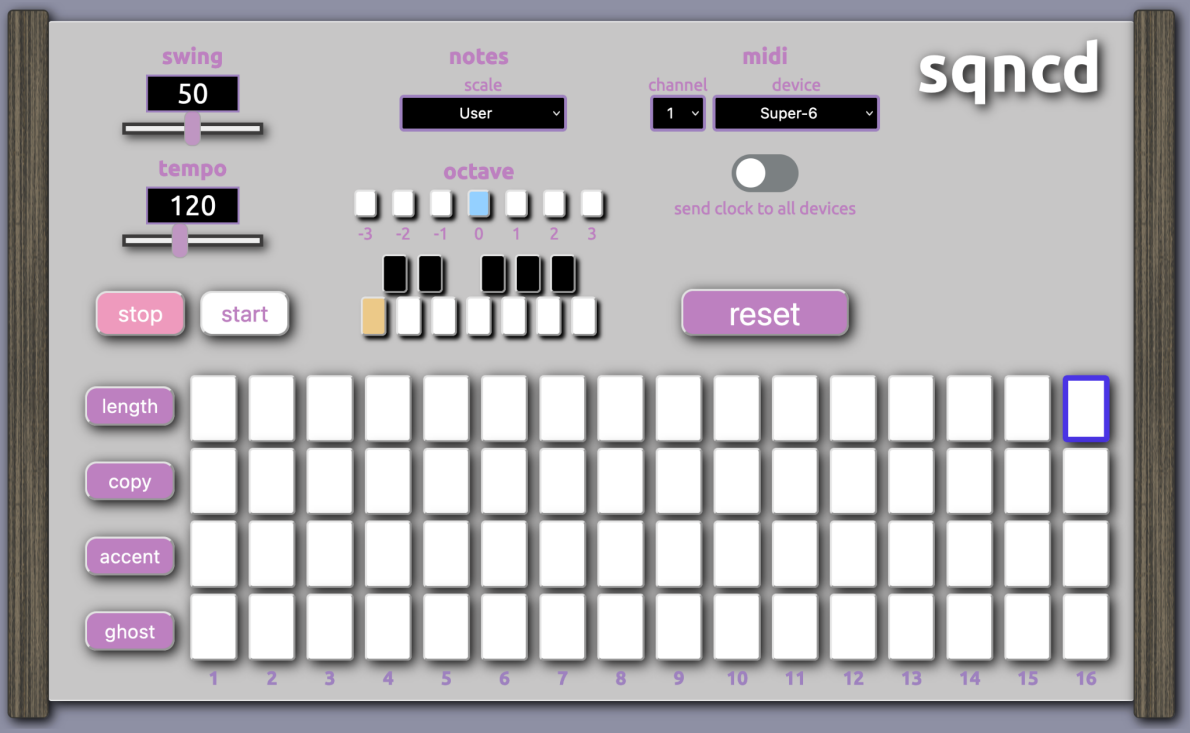
sqncd

user manual



muno audio

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Hi! Welcome to sqncd

Over the past few years, I've slowly been getting more and more wrapped up in the world of synthesizers, samplers, drum machines and all their other little robotic sound-mangling friends. It's amazing to me how easily you can get caught up tweaking sounds and patterns to the point where you get lost in your own little sonic world for hours.

Playing around with new gear is always very rewarding. As we all know, the GAS never truly ends and we're always searching for new ways to hone our craft.

With sequencers in particular, you can find all sorts of fun and crazy iterations that are jam packed with features and things that you don't even know exist or are possible (I love my octatrack but man is that thing loaded with deep features) but, in the end, can be incredibly confusing (and frustrating at times) to use.

I wanted to set out and create a sequencer that is simple to use, immediate and intuitive. With just the press of a few buttons on sqncd, you're up and running with a pattern, either input manually or generated by the 'sqnc' button that is linked to our randomizer engine which generates a pattern for you.

I had a lot of fun creating sqncd and learned a lot along the way. I hope that it can be equally as rewarding to you in your sonic journey.

- Danny Muñoz, muno audio

sqncd is implemented using the Web Midi API to allow it to send midi information from the browser. However, some browsers do not natively support Web Midi

sqncd is *not* supported by Safari and Internet Explorer

For a comprehensive list of supported browsers please go to https://caniuse.com/midi

We recommend using either Google Chrome or Mozilla Firefox for optimal operation

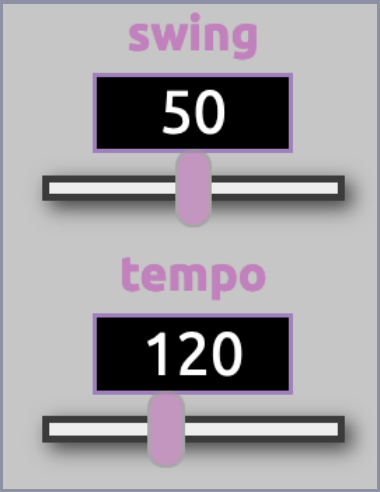
sqncd is a monophonic sequencer that can sequence one device at a time and send clock to as many as you can connect to your computer.

Sqncd can be used in two modes, user or scale. User mode allows you to enter in the note of your choice into any step on the grid. Scale mode allows you to set a key, scale and octaves which sqncd will then use to pull a note from when you go to add a step on the grid. In scale mode, you have access to the 'sqnc' button which will generate a random pattern for you when pressed.

Sqncd gives you the choice of three different velocity values you can apply to steps. You are also able to change the length of the pattern, anywhere between 1 and 64 steps. A copy function is available to copy one step to another.

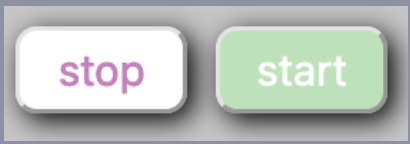
Resetting the grid is as easy as clicking the 'reset' button.

transport



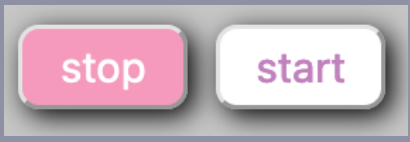
swing - slightly shifts every eighth note to create 'groove'. Value can be set between 0 and 100.

tempo - sets the bpm, value can be set between 4 and 300.



start - starts the sequencer. If 'send clock to all devices' is on then this begins sending out clock.

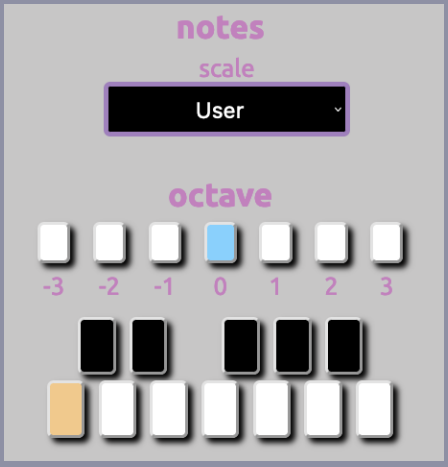
Once started, the current position of the transport will be denoted by a yellow step cursor on the step grid.



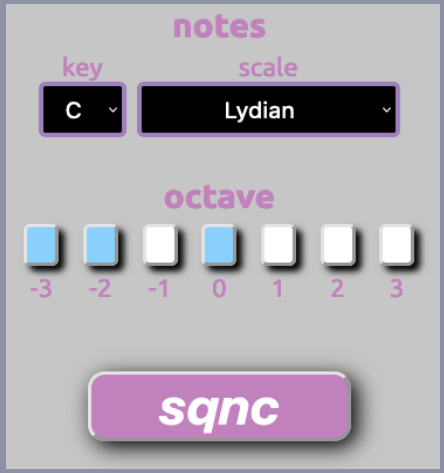
stop - stops the sequencer. If 'send clock to all devices' is on then this stops the clock message.

notes

sqncd has two modes for entering in notes depending on whether ‘user’ is selected as the scale type or not



This is the view when ‘user’ is selected as the scale. In this mode you are only able to select one octave at a time. A small piano-like keybed allows you to pick the note that you would like to use.



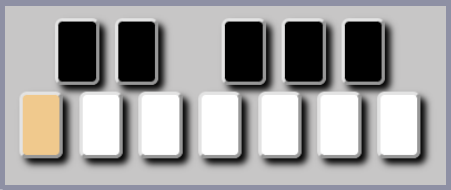
This is the the view when any scale other than ‘user’ is selected. There is a dropdown to select the key and you are able to select as many octaves as you’d like. The sqnc button, when pressed, will generate a random pattern based on the values available.

user mode

scale - setting the scale to 'user' changes the appearance of this subsection and adds functionality to allow you pick which note value to assign to a step. User mode is the default setting when you launch sqncd.

octave - allows you to pick the octave for the note value. 0 is the default and corresponds to the 'middle' octave on a piano, or octave '4'. For example, a C with the octave set at 0 would be 'middle C', or C4.

When in user mode you can only have one octave on at a time (represented in blue)



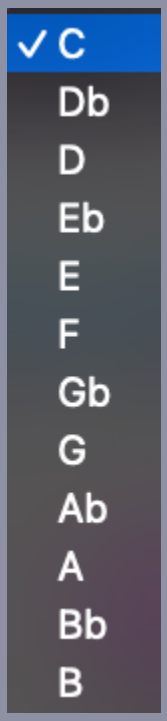
keybed - this keybed represents and functions the way a piano keybed would. The default value is C (as pictured in the image).

Only one note can be selected at a time (represented in yellow)

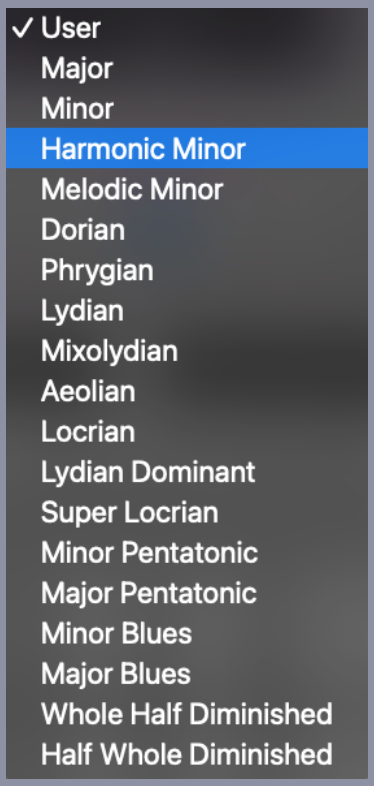
scale mode

The key and scale dropdowns let you build the scale that sqncd will use to pull random notes from. If you're unfamiliar with keys and scales then this is a good time to experiment to find note palettes that you like.

Keys



Scale Options



octave - when in scale mode, you can select as many octaves as you'd like. Having more octaves on means that when sqncd goes to generate random note it will have all the notes available from all of the octaves selected.

sqnc - this is ***it***, the all powerful sqnc button which is only available in scale mode. When this button is pressed it will reset all of the steps on the sequencer and will generate a random pattern using the key, scale and octaves that have been selected to draw the note values from.

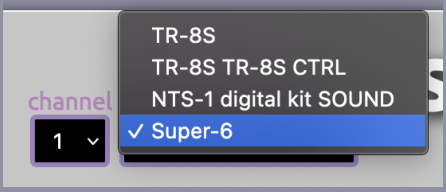
This button will also randomly choose notes to either accent or make ghost notes.

The length of the random pattern will adhere to the length set by the 'last step' function.

midi i/o

sqncd finds all midi capable devices connected via usb to your computer when it is initialized

channel - this dropdown will need to match up to the channel that your device is internally set to. If you're unsure of what channel your device is currently set to, please refer to its manual for instructions on how to check.



Device - This dropdown will auto-populate with the devices that sqncd recognizes when it is initiated. If you add a device after loading sqncd, you will need to refresh your browser.

From this dropdown, select the device that you would like to send midi note messages to. Sqncd is only able to send note messages to one device at a time.

clock

send clock - when this is toggled off, the transport will only send clock information to the device that is selected in the midi dropdown. By default, this toggle is switched off.

If you switch the toggle on, the transport will send clock information to all devices that sqncd detects (all the devices available in the dropdown menu).

Switching the clock on for all devices is a good idea if you have devices aside from the one that you're sending notes to that you would like to use together i.e. you have a drum machine or another device with a built in sequencer and you want everything to be synced together.

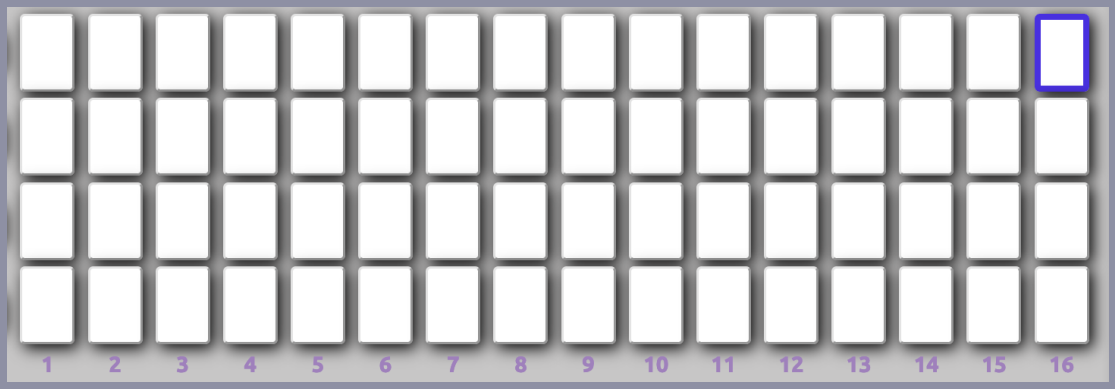
reset

To reset the grid, press the reset button

This function cannot be undone so make sure that you are truly ready to reset the grid before pressing it.

step grid

The heart of any sequencer. If you've used a sequencer before, this should be a familiar site to you.

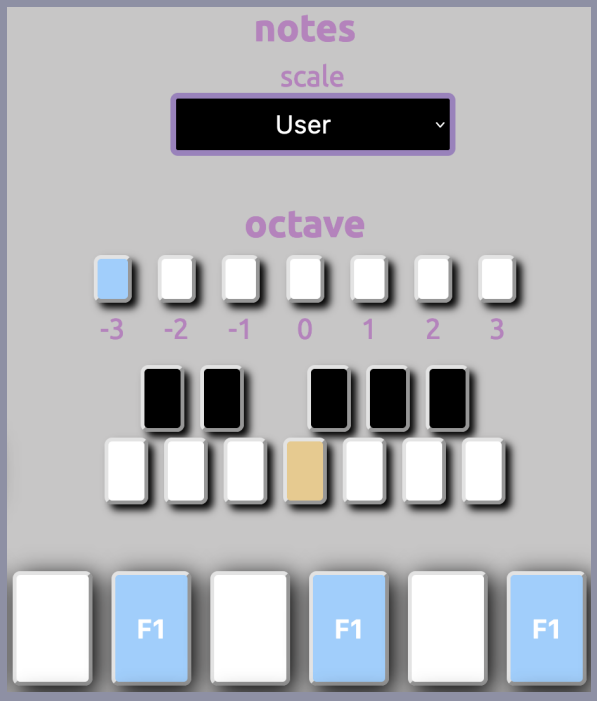


Each of the four rows here represents one measure. Each step button here represents a 16th note, so there are 16 of these in a single measure (row).

Thegrid may look a bit daunting but operation here is simple. If you're in user mode, when you click on any of the steps buttons it will be assigned to the note you have selected. Clicking on an assigned step button will turn it off.

In scale mode, clicking on a step button will assign a random note depending on what key and scale combination you have selected and how many octave buttons you have turned on. Clicking on an assigned step button will turn it off.

step grid - user mode



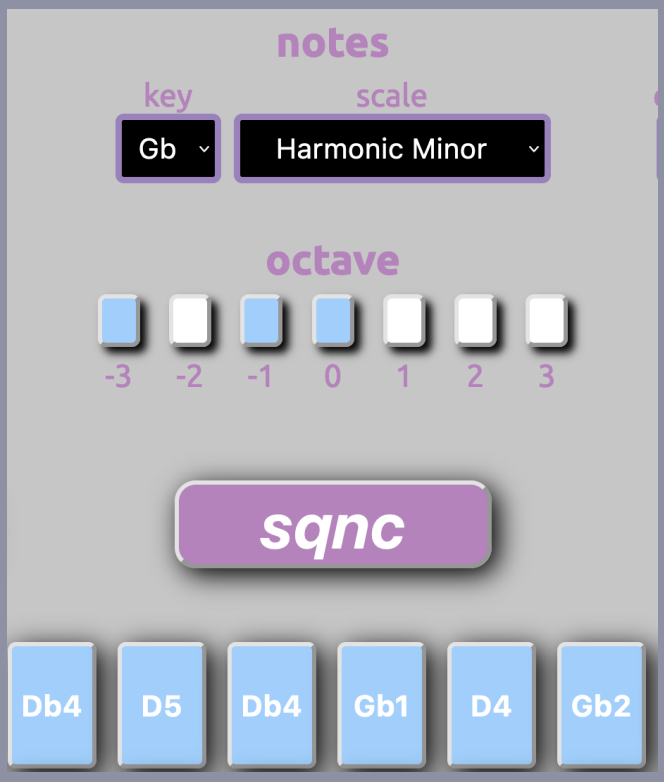
In user mode, you are in complete control of what note values are added to the step buttons.

Let's say for example we have the octave and note selected on the image to the left. The octave is -3, meaning our octave value will be 1 (remember, octave 0 has an octave value of 4).

The note we've selected is an F. We could pick any other note but for now this one will do.

Now when we go to click on a step button, it will assign the note value of F1 to the step button. Here we've added that same value of F1 to three different step buttons.

step grid - scale mode



In scale mode, you are in control of the key, scale and octaves that form the range of notes available. The actual note assignment, however, is up to fate (and the randomizer engine).

After you have set the three components listed above, when you go to click on a step button a random note will be assigned to it.

If we look at the notes selected, we can see that the notes all belong to the Gb Harmonic Minor scale. Looking at the octave values we can see that they match up with the possible options we had selected in the octave section.

Note Functions

To the left of the step grid are four buttons you can click

Each of these buttons has its own operation that will perform a function on a step. Only one function can be on at a time and some remain on until they are click off. If you have a function on and click on another function button, it will switch to the newly selected on.

Velocity Functions

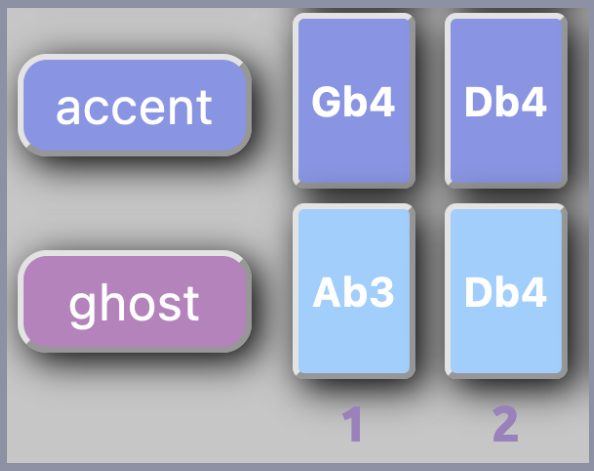
Up until now, all the step buttons we've seen have been this shade of blue:

Step buttons that are this color are our standard, 'normal' velocity notes. Velocity is a measure of how hard a note is struck, a lower velocity being a softer hit and a higher velocity being a louder hit. These normal notes all have a midi velocity value of 64 (velocity ranges from 0 to 127}.

sqncd features two additional velocity values that you can add to any note, 'accent' and 'ghost'.

accent

Accents have a velocity value of 127 (the max). Adding an accent to a note will add an emphasis to it and will make it stand out over other notes.



To add an accent, click on the 'accent' button to turn it on. This button will remain on until you turn it off.

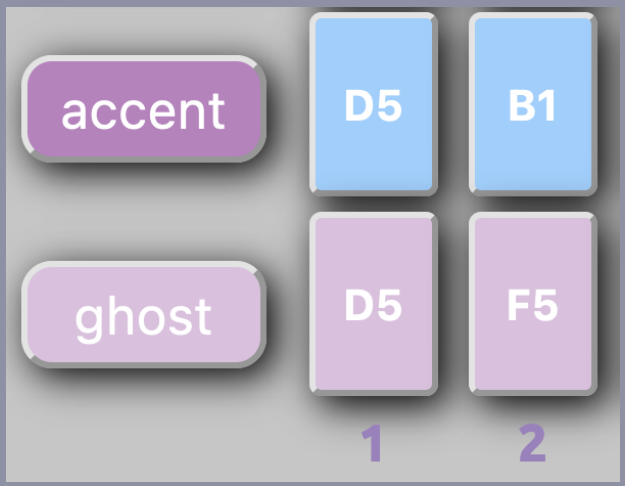
Click on any note you would like to add an accent to and it will turn a darker shade of blue compared to a normal note as seen in the image to the left.

One you click a note, you can keep adding accents to any notes you would like. Clicking on an empty step button will create a new accented note.

Click on the 'accent' button once you are done using it to turn its functionality off.

ghost

Ghosts have a velocity value of 20. Adding a ghost to a note will make it much more subtle. Placing ghost notes immediately before normal or accent notes make a nice volume effect that may be fun to experiment with.



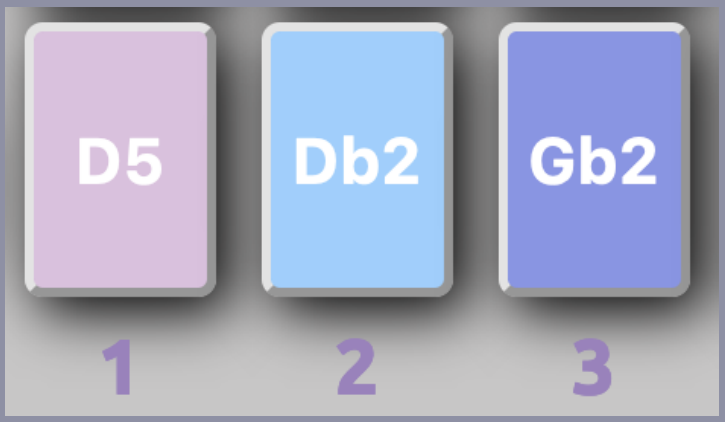
To add a ghostt, click on the 'ghost' button to turn it on. This button will remain on until you turn it off.

Click on any note you would like to add a ghost to and it will turn a light pink as seen in the image to the left.

One you click a note, you can keep adding ghosts to any notes you would like. Clicking on an empty step button will create a new ghost note.

Click on the 'ghost' button once you are done using it to turn its functionality off.

Velocity values of normal notes, accents and ghost notes are on a tiered system:



If you click on a ghost note while you have the ‘accent’ function turned on, it will first turn it into a normal note. After clicking that note a second time, it will turn into an accented note.

Likewise, if you click on an accented note with the ‘ghost’ function turned on, it will first turn it into a normal note. After clicking that note a second time, it will turn into an accented note.

If neither function button is on, clicking on the note will simply delete it from the grid.

copy

The ‘copy’ function does exactly what you’d think, it copies a step to another step.

When you turn on the copy button you can select a step button that you would like to copy. Once you have selected a step, it will have a purple border (same color as the ‘copy’ button) which will let you know that that’s the step that will be copied.

Now click on any step on the grid and the original step you had selected will be copied into it.

Click on the ‘copy’ button once you are done copying to turn it off. Pay special attention with this function so you don’t accidentally copy over a step.

length

You may have noticed a step on the grid that has a border like this:

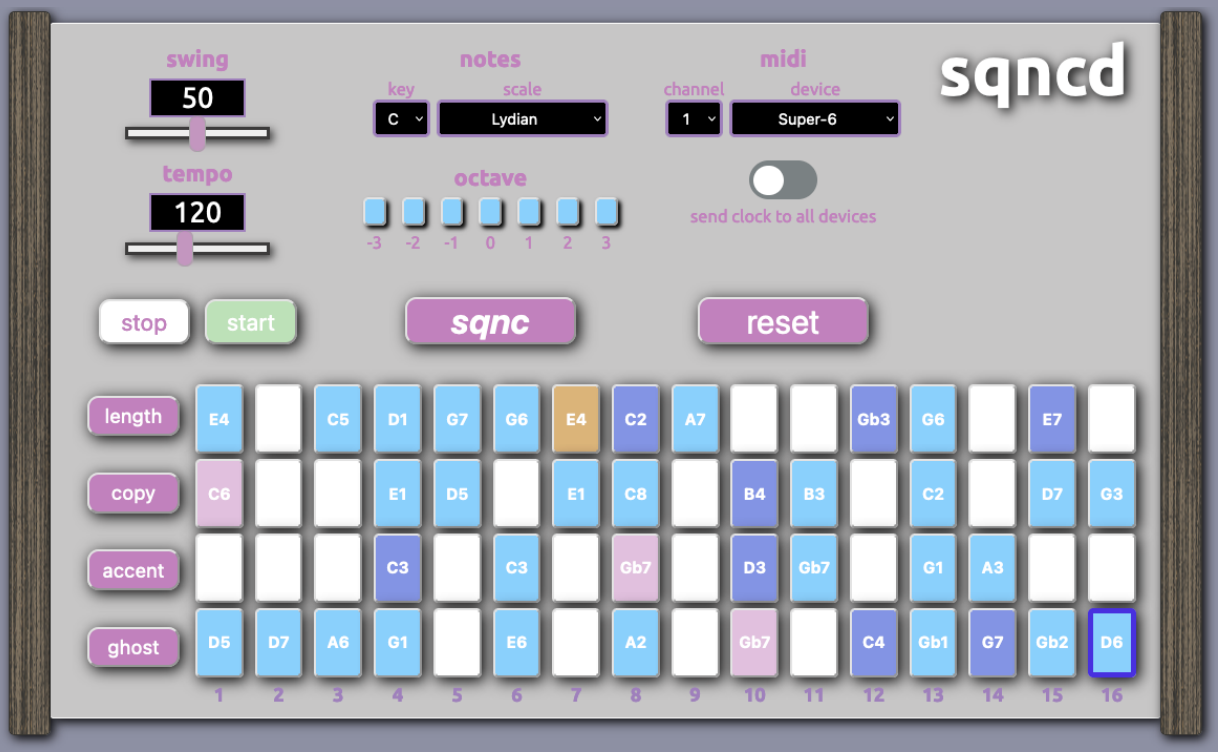
This denotes the ‘last’ step of the sequence. By default this is set to the 16th measure so that the sequencer only loops for one measure. However, we can change this last step to be anywhere on the grid using the ‘length’ function.

When you click on the ‘length’ function it will turn into a blue that matches the border of the ‘last’ step.

When this function is turned on, click on whatever step on the grid you would like to set the new end point to. That’s it, it’s that simple.

If you’re using external gear, keep in mind that this only changes the last step for the device receiving note data. You can use this to create polyrhythms with external gear.

Once you've played around with all the note functions and user/scale mode, your sqncd will look something like this:



The yellow step button you see will be how the cursor will display when you start the transport. This will move along the grid and loop back to the beginning once it reaches the last step. This continues endlessly until you press the 'stop' button.

Have fun experimenting, try out new things and you never know what unique and interesting patterns you may come up with!