

Unreal Programmer Task

SkatePark

I had quite a few problems with the assets given, I ended up not using the skateboard since it needed to be converted on 3DS Max, the base skate animation has a bit of a shake but I decided to try to make it work. The pushing animation was a bigger issue, after failing to find an alternative push animation I decided to use it with force root lock and try to fix it at the end if time allows it. I chose Mixamo's Remy for my character since he fits the style of a skater.

Next I started making the skateboard-like movement for the character, I decided to use a Lerp for forward motion to create a feel of momentum without giving an ice feel when turning, since the instructions stated "Pushing Functionality - Speed up" I interpreted it to mean that you can ride without pushing but pushing enables you to go faster and used different max values for each speed and for the "Slow Down Functionality" I simply used a higher Alpha to stop faster.

At the start i wanted to make an actual skate park but when i wasn't able to easily find assets I decided to make a normal city park, i decided to use the landscape mode on unreal as a base terrain and spline meshes for the paths, I started to implement a spline mesh blueprint when I noticed that the paths on the CityPark collection showcase level looked like they were made with splines, after check the blueprints on the collection I found it and used it to make the paths, and the 2 types of fences present in my Park level

I tried playing with a gamepad and decided to make adjustments to turning inputs on gamepads and also decided to implement an "auto-look" feature that makes the camera follow the player's direction.

I experimented with a few different methods of detecting if the player jumped over an obstacle, most of them involved collision components but in the end I decided to use a line trace to check what's below the character, after that I compare the result to a short list of actors that aren't obstacles and then store the actor jumped over so that the player doesn't get points multiple times for the same obstacle. When the player starts a new jump without standing in the actor that he got points for he is cleared to get points from it again.

I finished by adding textures to the skateboard, adding the jump animation and fixing some feet positioning.