

CS174A Final Project Proposal

Team Name: Wii Sports For Dummies

Team Members:

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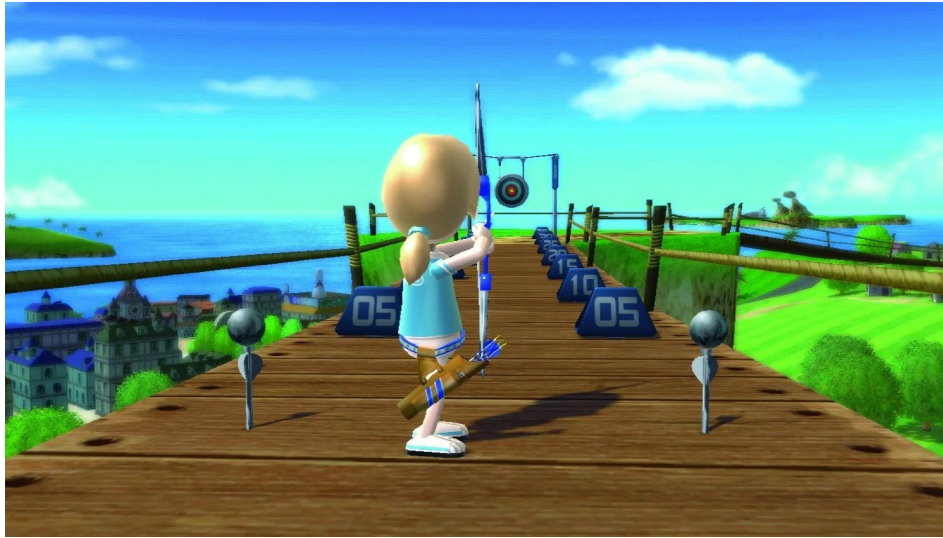
Team Representative:

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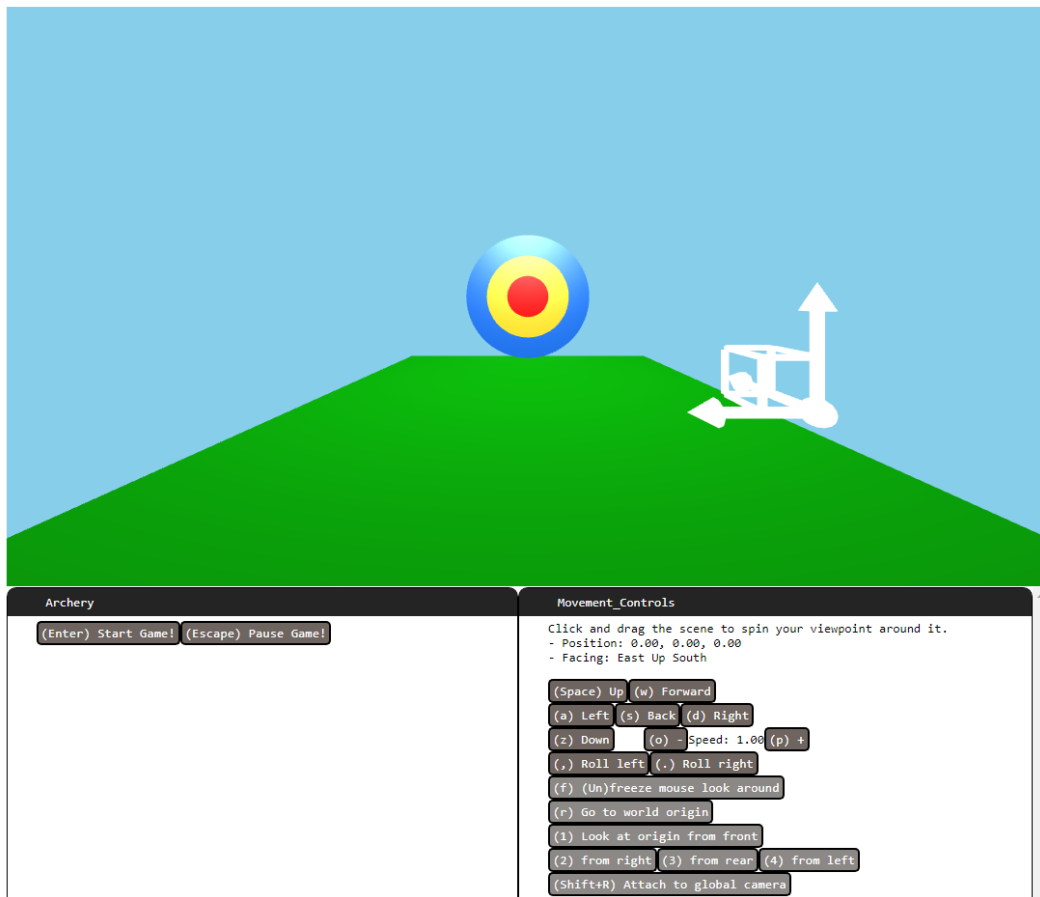
Introduction/Overview:

We would like to remake a childhood classic Wii Sports Archery, but with our own twist. The player would be in first-person point of view and would be required to draw back a bow, aim their shot in the y axis, and fire towards a target down lane. The more accurate the player is when it comes to hitting the target the more points they will accumulate. Hitting the outer ring will allot the player +1 point. Hitting the middle ring will allot the player +5 points. Hitting the inner dot will allot the player +10 points. There are 3 attempts per round and the round ends after the 3rd arrow. The highest score wins.

Screenshot of inspiration:



Screenshot of Alpha:



Topics Covered:

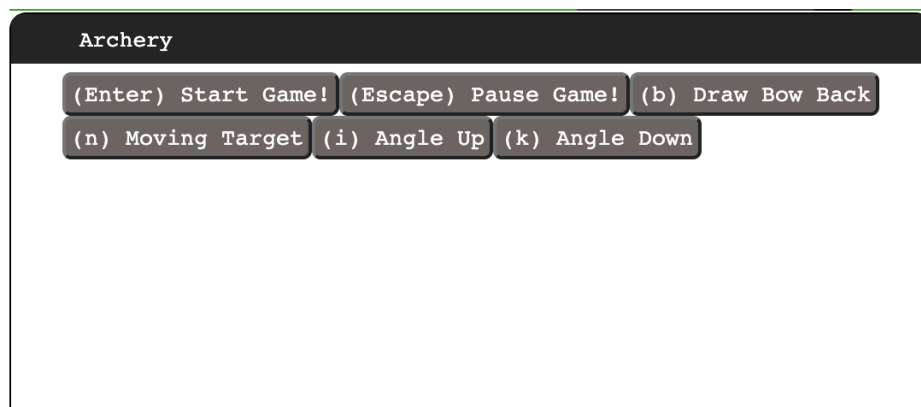
We will be using drawn objects, object transformation (alongside a time variable to create animation), shading, and lighting to create our game. One of our stretch goals is also to polish the graphics of our game using textures.

Technical Features:

The first advanced feature of our game is simulating the physics involved in projectile motion. When the bow is released, the arrow is fired at an initial velocity based draw length. For example, if the player releases the bow at the maximum draw length, the arrow will be released at its maximum initial velocity, but if the player waits too long or releases the bow immediately, the draw length will be at its minimum and the arrow will be fired at the minimum initial velocity. The arrow will then follow a projectile path based on its initial velocity, angle compared to the x axis, and the downward acceleration due to gravity.

The second advanced feature is collision detection. When a collision is detected between the arrow and one of the rings that make up the target, the player will receive points based on what part of the target they hit (see above for exact totals).

Interactivity:



For interactivity we began to add more functions and controls that the user can interact with that allows for them to adjust the strength of the bow draw and the vertical angle of the trajectory. To add an extra layer of interactivity, we also made the target move. The target now moves back and forth at varying distances from the player therefore increasing the difficulty of the game. One of our stretch goals is also to display the number of points earned by a user based on what parts of the target their shot hit, adding further interactivity.

