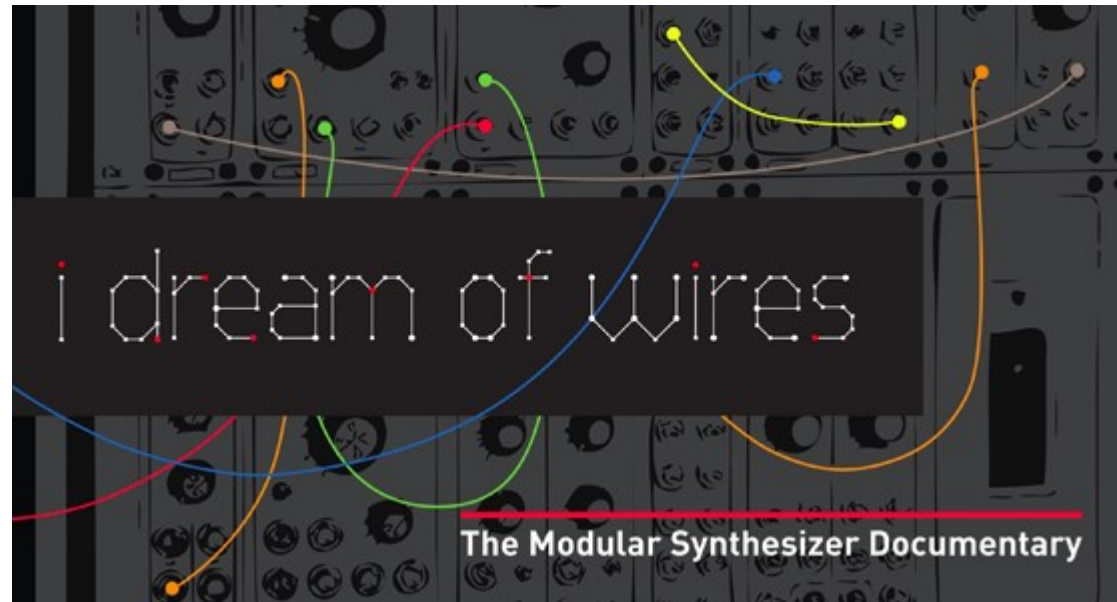


Y. Collette (ycollette.nospam@free.fr)
<https://audinux.github.io/>



Modular Synthesis

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



A documentary on modular synthesis.

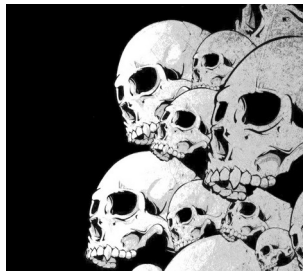


Modular Synthesis

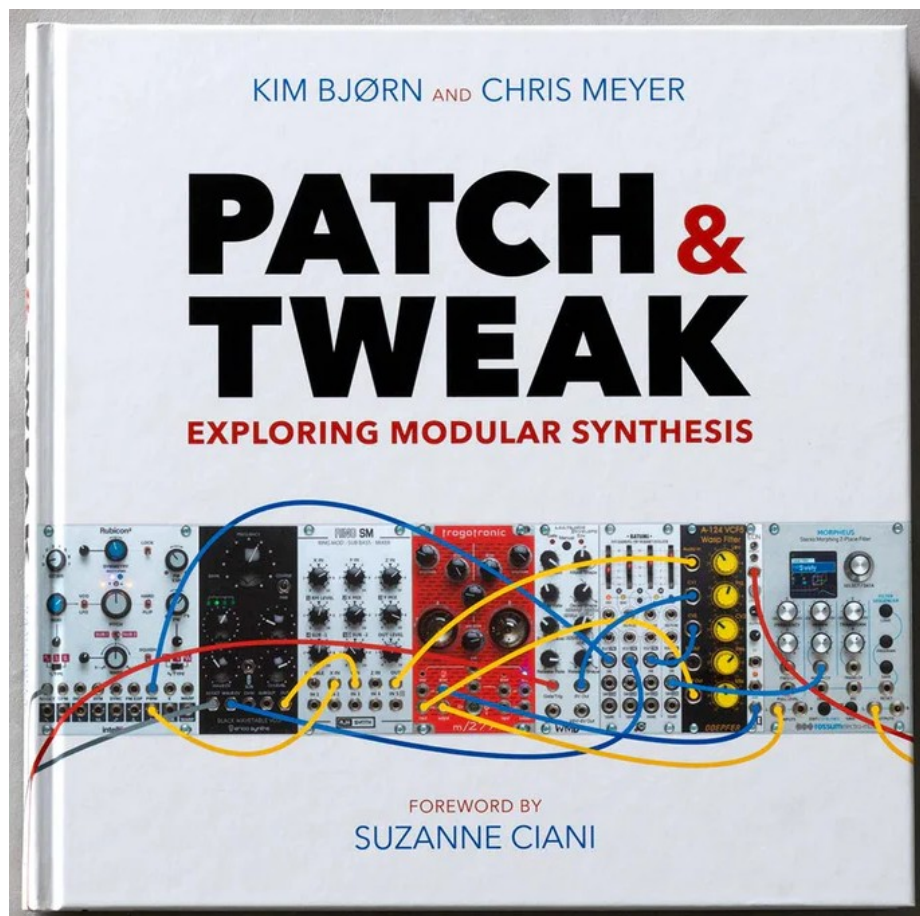
<https://sisterswithtransistors.com/>



A documentary on the female pioneers of modular synthesis.



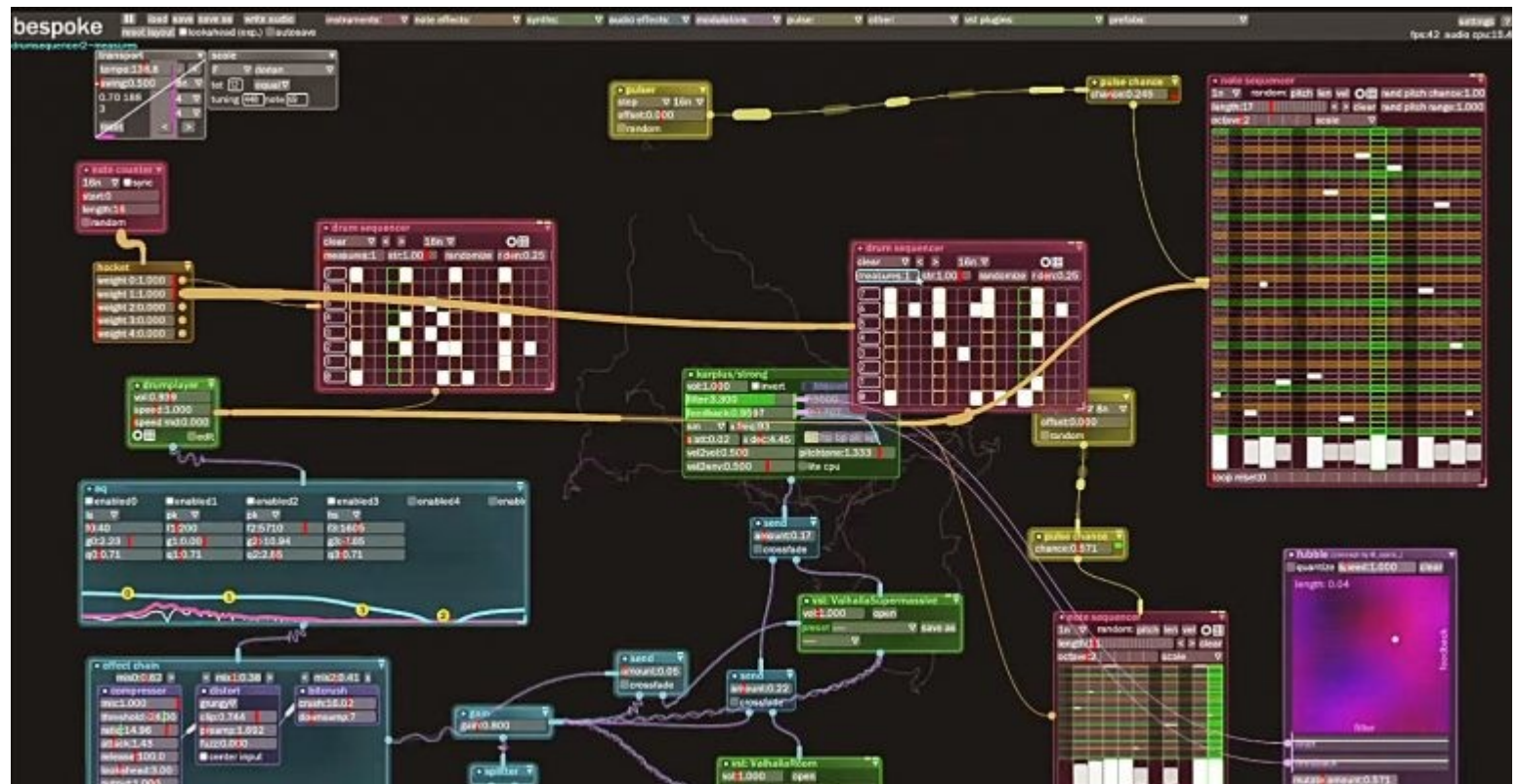
A Good book



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



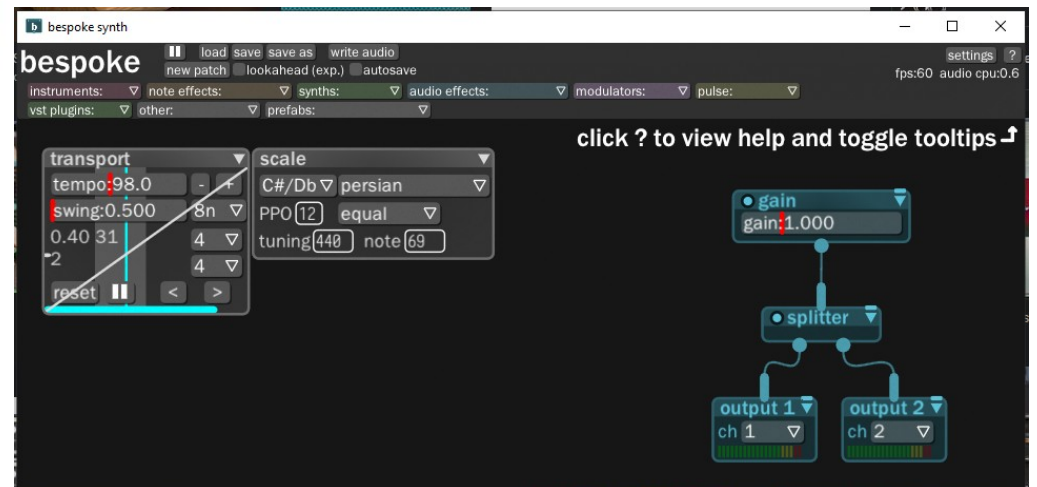
BespokeSynth



<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 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 ?

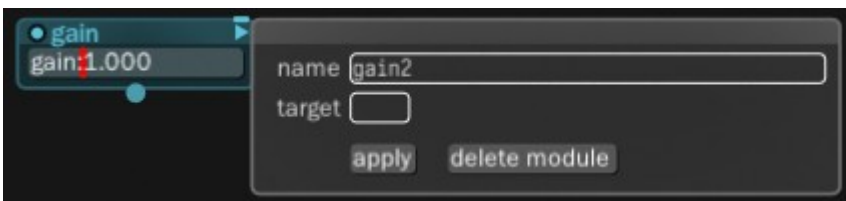
Click on the circle output of a module, while button is clicked, move the mouse to the module you want to connect to

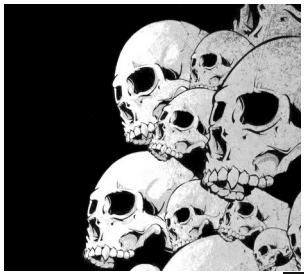
How to delete a wire ?

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

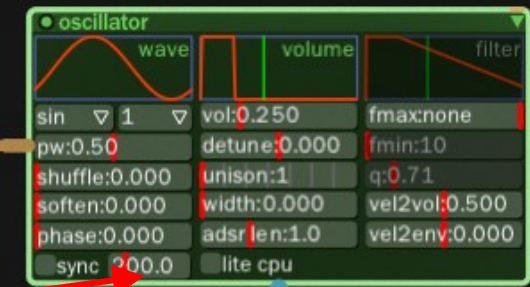
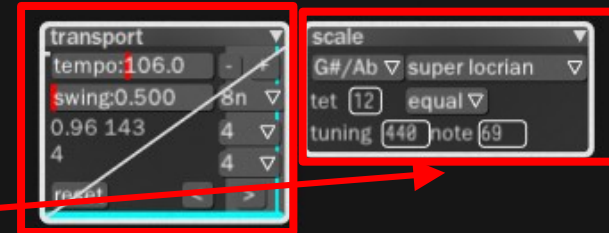
Scale: Set the scale used by sequencers

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



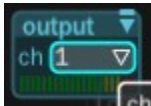
Gain: amplify an input



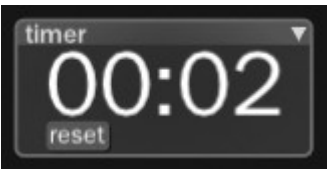
Panner: place an audio signal in the stereo field. Can be used to transform a mono signal into a stereo signal (some modules are not able to manage mono signal).



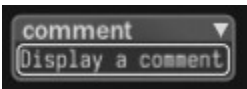
Splitter: Add more output connexions to an input signal



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

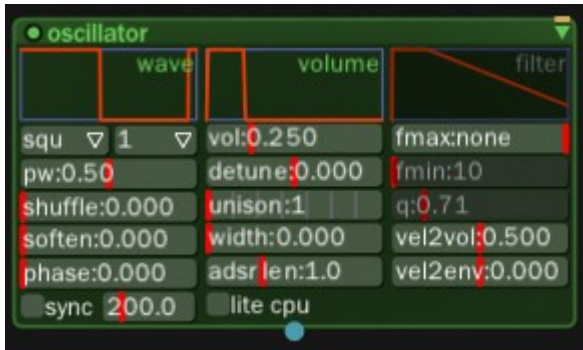


keyboarddisplay: a virtual keyboard module



Some Main Modules - 2

oscillator



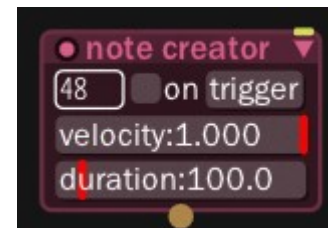
An essential module for sound generation. Able to manage multivoice sounds, sin, square and a lot of parameters can be tuned via this module. All the parameters can be LFO controlled.

Note sequencer



A piano roll to play a sequence of notes.

note creator



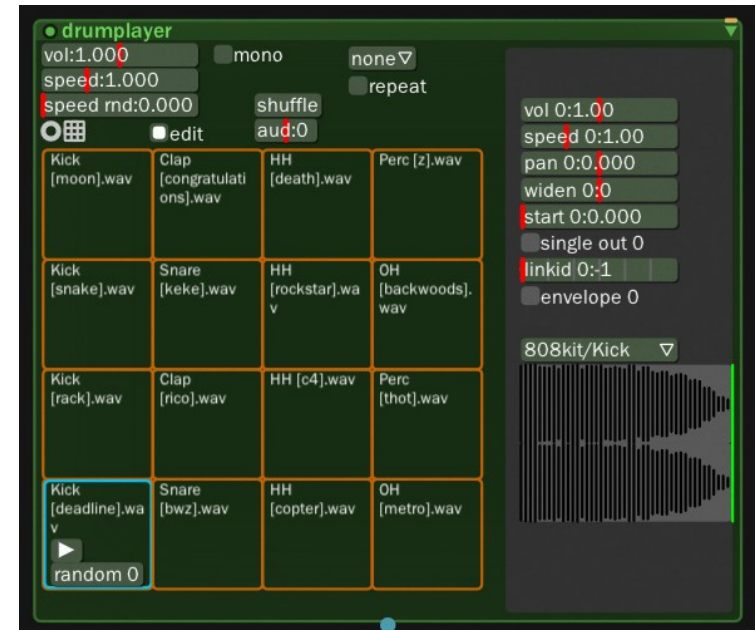
A module which can be used to produce one note on demand.



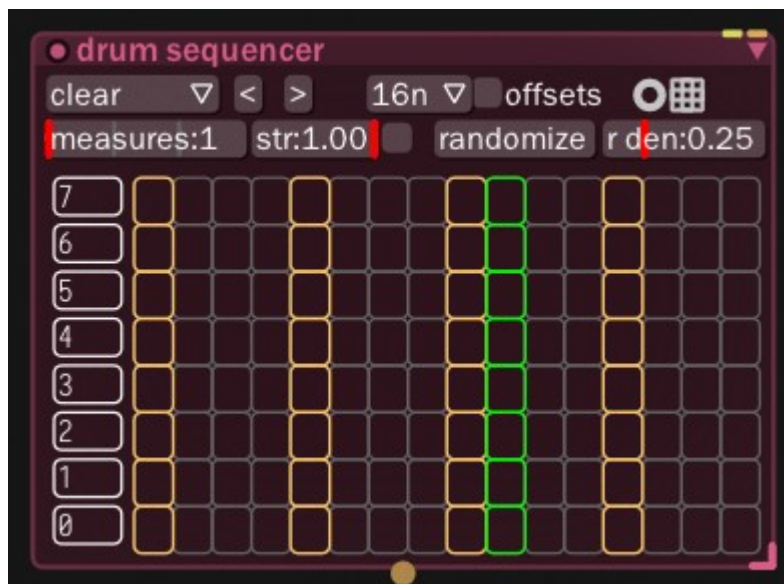
Some Main Modules - 3

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.

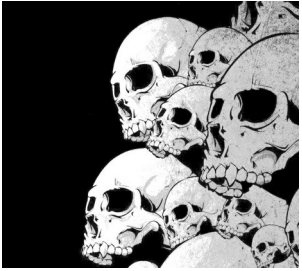
drumplayer



drumsequencer

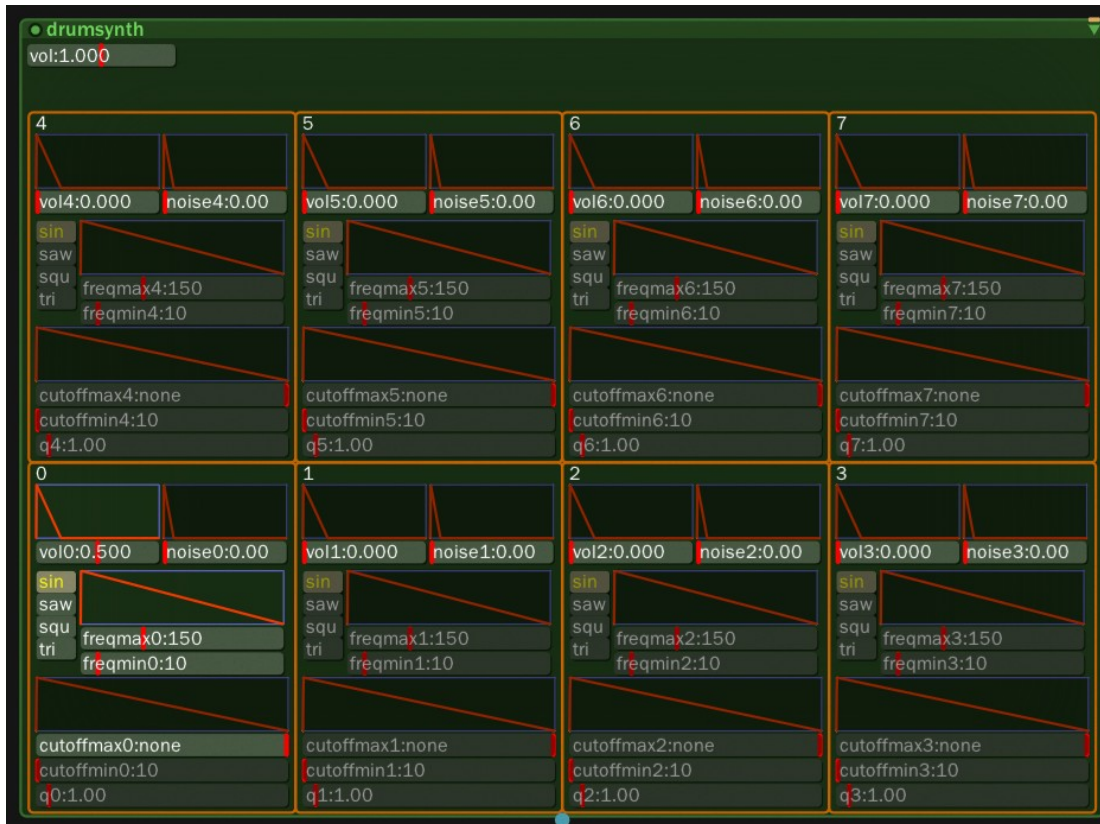


A piano roll for drum sequencing. You just need to click in a square to turn on / off a sample.



Some Main Modules - 4

drumsynth



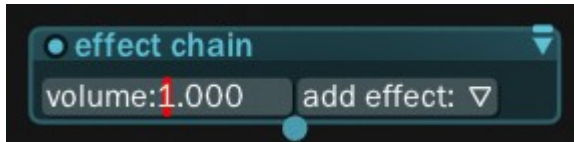
Oscillator and noise drum synth

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

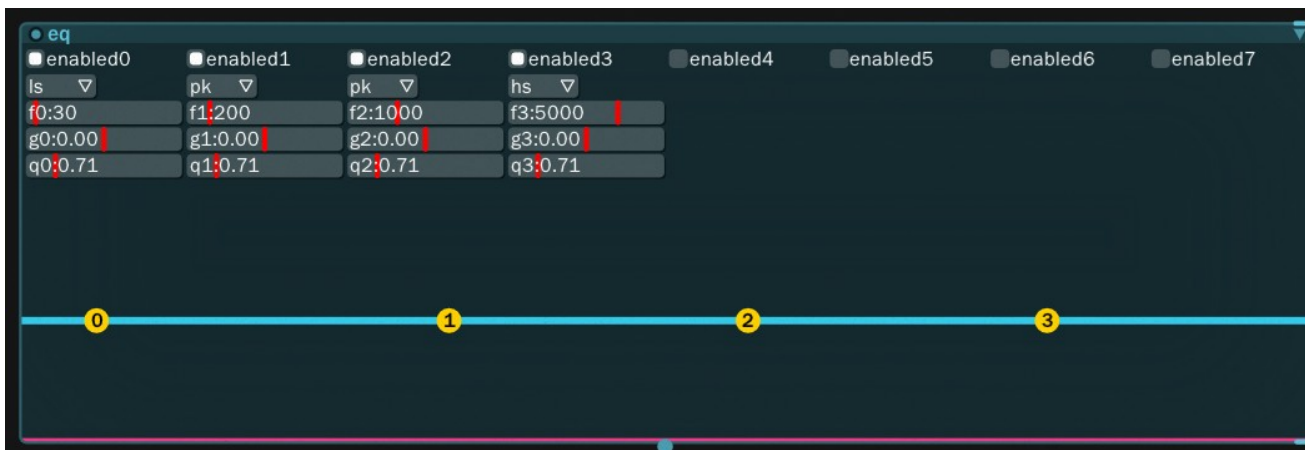


A module where several effects can be chained via the « add effect » button



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 :

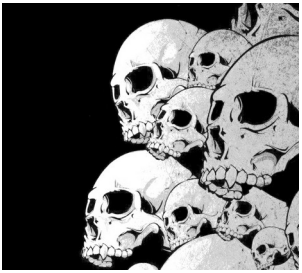
Multitrack recorder

Arpegiattor

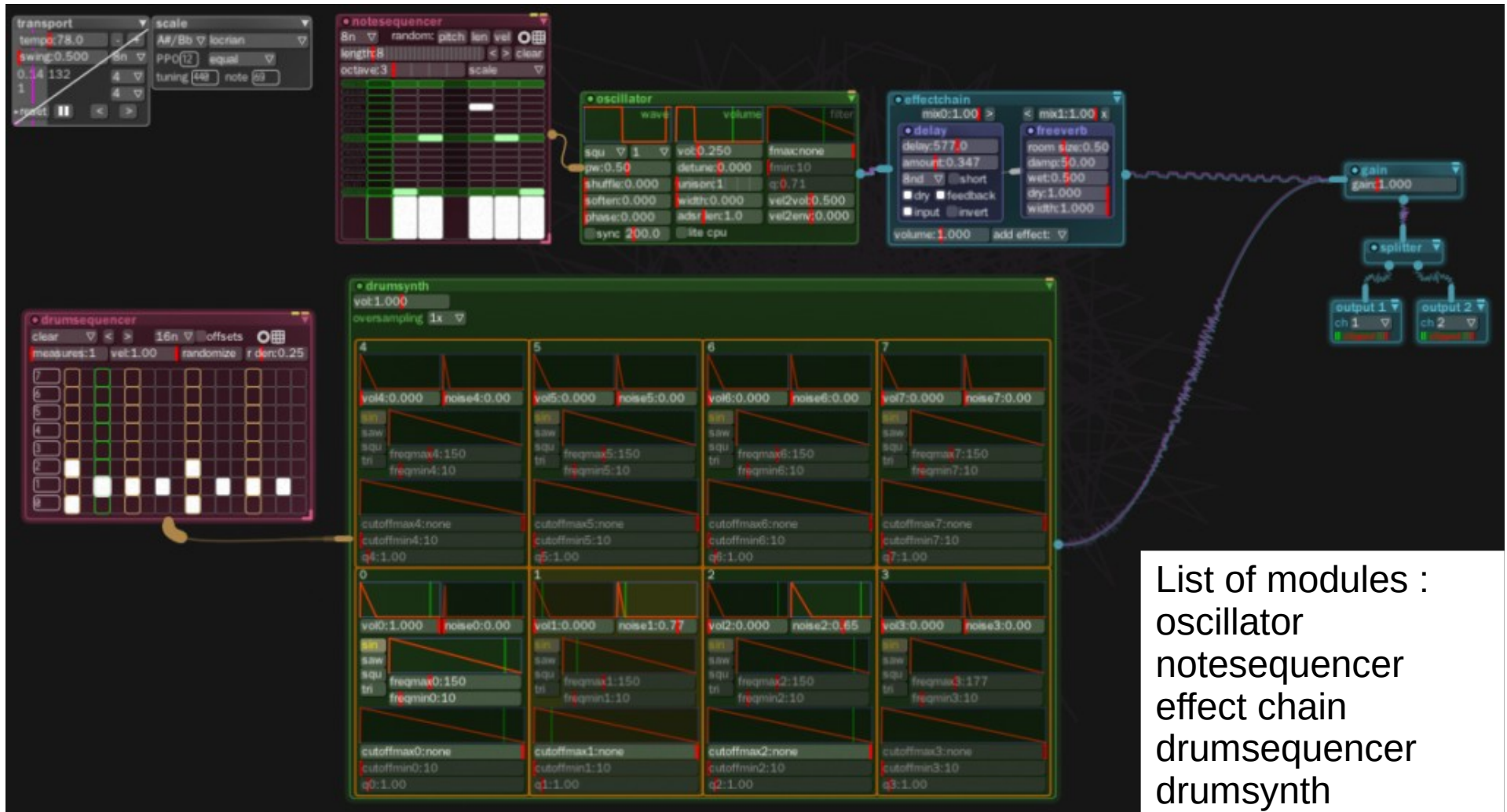
Seaofgrain

Fubble

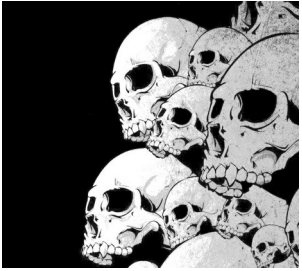
Chorder



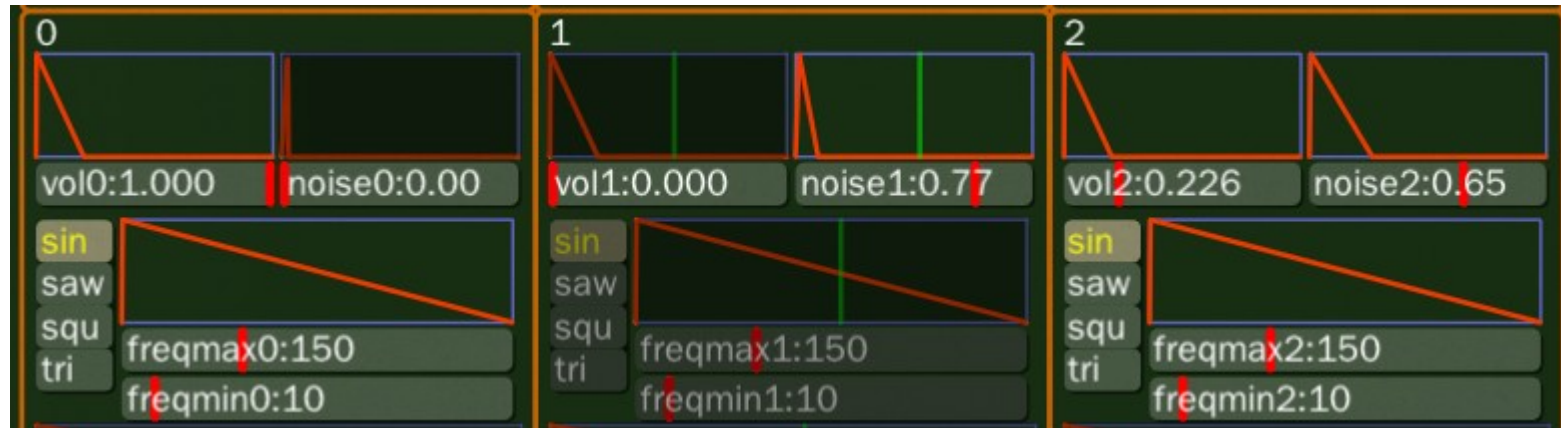
Playing with drums



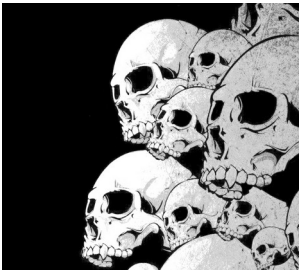
List of modules :
 oscillator
 notesequencer
 effect chain
 drumsequencer
 drumsynth



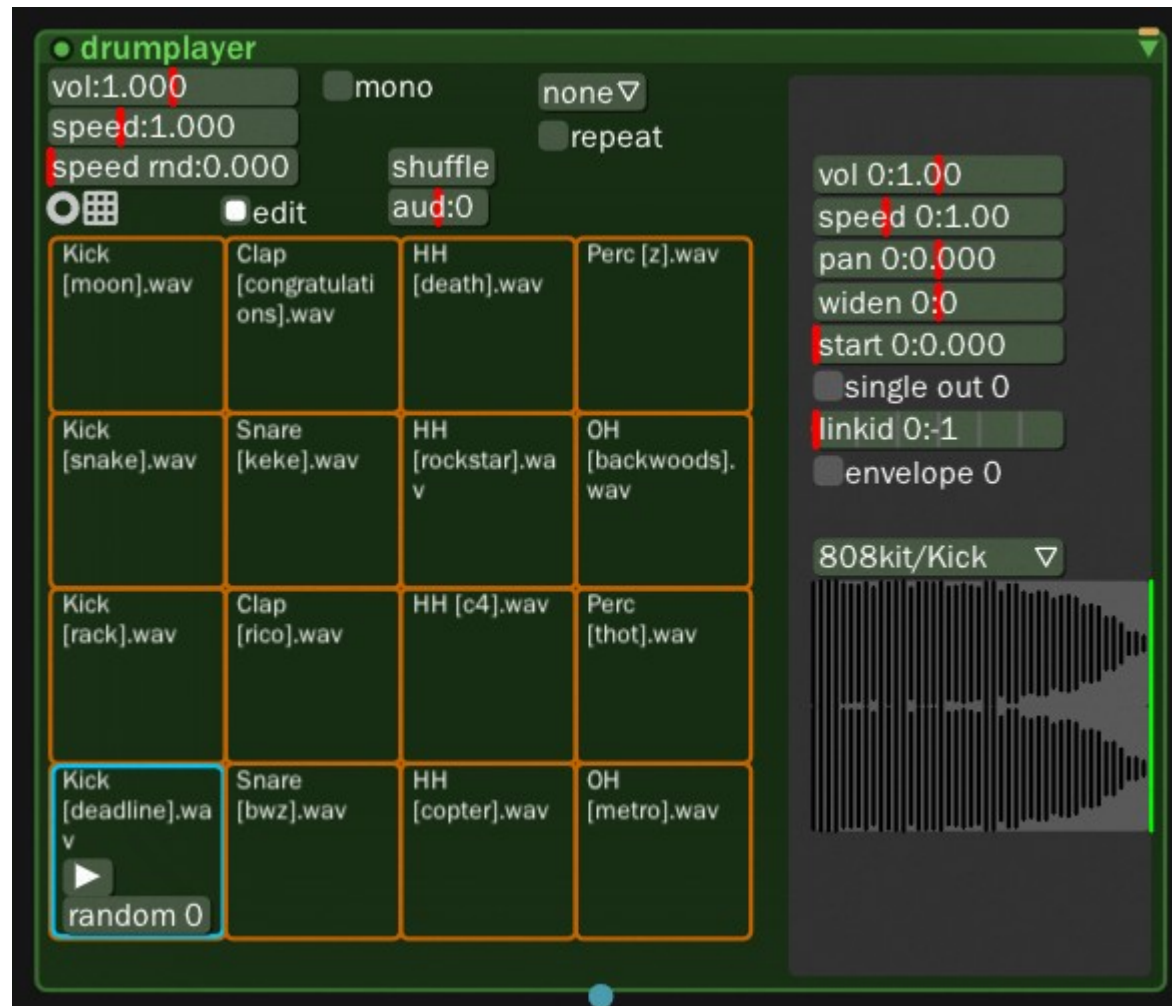
Playing with drums



Drum sequencer settings

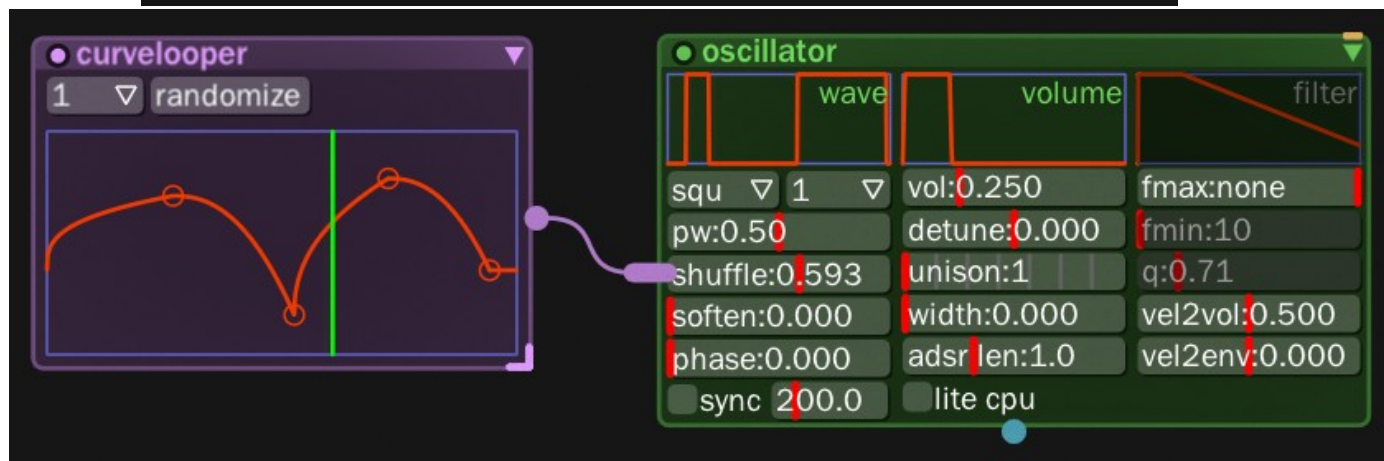
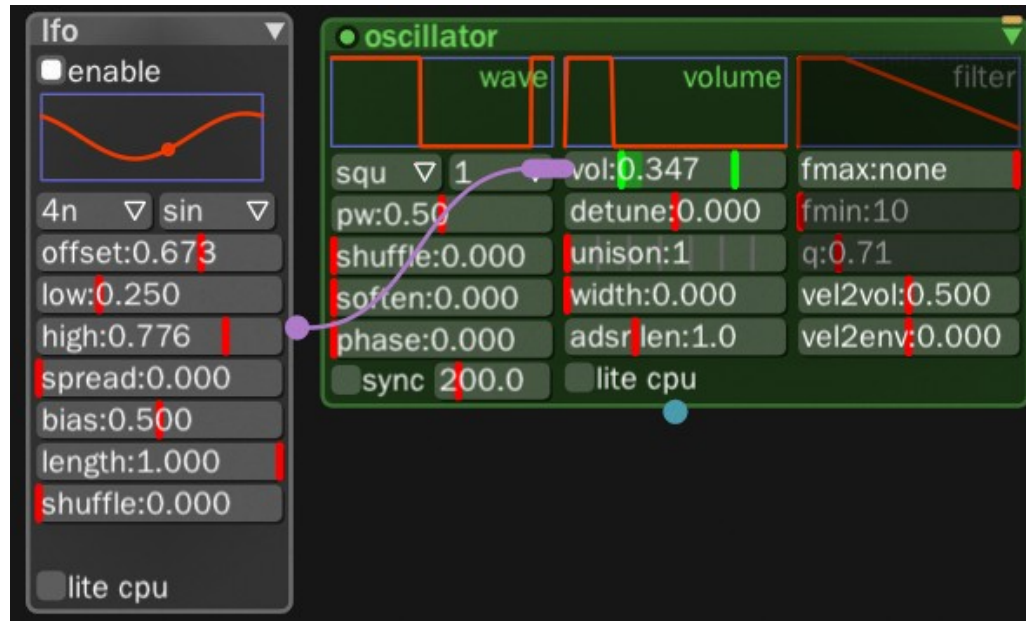


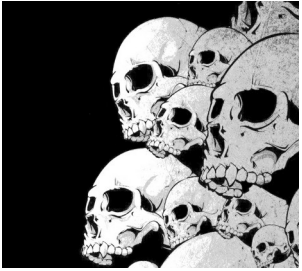
Playing with drums



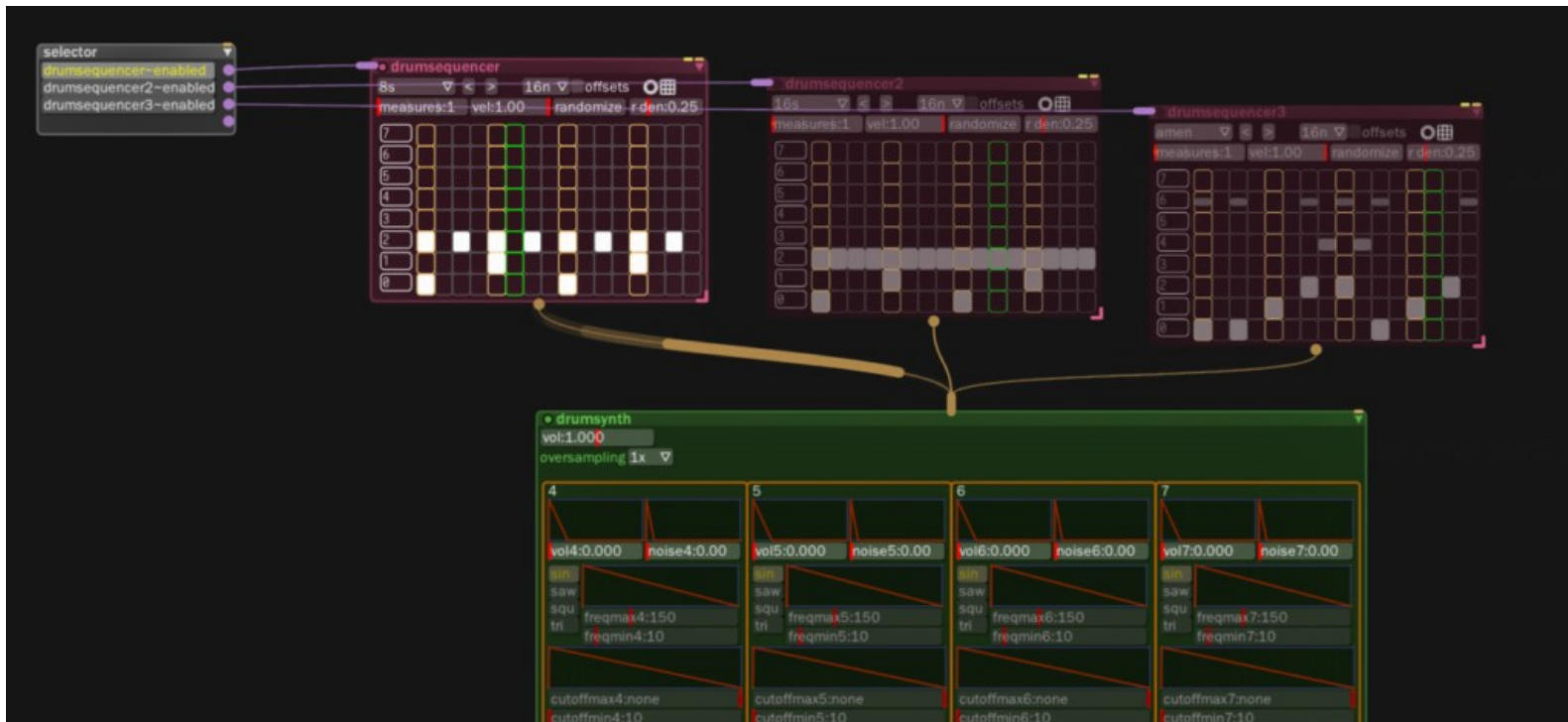
Automation

List of modules :
oscillator
Curvelooper
LFO



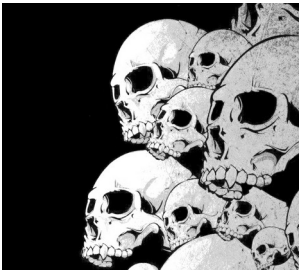


Song Organization

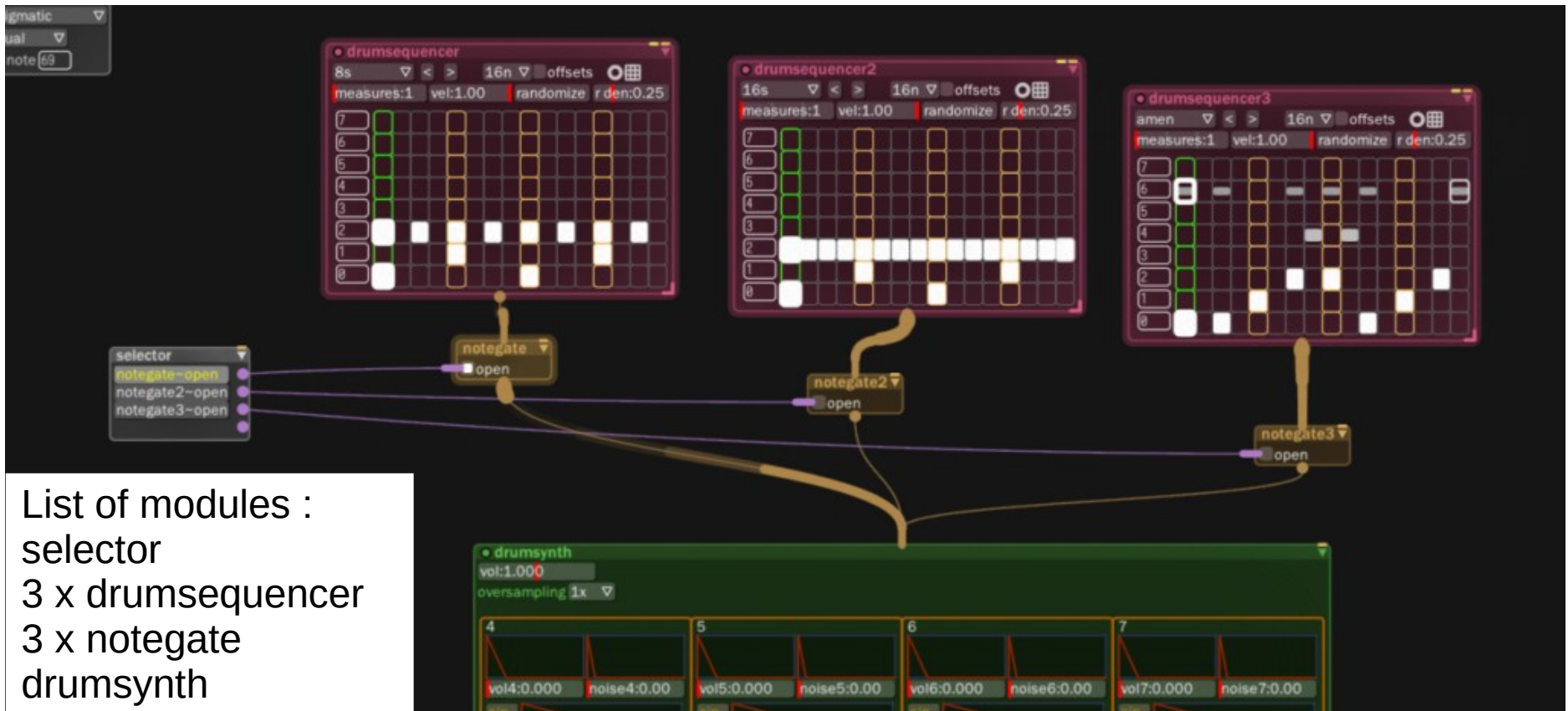


List of modules :
selector
3 x drumsequencer
drumsynth

Using « selector »

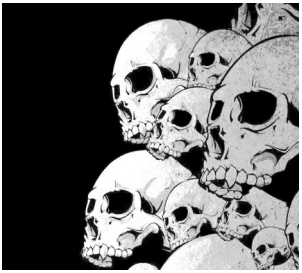


Song Organization

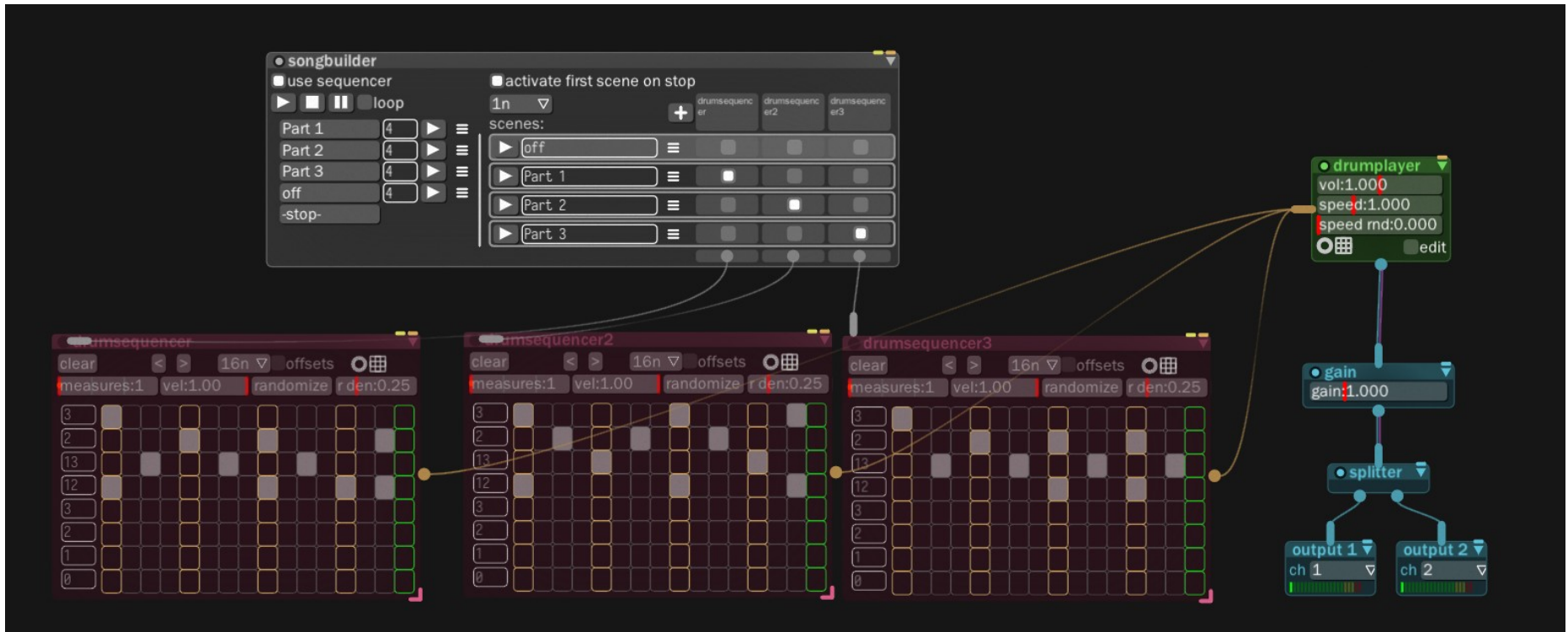


List of modules :
selector
3 x drumsequencer
3 x notegate
drumsynth

Using «notegate» and « selector »

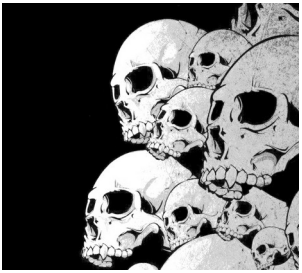


Song Organization

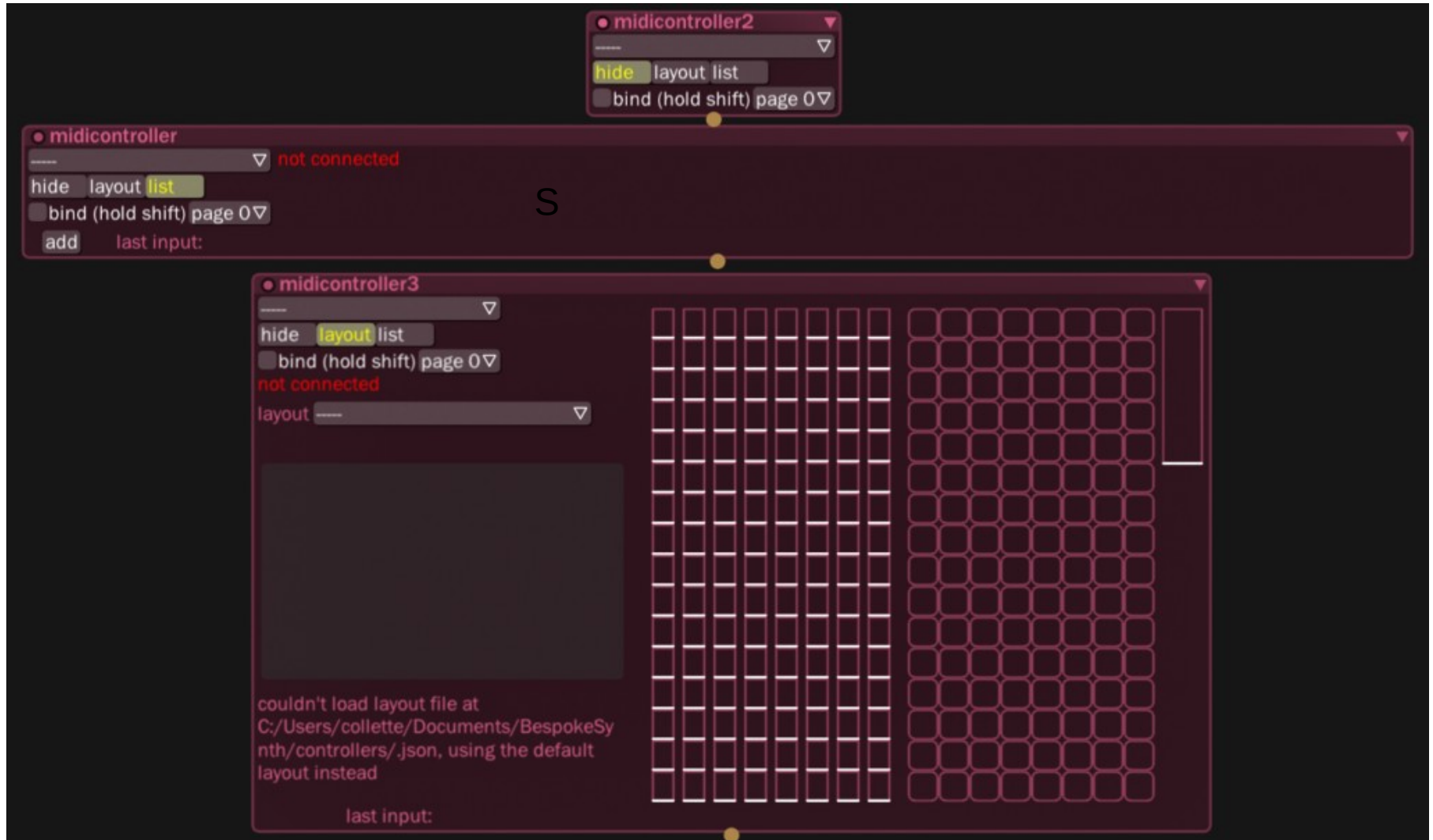


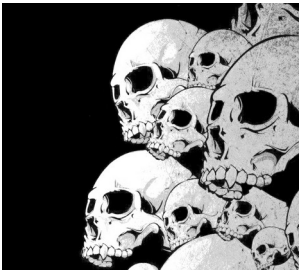
List of modules :

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

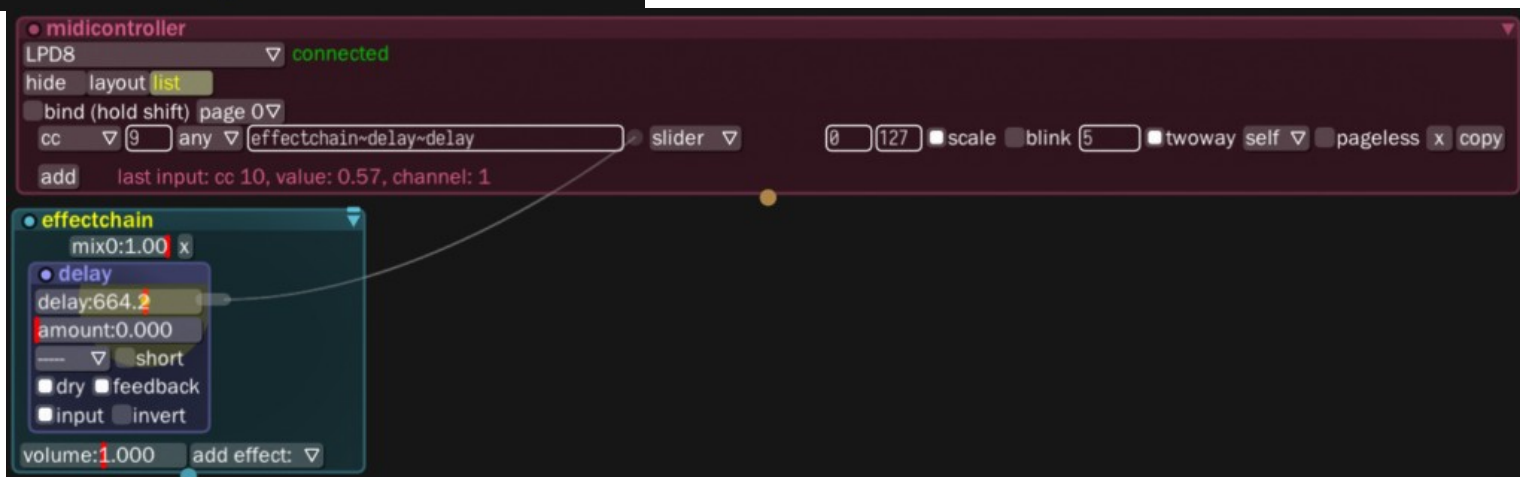
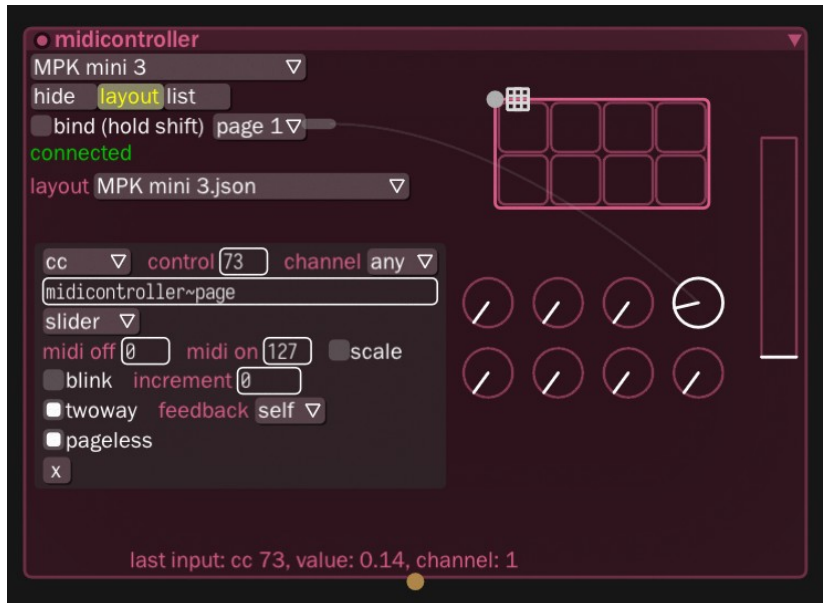


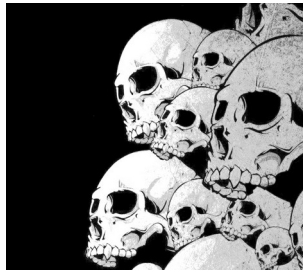
Connection with outside





Connection with outside

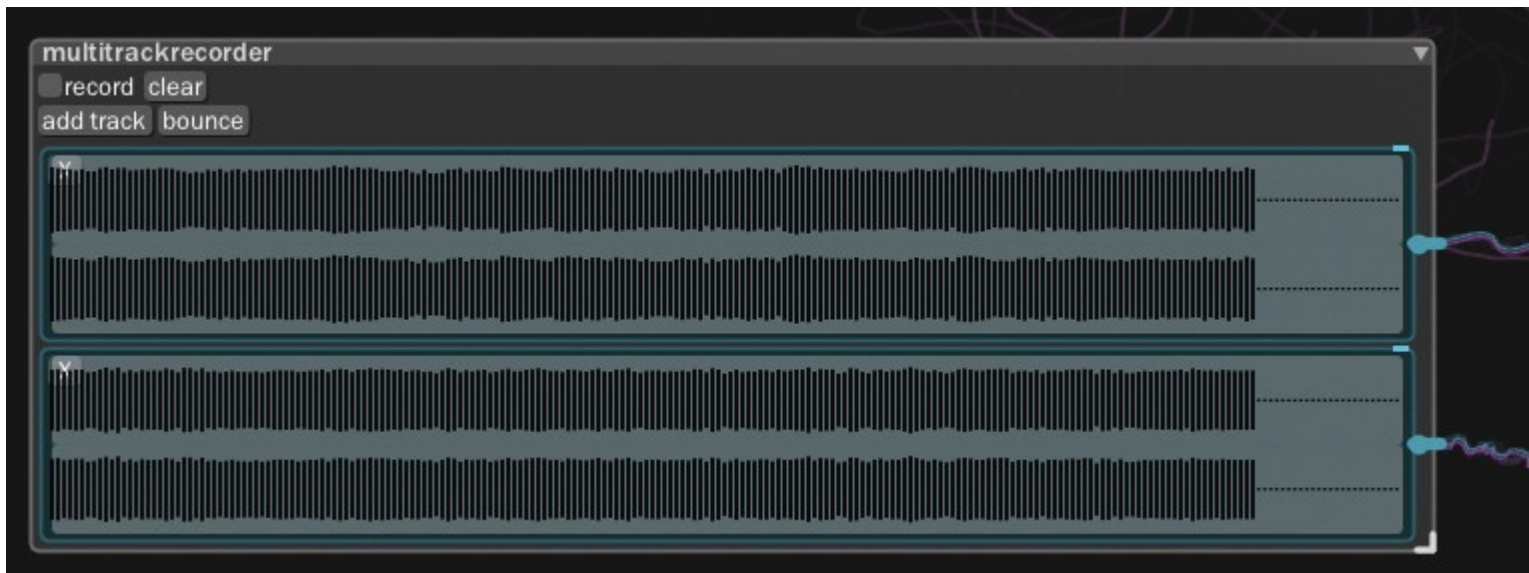




Recording

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/UCBnLnfmXl4x2QmgTxwPbvEw>

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`

