

## DEOMO KARA NEEDS AND FEATURES SUMMARY

Musician Need	KARA Feature and Benefit
Music has repetitive elements.	Strum repeat. Previously selected note(s) can be replayed just by strumming.
Musician needs time to move fingers to a new a position.	Strummed notes keep playing until they are stopped. This feature gives player a time window to align fingers properly for the next chord.
Musician wants to focus on creating music, and not spend time reading complex manuals.	Kara is simple to pickup and play. Pitboard has a simple layout. Compared to guitar fretboard, notes are easier to find.
Musician wants to master playing.	<p>Playing guitar is hard. It takes time to learn it. One needs to practise a lot to get it sound right. It's important to position fingers and touch the strings correctly with just a right amount of force. One needs to learn how to use plectrum, what's the correct angle for it. Of course, guitar needs to be tuned.</p> <p>With Kara, musician masters the instrument with less effort and time. And after that, sky's the limit.</p>
Musician wants to play notes and chords with different dynamics.	<p>With touch sensors, Kara converts the speed of hand movement into velocity (loudness) value. This resembles playing guitar.</p>
Musician wants to trigger loops that span long portions of a song.	Kara supports this. When strumming, loops keep playing till the player stops them.

<p>Musician wants to modify parameters that affect the characteristics of sound generation (e.g. distortion, reverb, cutoff...)</p>	<p>With a double tap on a pit, Kara moves into a mode where pitboard controls sound generation parameters.</p>
<p>Musician wants to get physical and move while playing.</p>	<p>Kara has movement sensors that control sound generation parameters. Player's actions are clearly visible, the connection to the audience is strengthened. Compared to playing a stationary MIDI keyboard, there's more body language.</p>
<p>Musician wants an instant access to several different sound generators.</p>	<p>With two sets of capacitive sensors, Kara has a flick-of-a-wrist access to four different MIDI channels. In other words, musician can control multiple sound generators and devices.</p>
<p>Musician wants to play several sounds concurrently.</p>	<p>Each sound starts and stops independently of each other. Musician can e.g. layer different sounds.</p>
<p>Musician wants to play notes in a rapid succession.</p>	<p>When tapping, notes can be started and stopped rapidly. Percussive patterns are easy to play.</p>
<p>Musician wants to locate the notes by feeling them.</p>	<p>A big part of playing an instrument is the tactile feedback of physical hardware. VR/AR implementations lack the tactile feedback.</p> <p>Pitboard has a fingertip-sized pit for each pitch (note). Musician can feel the pitboard. Fine motor skills and muscle memory develop.</p>