Prop Clash 23/11/2022

GAME PROPOSAL

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PROTOTYPE IDEA

For our prototype, we decided to focus on testing out and refining mainly two parts of our game – the duplication process of props and the hunting rules for hunters. For this purpose, we conducted a live recreation of a 1v1 match. Two of us took the roles of a hunter and a prop. The hunter was carrying and looking through a camera to simulate the first-person point of view. To simulate the third-person POV, we had a prop-camera following the prop actor from behind. More about the actual setup and the results of the recreated match will be explained in the following sections.

SETUP

To have a similar game experience to the real game, we wanted to have a scene similar to one of our planned themes. We chose the Spooky theme and found a corridor in TUM which had dimmed lights and passed our definition of spooky. You can see a picture of it in Figure 1. We then put multiple Redbull cans as props and created hiding positions for them by adding trash cans and backpacks.

We have to distinguish between two words that will be used in this document and in our game.

1- Duplicate: This is the ability of the prop to take the shape of any other prop in the scene.

2- Decoy: This is the ability of the prop to leave decoys of itself in the scene.

Figure 1: Spooky TUM corridor

1. Prop Side:

- At first, the prop was assigned a random "yellow" Redbull can.

– Then the prop started exploring the scene and found a "white" Red
   Bull can; thus, it duplicated the "white" can and then left a decoy.

Figure 3: The props changing from "yellow" can to "white" can and
duplicating itself

– After **x** seconds of not duplicating, the prop's appearance changed to
   a distinct prop (Red Can) in the scene; thus, making it visible to
   the Hunter.

- The prop then quickly duplicated into another prop because its hiding position was revealed.

Figure 5

- Unfortunately, the prop was busted by the Hunter. GAME OVER!

Figure 6: The prop died

2. Hunter Side

- The hunter started at a random position in the scene.
- The hunter moved around the scene searching for the prop to kill it.
- The hunter thought he found the prop and performed a hit but he hit a wrong object in the scene because the prop was hiding well.
- The hunter spotted the visual change in the prop and started chasing it. Even though, the prop again changed its appearance the hunter could still differentiate it and managed to kill it, thus winning the match.

GAMEPLAY ADJUSTMENT

By playing the game and taking the feedback from other teams into consideration, we did some gameplay adjustments which will hopefully balance the game. We also set some rules which are generally independent of the played game mode.

Helping the Hunter:

- For each prop, after some time there is a visual change if the prop does not change its shape
    - Visual Change after **x** secs if the prop doesn't change
    - A cooldown of **x/2** secs is enforced so that the prop does not over-abuse the duplication ability

Cloning:

- Props can have a number **c** of clones in the scene at the same time.
- Clones disappear after **n** secs giving back the ability to clone. Also, a destroyed clone gives back one cloning ability.
- If the hunter attacks a clone, the hunter should be penalized either by score loss or health loss, depending on the mode that we will choose to implement.

We decided to not give the props time in the beginning to hide because anyways the prop can not stay as a single prop for a long time. Spawn points will be added in every scene in far locations where the hunters and props will spawn and just run around.

We decided to assign a random prop at the beginning of the round for each member of the prop team and the prop would not have a placeholder such as a witch in "Witch it".

Props changing produce sound and visual effects.

Answers to the feedback

F: Change the gameplay loop for props and hunters for more interesting game
A: We added rules for both hunters and props to make the game more dynamic and fun.

F: Make sure to prevent extremely small props or unreachable places for searchers
A: We will put this into consideration, thanks.

F: Maybe let the props be able to attack the hunters
A: We discussed multiple modes and one of them allows the props to do that. We are still not sure which one we will implement first though.

F: No random generated levels
A: The levels will be static with a theme, like Call of Duty maps. Procedurally generated levels are in our extras and we are not sure if we will have time for them. If we do, we will try to make it not very hard and confusing though.

F: Noise from the direction of props
A: We added visual feedback if the prop stays for a long time in the same form, we also will add sounds for them while moving so also they just do not keep on moving everywhere.

F: Make the props spawn imperfect replicas.
A: This will defy the purpose of the cloning which is to put decoys to confuse the hunters. Instead, we added that the prop can not stay as the same object for a long time or its color will change and be very distinct in the scene.

F: Cooldowns on abilities
A: We added this to not overuse the abilities, also the clones will disappear after some time reducing the effect of overusing the abilities. It will need testing and balancing to reach the right numbers, though.

F: Local Multiplayer with split screen
A: We want to tackle the networking part, that's why we are going with the server host architecture and will hopefully make it work.

F: Focus on LAN then publish.
A: Exactly the plan ;)

DIFFERENCES FROM "WITCH IT"

It was mentioned multiple times that our game is similar to "Witch it". After inspecting it, we decided to list the differences between the two games.

"Witch it" has a lot of different rules from our game:
- They do not have a cooldown on the changing prop shape ability.
- Nothing happens if the prop hides in one place.
- Hunters are not penalized for hitting anything in the scene, so they can hit everything.

CONCLUSION

The game was pretty fun when we played it. We had to make some adjustments and define the rules mentioned above to balance gameplay between the hunter and the prop.