

CST-320 Technical Report - HCI Project Part 1

Period (10/25/21-11/7/21)

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Project Topic: 5

Activities performed this week (bullet points with explanations):

- The list below describes the individual responsibilities and basic activities performed for this CLC project:
 - Andrew
 - Draft Loading Screen Scene and Assets
 - Game Intro Scene Assets
 - Fire Extinguisher Obstacle Course Assets
 - Additional Scripts Assets for Game Functionality
 - Diego
 - Astronaut Player
 - Space Station Scene Assets
 - Space Kitchen Scene Assets
 - Space Walk Assets (with Ryan)
 - Space Invaders Assets (with Ryan)
 - Ryan
 - Film the Loom!
 - Space Skybox
 - Space Music Ambiance
 - Particle Effects
 - Space Fruit Slicer Assets
 - Mesh Slicing
 - Space Walk Assets (with Diego)
 - Space Invaders Assets (with Diego)

Project Plan

- Gather and create assets
 - 3D Objects
 - Scripts (if any)
 - Sprites
 - Materials
 - Particle Effects
 - Lighting
 - Sounds
 - Music
 - Sound Effects
 - Plugins & Packages
 - Post-processing
 - Animations

- Rigging
 - Projectiles
- UI
 - Menus
 - Scoreboards (Points, Timers, etc.)
 - Game Over Screen
 - Skybox
- Initial Scene and Asset Layout
 - General Assets
 - Space Skybox (Ryan)
 - Space Music Ambiance (Ryan)
 - Draft Loading Screen (Andrew)
 - Astronaut Player (Diego)
 - Intro Scene (Andrew)
 - Rocket Ship
 - 3D Object
 - Smoke Particle Effect
 - Explosion Particle Effect
 - Timer UI
 - Main Menu Scene
 - Space Station (Diego)
 - Hallway
 - Doors
 - Windows
 - Ceiling Lights
 - 3D Object
 - Effects
 - Space Kitchen (Diego)
 - Pancake
 - 3D Object
 - Multiple Materials to Simulate Cooking
 - Cooking Script
 - Frying Pan
 - Stove
 - 3D Object
 - Stove Flame Particle Effect
 - Space Walk (Diego & Ryan)
 - Space Station 3D Object
 - Space Walk Controls Script
 - Space Fruit Slicer (Ryan)
 - Various 3D Objects
 - Fruit
 - Toast
 - Candy
 - Fast Food
 - Slicing Particle Effects
 - Juice Effect
 - Food Effect
 - Fruit Spawning Script
 - Mesh Slicing Script
 - Fire Extinguisher Obstacle Course (Andrew)

- Fire Extinguisher
 - 3D Object
 - Fire Extinguisher Emission Effect
 - Controls Script
- Hoops
- Portal Cube
- Space Invaders (Ryan and Diego)
 - Prop Spaceship
 - Cannonball
 - Cannon
 - Cannonball Spawning Script

Overall progress (describe new knowledge acquired, successes, ideas generated, etc.):

- Skill Inventory Table

Item #	Who gained the skill/knowledge?	Explain Skill/Knowledge Gained
1	Ryan, Andrew, Diego	Learned how to create and move an avatar in VR
2	Andrew	Create a working loading screen (with Asynchronous functionality)
3	Andrew	Learned how to lock rotation values during runtime (for Camera and UI elements)
4	Andrew	Implemented group behavior and interactions for n amount of objects
5	Ryan	Learned how to add music in Unity; Implement a consistent background music for all Unity scenes in a project
6	Andrew, Ryan, and Diego	Learned how to manipulate animation rigs to create unique animated characters using NavMeshes
7	Ryan	Learned how to manipulate the Particle System editor in Unity for creating unique particle effects
8	Diego	Implemented cooking animations using materials, coroutine, and lerp function
9	Andrew, Ryan	Learned how to manipulate sprites to display custom images on Canvas and other objects
10	Andrew, Ryan, and Diego	Implement a complex searcher object

Issues that need to be resolved (bullet list):

- The loading screen graphic and loading bar are inconsistent between different screen resolutions.
- The mesh slicing script currently is not functioning, despite multiple attempts to resolve the issue.

Next steps (how will you mitigate the issues listed above; bullet list):

- Test and edit Canvas or Image configuration settings to resolve the screen resolution problem.
- Attempt a different approach to mesh slicing for the Fruit Slicer scene.

Sound Sources

- https://youtu.be/e-5GirZe_jY
- https://youtu.be/16Qn_k0N_Kw
- <https://youtu.be/kHqT8uDHoSI>
- <https://youtu.be/cVFsoBMkpGk>
- https://youtu.be/_NeBo-WgP2Y
- <https://youtu.be/DKoSh6J44SE>
- <https://youtu.be/QGfHfQjuCak>
- https://youtu.be/Q_9VMaX61nI
- <https://youtu.be/oBwkGx8uWT4>
- https://youtu.be/RP_YBImoD2A
- https://youtu.be/WYnVIOE9v_U
- <https://youtu.be/xYg7w1lpC3s>

Other comments:

- GitHub Link: <https://github.com/drewesch/CST-320>
 - Our Unity Scripts are located under /Scripts/Topic-5
- Loom Link: <https://www.loom.com/share/3c563a7ac5084321ba3e5c481ac77a11>