



WAVE I

Final Viva

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BA Video Games Design



Overview



Re-Cap



The big problem – Scope



Figure 1: Original character concepts

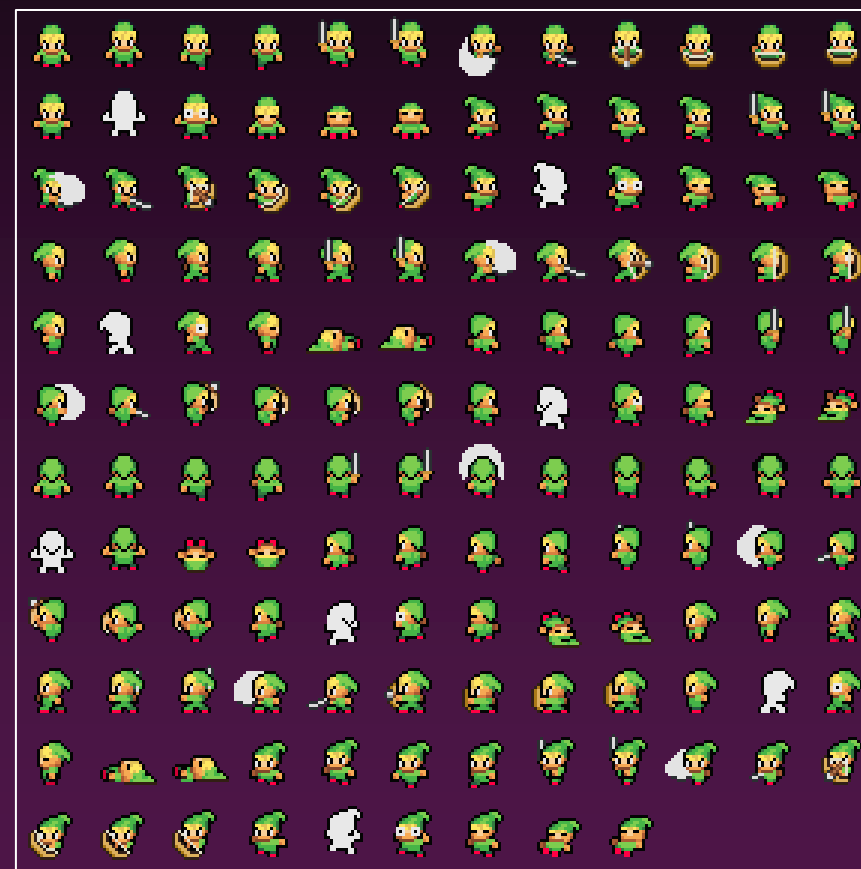


Figure 2: New character concepts
Revised idea

Scope

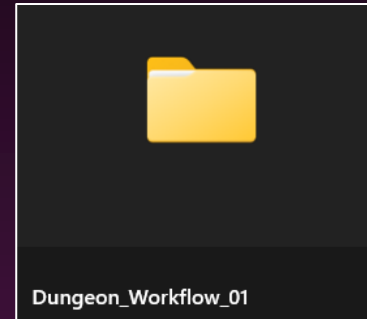
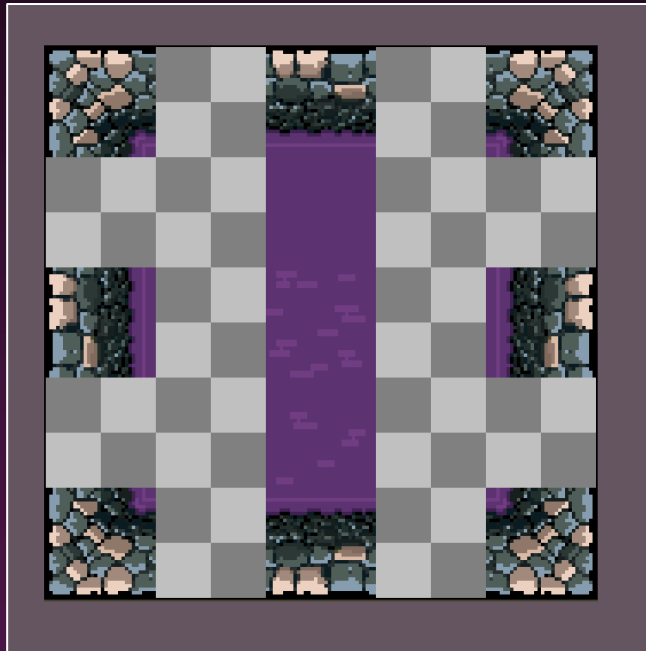


Figure 3 : Vampire Survivors [1]



Figure 4 : Binding of Issac [2]

Prep



Assets		10/04/2025 16:19	File folder
SFX		10/04/2025 16:19	File folder
UI		13/05/2025 14:42	File folder

Characters		10/04/2025 16:19	File folder
Environment		11/05/2025 12:11	File folder
Props		10/04/2025 16:19	File folder
VFX		10/04/2025 16:19	File folder

Getting Started

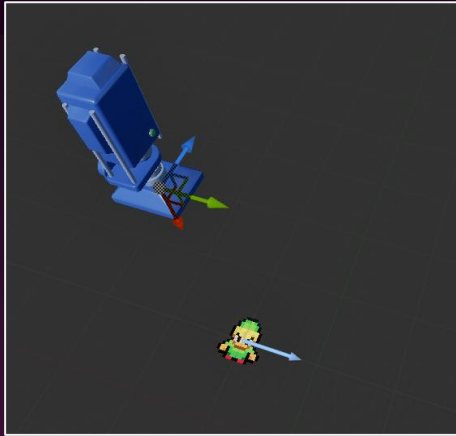


Figure 5 : Camera Set-Up

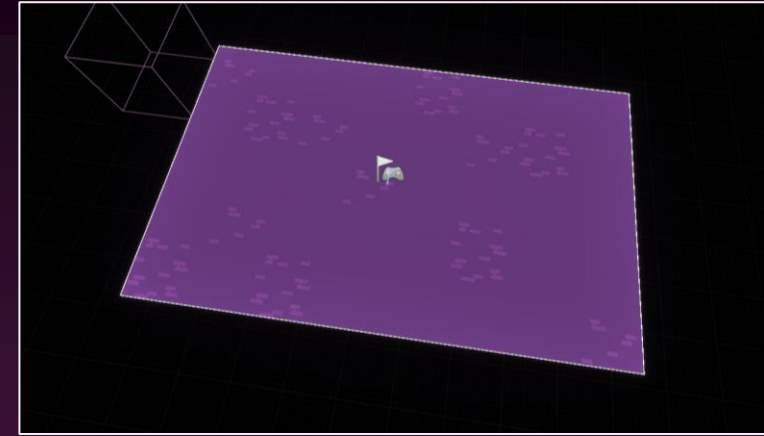


Figure 6 : Creating base for level

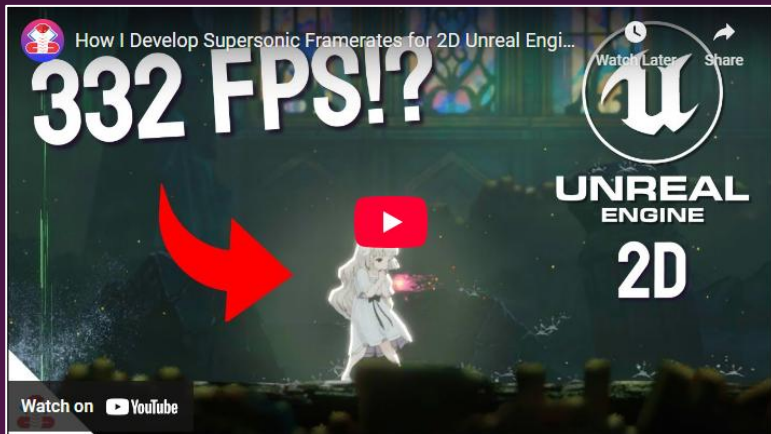


Figure 7 : Tutorials [3] [4]

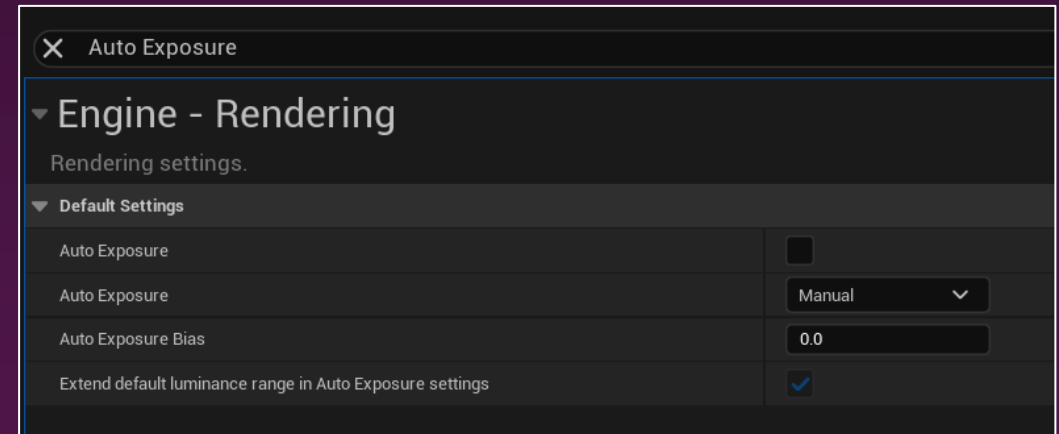


Figure 8 : Project Settings

Title sets

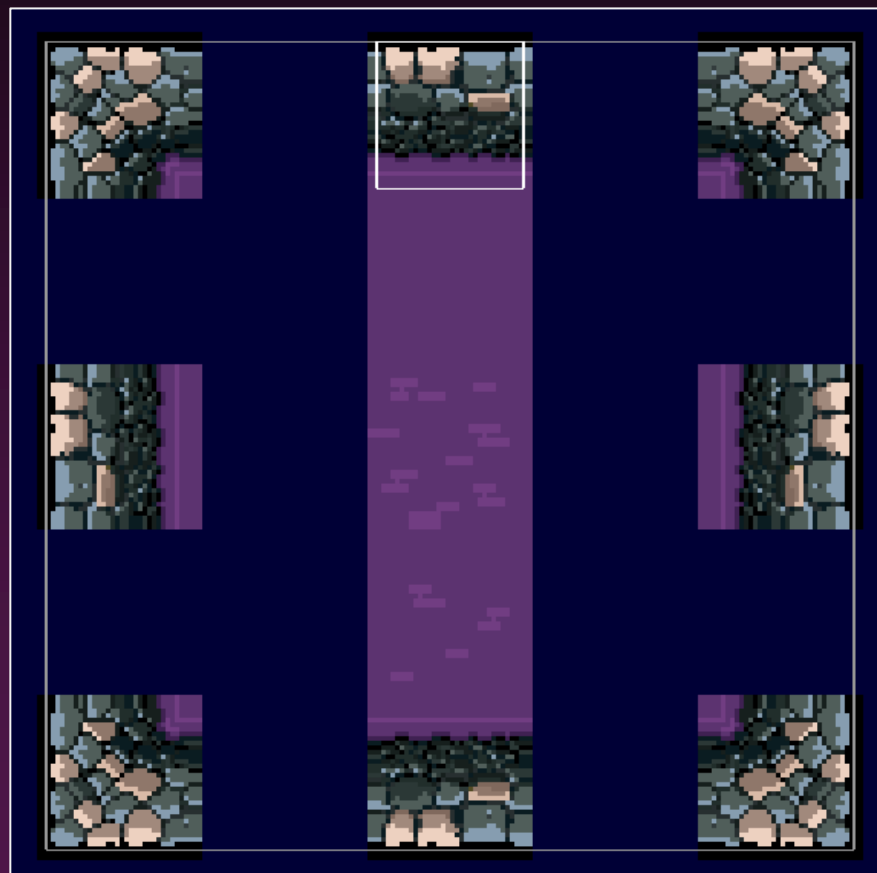


Figure 9 : Tile set



32x32



Collision parameters

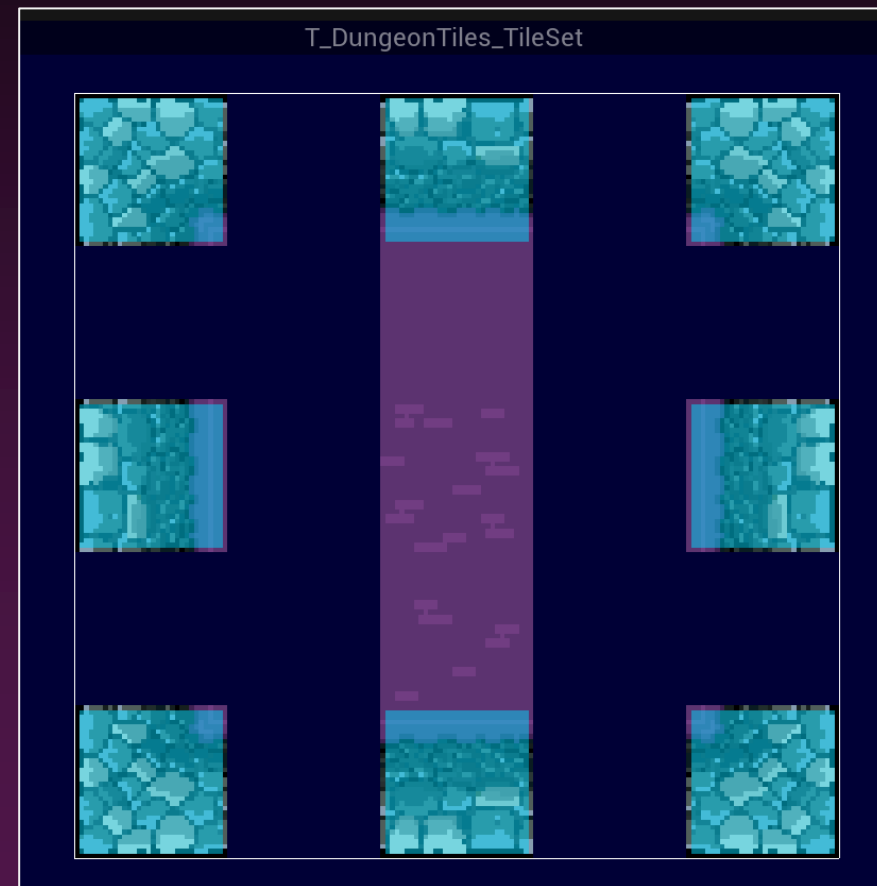


Figure 10 : Collision Boxes

Creating maps

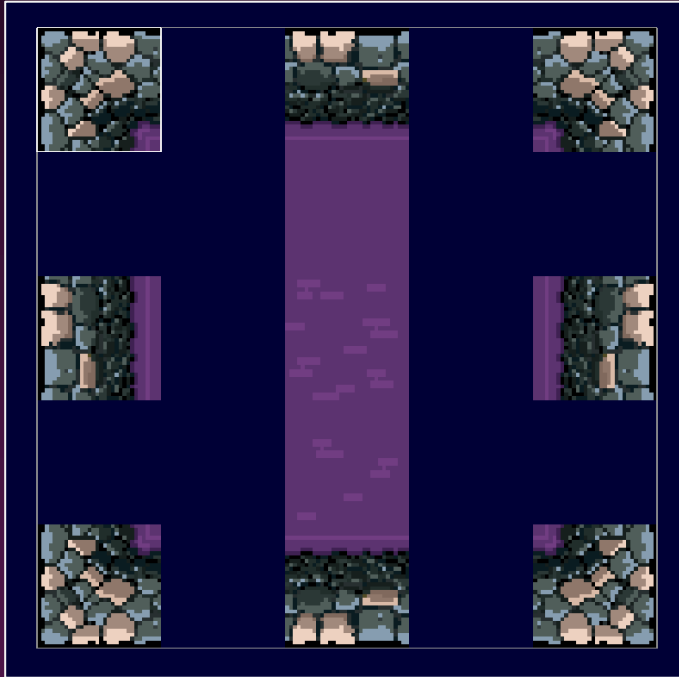


Figure 11 : Tile set

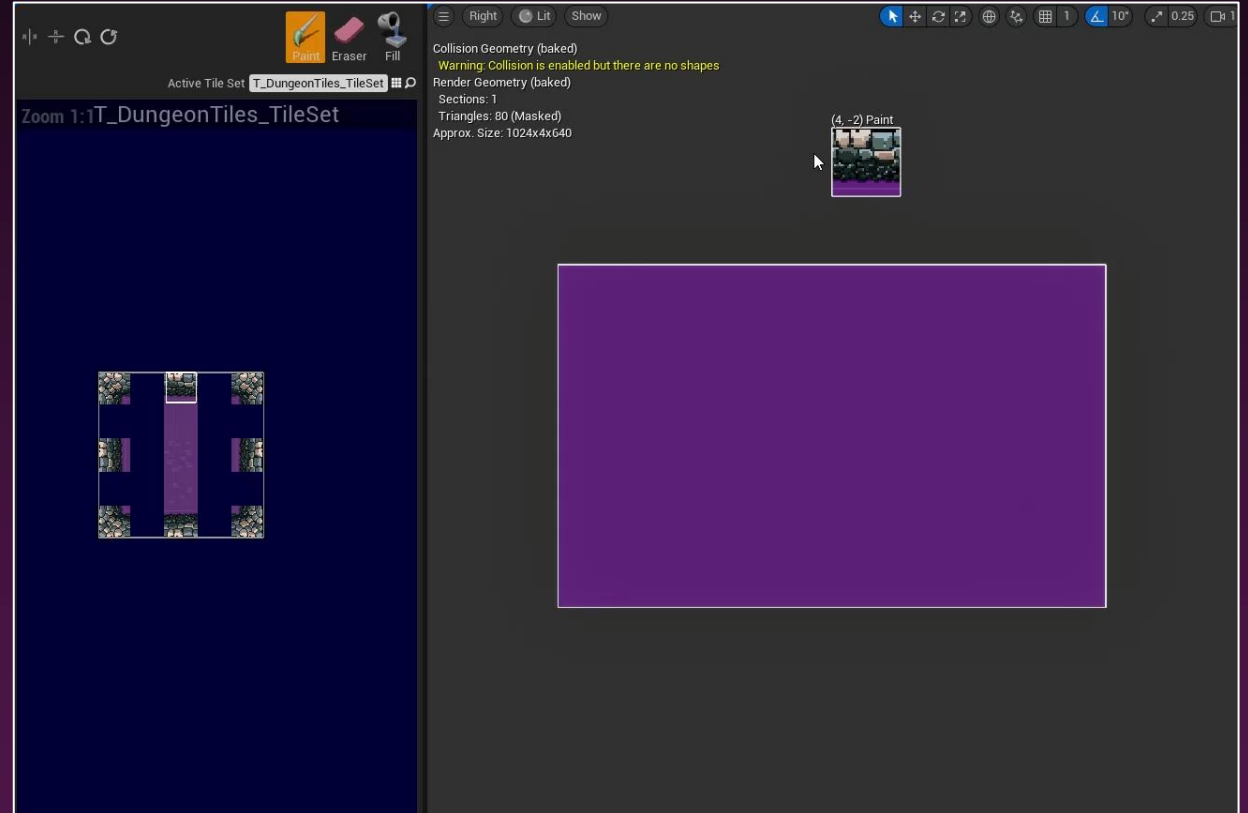


Figure 12 : Creating map

Paper 2D & PaperZD



Paper2D

Paper2D adds tools and assets to help create 2D games including animated sprite assets, tilesets (experimental), 2D level editing tools, and more.

[6]



PaperZD

Animation Graph and Notify Support for 2D Development

[5]



Figure 13 : Sprite card without Paper2D plugin



Figure 14: Sprite card with Paper2D plugin

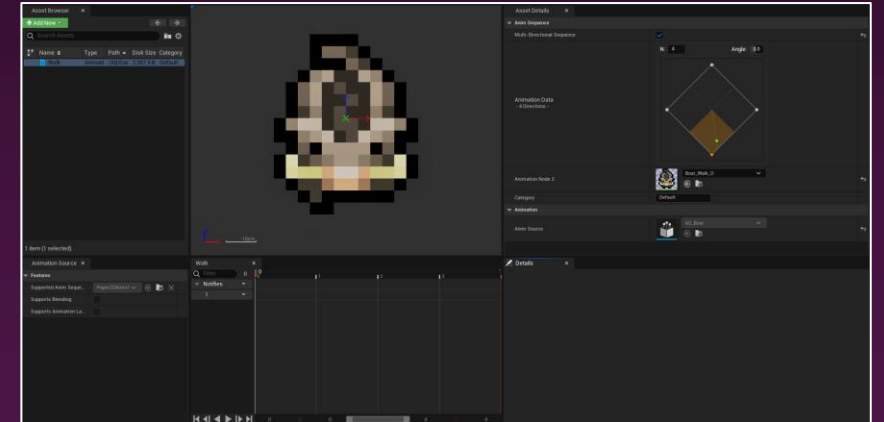
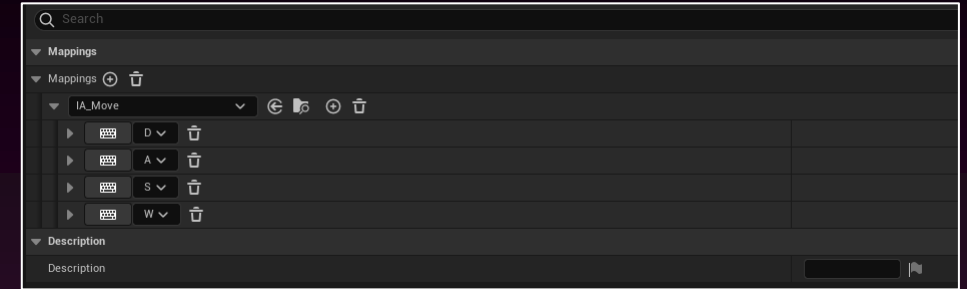
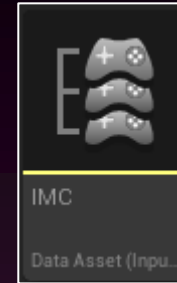


Figure 15: Animation set-up using Paper ZD

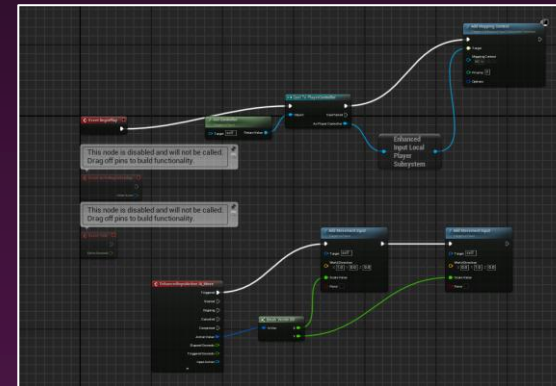
Movement



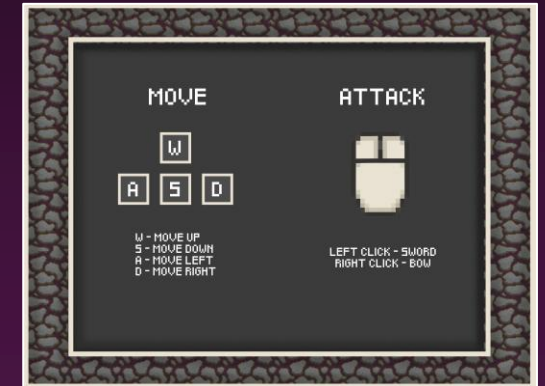
Figure 16: Movement integration into sprite character



Input mapping controls

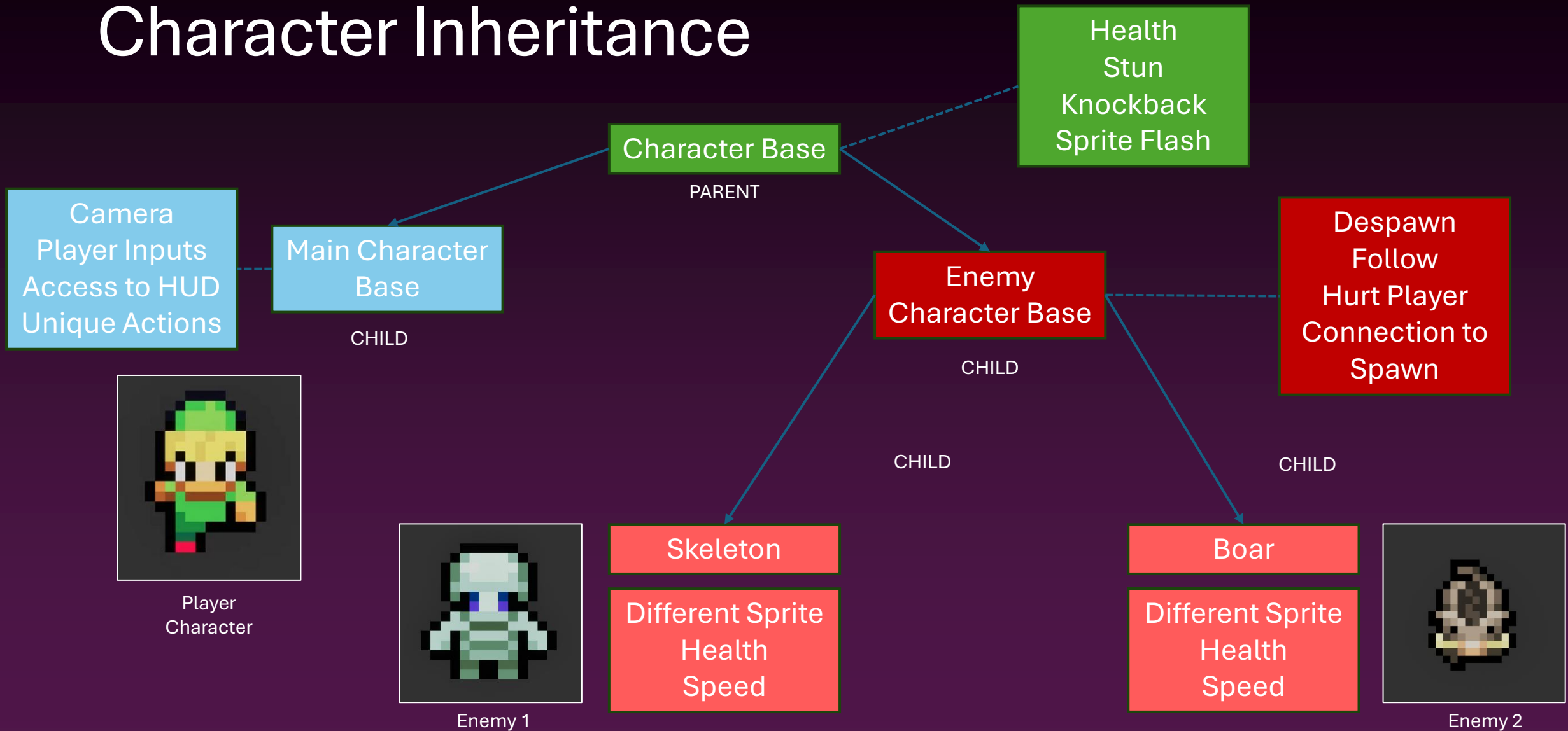


Blueprint input control

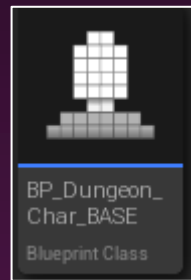


Control Scheme (Used in playtest)

Character Inheritance



Character Base Blueprints



PARENT

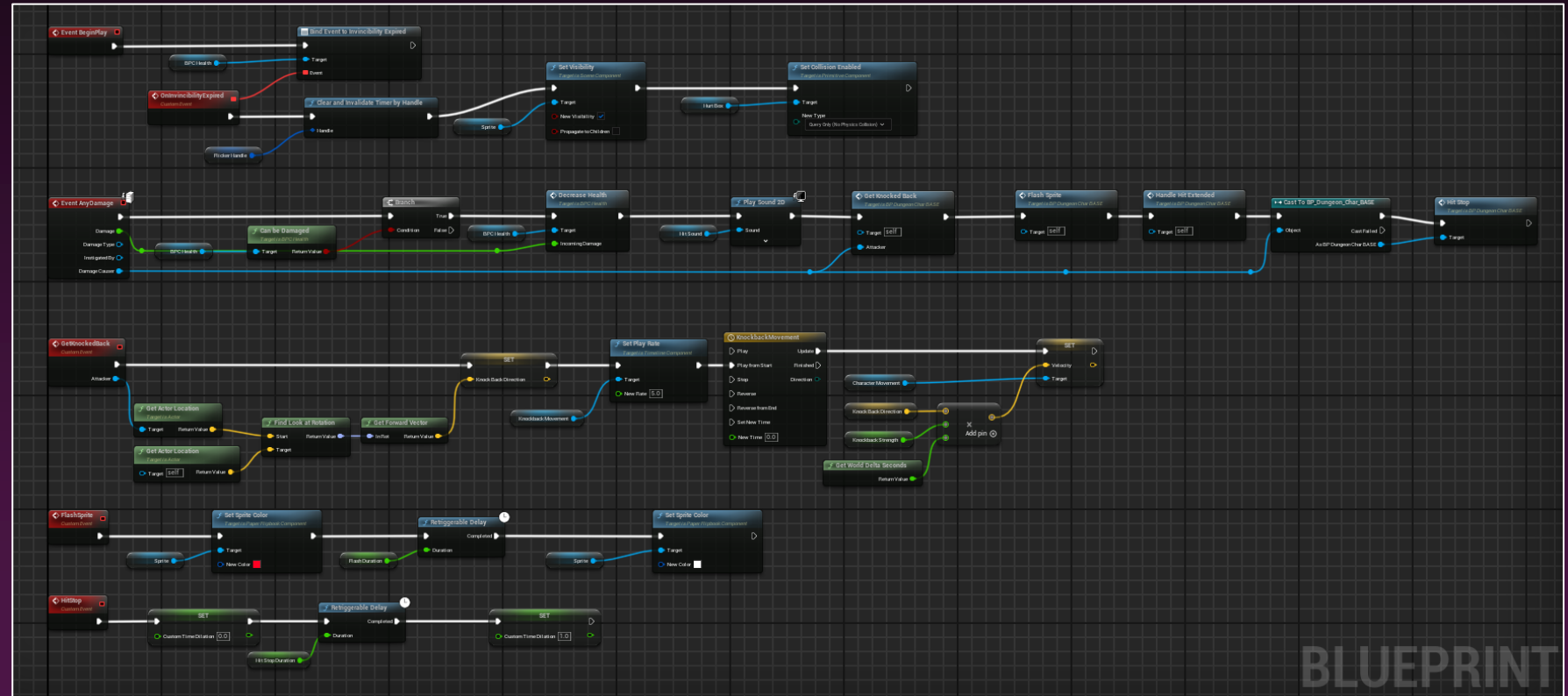


Figure 17: Character Base Blueprint (Parent)

Blueprint Variations

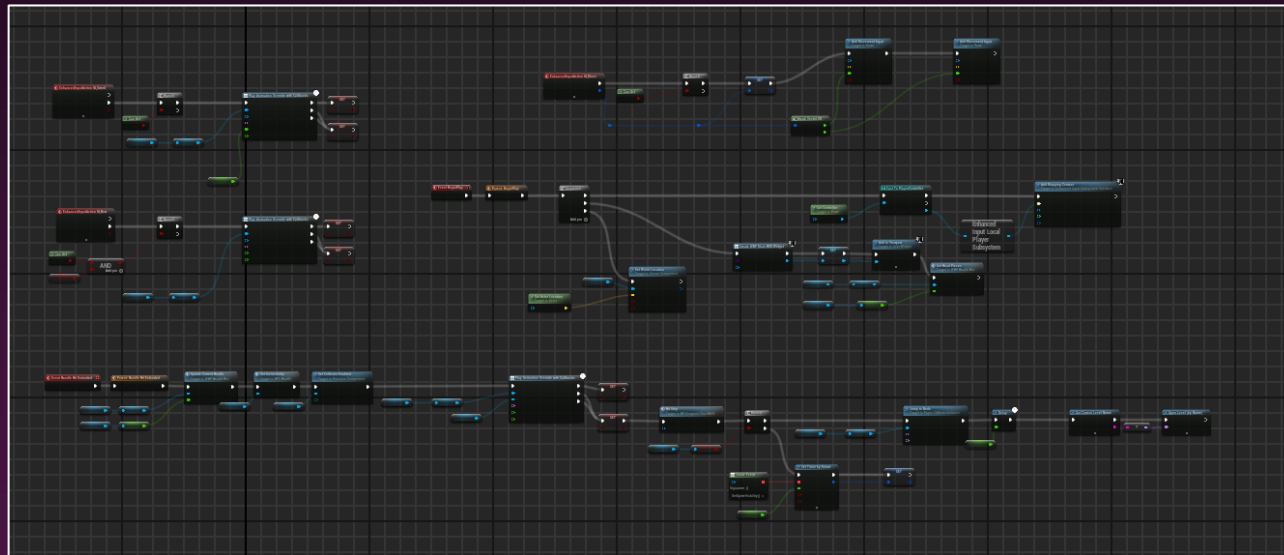


Figure 18: Player Character Blueprint

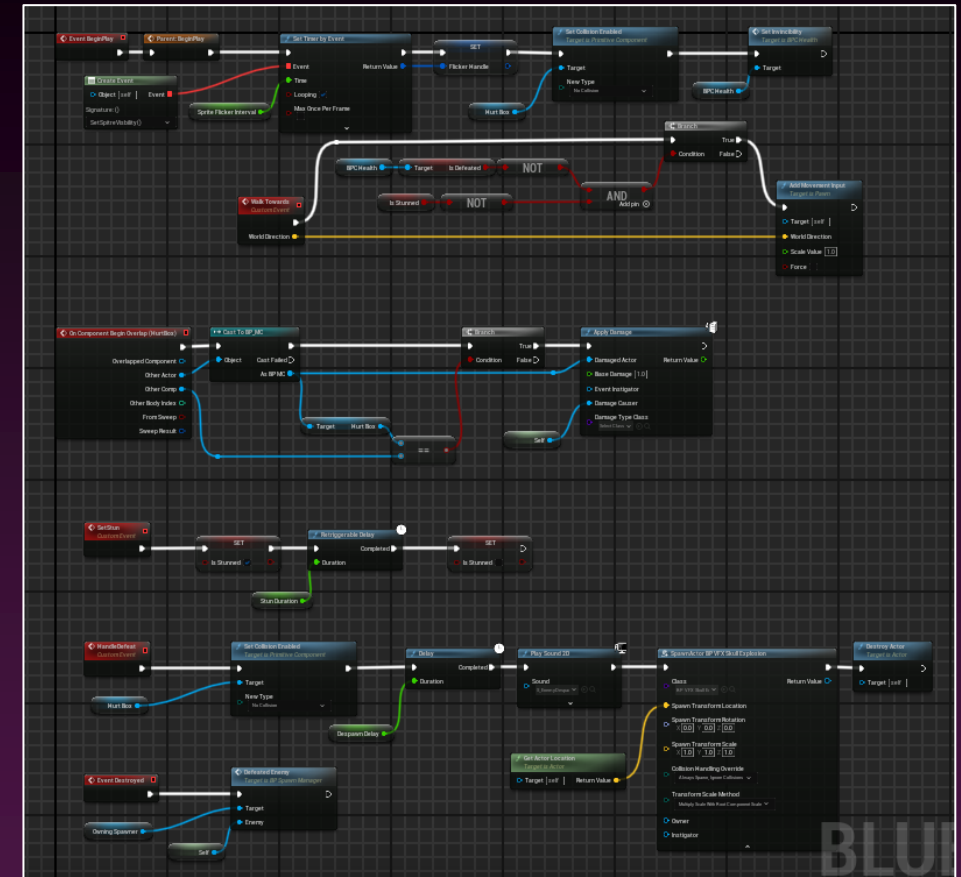
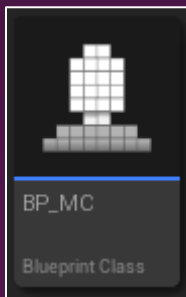
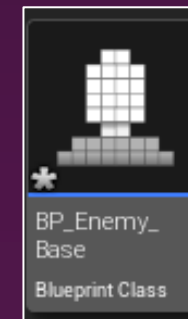


Figure 19: Enemy Base Blueprint



Importing Sprites



Figure 20: Character Frames

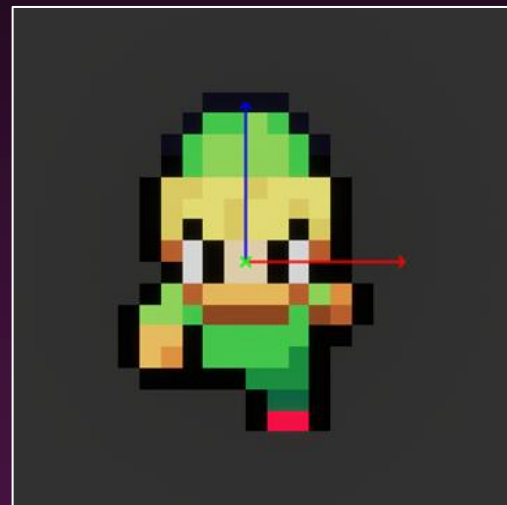


Figure 21: Character flipbooks

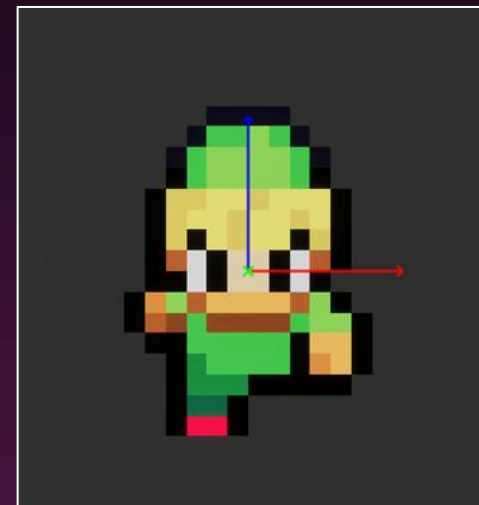
Sprite Animation



Figure 22: Walk down
animation



Frame 1



Frame 2

Animation Blueprints

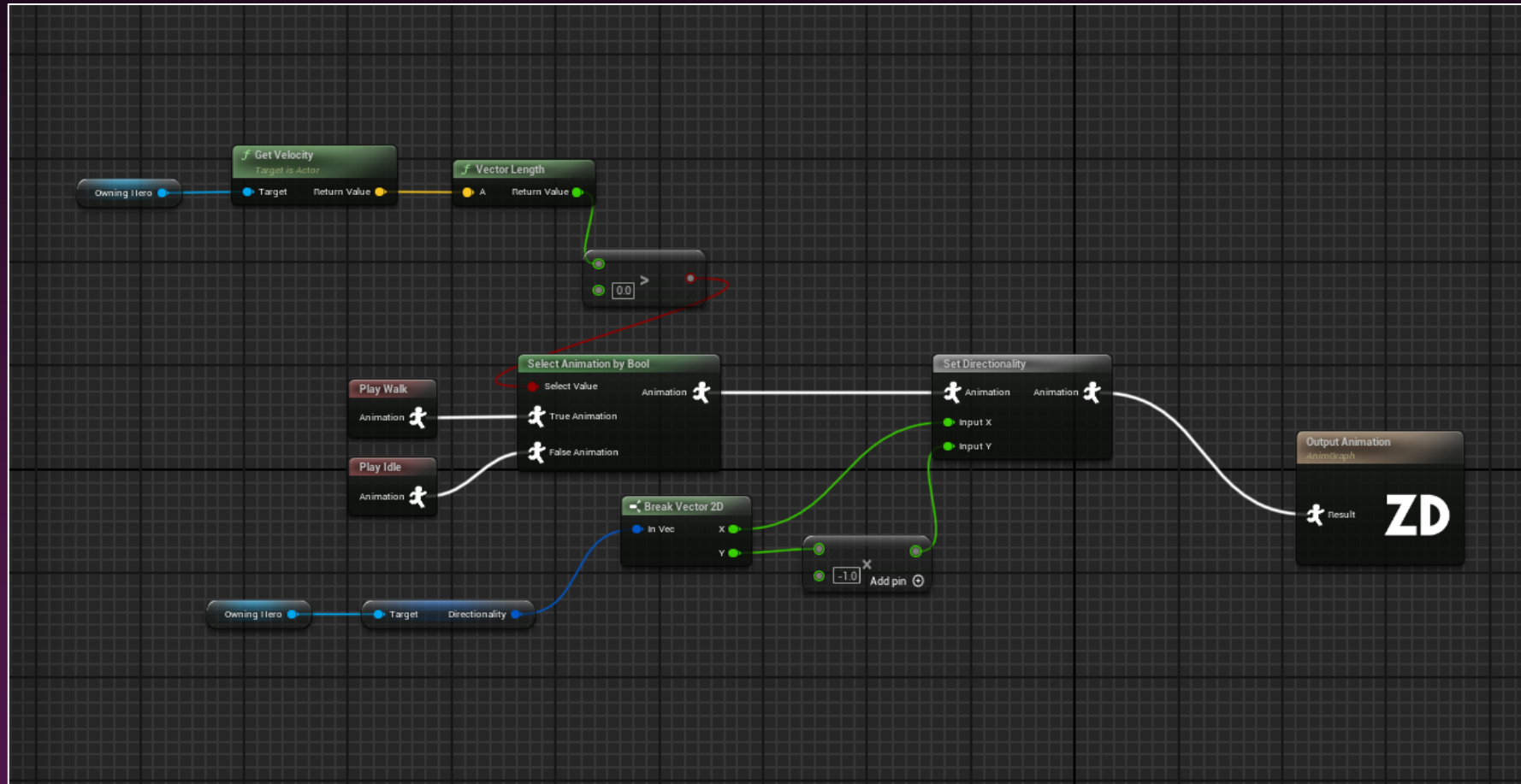


Figure 23 : Animation Setup Blueprint

Multi Directional Animation

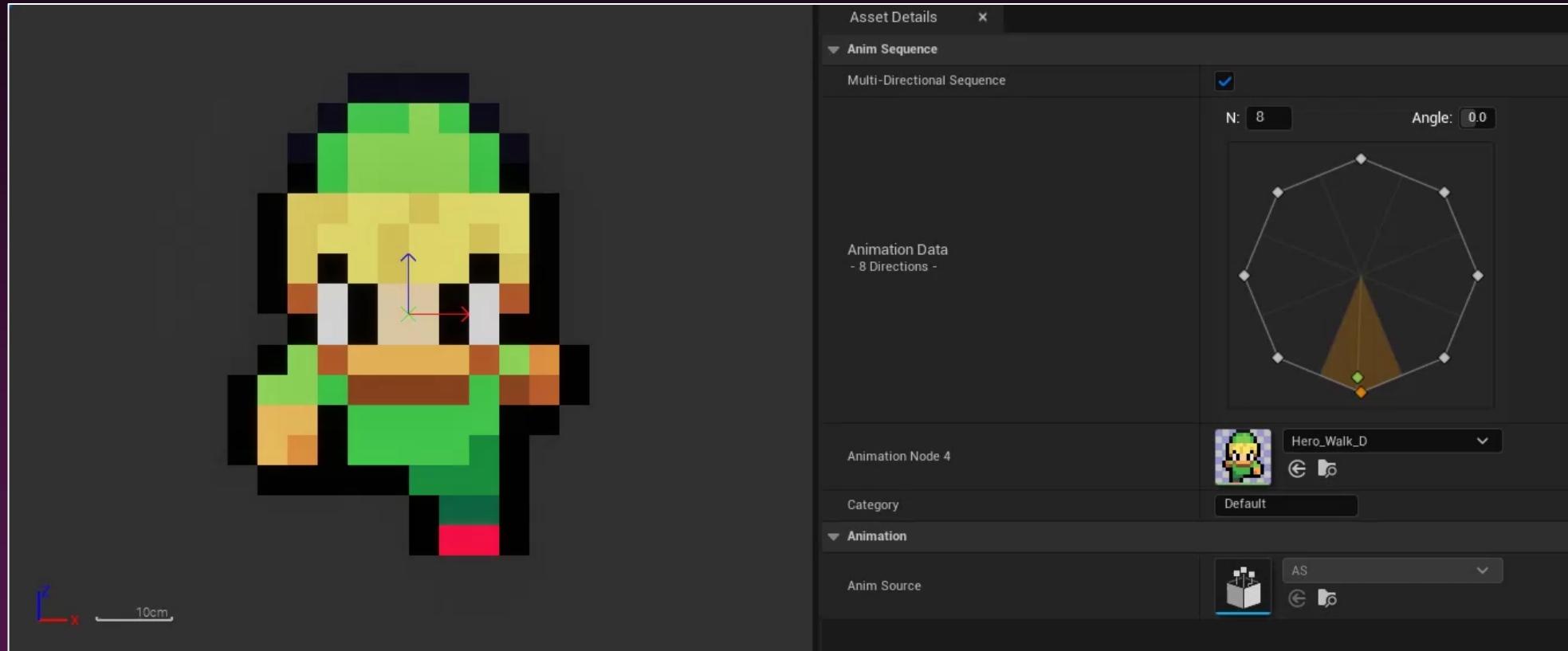


Figure 24 : 8-way directional animation

Improving character animations



“Visual feedback is another key component of 'game feel.' The right particle effect, the perfect screen shake, can amplify the impact of an action and provide crucial information to the player”[14].

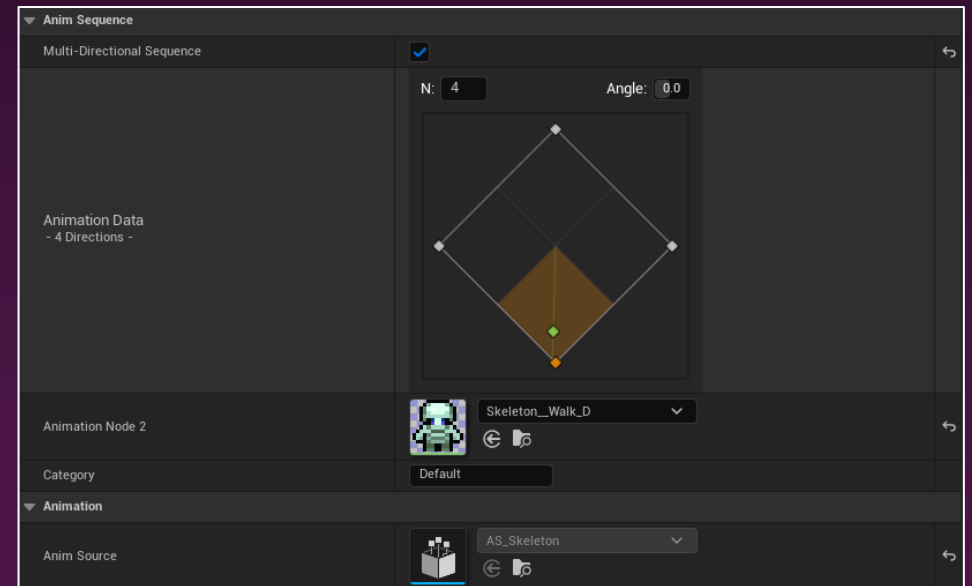


Figure 25 : 4-way directional animation

Enemy AI

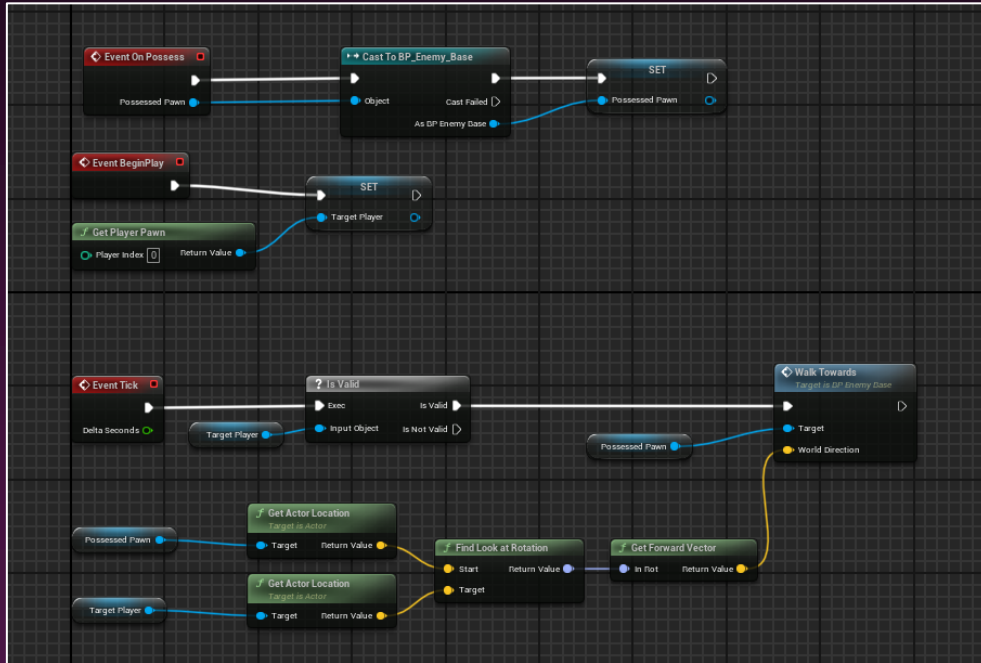


Figure 26 : Setting up the enemy character follow mechanic using blueprints

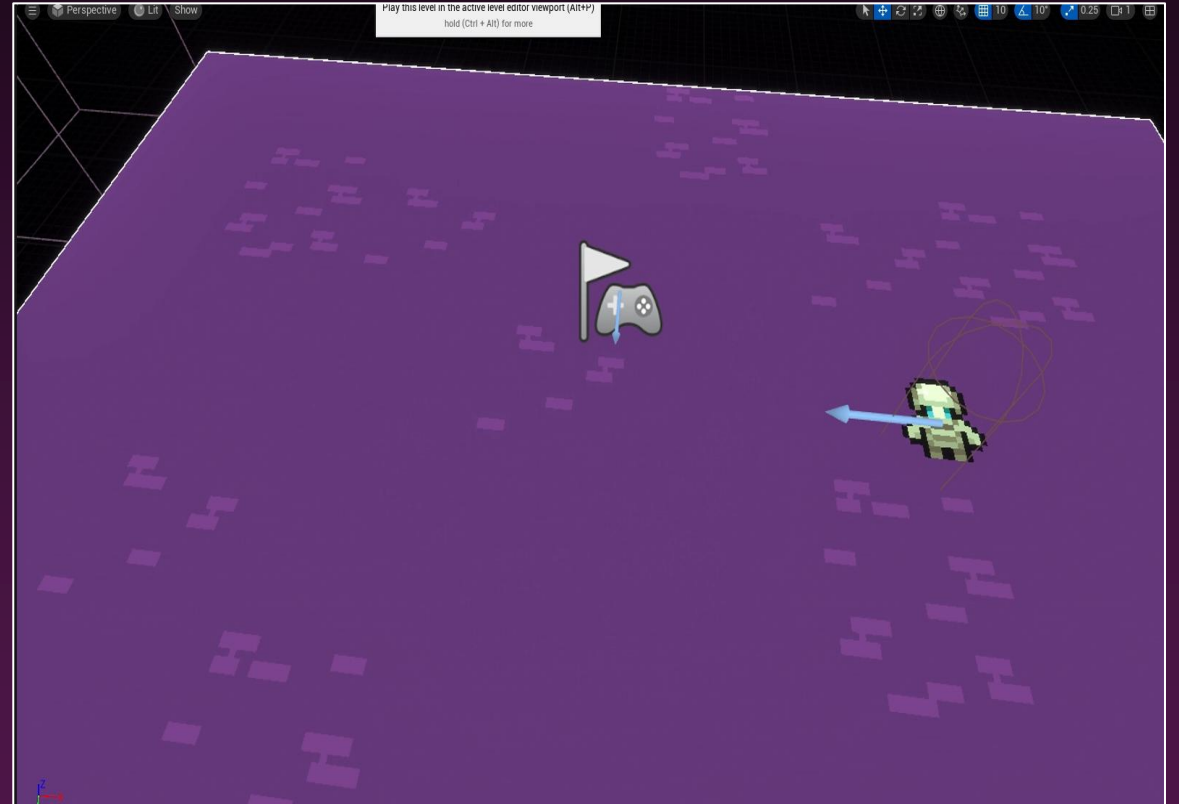
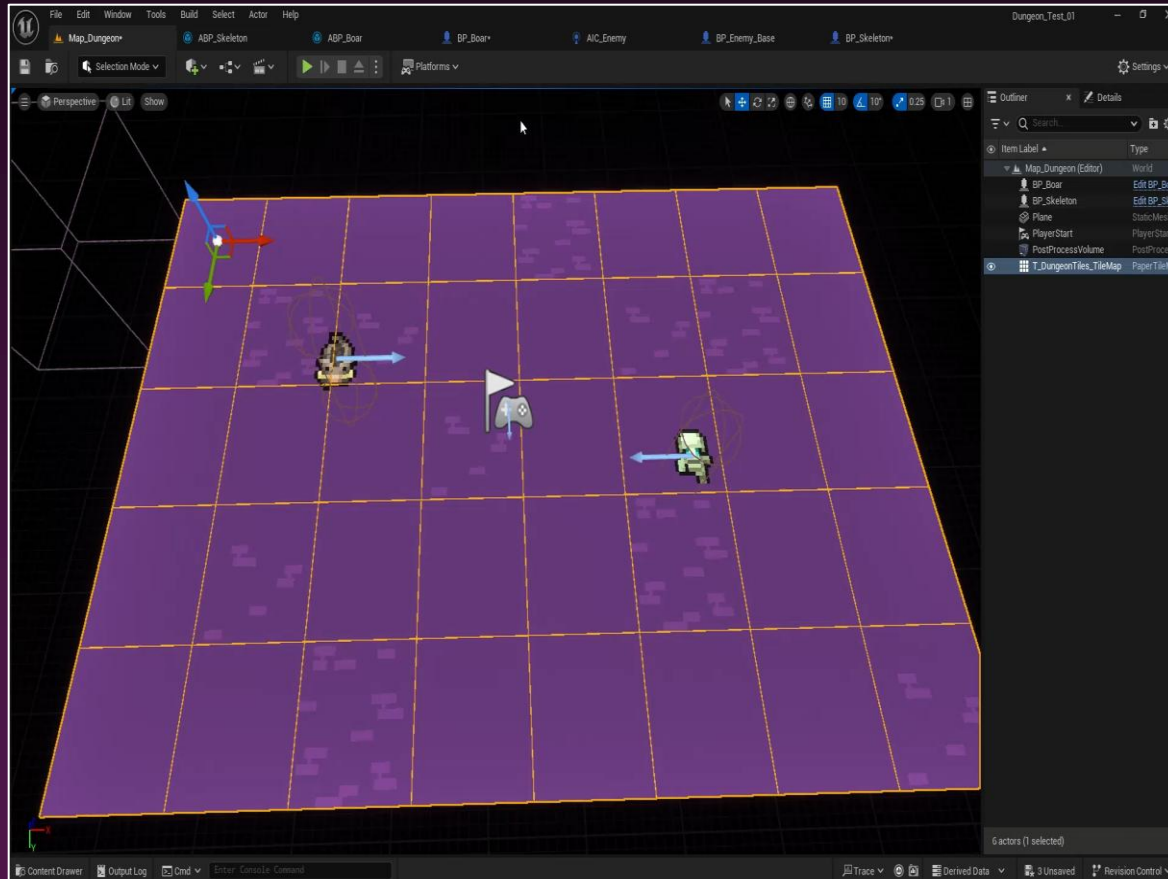


Figure 27 : Setting up the enemy character follow mechanic

Enemy AI Variations



Health = 2
Attack = 1
Speed = 200cm/s



Health = 4
Attack = 1
Speed = 100cm/s

Hitboxes

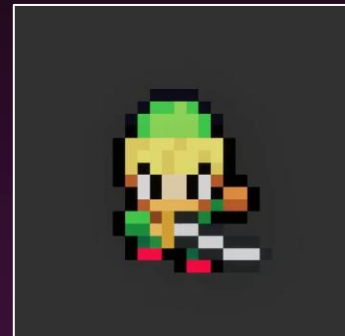
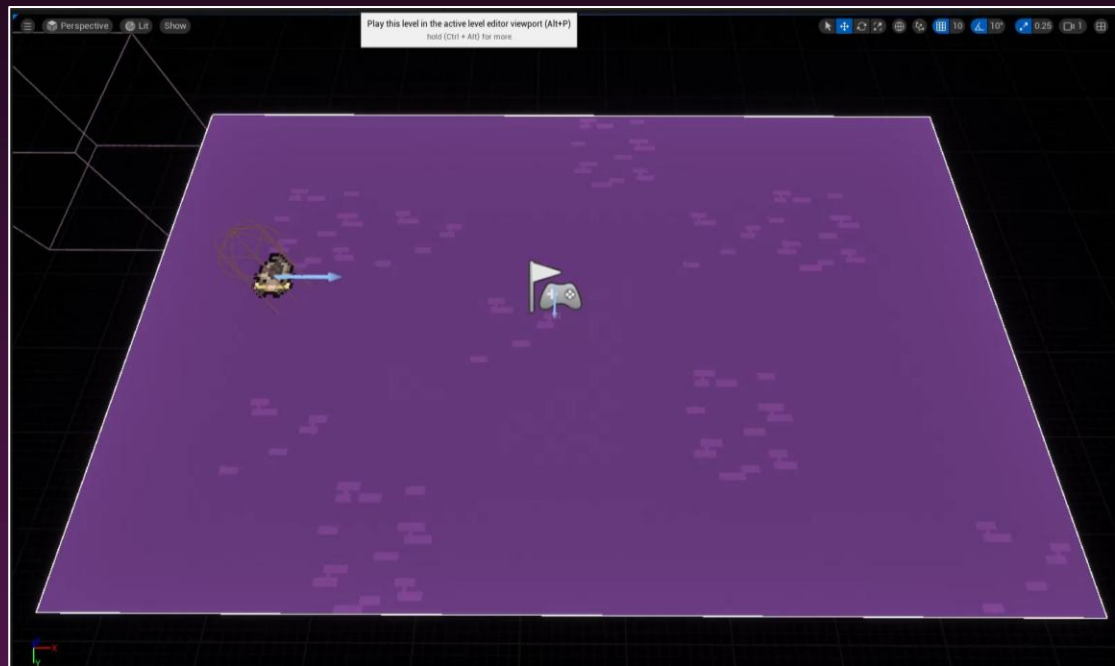


Figure 28 : Creating player
hitbox area



Figure 29 : Showing hitbox
working with attacks

Attacks



Sword Attack = 2

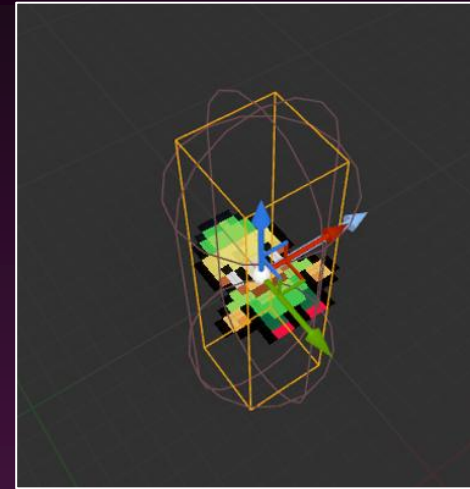


Bow Attack = 1

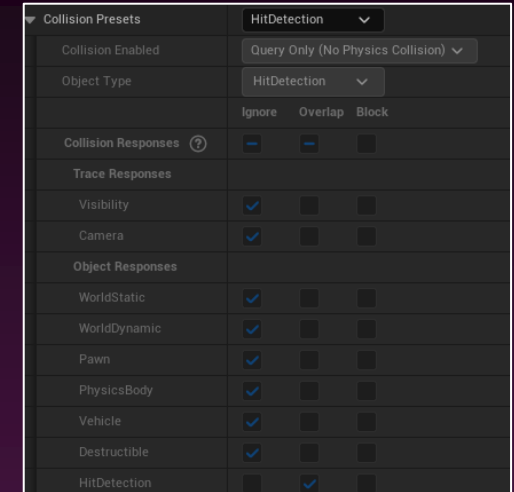
Player Interactions – Taking Damage



Figure 30 : Taking damage – Flash cue implemented



Collision Hitbox



Collision Hitbox properties

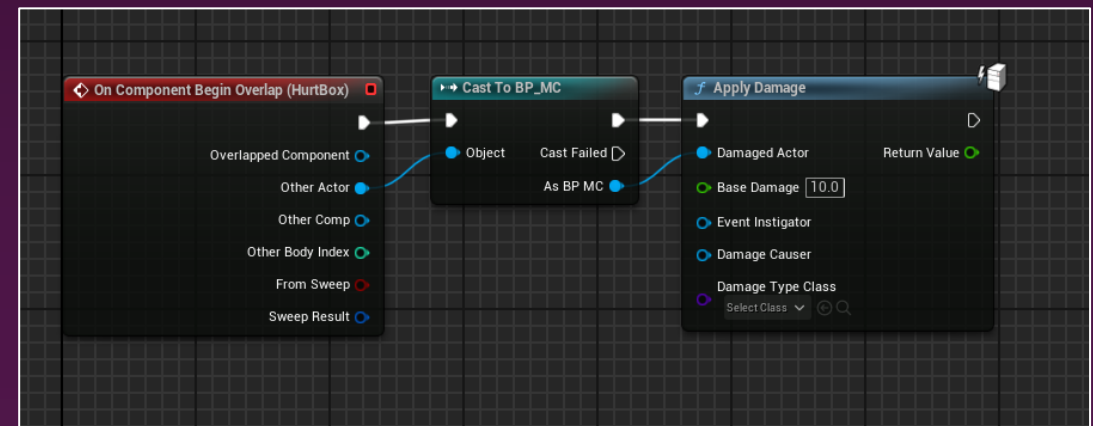


Figure 31 : Applying damage Blueprint

Making Enemy Attacks More Impactful



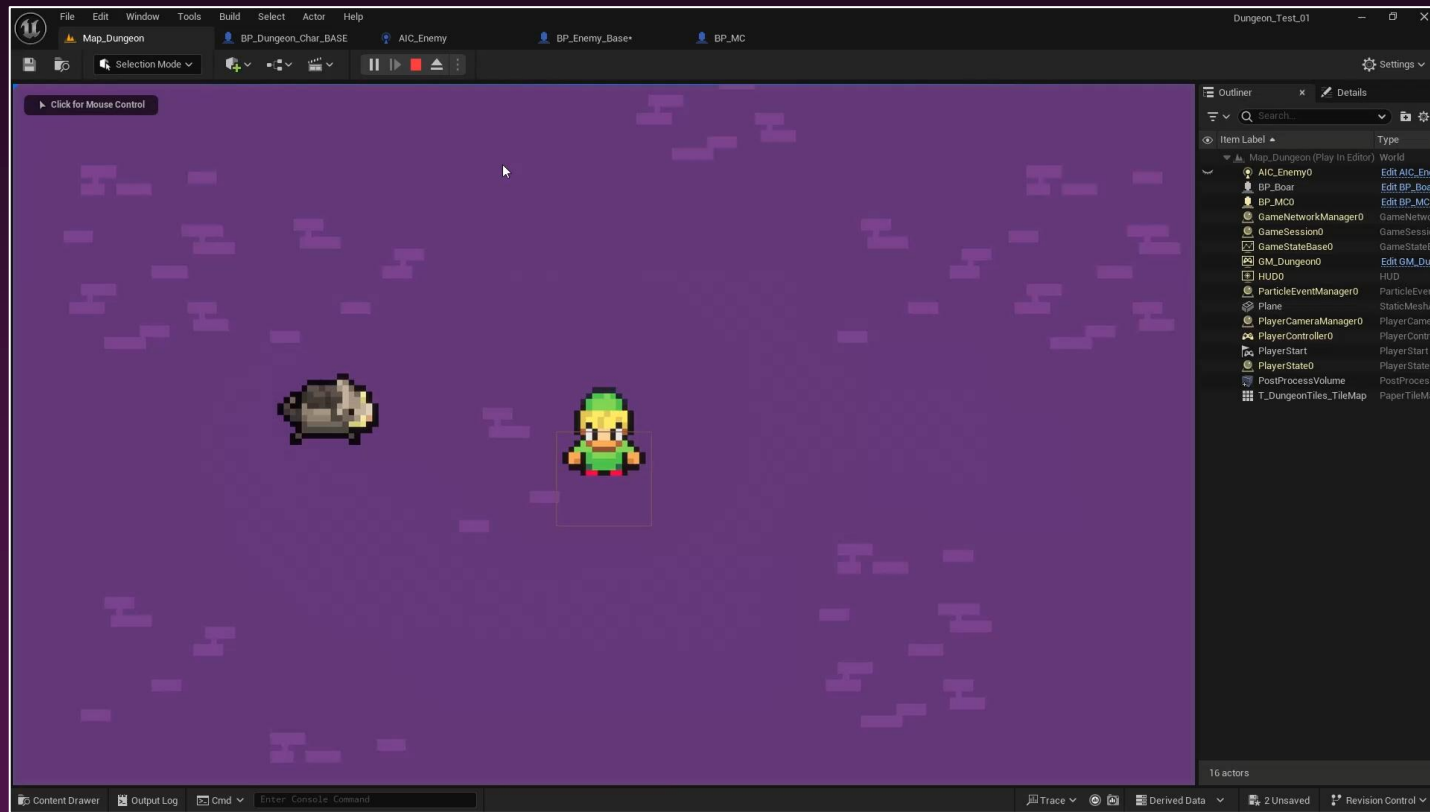
Figure 32 : Original
player damage



Figure 33 : Knockback implemented to the
player character taking damage

“Game feel is the glue that binds all other game elements together. It is the intangible, tactile sensation of control over a digital character or object, and it can transform a mediocre game into an exceptional one.” – Steve Swink [12]

Taking Damage



Game Feel



Figure 34 : Stunned
state

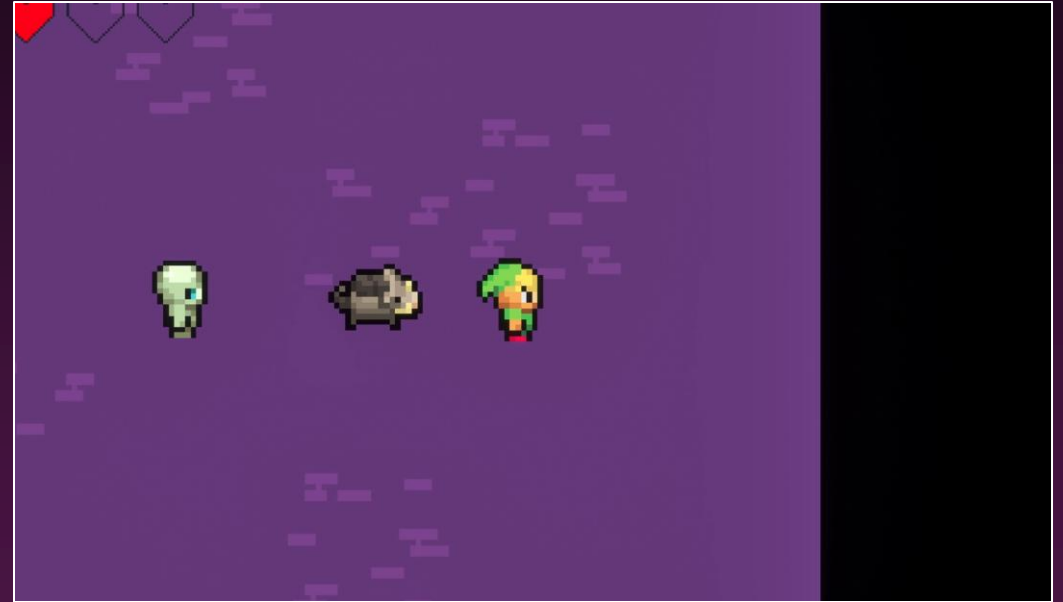


Figure 35 : Defeated state

Invincibility

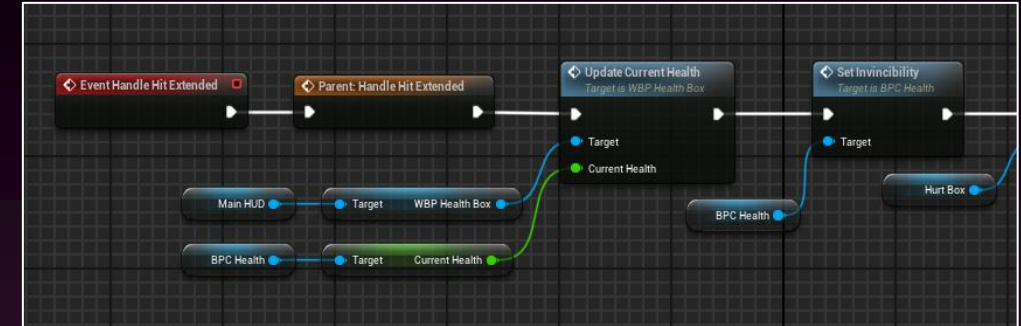


Figure 38 : Invincibility blueprint



Figure 36 : Before
invincibility



Figure 37 : With
invincibility

Defeating Enemies



Figure 39 : Enemy defeated state

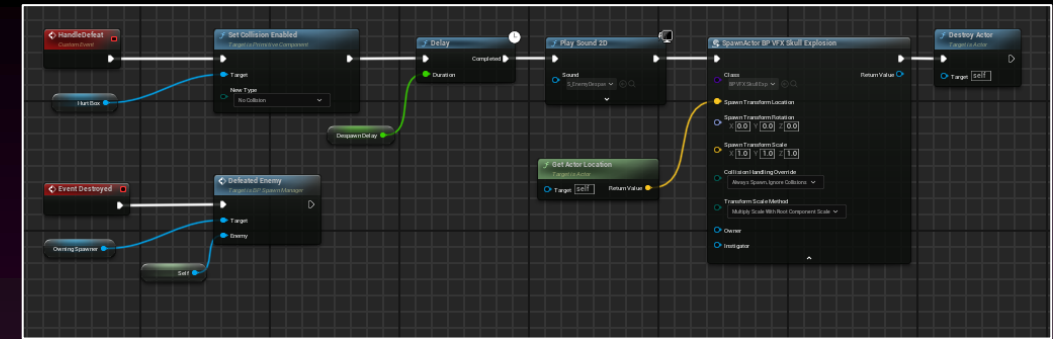


Figure 40 : Death Effect Animation Blueprint

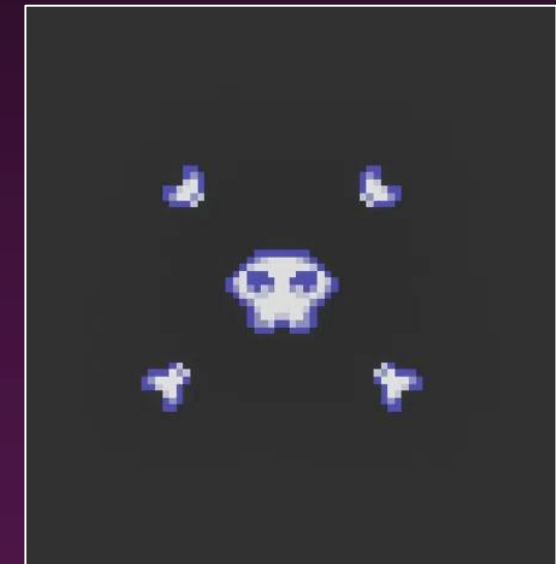


Figure 41 : Death Effect Animation

Making Ranged Weapons

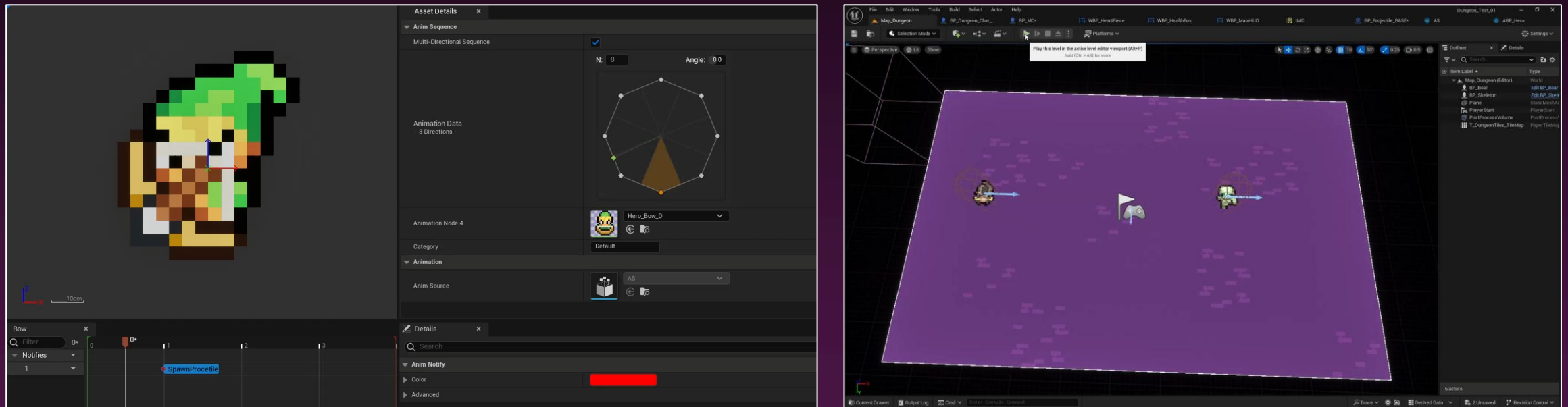
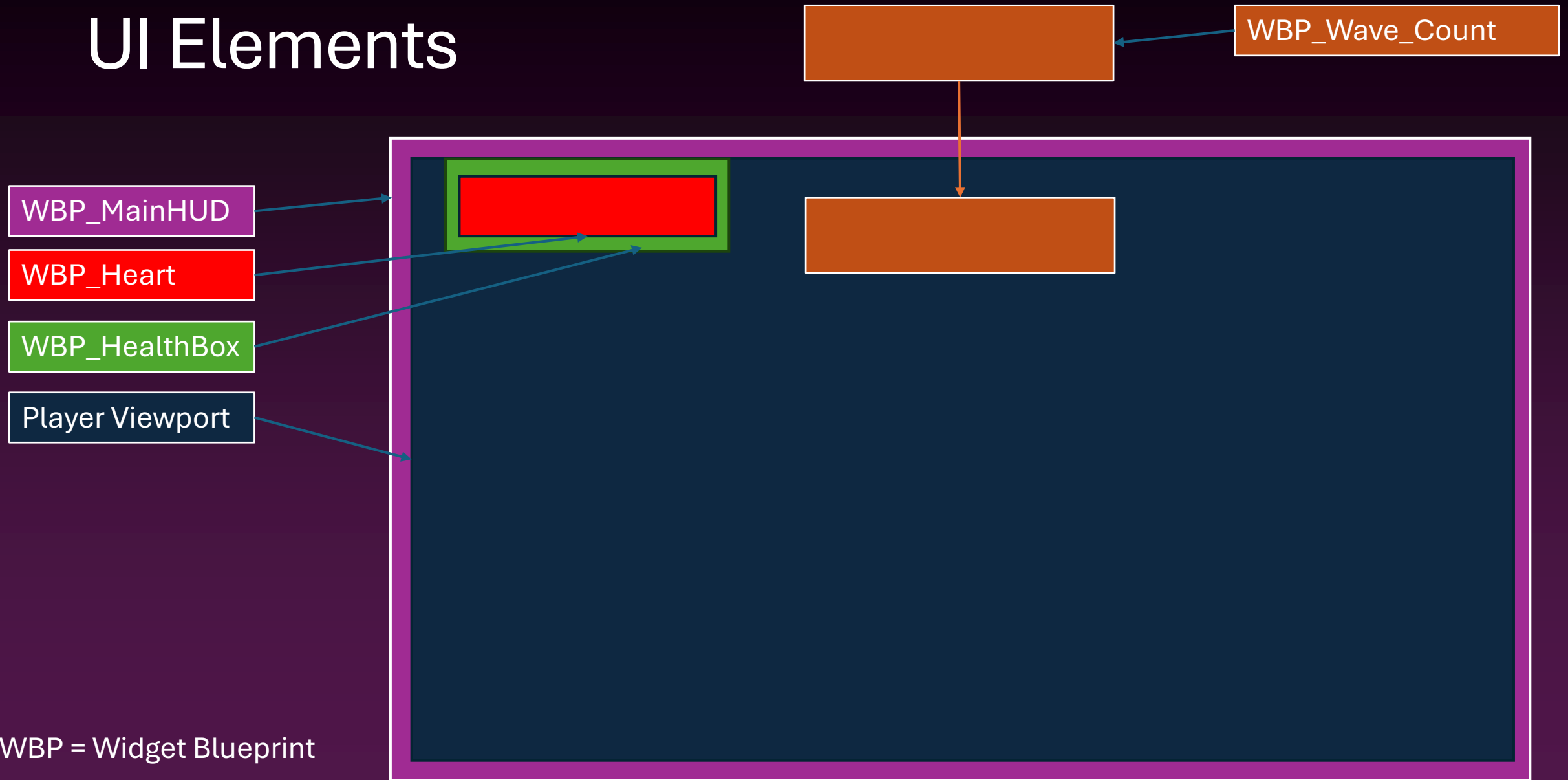


Figure 42 : Setting up directional animation for the bow

UI Elements



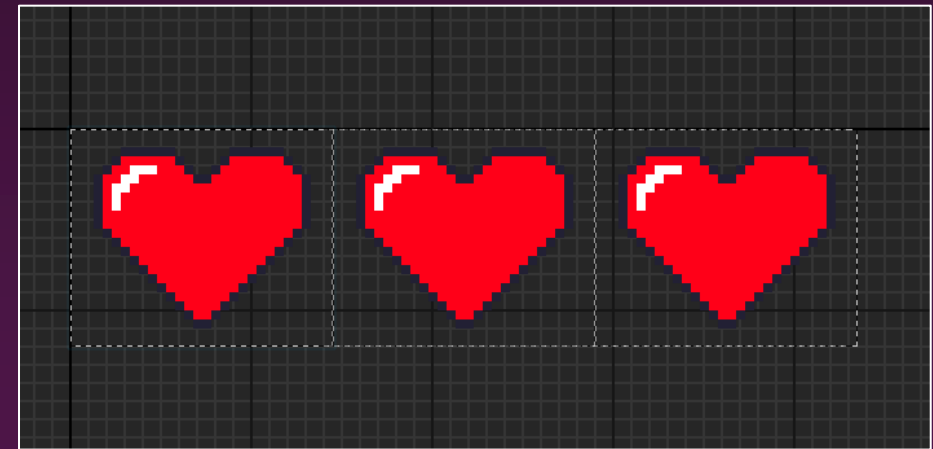
UI Elements – Health Bar & Losing Hearts



Figure 44 : Implementing UI
Health Bar



Figure 45 : Health Bar
Animation



Health Bar

UI Elements – Wave System

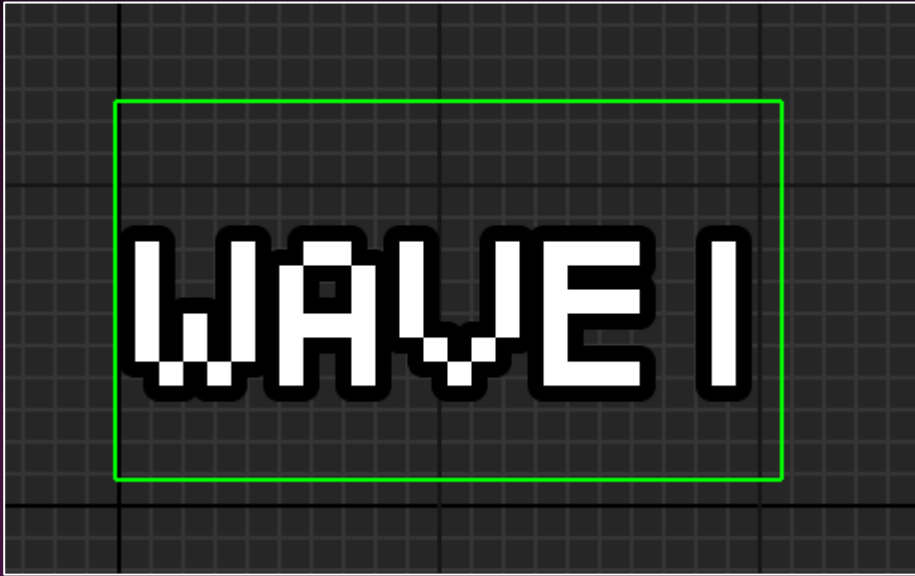
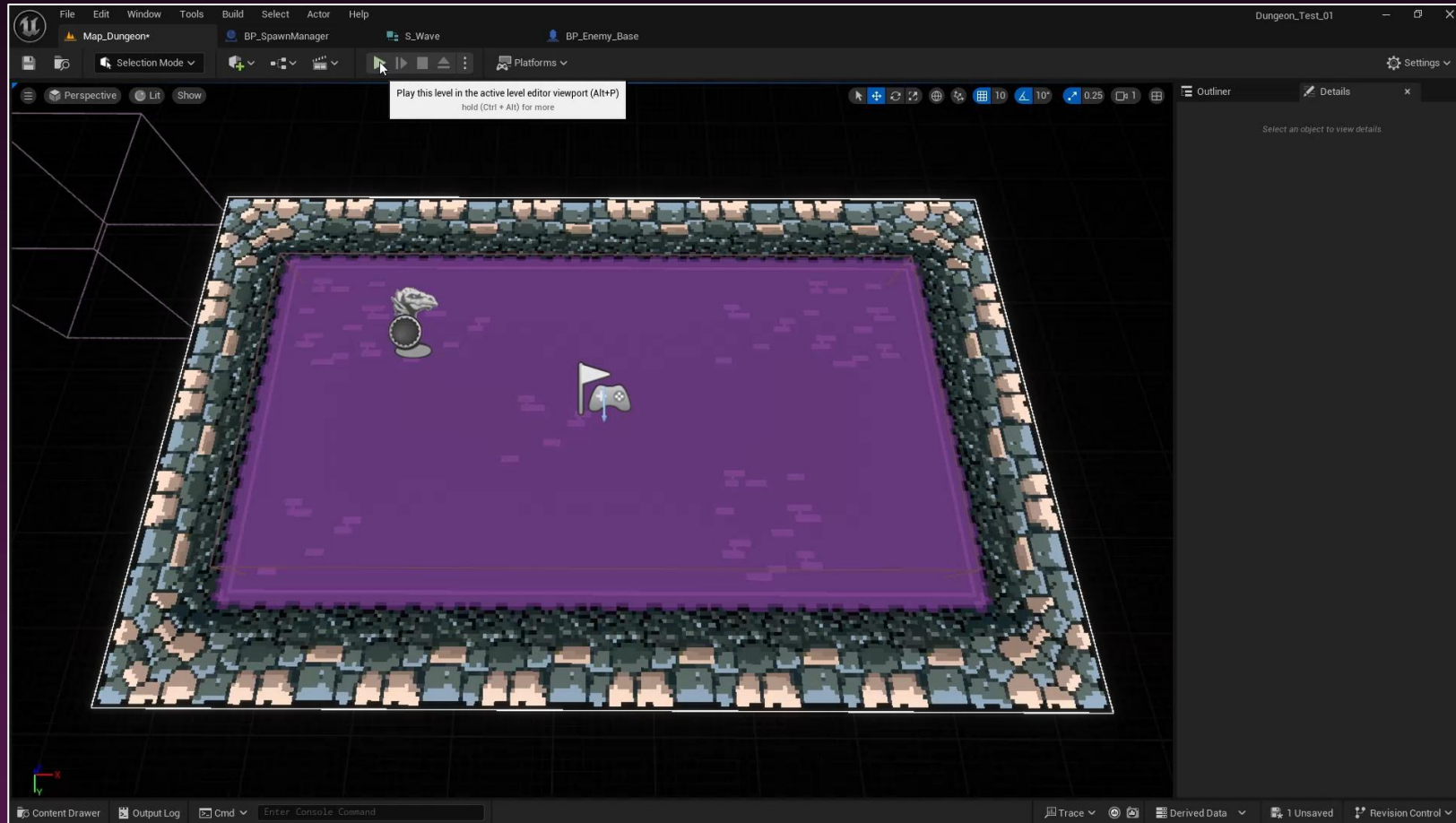


Figure 46 : Wave Counter

Enemy Spawner



Implementing Wave System



Spawn Area

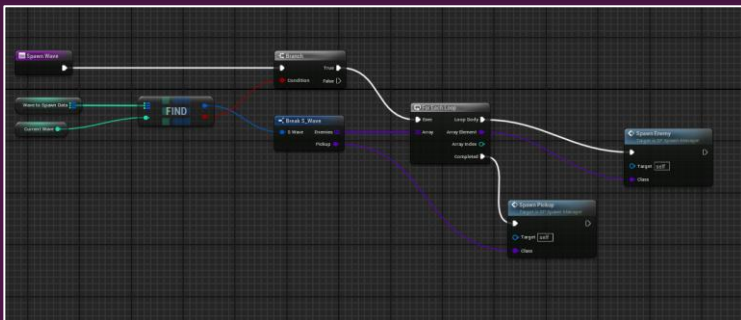
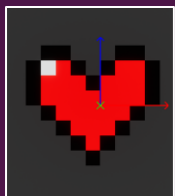


Figure 47 : Wave Spawn
Blueprint

Wave to Spawn Data	6 Map elements	⊕	🗑
▼ 1	2 members	▼	
▶ Enemies	1 Array element	⊕	🗑
Pickup	BP_Pickup_Heart	↶	🔍 ⊕ ✕
▼ 2	2 members	▼	
▶ Enemies	2 Array elements	⊕	🗑
Pickup	BP_Pickup_Heart	↶	🔍 ⊕ ✕
▼ 3	2 members	▼	
▶ Enemies	3 Array elements	⊕	🗑
Pickup	BP_Pickup_Bow	↶	🔍 ⊕ ✕
▼ 4	2 members	▼	
▶ Enemies	3 Array elements	⊕	🗑
Pickup	None	↶	🔍 ⊕ ✕
▼ 5	2 members	▼	
▶ Enemies	6 Array elements	⊕	🗑
Pickup	BP_Pickup_Heart	↶	🔍 ⊕ ✕
▼ 6	2 members	▼	
▶ Enemies	5 Array elements	⊕	🗑
Pickup	BP_Pickup_Heart	↶	🔍 ⊕ ✕

Figure 48: Wave Spawn Data

Pick ups and Item drops



Health pick up



Bow Pick up

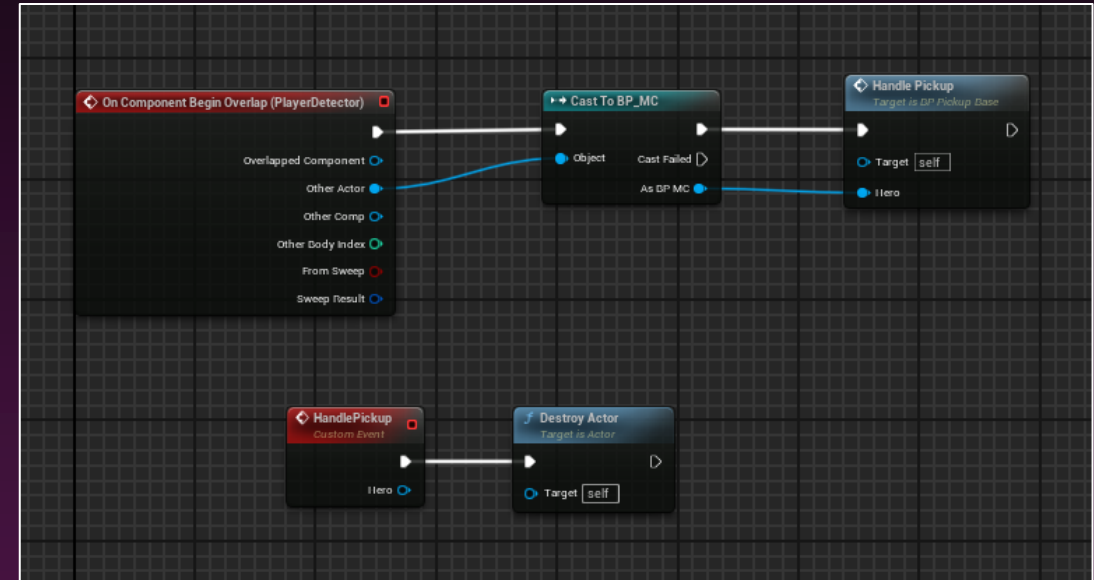
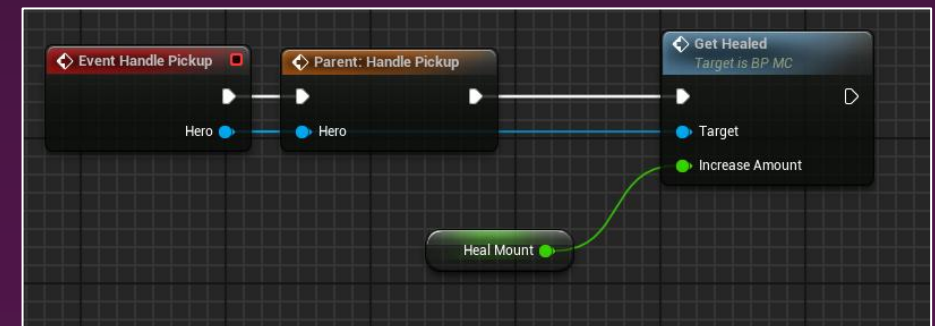
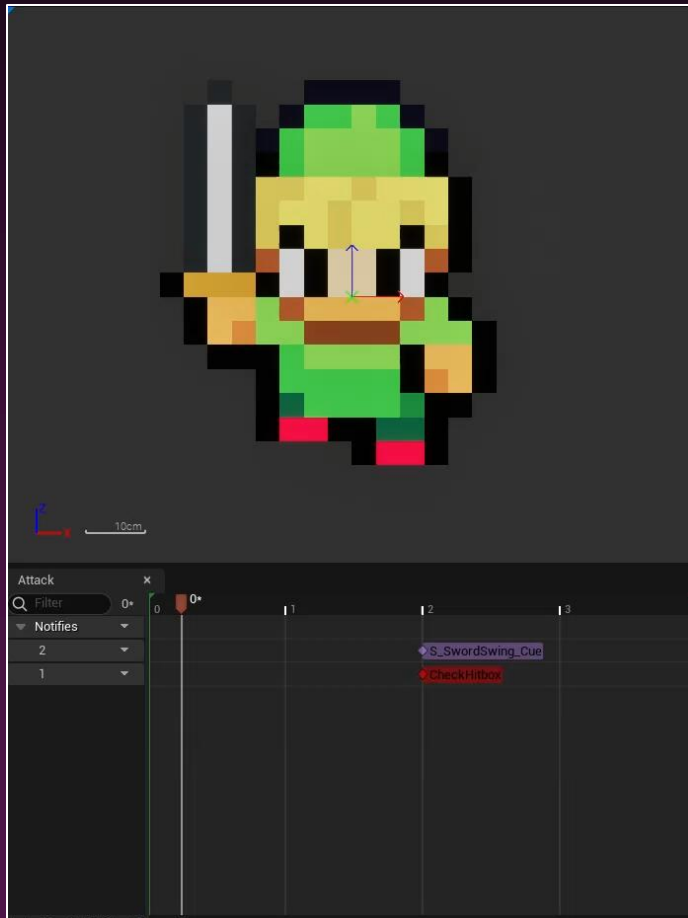


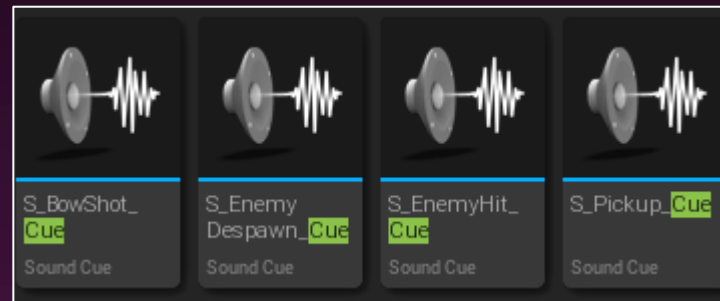
Figure 49 : Pickup Blueprint



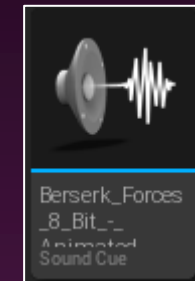
Adding Sound Effects



Adding sounds to animation sequence



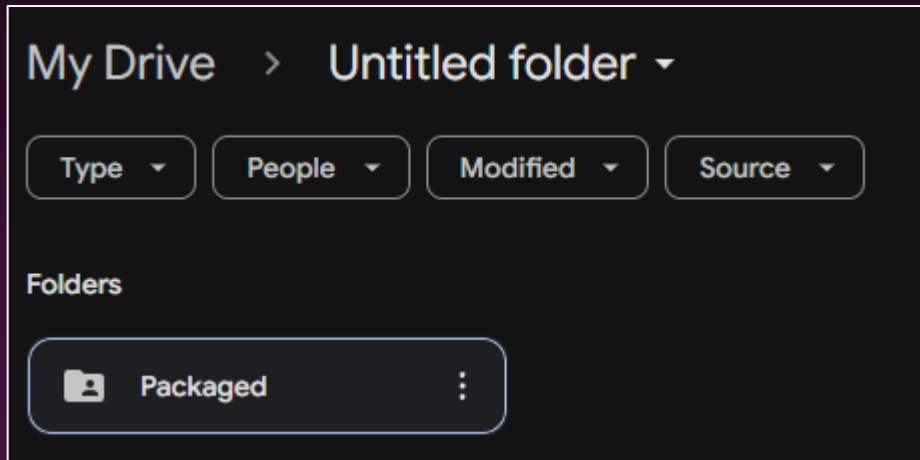
Different sound cues added for effect [8] [9] [10] [11]



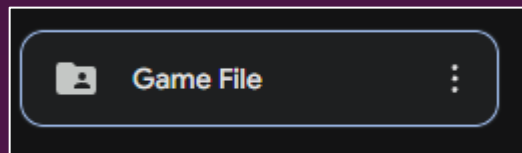
Backing track [15]

“These games trigger positive memories and dopamine release, enhancing emotional resilience and providing comfort amidst modern-day stress” [13]

Testing Phase



Shared Online Folder –
Google Drive



Before starting the game, please take a look at the keyboard layout scheme for controls.

Once you are ready click the `Dungeon_Horde_V2_Playtest` to start.

Finally when you have completed the test play, please fill out the survey form by following the link - https://docs.google.com/forms/d/e/1FAIpQLSepOzC2Dtn6kuvIlwbMW5_qCfCYDtaaEmsBrObGlqSxvcwOmQ/viewform?usp=dialog

Thanks for your help.

Figure 51 : Read me doc.
for instructions

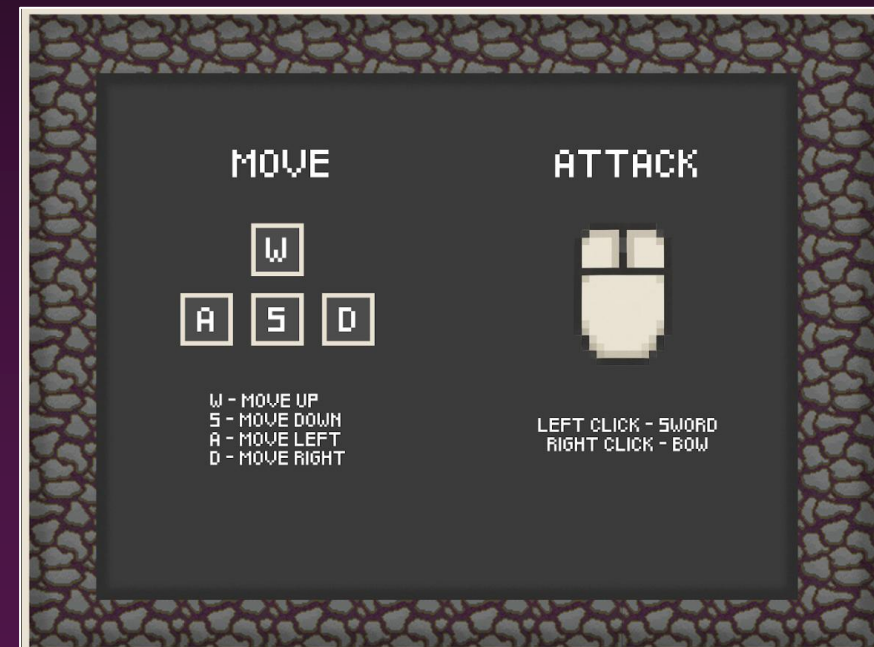
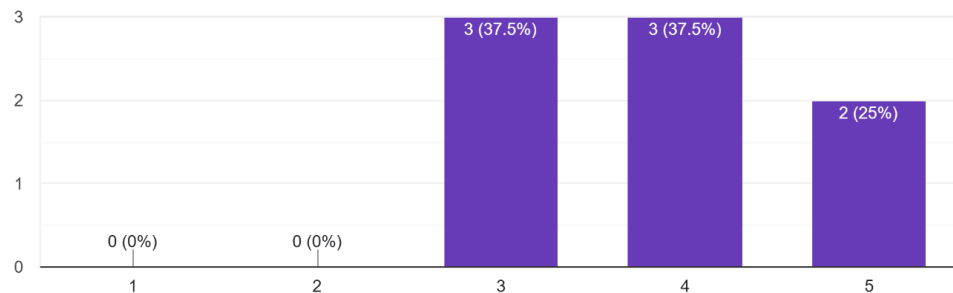


Figure 50 : Controller
Scheme

Feedback – Things to improve

How would you rate the environment?

8 responses



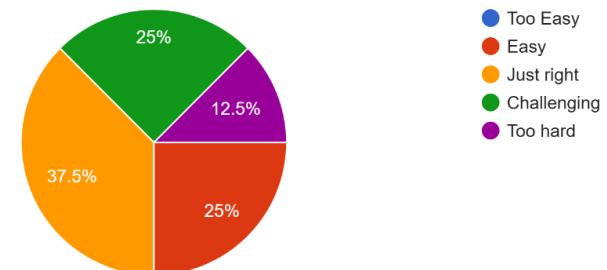
If you stand in the corner you can just spam the sword. You'll take the first initial hit but the invincibility frames are long enough to just keep spamming the sword and kill the enemies. There are enough hearts provided so that you can rinse and repeat this strategy.

More health hearts

Maybe it's just me, but I couldn't get past wave 3. It felt like the enemies were doing more damage to me than I could do to them. I think more powerful weapons introduced as more enemies spawn would be a great addition, perhaps also allowing the player to move during the attack animation or making it shorter. Another trick which I like to use in my games is to make the player's attack range slightly further than the enemies', allowing for strategic movement around the enemy.

Was the difficulty too easy, too hard or just right?

8 responses



Making Changes

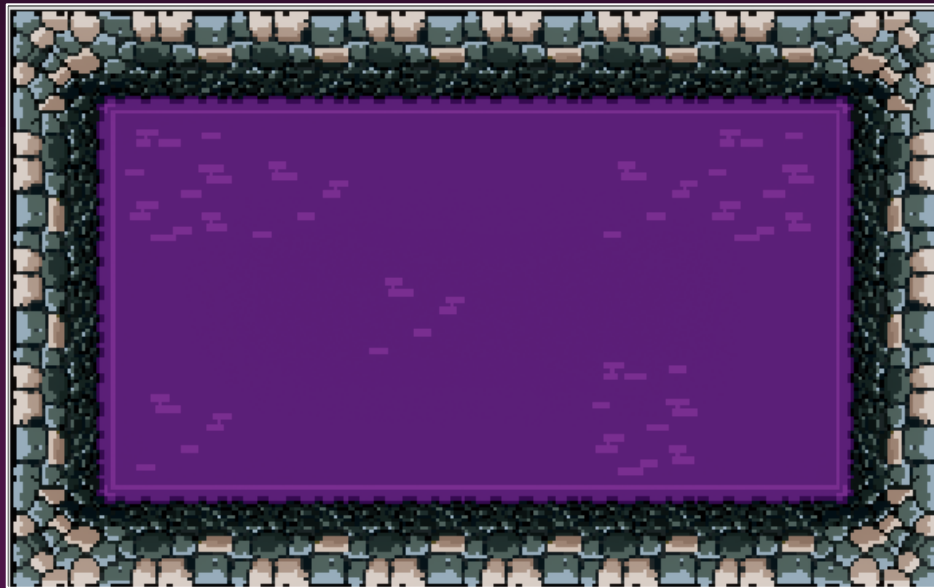
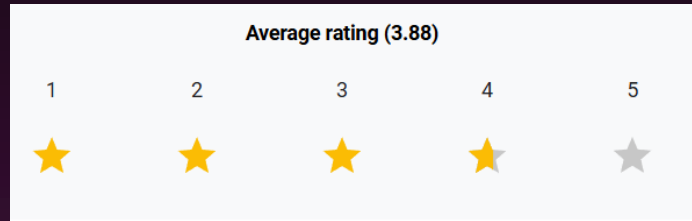


Figure 52 : Original Map
Texture & size (W8 x H5)

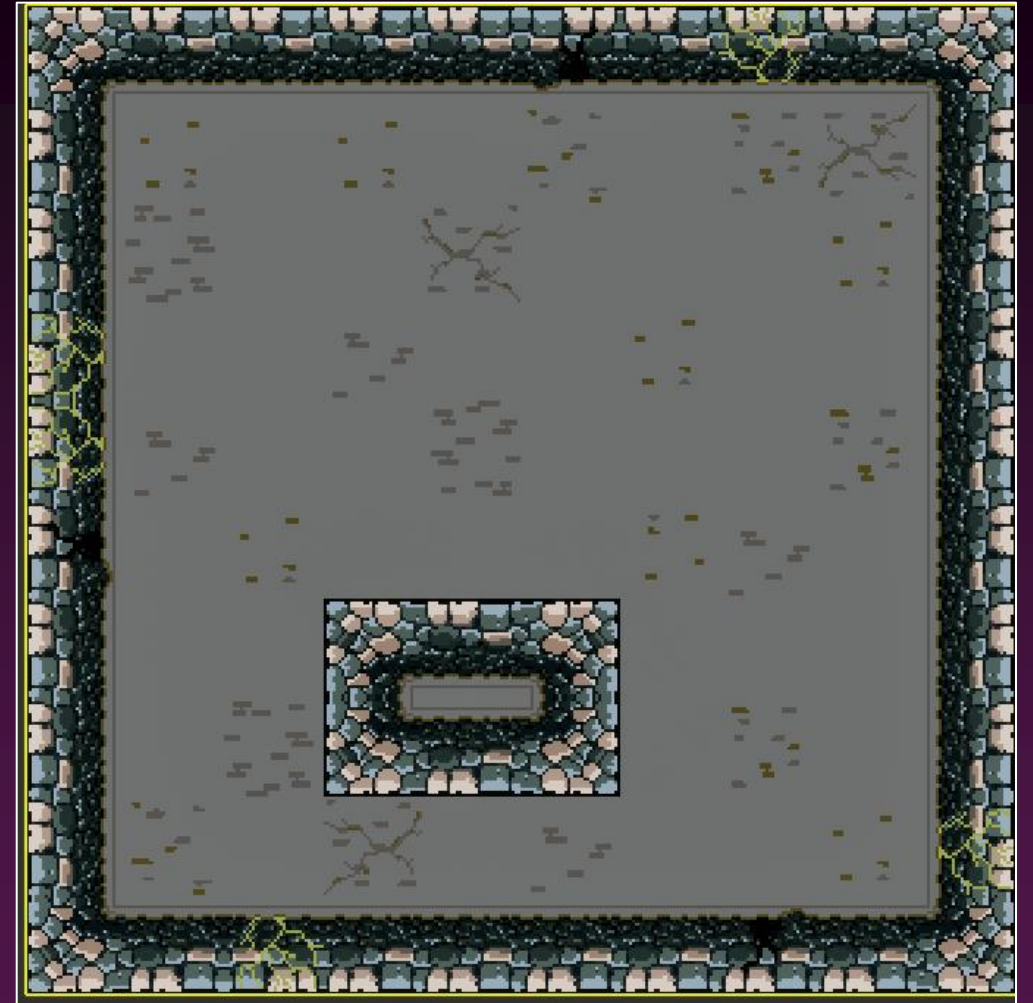
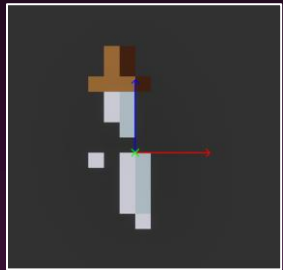


Figure 53 : Alt Map Texture
& size (W10 x H10)

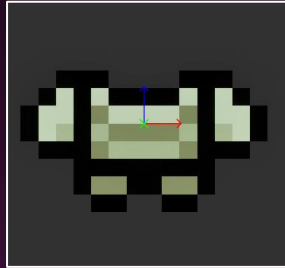
Adding further Environment Assets



Broken Sword



Wall torch



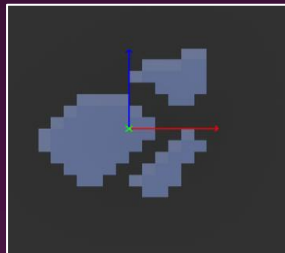
Skeleton torso



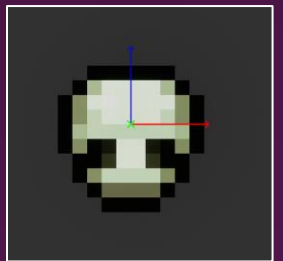
Grate



Broken Shield



Water



Skull



Sewer Drain

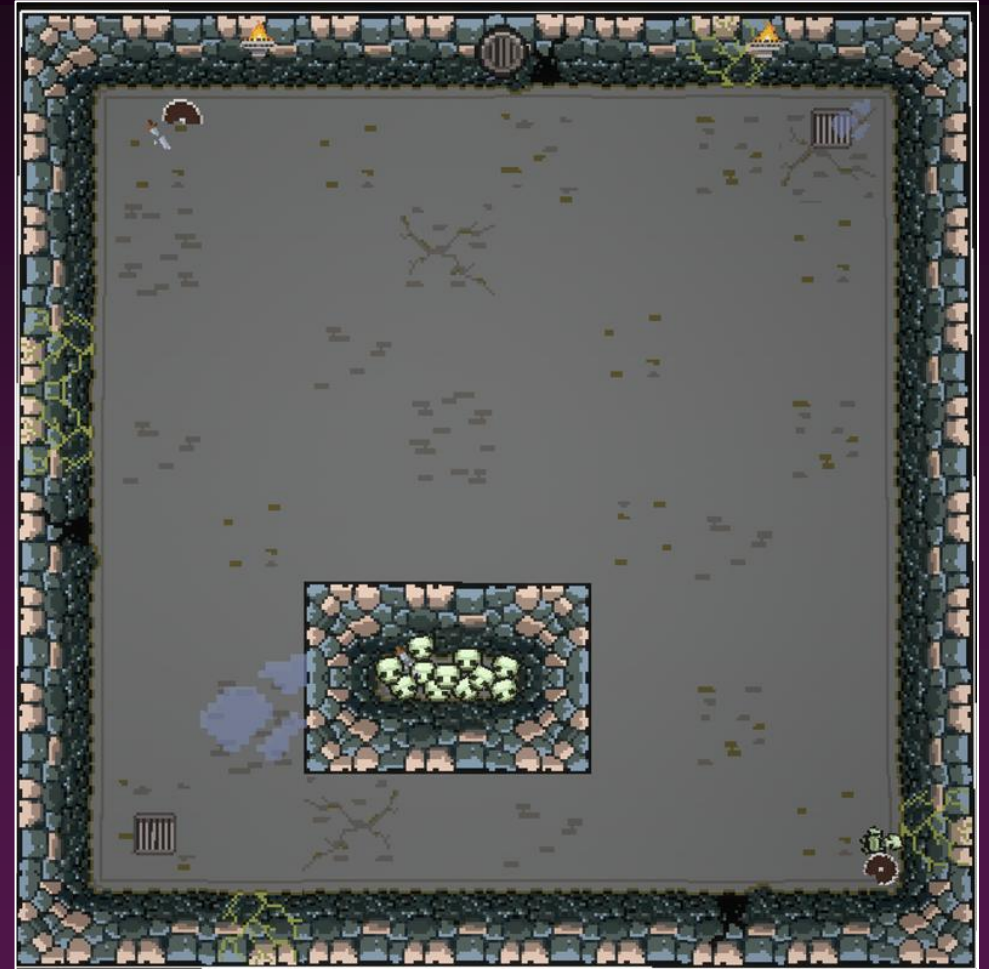


Figure 54 : New map with added environment assets

Collision Box Issues

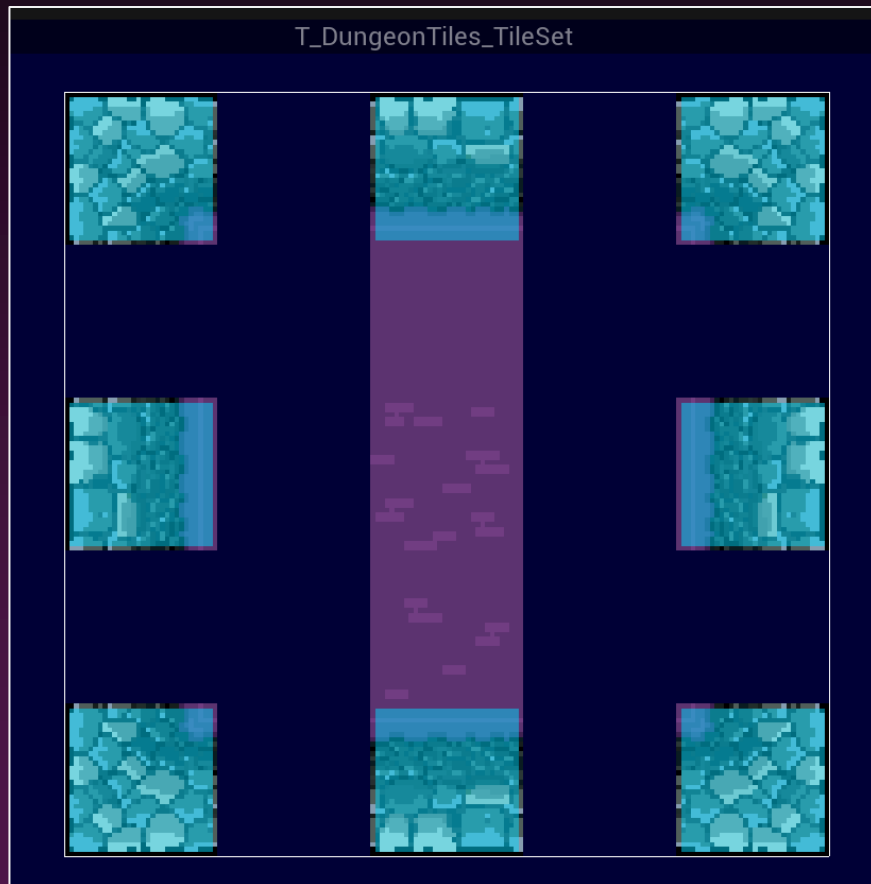
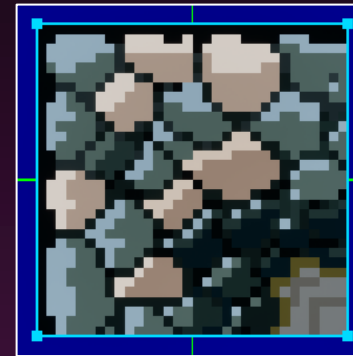


Figure 55 : Original
Collision Box On Tile Map



Original Collision



Reworked Collision

If you stand in the corner you can just spam the sword. You'll take the first initial hit but the invincibility frames are long enough to just keep spamming the sword and kill the enemies. There are enough hearts provided so that you can rinse and repeat this strategy.

Camera and Map



Original Fixed World
Camera

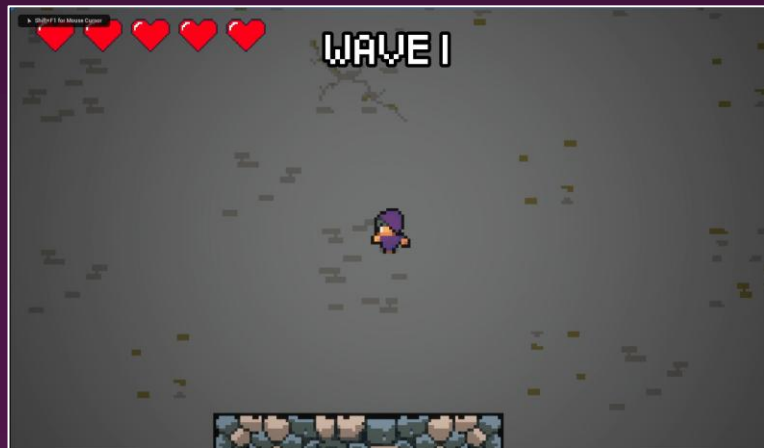


New Player Source
Camera

Balancing



Health = 2
Attack = 1
Speed = 200cm/s



Health = 2
Attack = 1
Speed = 165cm/s

Final Thoughts

- Overall Experience
- Project Scope
- Perspective
- Development



Future Development



More Enemy
Characters
(Early Concepts)

More pickups
(Early Concepts)

Customisation
(Early Concepts)

Thanks for listening

Any questions?

Appendices

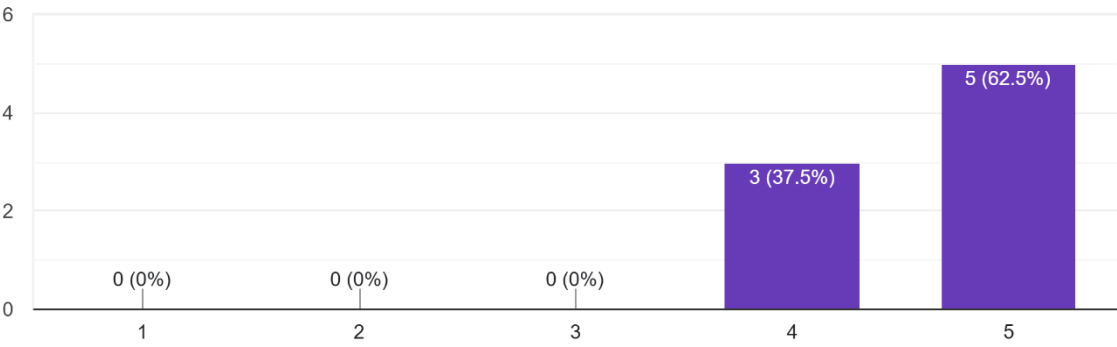
What is your first impression of the game's visual style?

8 responses

- It has a very retro vibe like being played on a gameboy colour.
- Retro and nostalgic
- I really like it, especially the characters!
- Retro like dig dug
- Nice and vibrant and good graphics
- Vibrant, clean, fun
- Legend of Zelda, clean, impressive sprite work
- A nice call back to retro top down shooters; similar idea to what Vampire Dungeons is going for.

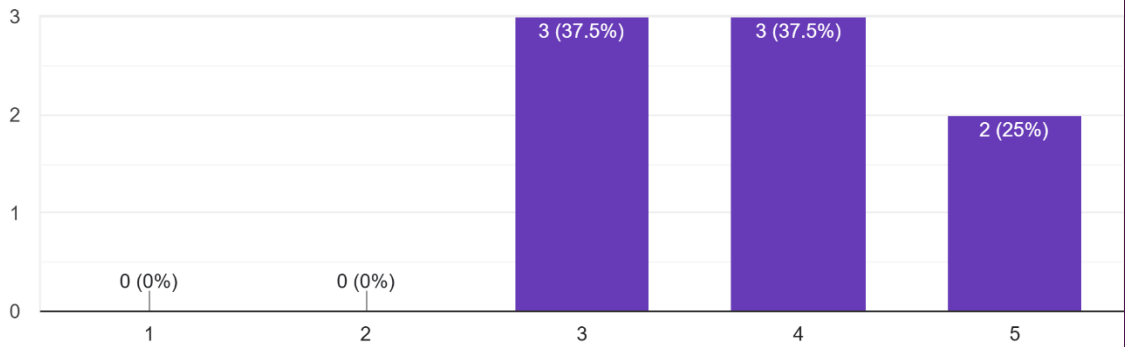
How would you rate the overall quality of the sprites and animations?

8 responses



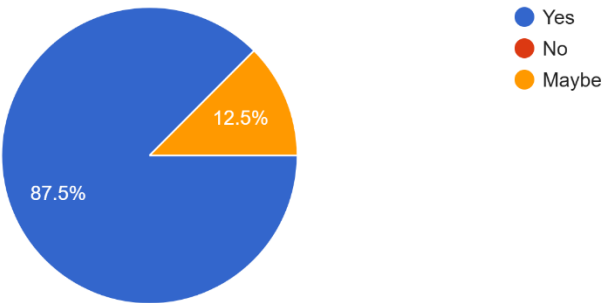
How would you rate the environment?

8 responses



Did you like the characters? (Player character & Enemies)

8 responses



Did anything about the style feel out of place?

7 responses

No it actually felt like I was playing a slice of an established title.

I would like to see the pixel sizes matched across everything, the background is marginally different from the characters, and the HUD uses much smaller pixels, also the skulls were linear filtered instead of nearest neighbour (blurry).

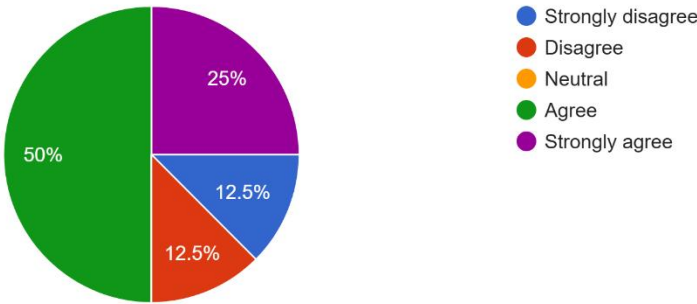
I thought the style matched the music and gameplay very arcade retro.

No

No.. the brightly colored adventurer fits the dreary dungeon environment.

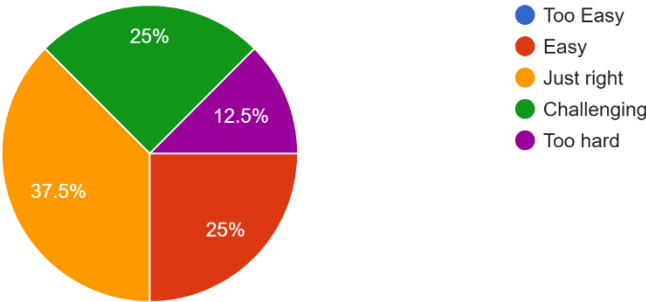
Were the controls easy to understand and responsive?

8 responses



Was the difficulty too easy, too hard or just right?

8 responses



What would you add or take away to make the difficulty just right?

8 responses

Maybe at the start of battle allow the enemies to be hit? to make it less about running away at the start.

More health hearts

Maybe it's just me, but I couldn't get past wave 3. It felt like the enemies were doing more damage to me than I could do to them. I think more powerful weapons introduced as more enemies spawn would be a great addition, perhaps also allowing the player to move during the attack animation or making it shorter. Another trick which I like to use in my games is to make the player's attack range slightly further than the enemies', allowing for strategic movement around the enemy.

Have ammo for the bow as you could easily train the enemies so they couldn't touch you and fire away. When I did a playthrough with melee only I found the game to be much more challenging.

N/A

More powerups and or making the current ones appear more frequently.

I would move with WASD, and then aim with the mouse. it felt clunky to use, especially the bow. when

Did you feel encouraged to keep playing?

8 responses

Yes, The increased difficulty helped keep me interested.

Yes - very addictive

If there were more levels I would certainly keep trying, however the motivation wasn't there when I kept dying and there was no new environments to see.

Yes as I'd like to see a variety of enemies and weapons, the same kind of craving as binding of isaac.

Yes

Yes and once it is fully developed and finished I would swing/shoot away for hours

yeah, even though i had difficulty, i wanted to keep playing. to push through the challenge

Yes, especially with the increasing challenge of each round

Was there any bugs or moments where the game wasn't behaving as expected?

8 responses

not sure if you are supposed to be able to attack enemies as soon as they spawn in or not?

No

Not really a bug but you can pick up the health that spawns with the first wave while your health is still full, wasting it. Something that can be learnt but is slightly annoying as a new player.

If you stand in the corner you can just spam the sword. You'll take the first initial hit but the invincibility frames are long enough to just keep spamming the sword and kill the enemies. There are enough hearts provided so that you can rinse and repeat this strategy.

Nope

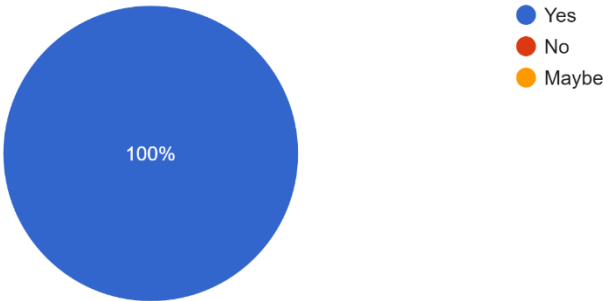
No bugs to report

no

No.

Was there enough context to understand your goal in the demo?

8 responses



How would you describe the game's mood or vibe in 3 words?

8 responses

Retro, Fantasy, 8bit

Retro, nostalgic, addictive

retro dungeon crawler?

Arcade dungeon survival

Fast, fun, bright

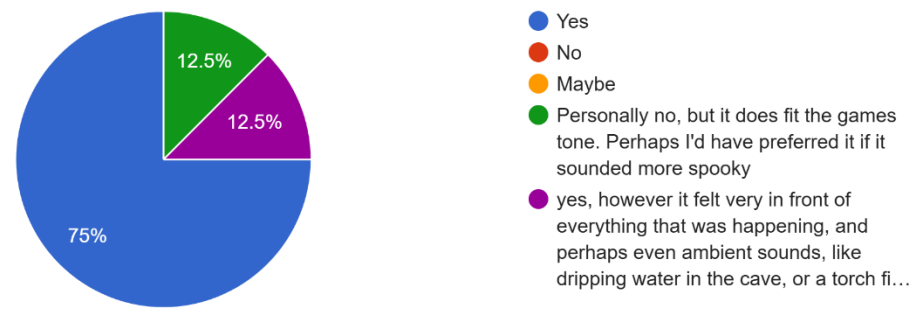
fun, lighthearted, addicting

Pixel, oldschool, dungeon

Fantasy, Dungeon-ey and mystic

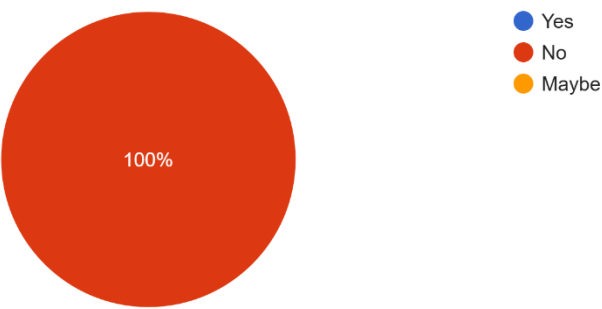
Did you like the games soundtrack?

8 responses



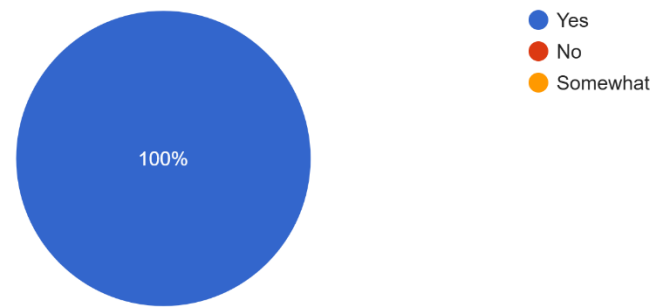
Was the any of the music or sound effects annoying or distracting?

8 responses



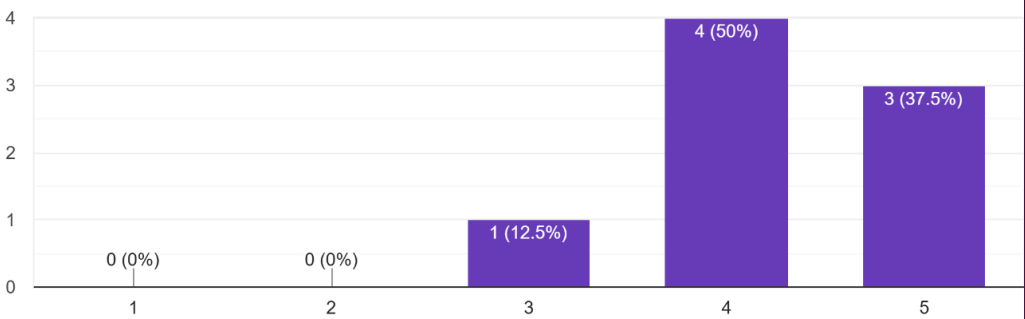
Did the sound effects match the gameplay and atmosphere?

8 responses



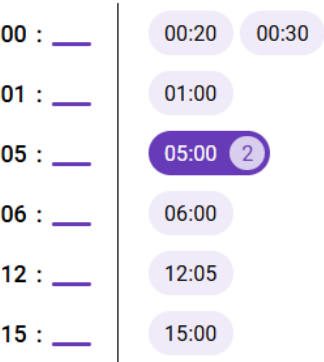
How would you rate the overall sound and music of the game?

8 responses



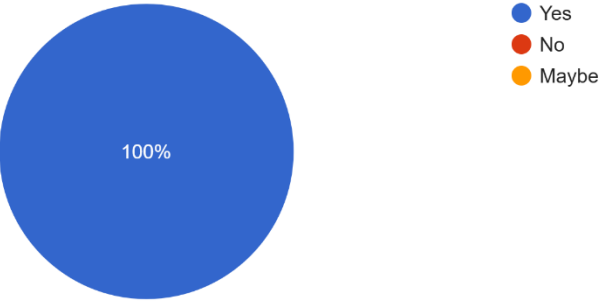
How long did you play the demo for?

8 responses



Would you replay the demo if there was more content?

8 responses



What features would you like too see in the full version of the game?

8 responses



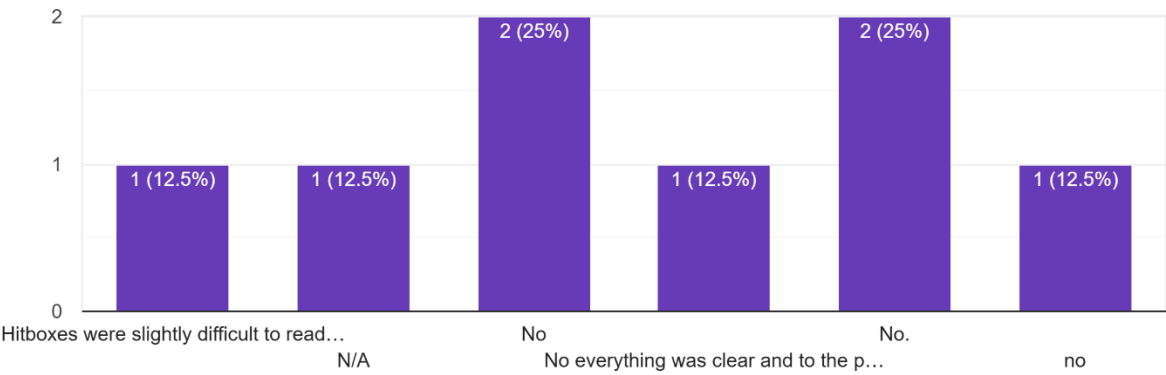
What would make you more excited to play a full version?

8 responses

- A promo video with content that would be included?
- Up the main characters skills
- More levels, difficulty selection options.
- Similarir to binding of isaac and enter the gungeon. Just more enemies and weapons.
- Power ups/weapons/bosses
- More versatility in combat (Magic, daggers etc...)
- any of the changes i've mentioned, and updates from the developer on how the game is coming along.
- A fully fleshed out weapons systems, with enemies that give the player different challenges (I.e. Dodging projectiles)

Was there anything about the games mechanics that was unclear?

8 responses



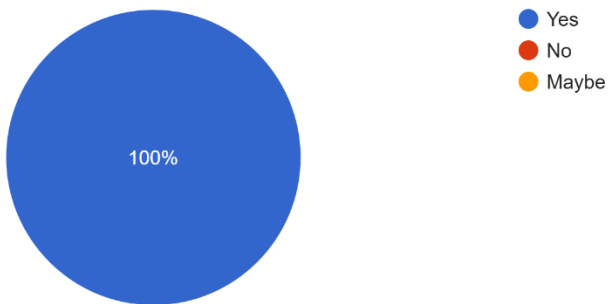
What was the one thing you would definitely keep in game?

8 responses

- The art and sprite style
- The overall look
- Character art and animations.
- The medieval dungeon style
- Pace
- The simplicity of the controls.
- i like the vibe and game style, it is a very good type of game to get stuck into. i would keep the combat
- The damage system (Including the hearts)

Was the HUD and UI easy to understand? (Health bar, Wave wave, etc)

8 responses



What would you change or improve?

8 responses

The level design, to make it more than a combat arena. Potentially have it like a JRPG in the old final fantasy 1,2, and 3 games on Gameboy.

More chance to increase health

Difficulty and levels.

The level layout, maybe like a maze system similar to pac-man but with more movement space.

Just content

In its current state I wouldn't change anything.

a shop, perhaps some roguelike elements to make each different replay a little different every time, with meta unlocks, more enemies and bosses, perhaps puzzle rooms on certain waves? I would move with WASD, and then aim with the mouse. it felt clunky to use, especially the bow. when taking damage, the little stun felt bad as teh enemies had time to pile on top, and you become stun locked. not sure what i would do to remedy that. i think enemies death animation should be quicker, and trigger immediately on death as

Any other comments or feedback?

4 responses

Great demo really enjoyed the art style.

Cool game! In answer to the question "Were the controls easy to understand and responsive?" I put agree, however, I strongly agree with "controls easy to understand" and remain neutral about "responsive" due to the length of the attack animation and being unable to move during it.

Looking forward to seeing the game develop and playing it in a more polished state.

no as previous.

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