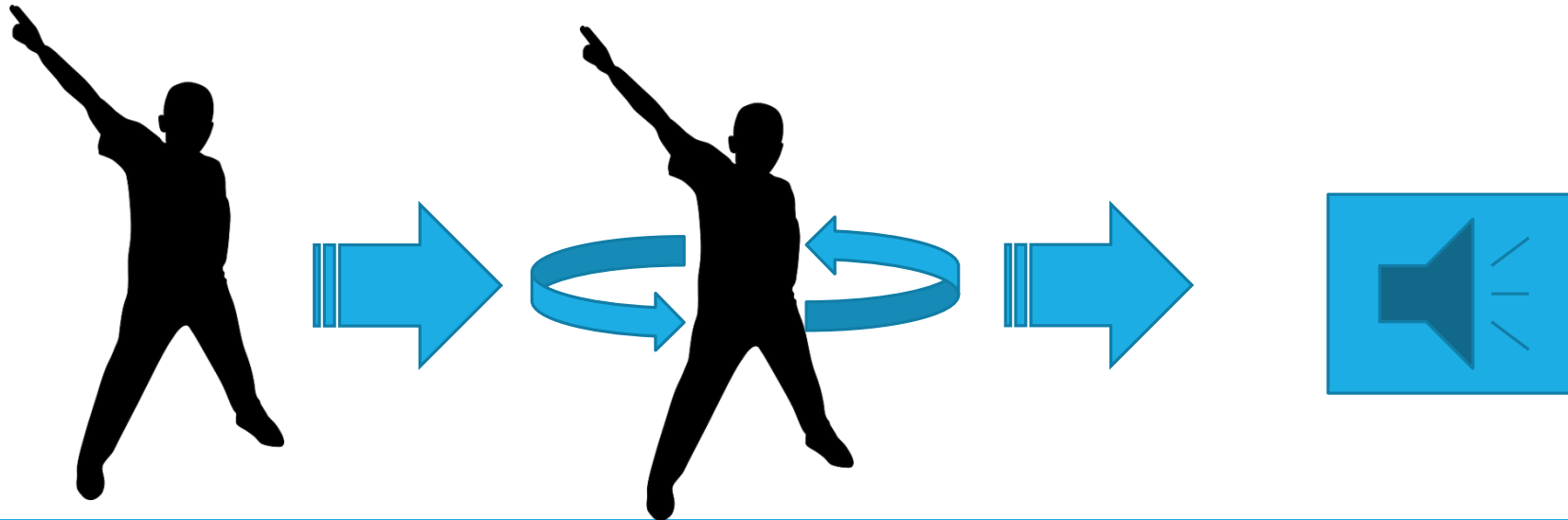# Audio Manipulation with Kinect v2

PETER CHEN

Motivation and Goal

- Movement, sound, and dance have potential to be linked together with sensors.

- Use Kinect joint tracking and manipulate an audio stream.

Related Work

- Beat Farm
  - Add effects to music with phone accelerometer.

- DimSong
  - Change intensity of music based on motion.

- Synapse Kinect
  - Virtual Instrument Player

Approach

- Augment dancer movements with sound.
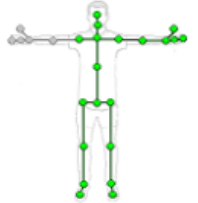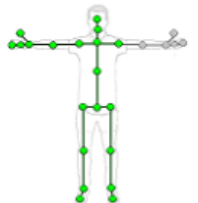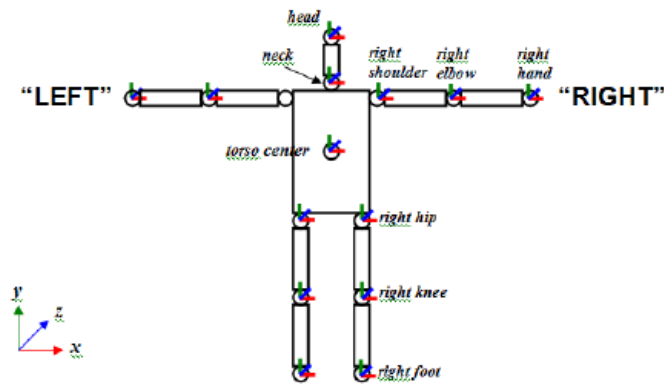- Different from using user movement to play instruments.
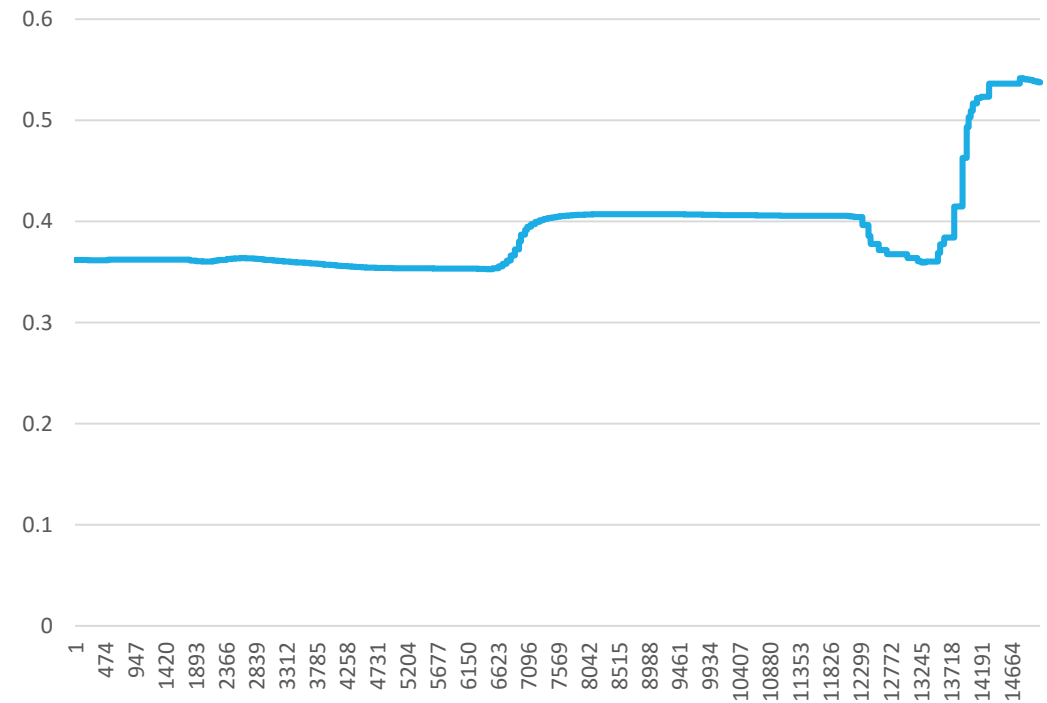
 ≠ Instrument
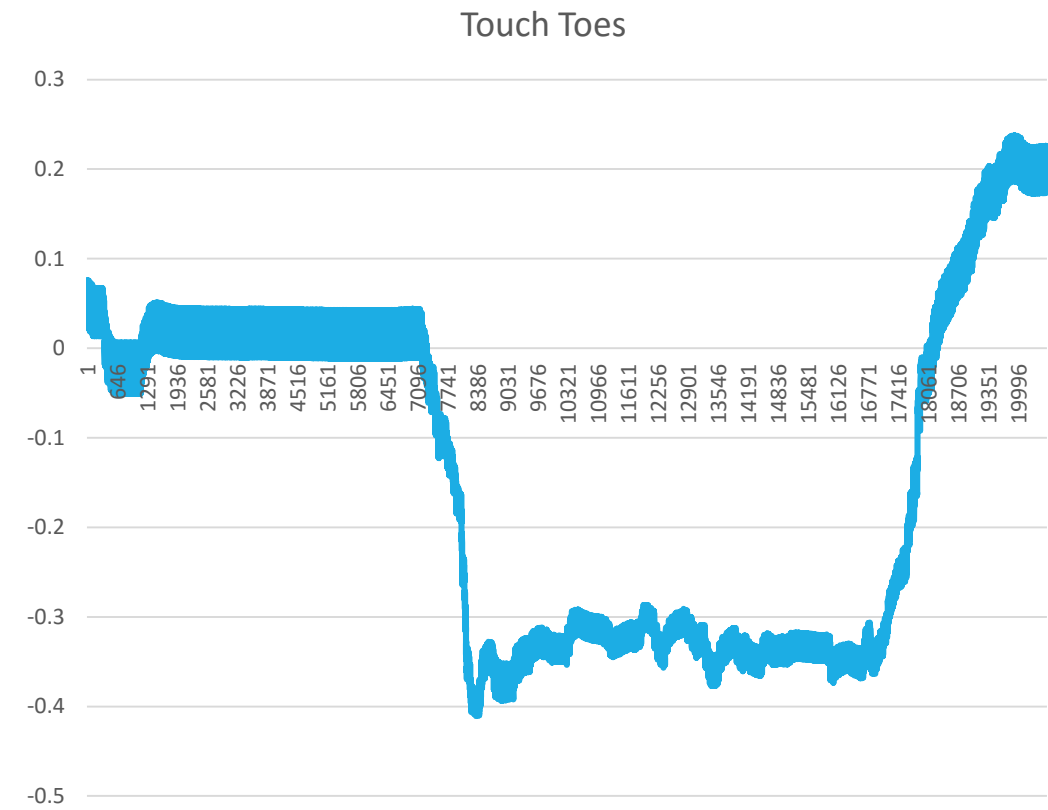
Plan

- Max MSP 7
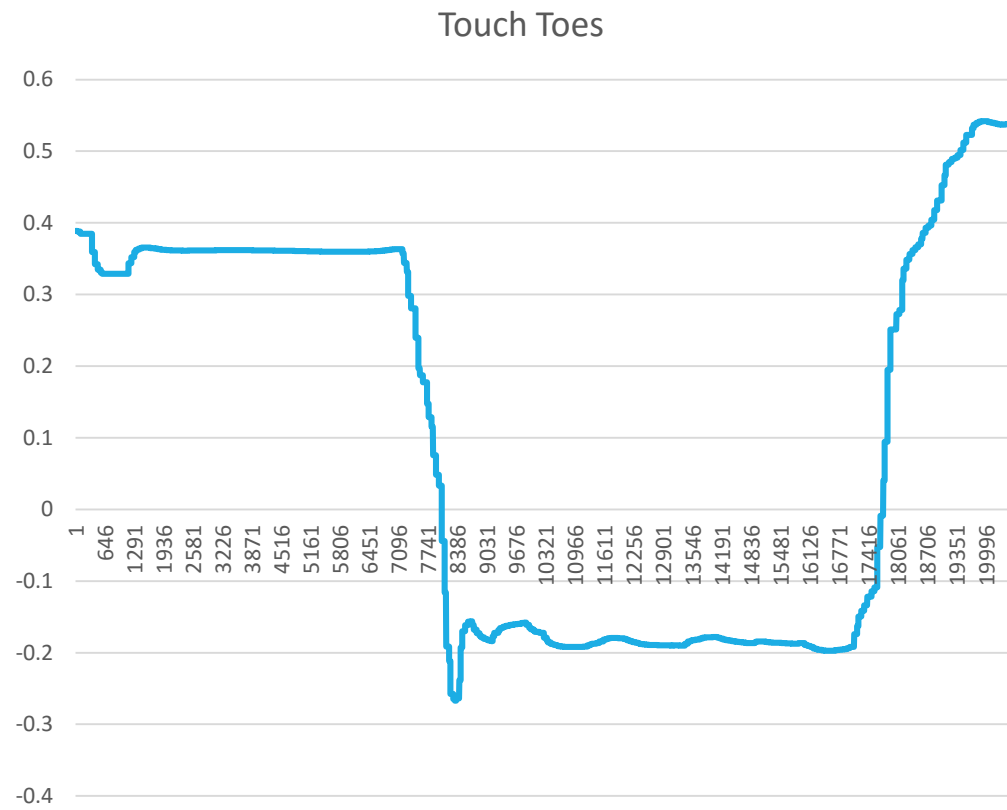- DP Kinect
- MXJ Java External
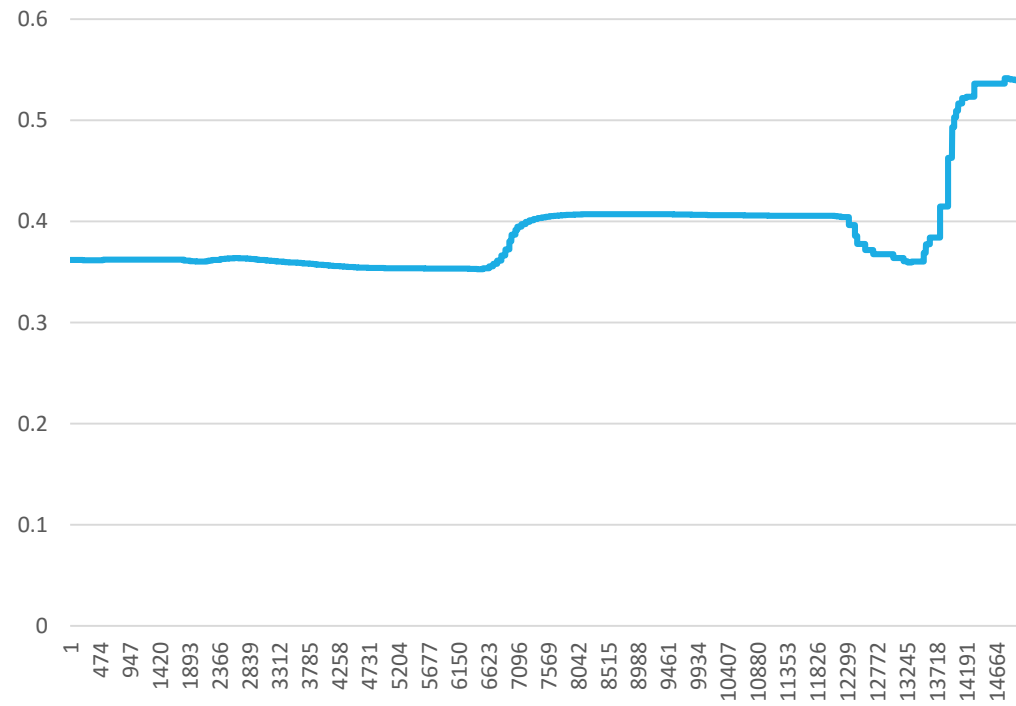
Results

Stand, Sit, Stand/Turn Around, Sit
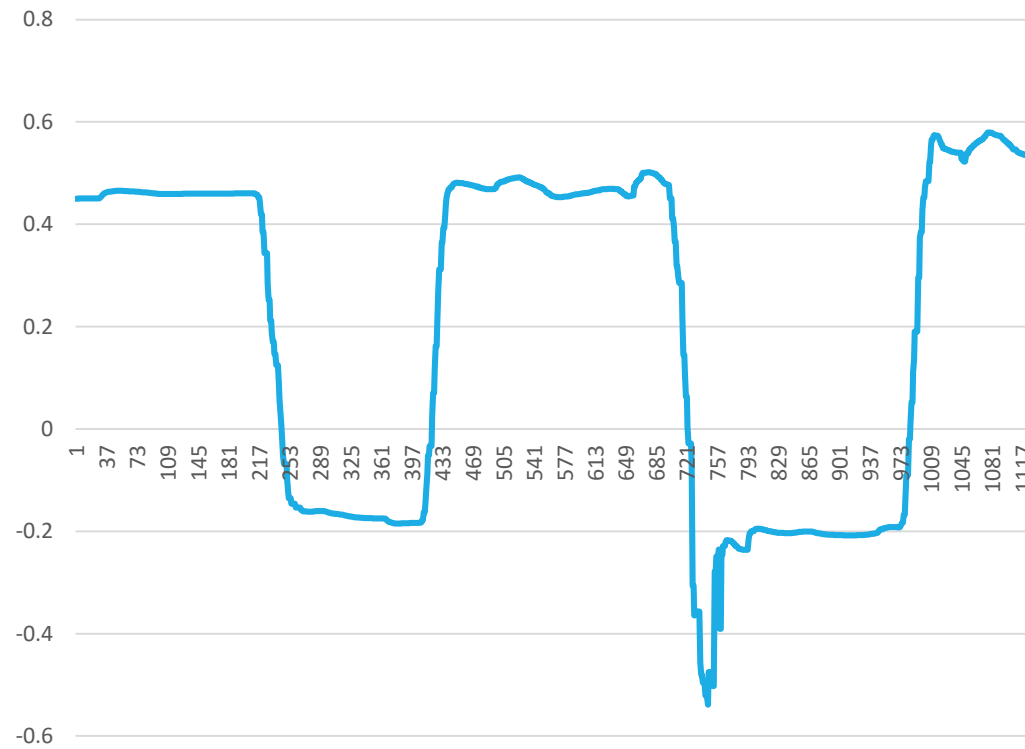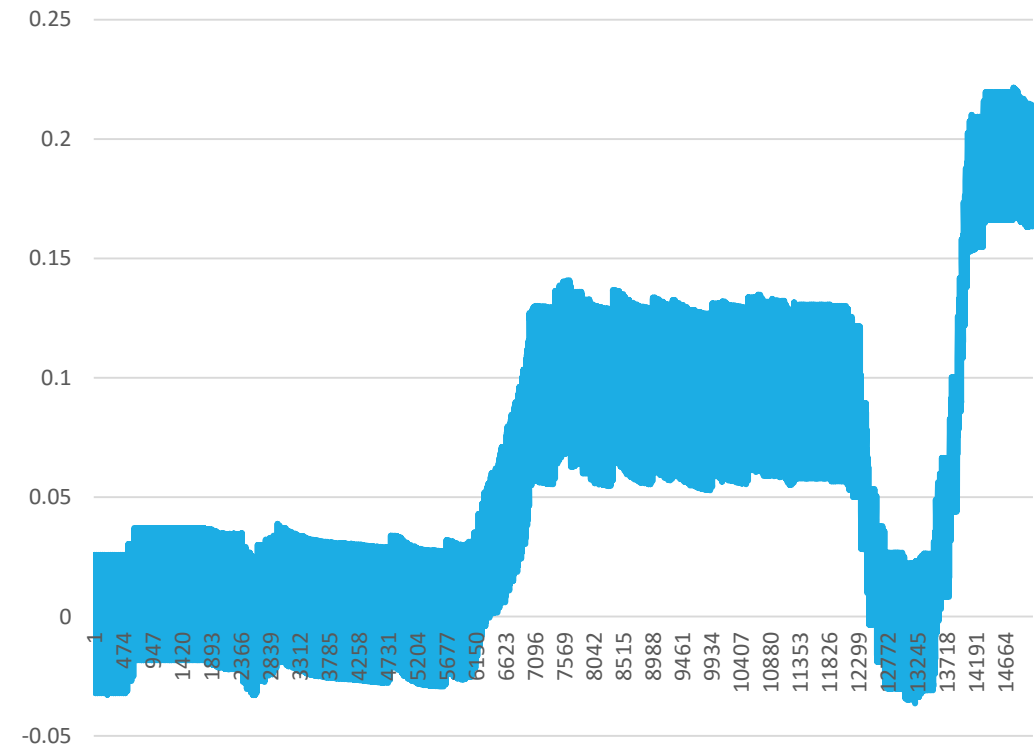
Original Center of Mass (Stand, Raise Arms, Stand)

Touch Toes

Touch Toes

Original Center of Mass (Stand, Raise Arms, Stand)

My Center of Mass (Stand, Raise Arms, Stand)

Evaluation

- Compare center of mass
- Filter data and compare performance
- Survey user experience.
- Ask users to imitate sample tracks.
- Give participants high-level goals, and ask others to rate participants.