SuperConductor

Bryan Martin   Crystal Wong   Mason Lorenz
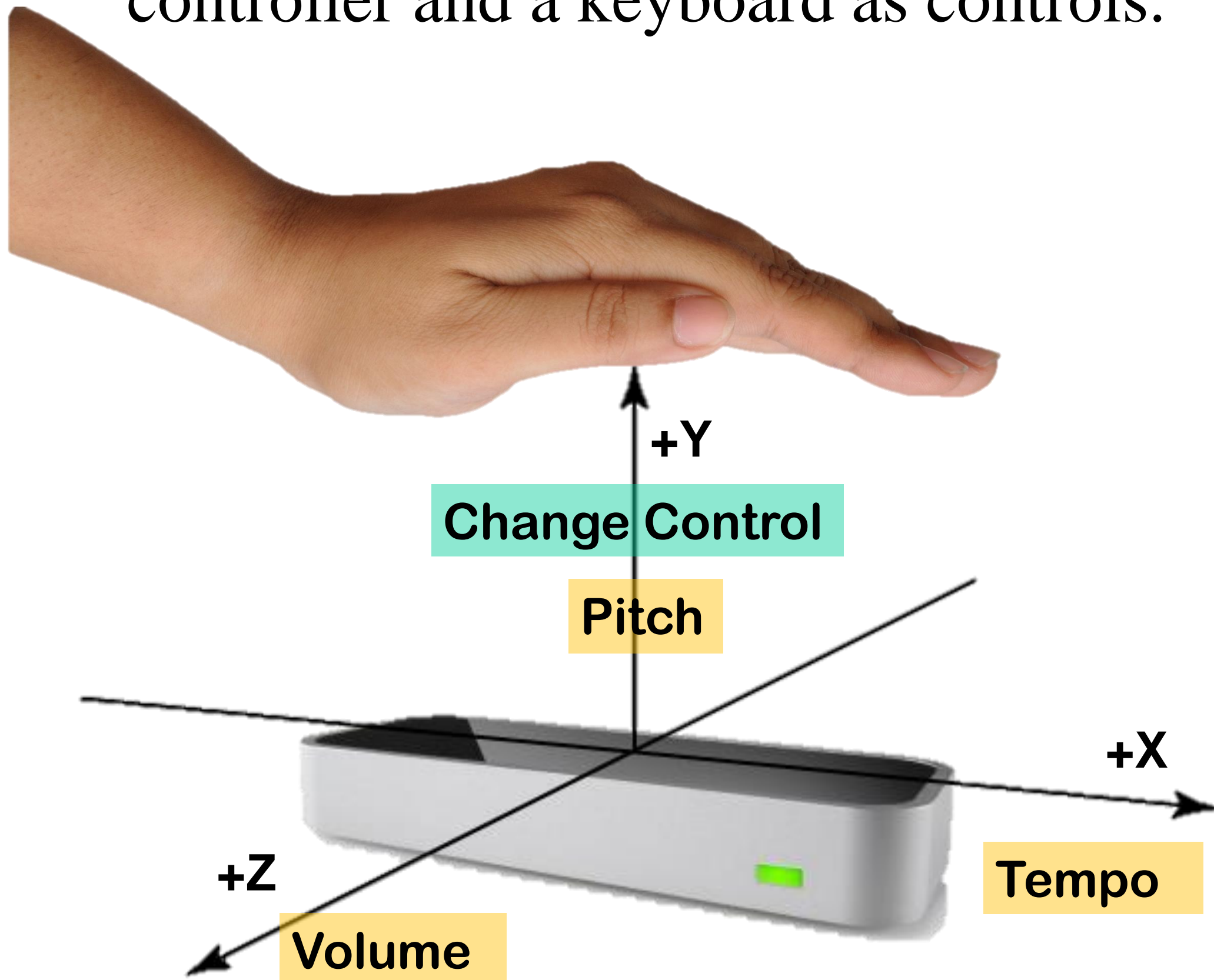
Controlling music with hand gestures

Usage

SuperConductor uses both the Leap Motion controller and a keyboard as controls.

+Y
Change Control
Pitch
+X
+Z
Tempo
Volume

Precise Control Change   Conduct Tempo

Special Control (Hold)
Edit Control (Hold)

Control Change: W – Up, S - Down
Restore Default
Track Change: A – Down, D - Up

Goal

- SuperConductor allows the interaction and manipulation of MIDI music with motion gestures through the Leap Motion controller in real time.
- This allows people with little or no musical background to play with their music – without needing to learn complex audio editing software.

Description

- A song's pitch, volume, and instrument can be controlled either on a per-track basis or globally (all tracks).
- Song tempo can only be set globally. Tempo can be set with a conducting motion over the Leap Motion controller.

SuperConductor

Now playing: lady_gaga-monster.mi   Select file

VOLUME: +12   +21
PITCH: -2   -3
TEMPO: 118
INSTRUMENT: Tuba

TRACK: 9   All
PROGRESS: 24.28%

Play   Pause   Stop

Keys:
E - Change value
Q -
A, D - Select track
W, S - Select control
Space - Restore default

Future Work

Additional features that would be interesting to add in the future are:

- Ability to save changes to a song so users can share their creations with others.
- Support for standard audio formats like mp3.
- Ability to create music from scratch, or add to existing songs.