

iCreate - Generative Design in Architecture



Group 61: Hannah Solorzano, Nabeel Shariff, Rhea Mae Edwards

Project's Purpose and Goals

- Intuitive user interface and generative design,
 - offer user a way to turn sketches and gestures into complex 3D objects and structures.
- Allow the user to interact with the virtual environment.

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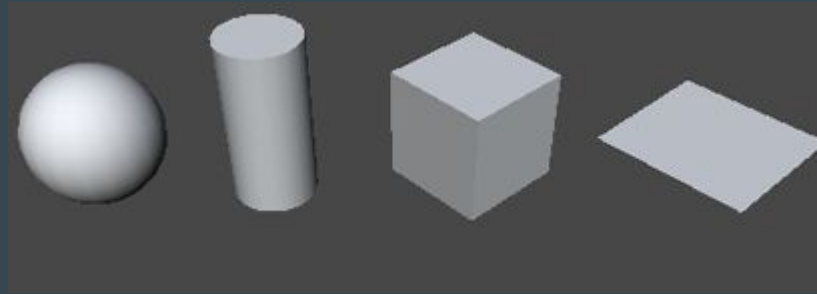
Hannah Solorzano

Current Status - H

- Graphics Card
- Development Environment
- User Input Controls

Current Status - H

- Able to spawn game objects



[1]

Current Status - H

- Able to spawn game objects

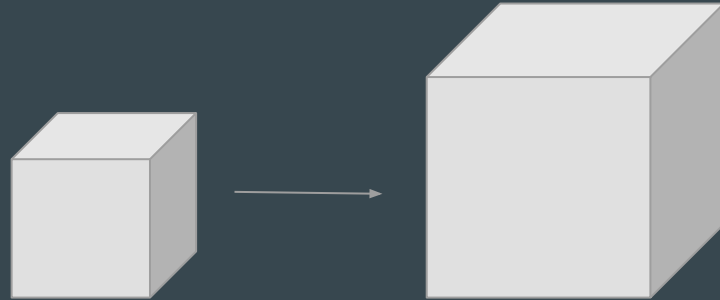
- Can manipulate objects

Remaining Features for Development - H

- Movement around the environment

Remaining Features for Development - H

- Movement around the environment
- Resizing objects



Problems Impeding Progress and Their Solutions - H

- Organization and flow of the UI

Problems Impeding Progress and Their Solutions - H

- Organization and flow of the UI
- Learning curve

Interesting Code Snippets - H

- Ability to create several types of 3D objects
- Ability to grab an object

Interesting Code Snippets - H

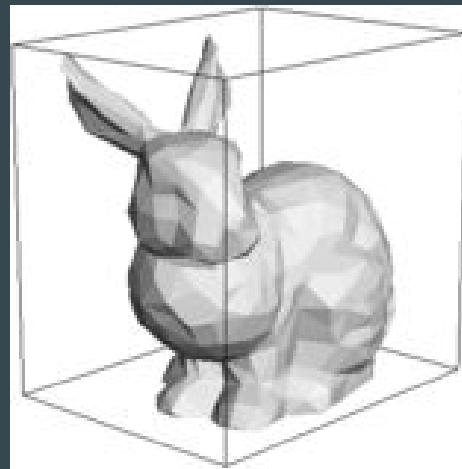
Requirements for the ability to grab an object:

- Bounding Box

Interesting Code Snippets - H

Requirements for the ability to grab an object:

- Bounding Box



[2]

Interesting Code Snippets - H

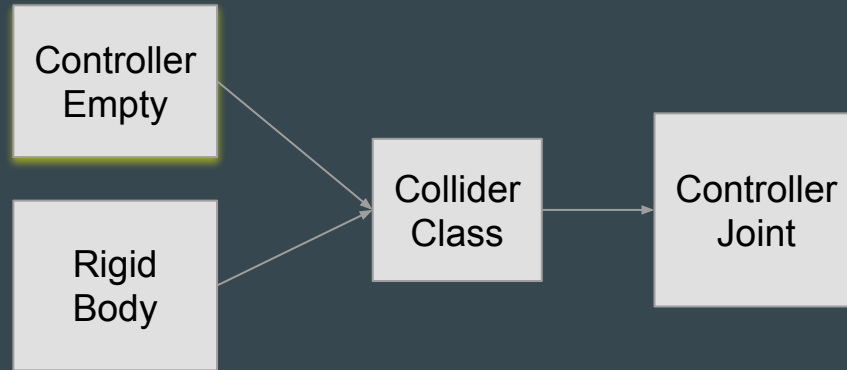
Requirements for the ability to grab an object:

- Bounding Box
- ControllerGrabObject.cs

Interesting Code Snippets - H

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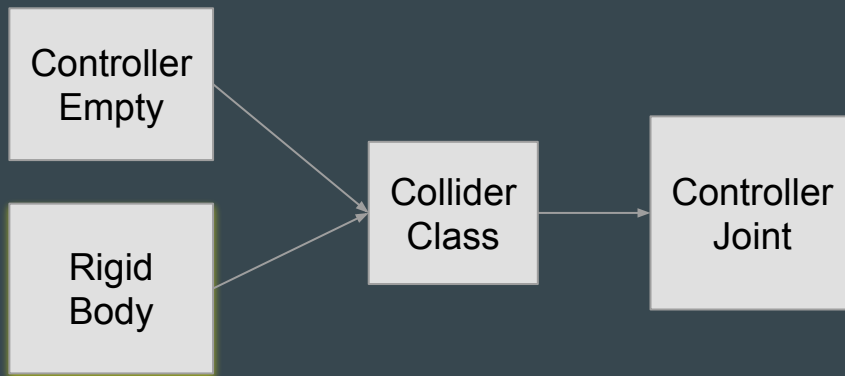
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Interesting Code Snippets - H

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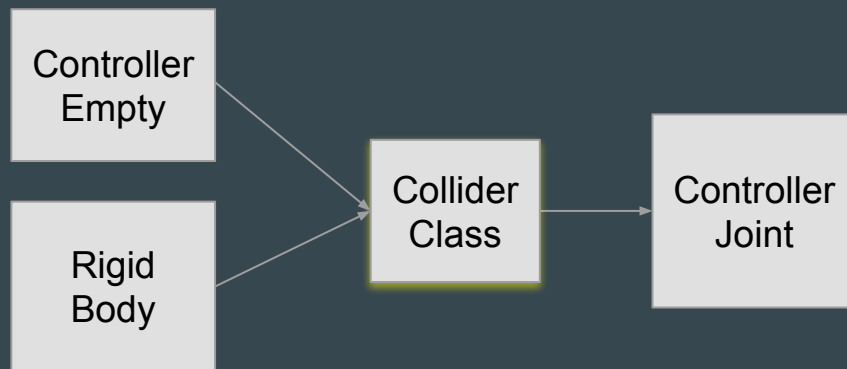
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Interesting Code Snippets - H

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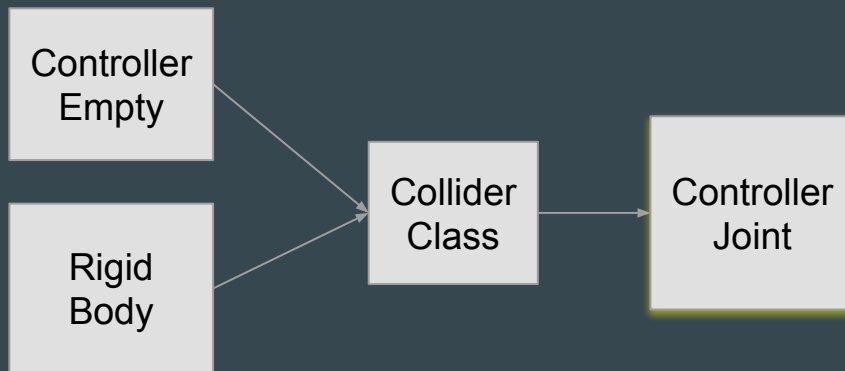
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Interesting Code Snippets - H

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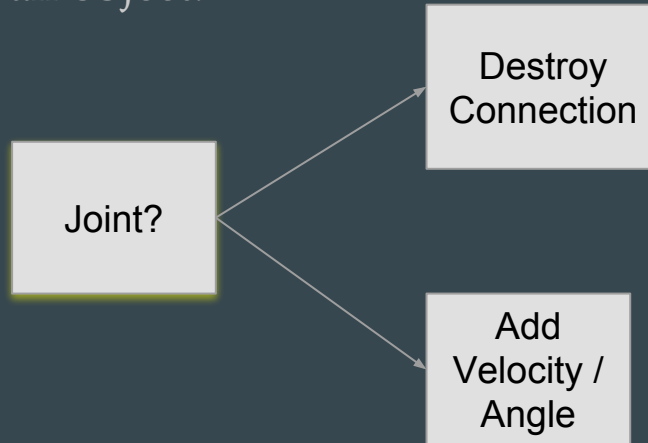
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Interesting Code Snippets - H

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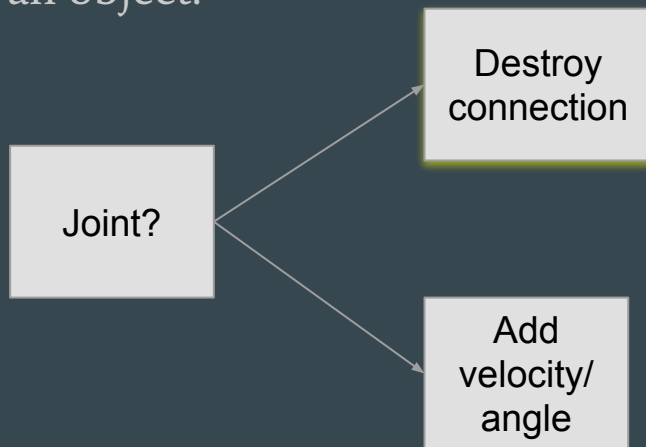
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Interesting Code Snippets - H

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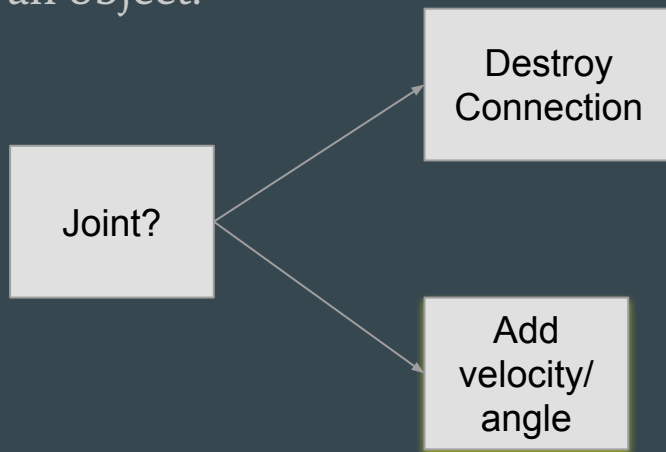
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Interesting Code Snippets - H

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References

[1] Forum, M. (n.d.). Bounding Box [Digital image]. Retrieved February 16, 2018, from http://mathforum.org/mathimages/index.php/Bounding_Volumes

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Nabeel Shariff

Current Status

- User interfaces
- Save and Load
- Curves

Pending work

- Polish user interfaces
- Finish save and load
- Implement load button
- Curves
- Design document
 - Class and event diagrams

Challenges and Solutions

- Curves and 3D objects
- Team communication
- Developing in VR is both awesome and tough.

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Rhea Mae Edwards

Current Status - R

- No working implementation code contributed
 - Tutorials and Research
- Engineering Expo Poster Draft
- Preliminary Design Document
- Technology Review and Implementation Plan
- Meeting Notes
- Sending out emails
- Current Goal:
 - Implementing circle curves, ellipse curves, and parabola curves

Remaining Features for Development - R

- Manipulating 3D Shapes
 - Creating Types of Curves
 - Apply 3D Shape to Curve
 - Save and Load/Read
-
- Done either individually, pairs, or group
 - Talked about beforehand

Problems Impeding Progress and Solutions - R

- It has been a **struggle**
- Misunderstanding, conflicting, and confused with client needs and wants
- Unable to have weekly meeting time
 - Busy and Overlapping Schedules
- Unable to test code together on campus

Interesting and Relevant Information - R

- No interesting or relevant discoveries yet to share
- Blinded by the daily struggle of not enough time