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ENT 4430

Final Project Proposal

My proposal for my final project is to have a 3D modeled cube be manipulated by a user through the use of Leap motion, which is a software that tracks users hand movements though a LeapMotion controller that connects to a Mac or PC, and acts as a sensor bar . Both the 3D model and Leap motion would be integrated together through Unity. The users hand motions would communicate with the cube and makes it behave / animate accordingly. For example, if the user were to close their fist or bring their hands together, it would condense the cube and make it smaller and smaller until eventually it gets crushed into dust if the user keeps their hand closed long enough. Other possibilities of these animations could be moving the cube with the motion of 1 hand, using 2 hands to change the size by either pulling or pushing in the edges of the model, or possibly changing the color by tapping it with just a finger. Using unity to create the 3D model and then integrate it together with the Leap motion, my goal for this project would be to have a working user interaction between user movements and digital models.

 **Deliverables / Materials**

* Unity/Maya
* 3D Cube Model
* Leapmotion SDK
* Leapmotion Controller

**Deadlines**

* Material Acquisition / Software Familiarization(1 week )
* Digital Construction / Coding of 3D Model Cube (Animations) + Testing (2 Week)
* Programming / Integration of Motion Interaction LeapMotion with Model (4 + Weeks)
* 3D Model Animations Based On User Motion ( 2 Weeks)
* Testing/Debugging ( 4 + weeks)

**Budget Estimate / Expenses**

- $90 LeapMotion Controller For Mac/PC