7Pad, User guide

In this guide :

Play harmonies with chords

Thank you for installing [7Pad](#), an autonomous and connected instrument that allows you to play, compose and learn with musical harmony. You have 7 groups * 7 Pads to customize and play 12 harmonized chord scales in all tones and many piano scales (non-harmonized) applicable to the melody and displayable on a piano or guitar view.
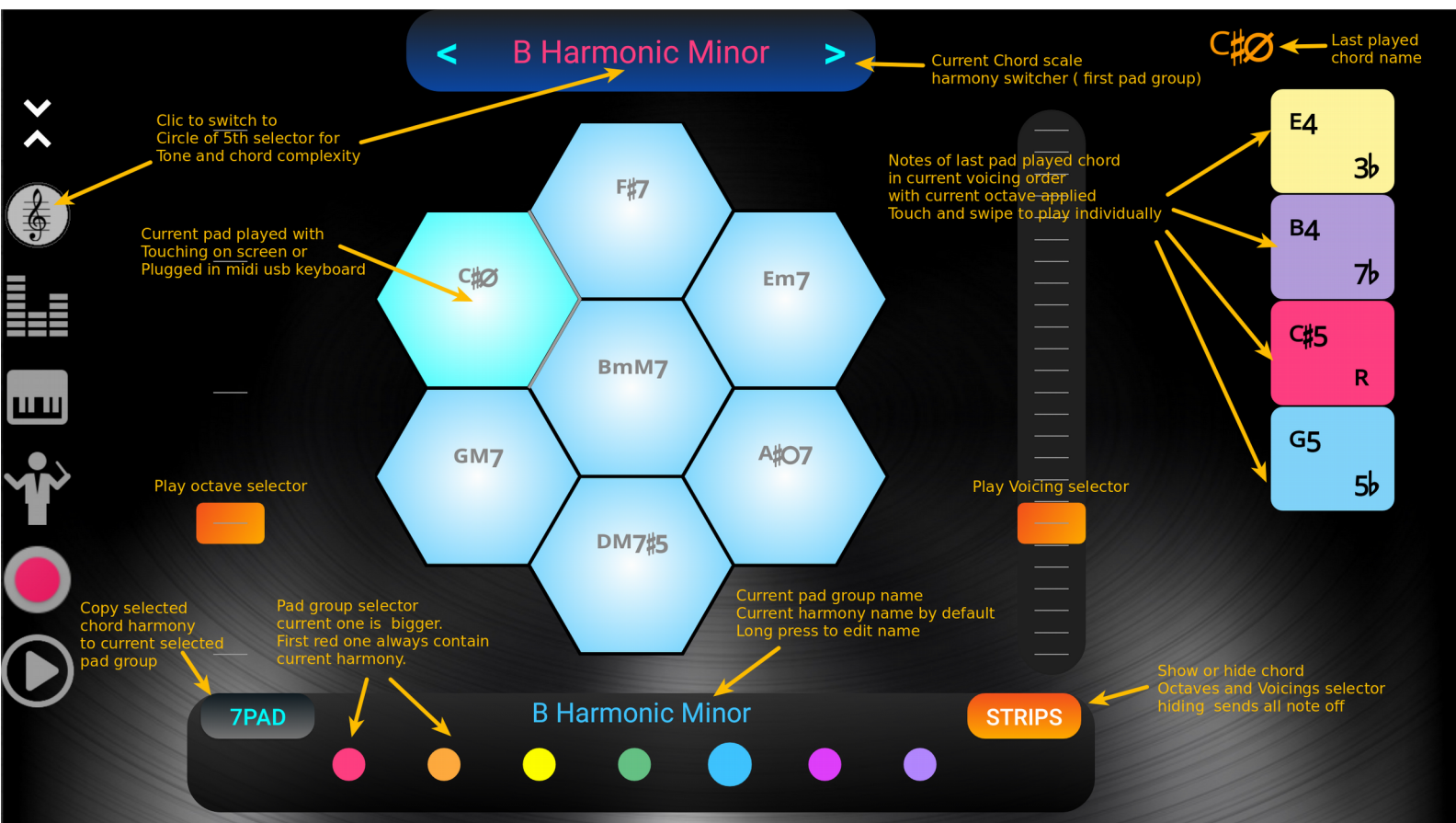

Illustration 1: construction, srtips, pads, groups of pads, harmonization

Use the Harmonized scale Selector (blue switch at the top) to change the scale.

Use the circle of fifths to change the root note of the harmonized scale and the complexity of the chords: 3 or 4 notes.

To replace all the chords in a group by the chord scale of the 1st group of pads, touch the "7PAD" button when you have selected the group to be replaced.
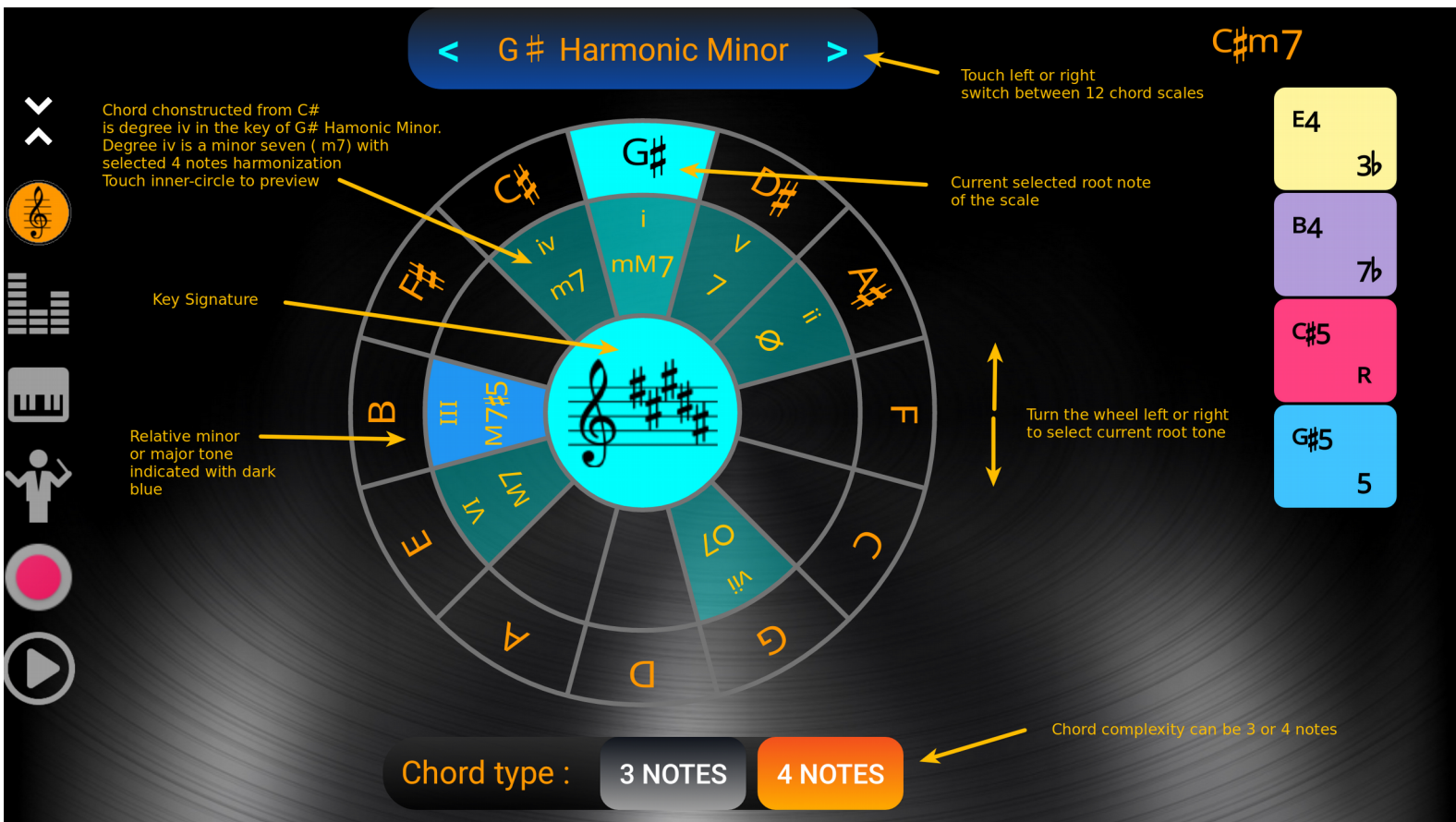
Choosing a chord scale

Illustration 2: Circle of fifth harmonized scale and tone of the first group of pads

The first group of 7 pads (named Scale) is linked directly:

With the circle of fifths to choose the tone and complexity of the harmonization (3 or 4 notes).

At the harmonic selector, allowing to choose among the 12 harmonized scales available.

Illustration 3: The first group of 7 pads, colors and degrees

The first group of Pad (red selector) includes numerical indications and colors corresponding to the Harmonic role (Degree) of the chord in the chosen harmonized scale.

This first group can be played directly or copied to one of the other 6 customization groups to be included in a "Pad Set" (set of 7 groups of 7 pads).

A number of factory Pad Sets (premium contributors get a lot more) with chords sounding well between them are available to load in app and you can save the current Pad Set using the application menu, giving the ability to customize precisely each chords of each pad.

To allow perfect customization of all the chords, it is possible in the <u>chord mode</u> to assign a precise chord extension and voicing to each pad of a Pad Set.

Rhythm control

To play chords in rhythm you have an arpeggio (ARP) and a step sequencer. The playback tempo is adjustable and the metronome gives a rhythmic reference.

Illustration 4: Rhythm Control Panel and Harmonic Indications

When you play one minor or major scales on the first group of Pad, an additional Harmonic indication is provided: The recommended chords for further progression, according to the currently played chord (in blue), are colored in green.

The advice is provided by music theory and the most common progressions: play a green pad, it will sound "naturally" in the continuation of your progression.

Step sequencer

A 16 step sequencer is available to offer rhythmic customization to your chord progressions. It is possible to record reusable custom "USER" beats on each song as well as to assign a rhythm pattern change to each chord of a progression.
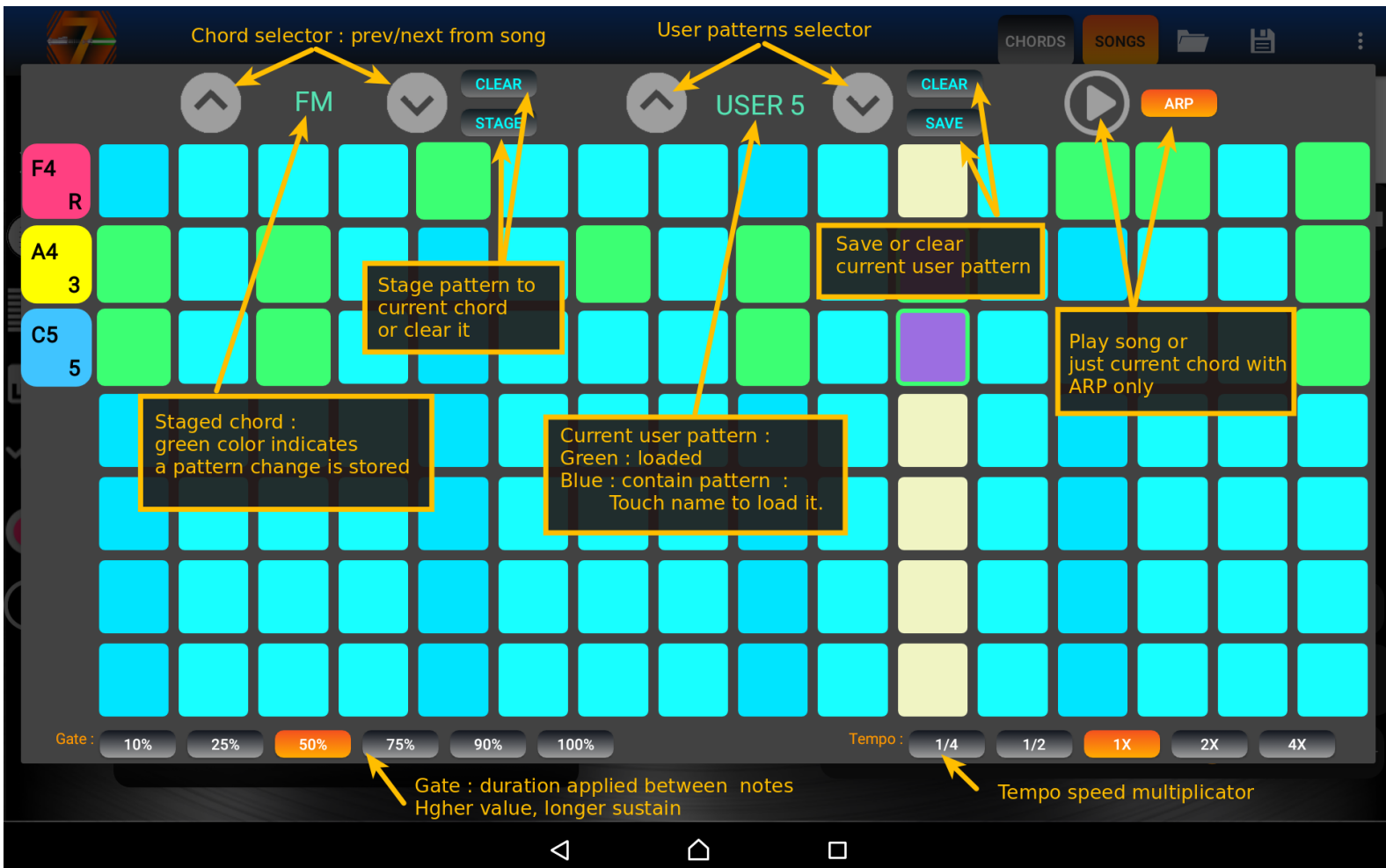

Illustration 5: Step sequencer

Piano View

In addition to chord Pads, 7Pad has a virtual piano view for direct on-screen play or with a midi controller keyboard.
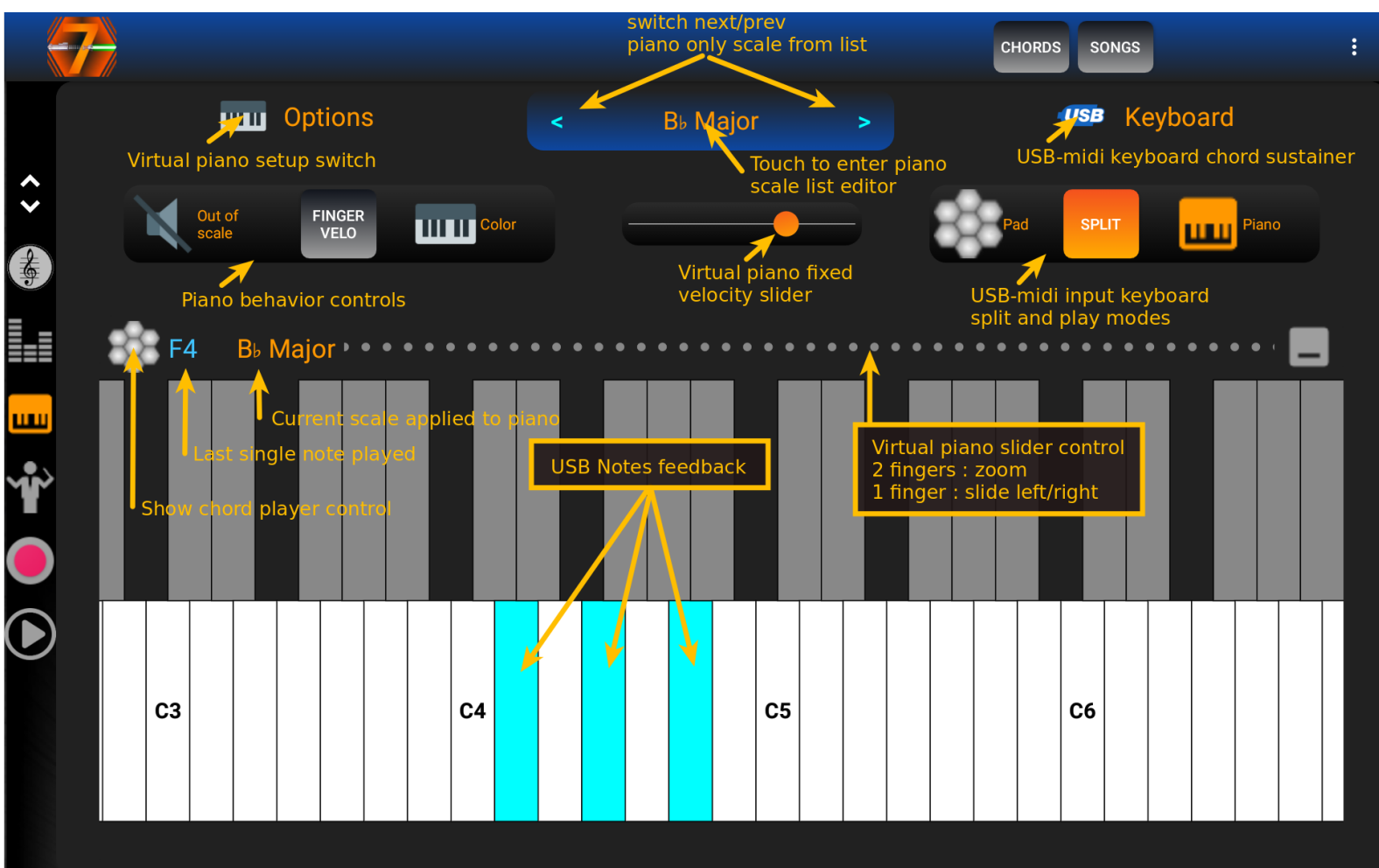

Illustration 6: Virtual Piano Panel and available controls

The "out of scale" function can allow or prohibit the reproduction of notes outside the selected piano scale, both by touching the screen and playing on the controller, false notes can be banned very simply.

The Color function allows you to Colorize the piano and guitar scale according to its intervals, each interval have a specific color in 7Pad making easy to play and memorize scales with a real instrument.

The Chord sustain function (touch the USB logo) activates the infinite midi sustain of chords when a USB-Midi controller keyboard is connected.

The virtual piano setup function (touch the piano icon named options) toggles the piano to "piano roll on a line" and the "finger velo" button to control the velocity of the notes according to the vertical position of the fingers on the key Virtual.
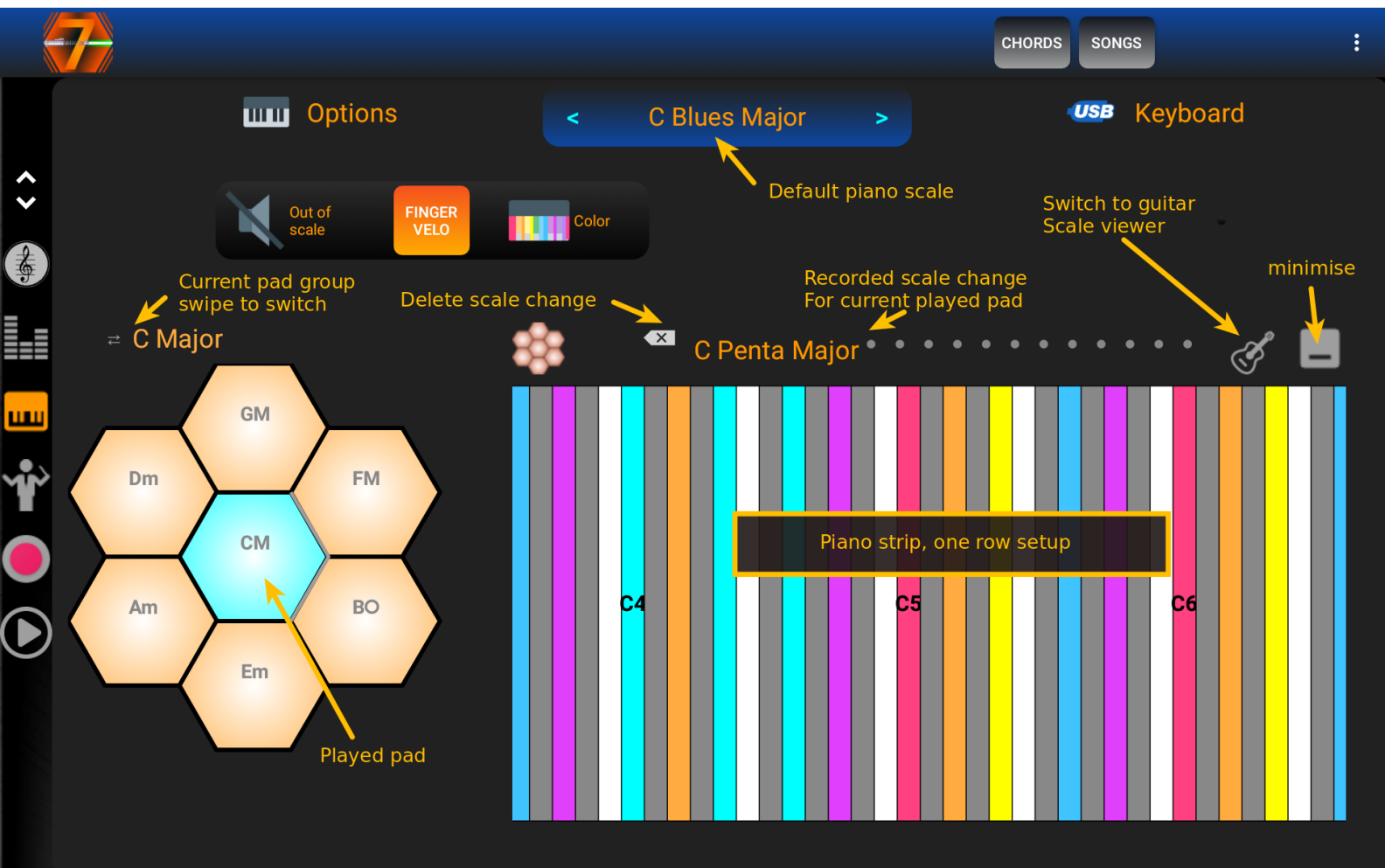
Illustration 7: Virtual piano panel, other controls

You can access many scales (not harmonized) specific to the piano melody part as well as a special one : arpeggio reflecting the notes of the last chord played, this is not really a scale but its use-full for finding articulations and target notes in your melodies.

Guitar View

Since 7Pad V2, the piano view has a guitar fret-board display whose purpose is to practice with guitar scales and chords. This view has the same color code as the piano intervals and is a visual aid in the construction of guitar scales and chords. It is very useful for the guitarist to visualize the intervals in this way and memorize the possible shapes for each interval. With this 7Pad help, it becomes easy to immediately play all kinds of scales and hear them in context of a chord progression.
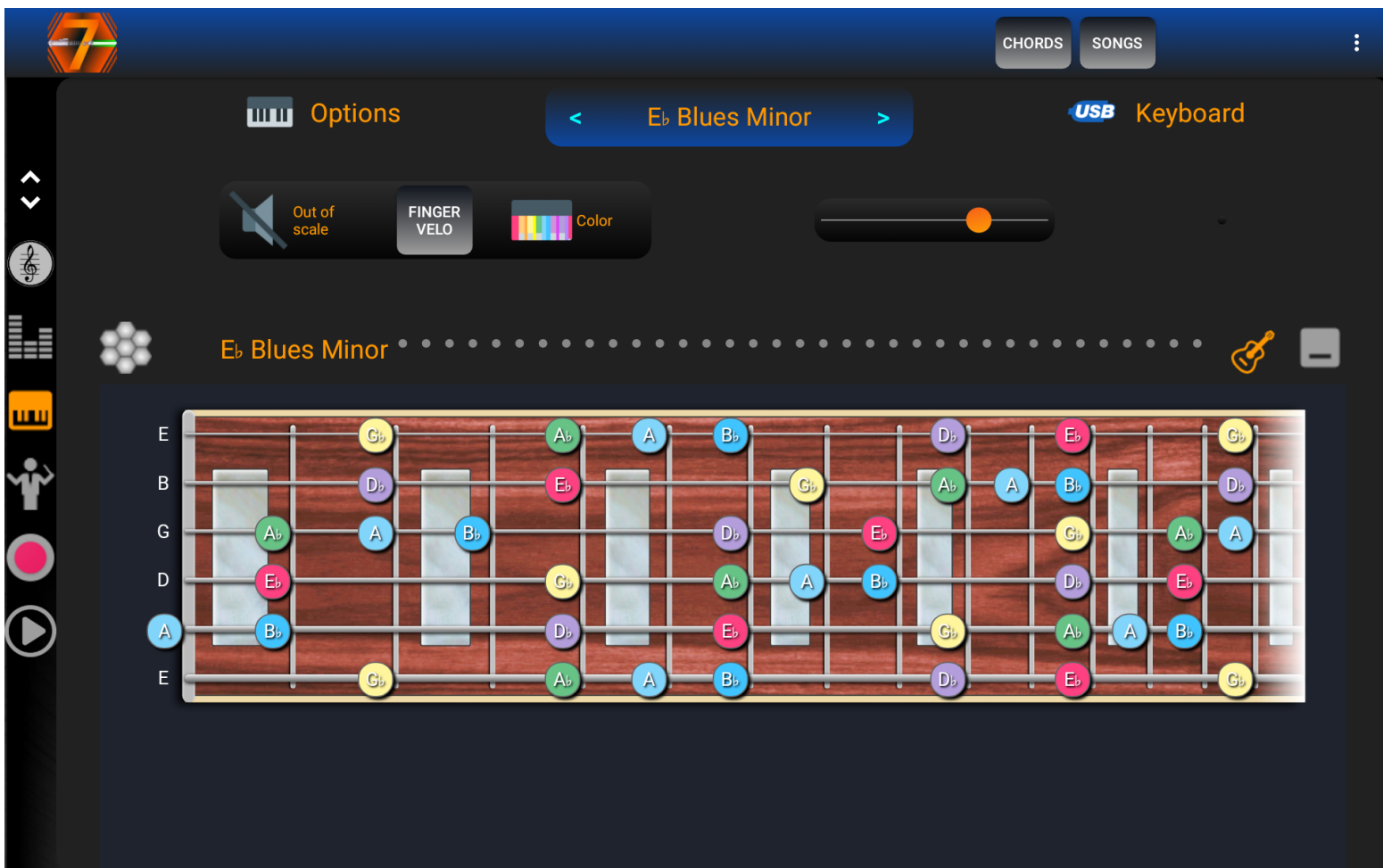

Illustration 8: guitar fret-board display. Eb (red) Blues Minor (hexatonic). In comparison to Eb minor pentatonic it add a 5b interval from Eb (an A in that case).

With 7Pad : in a blues minor progression, The blue note is colored light blue !

Scale List Editor

This editor makes it possible to constitute a list of favorite scales for a fast access, to see and play quickly the construction of each scale.
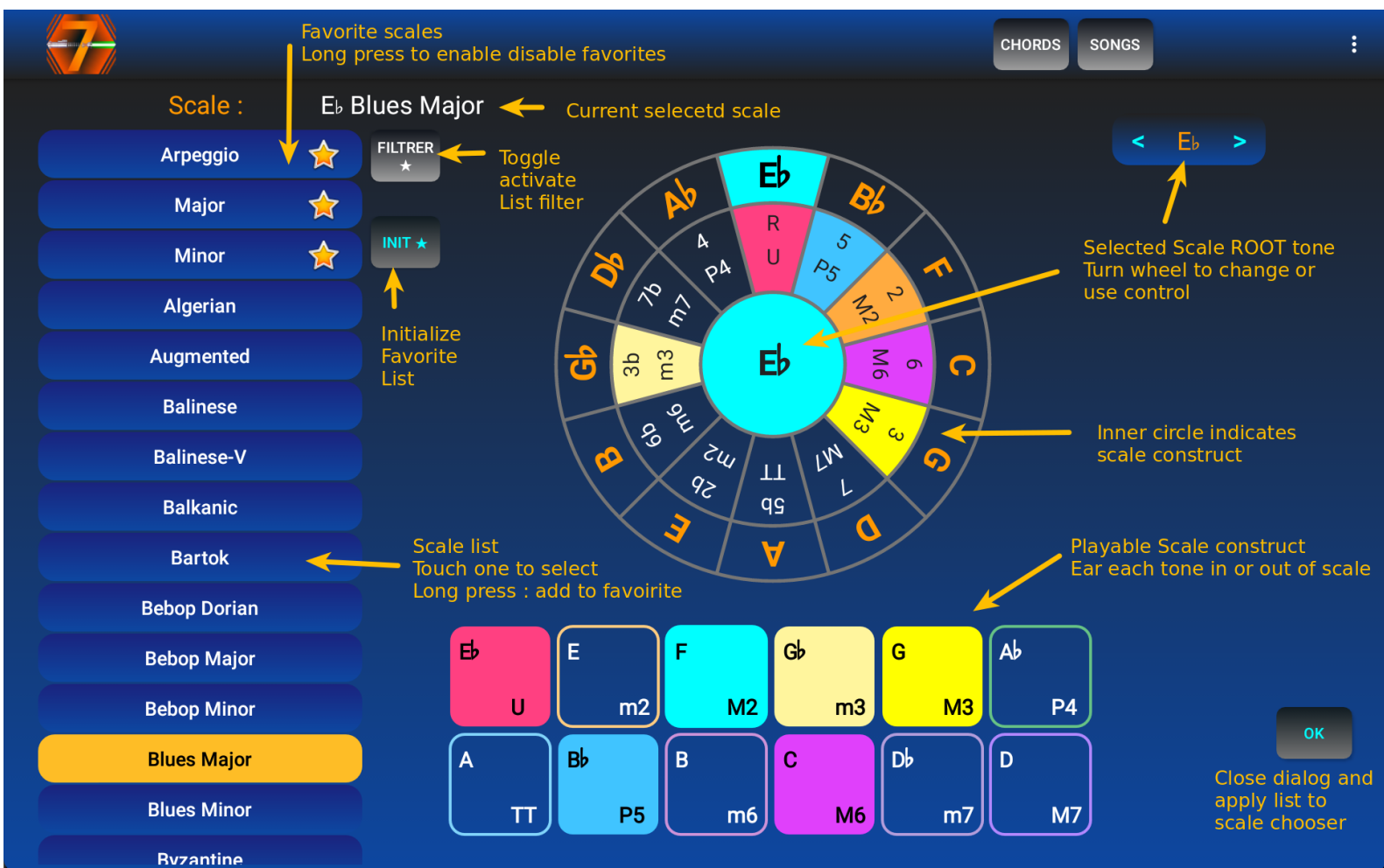

Illustration 9:The piano scale list editor.

You can quickly create a list of favorite piano scales to use with your song.

This quick access list makes it possible to quickly change the scale during the live play.

You can also record associations with the chord changes of the pads: The scale change is automatic when an associated chord is met.

This unique feature of 7Pad makes it possible to build and test an improvisation, ideal for learning scales or composing a melody on a chord progression played by 7Pad. See Scales and chords relationship for details.

USB input controller

When a MIDI / USB Controller is connected directly to the Android device (OTG cable), the notes produced by the MIDI Controller are displayed by the virtual piano (if USB piano mode is enabled) making it easy to learn the scales and chords on the controller thanks to the visual feedback on the virtual piano.

Illustration 10: OTG cable for the USB keyboard connected to the Android device

When the USB Pad Mode is on (default), each press of a MIDI controller note triggers the playing of a Pad, in Chromatic order, the velocity applied by the controller is transmitted.
It is thus possible to record complex chords at a finger while preserving the natural interpretation. In USB piano mode, velocity, Pitch-Bend and ModWheel controls are also transmitted.
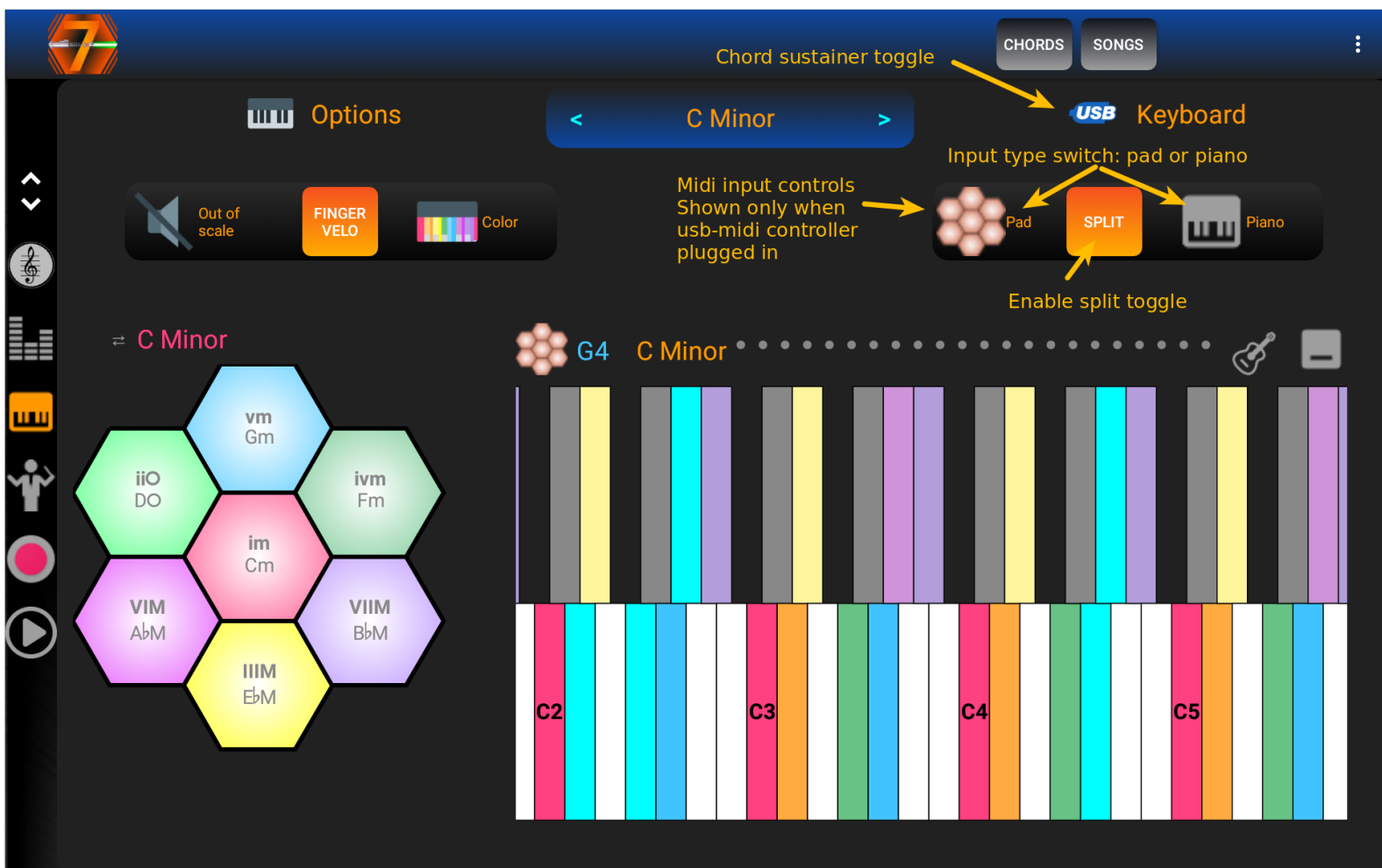
Illustration 11: USB-MIDI INPUT controls

With Split toggle activated, the first octave of the midi keyboard is interpreted as playing one of the 7 Pads (in order of increasing degrees) of the currently selected pad group.

In addition, with the switch input control "Pad" activated, the rest of the midi keyboard plays the current virtual piano (configurable range):

It is thus possible to interpret on the keyboard a harmonized progression with the left hand, while the right hand interprets a melody with the guide of the chosen scales.

With the "Pad" input control switch turned on but not the Split toggle, the chord playing is done on the whole midi keyboard, the pad group played is then incremented or decremented automatically.

With the "Piano" input control switch turned on, the split toggle state is ignored and the piano notes do not control the chords, this is the classical piano setup allowing you to work the instrument using 7Pad: fingerings of the scales and chords.

The "USB midi in" section of the application settings allows you to precisely setup this according to your MIDI keyboard (note and octave start)

Sound control and Midi connection: cable / USB out or wifi / 7PadMidi Server

7Pad, like a traditional piano has only one channel for internal sound. 32 Sounds can be used internally by the application, some filter and drive parameters can be applied to the internal sound. Another dimension of sound control opens to you if you connect 7Pad in Midi via USB out or Wifi on the local network. See the separate pdf document describing the configuration needed here:http://www.sevenpad-music-app.top/midi-control/
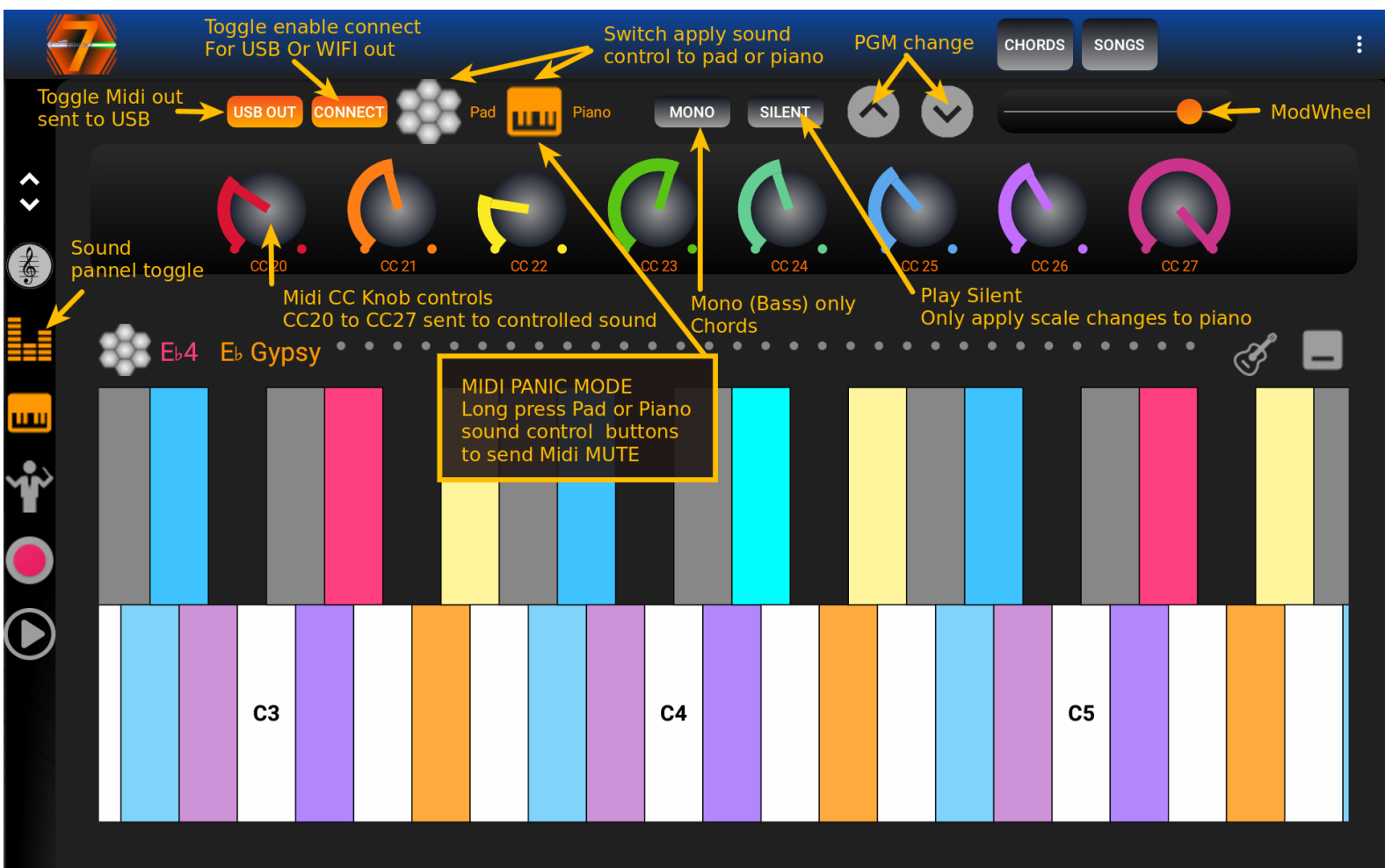

Illustration 12: Sound controls in connected midi mode

For the selected sound : Pad or Piano, a set of 8 rotary controls allows to send as many Midi CC to the remote software. Long press on the pad or piano icon will send a midi mute on the midi connection out.

You can use 2 different midi channels simultaneously. It is possible to control the playing parameters of your synthesizers live: By default, the Midi channel 1 is used for the sound associated with the Pad (chords), the Midi Channel 3 for that associated with the piano. This can be changed in settings if needed, for example if you connect multiple Android devices simultaneously.

Chords Mode

Each chord of a Pad Set can be modified with 24 voicings on 5 octaves and many extensions (up to 7 notes each chord). Each Pad of the 6 customizable groups can be configured by copying the selected scale of the first group of Pads or by inserting custom chords (extensions).
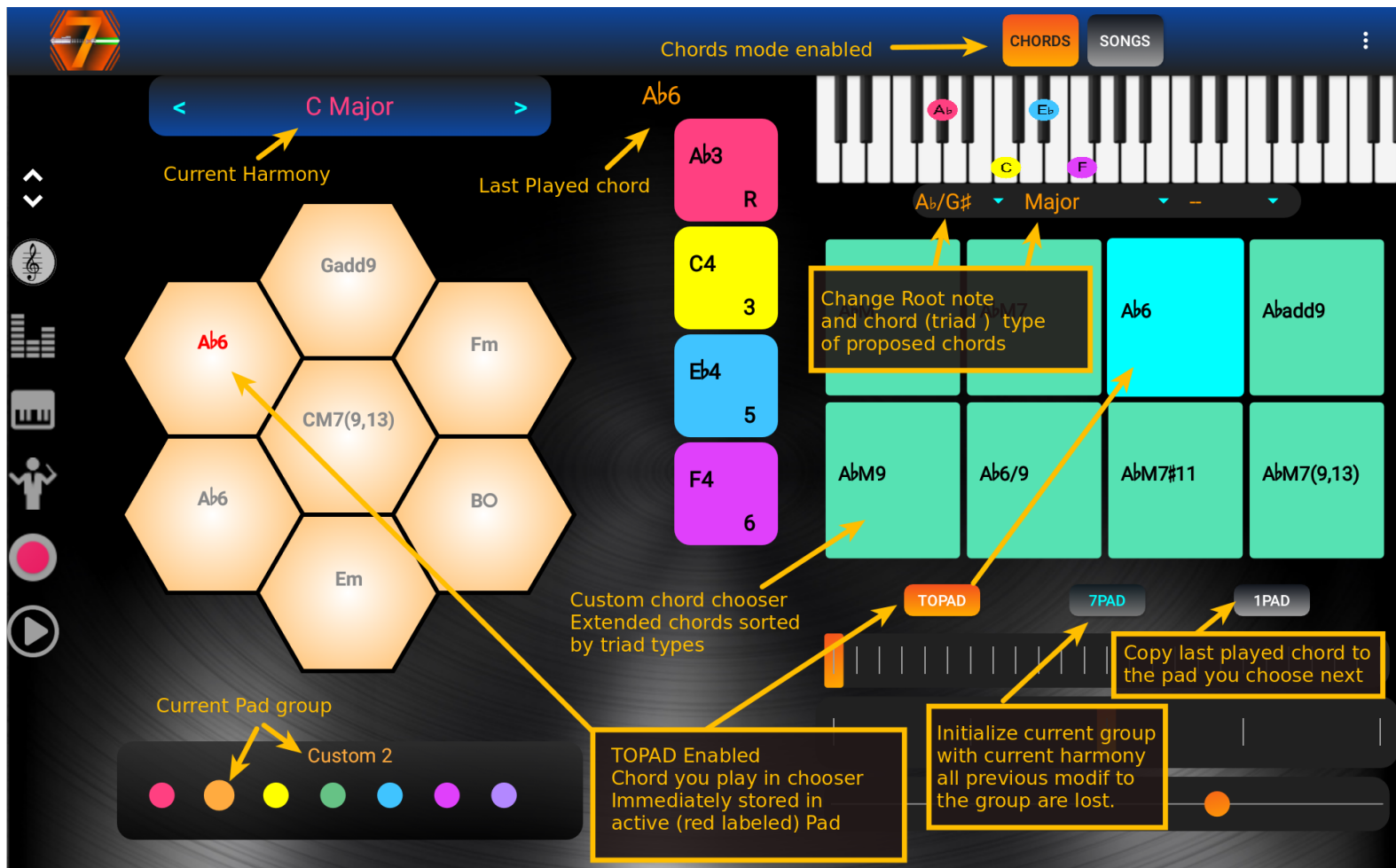

Illustration 13: Chords Mode : Pad set customization

When an hexagonal pad is played in chord mode, chord extensions with the same triad are offered, so you can easily find shades close to a basic chord.
If you want deeper control, you can choose from Root, Type and OnBass Drop-down lists (under the little piano display) to apply a different selection, to the 8 green pads chord chooser.

A different type of chord (sorted on triad type) can always be selected in the drop-down list : Each selected chord type will display 8 possible extensions in the 8 green pads of the custom chord chooser.
To select a different root, you can either play a different pad : root of the chord is applied and triad type change accordingly or use the root notes drop-down list available (under the little piano display), this will keep the actually selected triad type and extensions.
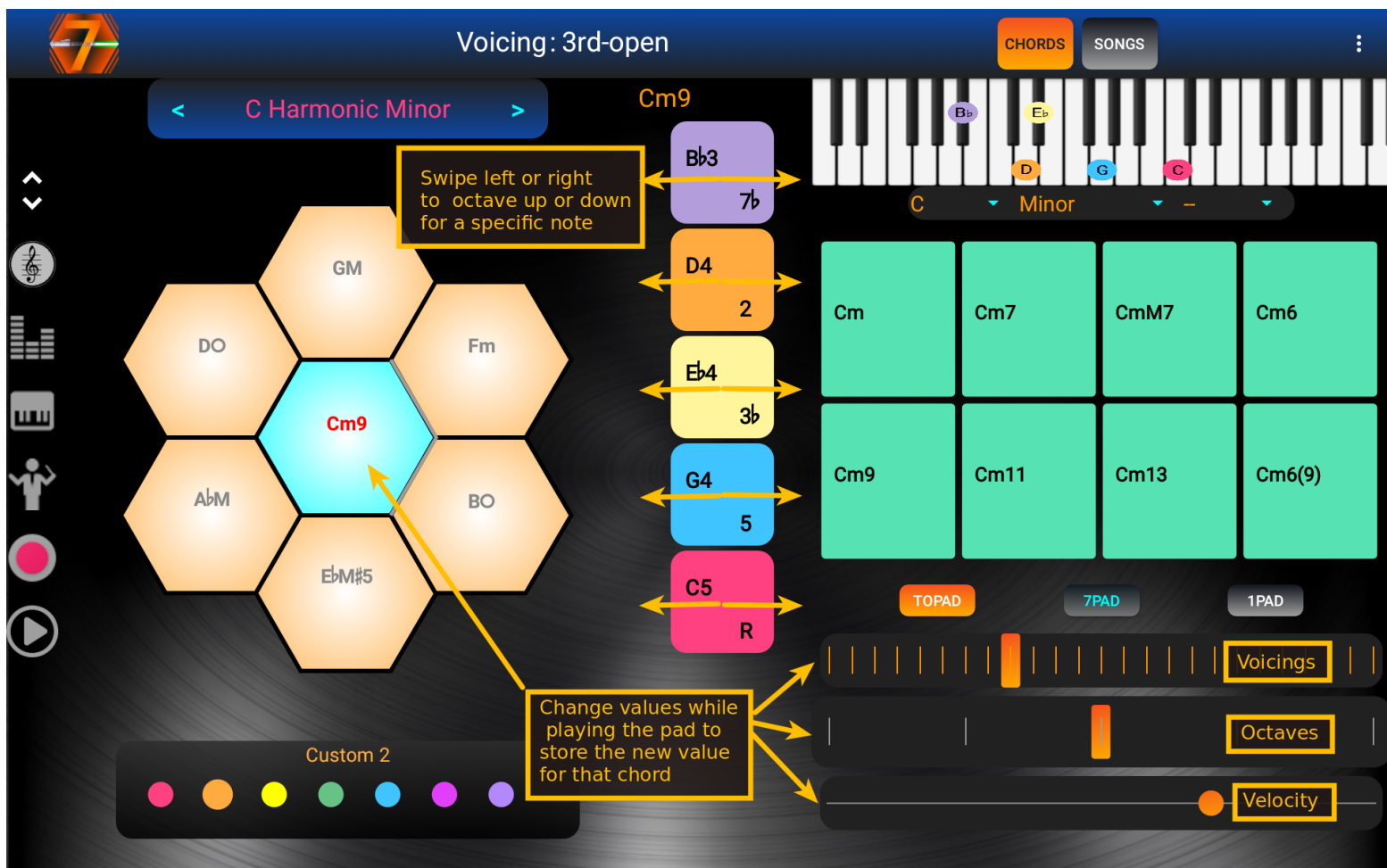
Illustration 14: Mode Chords : advanced customization of chords

You can customize each of the 7 pads from 6 pad groups adding custom voicings.
The PadSet (all the 7groups of pads) thus formed can be saved using the app menu, and used later as a base for live play or to record a song.

Songs Mode

You can record chord progressions with the constituent chords of a PadSet. The Songs Mode is a notepad allowing you to save the chord boxes of your compositions and replay them. Songs (premium contributors get a lot more) are provided as examples with the application.

The current song is saved with the save button of the action bar.
You can replay the grids in rhythm with integrated ARP or learn to play the chord progressions of your favorite songs to the piano in step mode.

Edit song

To add chords in a song, click on the record icon to activate the addition / insertion of chords: Each touch on a pad (except group 1) is then recorded as a progression chord with a duration of 4/4 and the current configuration: octave + voicing + velocity.
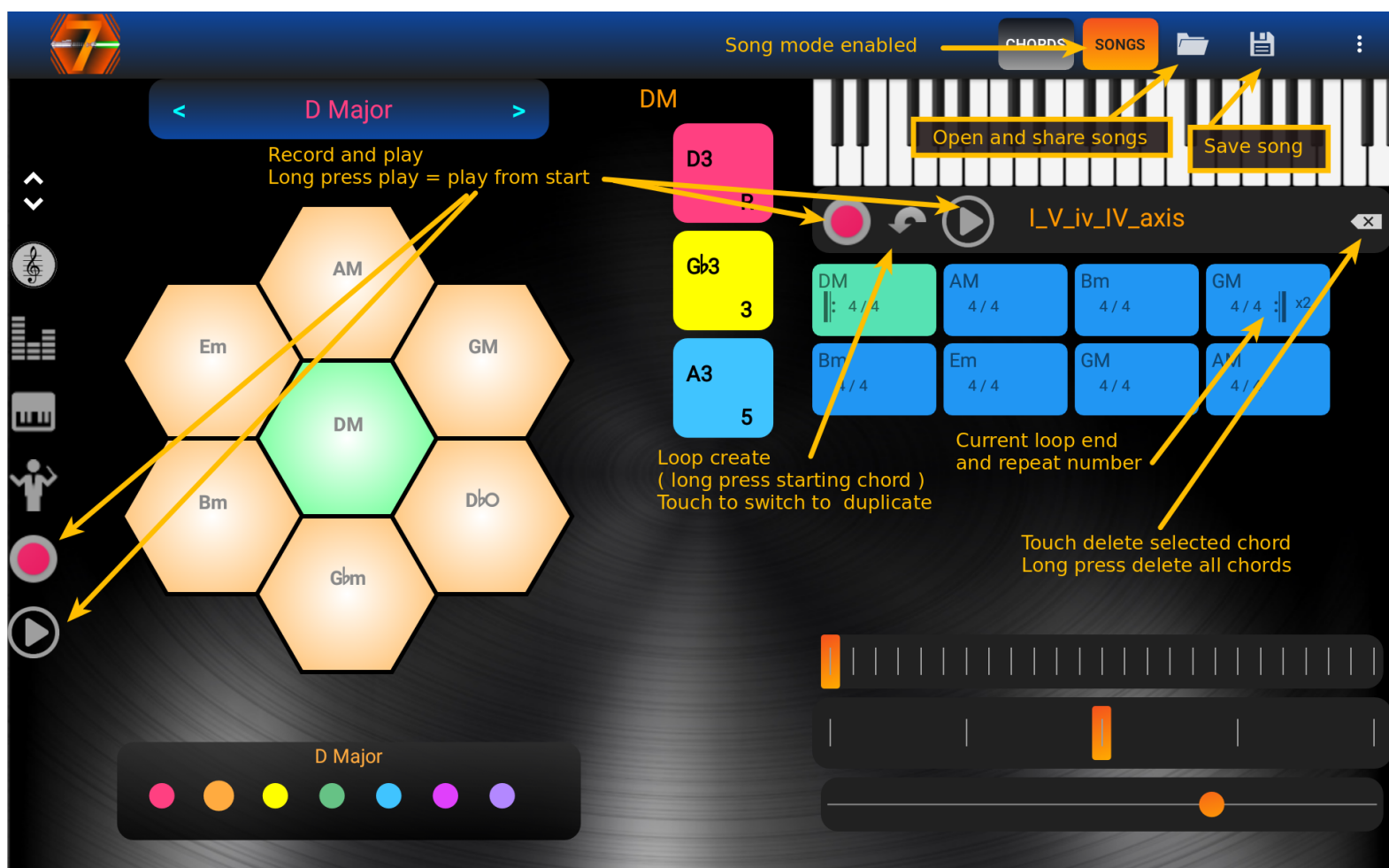

Illustration 15: Song mode, Loop / Duplicate

When record is enabled a long press on a chord of the progression in the grid changes the duration of the chord.

In addition, when record is disbaled, a long press on a chord in the grid makes it possible to create a loop or to duplicate a selection of chords.

Learn

The learn mode accessible from the piano view (song mode must be active) allows you to replay the chords of a Song progression in sequence: automatically using ARP or in step by step mode (ideal for learning a sequence of chords on the piano) when ARP is disabled.
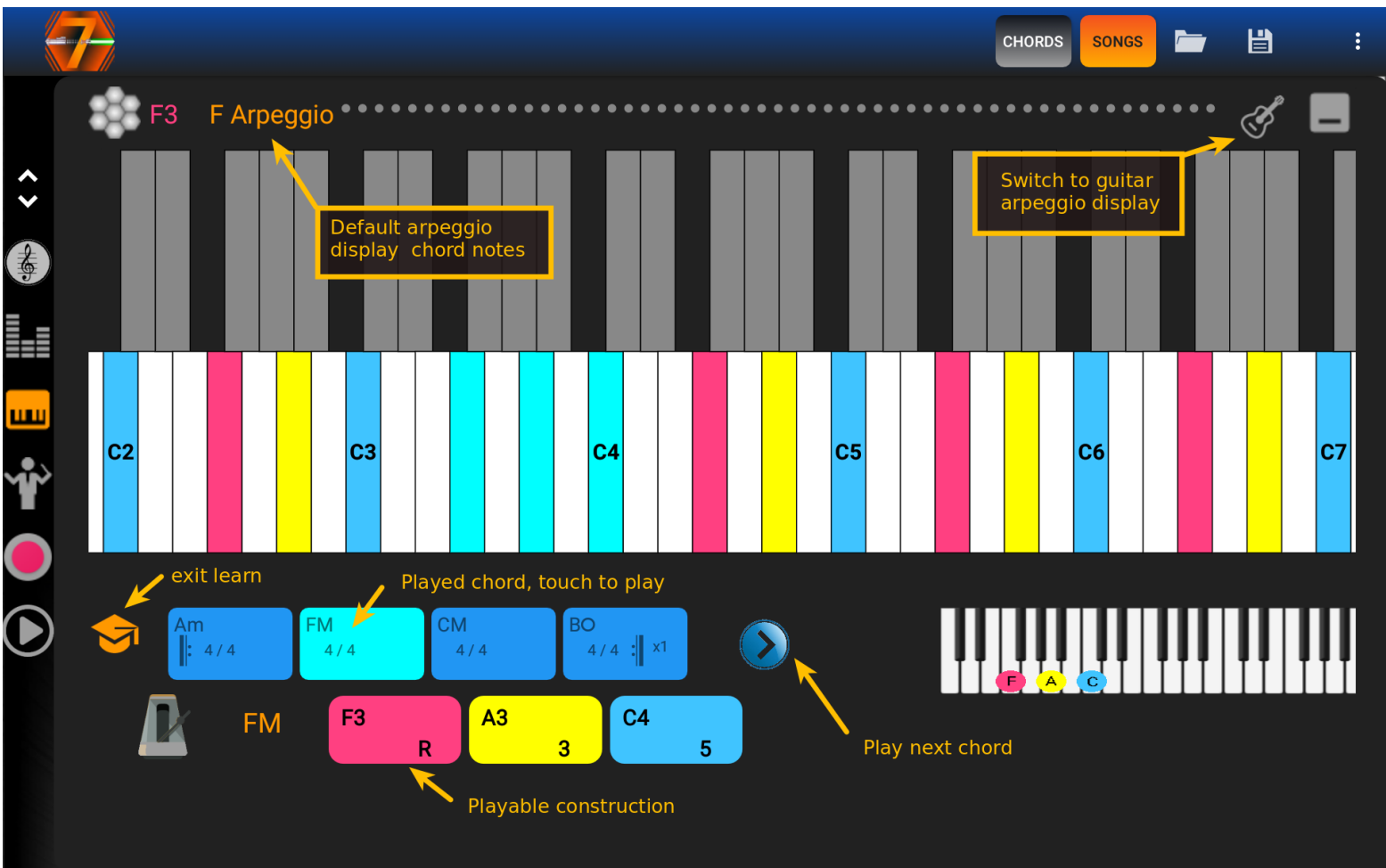

Illustration 16: learn step by step, display arpeggios

The grid presented in a linear way makes it possible to play and display the chord by simply touching it. By touching the notes of the construction, the corresponding note is indicated by the virtual piano and you can learn the grid by reproducing the fingerings indicated by 7Pad on your MIDI keyboard.

It is advisable to use a MIDI keyboard (configure 7Pad with input piano) to fully enjoy the visual feedback: follow the fingerings indicated by the virtual piano and visualize your game.

When the midi out connection is turned off (with internal sounds), each affected note in the horizontal chord construction is played and displayed on the "PianoStrip" view.

Scales and chords relationship

Each of the piano scales available can be associated with a pad (a chord) in direct play or be associated (link) to a chord within a chord grid.

The piano scale then changes automatically when a chord related to a linked scale is played. This makes it easy to hear chord scale relationships before, for example, using them in improvisation or melody composition.
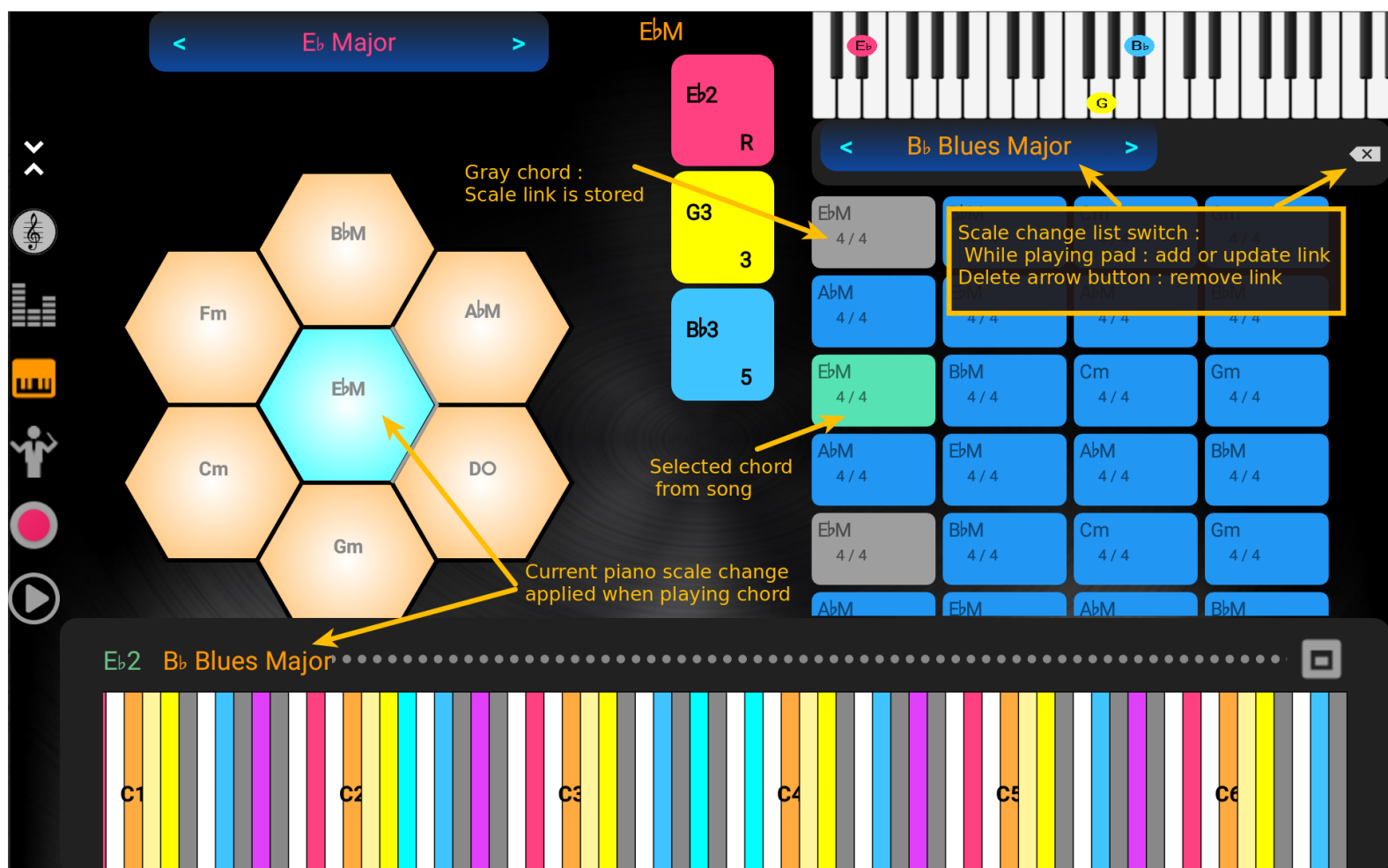

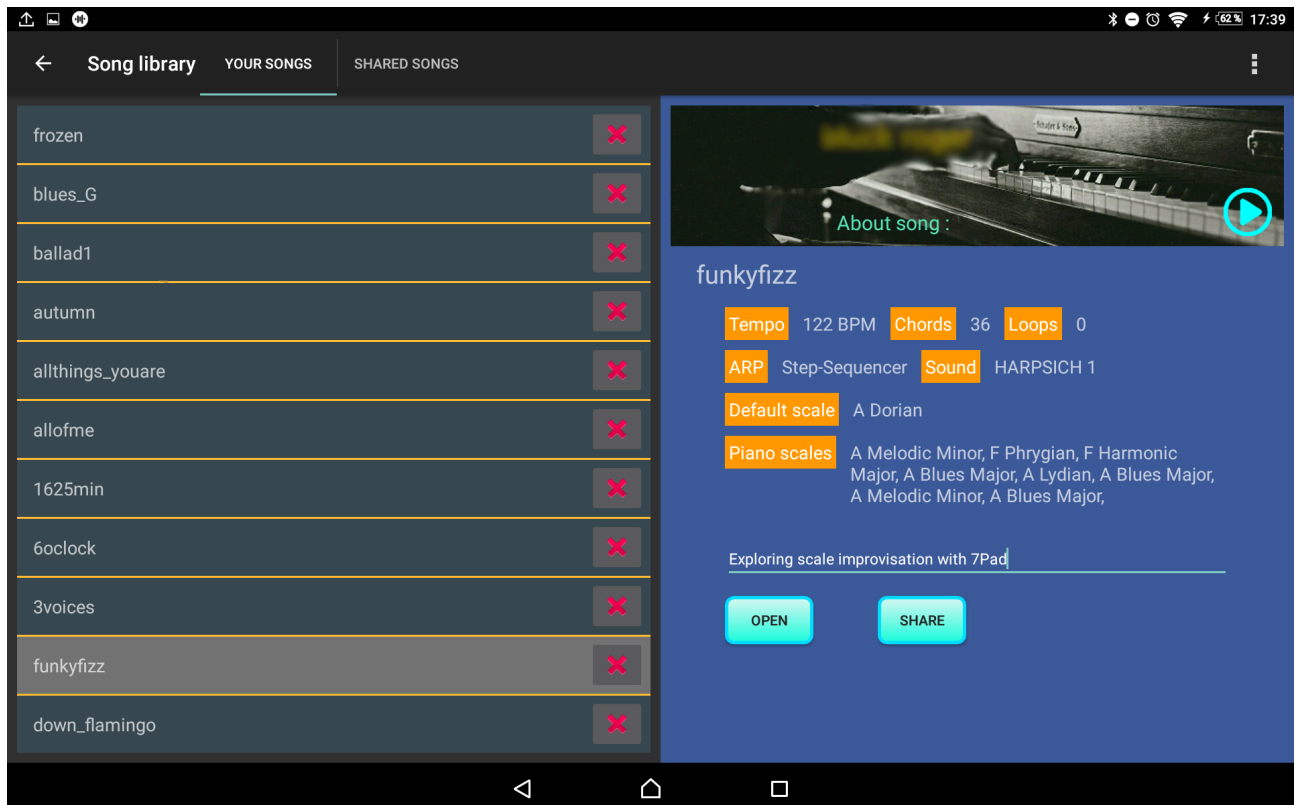*Illustration 17: linking scales and chords in a song*

Piano view: To record a link between a pad chord and a scale, hold down a pad (the chord must play) and select (scale list selector arrows) the desired scale at the same time. You can edit the list of scales with the piano scale list editor.

When you play this pad again, the linked piano scale is applied and an icon is used to delete the link.

In song mode, same procedure by first touching the chord in the grid (see illustration)

Sharing your creations

Songs created with 7Pad can be shared with the user community of the application. The opening button in the song mode gives access to the song library.

After you've selected your linked Google Account ID for your Android device, you can share your best creatives and also access all songs published by other 7Pad users.