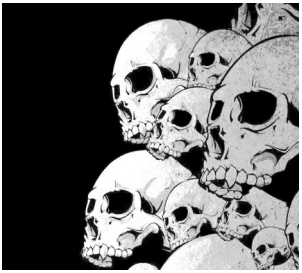




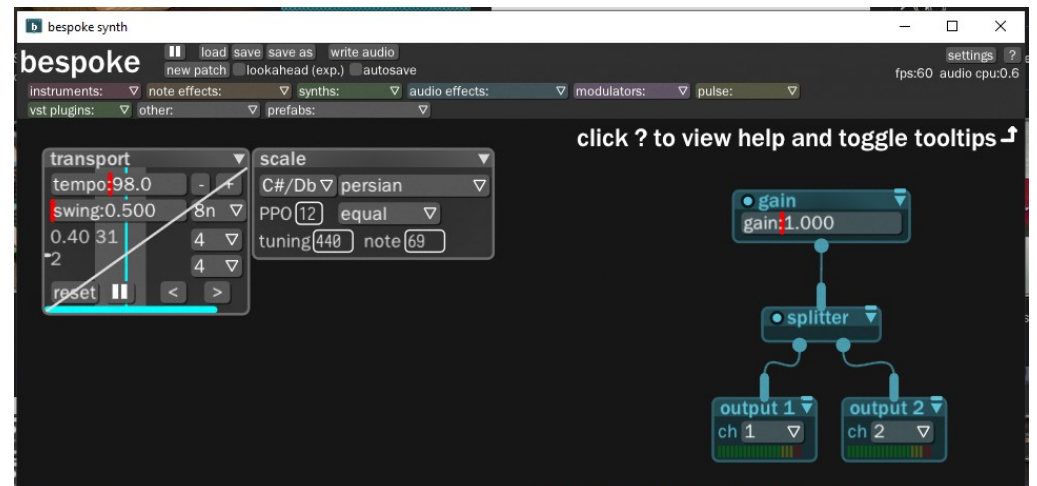
# BespokeSynth



<https://www.bespokesynth.com/>



# The starting Window





# Some shortcuts

Ctrl + wheel : Zoom

Ctrl + space + mouse : translate canvas

Letter key in the canvas : shows a list of modules with name beginning with this letter

Click + drag : select an area

Click on a selected area + drag : move the selected modules

Backspace : delete a module or a selection

Alt+Click on module+Drag : duplicate a module

How to draw a wire ?

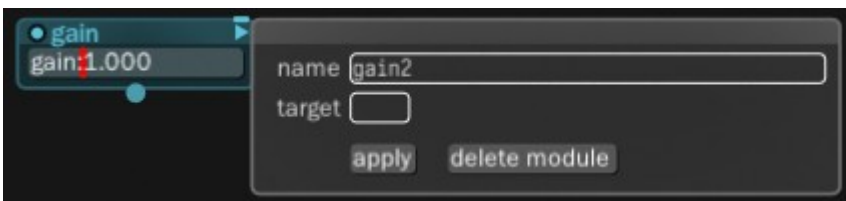
Click on the circle output of a module, while button is clicked, move the mouse to the module you want to connect to

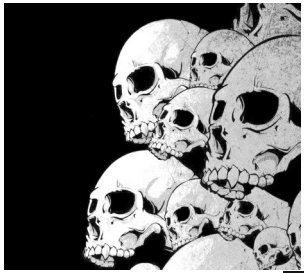
How to delete a wire ?

Click on the wire and push backspace

Autoconnect 2 modules ?

Grab a module by the title bar, hold LEFT SHIFT while module is grabbed and move the mouse so as the output circle of the grabbed module touch the module you want to connect to.





# A First Experiment

Transport : allows to tune the measure and the tempo

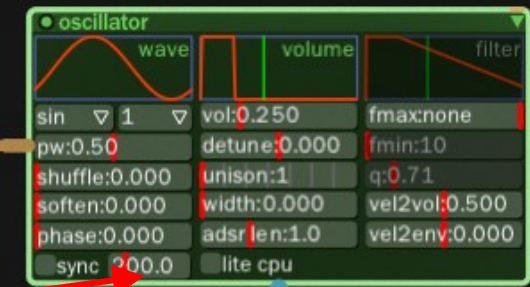
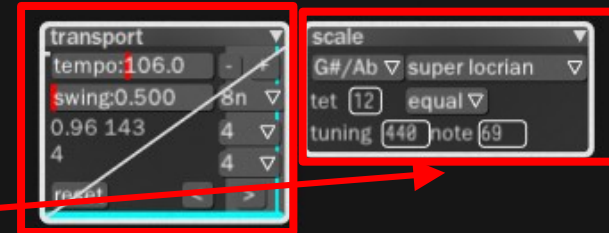
Scale: Set the scale used by sequencers

Notesequencer: a piano roll where to write notes

oscillator: the audio sound generator

effectchain: an area where one or several effect are applied to audio

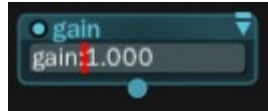
Gain, splitter, Output : to control the audio level, split the audio in several channels and send it to the speaker







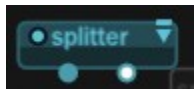
# Some Main Modules - 1



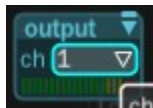
**Gain:** amplify an input



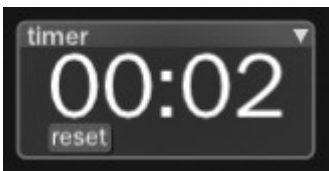
**Panner:** place an audio signal in the stereo field. Can be used to transform a mono signal into a stereo signal (some modules are not able to manage mono signal).



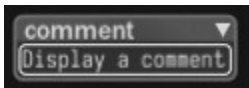
**Splitter:** Add more output connexions to an input signal



**Output:** manage multi channel output



**Ttimerdisplay:** shows a timer of the audio duration (stopped in pause mode)



**Comment:** allow to add some comments in the canvas

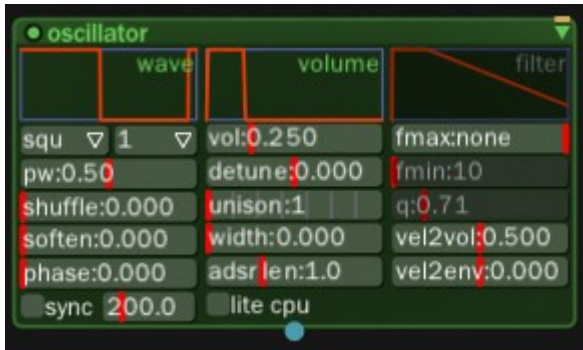


**keyboarddisplay:** a virtual keyboard module



# Some Main Modules - 2

## oscillator



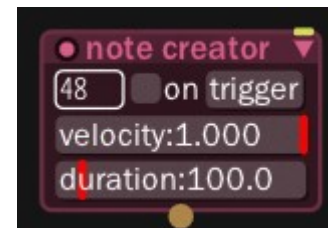
An essential module for sound generation. Able to manage multivoice sounds, sin, square and a lot of parameters can be tuned via this module. All the parameters can be LFO controlled.

## Note sequencer



A piano roll to play a sequence of notes.

## note creator



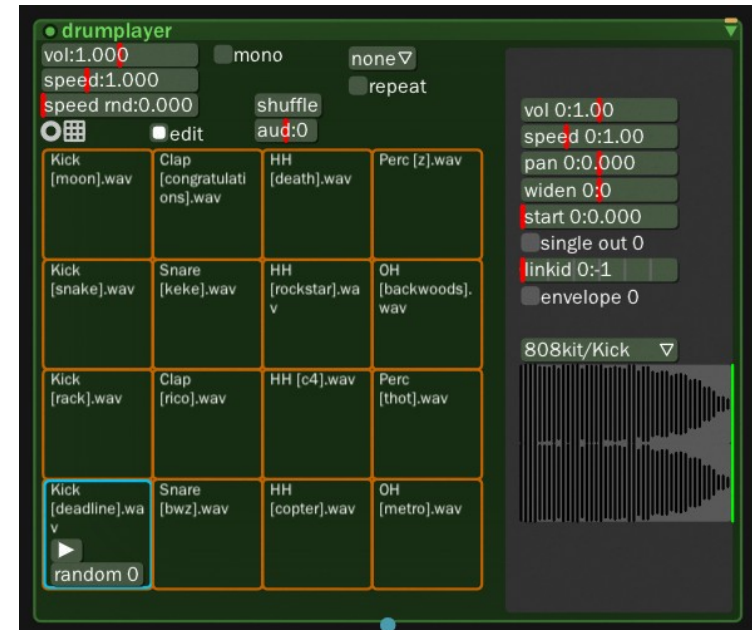
A module which can be used to produce one note on demand.



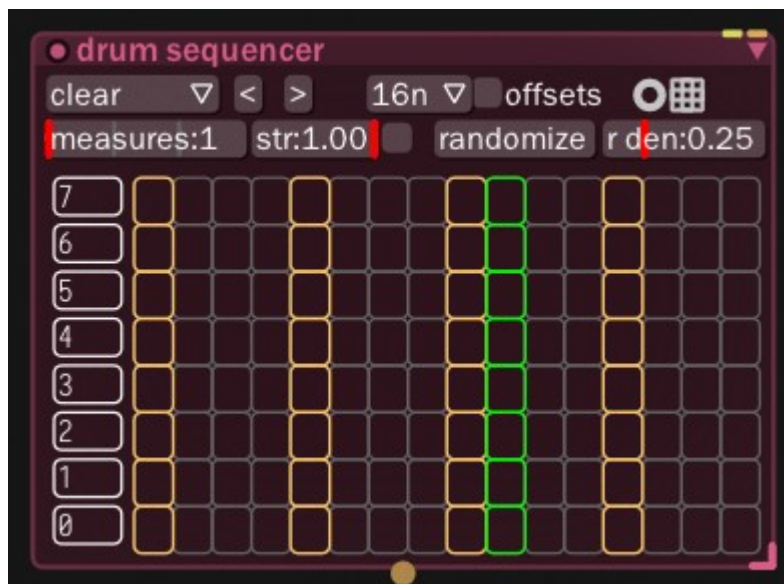
# Some Main Modules - 3

A sampler based drum player. You need to drag and drop some drum samples in the various pad. These samples are then triggered using a sequencer like the drum sequencer below.

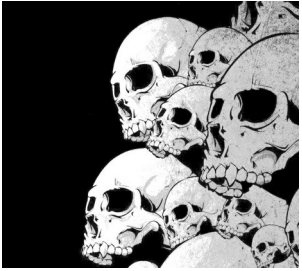
drumplayer



drumsequencer

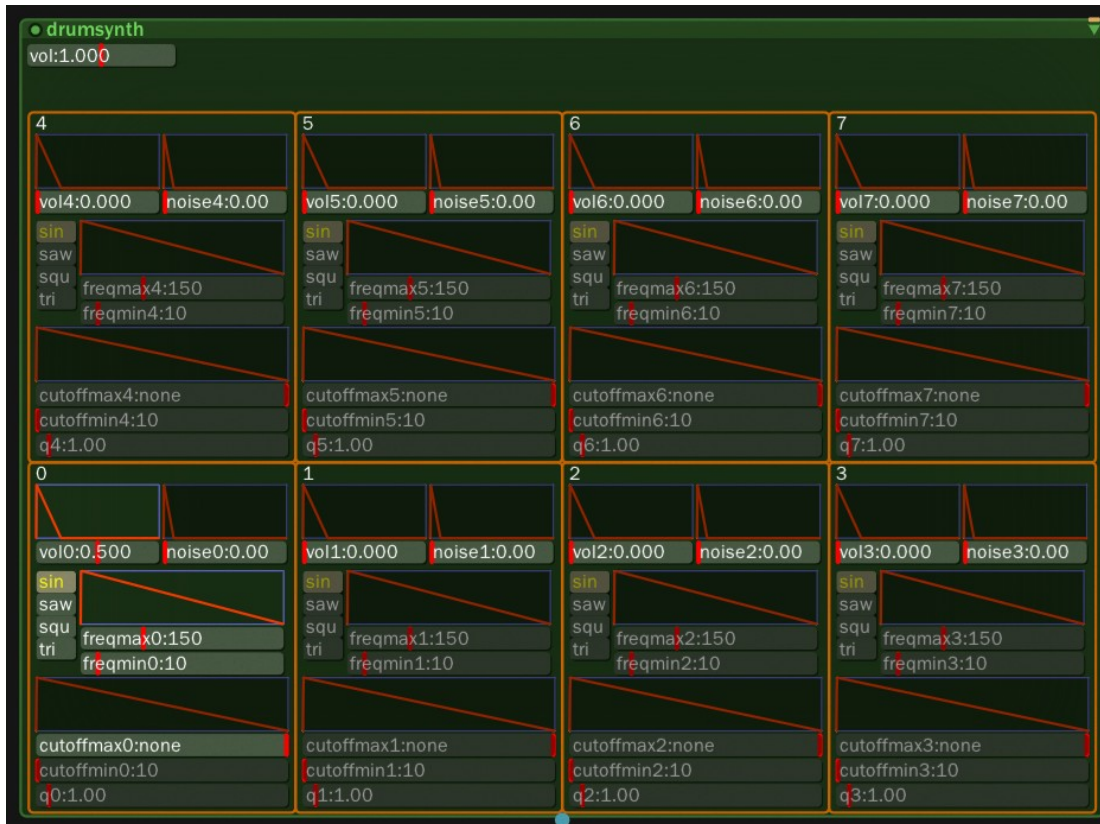


A piano roll for drum sequencing. You just need to click in a square to turn on / off a sample.



# Some Main Modules - 4

## drumsynth



Oscillator and noise drum synth

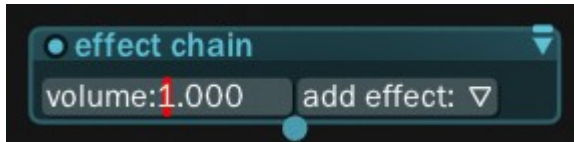
**cutoffmax\***: filter start cutoff freq  
**cutoffmin\***: filter end cutoff freq  
**edit**: display param for each hit  
**freqmax\***: oscillator start frequency  
**freqmin\***: oscillator end frequency  
**noise\***: noise volume  
**q\***: filter resonance  
**type\***: oscillator type  
**vol**: the output volume  
**vol\***: oscillator volume





# Some Main Modules - 5

## effectchain

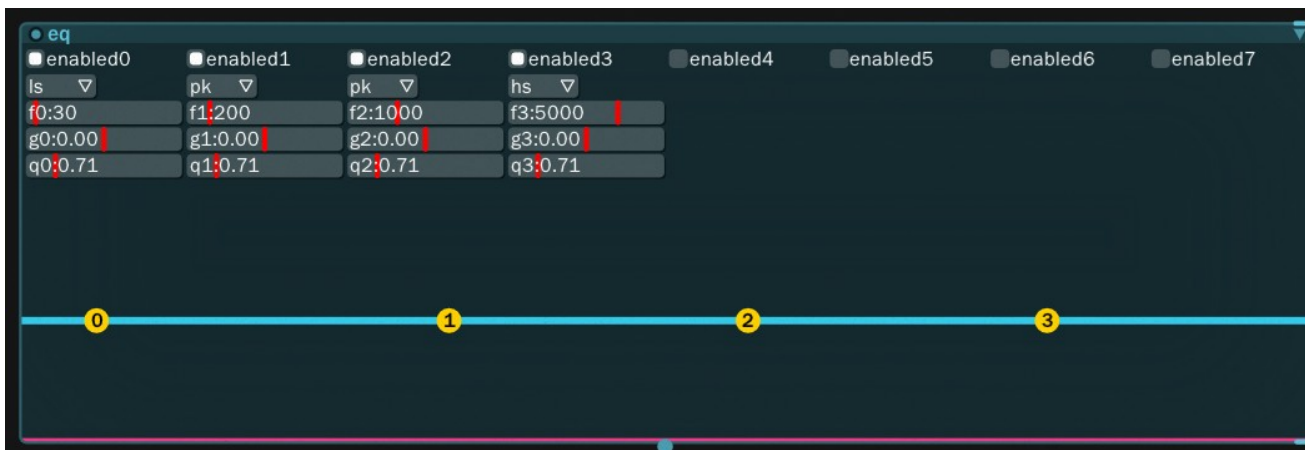


A module where several effects can be chained via the « add effect » button



Example of an effect chain with two effects : a delay and a reverb. The '<' and '>' button can be used to reorder the effects in the chain.

## eq



A filtering module. All the parameters can be controlled via a LFO.



# Some Main Modules - 6

Various interesting modules :

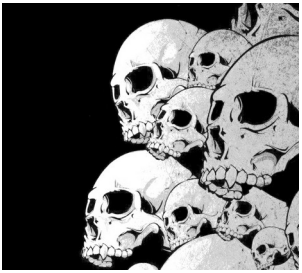
Multitrack recorder

Arpegiattor

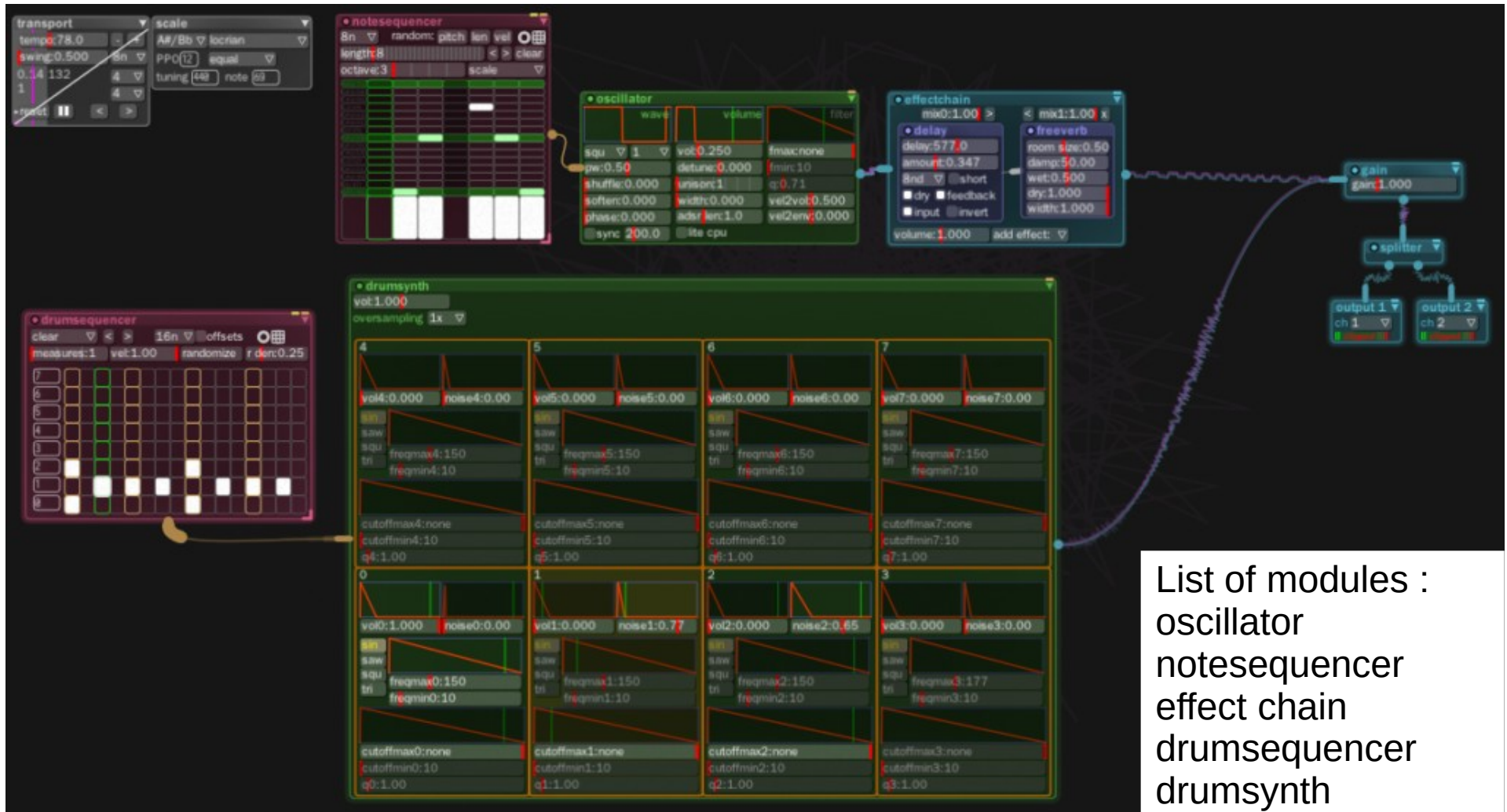
Seaofgrain

Fubble

Chorder



# Playing with drums

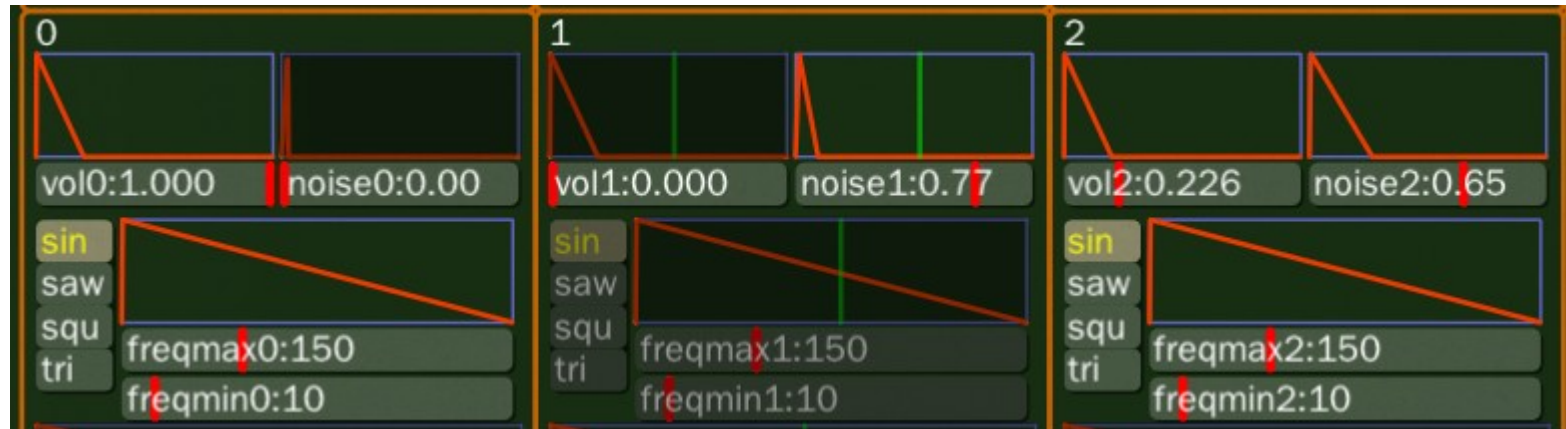


List of modules :

- oscillator
- notesequencer
- effect chain
- drumsequencer
- drumsynth

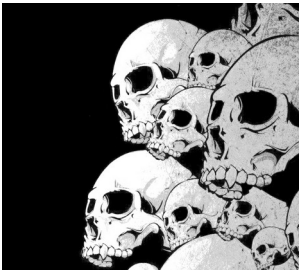


# Playing with drums

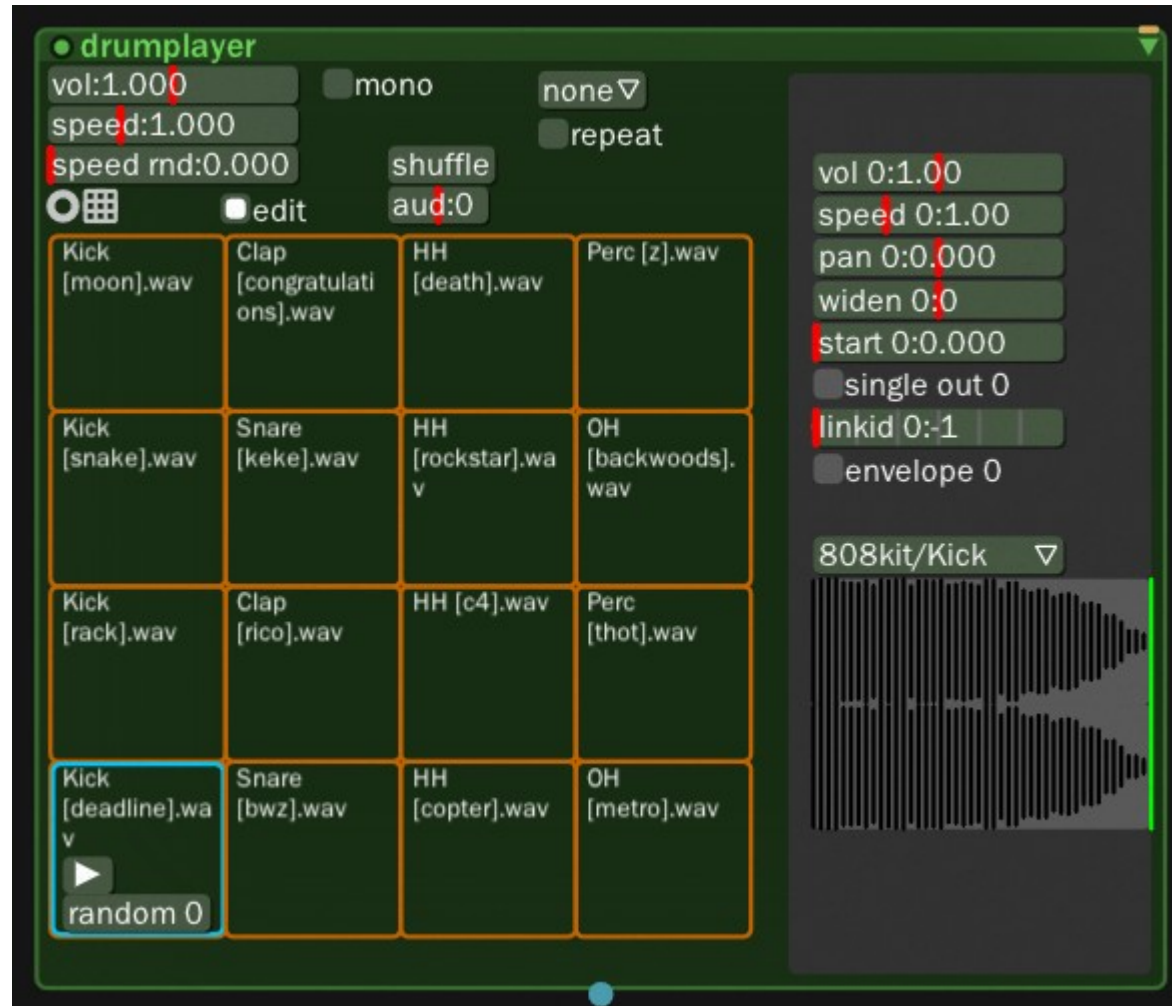


Drum sequencer settings



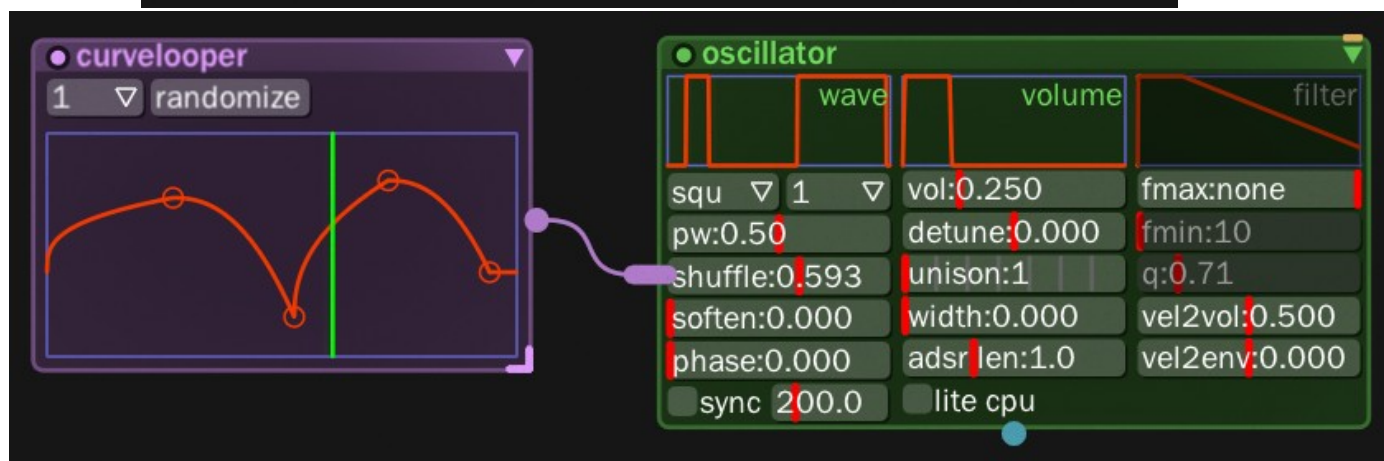
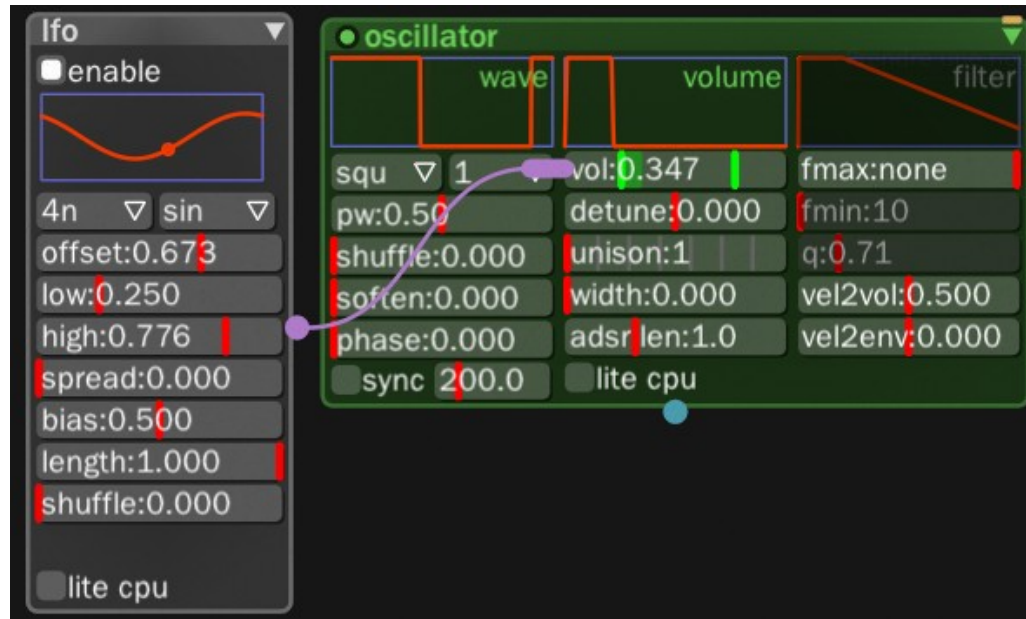


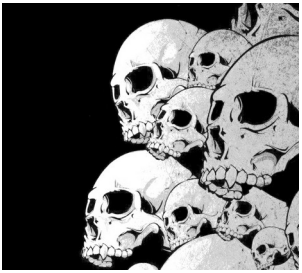
# Playing with drums



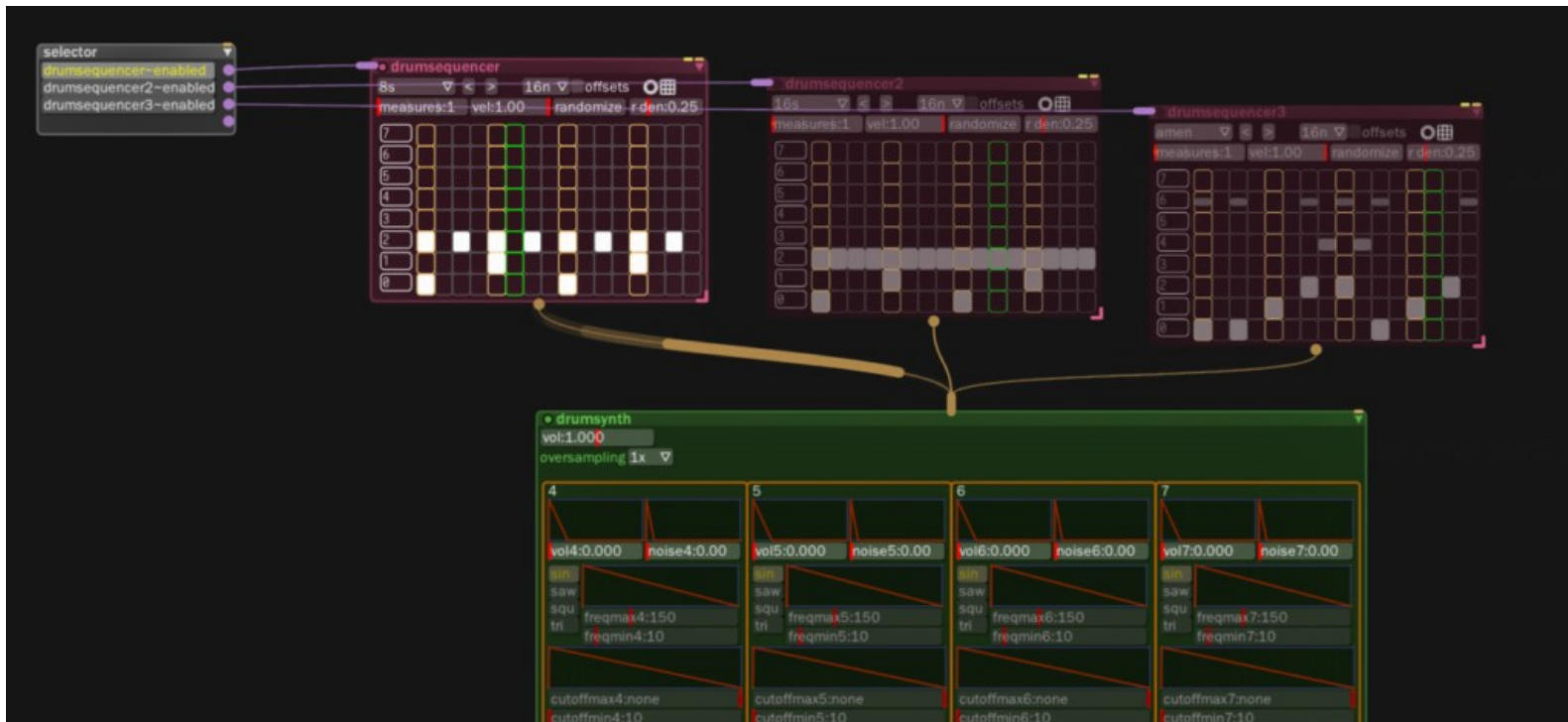
# Automation

List of modules :  
oscillator  
Curvelooper  
LFO



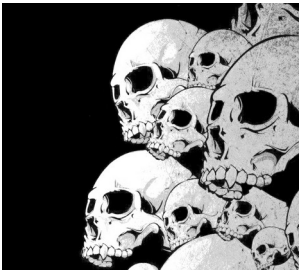


# Song Organization

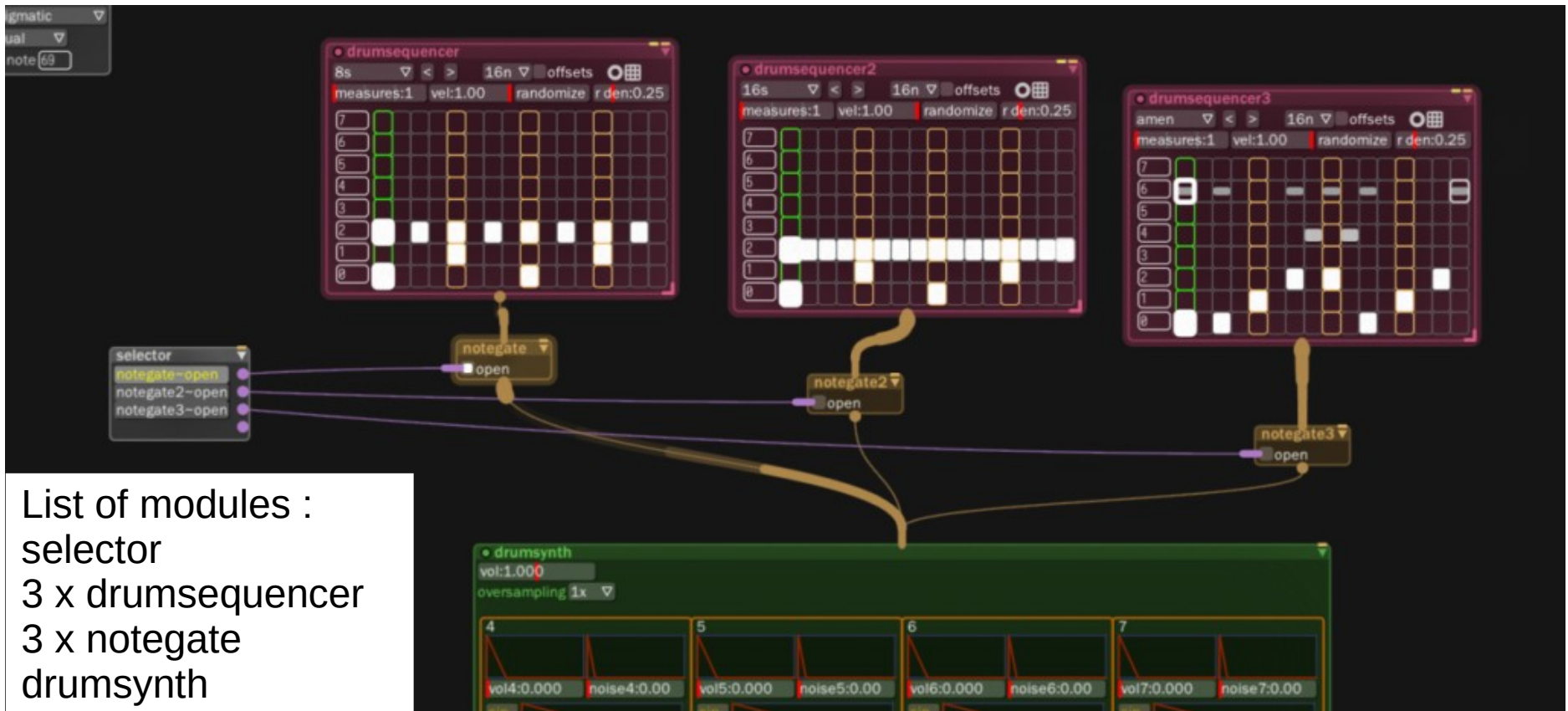


List of modules :  
selector  
3 x drumsequencer  
drumsynth

Using « selector »



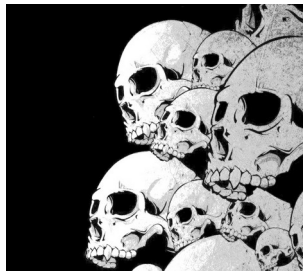
# Song Organization



List of modules :  
selector  
3 x drumsequencer  
3 x notegate  
drumsynth

Using «notegate» and « selector »

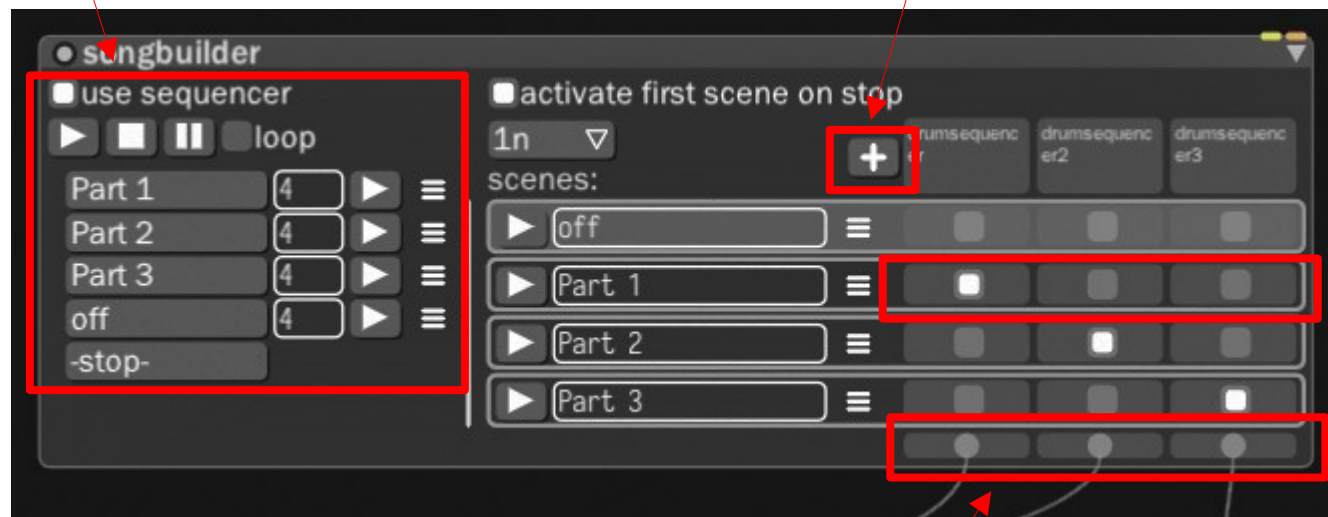




# SongBuilder

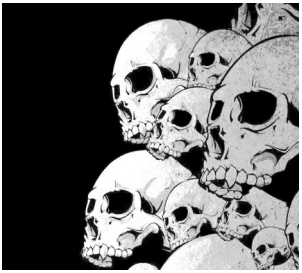
Sequencer area

Add a target control

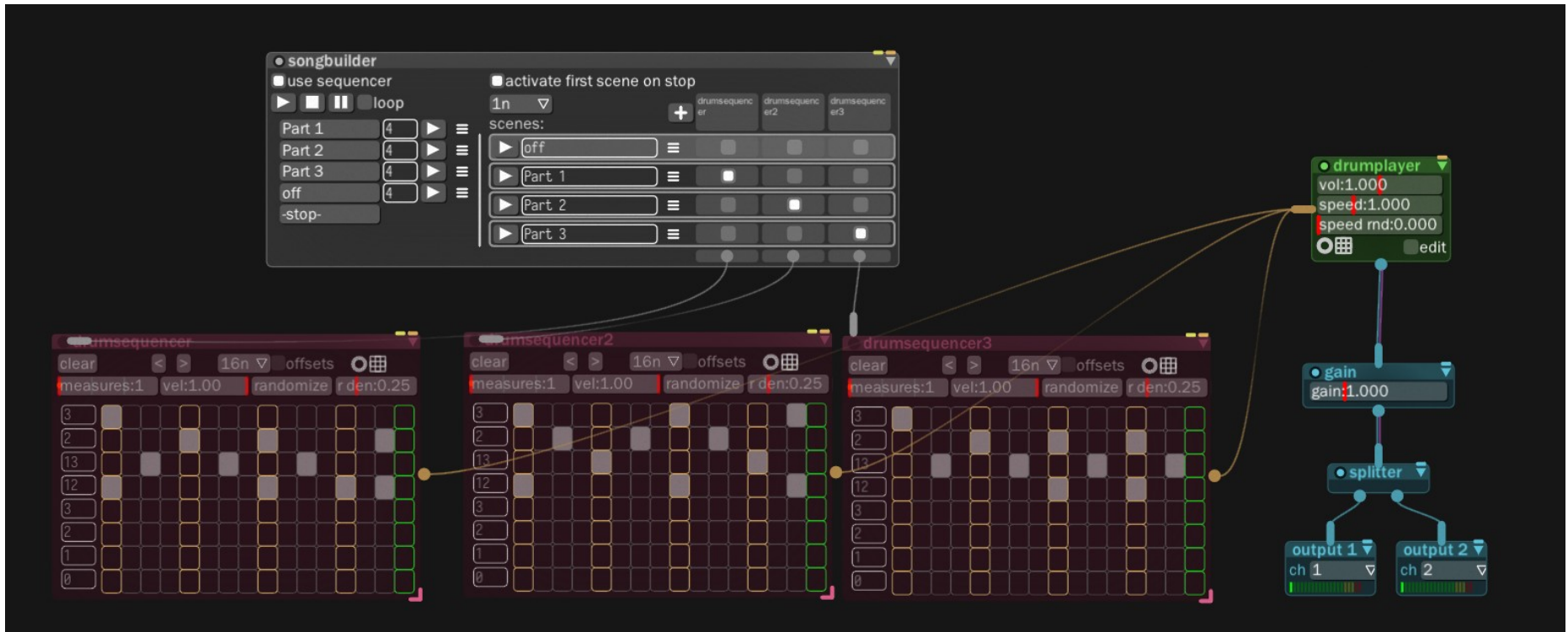


Step

To activation area  
of a module

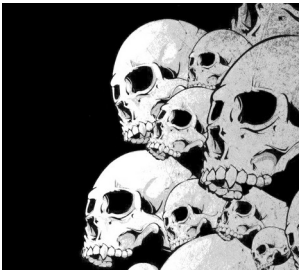


# Song Organization

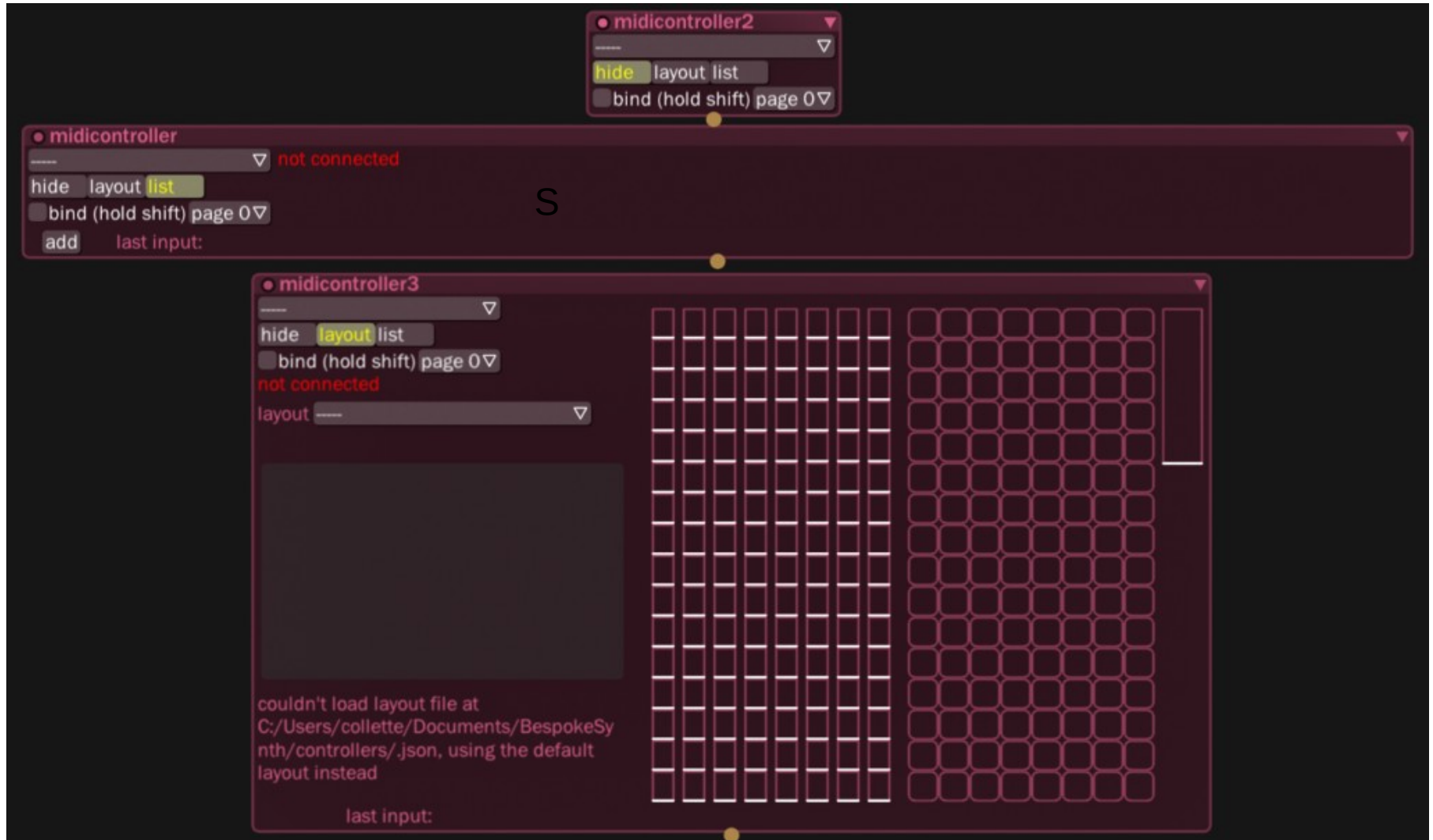


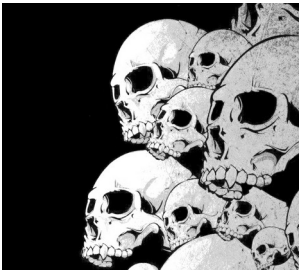
List of modules :

- 1 x songbuilder
- 3 x drumsequencer
- 1 x drumplayer

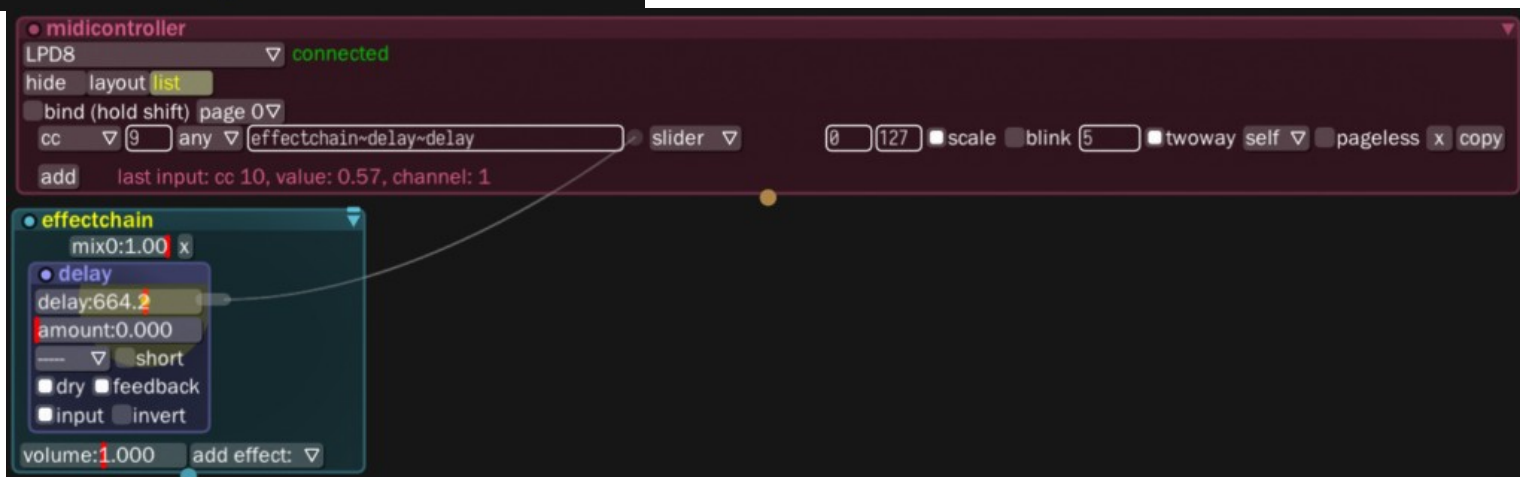
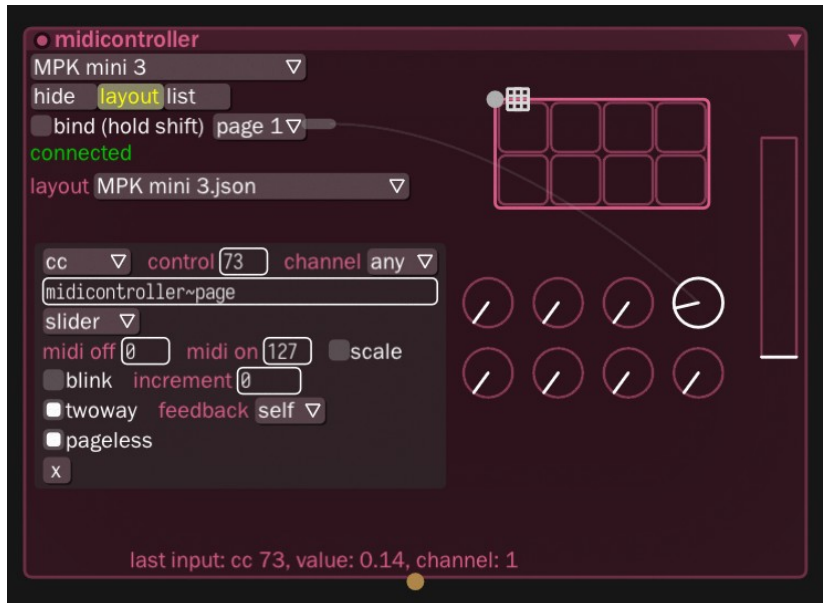


# Connection with outside

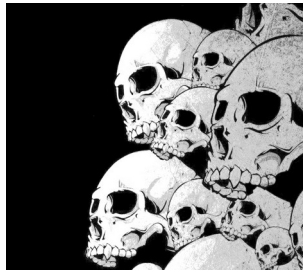




# Connection with outside



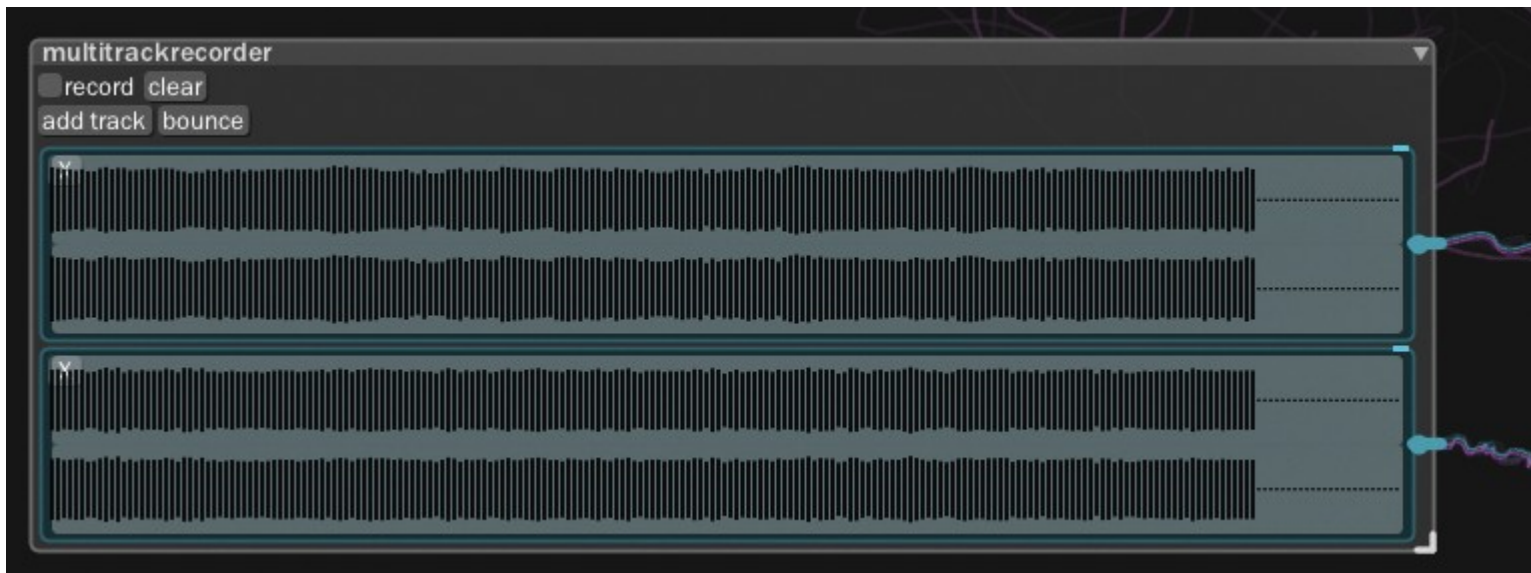




# Recording

Using Audacity + Connecting to BespokeSynth via Jack Audio

or



Using « multitrackrecorder »



# Webography

BespokeSynth basic usage : <https://www.youtube.com/watch?v=SYBc8X2lxqM>

BespokeSynth MIDI mapping tutorial :  
<https://www.youtube.com/watch?v=JkNXO55ogvQ>

BespokeSynth website : <https://www.bespokesynth.com>

BespokeSynth references : <https://www.bespokesynth.com/docs/index.html#basics>

Ryan Chalidor YouTube channel :  
<https://www.youtube.com/channel/UCBnLnfmXI4x2QmgTxwPbvEw>

Some useful ressources for BespokeSynth :  
`/usr/share/BespokeSynth/resource/userdata_original/`

These ressources can be found in `/home/<user>/Documents/BespokeSynth` :  
`controllers drums internal layouts prefabs recordings samples savestate`  
`scales.json scripts tmp userdata_version.txt vst`

