

Rocket Doom

By: Joey Gadd



Previous Progress

Project Overview

1. Worried but excited
2. Wanted to learn a lot
3. Open World Mechanics
4. Skyrim like aesthetic
5. Shifted to platformer, shooter, future technology, Doom



Rocket Doom

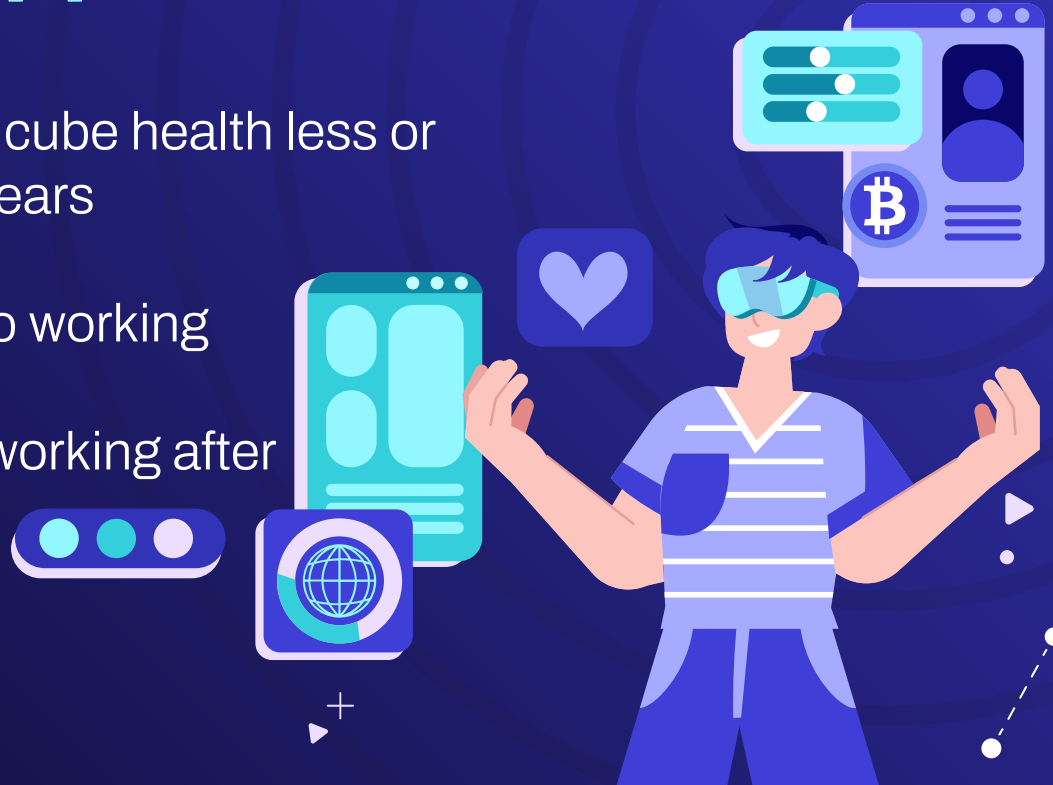
Start

Quit

DEMO

Problem Overview

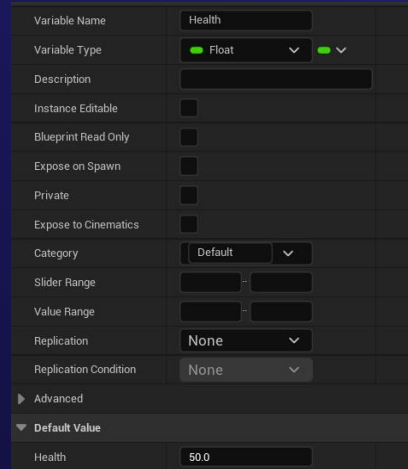
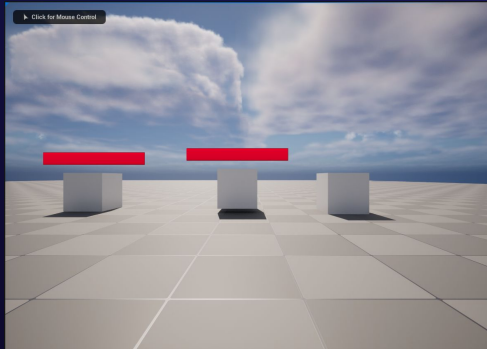
1. Devlog 1; Problem: When cube health less or equal to zero cube disappears
2. Devlog 2; Rocket Jump no working
3. Devlog 3; Health Bar not working after switching code to AI



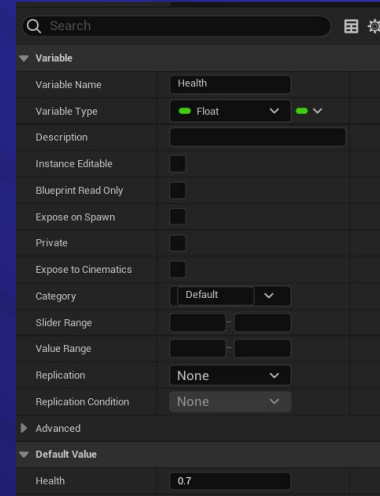
Cube health and Killing system

The solution to this issue was that instead of setting the value of the health float from 1-100 instead I needed to set it from 0-1 meaning that a value such as 0.5 means that the enemy is at 50% health. This took me a minute to figure out as I thought the issue might have been due to the fact I had it originally set at around 60% in the designer menu for the progress bar but this was not the issue.

Before



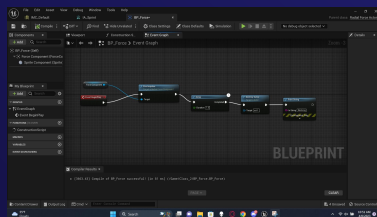
After



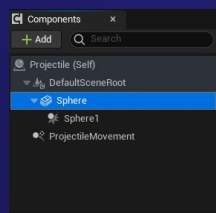
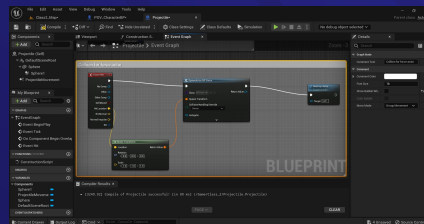
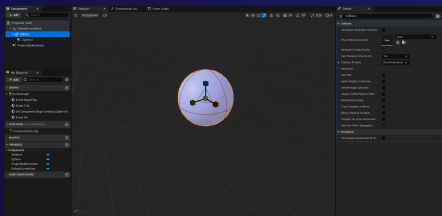
Rocket Jump Not Working

After trying to figure out why my projectile was not hitting the ground for a while I decided to try and do the rocket jump on a first person map and was successful at implementing this. I decided to go through the collision information in the first person and see if there were any differences between my projectile and the default projectile. I figured out that for some reason the default scene root was causing the issue and after replacing it with the collision box the projectile was finally colliding with objects.

Before

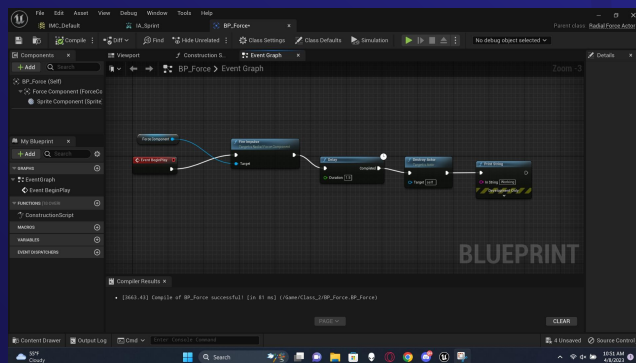


After

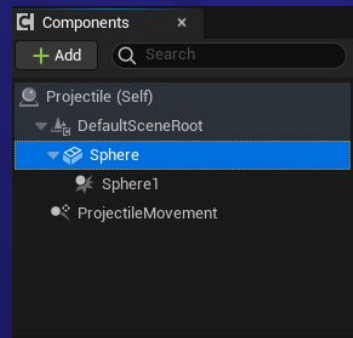
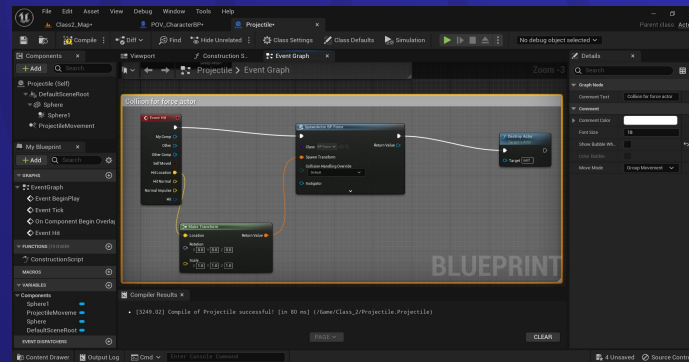
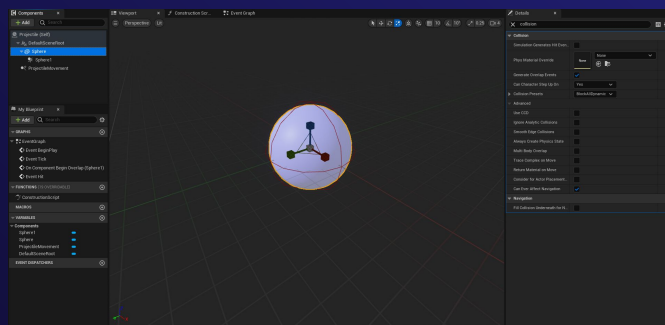


Before and After Rocket Jump

Before



After

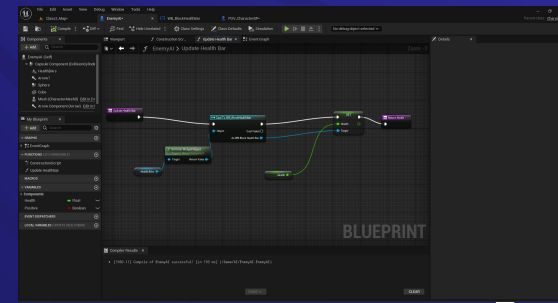
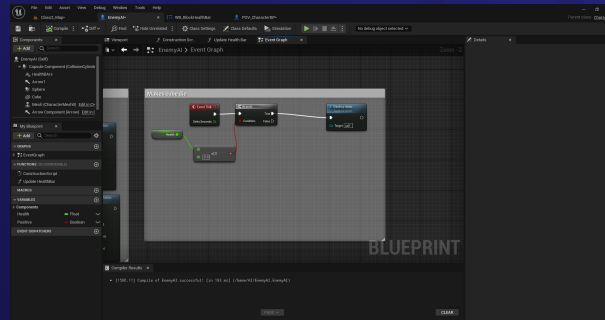
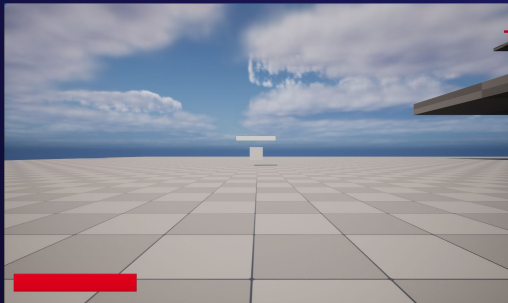


Health Bar not working after Switching to AI

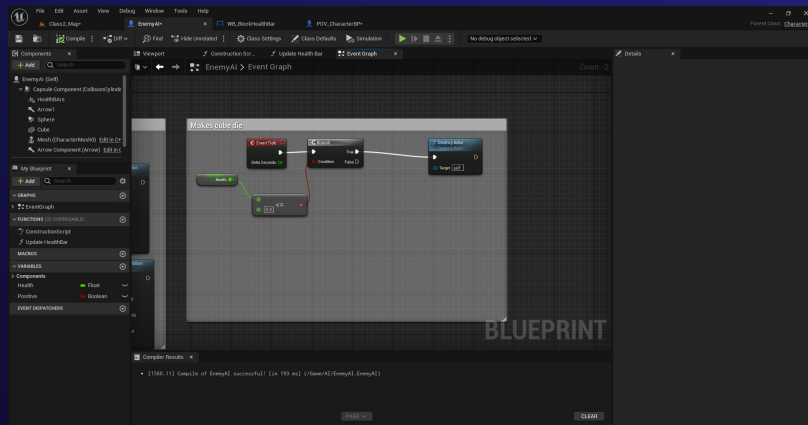
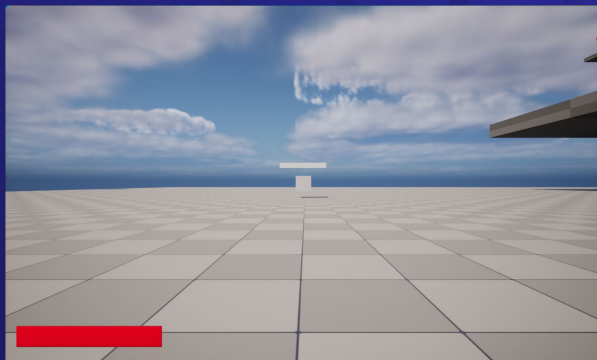
I got the health bar to display by adding a widget into the AI as I had forgotten to add one when making it. I then was able to get the health to display and take damage by plugging in the correct health bar widget as I had the previous actors hooked in. Then I reset up the death code for the AI.

Before

After



After



Takeaway

- Ideas Change during development
- Blueprinting takes a lot of trial and error
- Basic mechanics can be quite complex
- Complex AI is hard



Assets and Attribution

Video Links

<https://www.youtube.com/watch?v=O6qREGAZPoQ&t=866s>

https://www.youtube.com/watch?v=YDOAo_4L2a8

[\(1308\) How to Make a Rocket Jump Mechanic - UE4 - YouTube](#)

<https://youtu.be/BdRnYcrwetc>

<https://www.youtube.com/watch?v=5Xdnx3wPNLo&t=283s>

https://www.youtube.com/watch?v=PwDHGhdDG_k

<https://www.youtube.com/watch?v=EQmIBHObtCs>

People

Christian Wheeler

Josh Russ

Assets

Polar Sci-Fi Facility by 3DBrushWork

Basic Pickups VFX Set (Niagara) by Suppart

Doom - Grenade Launcher by rSquare

Buster Drone - by laVaDraGoN

Reticle - Adobe stocks

Next Steps

- Continue working on this project but with more weapons and reworking some systems
- Take skills learned and move forward
- Fully dive into the doom fast combat feeling

New Progress

Project Overview

1. Had a better idea of what I wanted to accomplish
2. Expand on project
3. Shift to third person
4. New mechanics
5. Animations



Rocket Doom

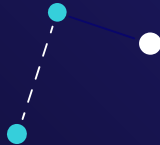
Start

Quit



Problem Overview

1. Devlog 5 and 6; Problem: Dodge mechanic and making it consistent
2. Final Development; Implementing animations and sequencer cutscene
3. Final Development; Issues with asset packs



Dodge Mechanic (Issues)

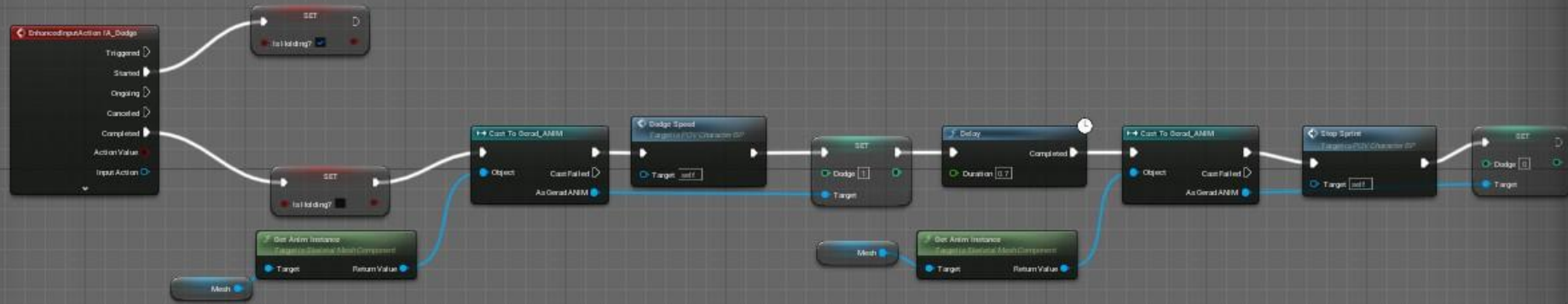
The main issues with the dodge was the dodge needed to be held rather than pressed and the speed for the dodge was not working

Dodge Mechanic key pressed solution

This issue was actually a bit more complicated than I would have liked. I looked up a video after trying to figure out how to do it myself with the nodes I knew. After watching a video on how to do click and press functions I was able to incorporate it into my own code after a bit of tweaking and it allowed me to click and my character dodge

Dodge Mechanic key pressed solution (Images)

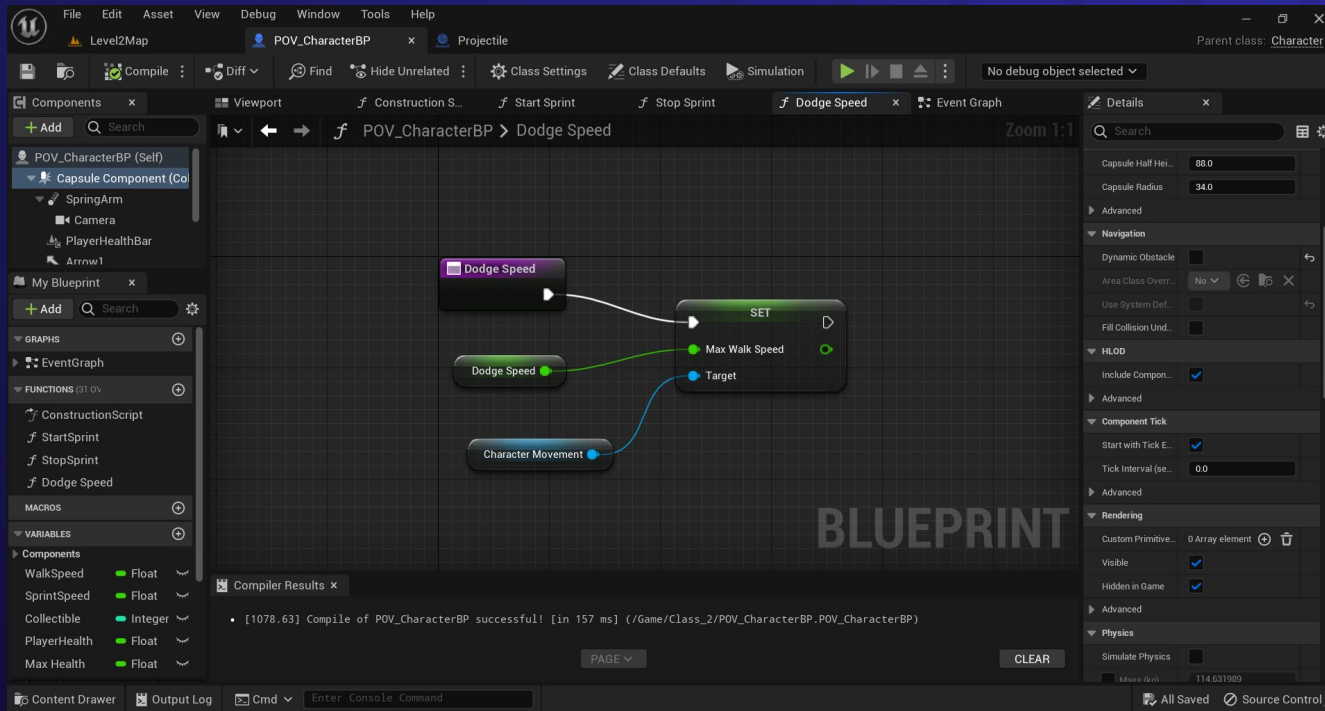
When V is Pressed player will dodge and then go back to normal walking speed after



Dodge Mechanic speed solution

took a minute but was not too bad all I had to do was create a new movement variable just like walking or running and set that variable to movement when dodging

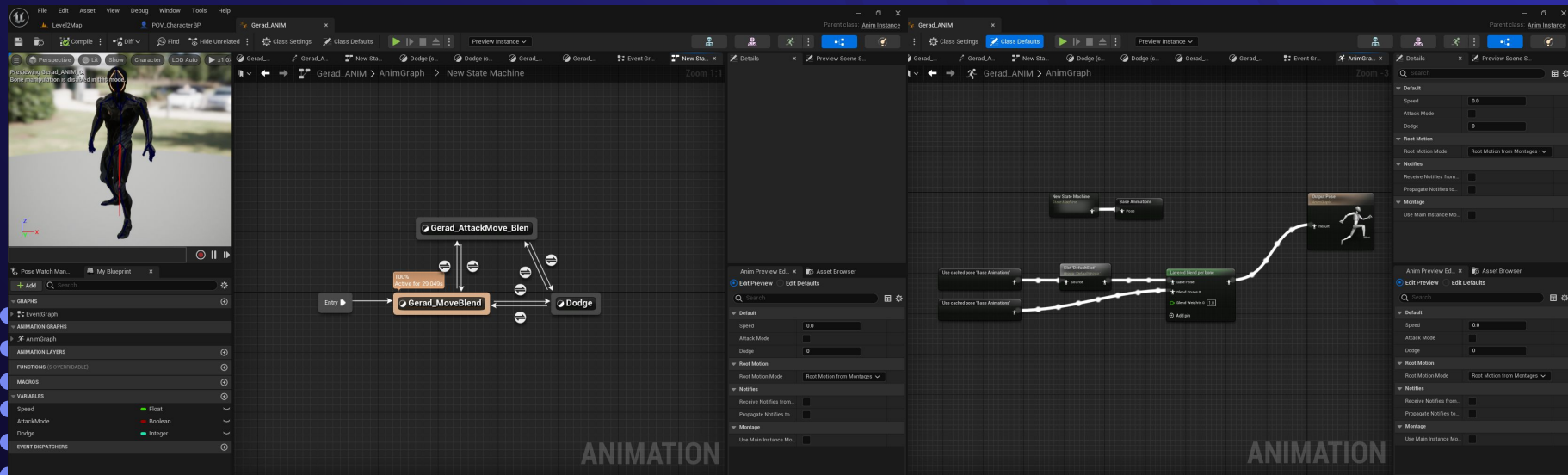
Dodge Mechanic speed solution (Images)



Animation and sequencer Issues

No specific issues with animations other than finding them and implementing animations that made sense. Multiple issues with sequencer such as not showing vfx when playing and disabling and re-enabling the HUD

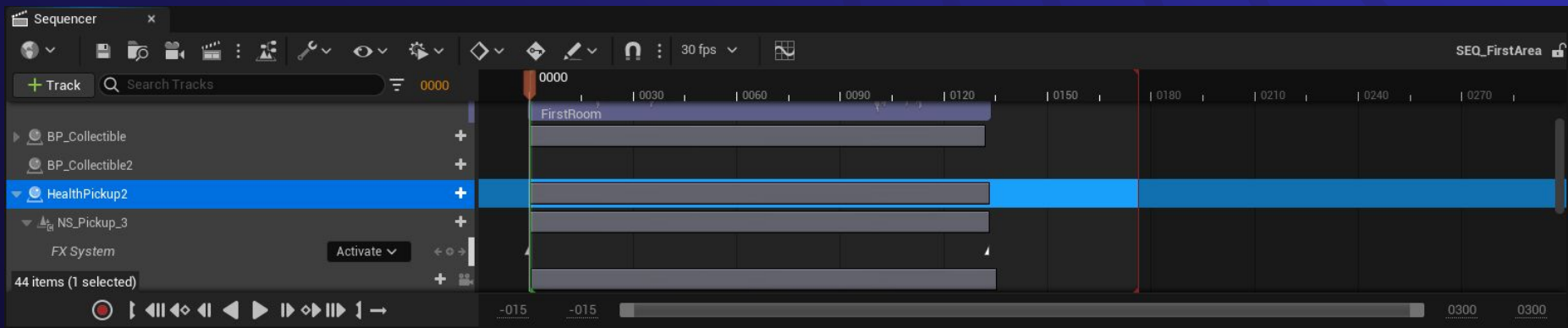
Animation Code



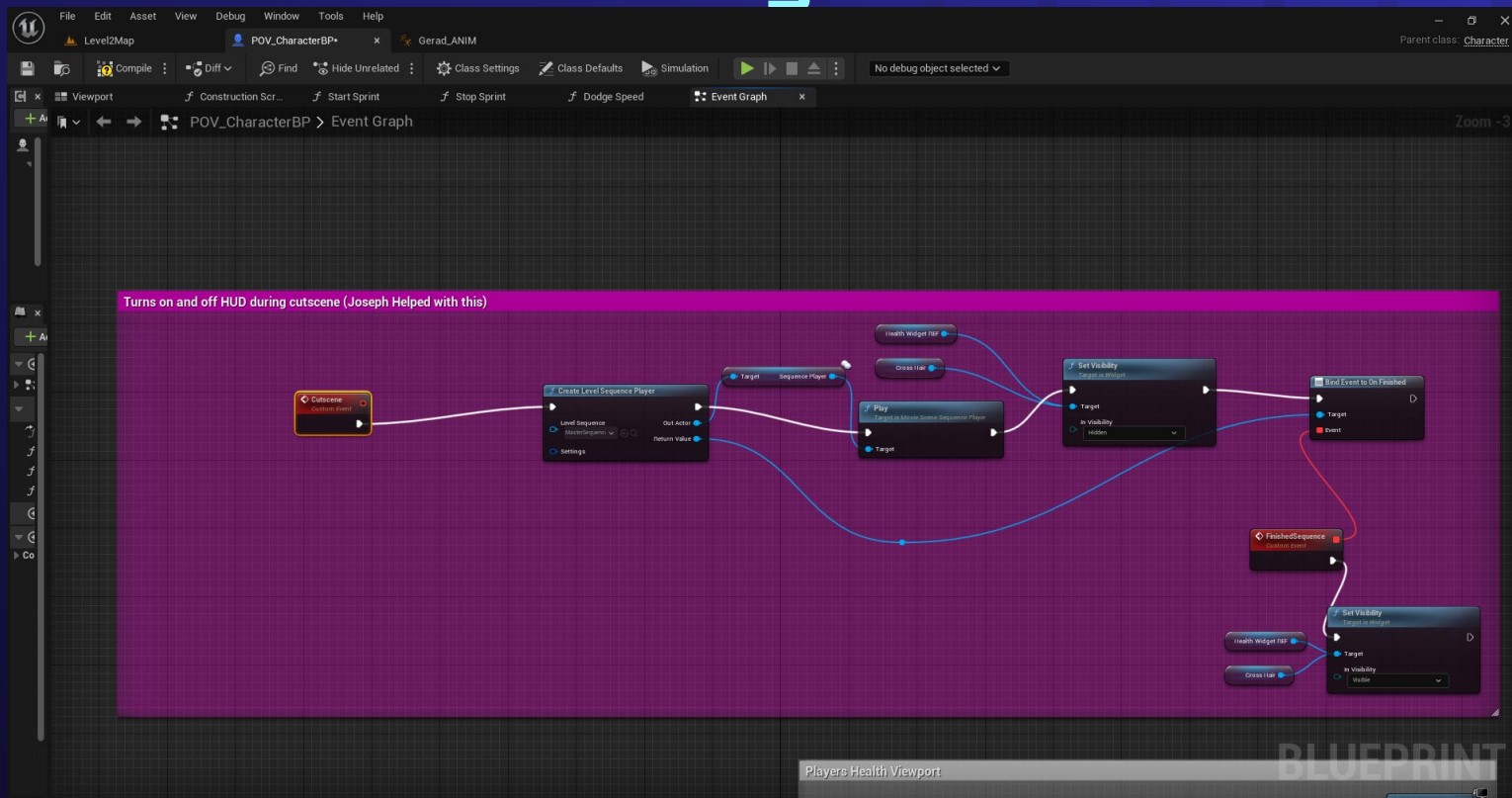
Sequencer Solutions

1. The first issue was the VFX not showing up basically you need to add the VFX to the sequence then add the component underneath it and set the FX system which after disabling and re-enabling will appear.
2. The HUD issue was fixed by getting references to my HUD's and setting visibility to hidden when the sequence plays and visible when not playing (Joseph Helped)

Sequencer Solutions VFX (Images)



Sequencer Solutions HUD (Images)



Asset Packs Issues

Multiple issues with Asset packs
from them not working modular, to
pivot points being off, and even
severe lag issues causing computer
to crash


Asset Packs Solution

- + No true solution I tried multiple asset packs and many of them did not work like they are supposed to either due to age or collision issues. Spent 4 hours building out second level only to have it crash and having to scrap idea and work on animations and tightening mechanics ▶

Asset Packs Images

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Supported Engine Versions
4.23 - 4.27, 5.0 - 5.1
Download Type
Asset Pack

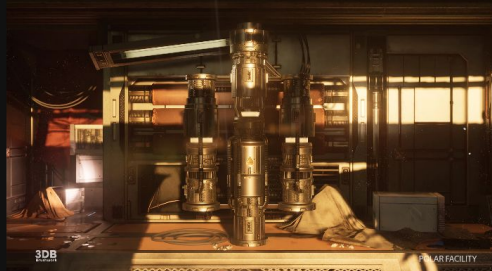
Description

Infinity Blade: Hideout is a collection of high-quality cliff and cave props, materials and textures optimized for mobile platforms. Rediscover the original Infinity Blade franchise with one of four free environment packs built from a collection of mobile ready assets.

Licensed for use with the Unreal Engine only. Without a custom license you cannot use to create sequels, remasters, or otherwise emulate the original game or use

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Supported Platforms
🖥️ 📱
Supported Engine Versions
4.8 - 4.27, 5.0 - 5.1

Description

Polar Sci-Fi Facility
3DBrushwork - Environments
★★★★★ ~ 81
71 reviews written | 27 of 27 questions answered
Modular science fiction facility with a grand mountain range vista.

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OR

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Takeaway

- Be flexible with assets and animations and don't be afraid to pivot if they are not good or do not seem to be working
- Learned how to manage time and pinpoint major issues
- Quality is better than quantity especially with mechanics
- Mechanics need to make sense for players to use them
- Learned that I want to go into technical art



Assets and Attribution



Video Links

<https://www.youtube.com/watch?v=O6qREGAZPoQ&t=866s>

https://www.youtube.com/watch?v=YDOAo_4L2a8

[\(1308\) How to Make a Rocket Jump Mechanic - UE4 - YouTube](#)

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<https://www.youtube.com/watch?v=5Xdnx3wPNLo&t=283s>

https://www.youtube.com/watch?v=PwDHGhdDG_k

<https://www.youtube.com/watch?v=EQmIBHObtCs>

<https://www.youtube.com/watch?v=ZJLYhzQmeJI&t=307s>

<https://forums.unrealengine.com/t/how-do-i-reference-my-animation-blue-print-in-a-class/279566>

Assets and Attribution

People

Christian Wheeler

Josh Russ

Joseph

Professor Nye

Snow Gillett

Belize Kosoko

Assets

Polar Sci-Fi Facility by 3DBrushWork

Basic Pickups VFX Set (Niagara) by Support

Doom - Grenade Launcher by rSquare

Sci-Fi Camera Drone by 3dsofsan (Sketchfab)

Reticle - Adobe stocks

Mixamo- Ely by K.Atienza and Alien Soldier

Next Steps

- Might Continue working on this but have another project planned for summer based on Orpheus and the play Hades
- Continue expanding skills not just in blueprints but also coding
- Learn more about VR/AR technologies and how to incorporate those into my workflow

Thank you!

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