

Ashton McBride's Work Document

Red Handed - GAME 2359

Notes:

- Click the button under each video in order to view them.

⌚ Weekly Standup - 2/14/2025

- Set up the group project repository for Unreal 5.4.4 using Diversion.
- Imported greybox assets into the project file to ensure objects modeled by the art team were able to make their way into the project. This contributed to the art team identifying a few problems related to the scaling of imported objects and their file types.
- Programmed the framework for NPC patrolling and detecting the player when they walk within a certain radius in front of an NPC.

Search for a repo Mine Only

Local Workspaces

🕒 RedHanded Sync:

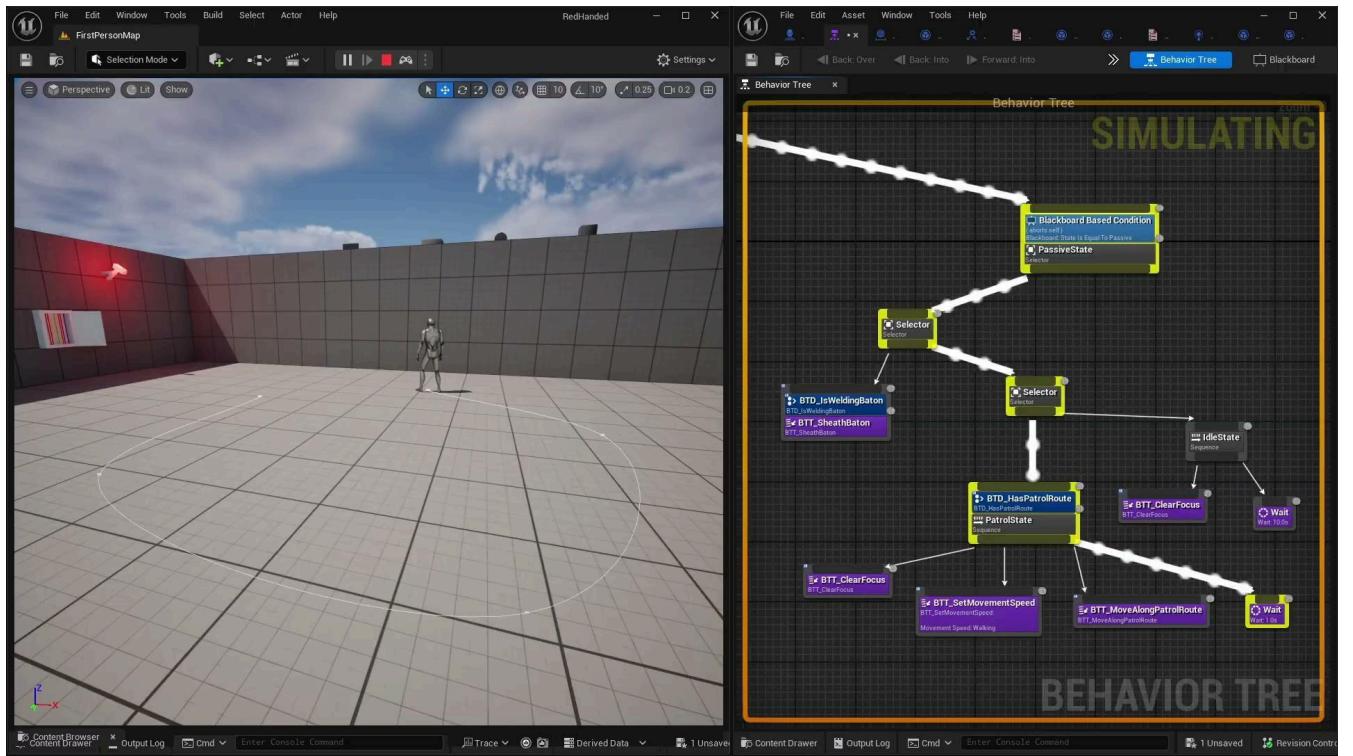
Branch name: main
Path: C:\Users\Ashton\Documents\Unreal Projects\RedHanded

Latest Commits

Author	Date	Commit	Message	Branch
A	2/13/2025 7:52 PM	dv.commit.12	More Greybox Assets Imported	main
A	2/13/2025 6:46 PM	dv.commit.11	Enemy AI Updates	main
Nicholas Crawford	2/13/2025 4:53 PM	dv.commit.10	Continued Code for Lockpicking	main
A	2/13/2025 4:14 PM	dv.commit.9	Enemy Behavior Updates	main
A	2/13/2025 1:30 PM	dv.commit.8	Enemy Behavior Tree	main

Search Greyboxes

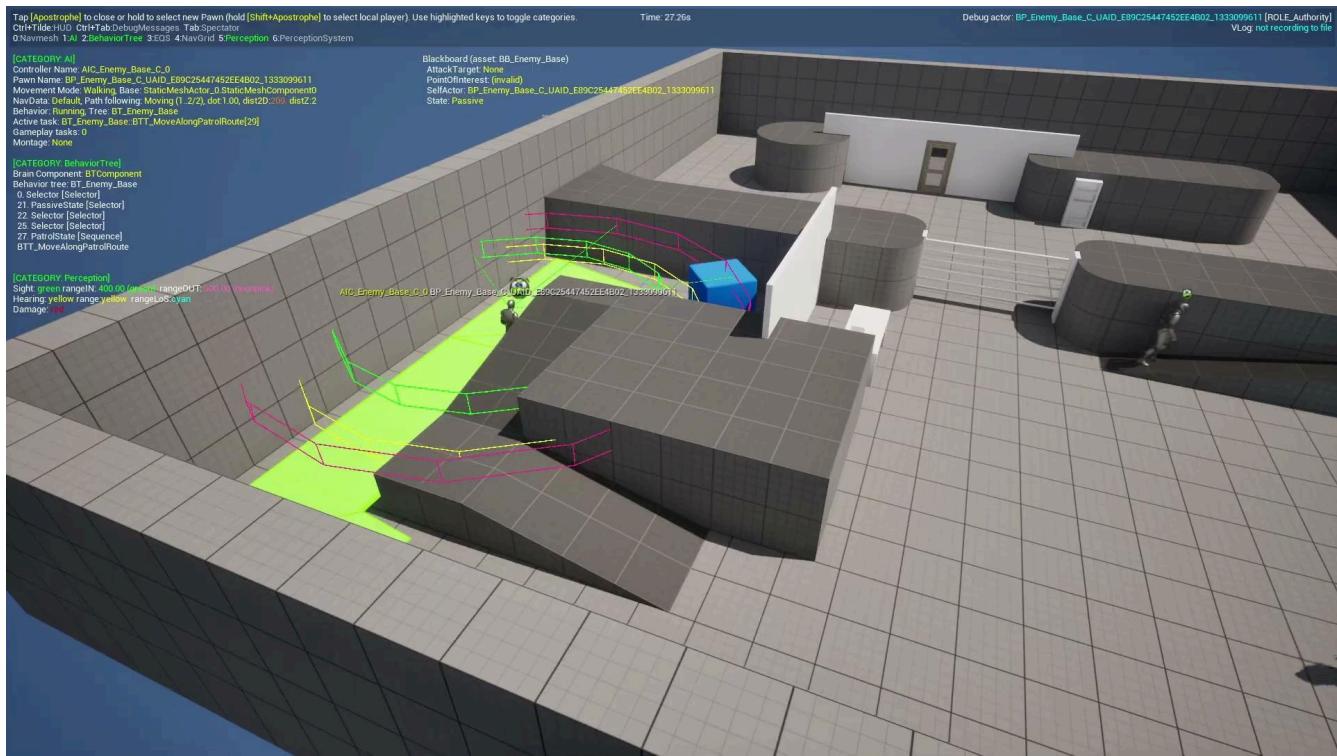
RH_Greybox_BasicCheck_Scene Mesh
RH_Greybox_blinds48inc_Scene Mesh
RH_Greybox_chick_Stone Mesh
RH_Greybox_CoffeeCup_Scene Mesh
RH_Greybox_crowder_Scene Mesh
RH_Greybox_DiceChair_Scene Mesh
RH_Greybox_Door02_Scene Mesh
RH_Greybox_Doorframe_Scene Mesh
RH_Greybox_FillingCabinet_Scene Mesh
RH_Greybox_flashlight_Scene Mesh
RH_Greybox_motherboard_Scene Mesh
RH_Greybox_outdoor_globe_Mesh
RH_Greybox_key_Hand_Mesh
RH_Greybox_Keyboard_Scene Mesh
RH_Greybox_laptop1_Scene Mesh
RH_Greybox_keyboardID_Scene Mesh
RH_Greybox_KnCord_Scene Mesh
RH_Greybox_lightswitch_Scene Mesh
RH_Greybox_locker_Scene Mesh
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RH_Greybox_picture9_Scene Mesh
RH_Greybox_picture10_Scene Mesh
RH_Greybox_ReclinerChair_Scene Mesh
RH_Greybox_Shelf_Scene Mesh
RH_Greybox_smokebomb_Scene Mesh
RH_Greybox_shackDoor_Scene Mesh
RH_Greybox_stimpack_Scene Mesh
RH_Greybox_toybox_Scene Mesh
RH_Greybox_trashcan_Scene Mesh
RH_Greybox_tvStandbox2_Scene Mesh
Test_Resize_Scene Mesh



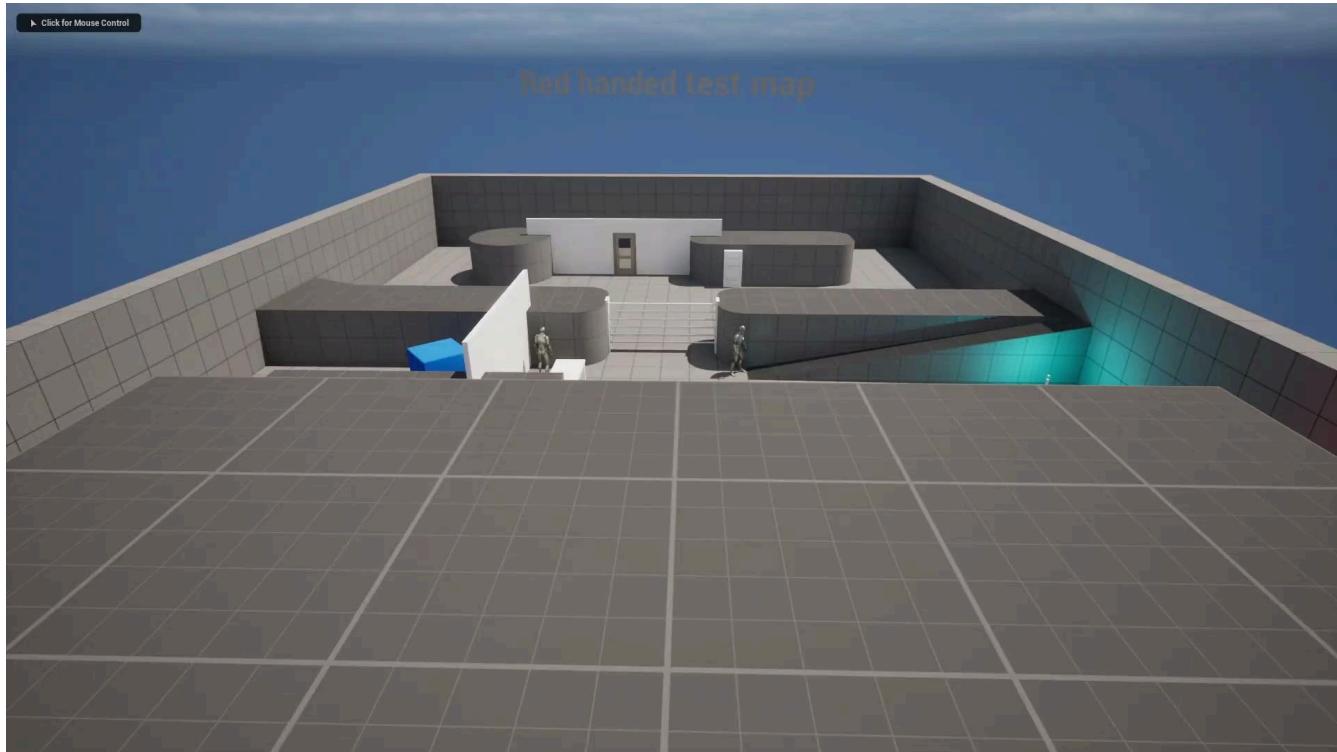
Simulation.mp4



Pathfinding1.mp4



🎥 Pathfinding2.mp4



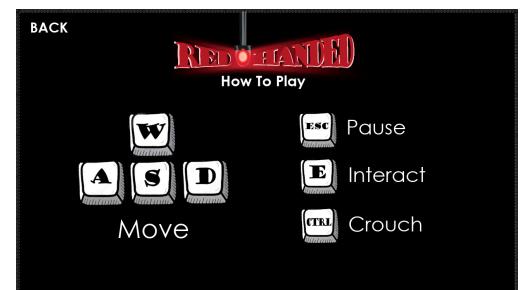
🎥 Pathfinding3.mp4

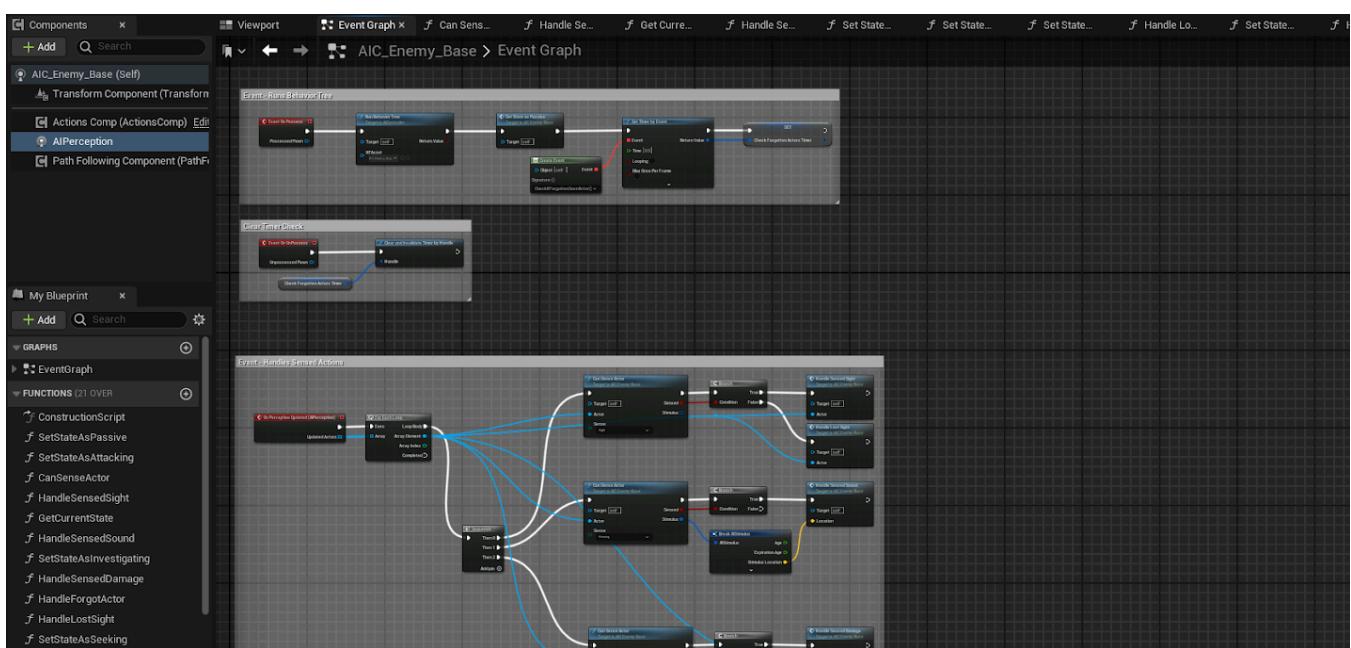
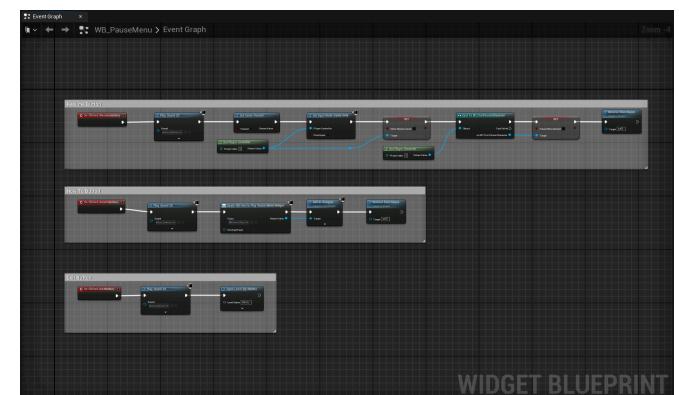
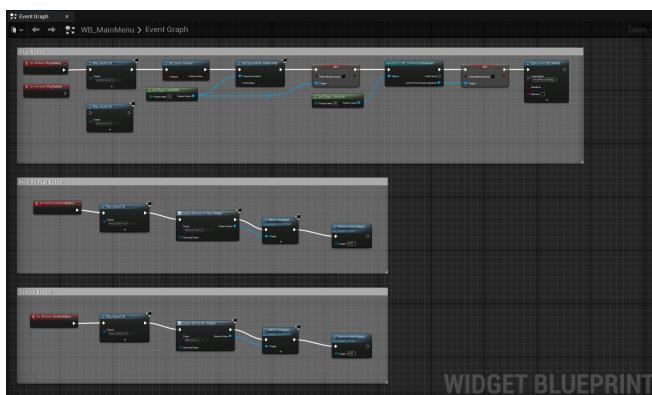
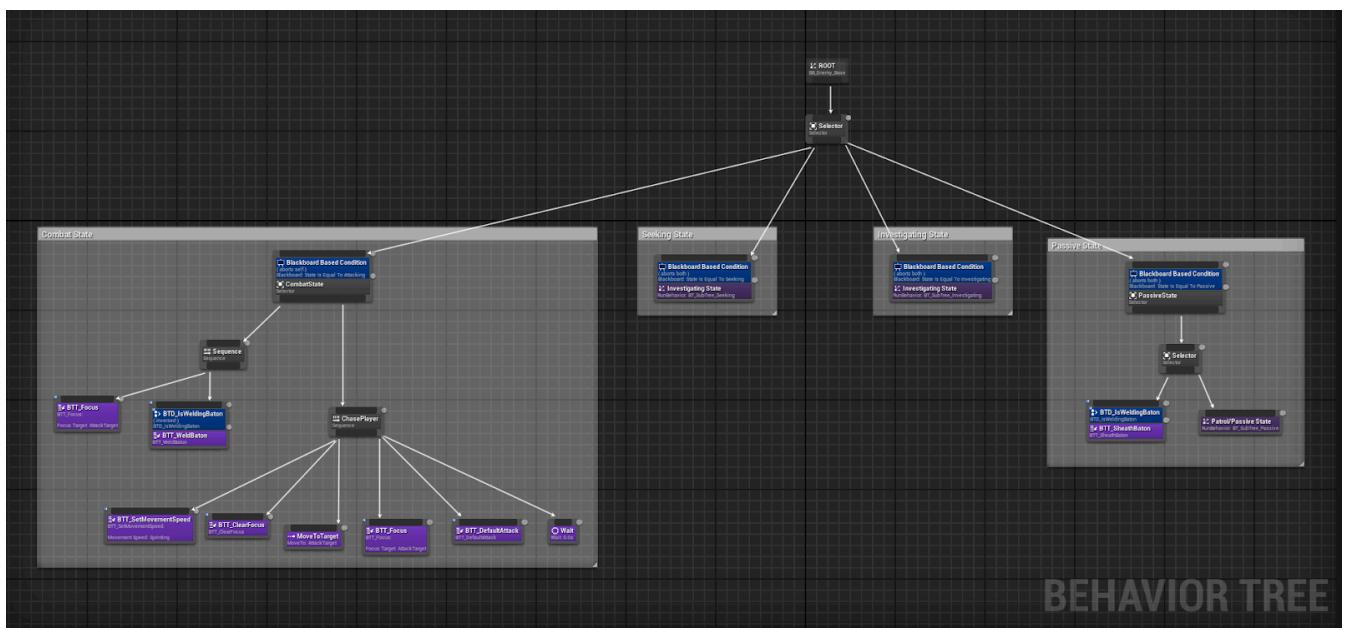
⌚ Weekly Standup - 2/21/2025

- Worked on setting up the code for different user interface widgets, such as the main menu, pause menu, options, credits, and more.
- Fixed a handful of bugs based on the feedback from the first build.
- Made some rough drafts of each UI widget menu inside of Unreal Engine based on ideas and designs from the rest of the team.
- Went back and commented through a bunch of existing code (mainly NPCs) to better explain to my team the functionalities of certain nodes.
- Made it so that NPCs return to their patrolling state upon losing sight of the player (still has a few things to work out).

Latest Commits

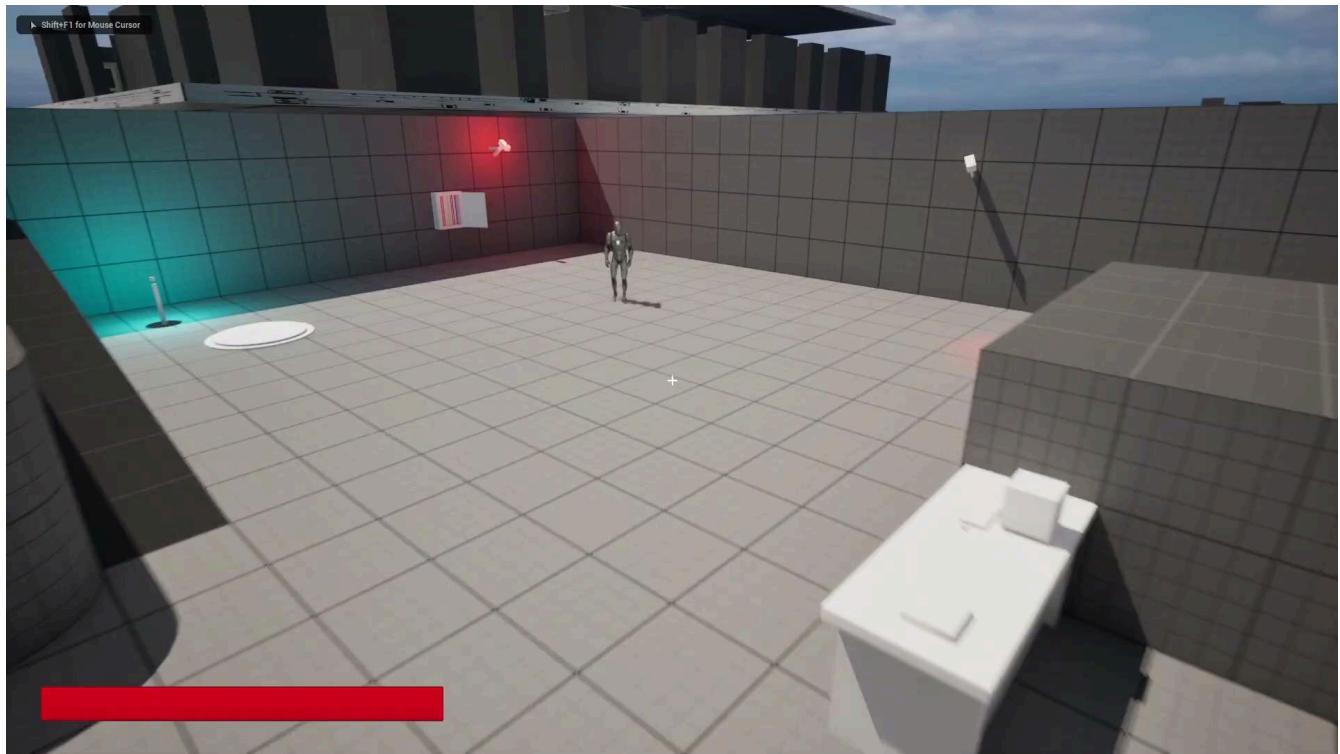
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A	2/21/2025 2:09 AM	dv.commit.59	NPC Return to Patrol State Fix	main
A	2/21/2025 1:36 AM	dv.commit.58	Better NPC Detection Fix	main
A	2/21/2025 12:58 AM	dv.commit.57	NPC Return to Patrolling Setup	main
A	2/20/2025 10:11 PM	dv.commit.54	Imported Kaeden's Keypad Door	main
A	2/20/2025 9:53 PM	dv.commit.53	Updated NPC Baton (FBX)	main
A	2/20/2025 9:28 PM	dv.commit.52	Slower Crouch Speed + FPS Cap	main
A	2/20/2025 4:41 PM	dv.commit.47	Updated How-To Screen UI	main
A	2/20/2025 4:05 PM	dv.commit.46	Enemy/NPC Code Comments Added	main
A	2/20/2025 3:12 PM	dv.commit.45	Fixed being unable to move camera when pressing Play button	main
A	2/20/2025 3:04 PM	dv.commit.44	Updated Pause/Lose/Win Screens	main
A	2/20/2025 2:44 PM	dv.commit.43	Louder Menu Music	main



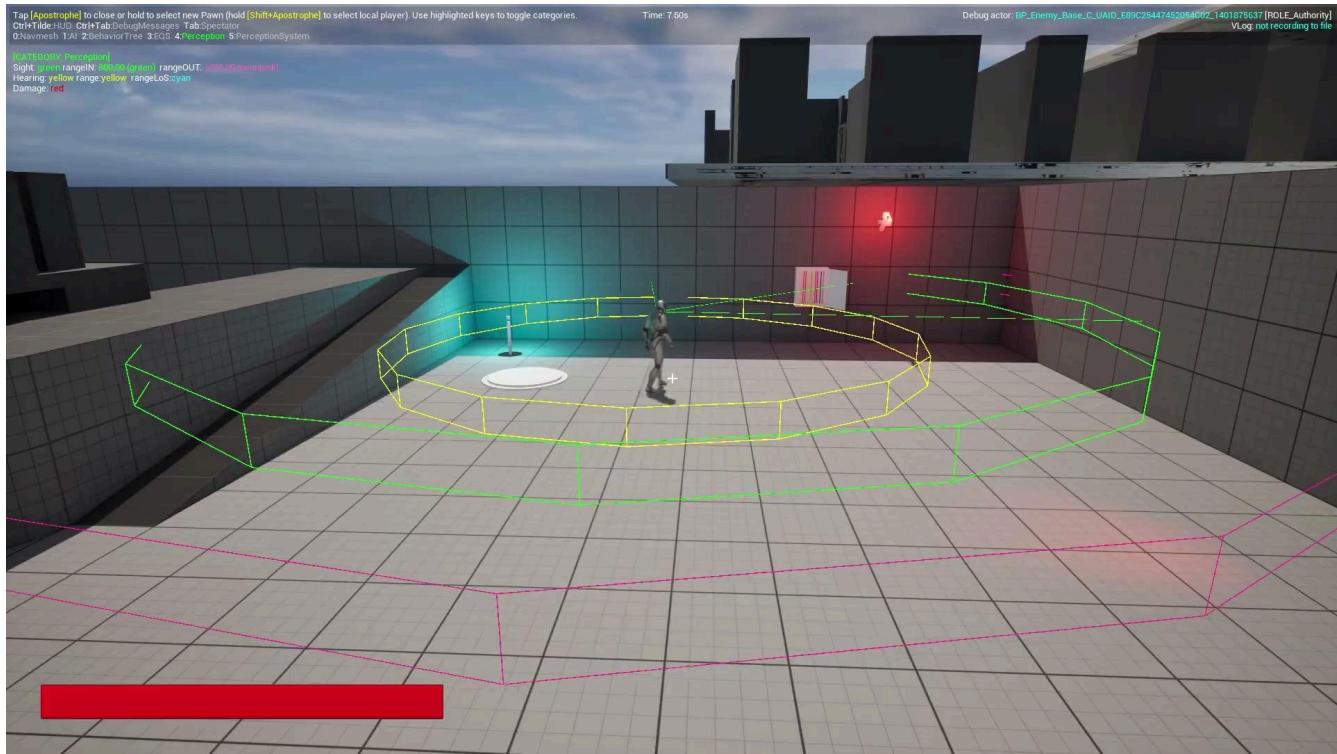




🎥 Progress.mp4



🎥 Pathfinding4.mp4



🎥 Pathfinding5.mp4

⌚ Weekly Standup - 2/28/2025

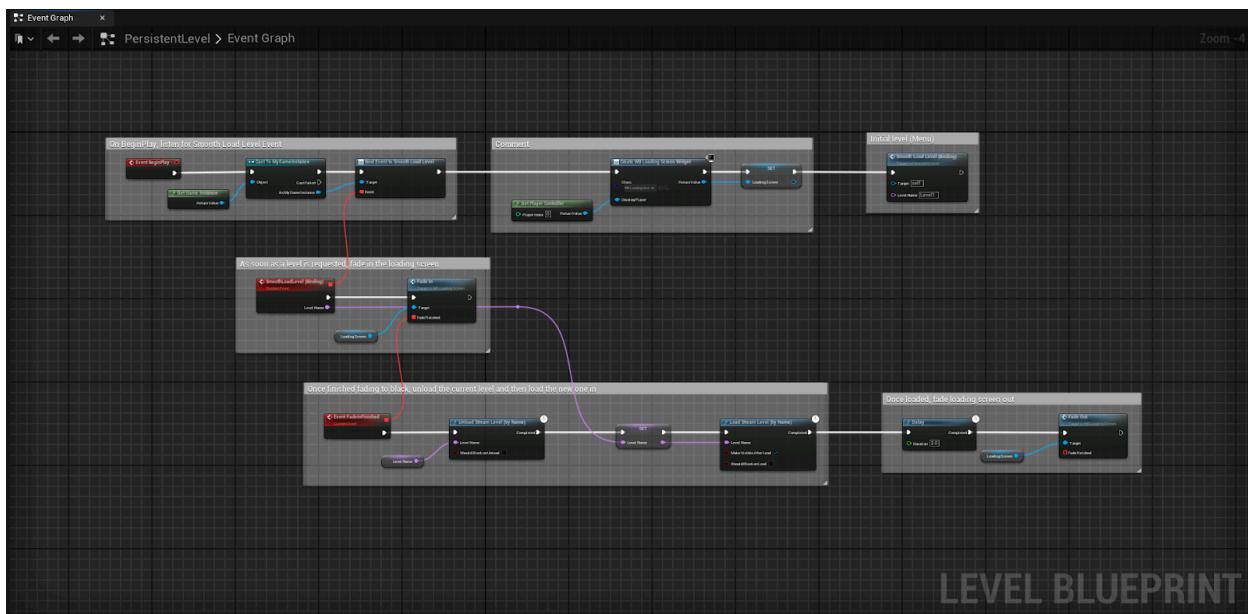
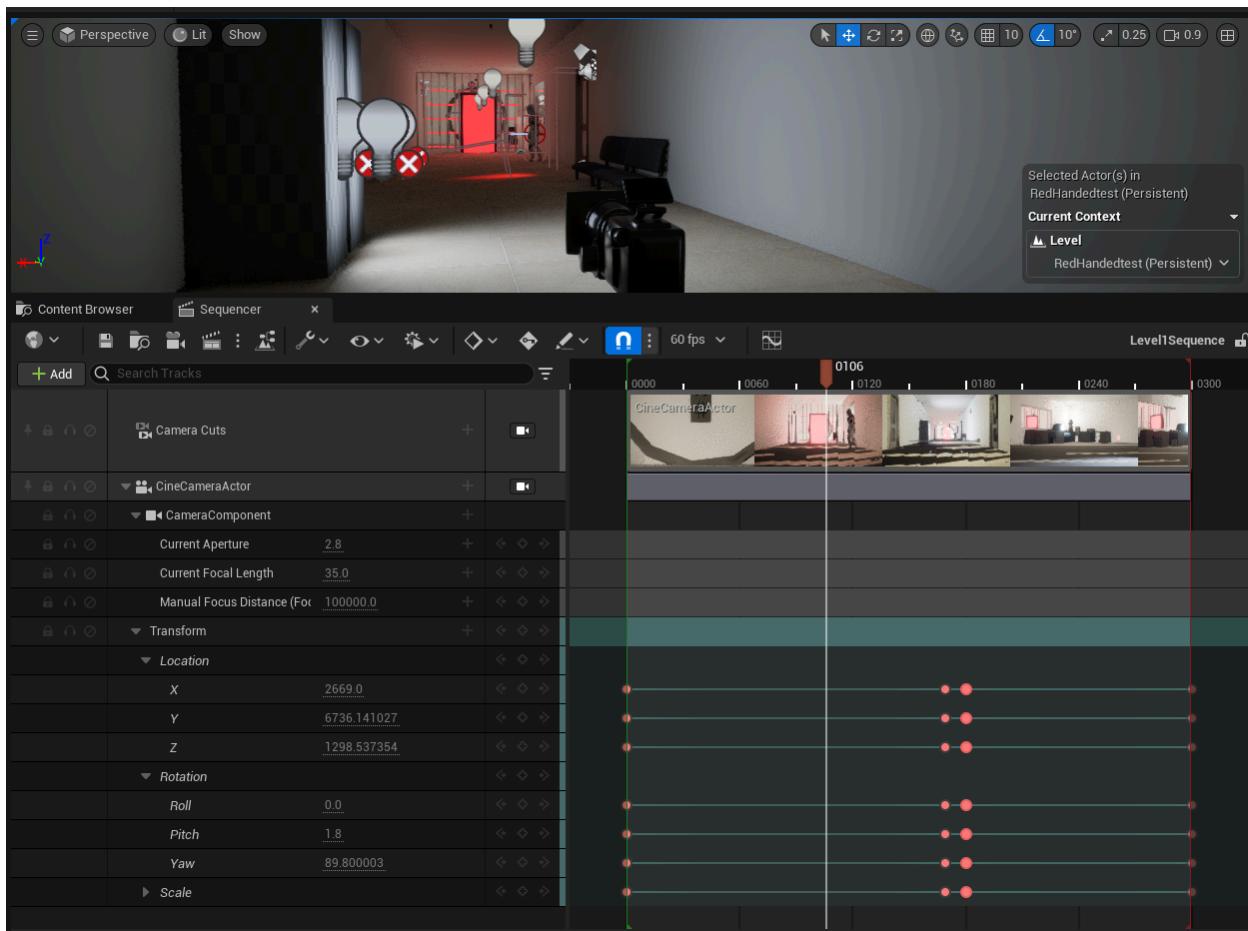
- Added a lot to user interface widgets like the main menu and options menu, including sound effects, a music volume slider (that saves), and videos that play inside of Unreal Engine.
- Worked on camera panning and created a camera animation that starts whenever the player loads into a level. I also set up a system that could be used for any cutscenes that the team wanted in the future.
- Set up the code for the loading screen to appear when transitioning between levels.



🎥 Menu.mp4

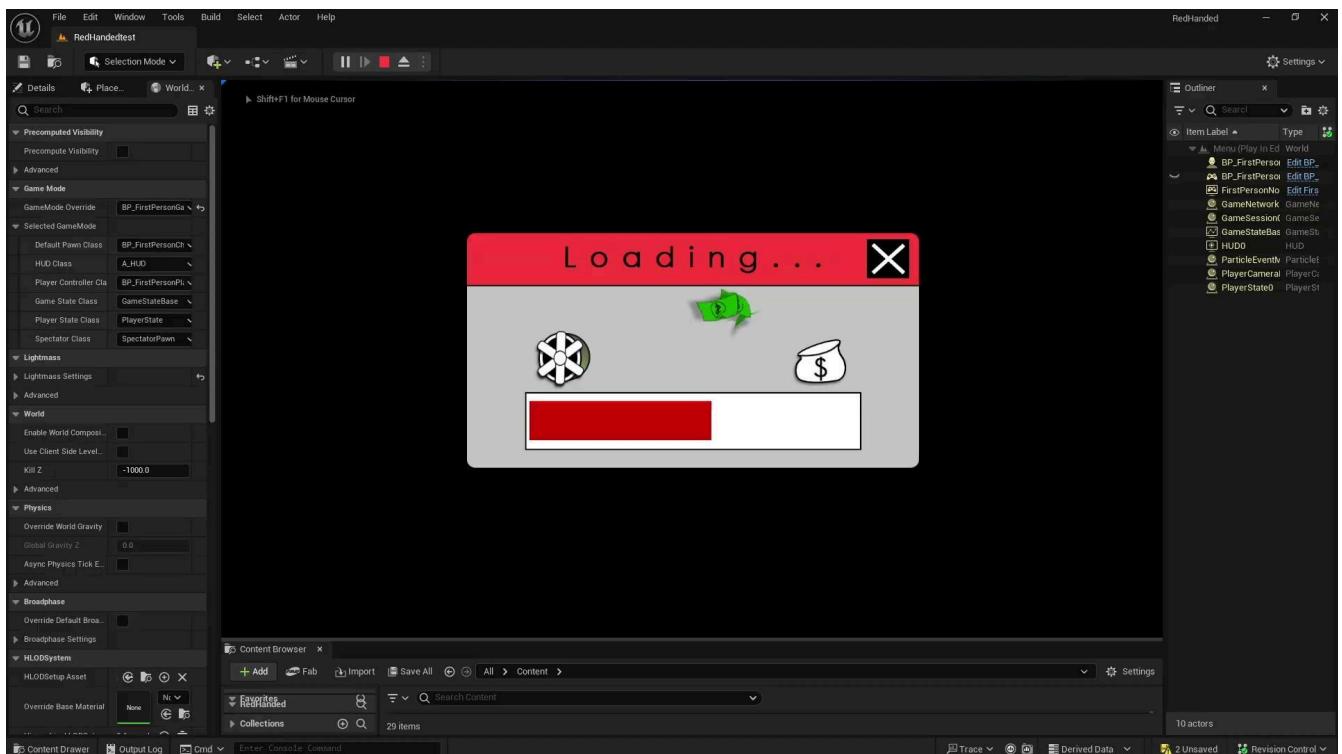


🎥 IntroSequence.mp4

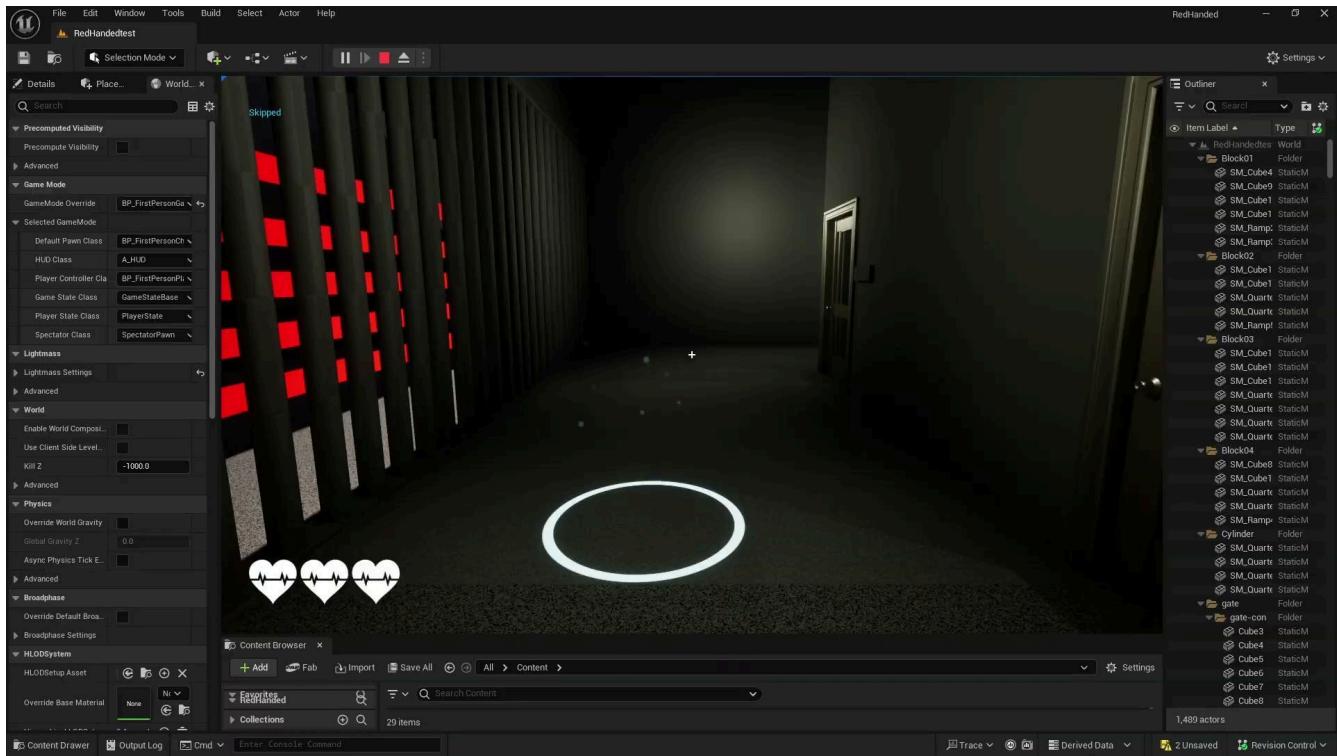


⌚ Weekly Standup - 3/7/2025

- Fixed a handful of bugs based on the feedback from the most recent build and added a few highly-requested features.
- Added sprinting (with smooth FOV) and made crouching smooth when moving up and down instead of instant.
- Made sprinting and crouching not conflict with each other in terms of walkspeed and field of view.
- Shortened the intro camera panning and increased its speed.
- Made the HUD (life system) show up after the intro panning.
- Added a skip cutscene feature that can be easily implemented into any cutscene that is made in the future.
- Fixed a bug that was preventing the player from moving when uncrouching inside of the vents.
- Recommended a list of high-quality keybind images.



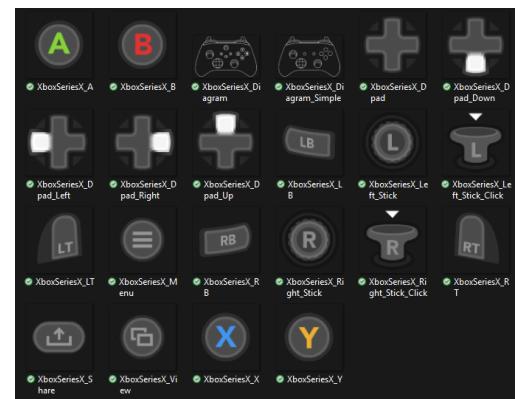
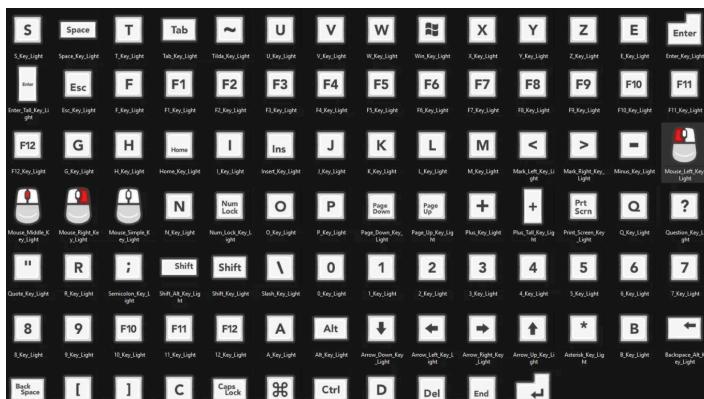
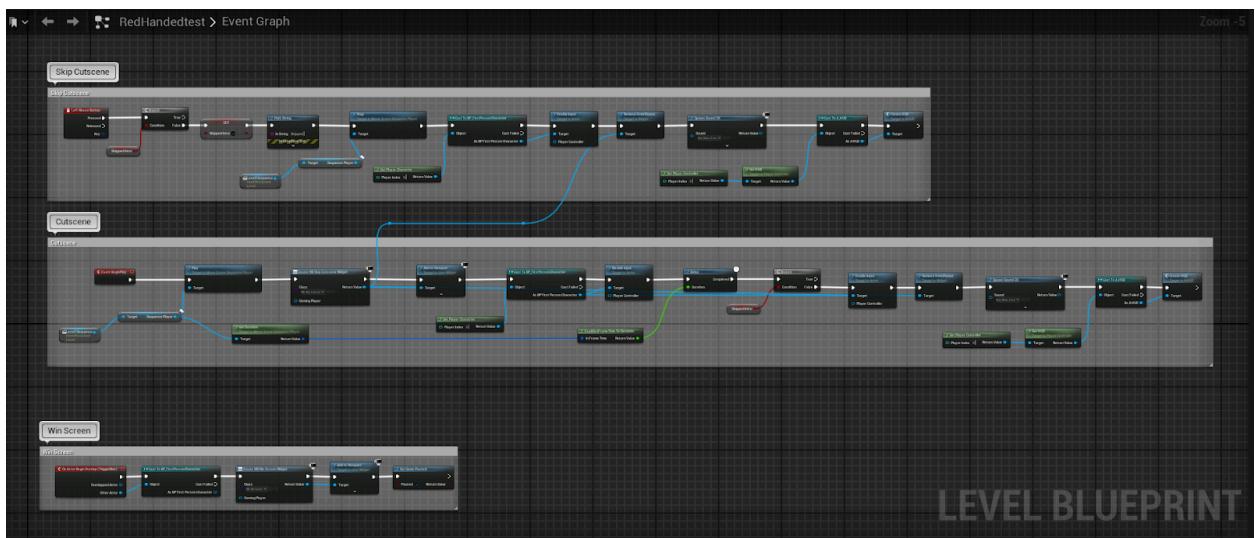
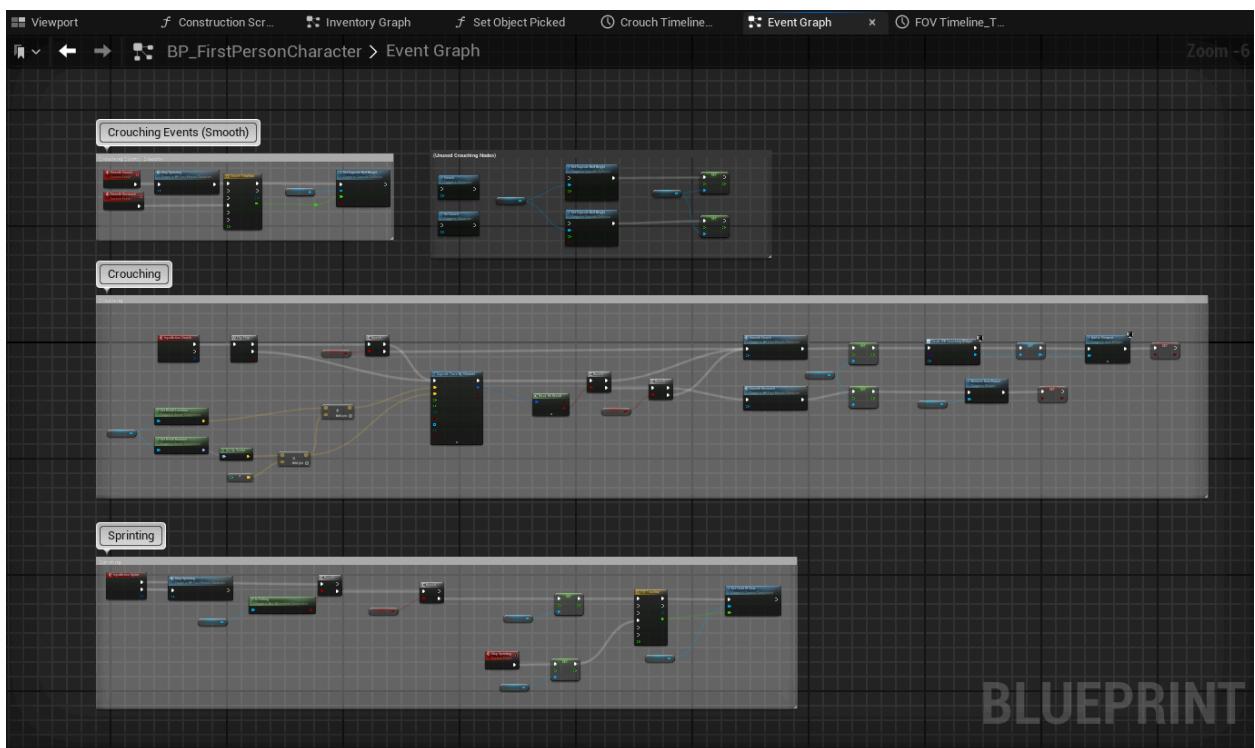
🎥 SkipCutscene.mp4



Movement.mp4

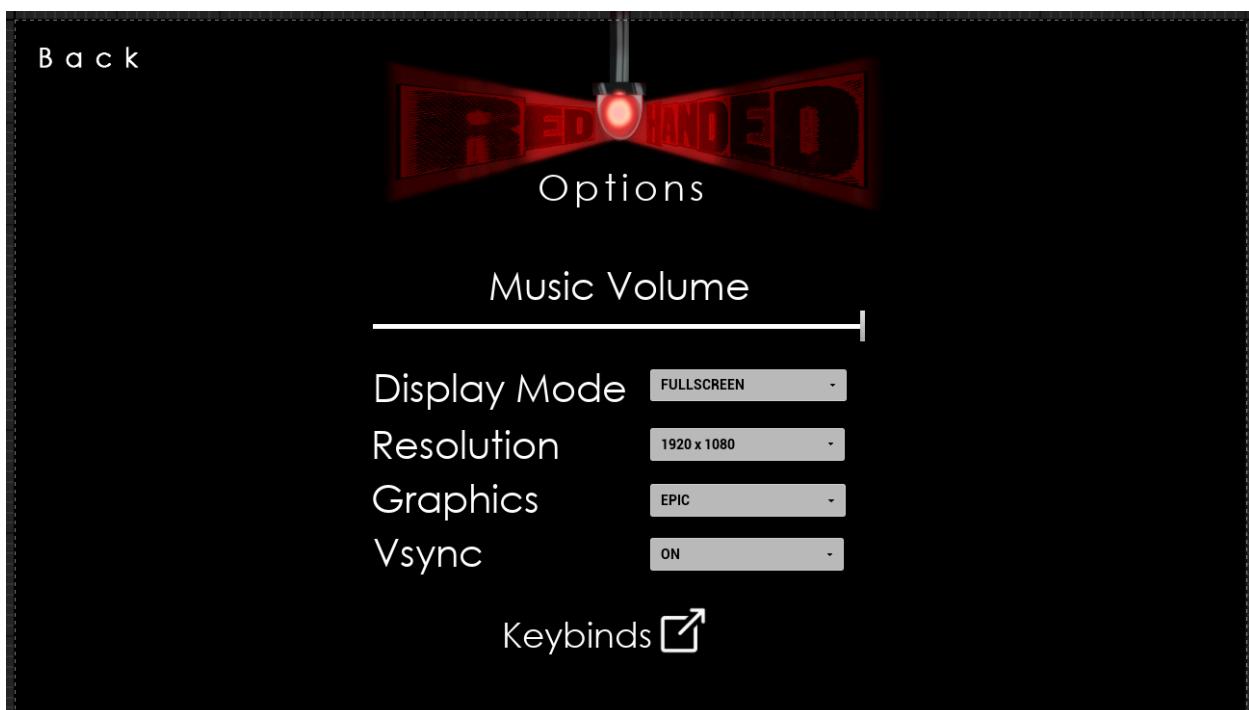


CrouchingFix.mp4



⌚ Weekly Standup - 3/21/2025

- Fixed every issue with crouching, such as crouching in the vents, the icon staying on screen when it shouldn't, and only allowing the player to crouch if they are touching the ground
- Updated Options Menu with current keybinds, new icons, and added more settings that all save and drastically improve performance (display mode, resolution, graphics mode, etc.)
- Updated keybind prompts with new icons
- Added a flashlight cookie
- Added in the intro sequence before the main menu + made it skippable
- Made NPCs able to open doors if they are within interact prompt distance
- Added invisible NPC barriers that make the player undetectable to the guards (used on checkpoints and added to the vents)
- Spent a lot of time fixing bugs with the guards when a camera detects the player. For example, if they were already in chase mode, they would stop chasing and instead go to the location of the camera light despite already looking directly at the player.
- Added a sprint indicator that doesn't conflict with the crouch indicator



B a c k

Keybinds

PC

	W	Sprint
	A	Move
	S	
	D	
	Shift	Crouch
	Esc	Pause
	F	Interact
	R	Lockpick
	Space	Jump
	Q	
	E	Lean

CONTROLLER

	L	Move
	R	Sprint
	Camera	
	RT	Flashlight
	Pause	
	X	Interact
	A	Jump
	LB	
	RB	Lockpick
	Lean	
	Lean	

Shift

SPRINT

Q

Lean Left

E

Lean Right

R

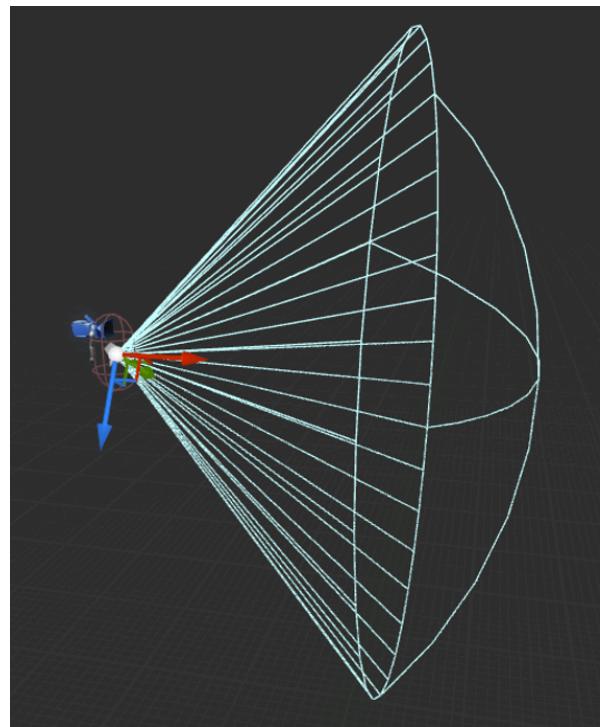
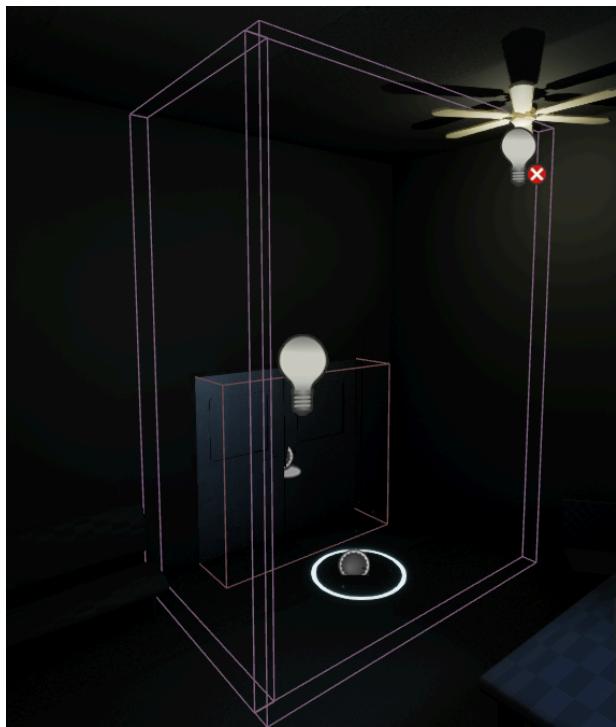
LOCKPICK

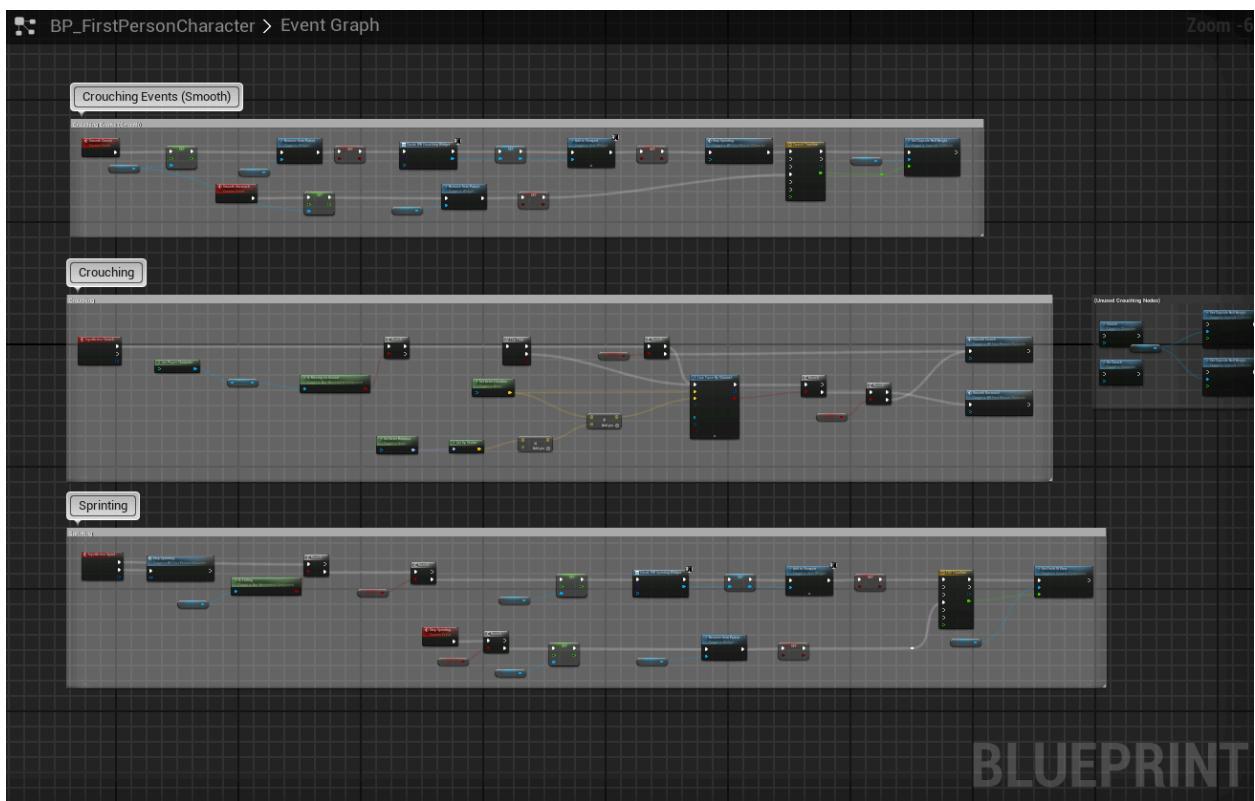
Ctrl

CROUCH

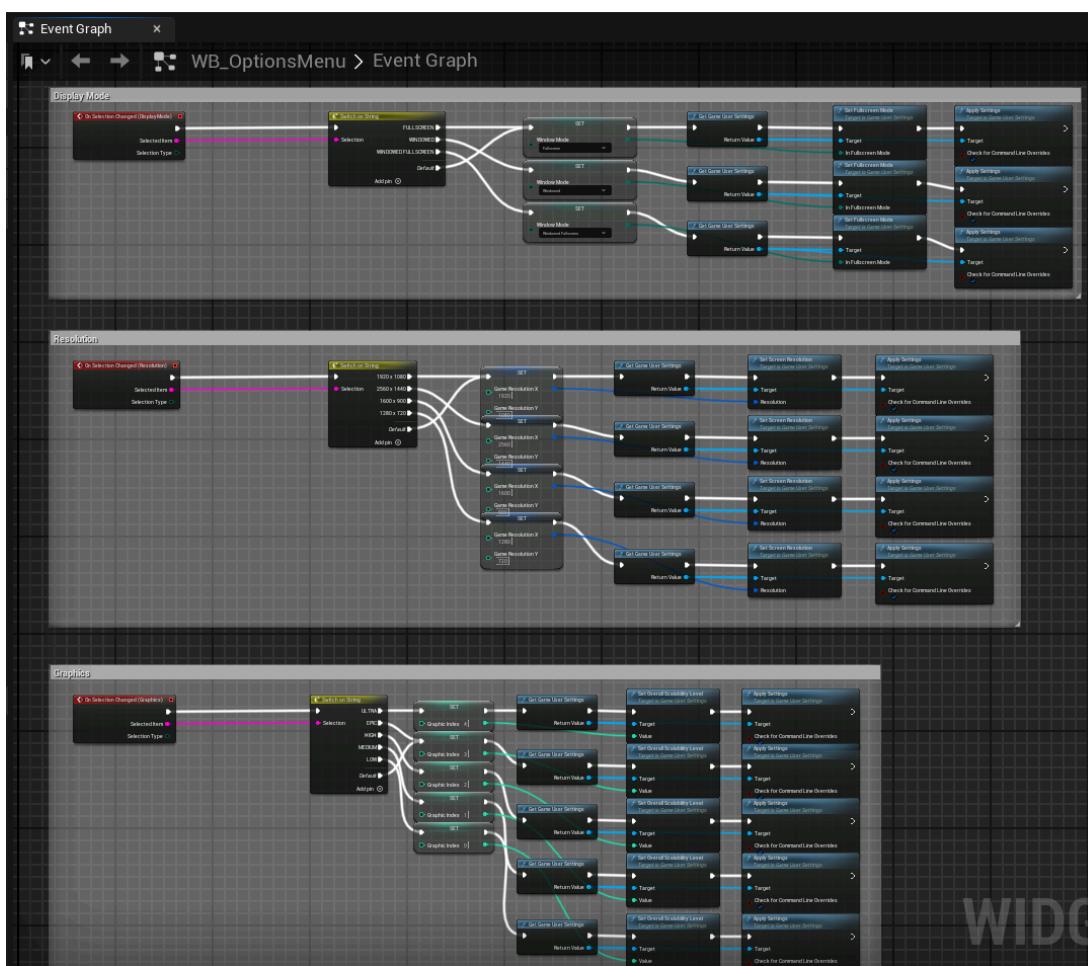


FLASHLIGHT

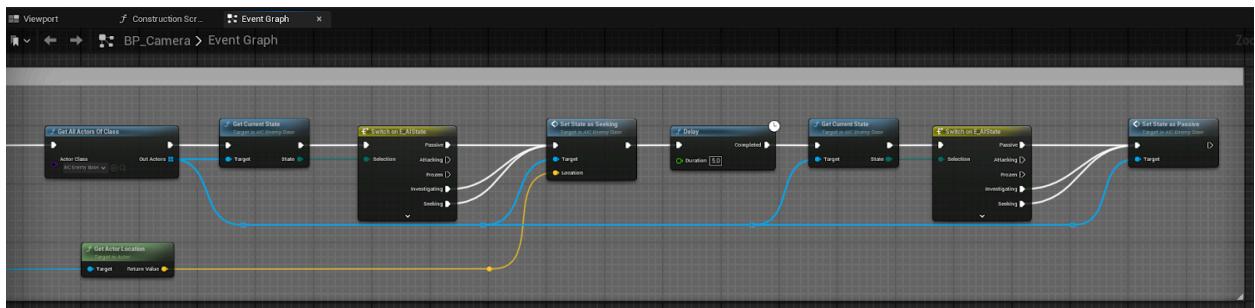
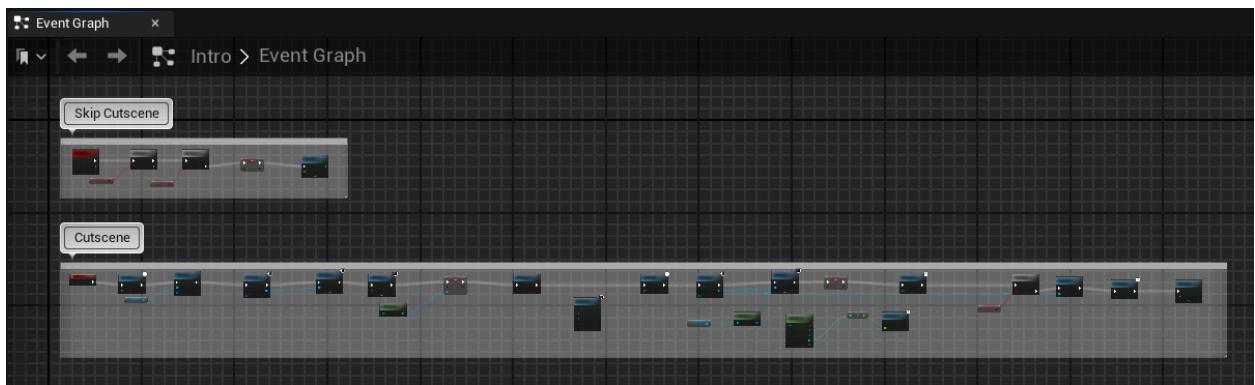
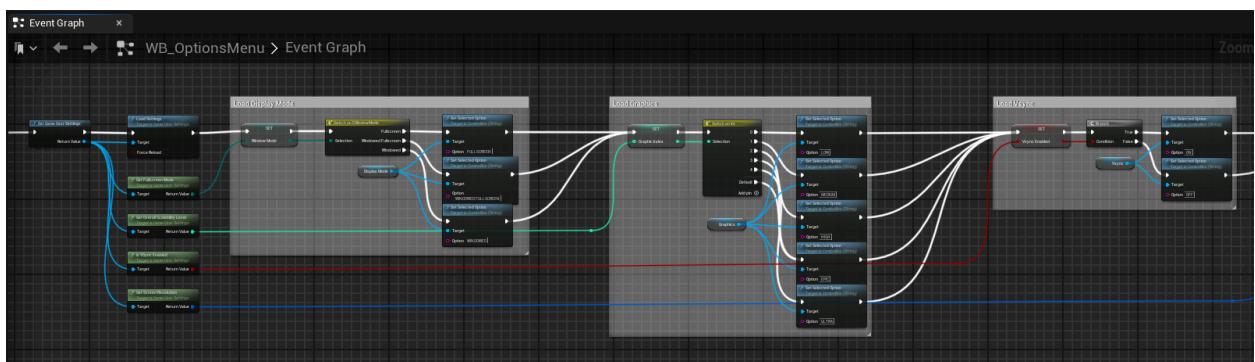




BLUEPRINT



WIDG

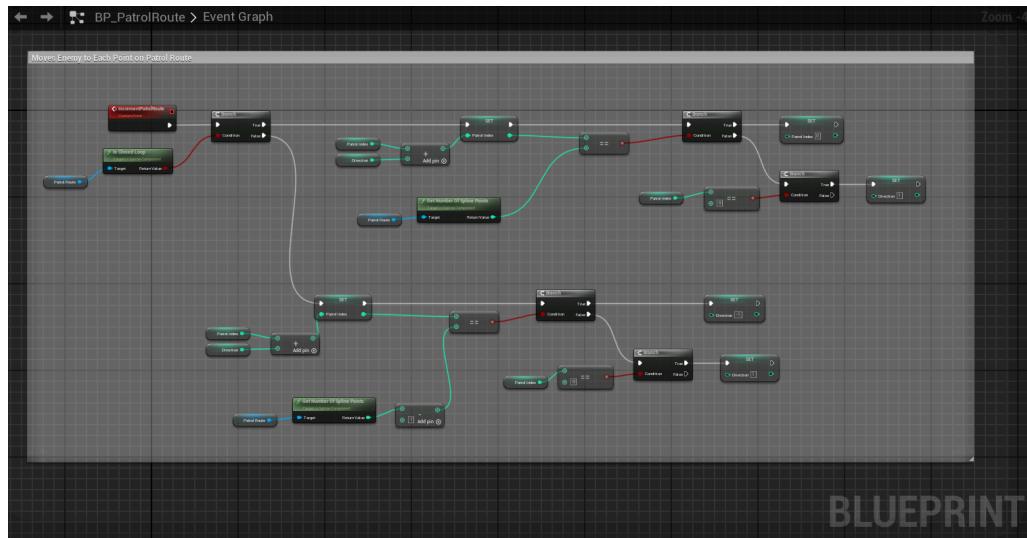


⌚ Weekly Standup - 3/27/2025

- Shortened the amount of time a guard remembers the player's location (15 seconds to 6 seconds)
- Decreased the amount of corners/loops the guards search (3 loops to 1 loop)
- Added a checkbox for patrol routes to be loopable instead of back and forth
- Added flashlights to the guards that visualize their detection window, fixed a bug where they would be red whenever they should be green
- Increased + randomized the amount of time guards spend at each point on their patrol route (1 second to 3 seconds, has the chance to subtract 1 or add 1 second)
- Reached out to the creator of some of the tutorials I watched on Environment Query Systems (AI Navigation) in Unreal to resolve a bug that froze the guards and prevented them from returning to their patrol routes whenever they would enter a room or face a wall after chasing the player
- Fixed guards simply staring at the player when they climb on top of tables, and will now try and attack them
- Fixed guards freezing and not attacking the player when they crouch in front of them
- Fixed door collisions for the guards so that they don't see them as walls anymore and are smart enough to open them when chasing the player
- Added footstep sounds that change depending on the material the player is standing on (concrete, wood, metal, etc.) and play at a rate that depends on how fast the player is walking/running/crouching
- Organized a lot of code in the First Person blueprint because it was getting chaotic lol
- Fixed the sprint indicator not going away when lockpicking
- Added a dynamic camera head bobbing effect when walking, sprinting, and jumping



Footsteps.mp4

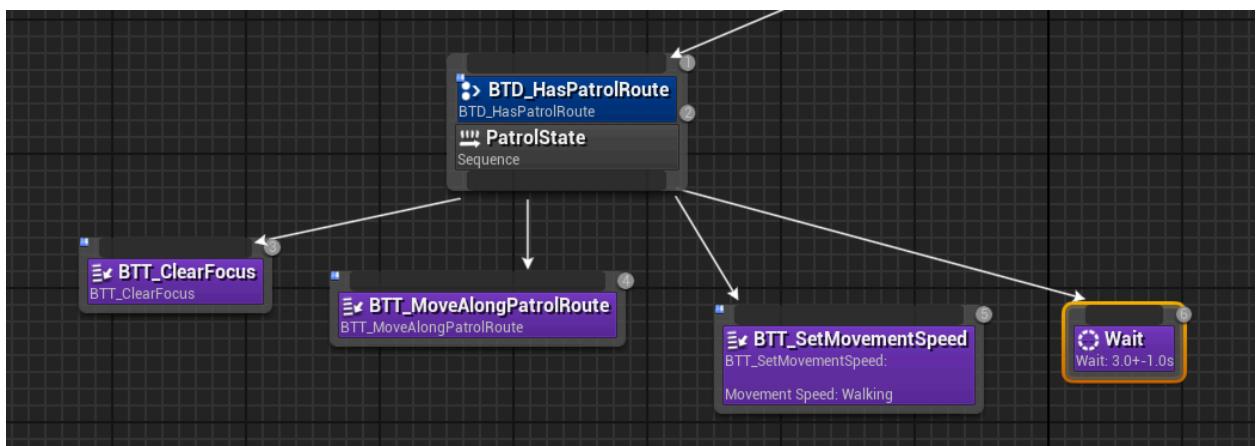
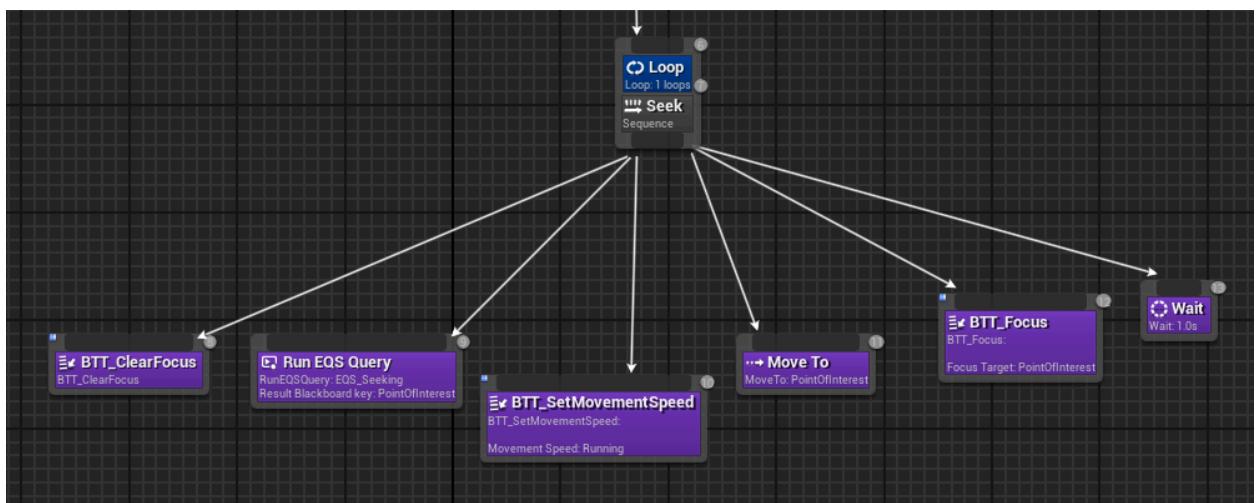
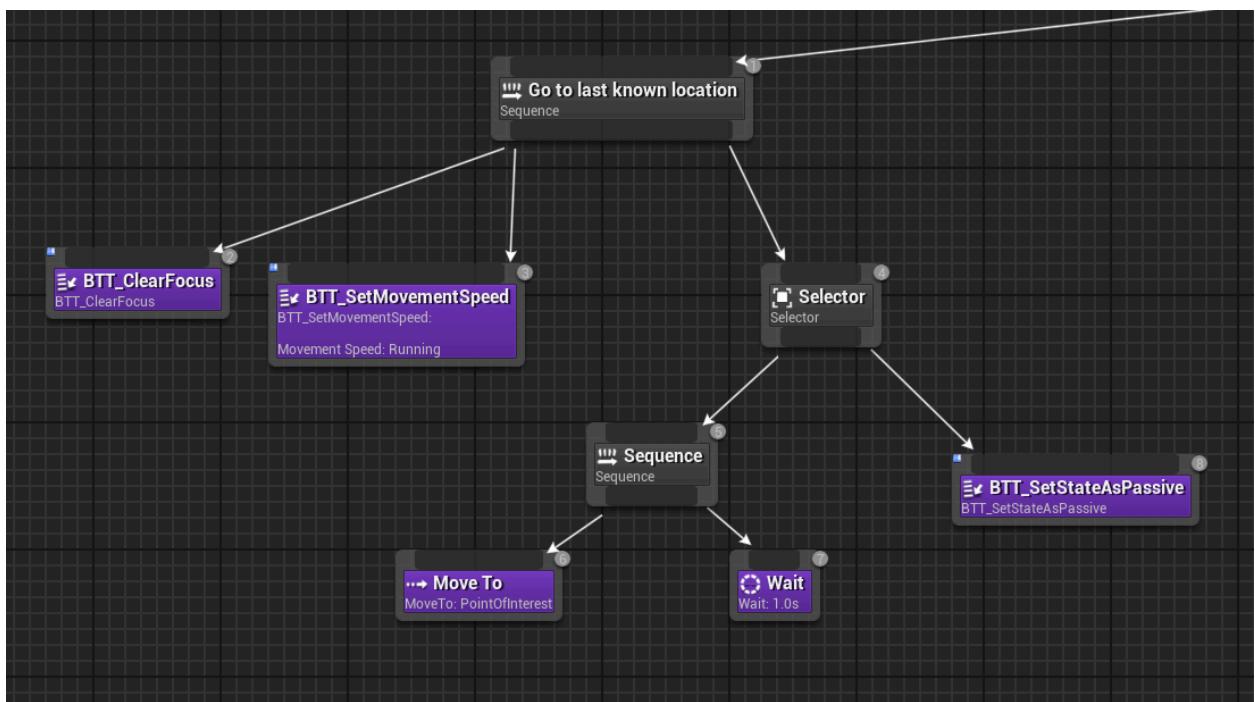


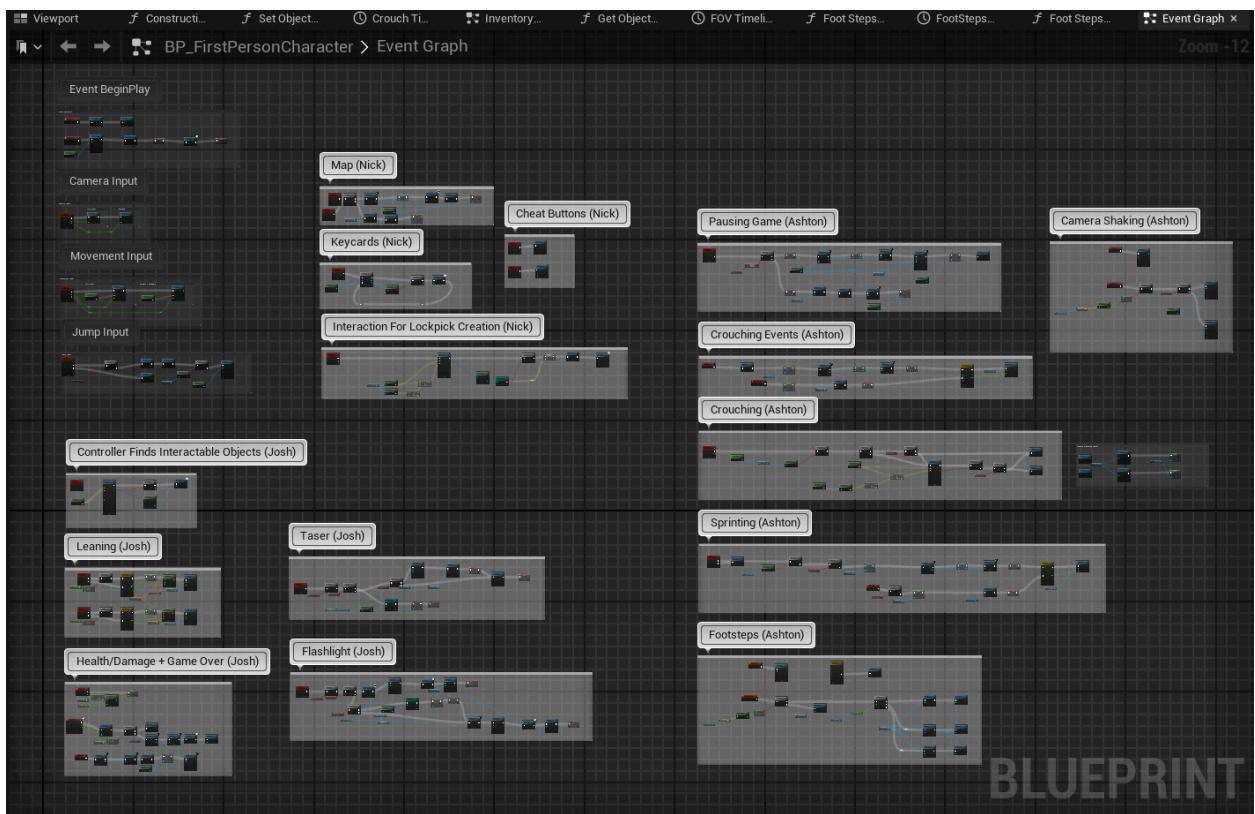
The screenshot shows two panels in the Unreal Engine Blueprint Editor:

- BP_PatrolRoute4 Details Panel:**
 - Spline Section:** Contains fields like Duration (1.0), Override Construction Script (checked), Input Spline Points to Construct... (unchecked), Draw Debug (checked), Closed Loop (checked), and Default Up Vector (0.0, 0.0, 1.0).
 - Editor Section:** Contains fields like Editor Spline Unselected Color (white), Editor Spline Selected Color (orange), Editor Spline Tangent Color (purple), Allow Discontinuous Spline (unchecked), Adjust Tangents on Snap (checked), and Scale Visualization Width (30.0).
 - HLOD Section:** Contains the Include Component in HLOD checkbox (checked).
- AI Perception Settings Panel:**
 - Senses Config:** Set to 3 Array elements.
 - Index [0]:** Set to AI Sight config.
 - Sense Implementation:** AISSense_Sight.
 - Sight Radius:** 800.0 cm.
 - Lose Sight Radius:** 900.0 cm.
 - Peripheral Vision Half Angle:** 50.0°.
 - Detection by Affiliation:**
 - Detect Enemies (checked)
 - Detect Neutrals (checked)
 - Detect Friendlies (checked)
 - Auto Success Range from Last Seen Location:** -1.0 cm.
 - Point Of View Backward Offset:** 0.0 cm.
 - Near Clipping Radius:** 0.0 cm.
 - Debug Color:** Green.
 - Max Age:** 6.0 s.
 - Starts Enabled:** checked.

A social media thread with three posts:

- @Zen_os:** 3 days ago
Hello All, I appreciate your tutorials and have been watching this particular series for a school project of mine. One issue I'm running into is related to some of the key points you mentioned at the end of the video that dealt with valid EQS targets. I haven't watched every video in the series because I only wanted to follow along the tutorials that went over the basics of a stealth game, so I was wondering if you ended up addressing turning the enemy AI around if there are no valid EQS targets. If so, I would love to know which video that was covered in. Thanks!
- Reply:** 2 replies
@AliElZohery: 2 days ago
Thank you for your kind words! I'm glad to hear that you're finding the tutorials helpful for your school project. Regarding your question about handling situations where there are no valid EQS targets, I only discuss how to do it, but don't show in detail how. This can be built into a custom task that runs an EQS, or could be a selector with a different task that runs when the EQS node fails in the tree.
- @Zen_os:** 2 days ago
@AliElZohery: Thank you! I ended up going with the selector that sets the enemy's state to passive if the MoveTo task fails in their Seeking behavior tree. Appreciate it!

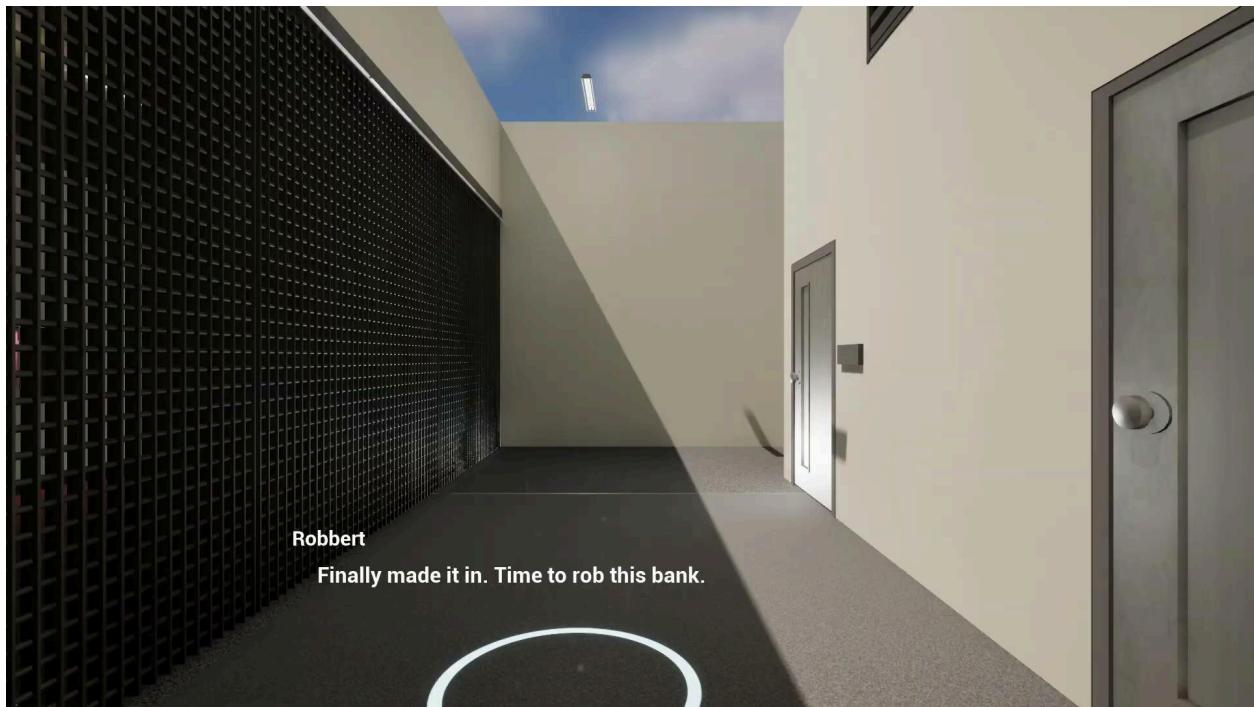




⌚ Weekly Standup - 4/4/2025

- Scrapped the previous objective system and made an entirely new one that gives the player more information on what to do and where to go
- Added two objective functions to the FirstPersonCharacter Blueprint: Update Objective and Remove Objective
- Made a blueprint that updates the current objective using the function in the FirstPersonCharacter Blueprint with a specific set of text whenever the player touches it

- Other things like the keycards and computers also use this function from the FirstPersonCharacter Blueprint, so it's not just limited to touching invisible blocks
- Made a new blueprint that plays a specific cutscene/camera animation whenever the player touches it (skipping WIP)
- Added letterboxes (black bars) to cutscenes
- Did a lot of testing with the guards and their pathfinding after new animations were imported, but will need to polish more
- Made Kaeden's Red Handed Survey Document open when pressing the quit button



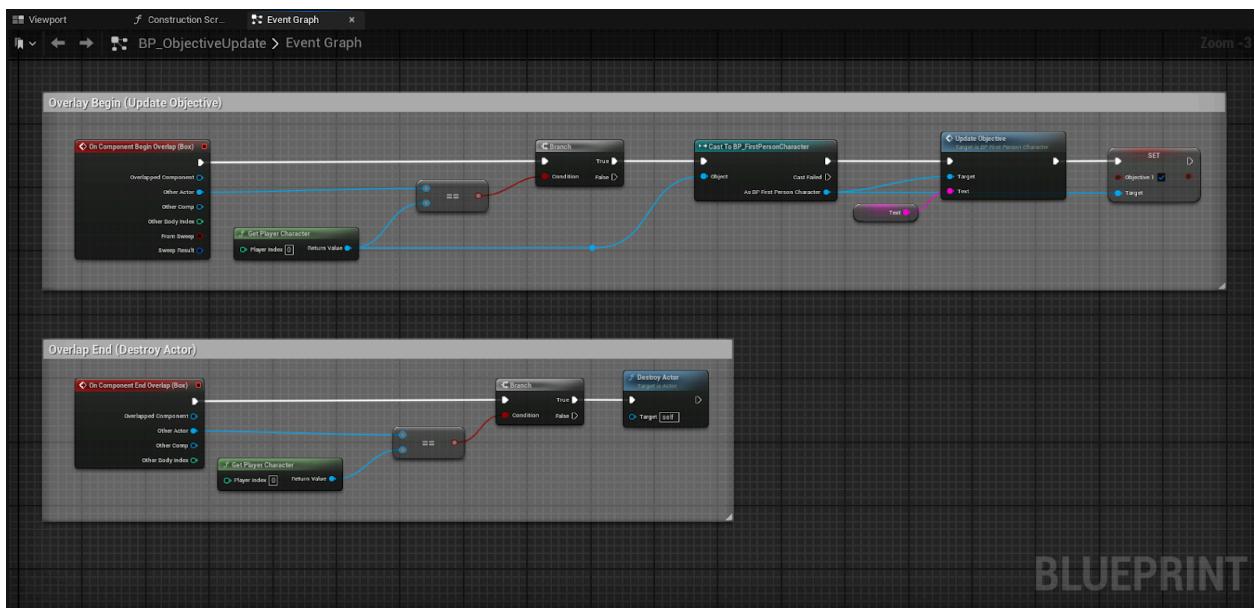
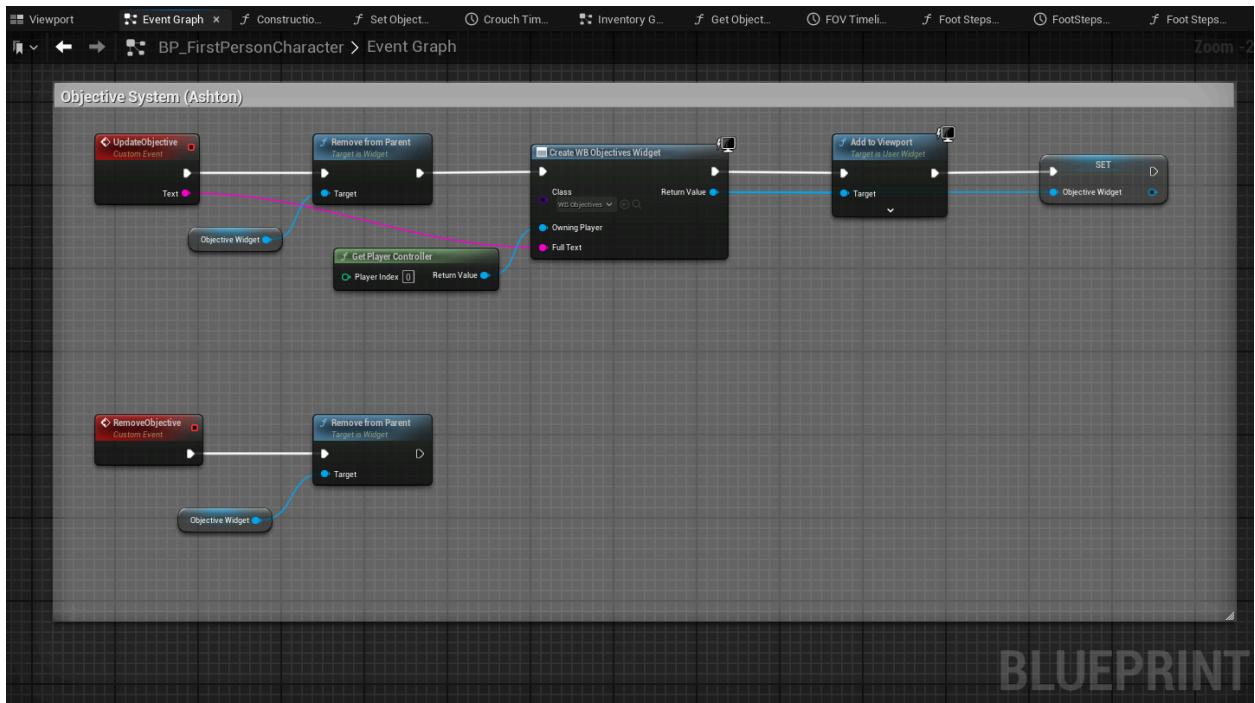
🎥 Objectives.mp4

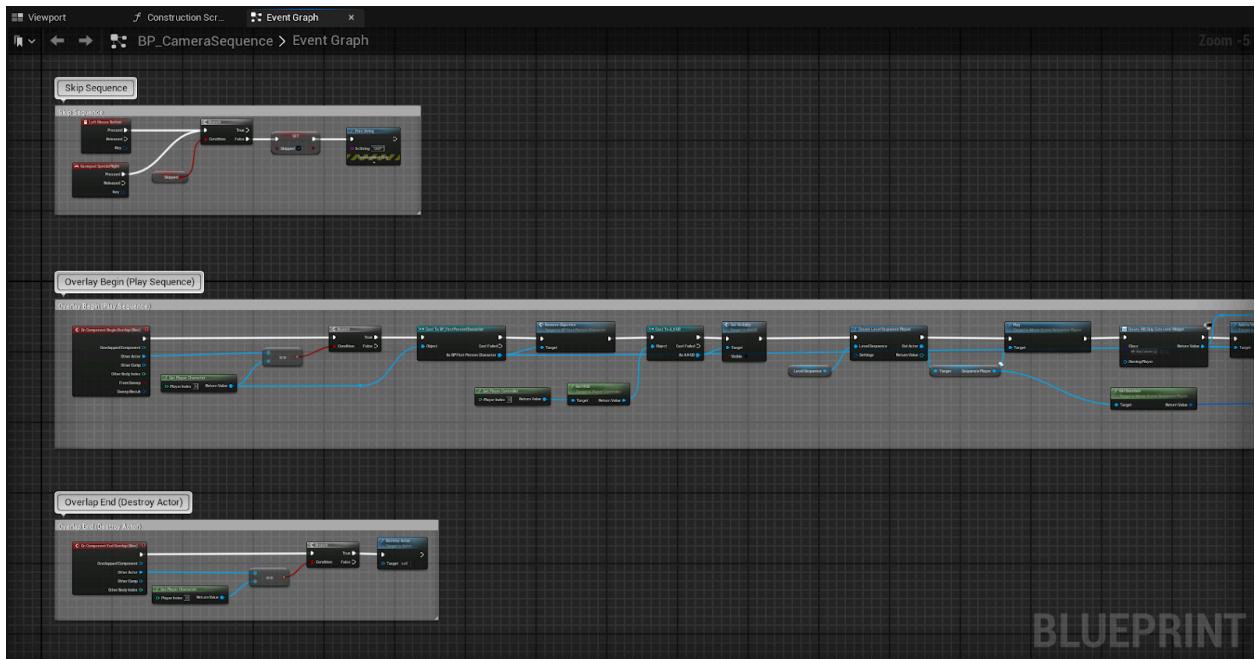


🎥 Cutscene2.mp4

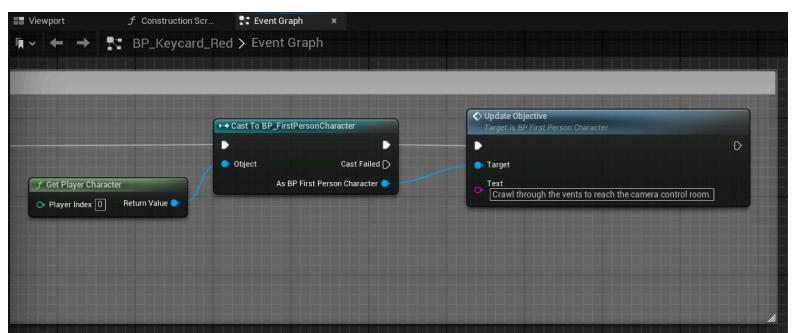
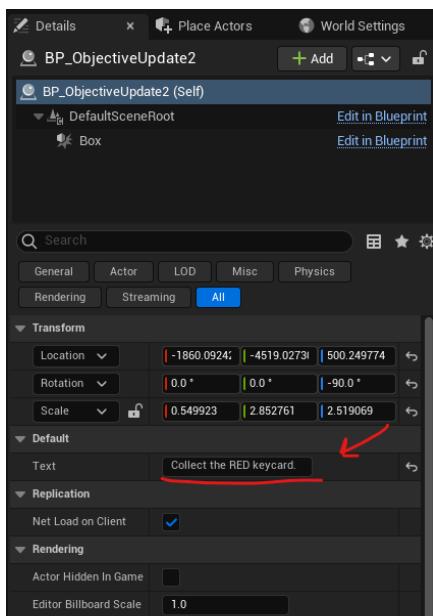


🎥 QuitURL.mp4





BLUEPRINT



⌚ Weekly Standup - 4/11/2025

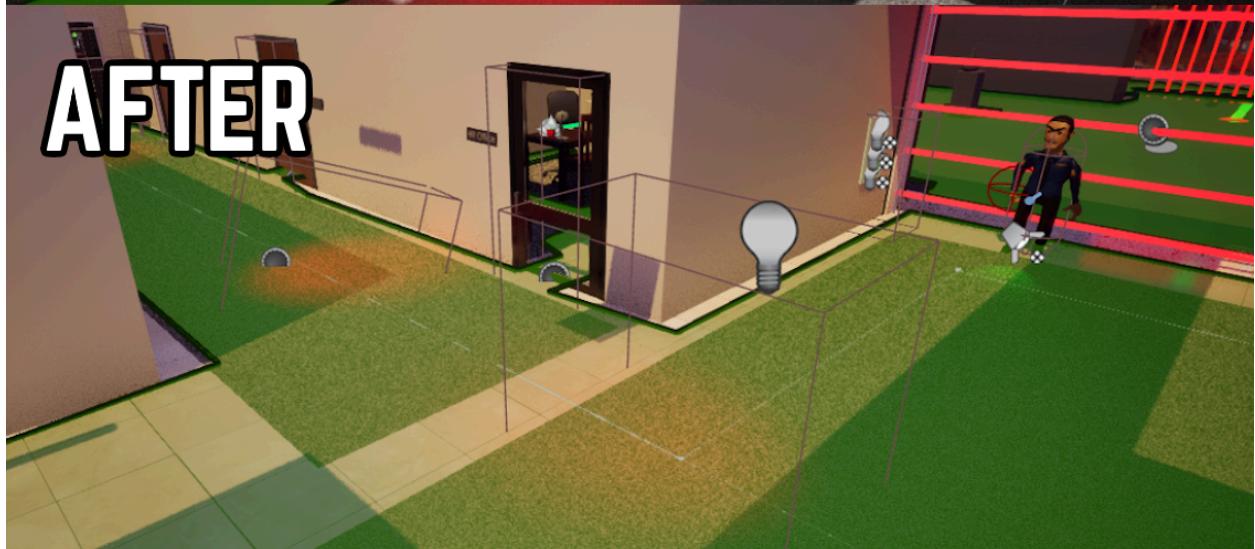
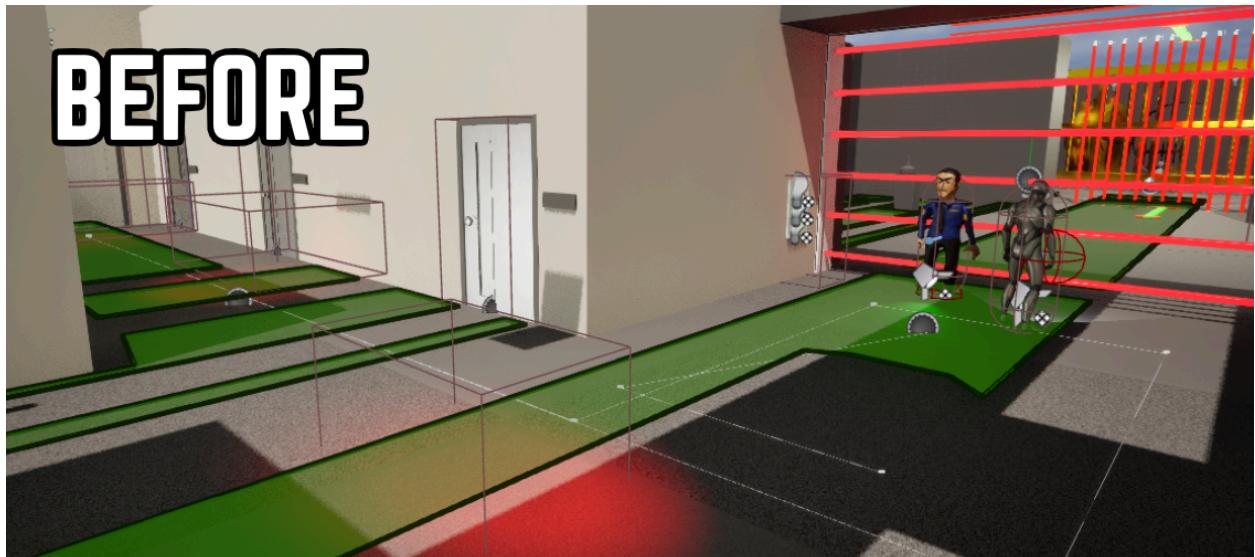
- Worked with Nick and Brandon to solve Navigation Mesh issues
- Fixed animation issues with the guards that were breaking their code and preventing them from chasing/attacking
- Made guards able to hear the player's footsteps (when sprinting), flashlight, doors opening/closing, and jumping sounds
- Made a guard suspicious sound play when they hear a noise made by the player
- Made a guard angry sound play when they start chasing the player (not showcased, but the code exists)
- Added walkie sounds to the guards (randomized)
- Fixed guards not being able to walk through doors (again)
- Fixed the disabled input issue after touching the lasers
- Lowered the default graphics from 'Epic' to 'High' to help with performance
- Added interact prompts to the globes, alarm clocks, ATM, and water dispenser
- Made the volume slider in the options menu work with the music that plays in the level
- Fixed and cleaned up a lot of UI

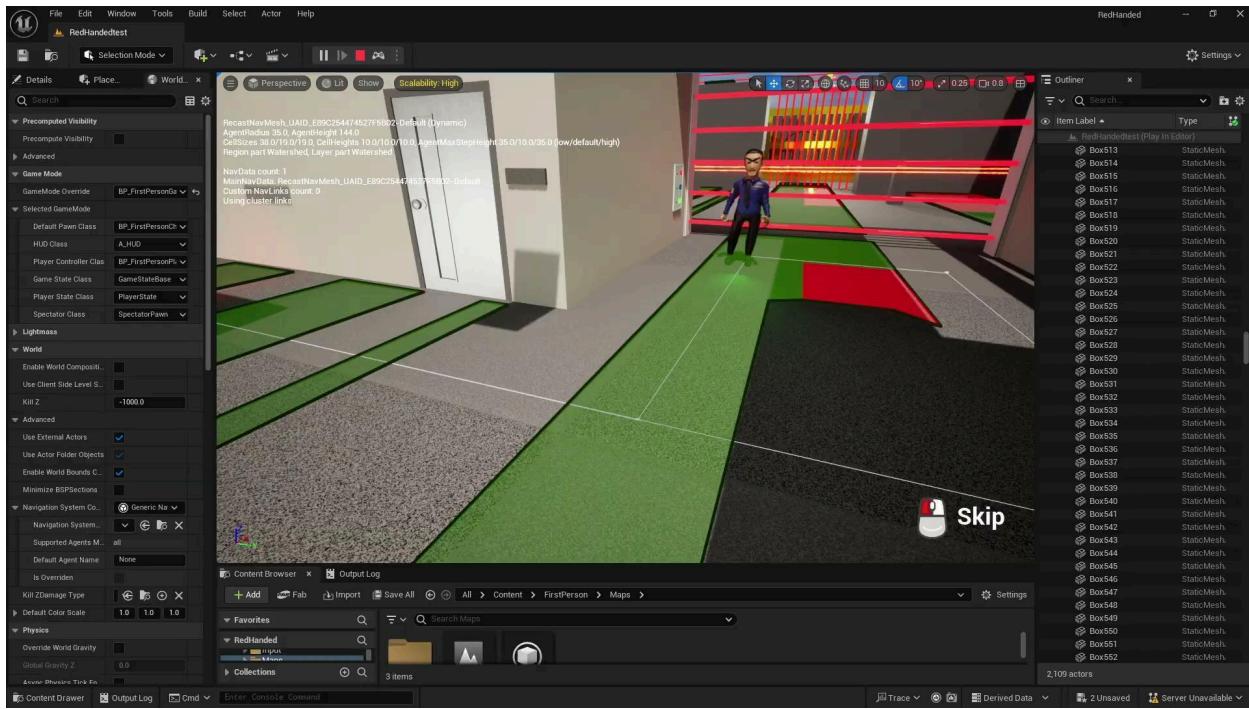
BEFORE



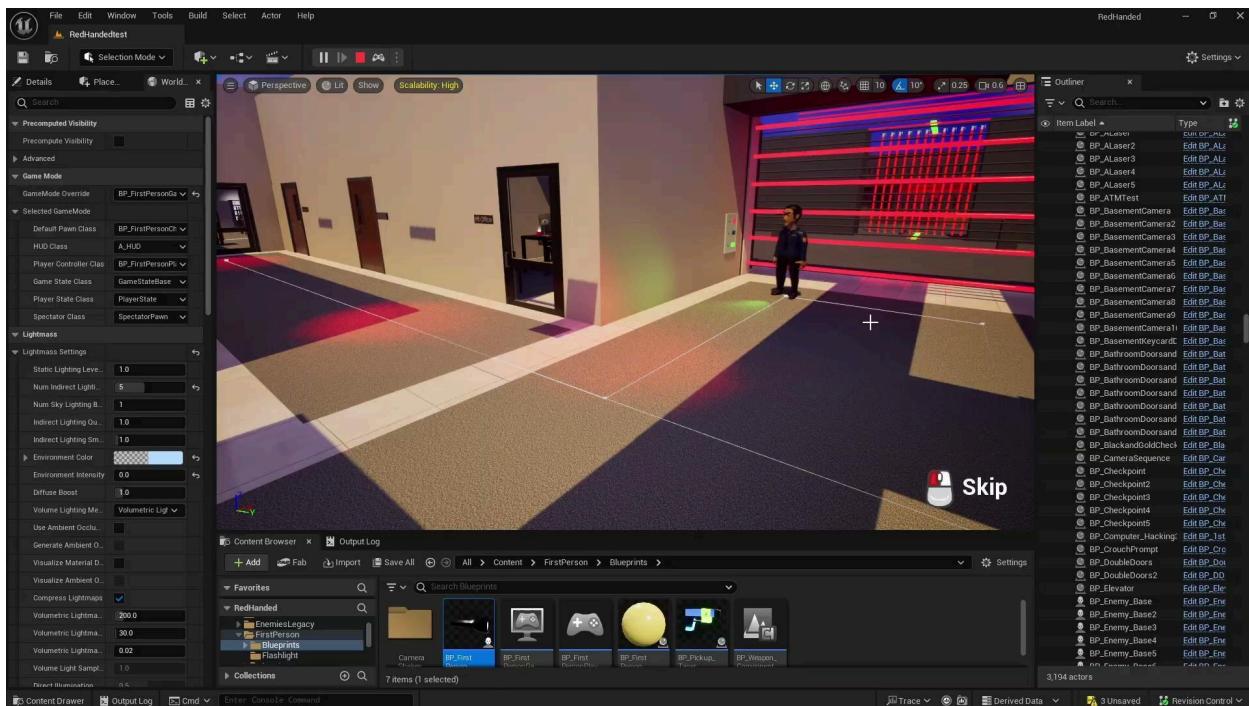
AFTER



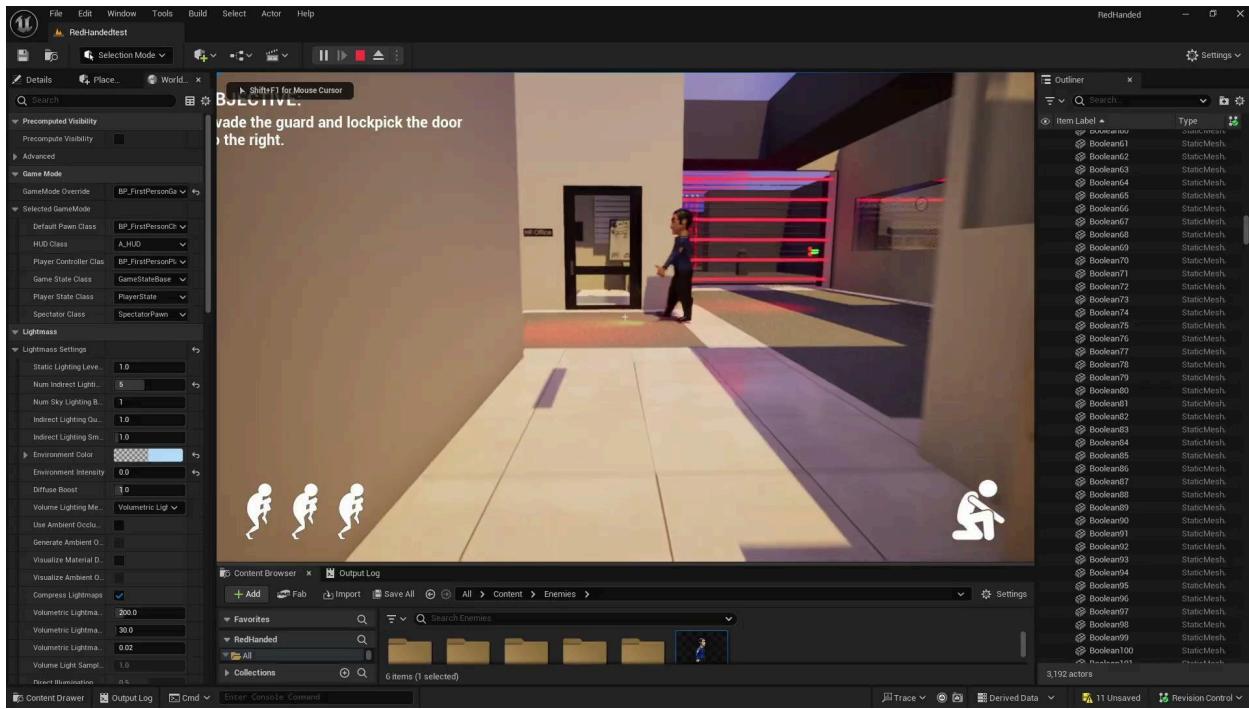




NavMeshIssue.mp4



FixedGuards.mp4



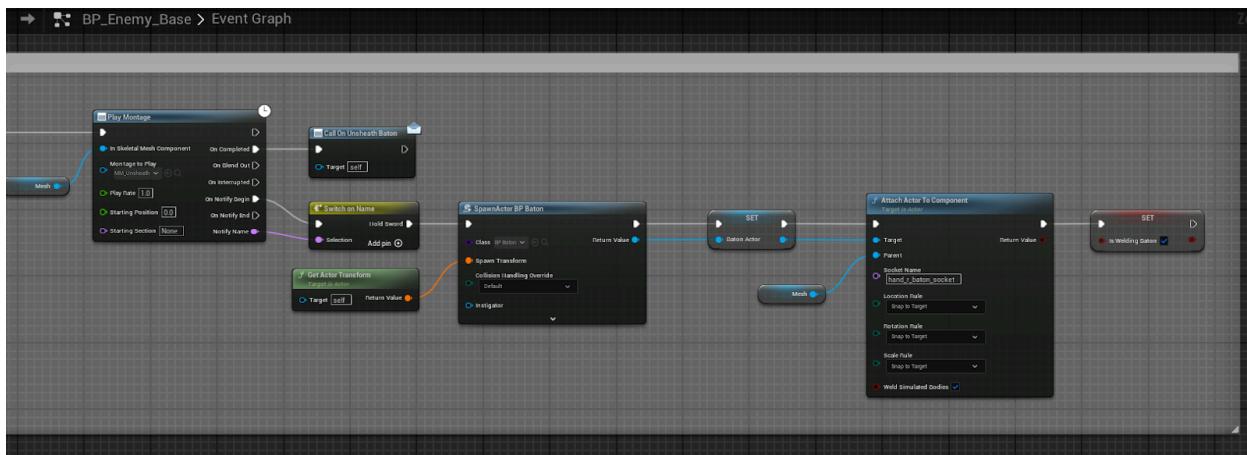
Hearing.mp4

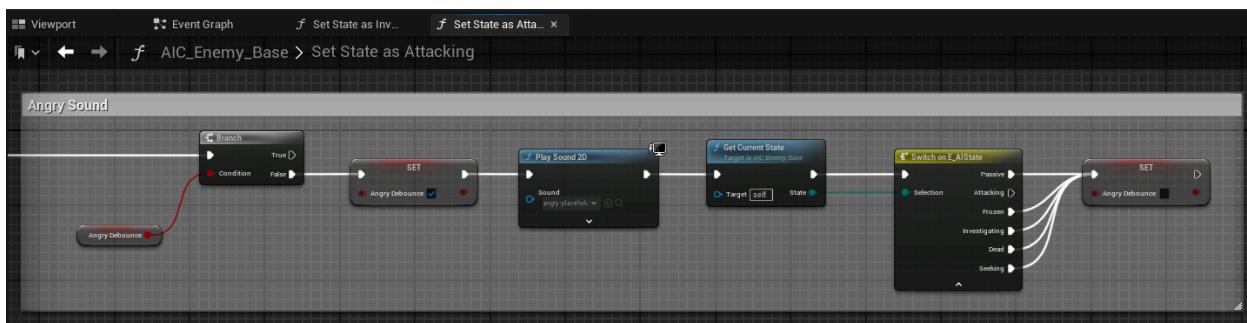
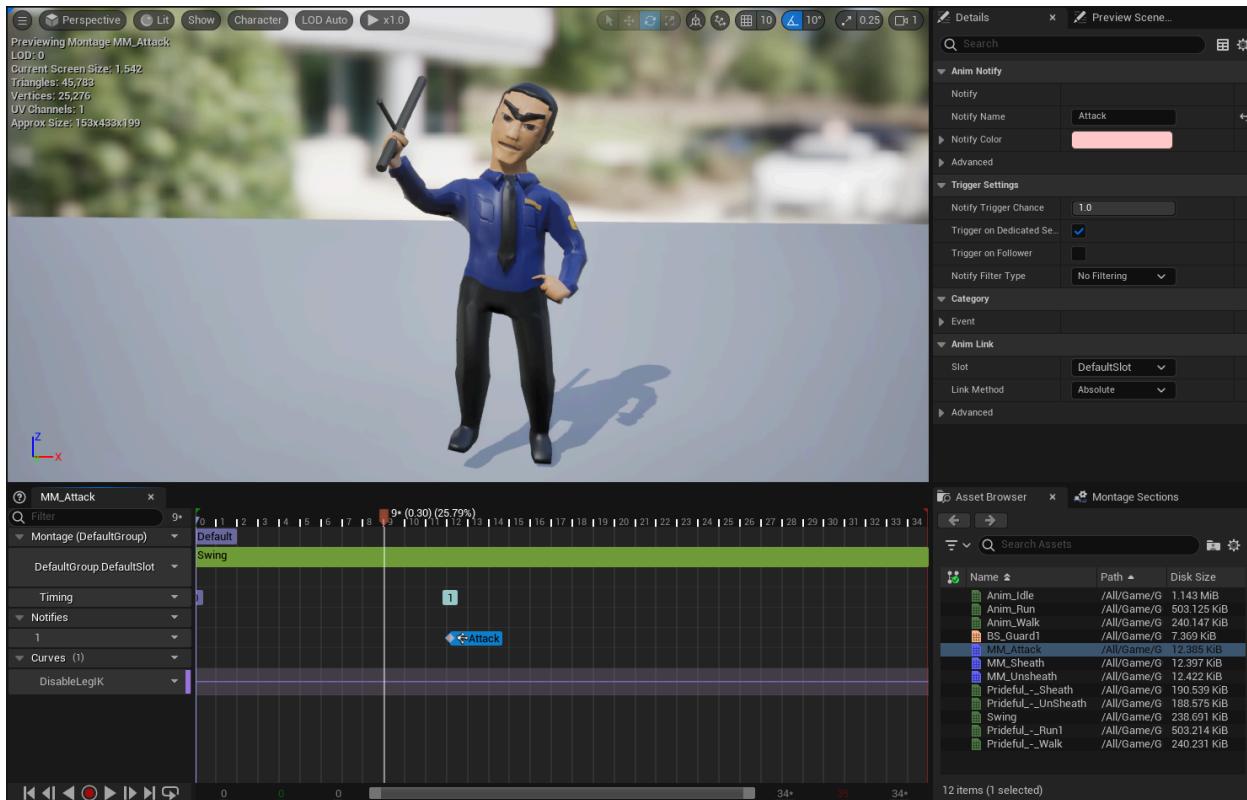


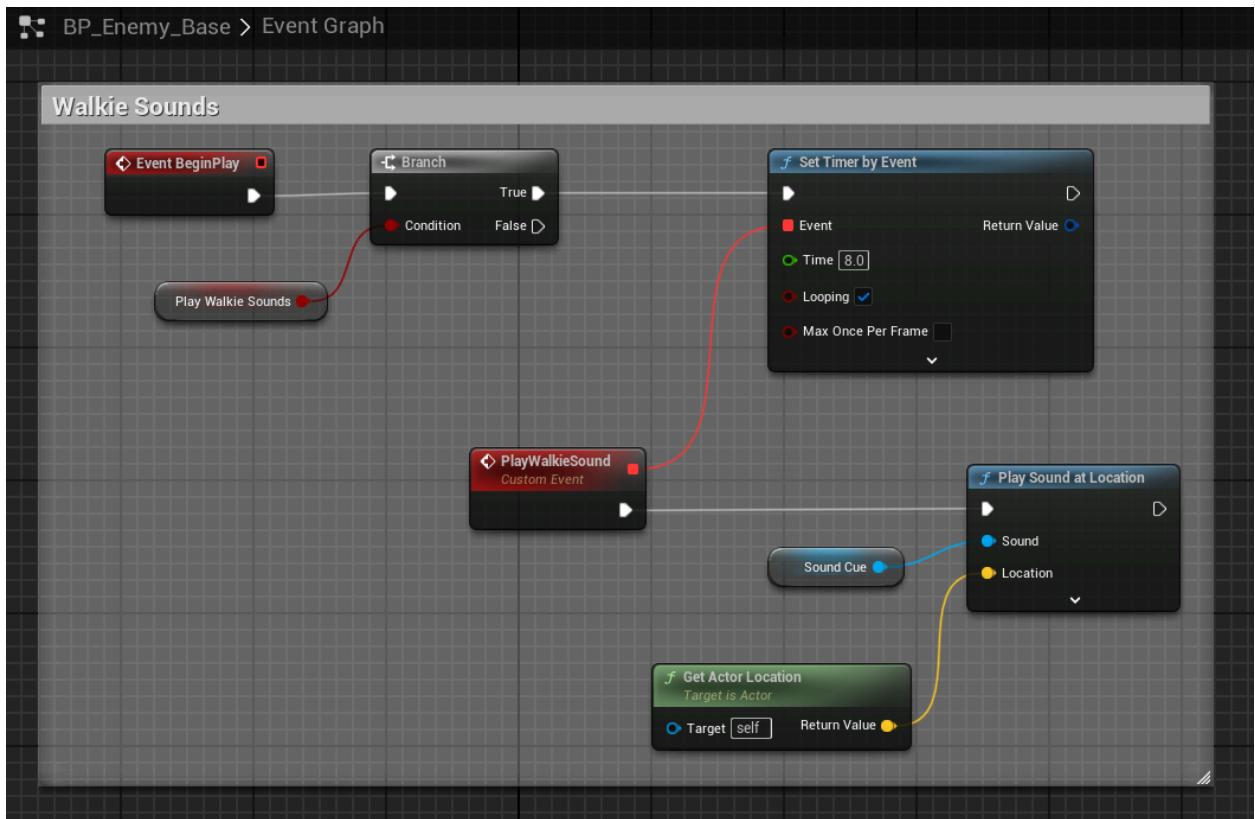
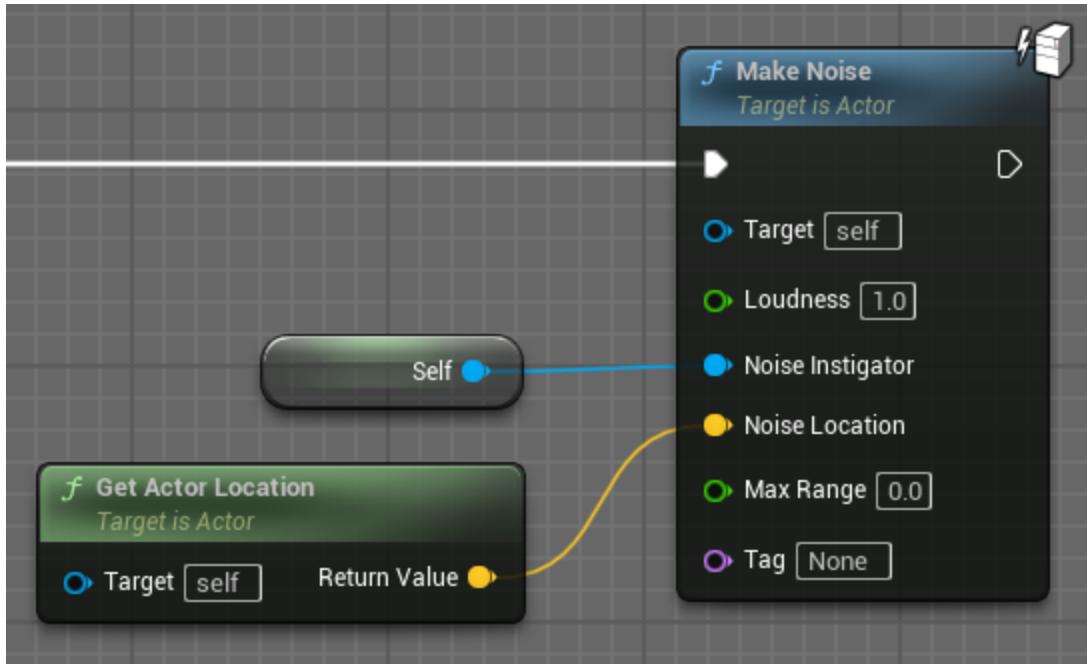
Doors.mp4



Prompts.mp4

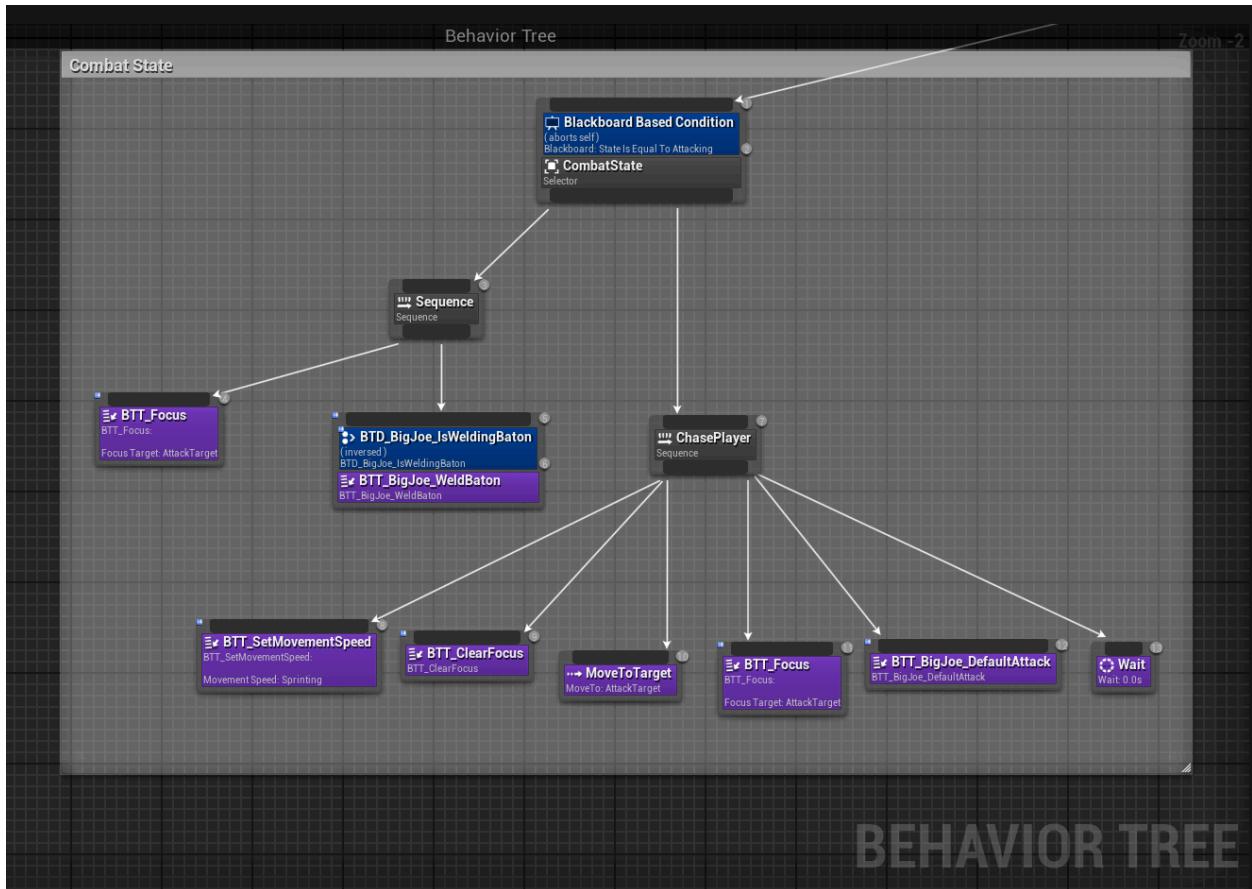
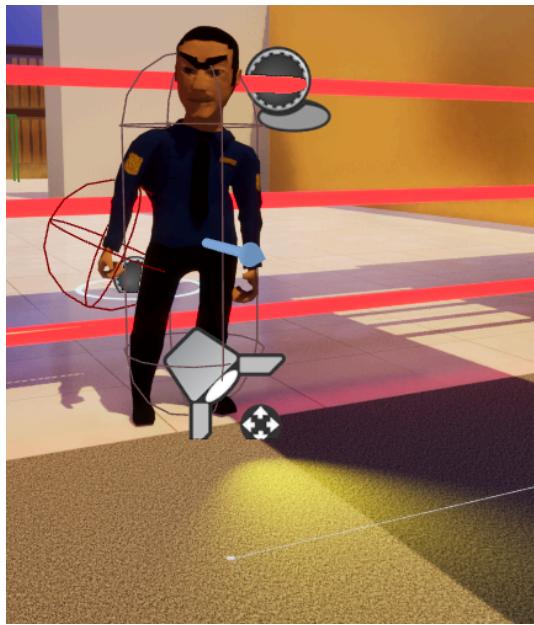


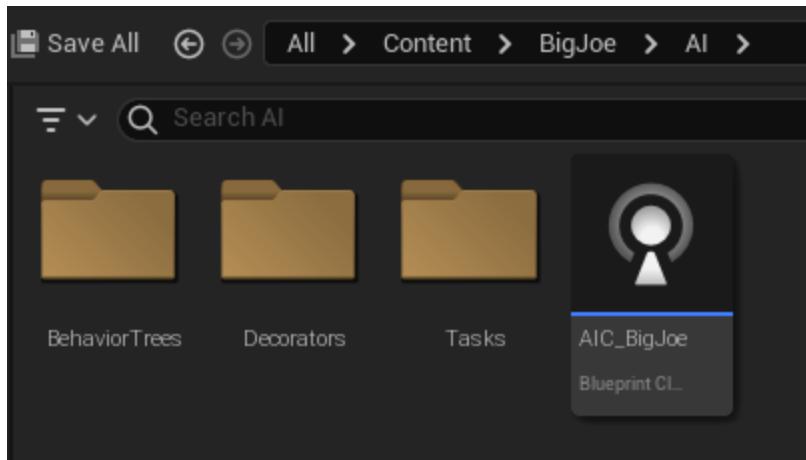


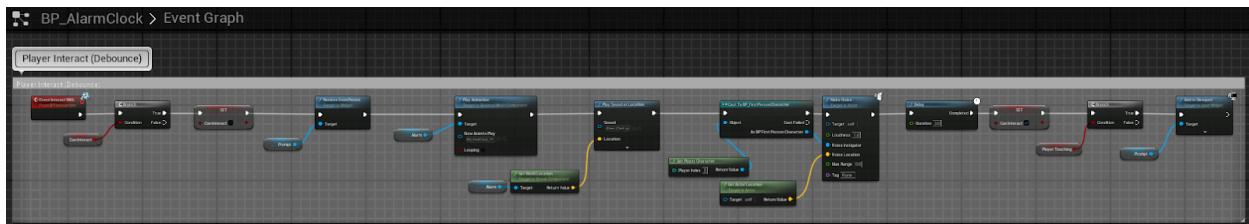
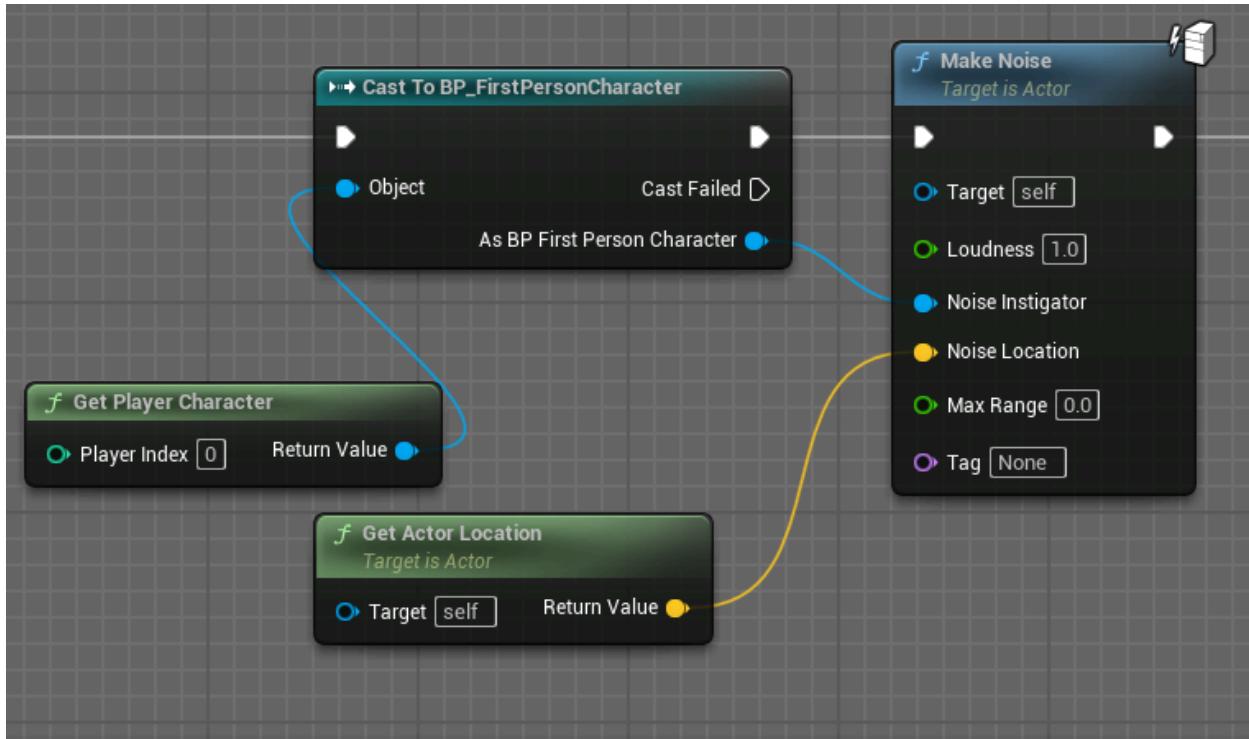


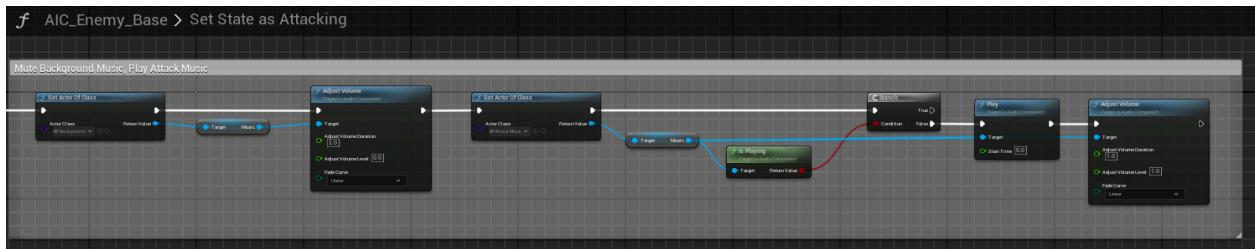
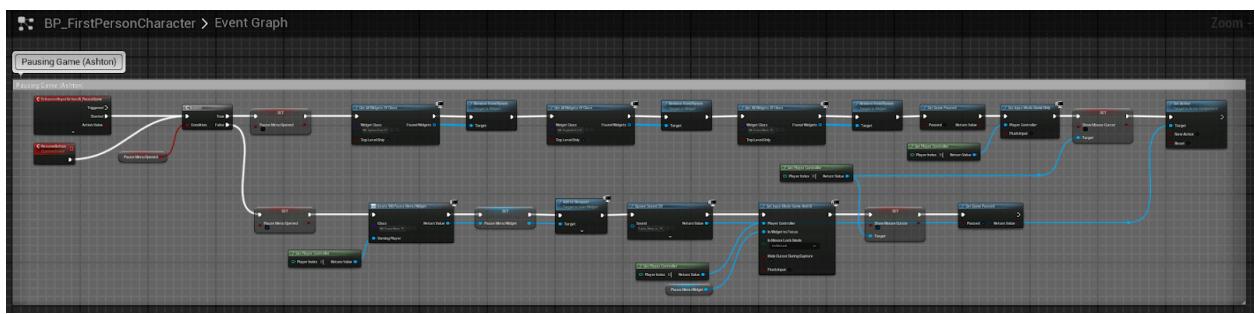
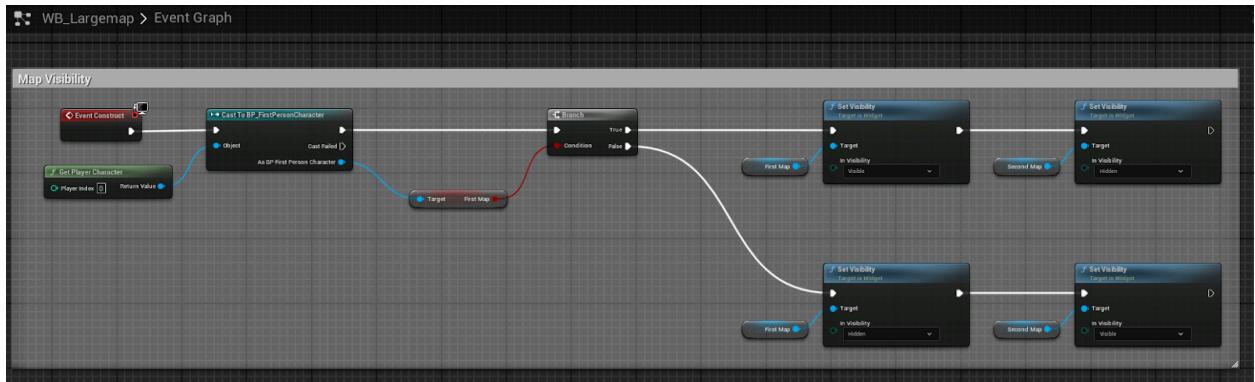
⌚ Weekly Standup - 4/21/2025

- Changed guard light colors to yellow
- Made an attempt to fix Big Joe's sliding
- Spent a while figuring out how to apply the existing guard code to more than one guard type (which resulted in duplicated blueprints/behavior trees since each guard plays specific animations)
- Edited a lot of code to match up to each guard's blueprint and made it easy to add more guards
- Worked with Cecilia to fix up the title screen and a lot of the UI fonts
- Made the map automatically update depending on which floor you are on
- Added a debounce to small objects to prevent the player from spam interacting with them
- Made guards able to hear small objects + doors when the player interacts with them
- Fixed the keybinds/options menu staying on screen when pressing ESC key
- Added attack music that plays when a guard chases after the player (which fades nicely with the background music too)



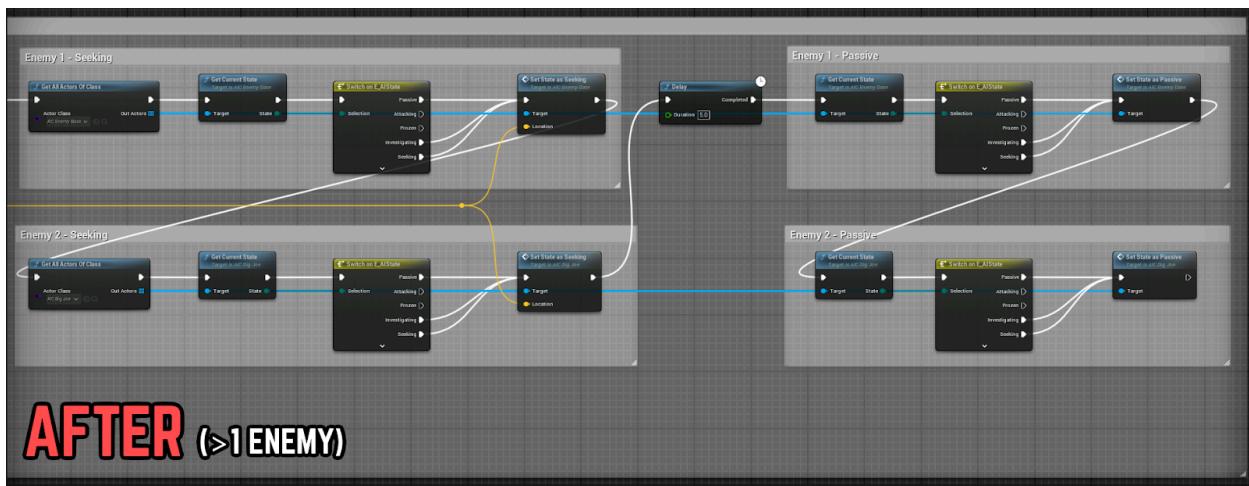
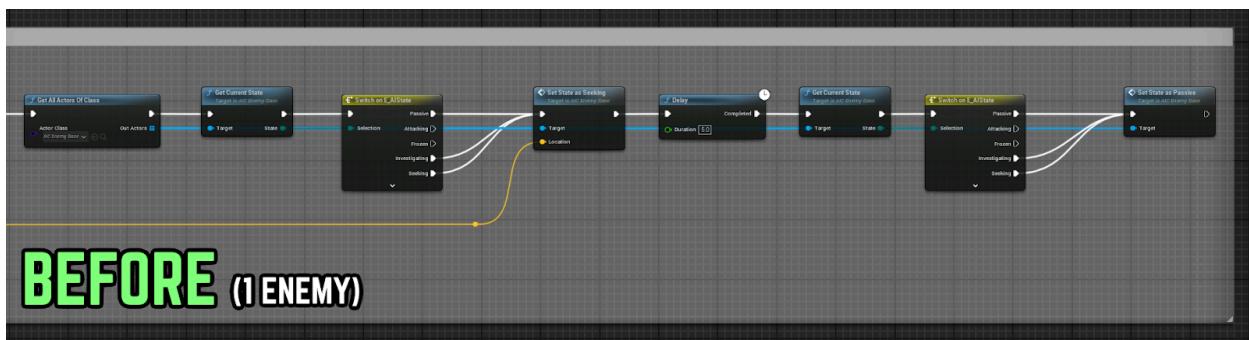


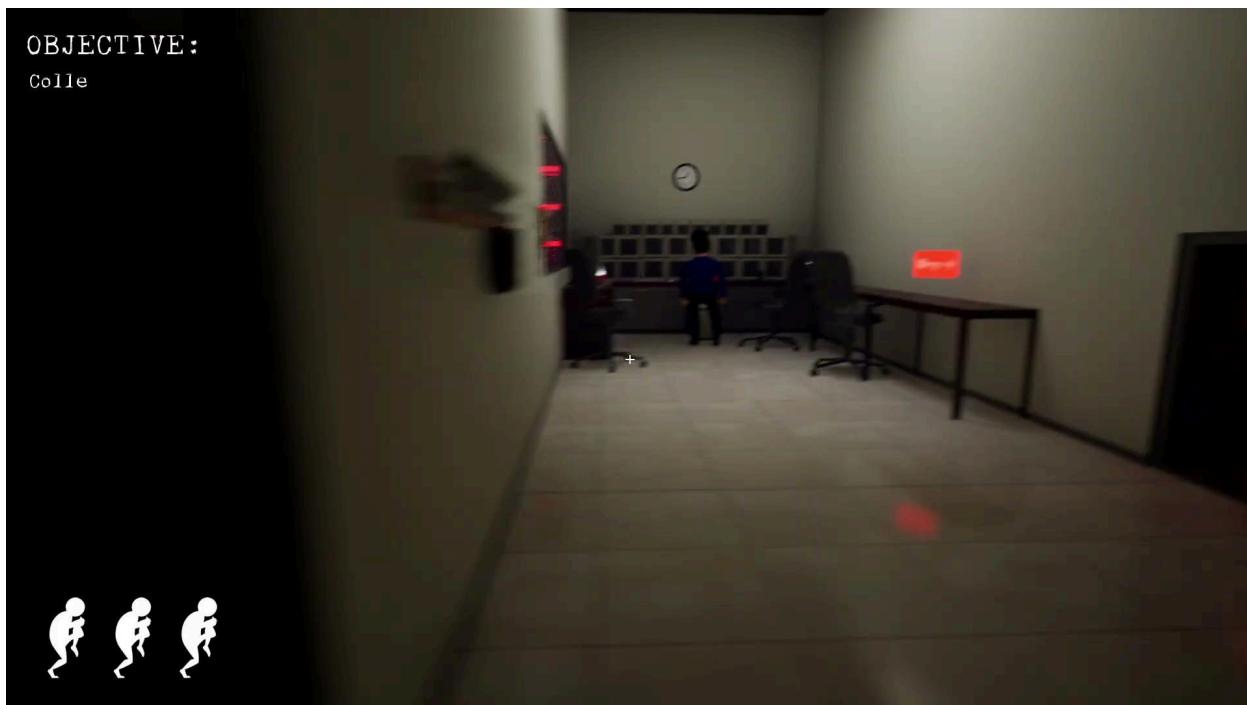
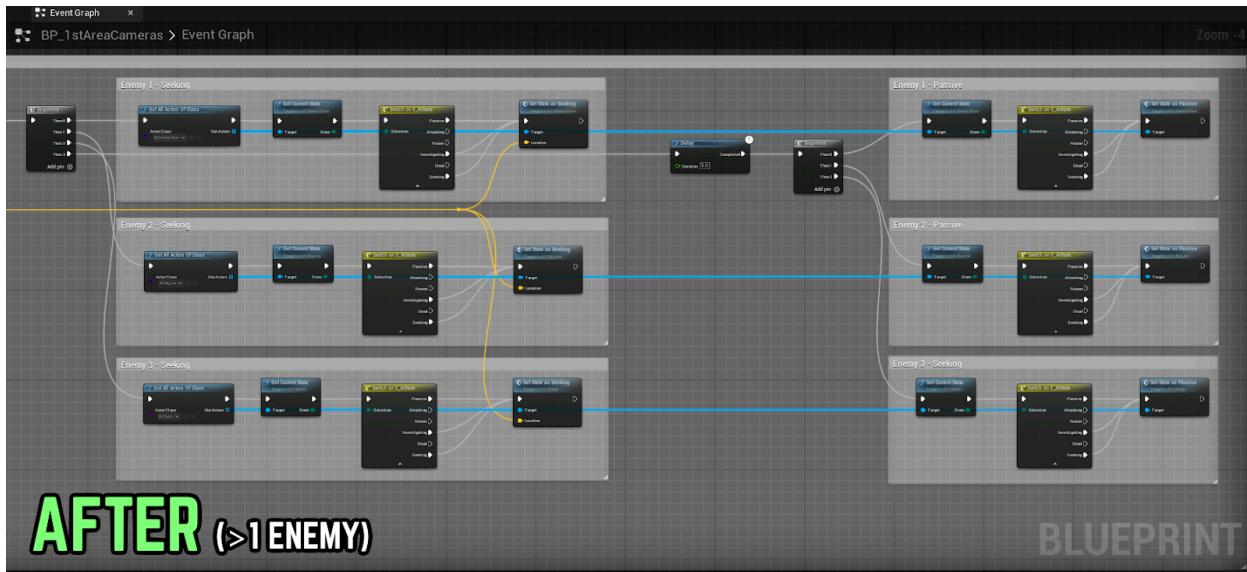




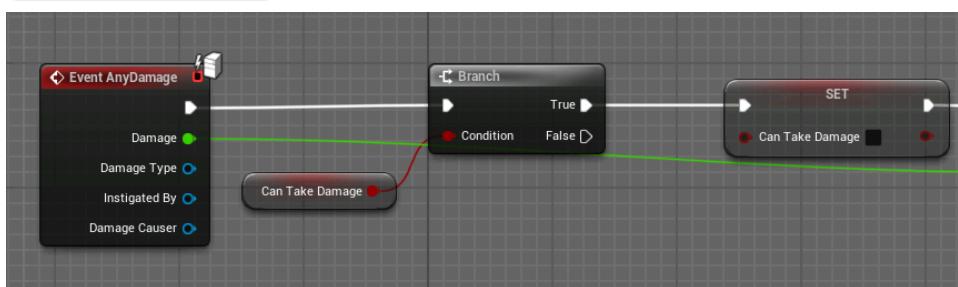
⌚ Weekly Standup - 4/25/2025

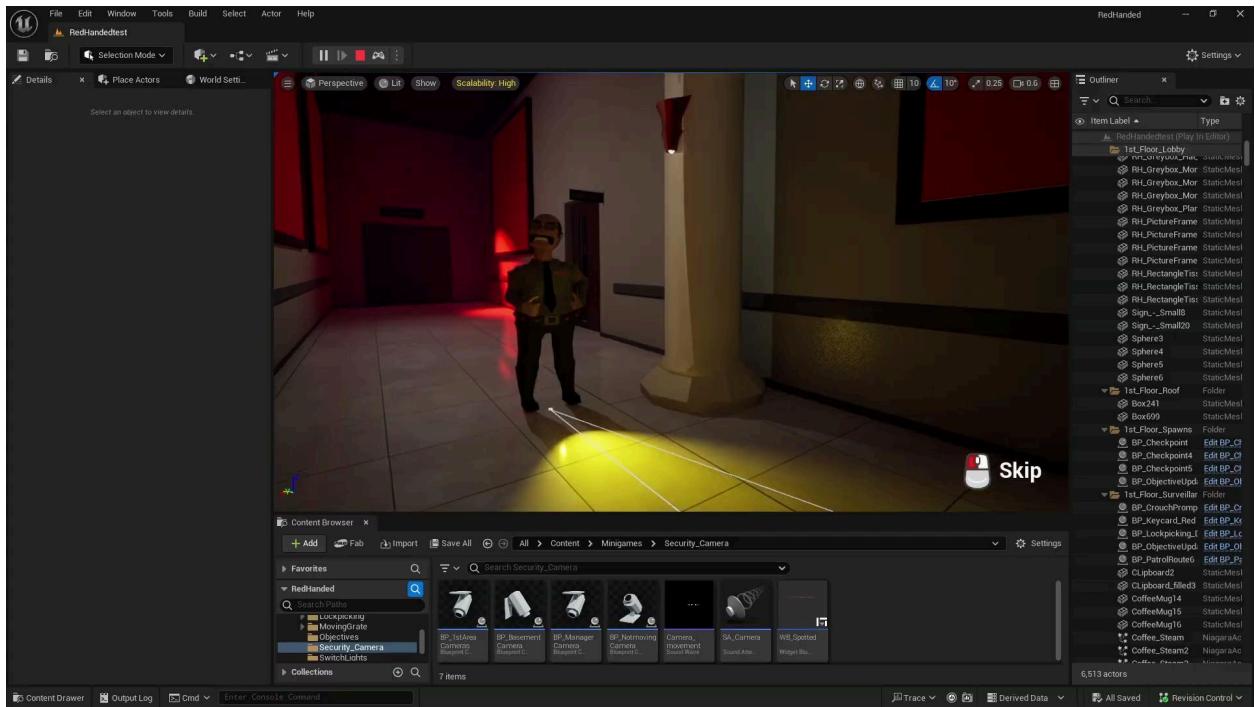
- Fixed a lot of issues with the cameras not correctly alerting the guards by learning the importance of sequencing
- Added the new bald guard: Applied the guard behavior trees and AI controllers I made for the other guards to him and fixed up his animations blueprint
- Fixed multiple lives being lost by adding a 5 second invulnerability window for the player after taking any damage (from guards and lasers)
- Added music when the player opens the map
- Fixed music issues with the breaker switch in the basement
- Fixed music issues with the guards and lockpicking doors
- Fixed some dialogue typos
- Other bug fixes



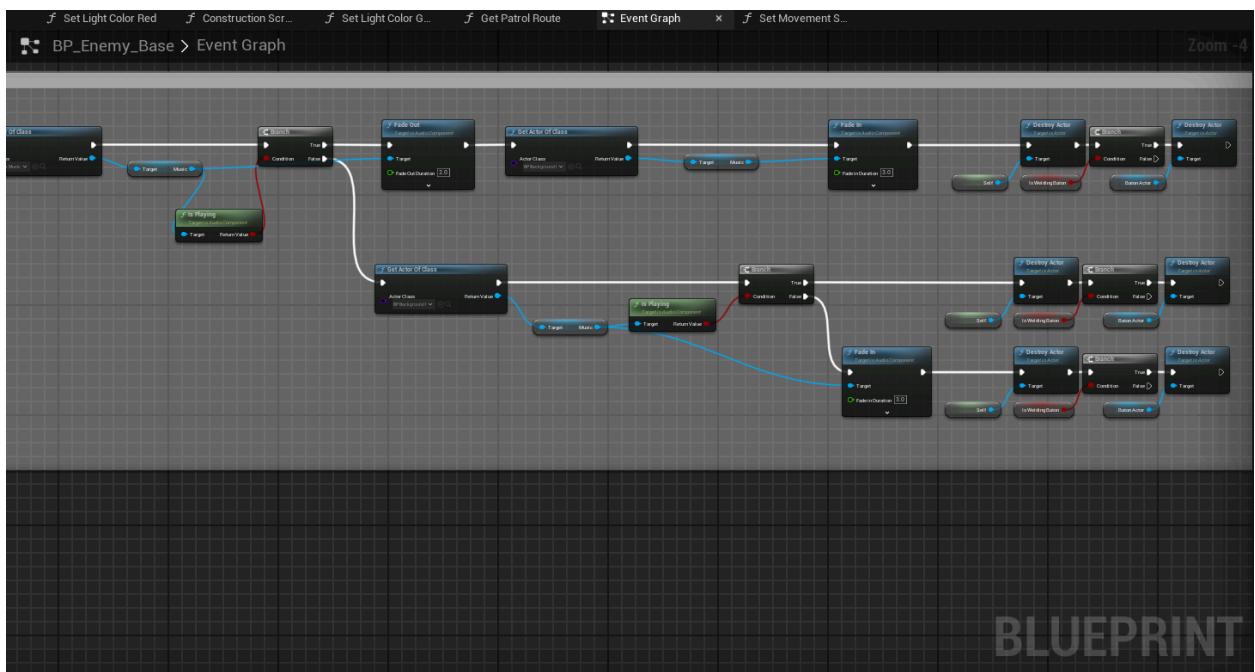


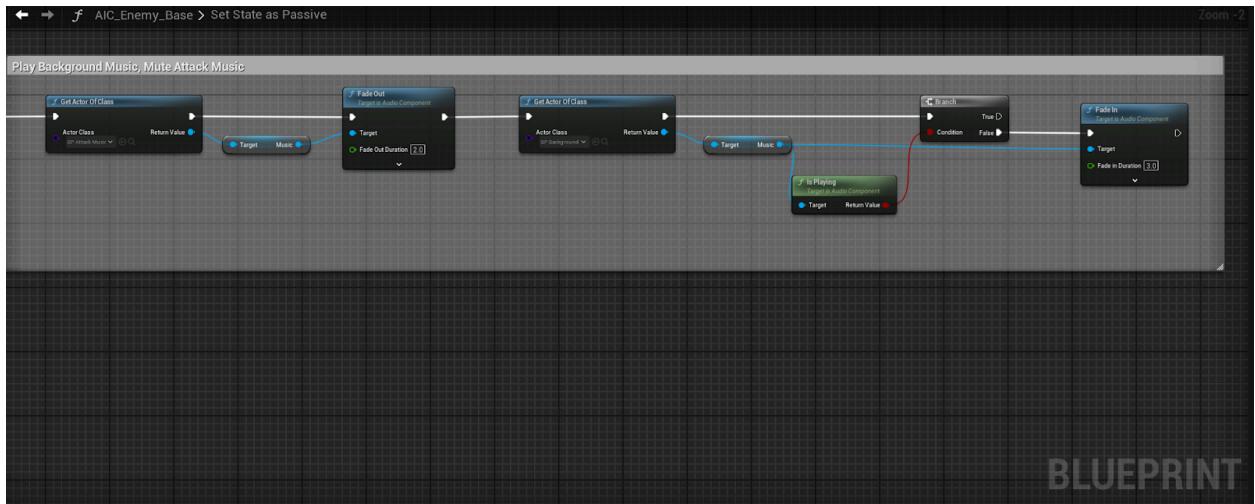
Immunity.mp4





NewGuard.mp4





BLUEPRINT

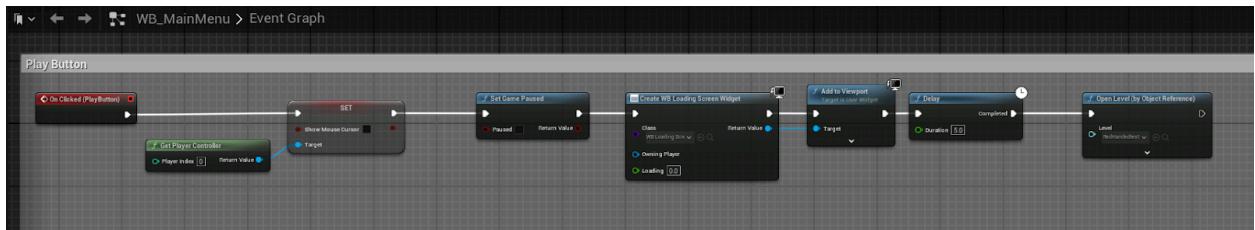
⌚ Weekly Standup - 5/2/2025

(No visuals, lots of behind the scenes work)

- Imported the new success video
- Imported the new laser death video
- Continued fixing door collisions on guards
- Added the Replay Intro button + made it work
- Added skip buttons to the win/loss cutscenes
- Filled out the programming section of the slideshow
- Made some changes to Baldy
- Made a lot of bug fixes

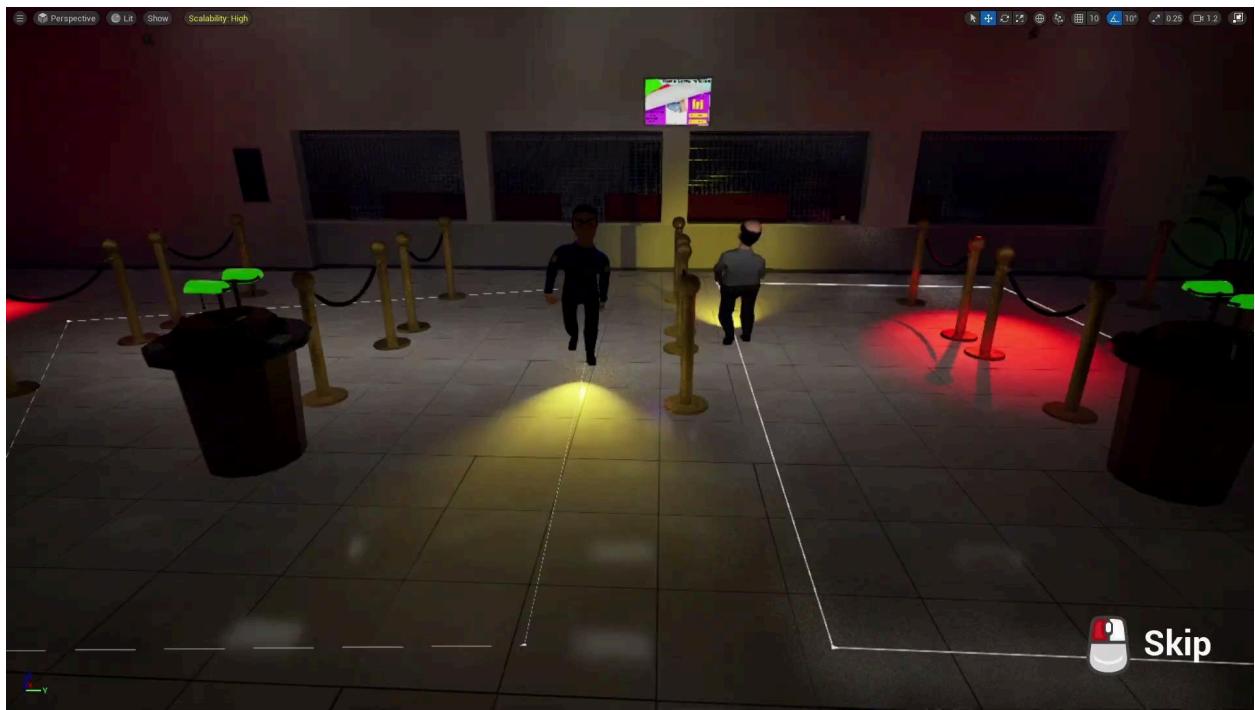
⌚ Weekly Standup - 5/9/2025

- Fixed some issues loading levels, specifically when clicking the Play button (loading levels by object reference, adding each level to a list that guarantees each map will be included in the packaged version, changing the default pawn class in each level, etc.)
- Found a few copyright free songs from the resource Professor Sipes sent that I think are pretty good contenders for background music
- Fixed some of the cutscene audios being delayed (I forgot mp3 files have a built-in delay, whoops)
- Added a new vault door sound effect
- Added a second guard and his patrol route in the lobby
- Added a third guard and his patrol route in the basement
- Readjusted a few other guard paths to be less annoying for the player to traverse
- Updated a few objective prompts based on feedback
- Fixed the elevator buttons not moving down + the entrance not being blocked after using it
- Made the second camera panning scene uncrouch the player and unequip their taser (to hide UI elements while its playing)
- Fixed guards still moving after being tased
- Put some more NPC barriers around the map so that they have a less chance to bug out when seeing the player (such as the chairs in the breakroom)
- Imported the credits video + made the sounds play on the main menu and not only after the success cutscene (it originally conflicted with the menu music)



▼ List of maps to include in a packaged build

Index [0]	7 Array elements
/Game/RedHandedtest	...
Index [1]	...
Index [2]	...
Index [3]	...
Index [4]	...
Index [5]	...



🎥 MoreGuards.mp4

