

CSS 450 Final Project

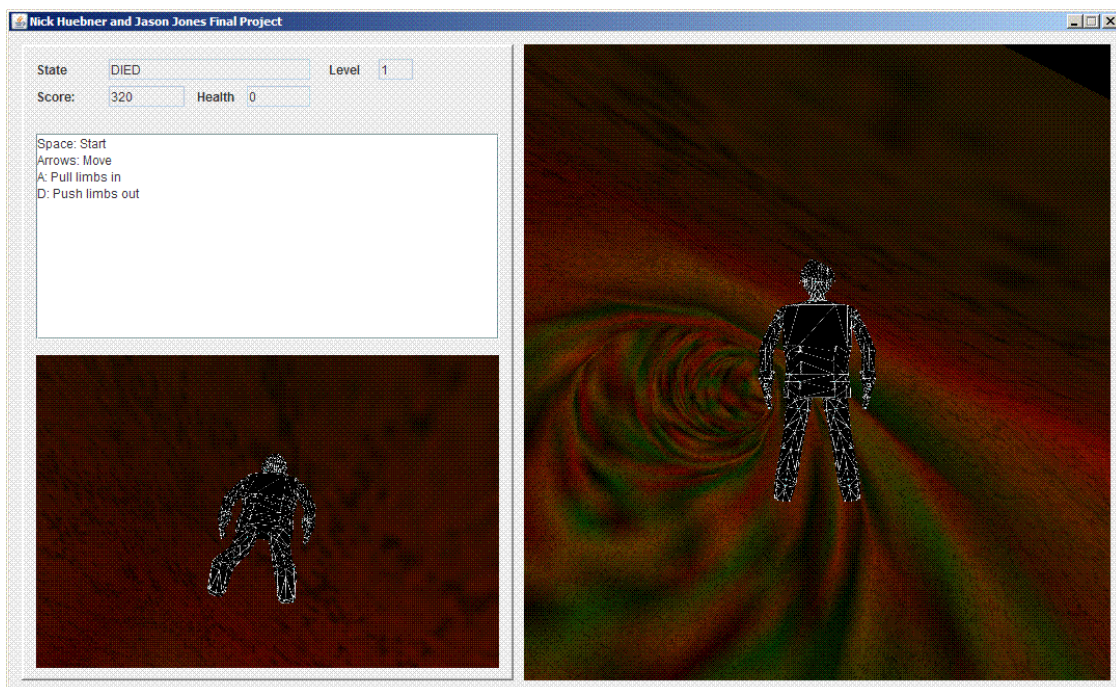
Team Members

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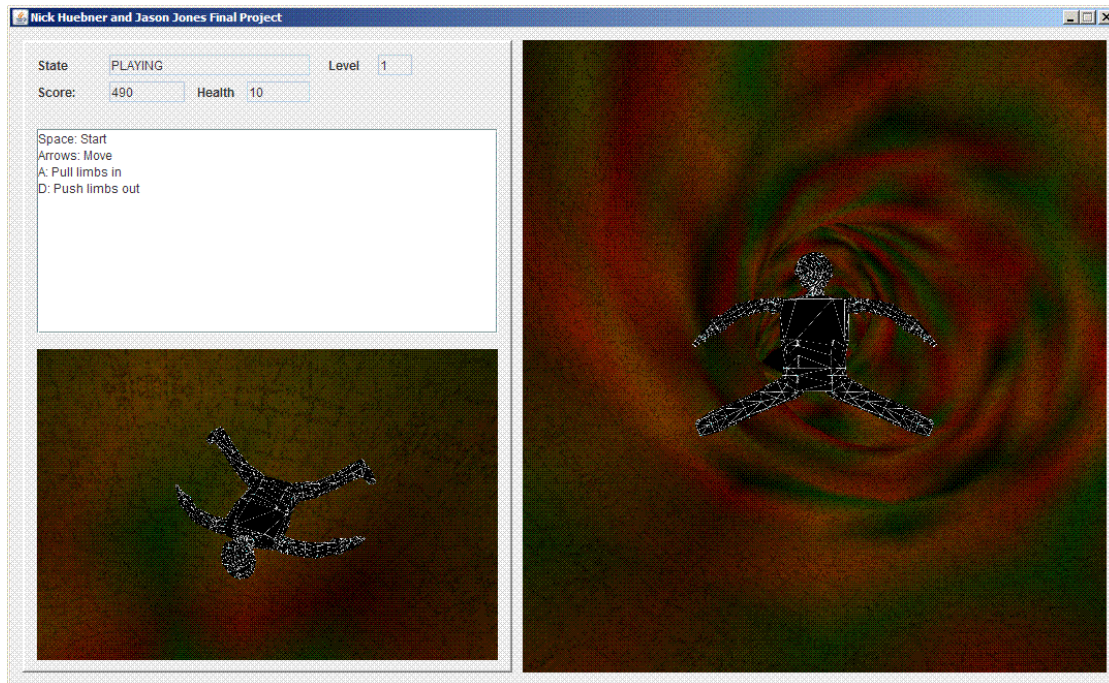
Description

In the game you are falling down a tube. Your objective is to avoid the walls and other obstacles that get in your way.

Screenshots



A view of the player with arms/legs folded mostly inward (less exposed)



A view of the player further down the tube (level) with arms/legs completely out

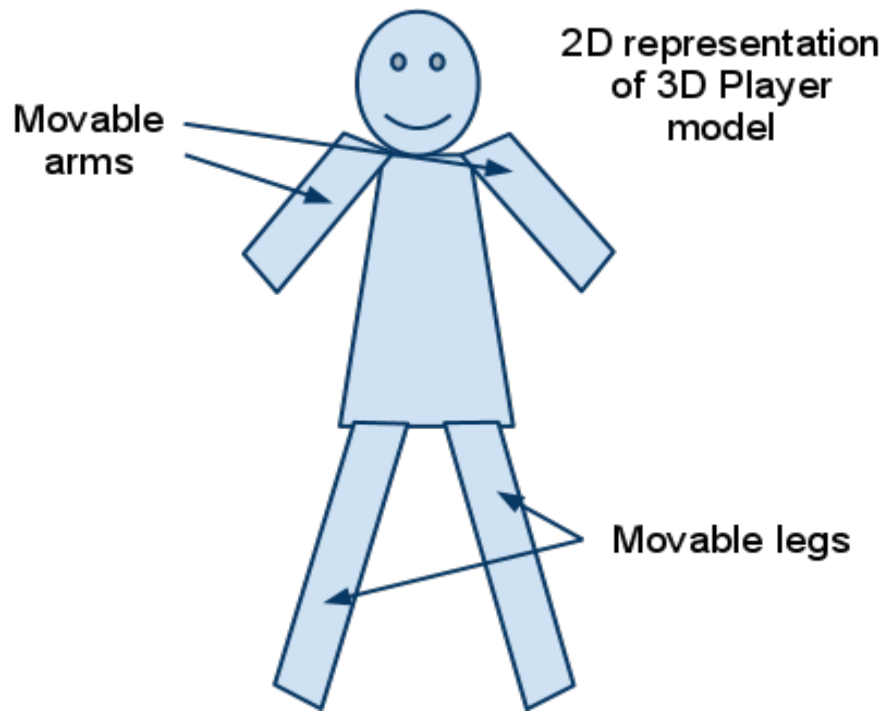
User Manual

Key	Function
Arrows (Left, Right, Up, Down)	Move player in corresponding direction
Spacebar	Begin level (drop guy), during level: pause game
A, D	Rotate the arms and legs inward/outward (clockwise/ counterclockwise)

Design of Objects

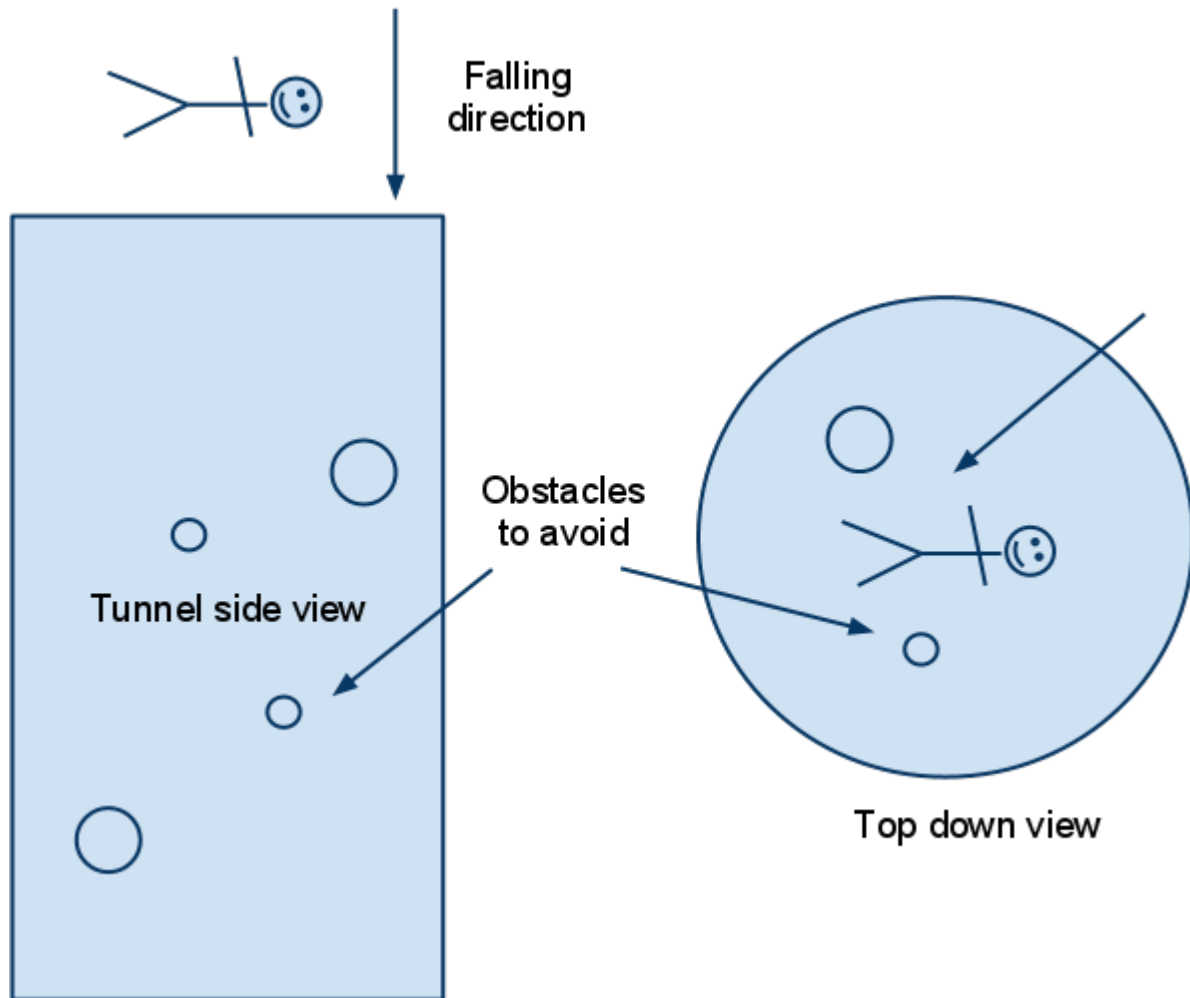
Falling Guy

The physical model of a player character is a hierarchical collection of 3D body parts. The root node is a so-called “Body” node, which has the torso, which has the arms and the legs all connected. Body parts can be rotated individually or altogether (by adjusting the root node).



Tunnel/Tube

Each level, the player is dropped at the top of a tube or tunnel structure and falls towards the bottom. The object of the player is to avoid obstacles in the tunnel but using the arrow keys to change position and using other keys to move his arms out of the way.



Evaluation

Bugs

There is currently an issue where if the player is too far out of the bounds of the tube, it will crash the game.

Limitations

- The collisions are done with strategically placed bounding spheres. Right now this is fairly coarse but could be improved to reflect the body better by using more and smaller bounding objects.
- There is no winning condition for the game, the levels continue to generate but with more difficulty for each level (like Tetris)

Possible Future Features

- Adding obstacles in the tube that the player has to avoid
- Adding a rotation element so that it is more interesting to try and maneuver around things

- More complex scoring
- Speed increases when arms are contracted (making the game harder when exposing less body area).