



Zero Cost Music Making

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To the Cloud

Background

- applications are no longer locally in the computer, services are, instead, in the Internet and we'll access them via browser
- data resources and documents are there, too
- externalized technical support

To the Cloud

- ever growing variety of resources
- provided by scientific societies, commercial companies, multimedia artists, enthusiasts...
- simple and explicit, better for pedagogical uses
- one has to filter resources

To the Cloud

- notation, composing, accompaniment, arranging, audio laboratory...
- tools for several teaching positions and needs
- support for pluralistic attitude in music education

To the Cloud

- emphasis on communities
- communities are easily integrated while both tools and products are in the net
- modern music education benefits the means: make together, publish to each other

Pros in the Cloud

- immediate access to the tools, no downloading and installation
- no licences, no updating, no backup copying
- tools work everywhere where is a computer and Internet access
- work similarly on different platforms and operating systems (with some exceptions), cont'd.

Pros in the Cloud

- normally the use is free at the basic level
- integrated support for communities (publishing, delivery, collaboration)
- easy access to (nearly) everyone
- empowerment-as-enablement: tools which would not be possible to use otherwise (virtual instruments, orchestras, musicians); enable processes like working in audio laboratory (cont'd)

Pros in the Cloud

- empowerment-as-enablement: enables one's own output, cultural production like composing, arranging, playing
- supports music education of special needs

Cons in the Cloud

- need of access to Internet, operations depend on the bandwidth in use
- possible needs of plug-ins
- browser incompatibilities
- registrations, sign-ups
- commercial intrigues functions

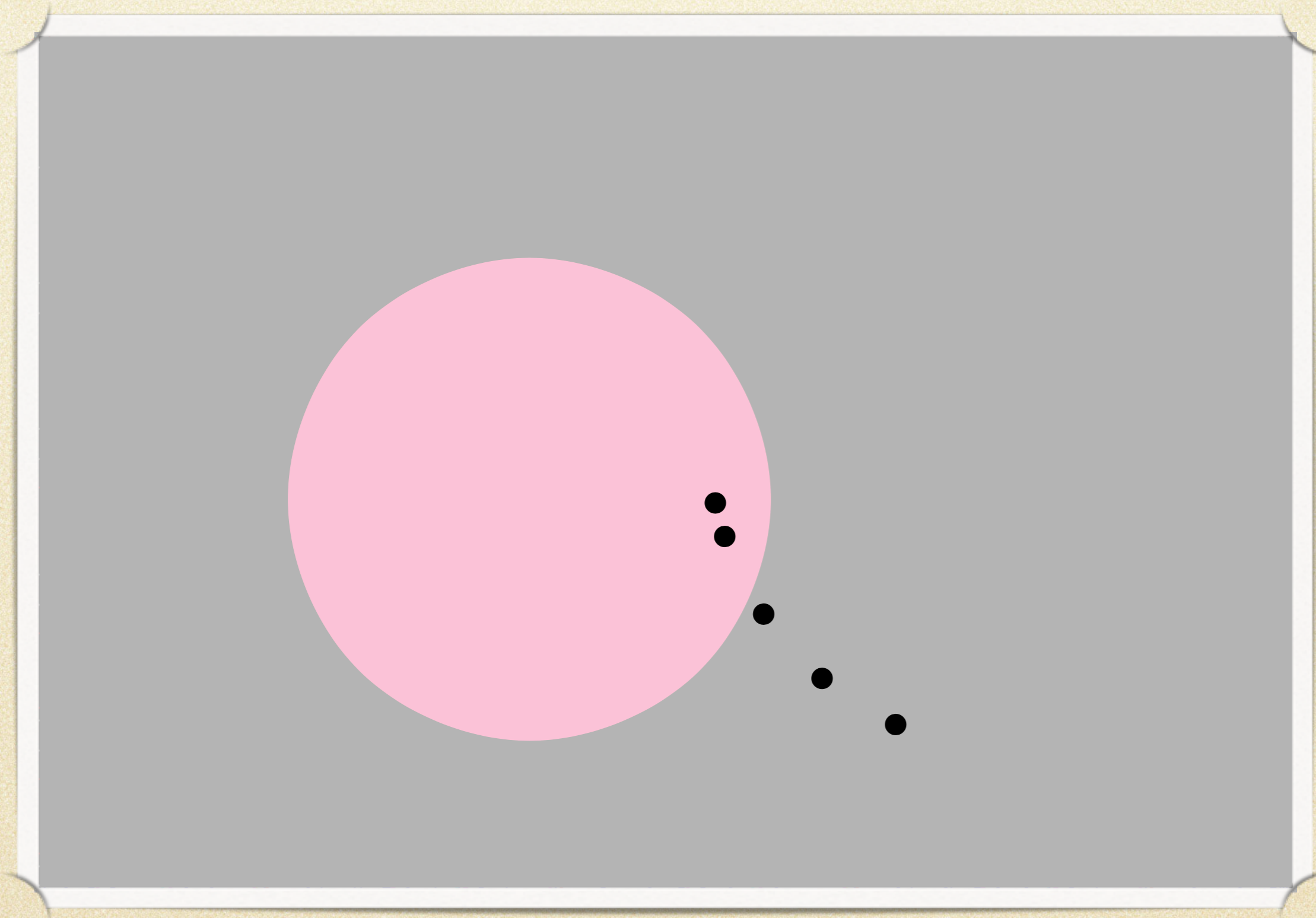
Cons in the Cloud

- application appears, application disappears
- no localization

No Threshold
With Keyboard
Fill the Grid
The Ambience & Groove
Notation
Loops & Sequencing
Creating & Collaborating

No Threshold

Patatap



<https://patatap.com>

Typatone

Please write and listen

<https://typatone.com>

Touch Pianist



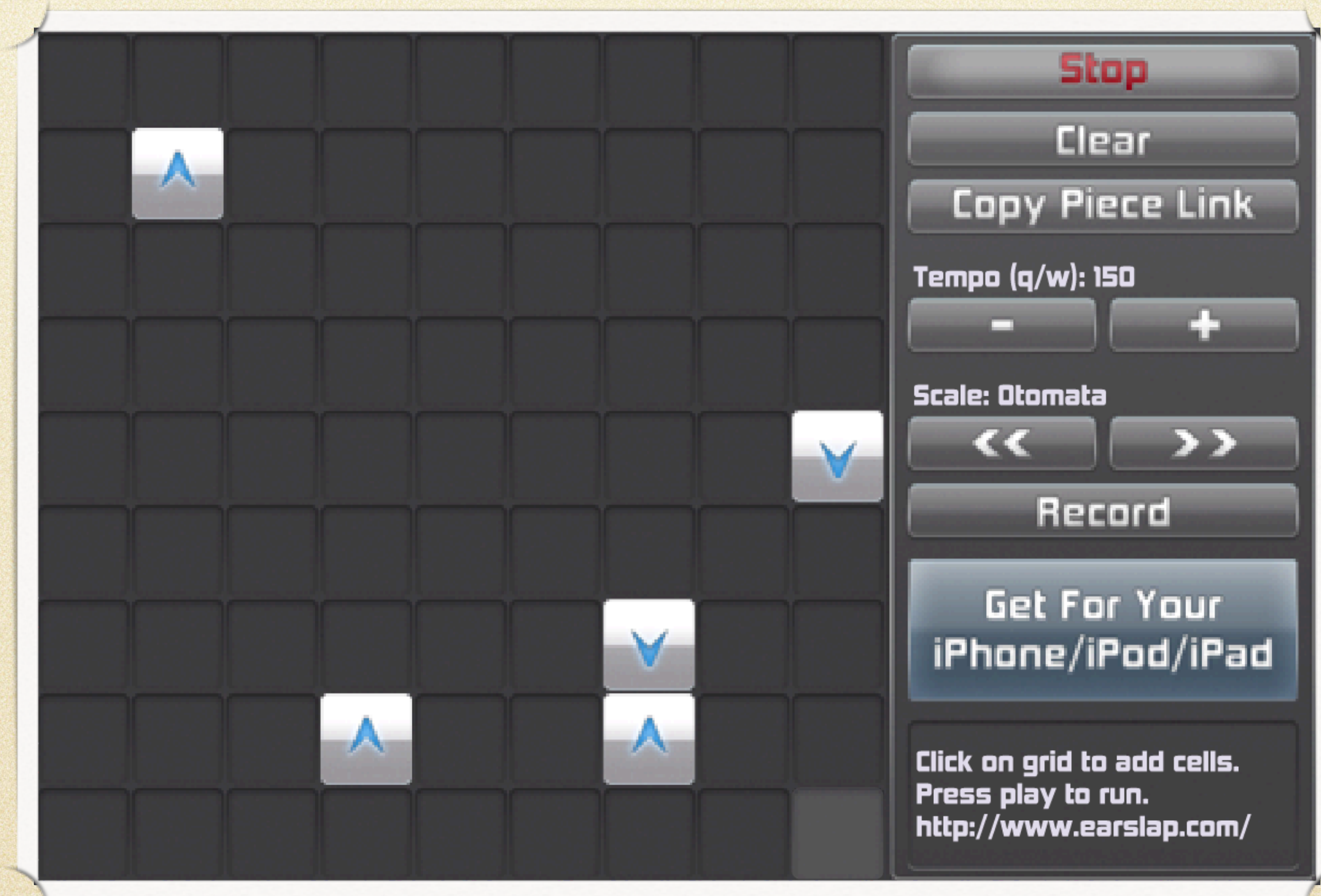
<http://touchpianist.com>

Virtual Drumming



<https://www.virtualdrumming.com>

Otomata



Stop

Clear

Copy Piece Link

Tempo (q/w): 150

— +

Scale: Otomata

<< >>

Record

Get For Your
iPhone/iPod/iPad

Click on grid to add cells.
Press play to run.
<http://www.earslap.com/>

<https://earslap.com/page/otomata.html>

Gregorian Voices

Gregorian Voices
Early Roman Catholic Church Song Generator

Now playing...

MyNoise

Web Audio Modules



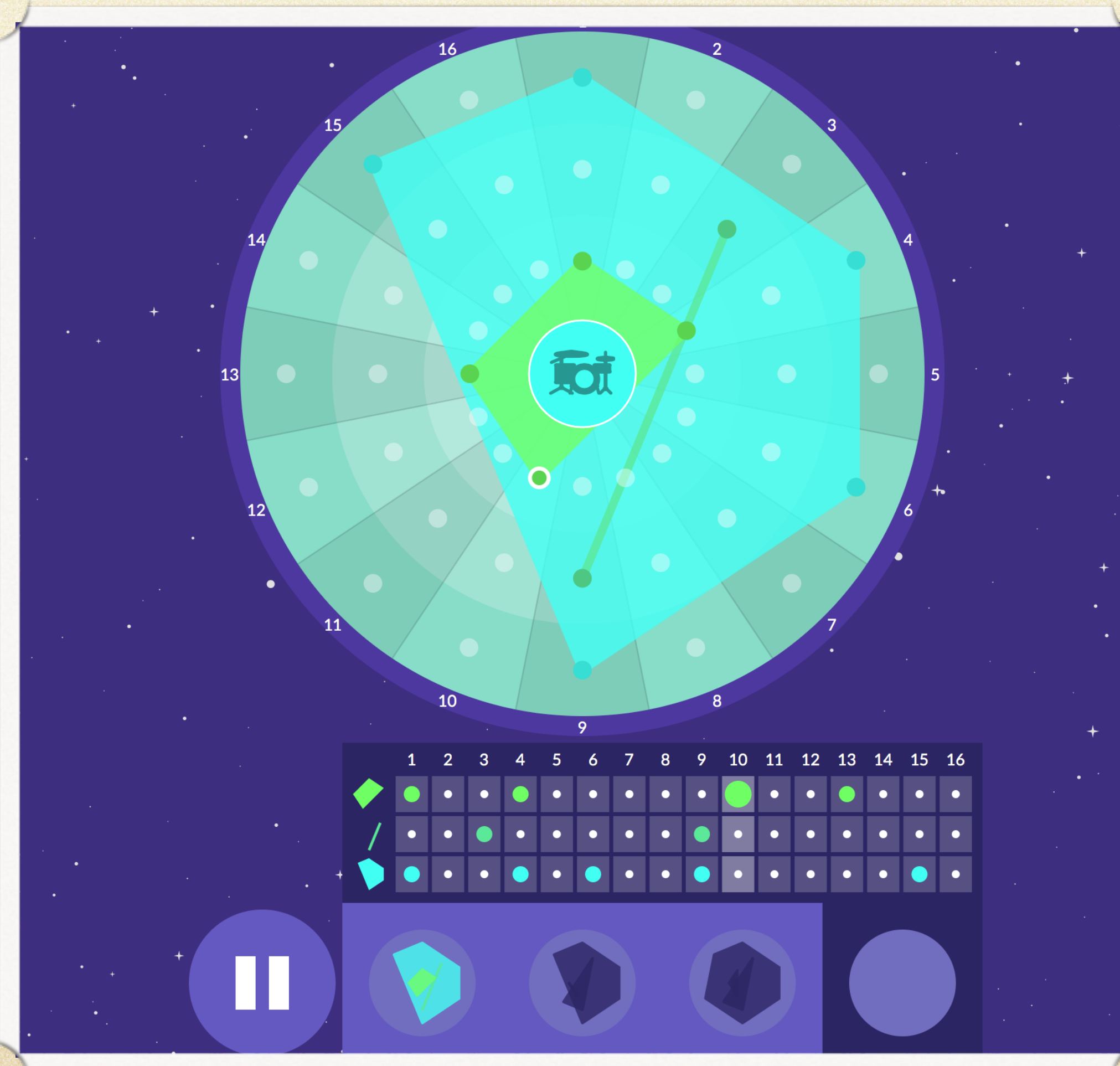
<https://synth.playtronica.com/>

Incredibox



<http://www.incredibox.com>

Groove Pizza



<https://musedlab.org/groovepizza>

aQWERTYon



SCALE TYPE: Minor

SCALE: Minor Pentatonic

ROOT: D4

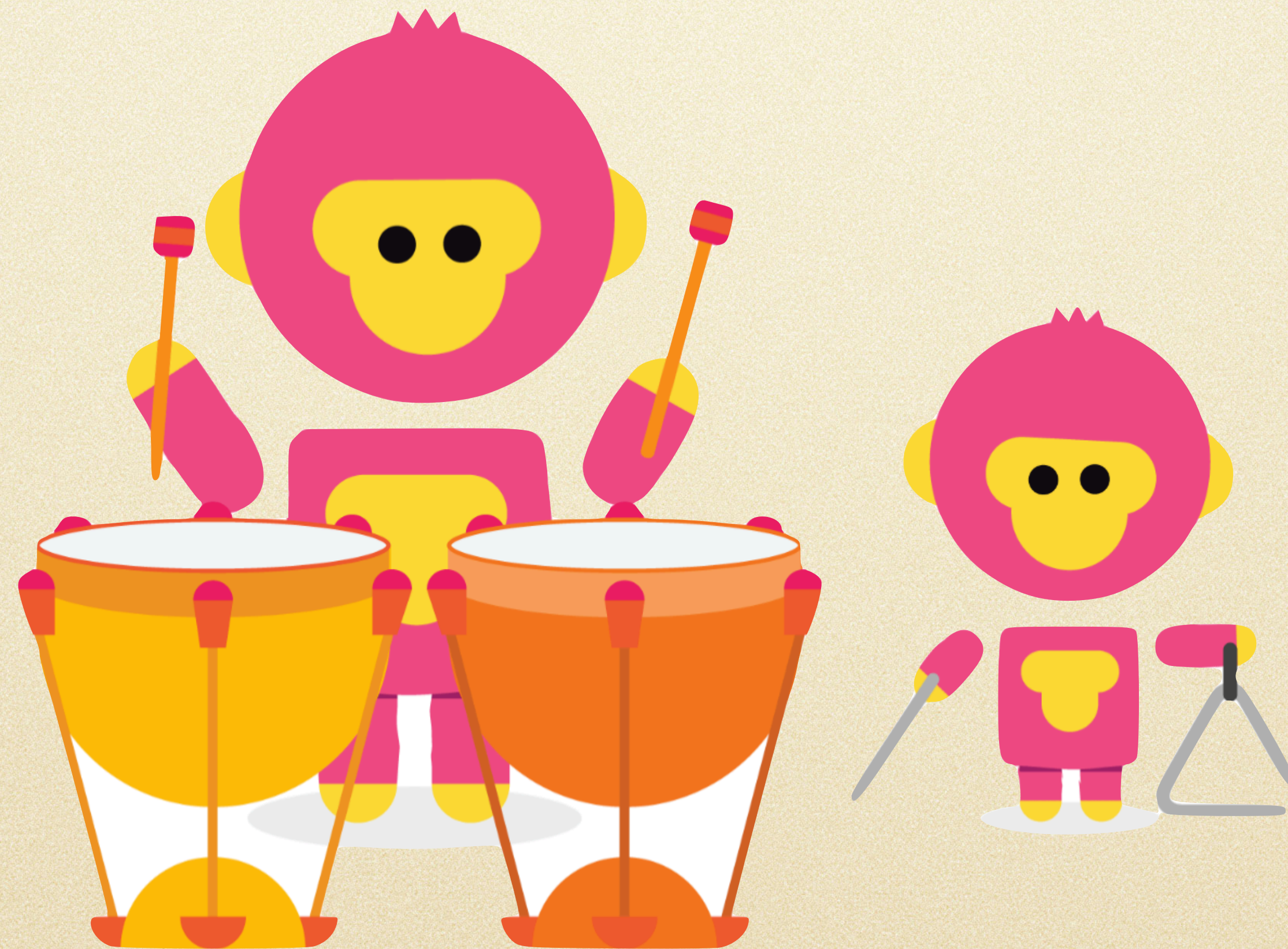
VOL: [Volume slider]

`	D	F	G	A	C	D	F	G	A	C	D	F	delete
tab	C	D	F	G	A	C	D	F	G	A	C	D	F
caps lock	G	A	C	D	F	G	A	C	D	F	G	return	
transpose DOWN	D	F	G	A	C	D	F	G	A	C	transpose UP		
fn	ctrl	opt	cmd	space				cmd	opt	left	up	dwn	right

SOUND: Rock Organ

NOTE CAPS: on

CHROME MUSIC LAB



<https://musiclab.chromeexperiments.com/Experiments>

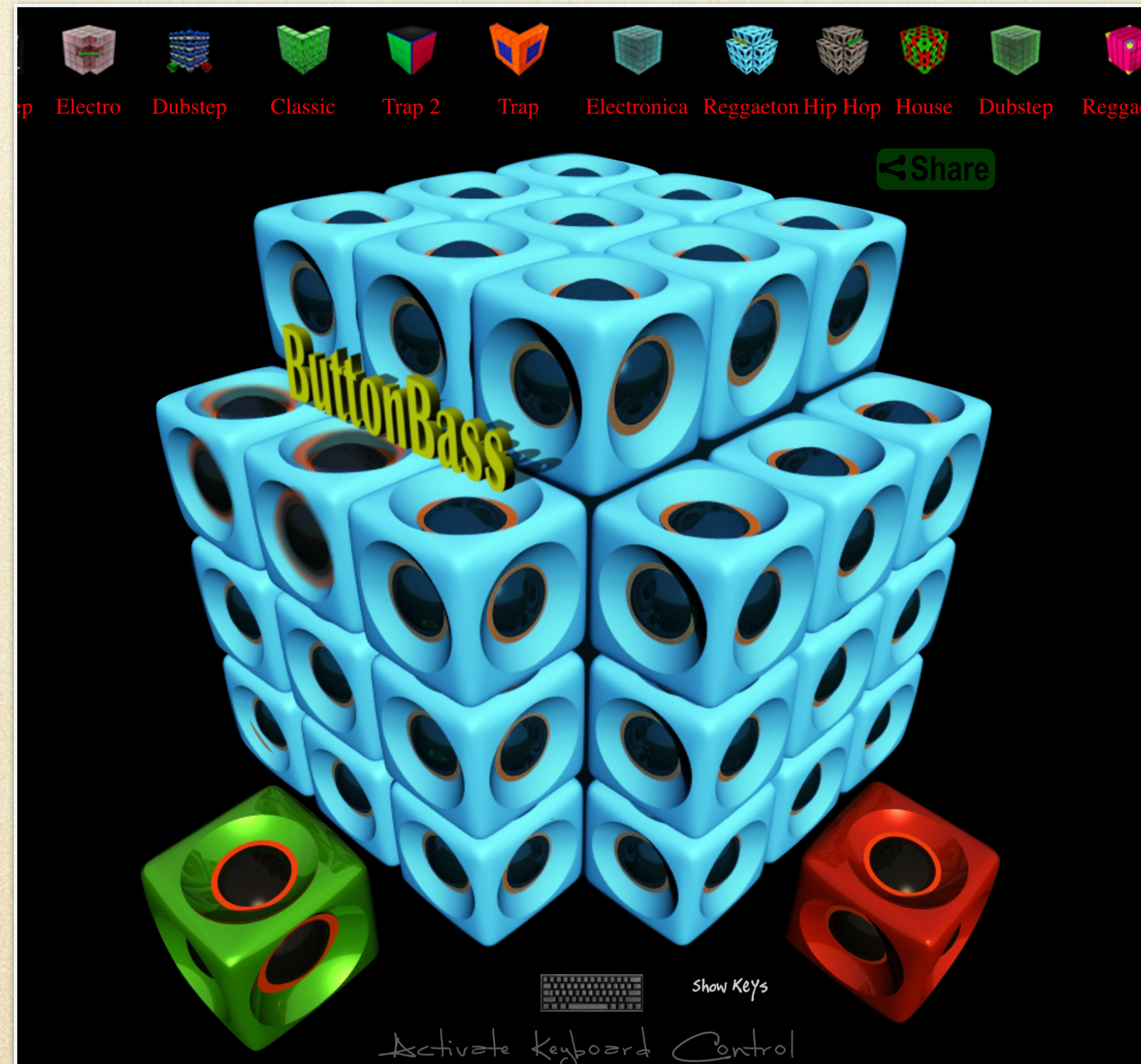
With Keyboard

Tony-B machine



<http://www.tony-b.org>

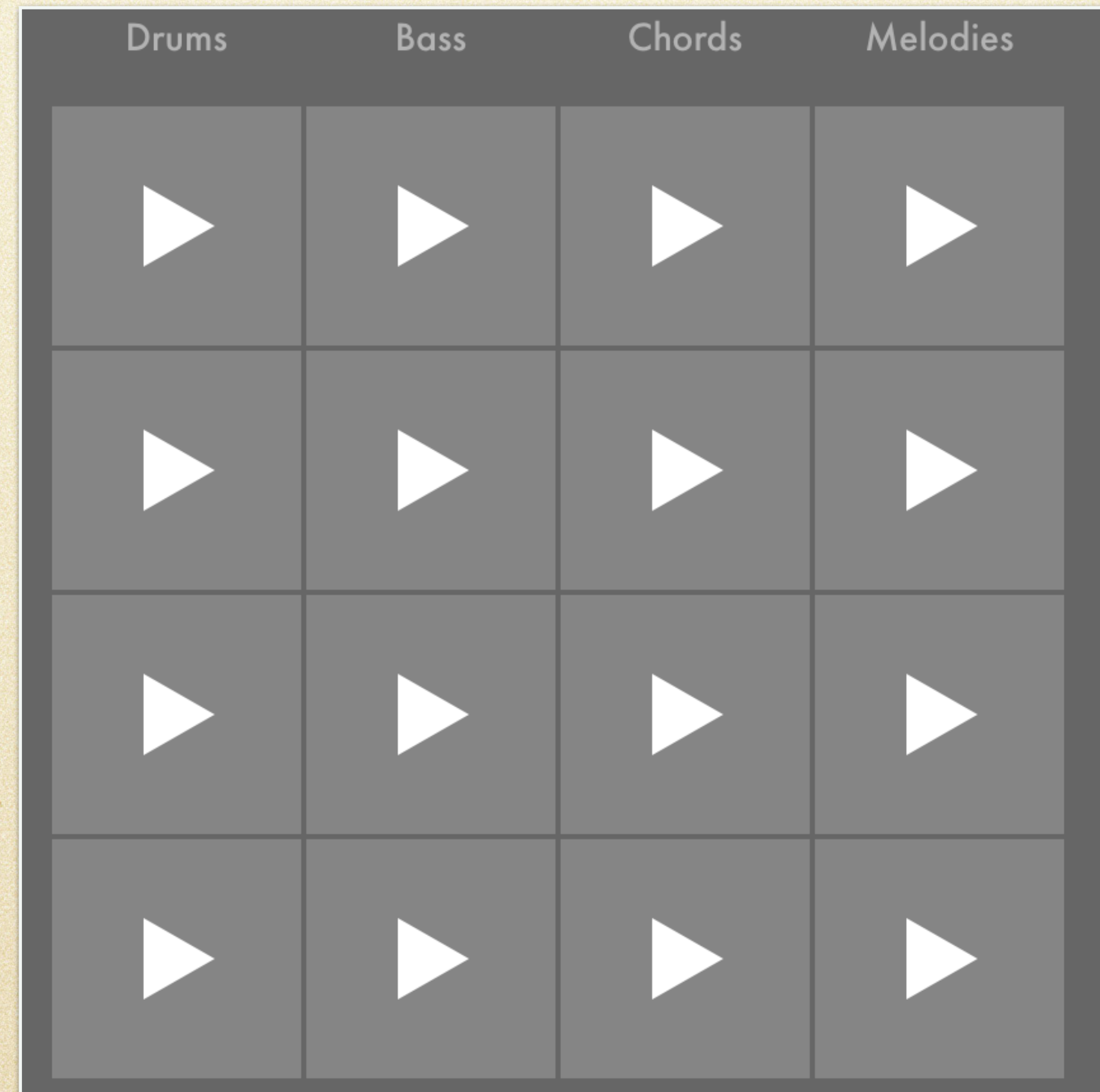
Button Bass



<http://www.buttonbass.com/index.html>

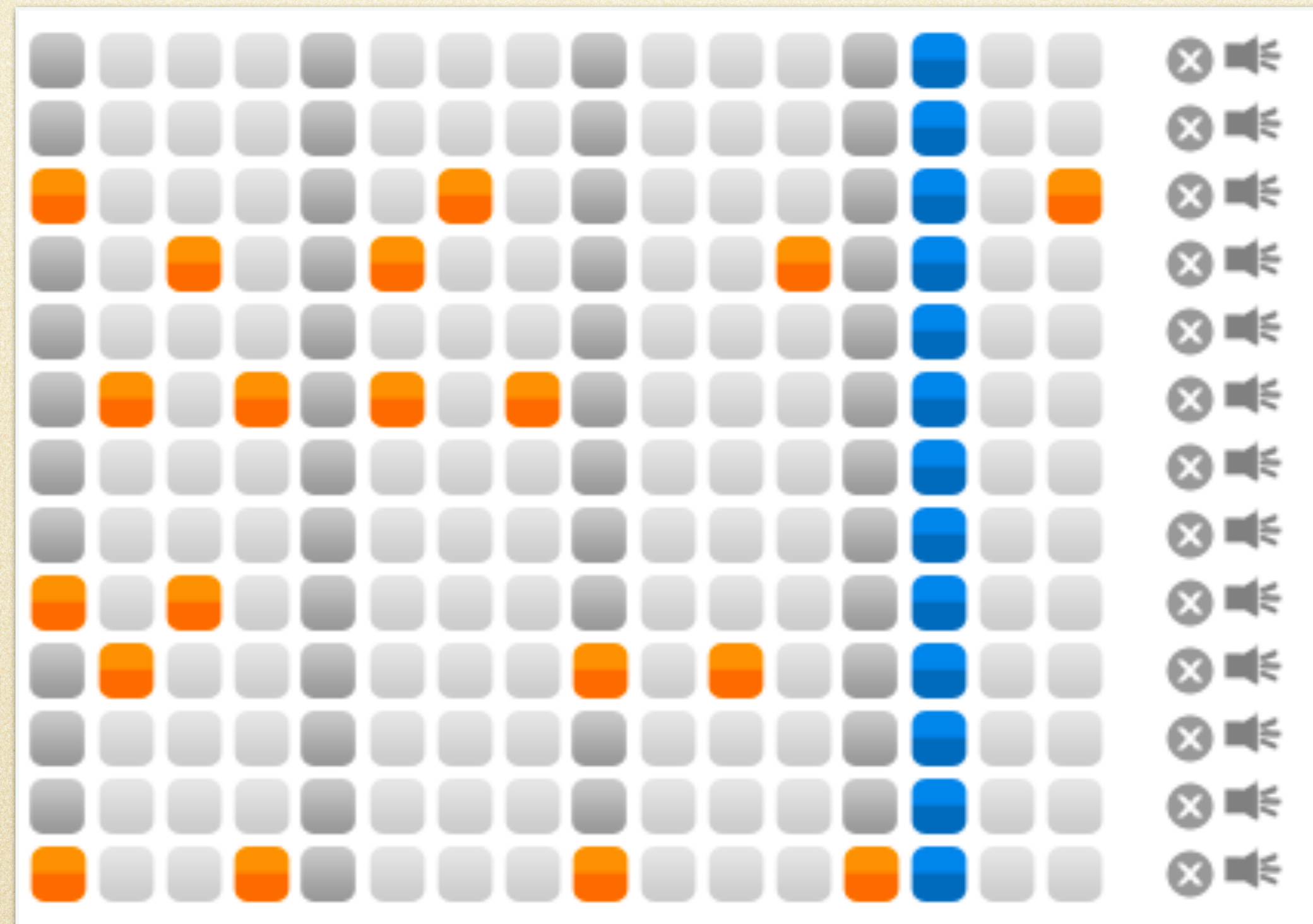
Fill the Grid

Ableton education



<https://learningmusic.ableton.com>

Beatlab



<http://www.beatlab.com/>

Drumbit

The screenshot shows the Drumbit app interface. At the top left, there is a 'Master volume' slider. Below it, the 'Tempo' is set to 140 bpm, and the 'Swing' is adjustable. The current style is 'Latin', and the effect is 'No Effect'. There are also options for 'Bossa Nova' and checkboxes for 'Low', 'High Pass', and 'Compressor'. A 'Keys Mode' checkbox is at the bottom left. The central area features a large black display. To the right of the display are icons for file operations and a sequence of four buttons labeled 1, 2, 3, 4, and a play button. Below the display are buttons for 'Panning', 'Filters', 'Preferences', 'Plus', and 'Help'. The main part of the interface is a 16x8 grid of drum triggers. The columns are numbered 1 to 16, and the rows are labeled 'ride', 'timbale 2', 'timbale 1', 'rim shot', 'open hihat', 'closed hihat', 'snare', and 'kick'. The grid shows a pattern of triggered notes in cyan. To the right of the grid are two columns of volume and pitch sliders for each drum type. The bottom right corner of the grid area is labeled 'Volume' and 'Pitch'.

<https://drumbit.app>

iO-808

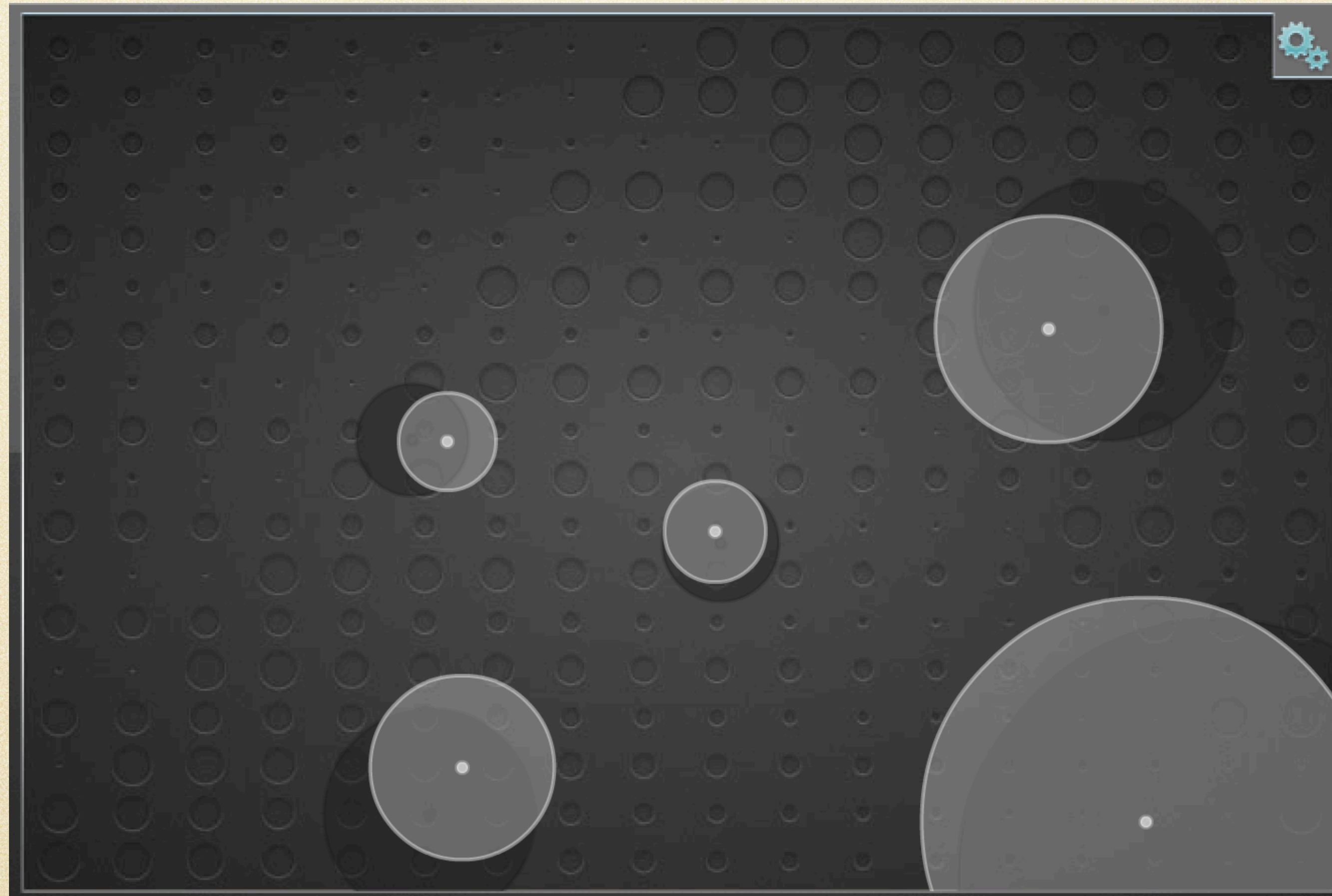
The interface is divided into several functional sections:

- Top Left:** Controls for **PATTERN WRITE** (1st PART, 2nd PART), **MANUAL PLAY**, **COMPOSE**, **PATTERN CLEAR**, and **STEP NUMBER PRE-SCALE** (with a note: "Drag to a Step Button to set Pattern Length").
- Top Center:** **INSTRUMENT-SELECT RHYTHM TRACK** with a circular selector for instruments: HT, RS, MT, CP, LT, CB, SD, CY, BD, OH, AC, CH.
- Top Right:** A row of 12 **LEVEL** knobs for volume control.
- Middle Left:** **TEMPO** dial (0-10) and **MEASURES AUTO FILL IN** dial (2-16).
- Middle Center:** A grid of 12 instrument buttons: **ACCENT**, **BASS DRUM**, **SNARE DRUM**, **LOW TOM**, **MID TOM**, **HI TOM**, **RIM SHOT**, **HAND CLAP**, **COW BELL**, **CYMBAL**, **OPEN HIHAT**, and **CLSD HIHAT**. Above these are knobs for **LEVEL**, **DECAY**, **SNAPPY**, and **TUNING**.
- Middle Right:** **MASTER VOLUME** dial (1-9).
- Bottom Left:** **BASIC VARIATION** (A, AB, B) and **START/STOP** buttons.
- Bottom Center:** **PRE-SCALE** (1-4) and **STEP NO.** (1-16) buttons.
- Bottom Right:** **I/F - VARIATION** (A, B), **INTRO SET FILL IN TRIGGER**, and **TAP** button.

Rhythm Composer iO-808
Browser Controlled

The Ambience & Groove

Circuli



<https://earslap.com/page/circuli.html>

Ambient Mixer



<http://www.ambient-mixer.com/>

YouDJ

The screenshot displays the YouDJ software interface. At the top, the text "YouDJ" is centered. Below it, the software interface is shown, featuring a central mixer with two decks. The left deck is playing "S & M (Dave Aude Club Mix)" by Rihanna, and the right deck is playing "I Feel Untouched (Kommander Keen)" by FLX. The BPM for both tracks is 129.0. The interface includes various controls such as volume, mid, bass, and filter for each deck, as well as a central crossfader. Below the mixer, there are buttons for "LOOP", "SFX", and "SYNC".

Below the mixer, there is a list of songs with "PLAY" buttons next to them. The list is organized into three columns:

PLAY Fun Aighl	PLAY Fx 2	PLAY Speaker Dream
PLAY Fun Aughl	PLAY Intro 1	PLAY Speaker Gol
PLAY Fun Crash	PLAY Intro 2	PLAY Speaker Heh Heh
PLAY Fun Crow Dohh	PLAY Intro 3	PLAY Speaker Here we go
PLAY Fun Dog Growl	PLAY Intro 4	PLAY Speaker I Can Feel It
PLAY Fun Donkey	PLAY Intro 5	PLAY Speaker I Know
PLAY Fun Evil Laugh	PLAY Intro 6	PLAY Speaker Im Your DJ 1
PLAY Fun Explosion	PLAY Intro 7	PLAY Speaker Im Your DJ 2
PLAY Fun Glass Crash	PLAY Intro Countdown	PLAY Speaker Im Your DJ 3
PLAY Fun Hydraulic Motor	PLAY Intro THX	PLAY Speaker Lets Go
PLAY Fun Miaow	PLAY Scratch Ah Yeah	PLAY Speaker Oh My God
PLAY Fun Moto Crash	PLAY Scratch Basic	PLAY Speaker One Two Three Four
PLAY Fun Phone	PLAY Scratch Hey DJ	PLAY Speaker Pump Up The Volume
PLAY Fun Pikachu	PLAY Scratch HipHop	PLAY Speaker Put Your Hands Up

<https://you.dj>

Notation

Noteflight

The screenshot displays the Noteflight web application interface. At the top, there is a navigation bar with icons for Play, Transcribe, Record, Save, Instruments, Sync Audio, Page View, Zoom, Keyboard, Help, and Connect. Below this is a secondary toolbar with options for score, duration, pitch, tempo, text, and measure. The main workspace shows a musical score for the piece 'Taikahuilu'. The score is in 3/4 time and features a vocal line with German lyrics and a piano accompaniment. The lyrics are: 'Wie stark ist nicht dein Zau - ber - ton weil, hol - de Flö - te, hol-de'. The interface also includes fields for (Lyricist), (Subtitle), and (Composer), and a (Part) label for the score.

noteflight

Play Transcribe Record Save Instruments Sync Audio Page View Zoom Keyboard Help Connect

score duration pitch tempo text measure

Taikahuilu

(Lyricist) (Subtitle) (Composer)

(Part)

Wie stark ist nicht dein Zau - ber - ton weil, hol - de Flö - te, hol-de

FLAT.IO

The screenshot displays a music player interface with a score for two instruments: Grand Piano and Celesta. The score is in 4/4 time and features a key signature of three flats (B-flat, E-flat, A-flat). The tempo is marked as quarter note = 160. The Grand Piano part begins with a *pp* dynamic and includes a *Red.* (ritardando) marking. The Celesta part consists of a rhythmic accompaniment of eighth notes. The interface includes a top bar with a play button, a volume icon, and a zoom icon.

<https://flat.io/>

Loops & Sequencing

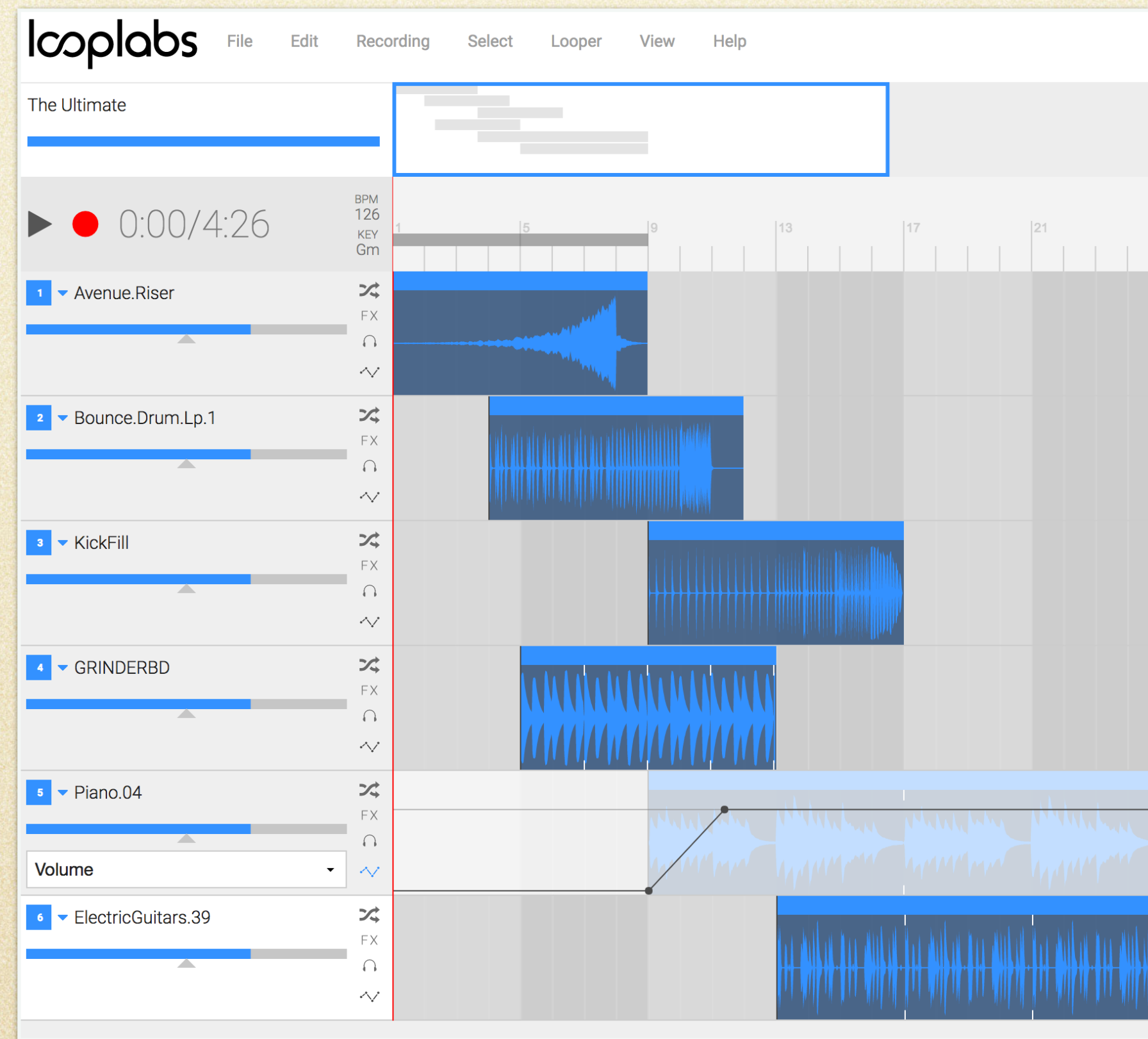
JamStudio

The screenshot displays the JamStudio software interface, which is divided into four main sections:

- SCORE:** Shows a musical score for an "untitled" piece. The score is in 3/4 time and consists of four staves. The chords are: G, Em, G, A (Staff 1); Am, F, G, G (Staff 2); Dm, D, Am, Am (Staff 3); G, D, D, G (Staff 4). The "Dm" chord on the third staff is currently selected. There are "INSERT" and "DELETE" buttons on the left, and a "Play Page Order" field at the bottom.
- CHORDS:** A list of chords is shown, organized by key (G). The "Variations" column lists chords like Em, Fm, F#m, Gm, G#m, Am, A#m, Bm, Cm, C#m, Dm, and D#m. A "PREVIEW MODE" button is located at the bottom left of this panel.
- MIXER:** Features a tempo control set to 89. Below it is a list of instruments with volume sliders: Guitar.Classic, Drums.Jazz Shot (selected), Bass.Gallop, EGuitar.Convertible, EGuitar.Diamonds, EGuitar.Clean and Dirty, Piano.Titanic, and EPiano.Lullaby. A "Loop Page" checkbox is checked.
- SOUNDS:** A list of drum sounds is shown, including Sit Back, Crashin, Poppy, Jazz Shot (selected), Bouncy Ball, March, Silk, Groovin, Slip N Slide, Sideshow, Big Top, Trot, Cleopatra, and Dallas. A "PREVIEW MODE" button is located at the bottom left of this panel.

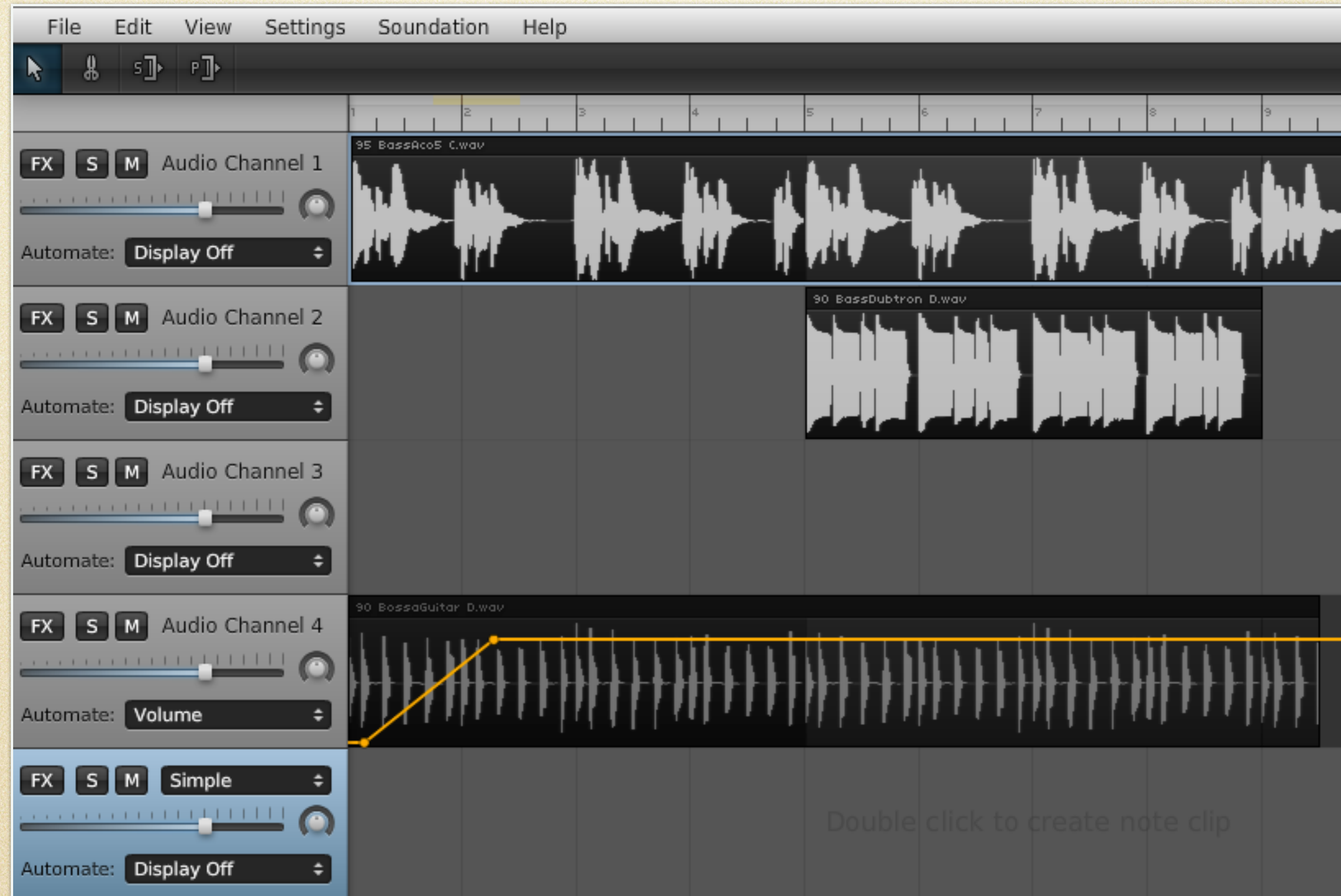
<http://www.jamstudio.com/Studio/indexStudio.htm>

Looplabs



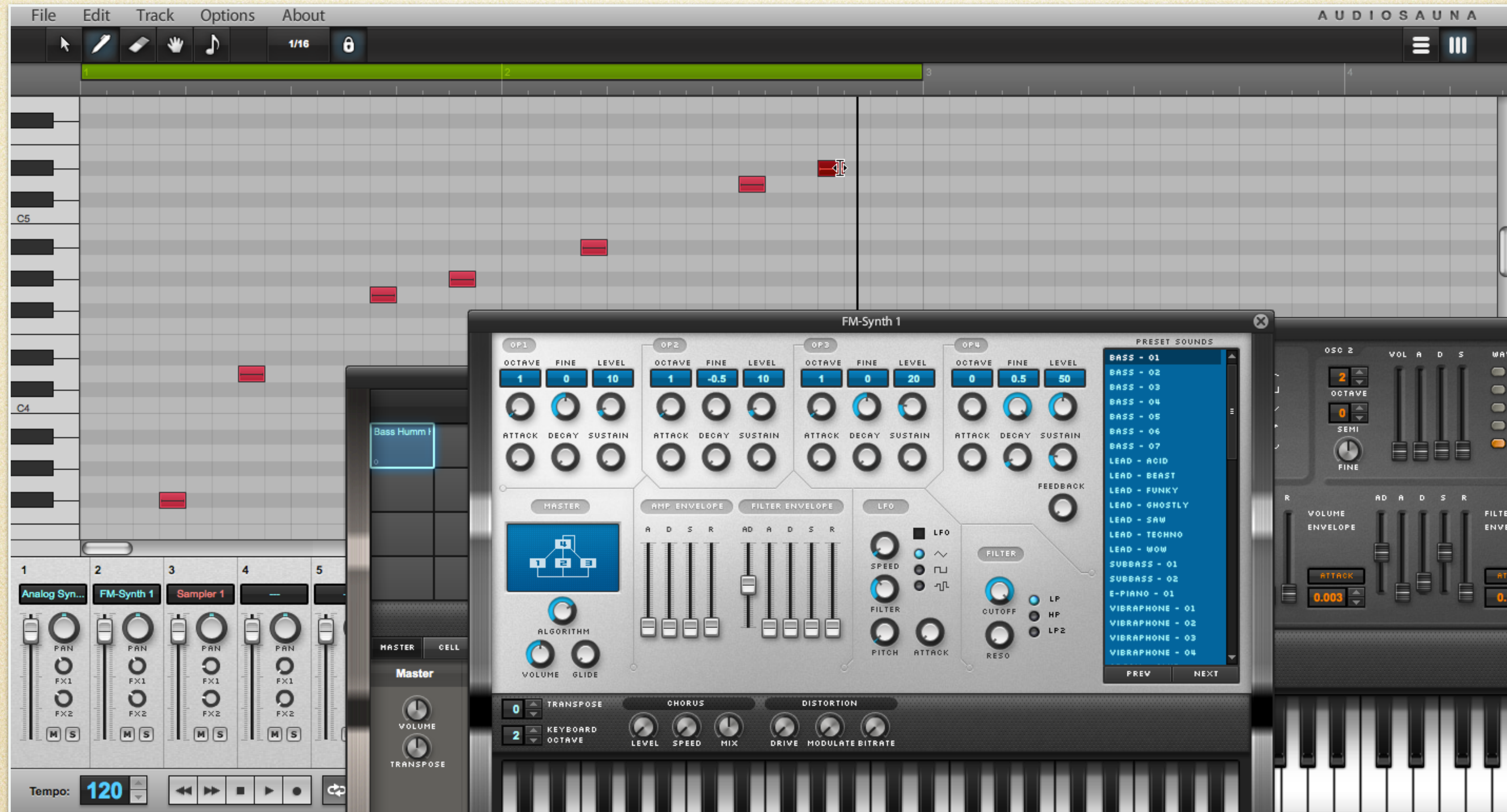
<https://www.looplabs.com/studio/>

Soundation



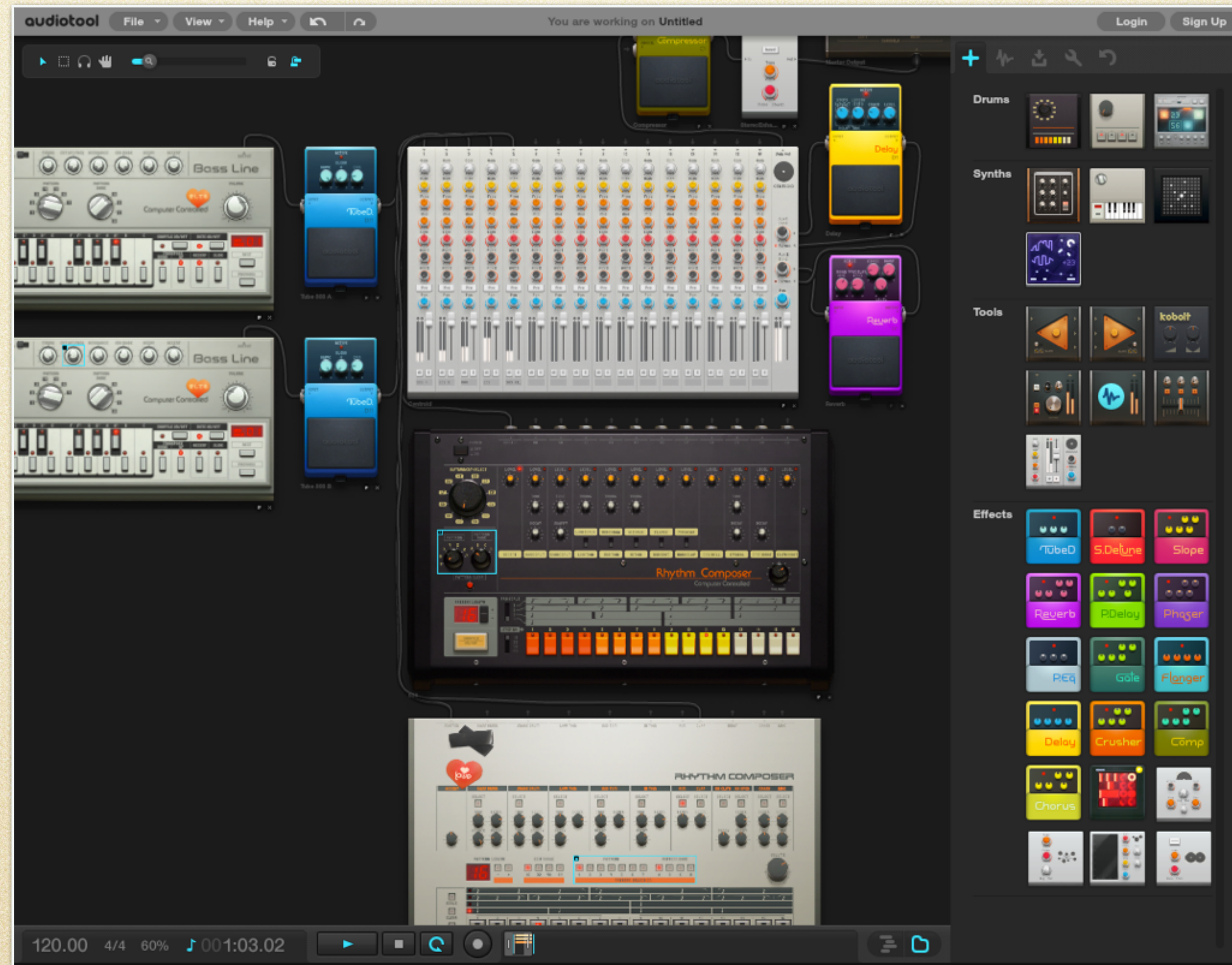
<http://soundation.com/studio>

Audio Sauna



<http://www.audiosauna.com>

Audiotool



<http://www.audiotool.com/>

Creating & Collaborating

Snapjam

00:00:08.589

Sounds Chat

rassegna2	00:00:24.010
rock5 D 140bpm	00:00:27.450
100bpm_busybossabe...	00:00:28.840
4_EDM busy groove	00:00:32.550
4_EDM busy groove	00:00:32.550

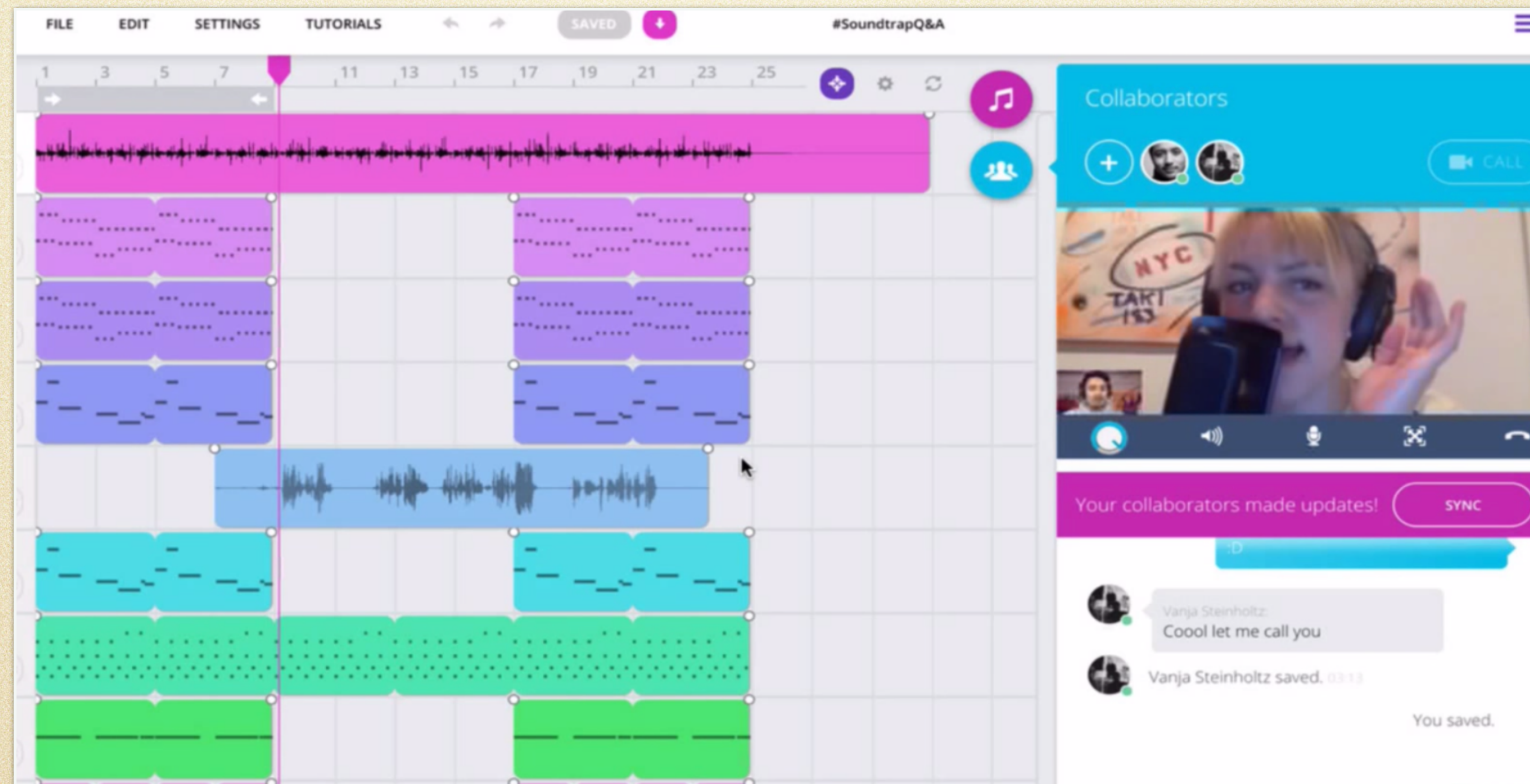
When (sec) Volume

19.6143 100.0000

Delete

<https://www.snapjam.co>

Soundtrap



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

Bandlab

The screenshot displays the Bandlab web application interface. At the top, there is a control bar with playback buttons (rewind, play, stop, fast forward), a timer at 00:00.0, and settings for key signature (F min), tempo (120 bpm), and time signature (4/4). Below this is a track list on the left with six tracks: 'Funky Moving Guitar', 'Dance The Night Away B...', 'Good Lovin' Guitar', 'Pop Beat 01', 'Hard Guitar', and 'Track'. Each track has a volume slider and a mute button. The main workspace is a piano roll with a 9-measure timeline. The 'Funky Moving Guitar' track is active, showing a red waveform. A keyboard interface is overlaid in the foreground, featuring a piano keyboard with keys labeled with letters (S, D, G, H, J, L, 1, 3, 4, 5, 7, 8, 0) and numbers (Z, X, C, V, B, N, M, , , Q, W, E, R, T, Y, U, I, O, P). The interface also includes a 'Loop Packs' section on the right with categories like 'Grime', 'Electronic Fusion', 'Funk', 'Minimal', and 'Trap Pop', each with a play button and '24 Loops' indicator. A 'Help' button is visible in the bottom left corner.

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

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