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Untitled Marble Game?

Untitled marble game is a Super Monkey Ball style game where the goal is to get the player (marble) from the start of the level to the end goal. In this game, the user does not control the player but instead controls the orientation of the world to reach the goal.

Project Goals

- The player controls the world
 - The player moves the marble by rotating the world using the mouse. The player's movement is thus entirely controlled by the physics system. Levels have no boundaries and the player must avoid sending their marble flying off the edge by carefully controlling the orientation of the level to regulate the marble's velocity.
- Multiple unique levels
 - Aim is to have 6 unique levels, or 8 if time permits it
 - Levels will feature unique and interesting geometry that provide distinct challenges on a per level basis.
 - Level design will be split evenly between the two developers, with Ben designing 3 and Stefan designing 3 levels. .
- Art assets
 - Simple color scheme or free assets from the asset store
- Scoring system?
 - The levels will record the time to complete so that players can gain a sense of their own efficiency in completing to levels.
 - The game will have pickups that increase the player's level score.
- Pick ups?
 - Pickup to change mass, friction, bounciness?
 - Pickups that increase the player's score.
 - Stretch goals: Extra life pick up
- Levels will have power ups, obstacles
 - Speed boosts: add force to the ball in a given direction
 - Pit falls?
 - Score bonus?
- Camera
 - The game will use a camera that will follow the marble intelligently with respect to the rotation of the level.

Iterations

Iteration 1

- Design system to rotate the world using the mouse - Complete
- Design pickups to modify the behavior of the marble. - Complete
 - Mass modifier - Complete
 - Score pickup - Complete
- Design basic map to test the pick ups and obstacles - Complete

Known issue:

- Marble collision with the level fails under certain conditions.
- Need to address problems with camera rotation

Iteration 2

- Implement camera that tracks the marble
 - Camera should not clip through level
 - Marble should remain visible
 - Camera should remain oriented reasonably with respect to the marble and level
 - Possibly use Cinemachine
- Implement failure mechanic for falling off stage
 - When the marble falls off the stage, the level should reset and the player must try again.
- Level Goal
 - The player should be able to direct the marble to the level goal.
 - When the marble enters the level goal, the next level should be loaded
- Level prefabs
 - Specific prefabs should be built for the construction of levels
 - Track pieces, guard rails