**TSA Game Design**

**Velocity: A 3-D Platformer**

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Dynamo SoftWorks

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**Summary:**

The player completes levels by moving around on platforms. The player is capable of moving about in a number of ways, including jumping, running, and dashing, enabling the player to navigate the environment fluidly. The simplistic nature of the game is made significantly more complicated by the innate ability of the player to manipulate time. The faster the player moves, the slower the world does. The player needs to learn to judge his or her speed in order to land on platforms as well as to manage level elements that would otherwise move to rapidly to handle. The purpose of velocity is to provide an entertaining and intellectual engaging experience, familiarizing the player with some of the basic concepts of projectile motion, all the while honing problem solving skills and improving coordination.

Target Audience: Ages 8+

The game requires at least some degree of coordination, limiting the games playability for extremely young or old players simple due to a lack of hand dexterity at those ages. The game also requires a reasonable attention span and a certain degree of problem solving skills. This effectively limits the age range of players to eight and above. The story is minimal, negating the effect of story on the rating of the game.

**How to Play:**

**Movement:**

Basic movement is similar to most other First Person games.

'w' moves forward, relative to the Avatar.

's' moves backward, relative to the Avatar.

'd' strafes to the right, relative to the Avatar.

'a' strafes to the left, relative to the Avatar.

'[SPACE BAR]' allows the player to jump.

Advanced movement is a little bit more complicated, but is similar in position to other games.

'q' dashes to the left.

'e' dashes to the right.

This key allows the player to avoid obstacles, or change direction quickly. Forward momentum is conserved, but is bled off much more quickly when the player dashes. The player can not dash when in the air.

'c' slows down the player by providing extra friction.

This key can be used to help the player to turn, save the player from sliding off a platform, or make use of dashes more effectively.

**Objectives:**

Level Completion:

Levels are completed by the player by moving across platforms and obstacles. The player starts at a start platform which includes a runway for the player to pick up speed.

The player finishes the level by finding the end platform, which contains a door. The player must enter the door to finish the level.

Death:

If the player falls into the abyss, the player is forced to restart the level.

Level Elements:

Levels can take many forms, ranging from labyrinthine mazes to open levels filled with fast moving platforms.

Platforms can take on three colors: White, Blue, and Purple.

White platforms have a normal friction coefficient, and will slow the player down when the player stops trying to move forward.

Blue platforms have a lower friction coefficient, and will not slow the player down very much if the player stops providing input. The player must use caution, as changing direction on a blue platform can be dangerous.

Purple platforms have a higher friction coefficient, and will slow the player down a great deal, even when the player is trying to move forward. The player must use caution to avoid falling behind or mistiming the next jump when a purple platform must be used.

Platforms can move around the level at various speeds. The platform's velocity will add to the player's velocity if the platform begins to move, or if the player jumps on a moving platform. If the player jumps on a moving blue or white platform, caution must be used, lest the player may slide off the platform.

Levels may include various hazards. Hazards are easily spotted, and may often move. Some may push the player off platforms, or otherwise cause harm to the player. Avoid the hazards.

**Mechanics:**

Time and Speed: Time in Velocity changes based upon how fast the player moves. The faster the player moves, the slower time does in the world around the player. When the player is walking, or even running at lower speeds, platforms and other elements will move at close to full speed. Some objects will move simply to fats to manage, forcing the player to pick up speed to slow the platforms down. It is recommended that player make a plan of how and when to move across platforms to be successful.