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Max Martenot – Project 3 concept

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# Areas of Improvement for Max MaRTENOT

I have listed down four areas of focus that I want to work on as per the feedback I received from various sources.

1. **Playability** – I understand that using the slider control may not offer the most intuitive way to play the notes for a novice player. A piano has white keys that makes it intuitive for the player to play C major scale by avoiding all the black keys.

One way to make it it easier to guide the player from one note to another is to quantize the notes but quantization of notes takes away the ability to play the vibrato using the slider which I think is the most interesting characteristic it offers.

I think a trade-off can be achieved by converting the slider values within a range to the midi notes only belonging to a “scale” (for example Major scale as shown below) making the notes in A major scale equidistant from each other. The equidistant notes all belonging to a scale may make it easier to play along with. In the figure below, all the notes between two Major notes are still playable thus we still can play vibrato.

Since, Max allows an easy way to do it there’s no harm incuding a quantized version of the scales over (-semitone/2) to (+semitone/2).

Challenges: Changing the scale will change the visual placement of the notes on the slider board. I will use a colour coded representation of keys and stick to fewer scales for now.



**Figure 1**

1. **Inadequately mapped glove parameters** – I can create combinations of accelerometer & gyroscope values from the glove to control more parameters than just the envelope

I plan to apply these mappings to

1. panning
2. delay time
3. EQ
4. **Reverb –** Ondes Martenot has three different speakers; gong reverb, palm diffuser reverb and normal speaker. I want to emulate these reverbs using convolution.

1. **Sound Generation Engines –** There is some scope for improving my sound synthesis engines by setting threshold to the output of engines and exposing some of their parameters to the player so get a wider variety of timbres.