

SUN DRUMS 



USER GUIDE

Soniccouture

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## TECHNICAL INFO

- 16GB Library
- Up to 116 velocity layers per drum.
- 5 Bass drums
- 12 Snares
- 5 Hi-Hats
- 4 sets of toms
- 8 Cymbals
- 3 Beat Tools drum sequencers
- 24bit 48khz Stereo Sampling
- Kontakt Player / NKS compatible



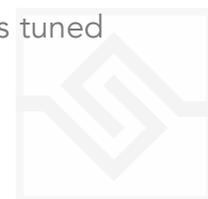
## SUN DRUMS: CONCEPT



*Sun Drums* is a sister product to Soniccouture *Moonkits*. Where *Moonkits* is based around brushes and rods, we felt that the sound of Konk Studios combined with the recording techniques of *Moonkits* would also lend itself to a further collection of more conventional stick-based kits. The idea was to create a set of production ready acoustic drums, perfect for modern urban, funk, & electronic styles.

We wanted to continue from *Moonkits* with the concept of drums played more softly - or at least: *not* focusing on whacking each drum as hard as possible. Loud hits were recorded, naturally, but we concentrated lots of detail in the mid and lower ranges too.

Tuning was also a key concept for these sessions. Just as many are recorded LOUD, It also seems to be the case that drum samples have a tendency to be tuned fairly low, certainly in the case of bass drums. Perhaps when recording in isolation (without the context of backing music), the very sub-heavy tunings seem most appealing. However, it is often the case that a bass drum tuned higher will sit better in a mix and cut through better. Just compare a 909 bass drum to any acoustic bass drum sample. Even though we might think of the 909 kick as powerful and deep, it is surprising to note how much higher it is tuned



than the real thing. Since it has been used as a foundation to a huge number of tracks in many styles, there must be something in this. Likewise, with the Sun Drums snares, we recorded a good number of them at a higher tunings, as well as some low fatties.

## SUN PEOPLE



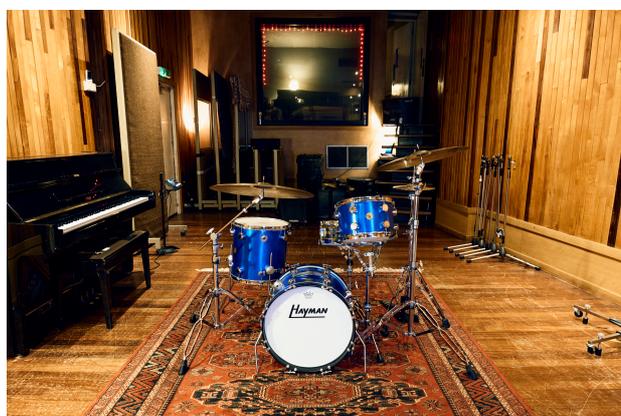
[Adam Falkner](#) collaborator on Moonkits, a creative and open minded drummer who has worked with a huge number of artists: Dido, Babyshambles, Danny Goffey (Supergrass), Duffy, Nitin Sawhney, Colton Avery, Strawbs, Mark Owen, Judie Tzuke, Michael Franti & Spearhead, Candi Staton, Beverley Knight, Ed Harcourt.. and more.



[Martin Oldham - DTS.](#) We were keen to work with Martin, a vastly experienced drum tech who has worked with literally everyone in the business over the years. His drum collection and tuning /setup was to form the foundation of Sun Drums - to make sure the individual drum sounds got to the places we needed them to.



## THE SUN DRUMS



### KITS

- 1964 Ludwig Superclassic Kit 22/13/16
- WFL Toms 13/16 (paired with additional bass drums)
- 1957 Gretsch Roundbadge Kit 20/13/16
- 1960's George Hayman 18/12/14

### Additional Bass Drums

- 24" Gretsch US Custom Bass Drum
- 26" Gretsch US Custom Bass Drum



## SNARE DRUMS

- 1970's Ludwig Black Beauty 14x6.5
- 1980s Pearl Black Beauty 14 x6.5
- 2006 Canopus Zelkova 14x5
- 1940's Slingerland Radioking 14x7
- 1964 Rogers Dynasonic Wood Shell 14x5
- 1960's Premier Royal Ace 14x4
- 2012 Gatton Corian Shell 13x6
- 1965 Ludwig 400 14x5
- 1970's Rogers Dynasonic Brass 14x5
- 2021 Mapex Persuader Brass 14x6.5
- 2021 Mapex Wasp Steel 10 x 5.5
- 2021 Mapex Cherry Bomb 14x6

## HI-HATS

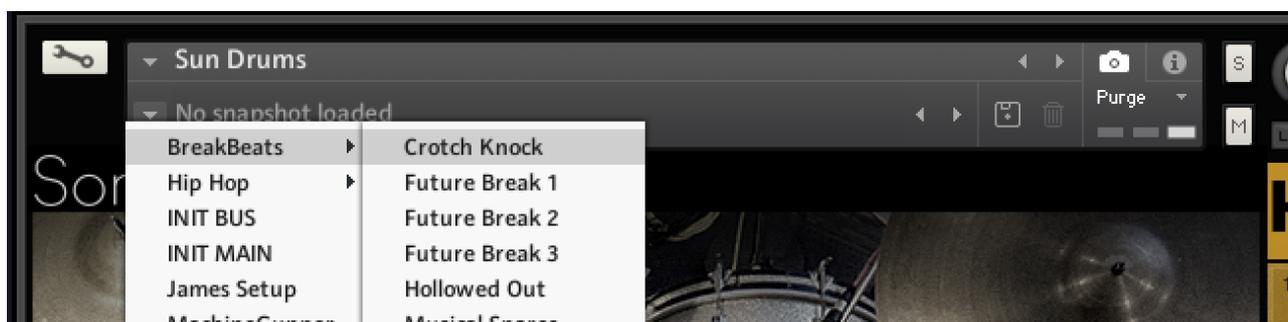
- Sabian 16 HHX
- Sabian 14 HHX
- Zildjian 14 Vintage
- Zildjian 13 Custom Dark
- Zildjian 10 Hi-Hat

## CYMBALS

- Zildjian A 19 Projection Crash
- Zildjian A 22 Custom Ride
- Zildjian Kerope 20 Crash
- Zildjian Constantinople 22 Medium Dry Ride
- Vintage 18 Crash
- Zildjian 24 Ride
- Sabian 16 Crash
- Zildjian K 20 Dry Ride

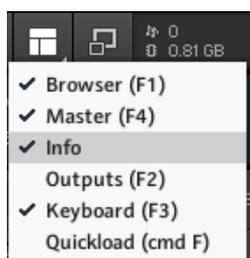


## THE KONTAKT INSTRUMENT



### SNAPSHOTS

Kontakt stores presets as Snapshots, and we've provided a selection of different kits and grooves as Snapshots. To access them, click the 'camera' icon at the top of the Kontakt window and you'll see a drop down menu. The Factory section contains the ones we've made, and your own will be stored in the User section.



### BUILT-IN HELP

If you activate the Info pane in Kontakt, you can hover over any control in the instrument and a short note will appear in the Info pane at the bottom describing what that control does.



## THE MAIN PANEL



The main panel features two main work areas, the MIXER and the DRUM EDIT panel.

## SELECTING A DRUM

1. Click on a drum in the picture, or
2. Click on the Mixer label (kick, snare etc) or
3. Activate SELECT BY MIDI at the bottom right corner of the mixer, and play a note from your MIDI controller or DAW.



Once you have selected a drum the right-hand EDIT PANEL will change to show the settings for that drum.





You can then select different drums & drum tools from within that category in the drop down menu shown here.

### THE MICROPHONE KNOBS



Each drum features a number of different microphones that can be mixed to create different sounds.

Some drum types have 6 mic knobs, some have 5 or 4, depending on how they were recorded.

Kick Drum Bleed = a blend of the snare mic and crotch mic.

### MICROPHONE MIXER ROUTING



Each drum features 3 stereo ambient / room mic controls. You can choose to route these either out through the same channel as the other mics for that drum ('drum channel'), or through one of two assignable Bus channels. In this way you can have a traditional 'Overheads' or 'Room' channel if you wish to process all mics together.



## EDITING A DRUM SOUND

Below the mic knobs you have several knobs that help you shape the sound of the individual drum you have selected.



**PITCH:** Tune the drum, +/- 1 octave

**ATTACK:** Adjust the start of the envelope from fast to slow.

**HOLD:** Adjust the amount of time the maximum level of the envelope is held for.

**DECAY:** Adjust the time it takes for the end of the sound to die away.

**VEL:** Adjust how much the volume of each hit responds to velocity (how hard the key or MIDI note is pressed). Higher values mean a greater range from quiet to loud. A value of zero means all hits will be the same level.



SWITCH to the second set of controls using the 3 buttons below the knobs.



**HPF:** A high pass filter, which removes low frequencies from the sound.

**LPF:** A low pass filter, which removes high frequencies from the sound.

**ATK CURVE:** Adjusts the curve of the ATTACK control from convex to concave. The centre position is linear. This control only features on Kick, Snare and Hi-hat.

**OH DECAY:** Adjusts the decay time of the open hi-hat independently of the CH DECAY knob. Hi-hat only.



## EDITING INDIVIDUAL MIC CHANNELS



If you want to get really in depth with a drum sound, you can also apply the same edit controls to each microphone channel independently.

Why might you do this? Well, perhaps you want to shorten the decay of all the mics except the ROOM mics, which you want to decay fully as a natural reverb effect.

Or perhaps you want to filter out all the high frequencies from the Kick FRONT mic, to create a sub-bass kick mic, but leave the other mics sounding natural.

All these things are possible using the grid of small numbered buttons just below the mic knobs. Each number relates to the knobs above e.g. Button 4 selects Mic knob 4: Overheads.

Select the mic channel you want to edit using the corresponding number switch, and then any changes to make to the EDIT knobs will only apply to that mic channel, until you deselect it, or choose another mic channel for editing.

**NOTE:** The controls will by default display the settings for Mic Knob 1 unless another is selected.

## THE SETUP PANEL



Click the COG icon to display the setup controls, which mainly relate to Velocity.

These are simple but very powerful options that can help you create incredibly natural sounding drum patterns.

**LIMIT VELOCITY:** Sets the range of samples which will respond to incoming velocity values. e.g.: if you limit the high range to 90, you will not hear any samples above that value in the velocity mapping of that drum.

This is very useful if you want to create a soft sounding pattern, you can simply remove the harder sounding samples from triggering.



**RANDOM:** This randomises the incoming velocity values. If you set a RANDOM value of 10, then the incoming velocity will be randomised within 10 values of that hit. In practice this means you can make a much more natural sounding sequence as you get a range of different sounding hits around the same area, as you would with a real drummer.

**CURVE:** Adjust the shape of the velocity response curve: convex curves increase the number of louder samples across the velocity range, concave shapes do the opposite and increase the quieter samples.

**MENU:** This gives you different options for each drum:

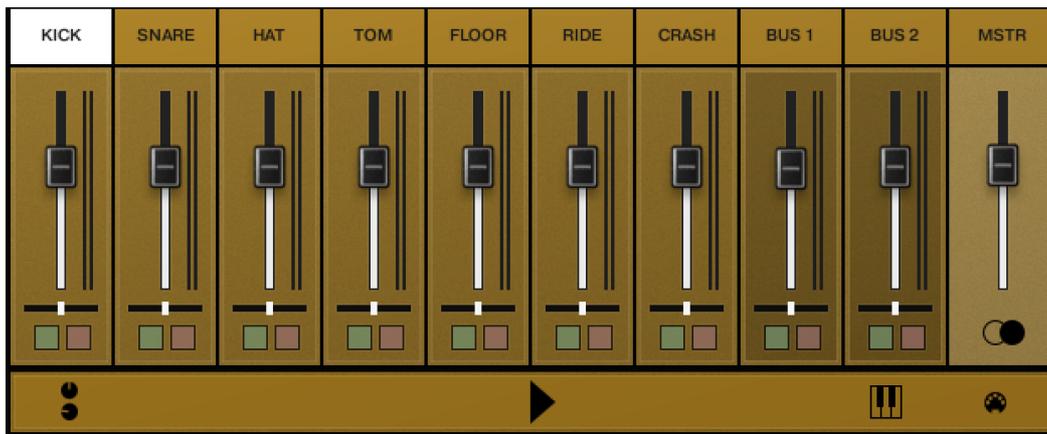
**POLYPHONY:** Sets the number of drum hits that will be able to play simultaneously. Setting "Limit to 1" means that overlapping hits will each cut off the previous hit. "Fuzzy Logic" uses an algorithm to reduce polyphony without being too audible. "Unlimited" allows full polyphony of every hit to ring out.

**ROUND ROBIN:** Toggles our Anti-repeat system. If switched on, you will not hear an identical sample twice (known as 'machine-gunning'). You may want to switch it off if you want a more machine-like groove, for example perhaps in urban styles.

**CHOKE (Snare Only):** This causes the scrape samples to be cut off by the snare hit samples to create a certain natural performance effect, if desired.



# THE MIXER



The Sun Drums mixer is a conventional 8 stereo channel mixer with 2 assignable buses and a master channel. Each channel features a volume fader, pan fader and solo / mute buttons.



The PLAY button will activate the current BeatTools pattern.

# THE CHANNEL STRIP



by clicking this button you launch the channel strip for the selected channel. Each channel has its own set of processors. Each module can be switched ON/OFF using the black/white square in the top right of each box.

box.



**FILTERS:** HPF plus multimode filter; click the drop-down menu to choose from many different types of LPF, BP ( band-pass) and HPF filter.

**COMPRESSOR:** Kontakt's Pro compressor module. Very precise and versatile for shaping and tightening up drum sounds.

**TRANSIENT:** A very useful simple module for quickly shaping the ATTACK and SUSTAIN of an individual drum. Often useful to simply reduce the SUSTAIN setting to get a punchier sound.

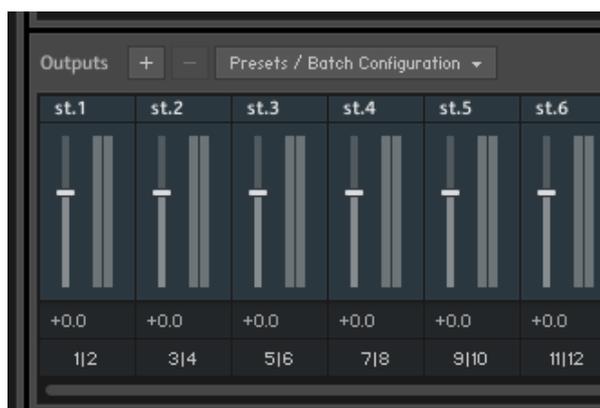
**EQUALISER:** Kontakt Solid BUS EQ - an SSL channel EQ emulation. Shelved High and Low sections ( watchable to a Bell curve) with 2 parametric mid-bands.

**TIP:** with acoustic drums you will often get good results cutting boomy/boxy room sounds in the mid-range from 300 - 800hz.

**SAT:** A saturation effect. Gentle harmonic distortion can give your sound more presence. Better used at low values.

**STEREO:** Increases or decreases the width of stereo signals. Will not affect mono sounds.

**OUTPUT:** here you can route this channel out to a separate channel in your DAW if you wish. Note that you will need to setup Kontakt's outputs to what you want first. You can do this in the Outputs pane in Kontakt:



## THE MASTER CHANNEL

The MSTR channel of the mixer features 4 nice processors for mastering the output of Sun Drums, and you can get some very nice results here. Two modules can be displayed at once using the tab system.

**NOTE:** If you route individual drum channels out into your DAW mixer as outlined in the previous section, you bypass these processors.



**COMPRESSOR:** This can be switched between Supercharger GT, Feedback Comp and Bus Comp (SSL) mode. All 3 have a MIX control for parallel compression techniques. Only one can be active at once.

**TAPE:** A tape emulation effect. Drive the GAIN knob until you hear an effect, then back it off a little way. Subtle, but has a nice rounding effect on the bottom end, and the HF ROLL is nice for giving beats a vintage feel.



**EQUALISER:** The same SOLID EQ as on the individual channels.

**LIMITER:** Useful mainly for stopping the output of Sun Drums clipping. Set and leave it alone.



# THE BEAT TOOLS

## THE BEAT-SHIFTER



## BASIC CONTROLS

**PLAY:** The Beat Shifter is enabled when the play arrow is pressed (bottom right). If Sun Drums is running within a host DAW, the host transport will control the start and stop of the beat. There are 8 tracks that have identical controls. Firstly, using the drop down menu on the left, you can choose which sound in the current kit you want to trigger with that row, here the first row is set to KICK. The table allows you to draw notes at varying velocities, which will be triggered by the cursor as it moves across the screen.



**MIDI DRAG:** On all Beat Tools if you drag this icon into your DAW window, it will make a MIDI file of the beat you have created.



## BEAT SHIFTING



Where things get interesting are with the five small sliders along the bottom of each track, which are labelled **SHIFT**, **STEP**, **DIRECTION**, **RANDOM**, and **CHANCE**. These introduce changes that evolve the pattern while it's repeating.

**SHIFT** controls the likelihood of the hits in that track moving shifting to the left or right (earlier or later) in time. When it's at zero, all the way left, the pattern hits stay exactly as you drew it, and no shifting will happen. The further right the slider the higher the chance of a **SHIFT**, the more likely it is that the hits will shift on each repeat. When the pattern **SHIFTS**, it moves your programmed beat to other positions on the grid, thus altering and evolving the beat based on what you started with.

**STEP** size tells the generator how far to shift, if a shift is to happen. If **STEP** is set to 1, then a note can only shift one grid position at a time. If it's set to 2, then if a note shifts, it will shift two grid positions, etc. Note that if you set **STEP** to even numbers your beat will evolve in more naturally rhythmic ways than if you set **STEP** to odd numbers.

**DIRECTION** tells the generator in which direction to shift the beats, if a beat is to be shifted. When it's in the middle (default), the chance of a hit moving to the left or to the right (i.e. earlier or later in the bar) is equal, so beats can move in either direction. If the **DIRECTION** is set all the way to the right, then beats will **ONLY** move to the right (later), and if set all the way to the left, beats will only move to the left. Note that hits will "wrap" from the end of the bar to the beginning, or from the beginning to the end, if moved beyond the beat **LENGTH**.

**VELOCITY** slider introduces small amounts of randomness to the velocity of the played notes if you want to introduce some more human feel.



**CHANCE OF** slider sets the percentage chance of a hit happening. If **CHANCE** is at 100%, the beat will play as you see it, if **CHANCE** is at 50% then about half of the hits won't play at all.



There are 2 more Chance sliders hidden behind the drop-down menu. **All are active at once.**

**CHANCE MISS:** If you set a value here, it will increase number of 'miss-hits'; a hit on the key next to the intended one.

**CHANCE ROLL:** increase this slider to hear occasional rolls. works well with snares. Set to 100% and all hits will be rolls.

## BEAT SHIFTER SETTINGS



**EXPORT BARS:** here you can set the length of the MIDI file you drag into your DAW.

If you have setup a shifting pattern using the controls outlined above, the shifts that occur on each new bar will be included in the resulting MIDI file, meaning that you can export up to 128 bars of continually evolving beats!



**FREEZE** sets all SHIFT sliders to zero, freezing the pattern as it is, and stops it evolving on the next repeat. This is useful if you suddenly hear a pattern you like, and want to keep it. You can assign a MIDI note below the FREEZE icon to trigger the FREEZE function if you like.



**REVERT** sets the pattern to how it was the last time you hit STORE



**STORE** stores the current state of the pattern



**SAVE** saves the pattern to disk, so you can share it with other kits



**LOAD** loads a pattern from disk

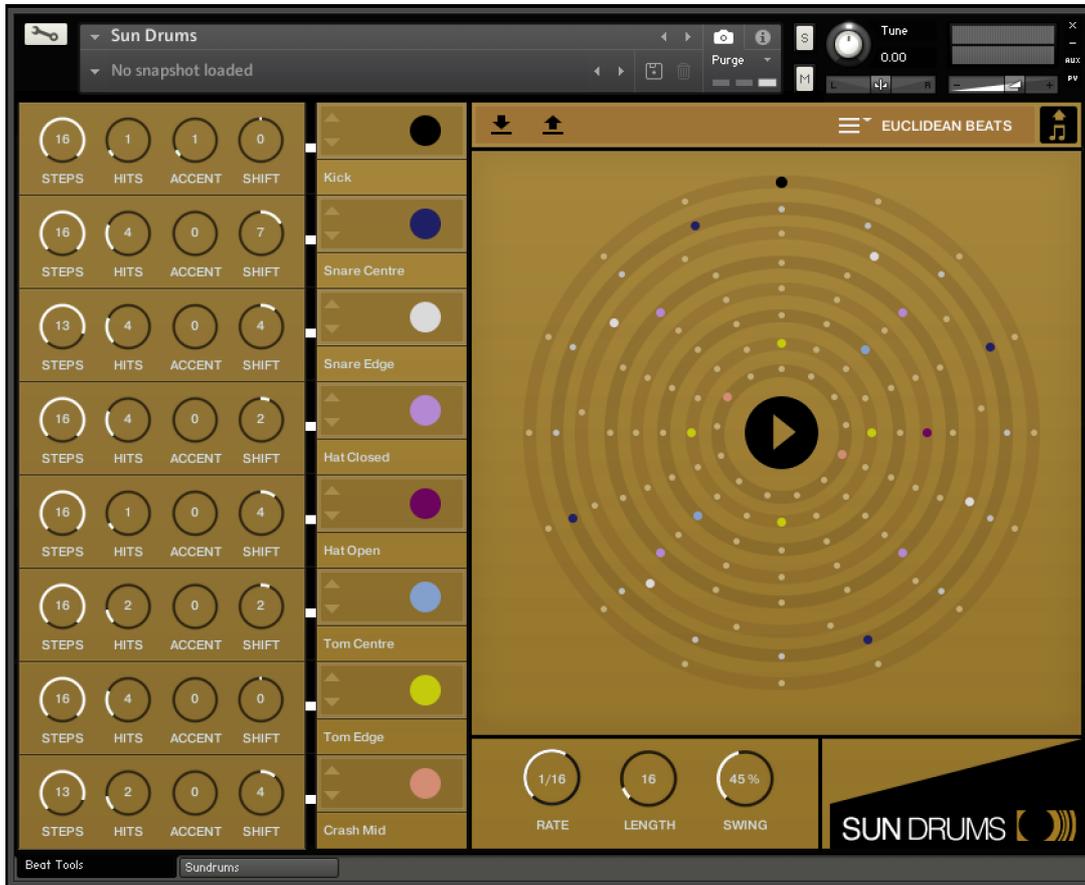
**SWING** adds swing to the rhythm of the beat.

**STEPS** is the number of steps in the pattern.

**SPEED** sets the duration of each step.



## EUCLIDEAN BEATS



Euclidean Beats are a way of thinking about rhythm that has become popular over the last few years. Essentially the basic idea is to take a number of STEPS (say a bar of 16 steps) and evenly distribute a number of HITS within those steps. If you use 16 STEPS and evenly distribute 4 HITS, you get a very basic 4 beat bar, since the most even way to divide 4 HITS in 16 STEPS is to put one HIT every 4 STEPS. So far so disco.

It gets more interesting when the numbers are less even. For example, 3 HITS in 8 STEPS gives you a nice funky rhythm that's quite commonly heard in a lot of different musical styles.

Another thing you can then do to those HITS is SHIFT their position. The default is always to start with a HIT, so the first HIT will typically occur on STEP 0. However if you SHIFT earlier or later you get a slightly different rhythm, even though it will still be built from same basic ratio of 3 HITS to 8 STEPS.



## TRACK CONTROLS

There are 8 tracks each with identical controls.

**STEPS** sets the length of the pattern

**HITS** sets the number of times to strike that drum during those STEPS. You cannot alter how those HITS are distributed within the STEPS, they are always evenly distributed (Euclid's algorithm).

**SHIFT** moves the position of the hits earlier or later.

**ACCENT** lets you add a certain number of accents to the hits. ACCENTS are evenly distributed among the HITS using the same algorithm used to distribute the HITS among the STEPS (Euclid again).

## GLOBAL CONTROLS

**PLAY** Clicking on this PLAY control starts the beat pattern. Clicking again on it will stop the beat pattern. Within a DAW the generator will start and stop with your host transport.

**RATE** is the sync note value (from 1/4 note to 1/32 note), and is always calculated in relation to the host tempo. SWING adds a shuffle to the beat.

**LOOP** forces the pattern to restart after a certain number of steps. This might not be obvious at first, but you can potentially create a pattern with odd numbered steps needing several years before the sequence would naturally repeats at the beginning again. To force those kind of things into a usable musical time-frame you can set the LOOP as you like. (You can also set LOOP to NEVER if you don't like to dance.)



**MIDI DRAG** You can drag the pattern as a MIDI file to your DAW using the MIDI drag button at the top right.

If you'd like to read more about Euclidean beats and why they're getting so much attention, Google Godfried Toussaint, he wrote an original paper that started the fad some years ago.



## POLY BEATS



Poly Beats is a way to divide the bar into arbitrary subdivisions, or polyrhythms.

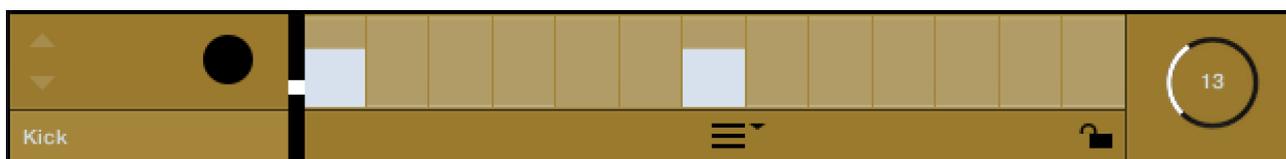
(This is distinct from the *polymetric* behaviour of Euclid, which loops different tracks after various numbers of steps, but in which the steps are all the same duration. In a *polyrhythm* the overall pattern length stays constant, and the duration of the steps is adjusted to fit the required steps into that pattern length. The pattern length in Poly Beats is always one bar.)

Polyrhythms can quickly sound very strange and unnatural, this is definitely the beat programmer for the left field composer.



## CONTROLS

There are 8 identical tracks.



ON / OFF

VEL

VELOCITY MENU

LOCK

GRID SIZE

DRUM TYPE

Drum type and On/Off switch at the far left of each track. On the far right the large knob with the numerical is the divisor. If you set this to 8, you will divide the bar into 8th notes. Note that you are only adjusting the GRID size... where you choose to draw your beats is still up to you, the velocity etc is still editable.

**VELOCITY FADER** offsets the velocity values of the entire track

**VELOCITY MENU** contains quick tools for populating the steps with different patterns.

**LOCK** Any track with the padlock shut will be excluded from the RANDOMISE function, see below.

## GLOBAL CONTROLS

**PLAY** starts or stops the sequence. If you are in a DAW the host transport control will also start and stop the sequence.

**RANDOMISE** randomly changes the grid size of each track, and notes occurring on that track. To the right is a menu with some choices about how to randomise the polyrhythmic grids, choosing only powers of 2 or 3, even, or odd values.

**MAXIMUM STEPS** The maximum grid size that randomise can create.



**MIDI DRAG** You can drag the pattern as a MIDI file to your DAW using the MIDI drag button at the top right.



## SUPPORT

If you have any problems or questions relating to the use of this product, please feel free to contact us. You can email us at :

<http://www.soniccouture.com/en/support/>

We will always endeavour to reply to any enquiry within 24 hours. We are based in the UK, so please bear in mind differences in time zones.

While you are waiting, you will find lots of answers to common questions in our FAQ.



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