CSE 165: 3D User Interaction

Lecture #14: 3D UI Design

Announcements

- Homework 4 due this Friday
- Homework 5 preview
- Input devices can be returned on Friday, in office hour, or after final presentation
- Zspace update

3D UI Design Strategies

Thus far…

- 3DUI hardware
  - Output
  - Input
- Universal 3DUI tasks
  - Selection
  - Manipulation
  - Navigation
  - System control
  - Symbolic input

But: The combination of techniques and devices alone does not guarantee an enjoyable experience!

3DUI Design

- Microlevel: implementation
  - 3D interaction programming: hard!
  - Testing: difficult and hard to automate
  - Tweaking UI parameters: important but time consuming
- Macrolevel: guidelines
  - Strengths and limitations of human psychology/physiology
  - Common sense
  - Rules of thumb
  - Example: people naturally use 2 hands, so using 2 hands in a 3D UI might improve usability/performance