

Microsoft Kinect Lecture/Workshop!

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Pre-Reqs for doing a Kinect project

- ▶ Windows 8+ computer
- ▶ Kinect hardware (reach out to Prof. Kelly/me)
- ▶ Visual Studio >2017 (not code!)
- ▶ Anaconda >5.0.0
- ▶ PyGame
- ▶ PyKinect2
- ▶ A passion for neato stuff

Installation Guide/Starter Code

https://github.com/fletcher-marsh/kinect_python

- ▶ Handout.py is the starter file
- ▶ Installation guide/other info at the bottom

The background features abstract, overlapping green geometric shapes, primarily triangles and polygons, in various shades of green, creating a modern, layered effect on the right side of the slide.

What Kinect can do...

Facial Tracking

Skeletal
Tracking

Player Isolation

Player Speech

Depth Map

Positional
Audio

Speech
Recognition

Color
Camera

IR Camera

Microphone

Skeletal Tracking

Skeletal
Tracking

- 25 joints
- 6 players

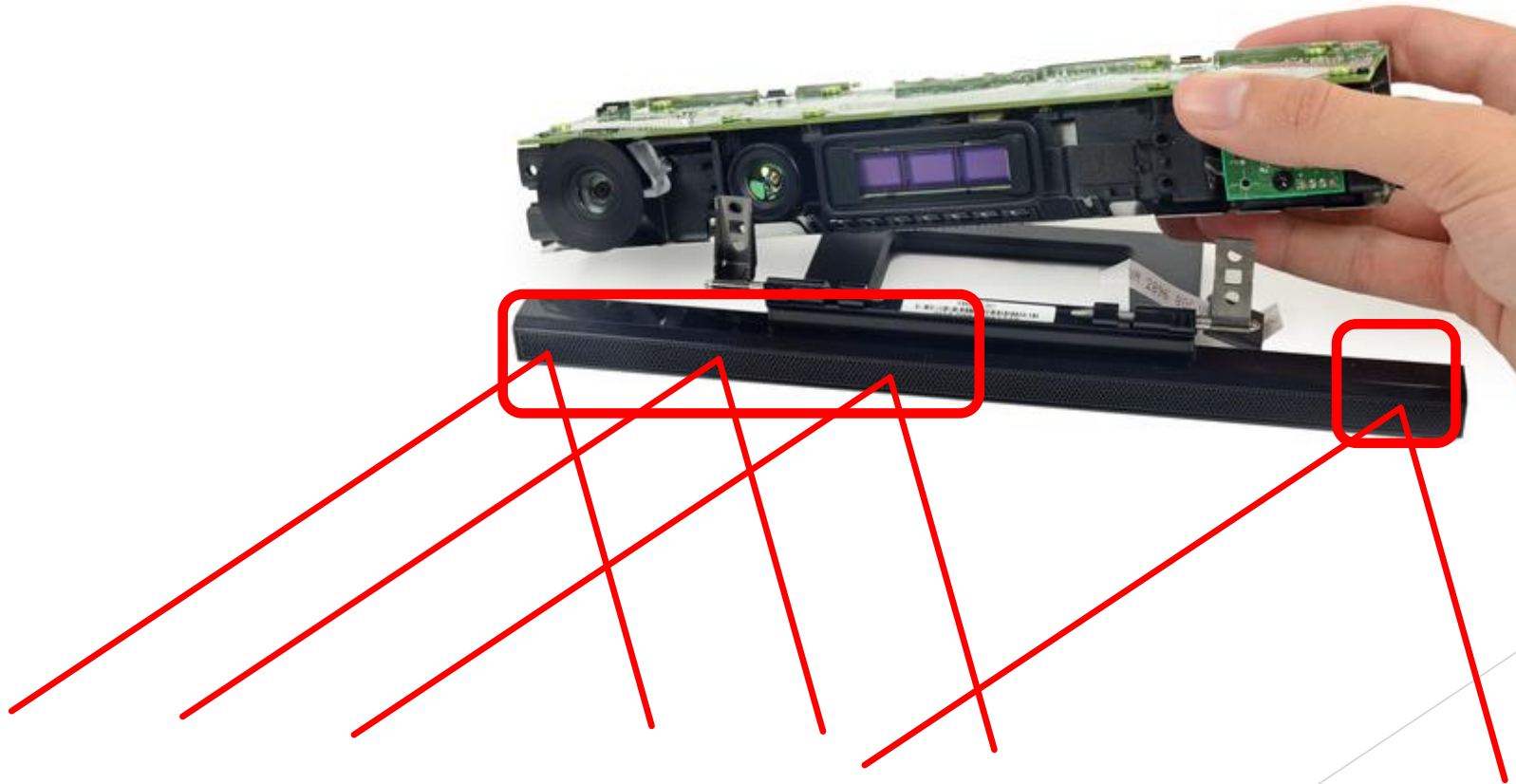


SDK Example

Positional Audio

Positional Audio

- 4 Microphones
- In a separate Microphone Bar



SDK Example

- ▶ Easy-peasy access to body shape
- ▶ Easy-peasy access to hand formations
- ▶ Easy-peasy location audio
- ▶ So let's make Flappy Bird!

Demo

Quick Run-through of what is in the starter file

- ▶ GameRunTime class
 - ▶ Variables
 - ▶ Screen stuff
 - ▶ Hand stuff
 - ▶ General game state stuff
 - ▶ flap
 - ▶ Helpers
 - ▶ drawColorFrame
 - ▶ run

Demo of handout

What we have to do:

- ▶ Detect 'flaps'
- ▶ Move the bird/pipe
- ▶ Collision checking

COOOOOODE