21M.370 Digital Instrument Design
Lab assignment 7 - Due April 6 at 2:00pm

Deliverables:

1. A 1-page description of the the performance practices and modifications you created.
2. A link to a 1-2m video of you performing with your instrument

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Assignment description:

This week we will be focusing on working more intensively with one of the instruments we have already created, either Knuckles, Capacit, or Chester.

The goal is for you to practice with the instrument enough to be able to identify specific gestures which produce reliably musical results (even if the results aren't 100% predictable). It is natural at this point to feel the tension between learning how to perform with an instrument and wanting to modify the instrument to respond differently. Try and maintain a balance of the two elements - spend as much time practicing with the instrument as thinking about and implementing modifications.

That being said, feel free to modify the instrument in any ways you would like. Some common things you might want to try:

1. add more tuning parameters to allow you to easily modify:
    1. linearly scaling the control data
    2. experimenting with different response curves (probably using the 6th argument to the scale() function in python)
    3. changing coefficients for lowpass filters
2. exploring the parameters for the automatonism patches
    1. including adding additional automatonism modules

3. Modifying the mappings so the sensors control different synth parameters
4. Adding additional sensors to an instrument
5. Changing the physical layout of sensors

Don’t feel like you need to do all or even any of these! They are just ideas to consider - practice with the instrument for a few hours before formulating ideas for modifications.

Before class on wednesday, make another video demonstrating your evolving performance practice and modifications, and write a short 1-page report discussing your experiences.

For reference, here is a video giving an example of creating a new mapping which controls pitchGlide with a combination accelerometer magnitude with values set using a slider in the PD ctrl patch.