**Primitive Stampede**

**Setting:**

* W & S for moving ride on vertical while riding.
* Up, down, right, and left arrow keys for the cursor movement
* Spacebar for jump

**Mechanics:**

* When game start player is on the floor(sphere), while rides(cubes) will start instantiating from a far distance and will start moving towards player.
* Player a cursor in the view which can be moved within bounds.
* Whenever player jumps there will be a projectile (parabolic arc) motion from the player’s current position to the wherever the cursor is.
* There are trigger on every ride, so whenever rider passed above the ride or collides with the ride it will position itself on top of the ride and ride will not move future from a point to left while other rides are still moving.
* If player jumps to the ground or two rides collides with each other the game is over.
* Jump, Collision sound system is added.
* Collision particle system is added.
* UI/UX of score and game status is working.
* Endless runner.

**Formula used for parabolic arc to calculate**

Assuming X and Y plane only:

**Projectile Motion Formula**

Vx = X / t

Vy (At Zero) = Y / t + ½ \* g \* t

After find the velocity values on axis we can add the velocity of the rider(player) using the physics. For more info check Projectile System Script.