THE FLOORDRUM EVO

First Startup of the FloorDrum

The FloorDrum is ready to use and preconfigured with some kits for your first tests.
When you turn it on using the provided USB cable, after a few seconds the first LED lights up, indicating that KIT No. 1 is loaded and ready to use.
You can start playing right away with KIT 1 Standard,
with the kick drum on the right (Pad 4) and the snare on the left (Pad 2).

The smartphone, magnetically attached and secured in the center, is turned on using the button at the top (center-left). There's no need to take any action to launch the pre-installed app or to establish the Bluetooth connection between the device and the FloorDrum.
Everything will be ready in about 1 minute.
The Bluetooth indicator will turn green once connected.

With the "+" and "-" footswitches, you can select other kits stored in memory (60 available).

These first 3 kits are configured for traditional use without the EVO (Groove Assist) feature enabled.
The first kit that utilizes this innovative feature is KIT No. 4
The count-in is set to be performed on Pad 6 (left heel), and the trigger pad that starts the sequence is set in most cases to Pad 4 (Kick).
The KIT 5 is very similar, but in this case, the pad responsible for triggering the auto-hi-hat function is set to Pad 2 with the Snare drum sound. In many cases, it's convenient to have the trigger pad on the snare, allowing you to play just the bass drum without the hi-hat or to manually use the second snare on Pad 8

The Floordrum EVO now has the ability to store up to 60 differnt DRUMKITS

Here a description how the first 15 preconfigurated Kits are setup .

1. **Standard Kit**
2. **Rock Kit**
3. **Soft Kit**
4. **EVO Standard Kit**
5. **EVO Creative Kit (Trigger on Snare)**
6. **EVO Schuffle Kit**
7. **EVO 12/8 Ballad Kit**
8. **EVO Standard Reggea Kit**
9. **EVO Honkey Tonk Woman (BPM Fixed to 118)**
10. **EVO Tambourin Kit**
11. **EVO Percussio Kit**
12. **EVO Conga Kit**
13. **EVO One drop Reggea Kit**
14. **EVO Jazz walz 12/8**
15. **EVO Brush kit**

These first 15 Kits are locked (to edit them first unlock them)

from 16 to 60 all kits are like the first Standard Kit and are ready to be modified by yourself.

(For those without a preconfigured smartphone)

How to install the “FLOORDRUM EVO“ app on a new device ?

The Floordrum **EVO version** of the smartphone app is available for free on Google Playstore for Android devices. Note that there is also an older version of the Floordrum app (Floordrum app v1.0) for older Floordrum models, which is however not suitable for the new **FLOORDRUM EVO** model and other newer Floordrum models with advanced functions.

After download/installation of the app it is necessary to allow the new App to

access nearby Bluetooth devices.

This is done on your phone via "settings/App". Find the **FLOORDRUM EVO** app in the list

and allow it to **access to nearby Bluetooth devices .**

Once you have switched on your Floordrum you are now ready to search and pair the Floordrum to your phone.

The Floordrum has a Bluetooth chip which will appear named as "HC-06".

Select this device and use PIN 1234 to pair it.

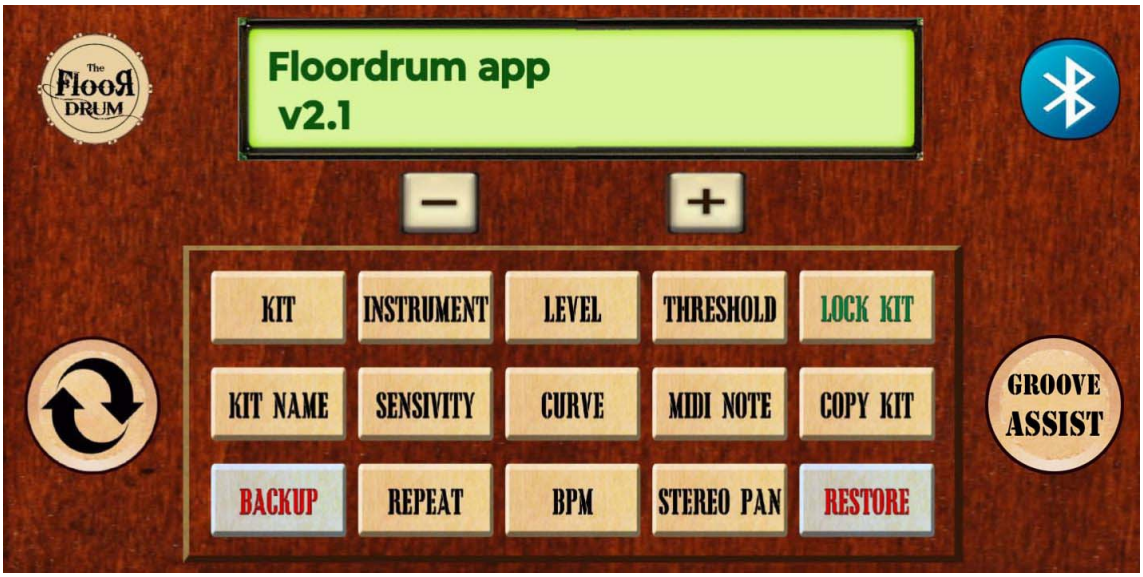
You are now ready to launch the Floordrum EVO app. During the first launch after installation you need to establish the bluetooth connection to the Floordrum inside the app. Click on the blue Bluetooth button on the Floordrum EVO app. This should show a list of bluetooth devices. Find the HC-06 one which corresponds to the Floordrum and select it to connect to the Floordum. After connection is established the Bluetooth button in the app will turn green to indicate a successful connection. This process is needed only the first time after you install the app on a new device. Subsequently each time you launch the app it will automatically connect to the Floordrum (provided it is switched on). Note that the time to establish the connection is about 30 secs. There is no need to select the HC-06 device again from the bluetooth button.

The owner of the FLOORDRUM EVO, which comes with an included and preconfigured smartphone, can skip this section.

A Detailed Overview of the "FloorDrum EVO" App and Its Full Range of Functions

On the **"FIRST Page"** you will find all the settings you need to customize your KITS and modify the sound, dynamics, and response of the various Pads. There are many available settings that allow for ideal fine-tuning to best suit your playing style.

*This is what the first Page of the **FLOORDRUM APP EVO** looks like*



KIT: Selects the preset Kits.

INSTRUMENT: Allows you to choose the instrument assigned to the Pad.

LEVEL: Adjusts the sound level of the Pad.

THRESHOLD: Sets the sensitivity threshold for detecting the hit.

KIT NAME: Allows you to assign a Name to the Kit.

SENSITIVITY: Adjusts the touch sensitivity of the Pad

CURVE: Modifies the response curve of the Pad.

MIDI NOTE: Allows you to assign a MIDI note to the Pad.

BACKUP: Backs up the current settings.

STEREO PAN: Adjusts the stereo panning of the Pad's sound.

RESTORE: Restores previously saved settings via the backup.

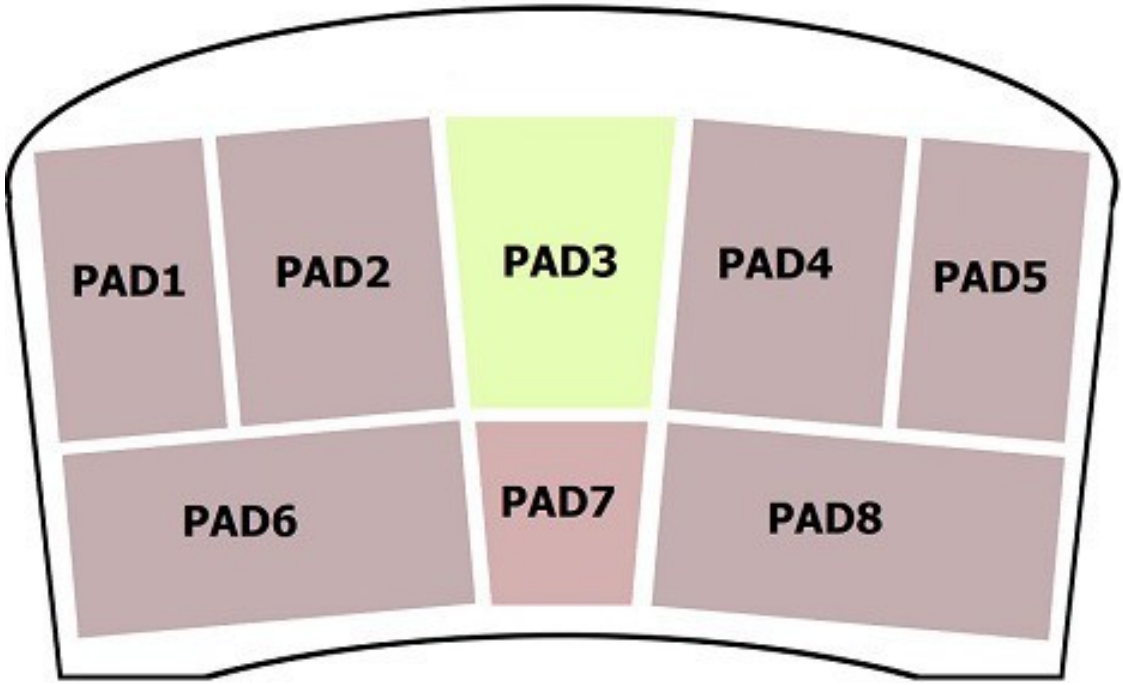
LOCK KIT: Allows you to disable the ability to modify the Kit. If the Kit is locked, all related buttons will be semi-transparent to indicate inactivity.

COPY KIT: To copy a KIT to another memory location, use the **Copy KIT** button which, after copying a Kit, will turn into **PASTE KIT** to move it to its new location.

How do I change the settings of a PAD?

First, you need to select the Pad by hitting it lightly. Check that the number indicated in the App is correct.

The pads are numbered as follows:



Now using the **INSTRUMENT** button, you can choose which instrument to assign to this pad

Then with **LEVEL**, **SENSITIVITY**, and **CURVE** you adjust the volume and dynamic response.

Another important adjustment is the **THRESHOLD** which determines the minimum force to which the pad will respond.

This adjustment is essential for preventing false triggering caused by stage vibrations or loud speakers positioned near the drum, which could create resonance vibrations in the pads. We recommend setting values between 15-25, or higher if issues persist.

If you have modified all the PADS to your liking, you have composed a KIT, and if you wish, you can use the **KIT NAME** button to assign a name to the newly created KIT.

Click on **Kit Name** and type in the name you desire – after that Confirm pressing once again on **Kit Name.**

Now when You select the new Kit it will show up the Name you assigned.

Can I protect my KITS from modification and save them in a Backup?

Yes, to protect a KIT from unintended modifications, there is the **LOCK KIT** function which, once activated, will protect your locked KIT from any erroneous changes.

A locked Kit is recognized by the semi-transparent buttons. The buttons will only indicate the set value but can no longer be modified.

The **LOCK KIT** button will turn into **UNLOCK KIT** to unlock the KIT.

To create a BACKUP on the internal SD card, there is the **BACKUP** and **RESTORE** function which is very useful for creating a total backup of all settings.

To avoid overwriting existing Backups, a double confirmation is used for both the Backup and the Restore of the saved Backup.

Please pay attention to not overwrite your settings by errore.

In case you make a mistake, don't worry!

All previous backups are stored on the SD card and can be recovered.

To recover a backup, simply insert the SD card into your computer and rename the desired backup file to **"patternSettings.txt."**

Only the file with this name will be restored when you initiate a restore on your Floordrum.

We suggest extracting the micro SD card to creat a backup on your PC or Cloud frome time to time.

Why is there a STEREO PAN button and what is it for in the FLOORDRUM

The **STEREO PAN** button allows you to move the sound assigned to a PAD from right to left in the STEREO image. The two 6.3 mm Jack outputs on the front of the Floordrum are both mono but together they create the stereo signal. This is why they are separated, allowing you to enter two channels of the mixer which can then be panned all the way to the left and the other to the right on your amplification system. Additionally, using both outputs, which is highly recommended, also gives you a more powerful output signal (the output signal has a level similar to a normal microphone).

You could also use the Pan function to give a special effect to one or more elements of the kit. For example, you could pan the snare and all cymbals like ride and crash to the left channeland give a slight reverb effect in your mixer. The right channel could have the kick and the rest of the sounds with a compression effect.

What is the MIDI NOTE button for?

MIDI opens up various interesting functionalities.

The Floordrum, if connected to a PC or tablet via the USB port, will, in addition to being powered, also be recognized as a USB/Midi unit.

The detected peripheral will not be called “FLOORDRUM” but instead is detected as “Teensy 4.1”.

There are two main applications for MIDI:

1st: It can be used as an external trigger for a drum software or app such as EZ Drummer or Superior Drummer and many others. And on iPad also with Garageband or other Drum Apps with midi support. The **MIDI NOTE** button will be used to assign a midi note to each PAD which will correspond to a certain sound which will be triggered on your external software / App.

All these setting will be stored together with all the other settings in the KIT .

This allows setting up many different Kits also making use of Midi.

2nd: Use MIDI to automatically change the KITs via APP such as OnSong / SetlistMaker / SongBook etc.

If you use many different Kits customized for various songs and genres you may want to simplify the selection of Kits suitable for the Song you want to perform.

Here the most recent Apps which are now usually used to organize texts, music sheets and much more also give the possibility of sending Midi commands to connected peripherals. So each Song in your Setlist can already be assigned the appropriate Floordrum KIT without having to select it manually each time.

Please refer to the APP instructions and the specific section in the FLOORDRUM user manual

or contact us at info@floordrum.com for help

The second page of the APP
dedicated to the new advanced features of the
GROOVE ASSIST

Given that one of the greatest difficulties for those who try to play a complete Groove with drums using just their feet, certainly consists in playing a continuous Hi-hat during the performance,
we have always thought of a way to lend a helping hand (or rather say a helping foot) to the Footdrummer.

This innovative feature is not meant to function as a full "Drum Machine," but rather as a Hi-hat or another instrument typically played with a steady, repetitive pattern. Its purpose is to assist you in your performance by providing a consistent, continuous rhythm to complement the groove.

This allows the musician to focus on playing the kick drum, snare, and possibly other elements like cymbals or percussion.

Therefore, the FLOORDRUM EVO with GROOVE ASSIST is not an automated instrument, but it helps create a complete and convincing drum groove, which usually features a continuous Hi-hat along with the kick and snare.

How to use the GROOVE ASSIST feature?

There are now 2 tracks available that can perform a certain sequence, called Pattern, which usually last one measure.

For this there are two buttons: **TRACK 1** and **TRACK 2** on each of these tracks you can load a pattern choosen from the “ Pattern Library “

How to create a Kit with GROOVE ASSIST feature?

FIRST STEP: assign the beat pattern and instrument to the AUTO HIHAT tracks

Both Track 1 and Track 2 serve to auto-play a selected beat pattern.

By pressing **TRACK 1** you can choose among the 60 available and editable patterns to assign to the track.

The same goes for **TRACK 2**.

In most songs a simple eighth note Groove will be suitable ….

So for this example we select **"Standard 8 TH"** on Track 1 and leave Track 2 blank for now.

Now assign an instrument to the tracks: for example, to set the instrument to be played on TRACK 1,

move to the main page and press the **INSTRUMENT** button repeatedly until you reach TRACK 1.

This means that Track 1 is now selected (instead of a physical pad) and you can assign an instrument to it by using the + and - buttons to choose among the available instruments, in the same way as you would do for the physical pads. For instance assign a closed Hi-hat sound to the track (Hihat 2 or 3)

Similarly to set the volume of Track 1 after pressing the **LEVEL** button, press the same button repeatedly until you reach Track 1. Track 1 is now selected and you can change its volume by using the + and - buttons.

So with these settings this will play an eighth note groove with a closed hi-hat of one measure in length every time it is triggered by the TriggerPAD (normaly the Kick or Snare)

Note there are also other parameters that you can adjust for those virtual tracks mostly to regulate its dynamics: besides Instrument / Level these include Sensivity / Curve
/ Midi-Note / Stereo Pan.

Using the Sensivity / Curve parameters you can make the track play more or less loud depending on how hard you hit the TriggerPAD (usually the Kick or Snare pad). If you want the auto-hihat to play at constant volume then select the "FLAT" value as CURVE for the Tracks.

You also can adjust stereo pan of the tracks as well as assign a midi-note so that the pattern is played on an external midi software instead of using the predefined Floordrum instruments

NEXT STEP: assign the auto-hihat triggerPAD and COUNT-IN pads

The selected patterns on Track 1 and Track 2 will be auto-played when triggered by a triggerPAD, that you freely assign to a specific Pad using the **TRIGGER** button. Usually the triggerPAD will correspond to either the Kick or the Snare.

To select a trigger PAD first press the **TRIGGER** button on the AUTO page. Then as usual, select the Pad with a light touch. Then with the + and - buttons set the indicated value to the number **"2"**

To set the BPM of the pattern you must either assign a BPM value using the **BPM** button or you set the BPM "on the fly" by executing a "count-in" on a dedicated COUNT-IN pad

To select a COUNT-IN-pad to physically execute a "count in" press the **TRIGGER** button and select the pad with a light touch. Then use the + and - buttons and set the indicated value to "**1**"

in all our pre-set Kits the Count-in pad is set to pad 6 (left heel pad) and for most kits the Triggerpad is assigned to Pad 4 (mostly the Kick drum)

In case you don't want to make a count in you have the opportunity to set a fixed BPM instead,

please refer to the section "What do **REPEAT** and **BPM** refer to in the KIT screen?"

Summarizing: the number to assign to the COUNT-IN Pad is " 1 " for the pad dedicated to starting the sequence, while the number to assign is " 2 " for the triggerPAD.

There is also the possibility to assign a value of "3" instead of "2" to the triggerPAD.

(More about this can be found in the section "How to set Trigger Pad and Count-In Pad?").

Now everything is ready!

First **long-press** the **RESET footswitch** for about 2 seconds at the beginning of each new song that uses the **Groove Assist** feature so that the **bpm** can be picked up by the following count- in,

(otherwise the **BPM** of the previous song would be used)

At this point execute the count-in on the Pad you selected (possibly even while you are playing the intro)

and as soon as you hit the Pad selected as Trigger for the first time (with the number 2)

the Hihat Pattern will start and play the number of measures set (usually only one).

For example, if the Triggerpad corresponds to the Pad with a Kickdrum sound, every time a hit is detected on the first beat of the measure, a Hi-hat measure will also be played.

To pause the auto-hihat sound temporarily during a song press the **PAUSE FOOTSWITCH** on your left sideof the floordrum.

The PAUSE FOOTSWITCH can act in 2 different ways

Shortpress: With a normal short press, the Hi-hat (or any other assigned instrument) will pause for the rest of the current measure and automatically resume at the beginning of the next one.

For example, if you press PAUSE on beat 3, the instrument will be muted for the last two beats and will restart on the following beat 1.

This feature is designed for creating stops and breaks during a song.

Longpress: With a longer press of the Pause Footswitch (1.5 seconds), you completely stop the Groove Assist feature. You can easily resume it with a **short press** while playing.

This allows you to mute the assisted instrument for entire sections of a song and restart it effortlessly, without losing the rhythm during your performance.

What do REPEAT and BPM refer to in the KIT screen?

Since you are in possession of the new FLOORDRUM EVO you now have the possibility of taking advantage of a highly advanced integrated semi-automatism of the GROOVE ASSIST function which will mainly serve to facilitate the playing of the HI-HAT and instruments such as shakers or Tambourin.

All settings related to this new functionality are consolidated in the AUTO page of the app, with the exception of REPEAT and BPM, which are specific to each kit.

These particular settings can be found on the main page dedicated to Kit editing.

REPEAT

With the Repeat button you can set how many measures of the AUTO HIHAT will be played from the last triggered Kick detected.

ZERO means that :

If after the end of the played measure a trigger is not detected on the beginning of the new measure,

Groove Assist will cease .

This behavior is very convenient for breaks and endings of the song.

ONE means that:

If a trigger is detected even during the measure,

the Pattern will be repeated once even if there is no hit on the first measure.

This allows you to create more virtuosic patterns between the kick and snare without necessarily having to put a kick on every first beat.

So this means that even if there is detected a Kick on beat 3 or 4 (if the Kick is choosen as Triggerpad)

the next measure will have the assisted hihat played.

TWO , THREE , FOUR etc. will perform the quantity of measurements set here.

BPM

Here, you can configure and save a fixed BPM value along with the Kit settings.

By default, this value is set to zero.

When the value remains at zero, you will need to follow the standard approach of executing a count-in.

However, if a non-zero BPM value is set, the count-in becomes unnecessary, as the BPM has already been fixed.

This approach could be used to create a personalized playlist where each song will already be paired with a specific KIT with a fixed BPM. (60 Kits available for that)

In this case, the midi functions that allow you to select a Floordrum kit from applications such as OnSong, Setlistmaker etc. could be very helpful.

The BPM of the song will be automatically set, simply by selecting the song in the application.

How to set Trigger Pad and Count-In Pad?

With the **TRIGGER** button you access the section dedicated to the settings of the Pads responsible for triggering the sequence and executing the Count-In.

Simply assign numbers to the Pads for this purpose.

Number “1“ : COUNT-IN

Number “2 “ : TriggerPad for the two tracks combined

Number “3“ : TriggerPad for the two separate tracks

Only one Pad must be set for Count-In and one for Trigger
(otherwise only the one assigned to the Pad with the lowest number will be valid)

What does “TriggerPad for the two separate tracks” mean?

If both tracks are armed when you assign the number **“2”** as the Trigger-PAD the tracks will play simultaneously when triggered.
In this case, the Reset Footswitch also functions as a mute control for Track 2 when pressed briefly.

If both tracks are armed when you assign the number **“3”** as the Trigger-PAD
the tracks will **not** be played simultaneously when triggered.
In this case, you can switch between the 2 tracks by briefly pressing the Reset Footswitch.

This functionality is designed to switch from a closed Hi-hat to a Ride,

but it can also be used creatively with other sounds.

When you press the switch, the track won’t change immediately; instead, it will wait for the current measure to finish. The change occurs at the start of the next measure, switching from the first track to the second, and back to the first with another press.

THE RESET FOOTSWITCH

With a long press of about 2 seconds it will reset the BPM to play a new song

Can I create completely new Patterns or edit the existing ones?

Most of the basic Patterns are already present in our default collection.

However, there is also the possibility of creating new Patterns as you wish or modifying existing Patterns.

They can also be named as desired.

For this purpose you will find all the Pattern editing functions on the right side of the screen.

The **PATTERN** button gives access to the list of all Patterns in the collection.

It is not used to assign a Pattern to the Tracks but only for their display and possible modification using the other buttons in the section.

NAME:

As you can imagine, it is used to change or assign a new Name to the selected Pattern. Pressing it will open the Text editing screen. After entering the new Name, confirm with the check mark on the keypad and then conclude by pressing the Name button again.

BEAT VOL:

This is the most important button in the Pattern editing section. The measures are divided into sixteenths. This means that a measure of 4/4 is made up of 16 beats of 1/16. Each beat can be assigned a specific volume or muted completely with the number zero. When you press the button you will find yourself on the first measure to be modified and with each press you advance by a sixteenth. Then assign a value to each of the measures considering accents (higher volumes) and lighter strokes (very low numbers). It is advisable to help yourself with a pattern written on paper before creating a new pattern.

Here is an example of a template you can print out

	One	i	and	a	Two	i	and	a	Three	i	and	a	Four	i	and	a
VOLUME																
PROBABILITY																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

	One	i	and	a	Two	i	and	a	Three	i	and	a	Four	i	and	a
VOLUME																
PROBABILITY																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

	One	i	and	a	Two	i	and	a	Three	i	and	a	Four	i	and	a
VOLUME																
PROBABILITY																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

	One	i	and	a	Two	i	and	a	Three	i	and	a	Four	i	and	a
VOLUME																
PROBABILITY																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

As you can see there is also the **PROBABILITY** value which should usually be 100.

This value has a dual function.

1- st As the name suggests it gives a probability to the beat.
With a low value it is performed rarely, with a high value often and
with a value of 100 always.

2- nd Setting this value to zero determines the end of the pattern.
This means if bar 13 is set to 0 the pattern will only be 12/16 or better say 6/8.
In a 2/4 Pattern the PROBABILITY value will therefore be set to 0 in measure 9.

COPY & LOCK PATTERN

To copy and lock a Pattern: In the same way as you can protect and copy the various Drumkits you can also do it with Patterns. If you copy a Pattern the key will subsequently transform into "Paste Pattern" and then release the copied Pattern in its new position. (Attention the new position will be overwritten

What are TOLERANCE and HUMANIZE for?

The **TOLERANCE** value affects the precision of the Triggerpad detection filter.

A high value allows larger BPM variations but could lead to sudden tempo changes caused by irregular rhythmic figures on the triggerpad (for example double hits on the kick drum).

A very low Value has an inverse effect. It allows slower tempo changes but gives more freedom to improvise without confusing the algorithm.

The **HUMANIZE** button gives a randomized variation by acting on the volumes of the individual beats, simulating more human feel and therefore less robotic behavior.

What is the SWING button for ?

The Swing function allows you to adjust the amount of swing in the selected pattern. A subtle swing can make the pattern feel less mechanical and more human. As you increase the swing, it moves into the shuffle and jazz swing territory.

Experiment with this parameter to transform an existing pattern and give it a swing feel when needed.

Is there a PC editor to more easily view and edit floordrum kit and patterns settings ?

The answer is **YES** !

A PC editor (that is accessible also on mobile devices) is available as a **web-app** at the link

"www.floordrum.com/editor".

note: *This web-app is under development. Information regarding its progress and how to use it is also available on the same link.*

It is apropriate to note here that any Floordrum settings modified via the default smartphone EVO app are always auto-saved onto the Floordrum internal memory while you type them, without requiring to press any SAVE button.

In addition the FLOORDRUM EVO model and other newer floordrum models are equipped with a **memory SD card** slot.

By using the **BACKUP** button on the FLOORDRUM EVO app you can save a **backup on SD card** of your floordrum settings. The purpose of the SD card backup is to possibly revert unintentional changes made to the settings. These changes can be undone by restoring the last backup by pressing the **RESTORE** button.

Another use of the SD card is to provide the possibility to archive your settings externally on a PC transfering them using the SD card. Furthermore it allows you to view/edit and share your settings easily via the above mentioned web-app.

The floordrum settings are saved on the SD card as two files : "kitSettings.txt" and "patternSettings.txt".

We decided to keep the kit definitions and pattern definitions separate so that users can edit/share only the part of settings they want, keeping the other settings unchanged.

> The file "kitSettings.txt" contains all settings for the 60 available kits.
>
> For each kit this includes the following parameter values for each pad :
>
> **KIT NAME**, **INSTRUMENT**, **LEVEL**, **THRESHOLD**, **KIT NAME** , **SENSIVITY** , **CURVE**, **MIDI NOTE** , **STEREO PAN**
>
> plus in addition the parameters which define the AUTO-HI-hat properties of the kit:
>
> **BPM , REPEAT , TRIGGER , TRACK 1 , TRACK 2.**
>
> The file "patternSettings.txt" contains the beat pattern definitions for all the 60 patterns available.
>
> For each pattern this includes values for
>
> **PATTERN NAME**, **BEAT VOL**, **BEAT PROB**, **HUMANIZE**

The web-app allows you to open the "kitSettings.txt" and "patternSettings.txt" files and perform all the available editing/viewing etc operations as they start to be available on the web-app.
Once you have edited the settings via the web-app you can save them once again onto the SD card.

After reinserting the SD card into the Floordrum and pressing the app **RESTORE** button the settings will be transferred from the SD card to the Floordrum internal memory and are immediately available.