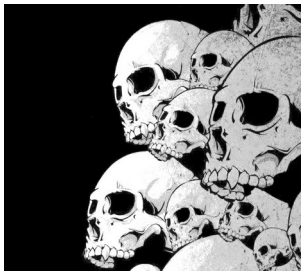
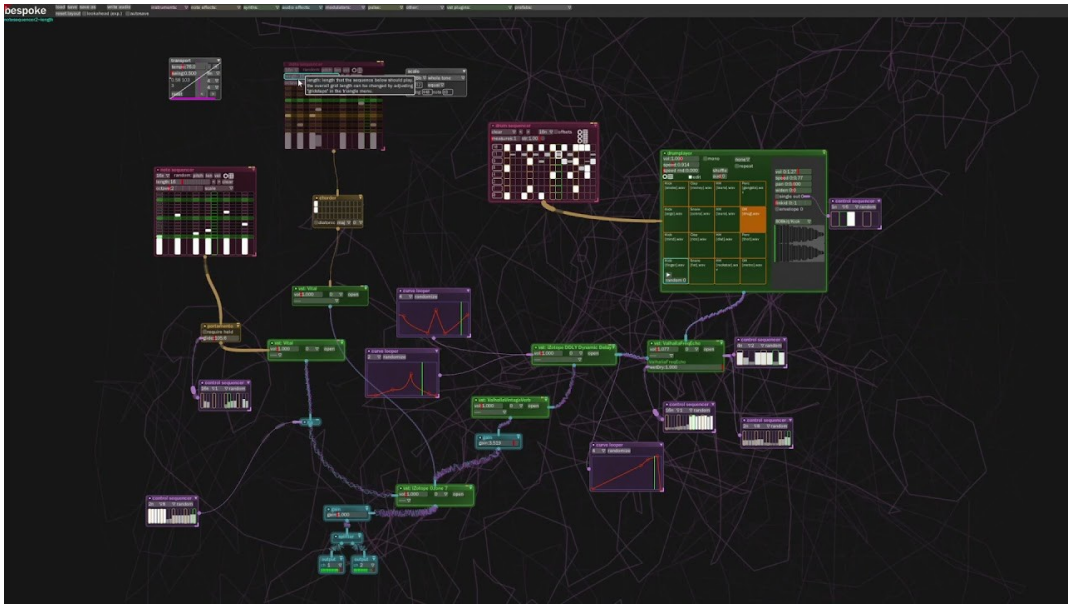
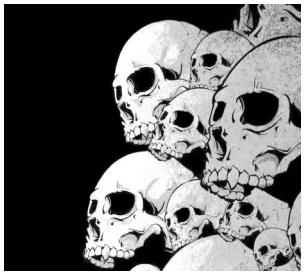


# BespokeSynth



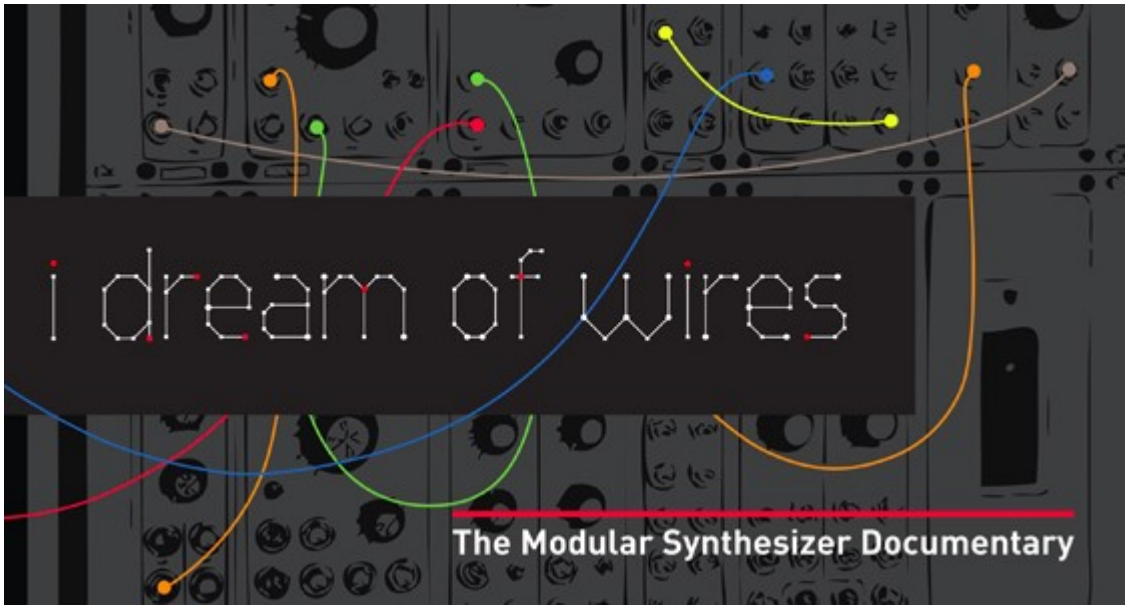
Y. Collette (ycollette.nospam@free.fr)
https://audinux.github.io/

CC BY



# Modular Synthesis

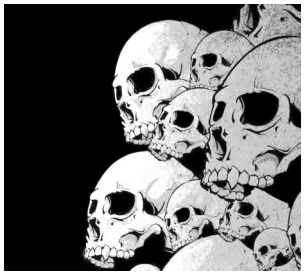
http://www.idreamofwires.org/




A documentary on modular synthesis.



CC BY



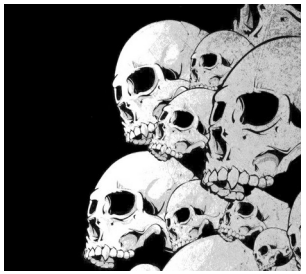
# Modular Synthesis

https://sisterswithtransistors.com/

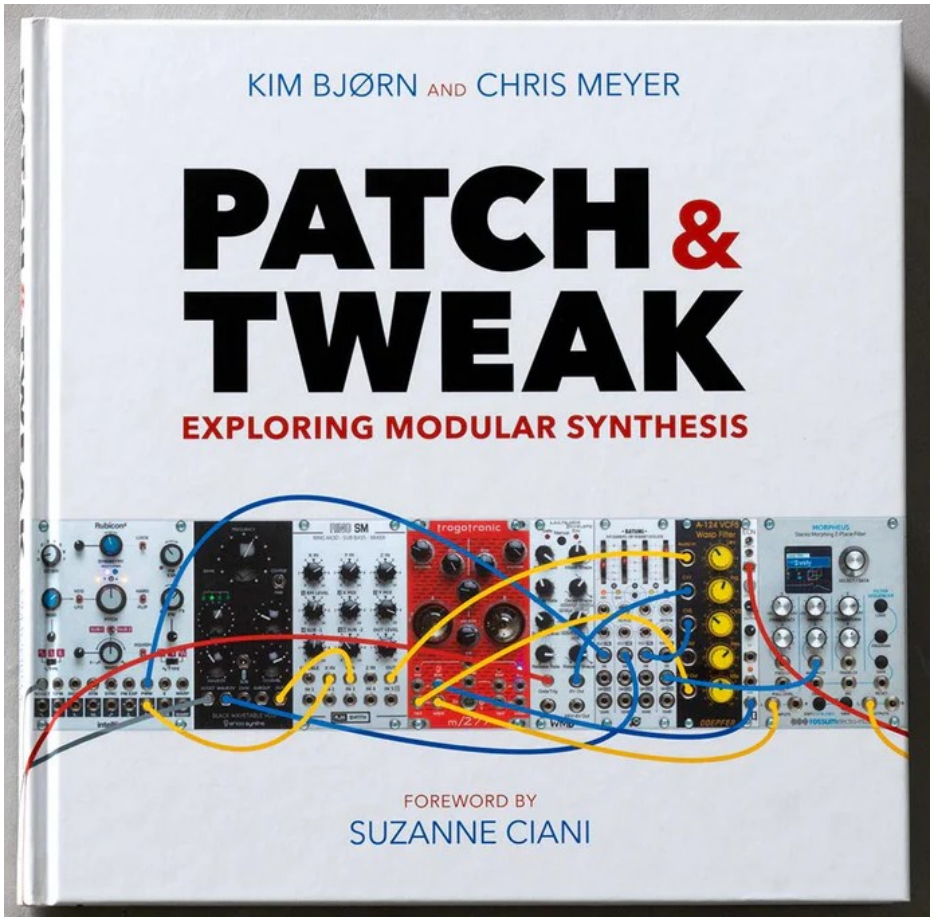
A documentary on the female pioneers of modular synthesis.



CC BY



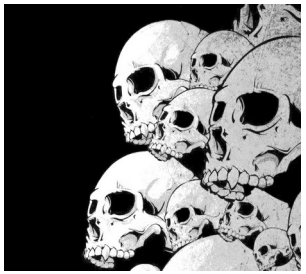
# A Good book



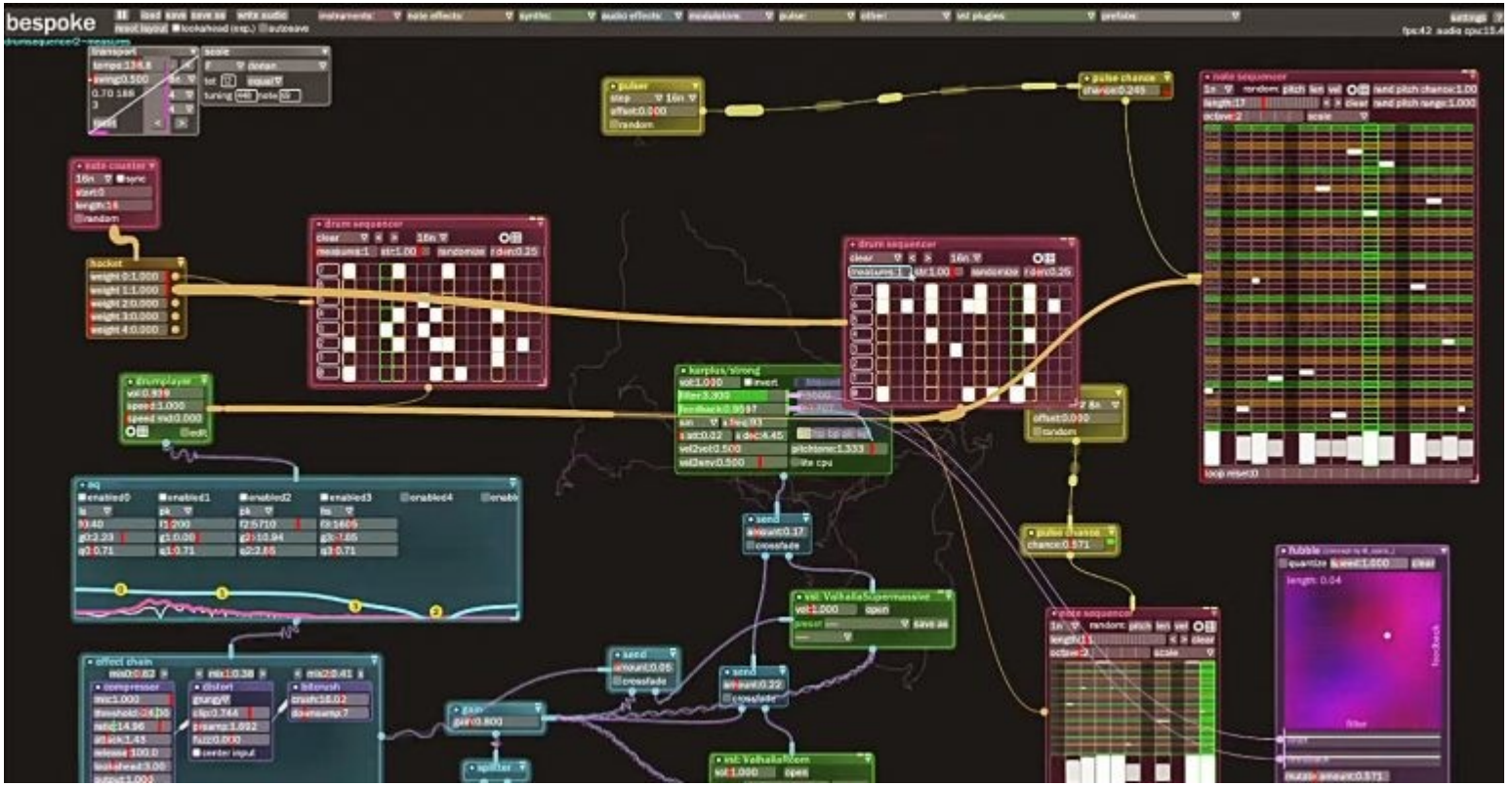

https://bjooks.com/products/patch-tweak-exploring-modular-synthesis



CC BY



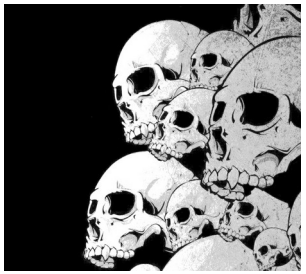
# BespokeSynth



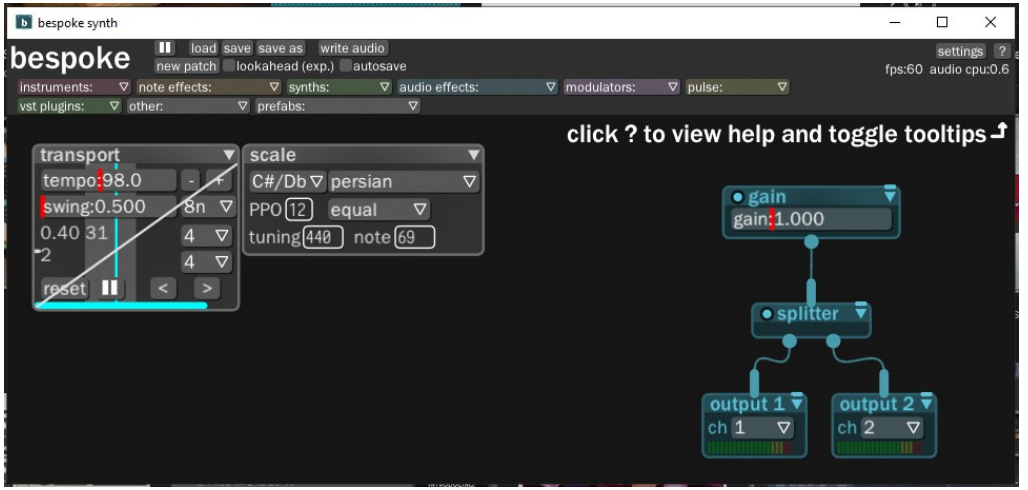

https://www.bespokesynth.com/



CC BY

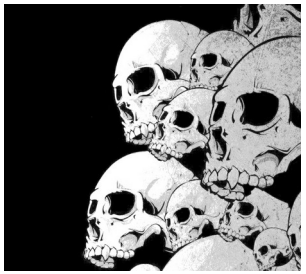


# The starting Window






CC BY



# 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.

CC BY

# A First Experiment

Transport : allows tp tune the measure and the tempo

Scale: Set the scale used by sequencers

Notesequencer: a piano roll where to write notes

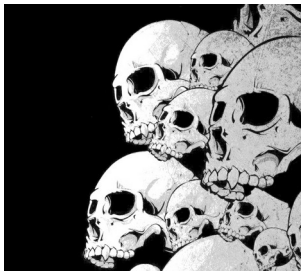


oscillator: the audio sound generator

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

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

CC BY

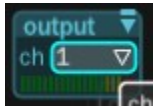


# Some Main Modules - 1

**Gain**: amplify an input

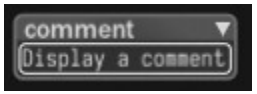
**Panner**: place an audio signal in the stereo field. Can be used to transform a mono signal into a stereo signal (some modules are not able to manage mono signal).

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

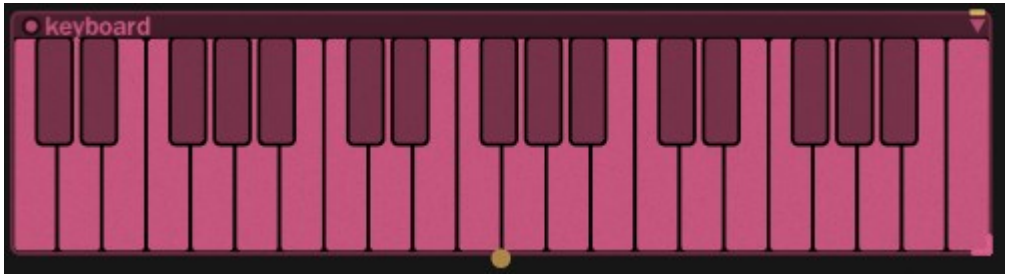



**Output**: manage multi channel output

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

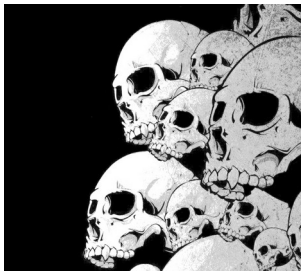



**Comment**: allow to add some comments in the canvas



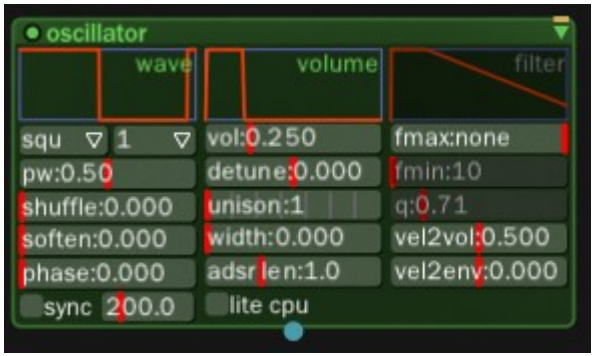

**keyboarddisplay**: a virtual kayboard module

CC BY



# 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.

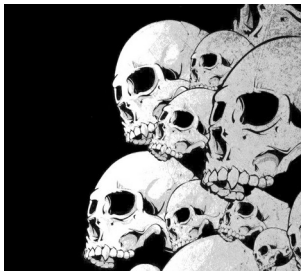
Note sequencer

A piano roll to play a sequence of notes.

note creator

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

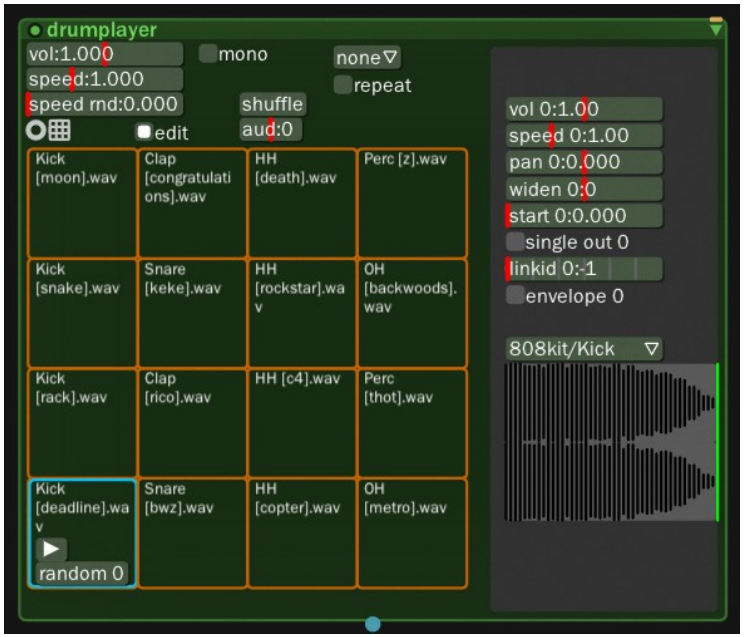
CC BY



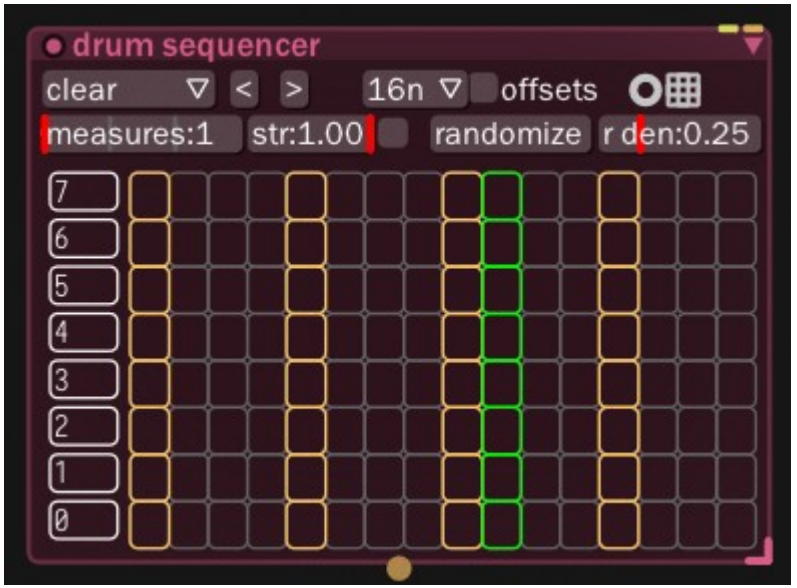
# Some Main Modules - 3

drumplayer

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.

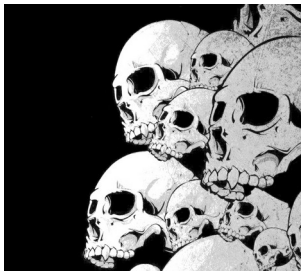



drumsequencer




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

CC BY



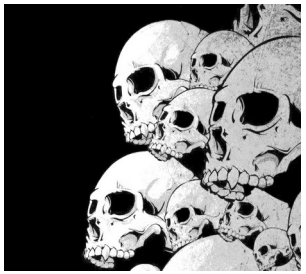
# Some Main Modules - 4

drumsynth

Oscillator and noise drum synth

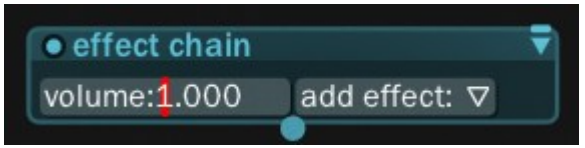
**cutoffmax***: filter start cutoff freq
**cutoffmin***: filter end cutoff freq
**edit**: display param for each hit
**freqmax***: oscillator start frequency
**freqmin***: oscillator end frequency
**noise***: noise volume
**q***: filter resonance
**type***: oscillator type
**vol:** the output volume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

CC BY

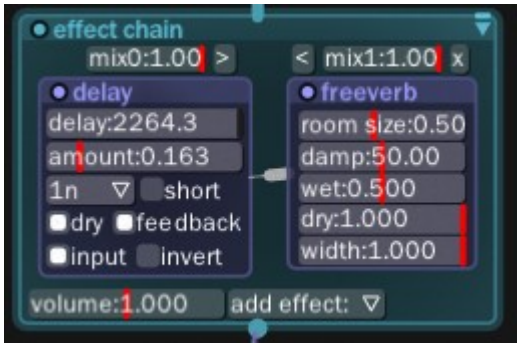


# Some Main Modules - 5

effectchain

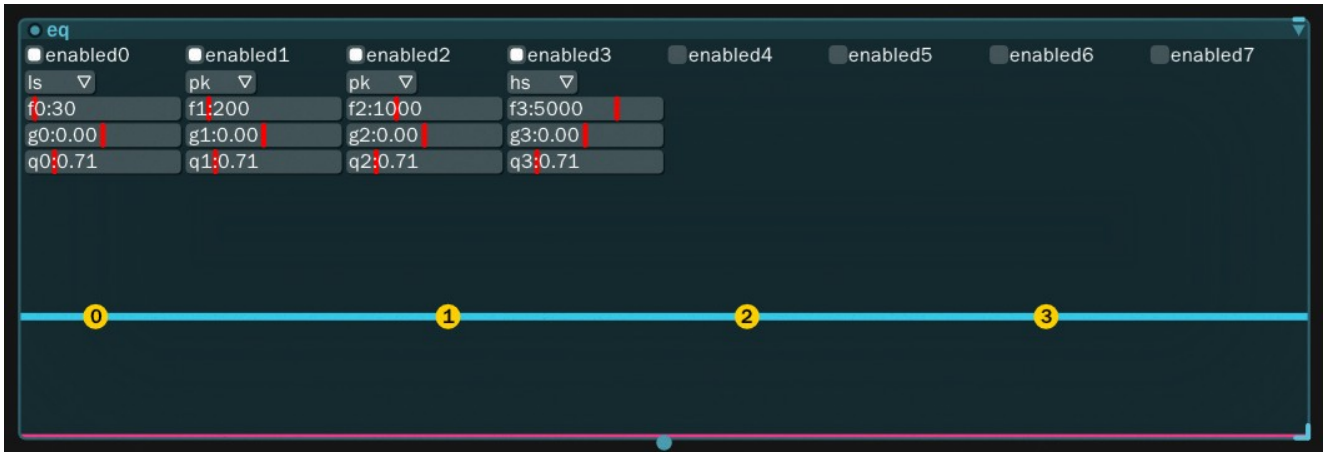



A module where several effects can be chains via the « add effet » button



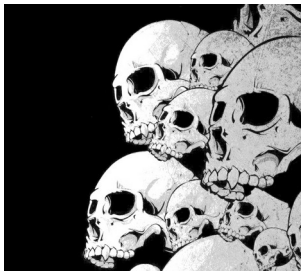

Example of an effect chain with two effects : a delay and a reverb. The ‘<’ and ‘>’ button can be used to reorder the effects in the chain.

eq




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

cc BY

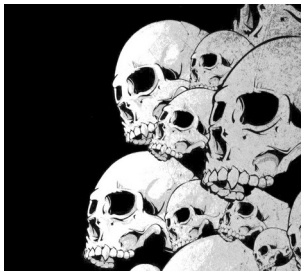


# Some Main Modules - 6

Various interesting modules :

- Multitrack recorder
- Arpegiattor
- Seaofgrain
- Fubble
- Chorder

CC BY

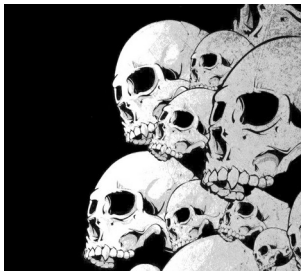


# Playing with drums

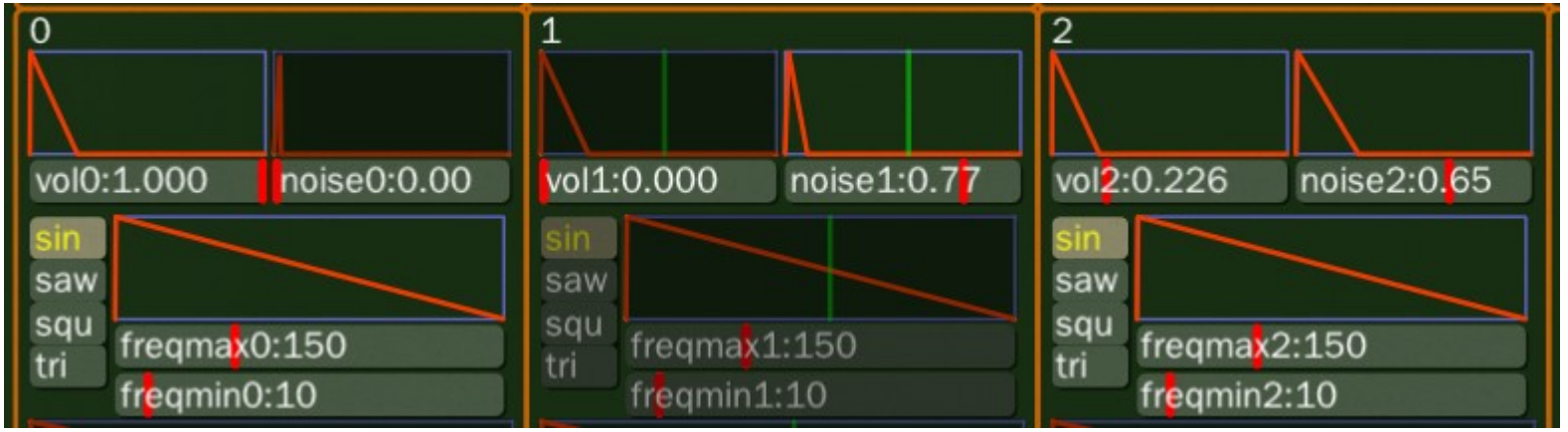
List of modules :
oscillator
notesequencer
effect chain
drumsequencer
drumsynth



CC BY

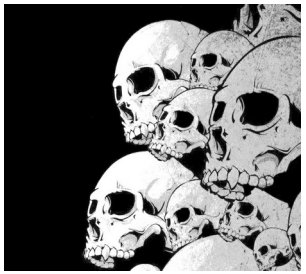


# Playing with drums

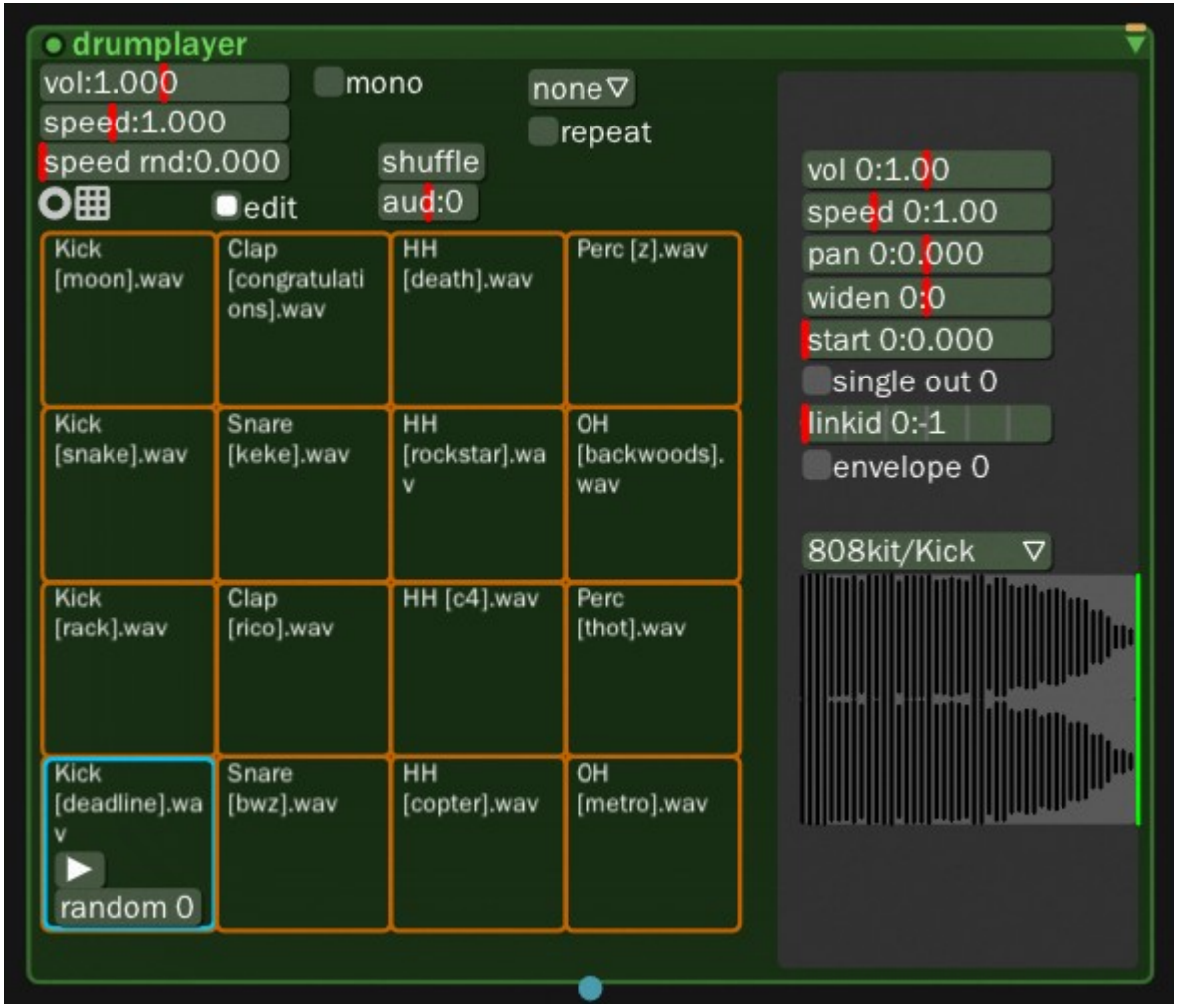



Drum sequencer settings


CC BY

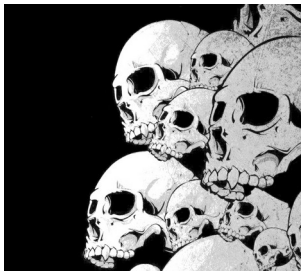


# Playing with drums

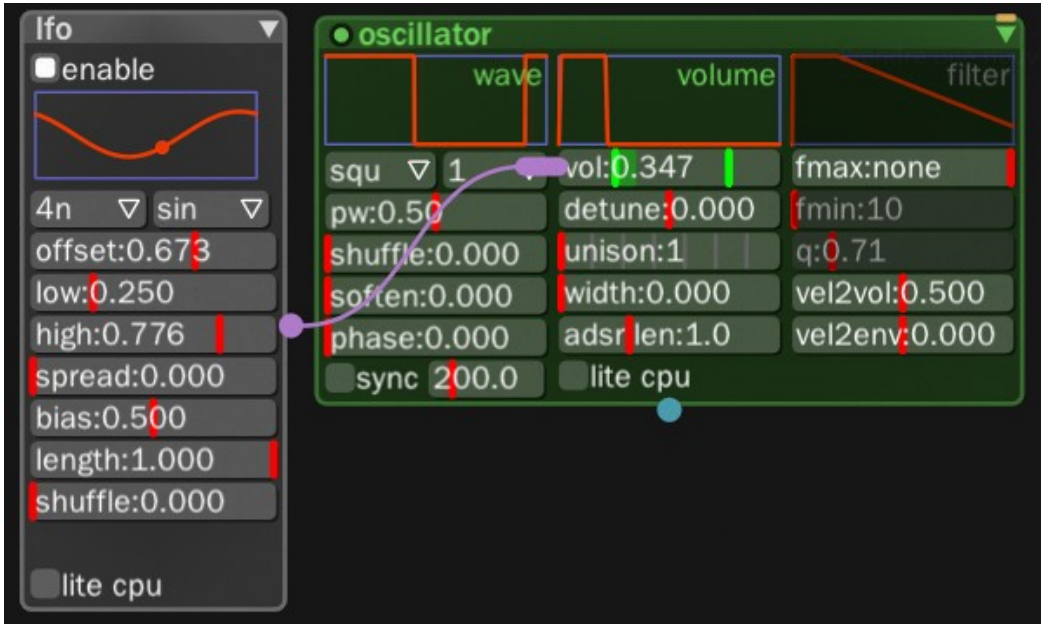




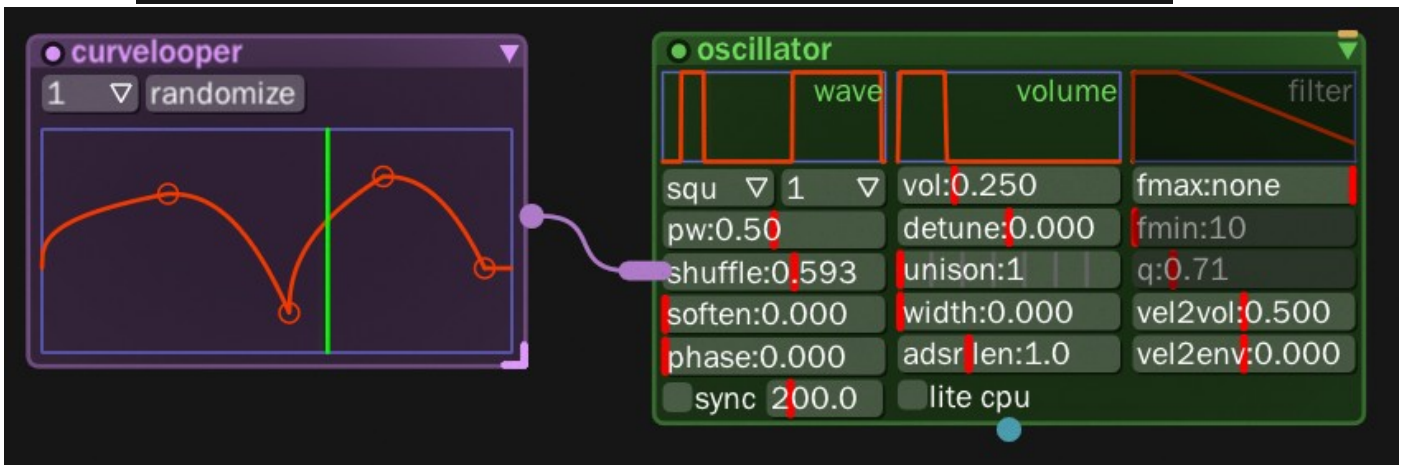

CC BY



# Automation

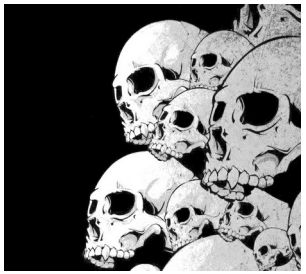



List of modules :
oscillator
Curvelooper
LFO






CC BY



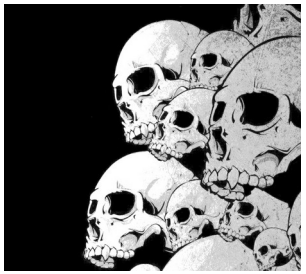
# Song Organization

List of modules :
selector
3 x drumsequencer
drumsynth

Using « selector »



CC BY



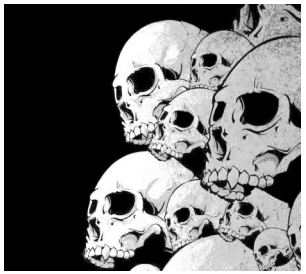
# Song Organization

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

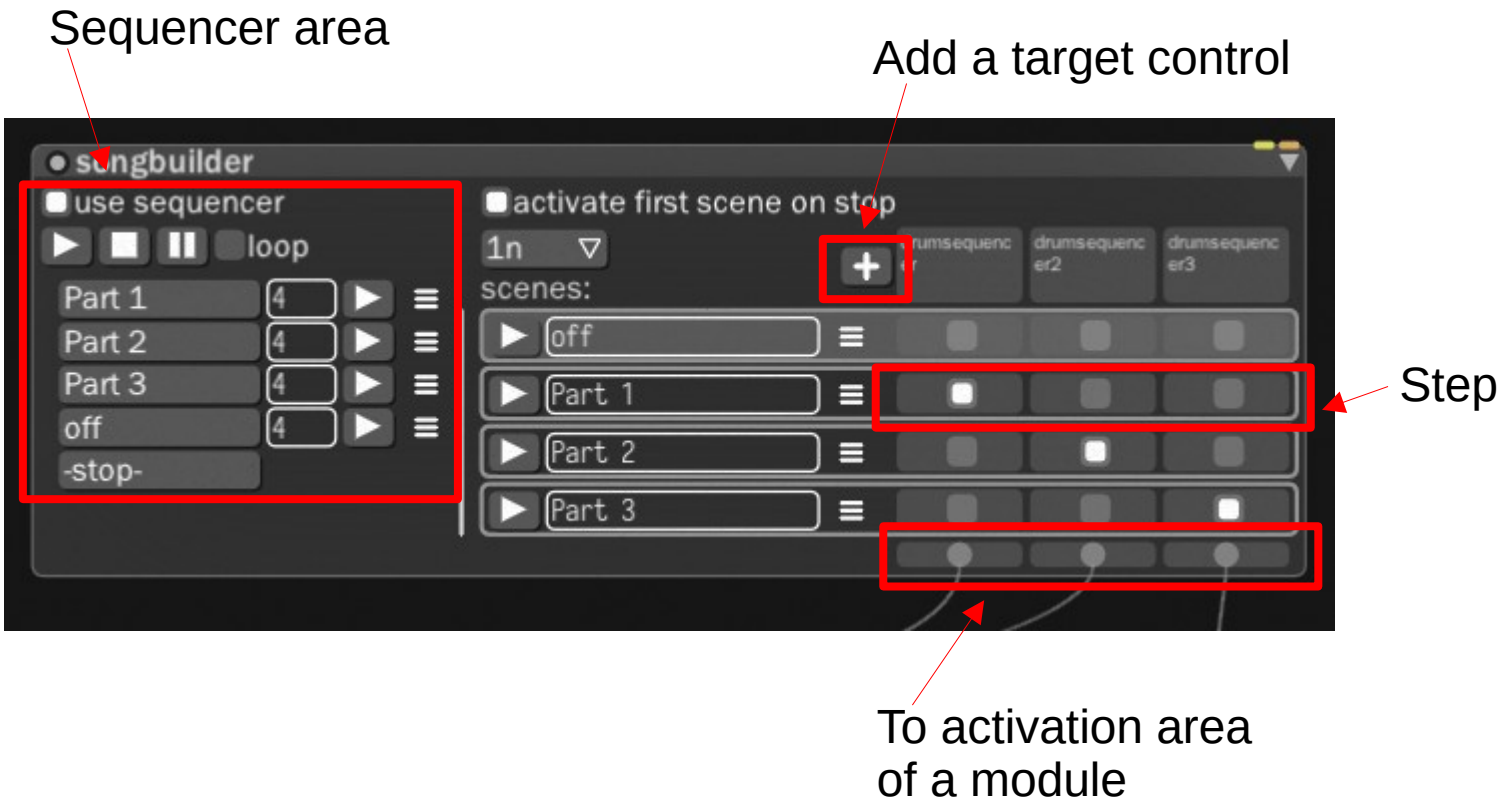
Using «notegate» and « selector »



CC BY

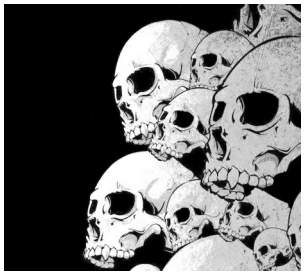


# SongBuilder

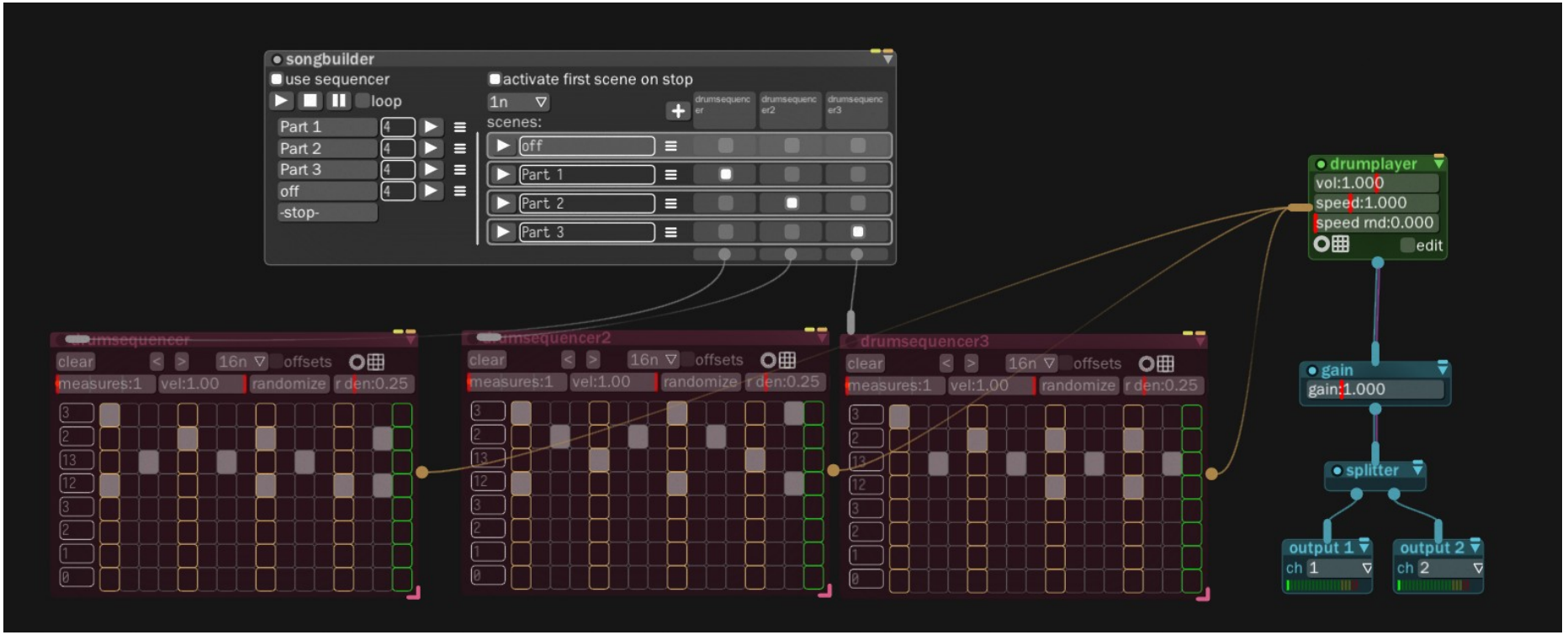





CC BY

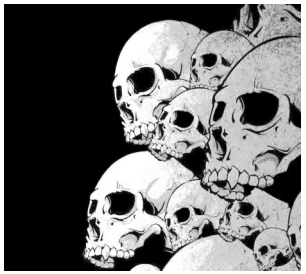


# Song Organization




List of modules :
1 x songbuilder
3 x drumsequencer
1 x drumplayer

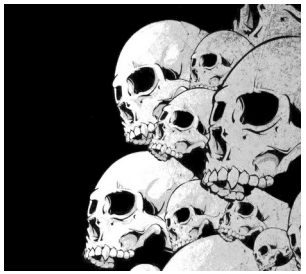

CC BY



# Connection with outside

midicontroller2
hide layout list
bind (hold shift) page 0
midicontroller
not connected
hide layout list
bind (hold shift) page 0
add last input:
S
midicontroller3
hide layout list
bind (hold shift) page 0
not connected
layout
couldn't load layout file at C:/Users/collette/Documents/BespokeSynth/controllers/.json, using the default layout instead
last input:


CC BY



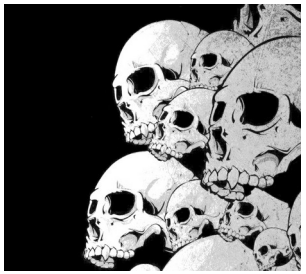
# Connection with outside

midicontroller
MPK mini 3
hide layout list
bind (hold shift) page 1
connected
layout MPK mini 3.json
cc control 73 channel any
midicontroller~page
slider
midi off 0 midi on 127 scale
blink increment 0
twoway feedback self
pageless
x
last input: cc 73, value: 0.14, channel: 1

midicontroller
LPD8 connected
hide layout list
bind (hold shift) page 0
cc 9 any effectchain~delay~delay slider 0 127 scale blink 5 twoway self pageless x copy
add last input: cc 10, value: 0.57, channel: 1
effectchain
mix0:1.00 x
delay
delay:664.2
amount:0.000
short
dry feedback
input invert
volume:1.000 add effect:



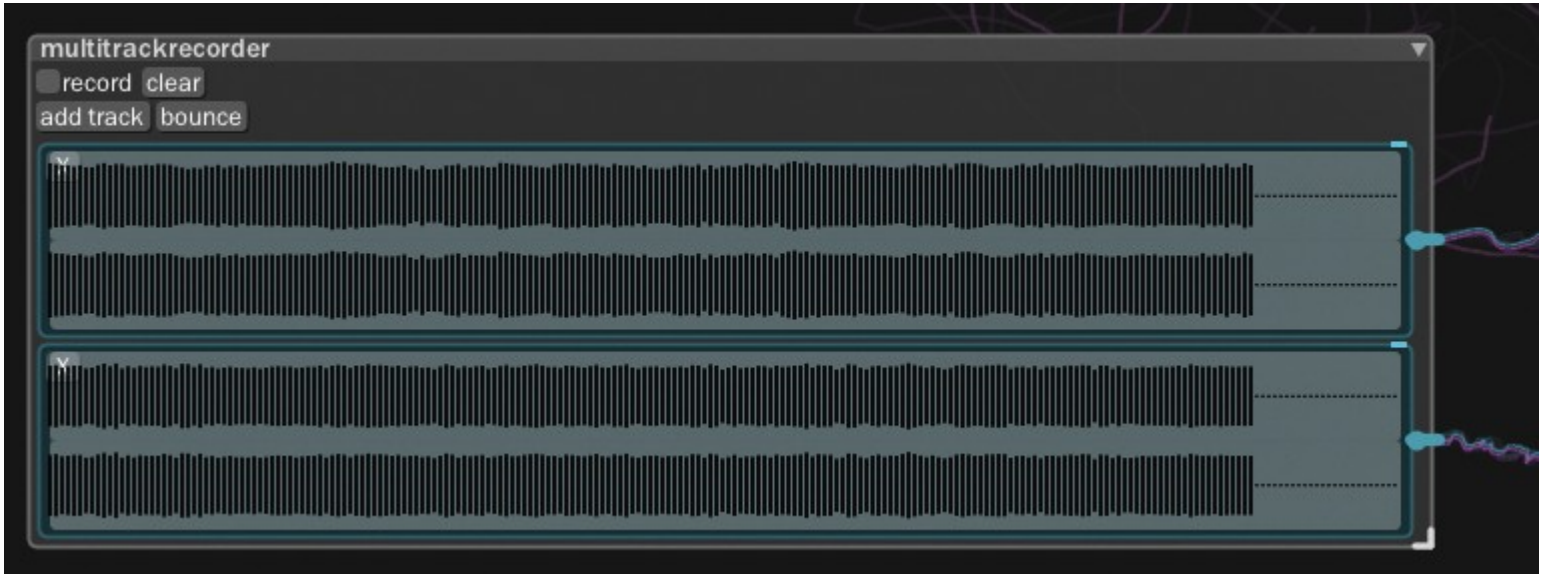
CC BY



# Recording

Using Audacity + Connecting to BespokeSynth via Jack Audio

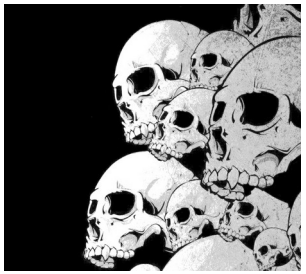
or




Using « multitrackrecorder »



CC BY



# Webography

BespokeSynth basic usage : https://www.youtube.com/watch?v=SYBc8X2IxqM

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

CC BY