Homework 2

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Unlisted Youtube Videos:
Homework 2 Video 1
Homework 2 Video 2

How the Applicatihttps://youtu.be/gzTPoQbYAuEon Works:

Game Setting & Goal

My HW2 project was a prop hunt game where the player searches for a set of imposter boxes that move around different rooms filled with regular boxes. There are 6 imposter boxes in the game level, 3 of which are active the moment the game starts and the last 3 only have their brain logic activated once the first 3 boxes are eliminated. I used a navmesh modifier volume to prevent the player and first 3 boxes from entering the second half of the map as well as for preventing the last 3 boxes from moving since their start position rests within the navmesh modifier volume. Lastly after all 6 targets are eliminated the player is transported to the win level.

Target Mechanics

For the imposter boxes, I implemented them with a character blueprints attached to a AI Controller blueprint; using a behavior tree I made a basic sequence that set every instance of the imposter box to move to a new random location, followed by a wait time with a randomized extra time delay of 1 second to de-synchronize the movement of all the imposter boxes. Upon being hit by the player, I included an event that speeds up the box's character movement and also commands it to move to a new location, making each elimination more difficult.

Weapon Mechanics

I altered the pistol blueprint to make it into a charged burst laser. It works by setting off a ‘timer by event’ function that continuously sprays ammo until the weapon is out. I used a charging-up sound effect on my reload logic to mimic the effect of the weapon charging up before shooting out all of the reloaded ammo as well as a lazer sound for each shot of the weapon. I implemented my weapon this way because I wanted to add some difficulty to hunting the imposter boxes, shots needing to be planned out due the charge up delay meant finding the targets wasn't enough to eliminate them..

Damage Mechanics
Within both event graphs of the regular and imposter boxes I added in health logic as well as a material change event. Since we had a requirement to visually display our targets being damaged I decided to add the same logic to my regular boxes since it would be too easy to track the imposter boxes after their first hit. I also included a hit cooldown for both types of boxes because the burst laser fires 10 rounds per charge, so targets cannot have their first and second hit happen in the same laser burst.

Controls:
Reloading is the only extra input action in my program and it is the right hand A button.