

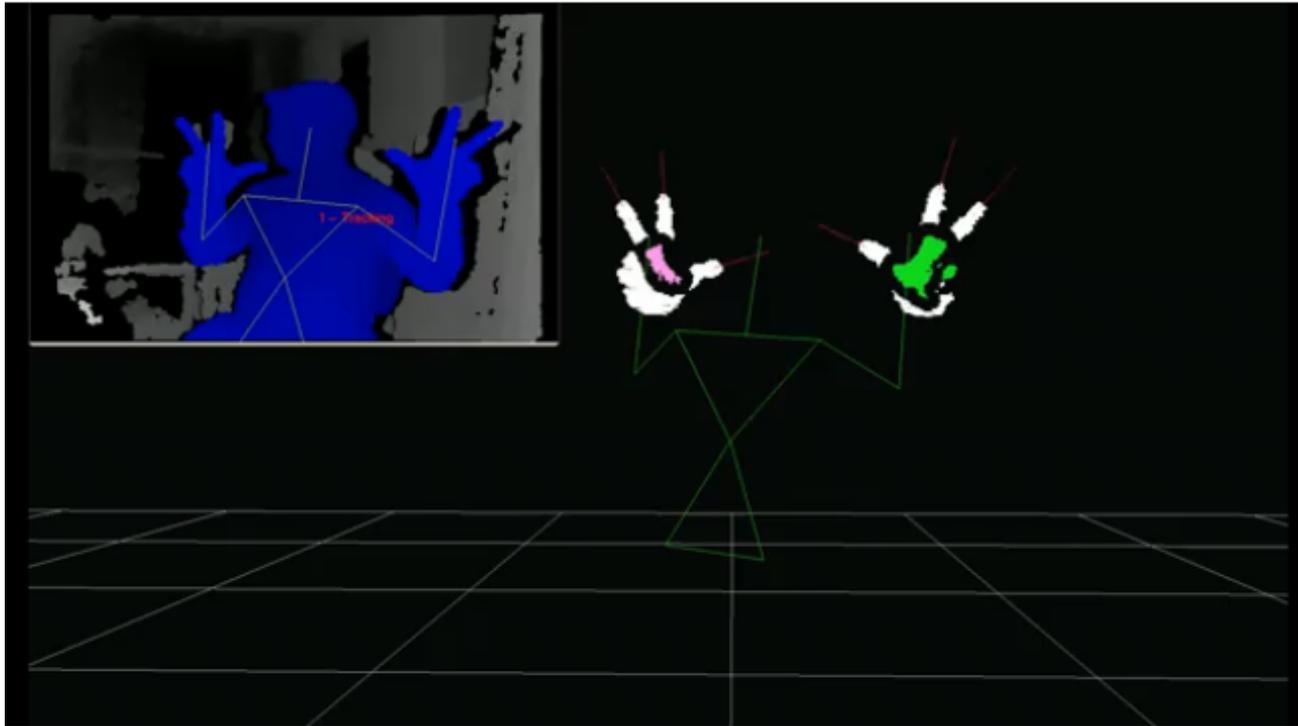
# ESE 350 Final Project - Idea

## KINDUCTOR

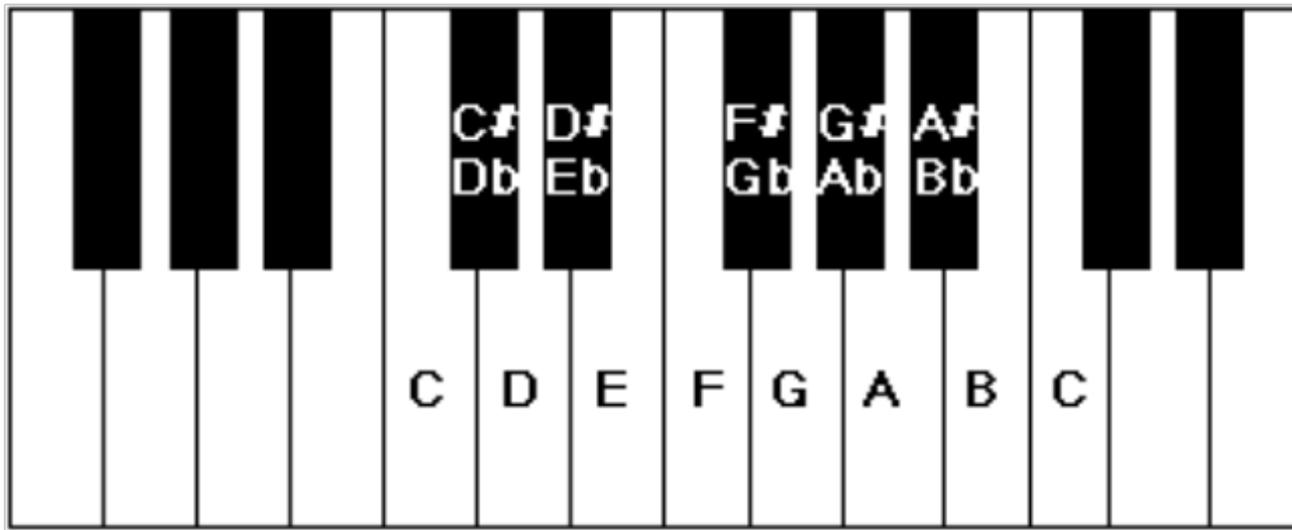


By Philip Peng and Eric Chen, 2011-04-06

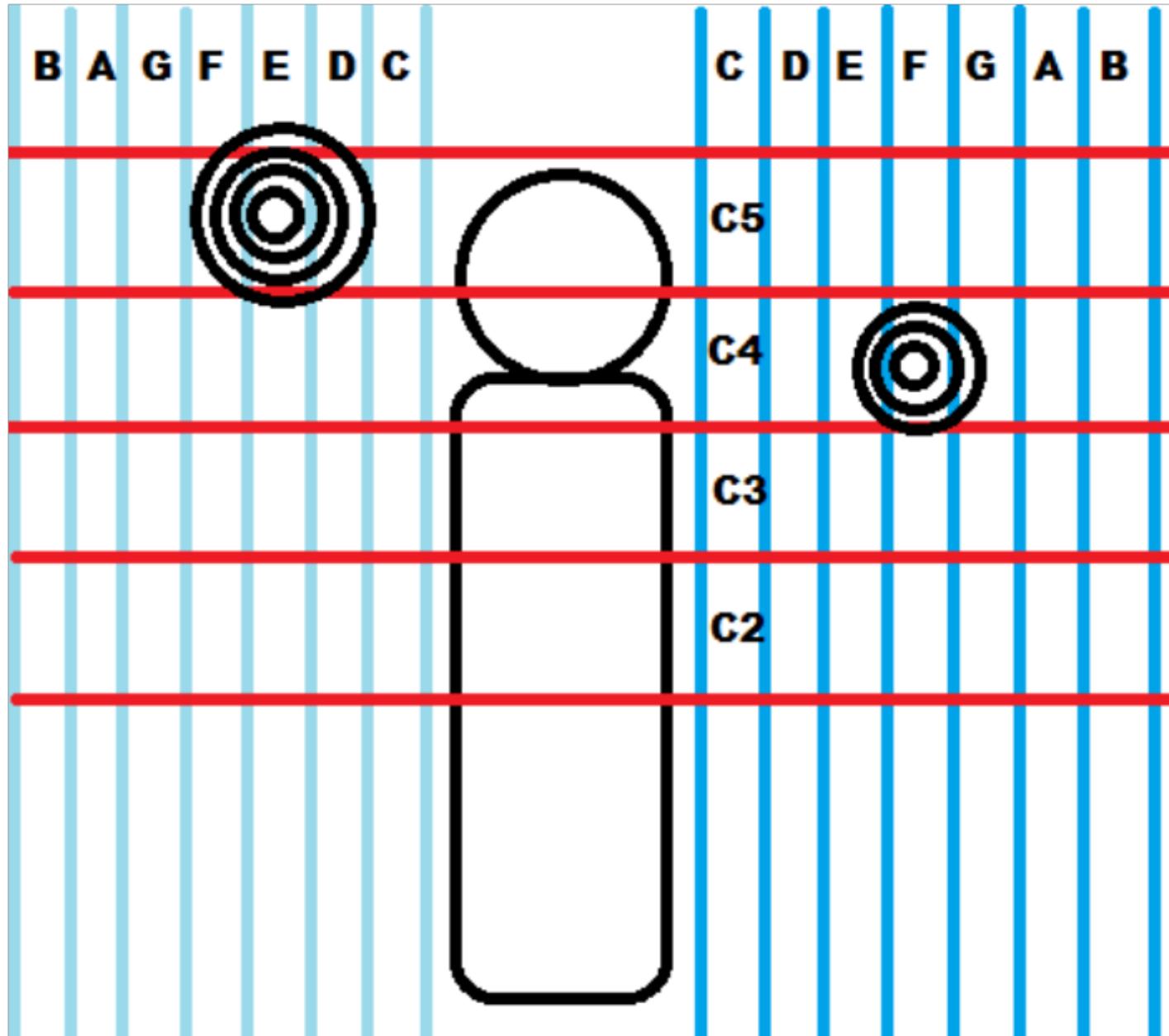
# Kinect + Wild Hand Moving = Music?



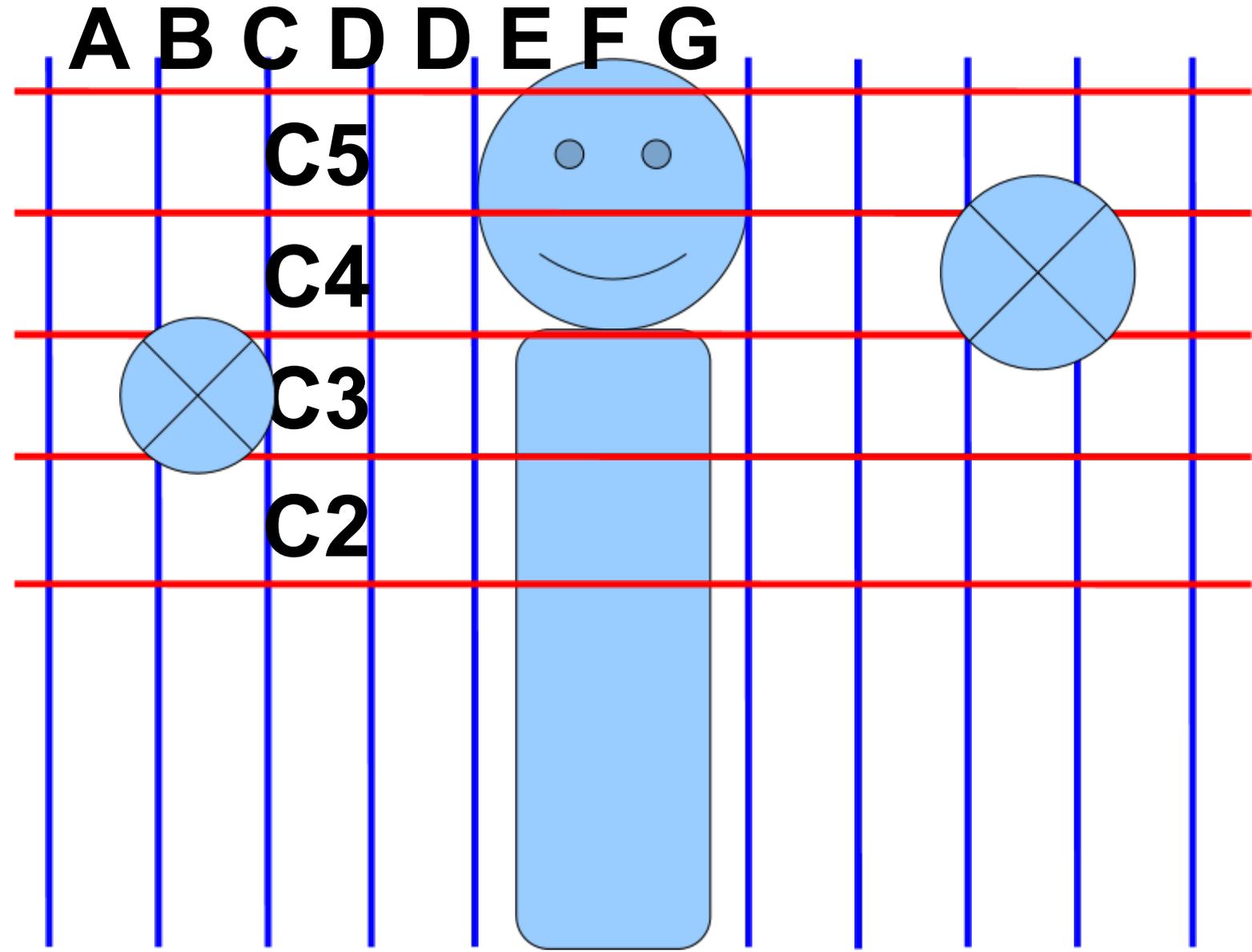
(X, Y, Z)  
Values  
Turn  
Into  
Piano  
Notes!



# Concept “Art” Idea #1 (in MS Paint!)



# Concept "Art" Idea #2 (in Powerpoint!)



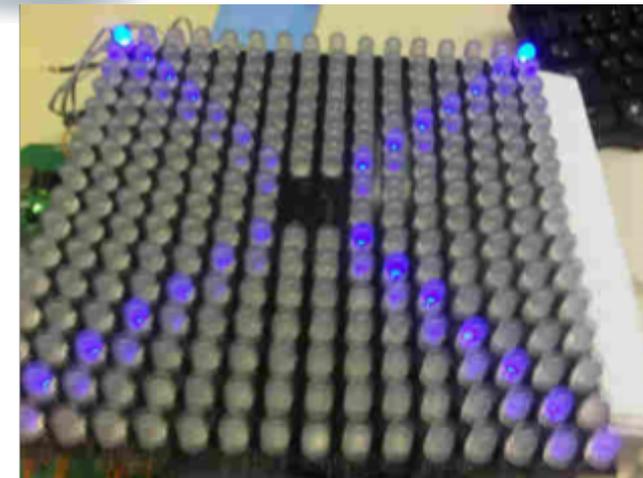
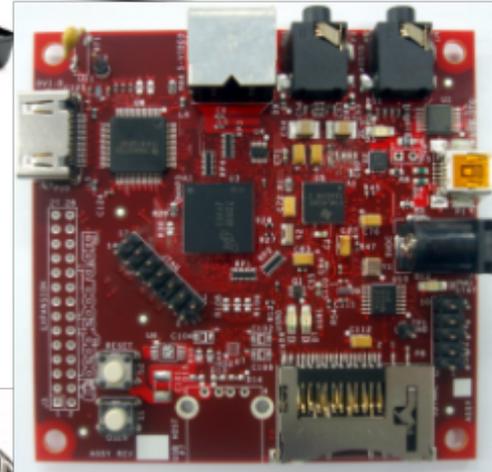
# Components

Kinect: detect hand  $dX, dY, dZ$  from body

Beagleboard: process which “boxes” hands are in and control speakers

Speakers: Playback sound with varying frequency (X,Y) and amplitude (Z)

LED Display: Show active note and volume level



# Steps

- 1) Obtain all four components (from prof?)
- 2) Kinect, Beagleboard, and LED display communication
- 3) Central body detection and hand detection
- 4) Experimentally determine box boundaries
- 5) Track two hands at once
- 6) Output sound to speakers
- 7) Play around with sharps and flats
- 8) Play around with different kinds of sounds/instruments
- 9) Add special gestures/settings
- 10) ???

