SDS-x 2.0.x User Manual

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Contents

Introduction

SDS-x is a drum machine for iOS that makes it easy to play drum samples and fun to program beats. You can make a sound by tapping the pads or using the built-in sequencer to program a beat.

For the best experience, check out our tutorials on [Youtube](#). Otherwise, read on.

This manual is divided into three sections based on SDS-x's three main views: the top bar, the pad panel, and the menu panel.
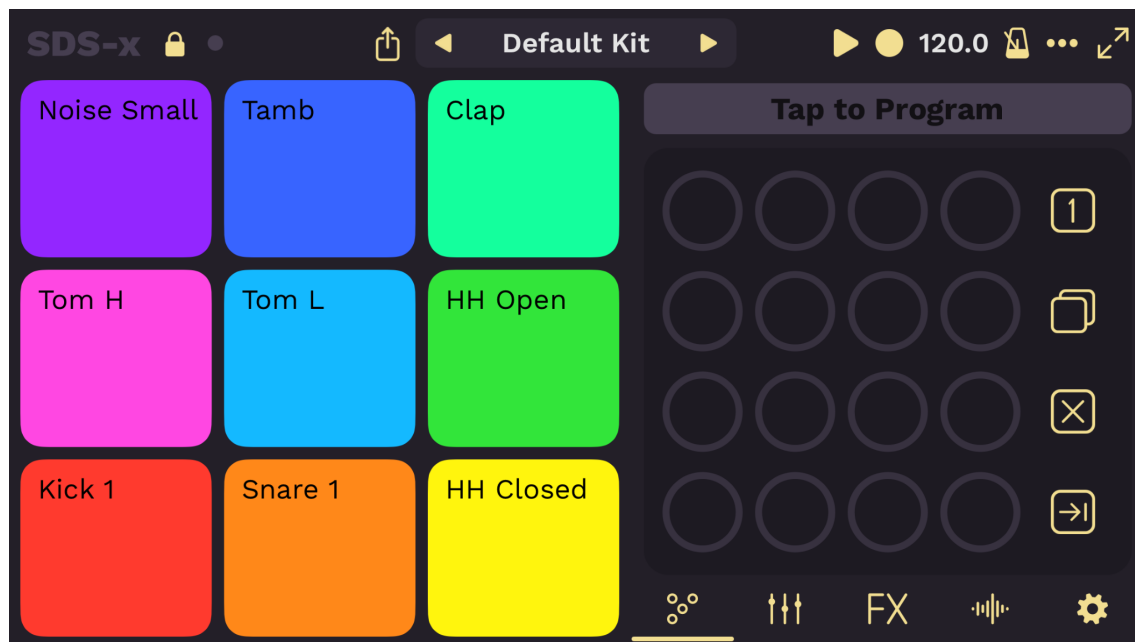
Top Bar

The top bar contains the following items from left to right.

- The **lock button** is used to show/hide the edit pad buttons.
- The **level meter** helps you monitor how loud the sound engine is.
  - Green is good, red is bad (clipping).
- The **global share button** (PRO) lets you export your pattern audio or share your current kit with a friend.
- The **kit selector** lets you scroll left and right through the current bank of kits. Tap on the **kit title label** to open the kit manager (more on this later).
- The **transport button** starts/stops the sequencer.
  - This is disabled in the audio unit (use the host transport instead).
- The **record button** enables recording. With record enabled and the sequencer running, any pads you play will be entered into the current pattern.
- The **tempo label** shows the current tempo for the kit. You can touch and drag to change the tempo or long press to type in an exact value.
- The **metronome button** enables the sound of the metronome.
- The **clocking menu button** displays more options for the tempo, sequencer, and metronome (more on this below).
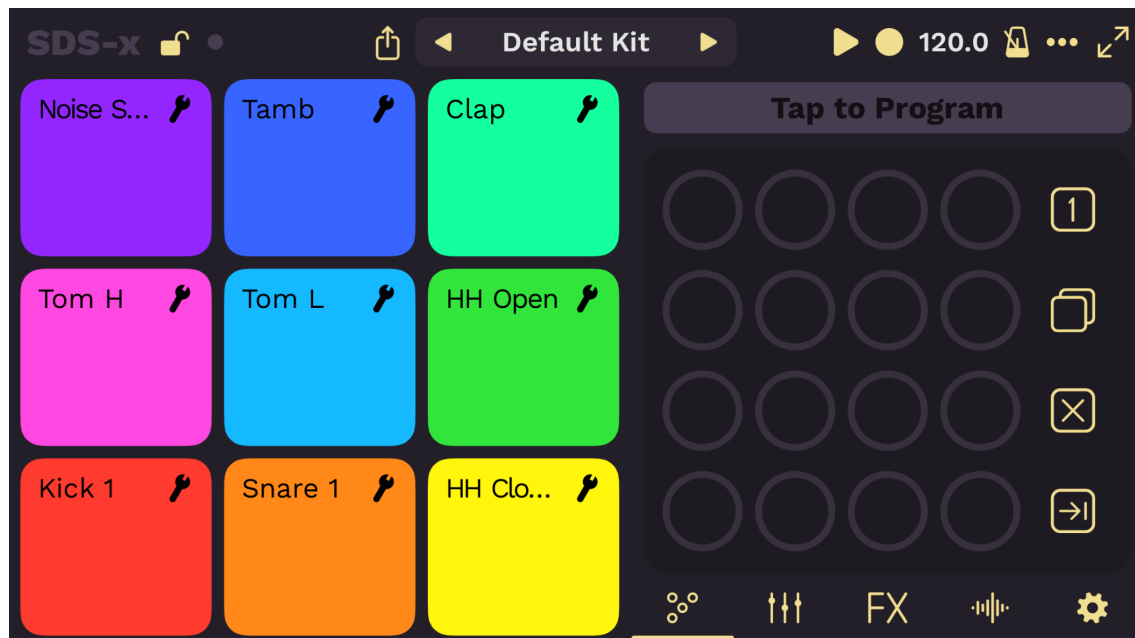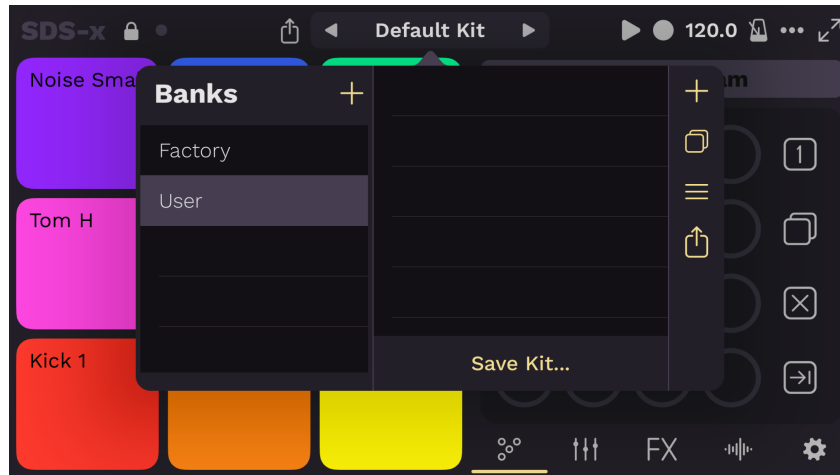
Kit Manager

A **kit** saves the entire state of the app. You organize kits in groups called **banks**.

Tap on a bank to select the bank. You can add a bank by tapping the **new bank button**. Swipe left to edit a bank's title or to delete it.

Tap on a kit to load that kit. Swipe a kit left to edit its title or delete it.

The **new kit button** creates a new default kit in the current bank. You will be prompted to give it a name.

The **copy button** creates a copy of the currently selected kit. You will be prompted to choose a destination bank.

The **arrange button** lets you reorder kits in your user banks.

The **share button** opens the system share menu so you can share kits via AirDrop, iMessage, and more!

Tap on the **Save Kit…** button to save the kit (PRO). You will be able to select whether the tempo and sequence information should be stored in the kit. Leaving the title unchanged overwrites the currently selected kit. Rename to save a copy.
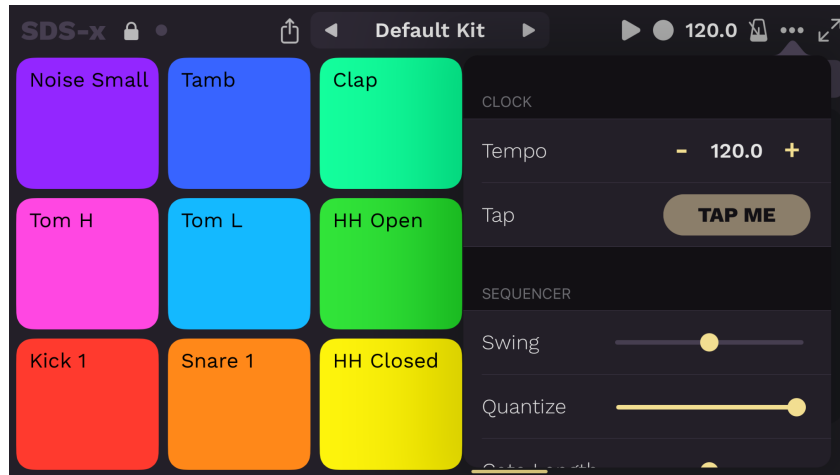
Clocking Menu

Touch and drag left and right on the **tempo label** to quickly adjust the tempo. Press and hold the **minus** and **plus** to increment by 0.1 bpm. **Double tap** to round and **long press** to type in a tempo.

Tap on the **TAP ME button** to tap in a tempo.

The **swing slider** adjusts the "feel" of the sequencer. Moving the slider to the right will delay the 2nd and 4th 16th notes in each beat slightly to create a "shuffle" sound. Moving the slider to the left will make those notes play slightly early to create a "rushed" sound.

The **quantize slider** adjusts how "human" recorded notes will sound. With the slider all the way to the right, the notes you record will be exactly aligned to 16th notes. With the slider all the way left, they will be played back at exactly the time they were recorded even if they are not "in time."

The **gate length slider** adjusts the gate length for programmed notes. Gate length is the amount of time between when a pad goes down and when it goes up. The range of this control is from 25% to 75% of one step. This setting will only make audible changes for pads in "Gate" or "Retrigger" trigger modes.

The metronome **pan** and **level** sliders allow you to control the pan and level of the metronome.

Pad Panel

Edit Menu

You can control most of a pad's settings through the edit menu.

Most settings in the edit menu have a **double tap action** and a **long press action** to speed up the kit building process.

The **double tap action** restores the saved or default value.

The **long press action** will either

1) clear the sample (sample cells),
2) apply the setting to all pads (sliders and switches), or
3) map the setting to all pads (MIDI send and receive)
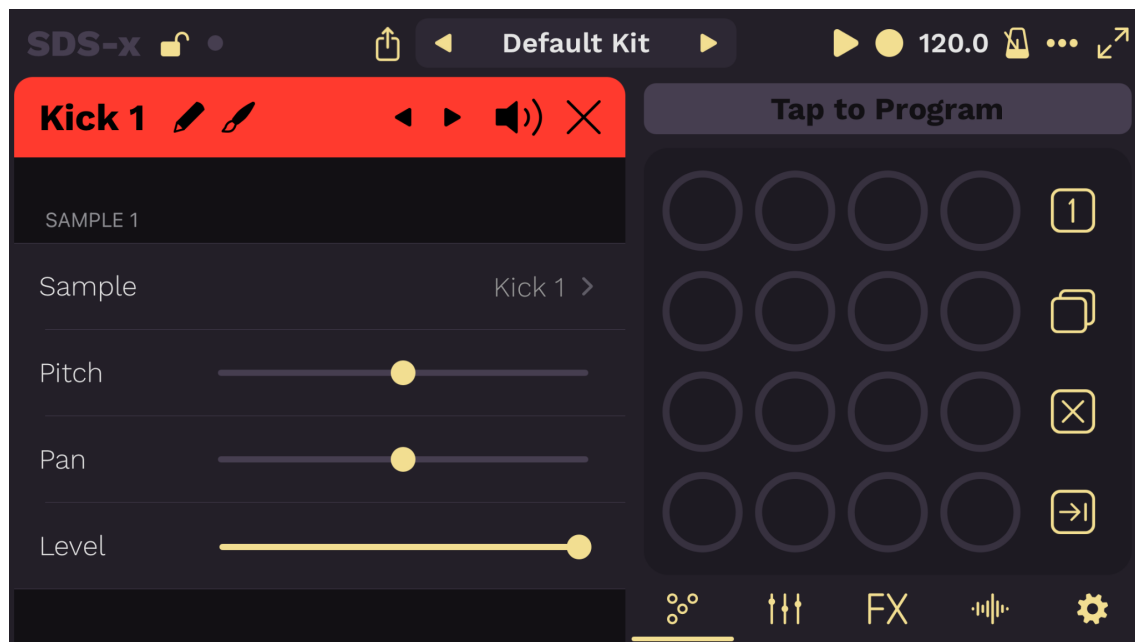
Pad Settings

Top bar

Tap the **pencil** to rename the pad. (When a new sample is loaded into the first slot, the pad's name automatically changes to the name of the sample.)

Tap the **paintbrush** to choose a new color for the pad.

Tap the **left** and **right arrows** to scroll through the pads.

Tap the **speaker** to audition the pad.

Tap the **x mark** to dismiss the edit menu. Changes will be saved.

Sample 1 (and 2)

Tap the **sample cell** to choose a sample or simply drag over a sample from the menu panel.

Use the **pitch slider** to re-pitch the sample up or down (make it sound higher or lower).

Use the **pan slider** to set whether the sample plays in the left or the right speaker.

Use the **level slider** to set the volume of the sample.

Behavior

Use the **trigger mode selector** to set how the pad behaves when you touch it. Available trigger modes are: one-shot, gate, toggle, and retrigger modes 8th through 64th triplet.

Use the **sample mode selector** to set how the two samples interact. Available sample modes are: mix, rotate, random, velocity switch, and velocity mix.

Use the **loop switch** to set the loop property for the pad. (Loop can only be enabled when the trigger mode is gate or toggle.)

Use the **poly switch** to set whether the pad plays samples polyphonically or monophonically. (Poly means new notes play over old notes, mono means new notes cut off old notes.)

Use the **mute group switch** to place the pad in the mute group. Pads in the mute group will be silenced when another pad in the mute group plays. Pro tip: try putting an open hi hat in the mute group with a closed hi hat.

Tap the **velocity switch** to enable the global velocity mode for the pad.

Use the **range slider** to set the range of velocities to use when a note is played.

MIDI

Tap on the **receive cell** to set the pad's MIDI receive settings. You can enable/disable MIDI receive, set the receive channel, and set the receive note for each pad.
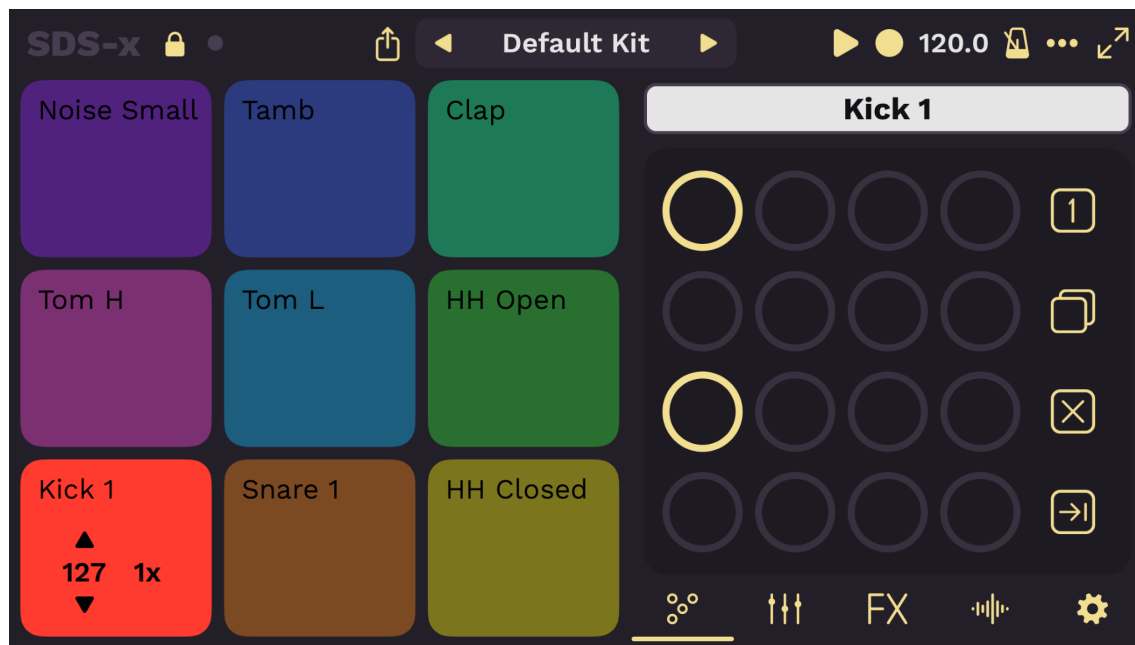
Tap on the **send cell** to set the pad's MIDI send settings. You can enable/disable MIDI send, set the send channel, and set the send note for each pad.

Note: If you want to receive or send MIDI, make sure that it is enabled in the global settings, too!

Menu Panel

The menu panel has five modes: Sequencer, Mixer, FX, Sample Manager, and Settings.

Sequencer

A sequencer is something that tells an instrument what notes to play and when to play them. You can use the sequencer in SDS-x to program your own beats and even chain your beats into a song.

For the best experience, watch our tutorial on [YouTube](#). Otherwise, read on.

In order to put notes into the sequencer, you need to enter **Program Mode**. To do this, tap on the button that says **Tap to Program**. This will disable the pads for live play.

Tap on a pad to view its 16 step sequence. Then tap on any of the 16 rings (nodes) to add a note on that step. Press **play** and you will hear the note you just added repeat every 16 steps. Add a couple other notes to hear some rhythm.

To remove a note, tap on the node that you want to remove.

Tap on another pad to select it, or long press on the selected pad to deselect.

With a pad selected, you can adjust its **velocity** (loudness) and **multiplier** (number of repeats per step) before entering it into the sequencer.

Add and remove notes until you have something you like. Select a few other pads and add notes to their sequences. You have created a **pattern**.

SDS-x's sequencer allows you to create 16 patterns. You can select them, copy them, and clear them using the three **pattern action buttons** to the right of the nodes. The button at the top will display some text to help.

For example, to select a new pattern, press and hold the **pattern select button**, then select a node 1 to 16 to select that pattern.

You can chain patterns by selecting multiple patterns in the order you want them to play while holding on the **pattern select button**.

The bottom **pattern action button** allows you to set the pattern length or track length (when a pad is selected) in steps from 1 to 16. Use this setting to create polymeters and complex, evolving sequences.
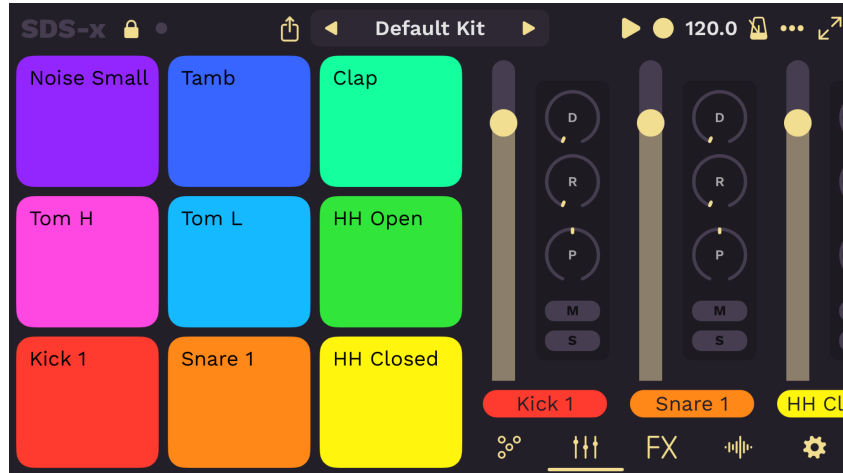
Mixer Mode

The mixer lets you fine tune the way your pads sound when they play together.

The **level slider** adjusts the loudness of the pad in decibels.

The **delay knob** adjusts how much of the pad's signal is sent to the delay effect.

The **reverb knob** adjusts how much of the pad's signal is sent to the reverb effect.

The **pan knob** determines how much of the pad plays in the left and right speakers.

The **mute button** silences that pad when selected.

The **solo button** silences other pads when selected.

Scroll all the way to the right to use the **master level** and **master pan** controls.
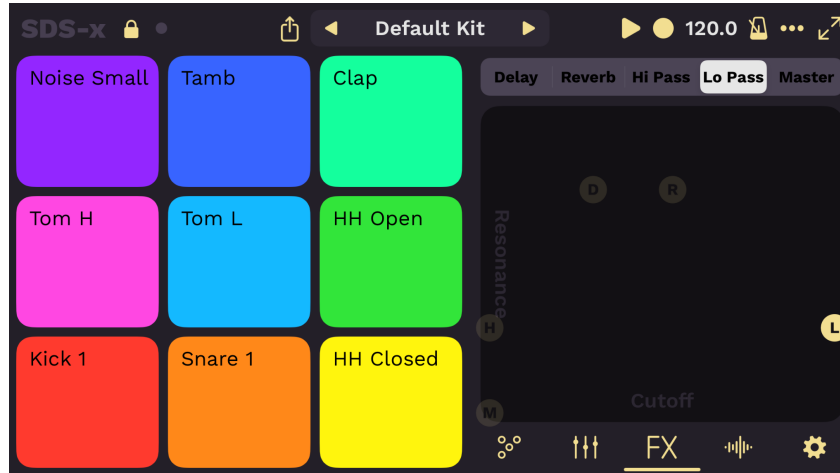
FX

Change the effect by tapping on a node or on one of the labels above the XY controller.

Drag a node to change the effect's parameters. When the delay effect is selected, as "SYNC" button appears next to the "Time" label. Tap on this to sync the delay time to the kit tempo.
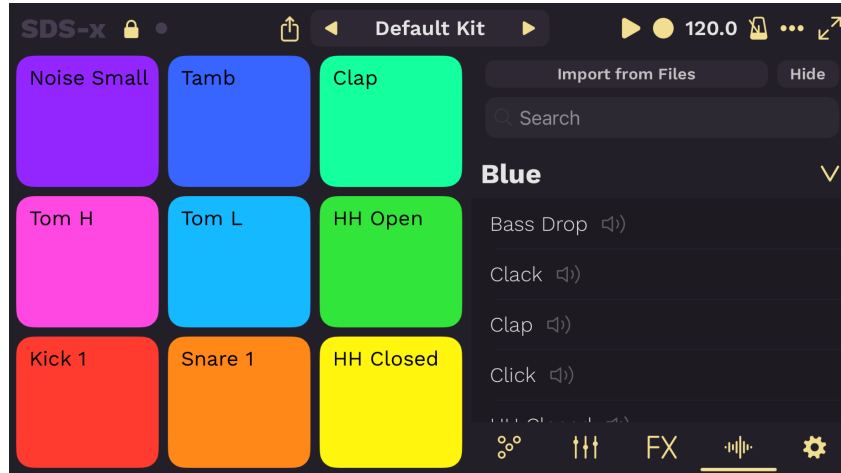
Sample Manager

The sample manager displays all the samples loaded into SDS-x. Tap on the speaker to audition a sample. Drag and drop the samples onto a pad to load a sample into the first sample slot. Use the search bar to filter your samples.

You can import your own samples from the Files app. Tap on the **Import from Files button** to import your samples. Once created, user folders can be renamed or deleted by long pressing on their header.
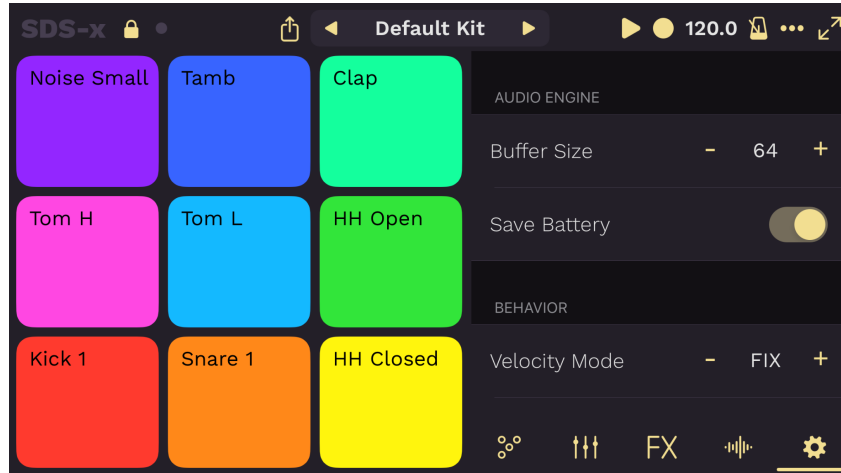
Settings

Here you can access the global settings for SDS-x.

Audio Engine

The **buffer selector** sets the buffer size. Lower numbers are better (faster) but if you notice any crackling or audio glitches, then raise this setting.

The **save battery** switch, when disabled, allows SDS-x to run its audio engine in the background. This will result in increased battery usage. It is not recommended to disable this switch unless you have a specific reason.

Behavior

The **velocity mode selector** sets the global velocity mode. The available modes are: fixed, top, center, and pressure. For example, with velocity mode set to "top" the closer to the top you touch the pad, the louder it will play.

The **haptics switch** allows you to enable/disable custom haptics on supported devices.

External

The **Ableton Link cell** displays a menu that allows you to keep SDS-x in sync with other devices on the same WiFi network.

The **Bluetooth MIDI cell** displays a menu that allows you to connect with Bluetooth MIDI devices.

The **save battery** switch, when disabled, allows SDS-x to run its audio engine in the background. This will result in increased battery usage. It is not recommended to disable this switch unless you have a specific reason

MIDI Input and Output

Enable MIDI input and output using the appropriate switches.

Note: After connecting a device, you will need to select it from the **sources** or **destinations** before it can be used.

Other

The **hard pan switch** overrides any custom panning and sends all pads to the left speaker, and the metronome to the right speaker.

Use the **go pro button** to display the in-app store.

Use the **restore purchases** button to restore any in-app purchases you have made.

The **manual cell** displays this manual.

The **credits cell** displays the app credits.

Thanks

SDS-x's audio engine is powered by the open source library AudioKit. Just want to give a huge thanks to all the developers who maintain it and their supportive online community!