DATT 3700: Collaborative Project Development, *North Bear* (in development)

Design of Gameplay Mechanics #2

Block Mechanics

Due to time constraints, live “ice block” will ultimately be scratched as both 3D printing and creation by hand would take a significant portion of time to build.

Game Mechanics

Levels: Since the game space was a lot smaller than expected, we have decided on players progressing in the game through levels. Over the course of each level, players will have to be required to collect a minimum number of fishes to advance to the next level but will have an opportunity to collect more fishes then required.

Death Mechanic: The player dies when their position is in the water and no longer on the ice tiles. They can still touch the water with their hands just not be in the water. When the player dies, the player will lose one of their fishes hence the minimum number of fishes can still be achieved. For example, there are 3 fishes maximum in the level and 2 minimum. If the player dies 2 times then they will lose the game since the minimum can no longer be reached.

Losing the Game: If the player loses the game and the minimum number of fishes is not met, the game will transition to an end scene.

The End Scene: The player will be locked in their position but should be able to move their head; ideally so they can look around and observe. There will 3 endings/cut scenes to show at the end:

1) Highest possible amount of fishes collected: Ending will show a cut scene of you (the parent polar bear) with a stack of fishes at your feet, and your cubs running towards happily as there are sufficient amounts for all cubs.

2) Minimum fishes collected: Ending will show a cut scene of you with a stack of fishes, and there will only be 2 fishes at your feet but there are 3 cubs. The cubs make a groaning sound and then there is a transition to the end.

3) Losing: Ending will show a cut scene of you with no fishes at your feet, and your cubs will be running towards you but then walk away, groaning, and transitions to end.

Ice Sheets: No more jumping mechanic. If the player stands on the ice sheet it will slowly melt the sheet from underneath. Walking on the ice sheet continually will also melt it faster.

Obstacles: Have obstacles to make the game harder. If you collide with the iceberg/water tile then you die.

Comments:

- Due to motion sickness problems, the idea of players having their movement speed slowed in the water was scratched as a result of height changes and slower movement which is asymmetric to what is happening in live space.
- Jumping seemed like a potential health hazard as there are many wires running along the live space which may cause players to trip, hence ice sheet designs are aimed to be closer.
- Not sure about how to make obstacles because of collision problems where there collisions in the game occur and not the real world. Perhaps just make the obstacle a sheet of water with an iceberg popping up? Will have to discuss with VR team for potential solutions, maybe have signifiers to show them they are out of position. We were also thinking of making these obstacles thematic and have them relate to the environment with these obstacles being things like a tile of water with oil or a barrel or plastic garbage in that water tile or anything like that.