



# Prop Clash 25/01/2023

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## Playtesting

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## CHANGES SINCE THE LAST REPORT

Since the last report, we managed to finalize our second game mode - the round mode. In the round mode, players initially choose their team and then stick with the same teammates until the mode is finished. We currently have five two-minutes-long rounds and with each new round the two teams switch their roles. If team one has initially chosen to play as hunters, then in the second round they will be props, in the third again hunters, etc. In the round mode we do not assign any points to individual players. In order to win a round, the following conditions apply for the two roles:

- A hunter team has to find and kill all props before the round finishes. Even if only one prop player remains alive, the hunter team will lose.
- At least one prop player has to stay alive for a prop team to win.

After all rounds are played, we calculate the team scores and elect the winner.

In this mode, if a prop is killed, we do not respawn the player but give him the ability to freely roam around the scene and observe as a camera until the round ends. Since it only takes two hits for a hunter to kill a prop, we gave the prop the ability to stun the hunter for a certain period of time. During this time, the hunter cannot move or attack. This ability also has a cooldown period before it can be reused.

Another thing we added to improve the game experience is post processing. Post Processing was added to all of our scenes to brighten them up. At first our scenes were shadowed and the players could not see the map well. Using some color corrections and bloom effects we were able to make each asset of ours stand out, but with keeping the spooky effect there. For the spooky effect, Vignette, motion blur and some chromatic aberration were used to give that dark spooky effect with the sounds too. Post processing was a new concept to all of us and applying it took the game design one step further.

Taking our playtesters feedback into consideration, we also implemented a camera zoom for the props that can be controlled with the mouse scrow button.

We also completely redid our game tutorial. It is now interactive and showcases all required controls for both roles along with explanations about each role-specific skill/mechanic. The player has to use each skill/control at least once to advance in the tutorial.

## SUMMARY OF THE FINAL RESULT

### COURSE EXPERIENCE

Since this is the second time for most of us to take the course, it was pretty much fun. We learned from our previous experience how to plan well for the future. We always left some buffer time for unexpected errors and had back up plans. It was smooth and the team was communicating well, each knowing what they had to do.

Also this time was more challenging since we took the decision to do a networked game as well as use Netcode. Netcode is powerful but unfortunately incomplete which makes it very challenging to do what we want easily. We had to search a lot, do a lot of trial and error to make everything work. Moreover, writing the logic for the game as a single player was one thing but syncing it across the network was a whole new level. Even syncing one colour for every player turned out to be more tricky then we initially thought. Since debugging was impossible for Server RPCs, anything that was happening inside a server rpc could hardly be tested. However, all of these obstacles really taught us how to handle networking in general and after getting used to Netcode, we managed to implement more advanced logic more smoothly.

We would say that this course imposed a new challenge for the whole team but we can proudly say we overcame it quickly and well enough through communication.

### PERSONAL IMPRESSION

1. What was the biggest technical difficulty during the project?

Getting used to Netcode and networking.

2. What was your impression of working with the theme?

All of us really liked the theme. It gave us freedom to be creative when brainstorming and we considered many different possibilities before choosing our current game idea.

3. Do you think the theme enhanced your game, or would you have been happier with total freedom?

The theme left enough room for having creative freedom but in the same time it was a useful guideline.

4. What would you do differently in your next game project?

We will choose another networking system, probably Photon instead of Netcode since it is still under construction and using it was very challenging.

5. What was your greatest success during the project?

That we created a multiplayer game that is immersive and enjoyable for players. Also, that we created our environment and models from scratch using also the post processing made it visually appealing.

6. Are you happy with the final result of your project?

We are really happy with the final results as we reached the targets that we set for ourselves, also it was really fun during playtesting and the demo day that people were engaged in the game and enjoyed playing it which is the whole point of making a game in the first place

7. Do you consider the project a success?

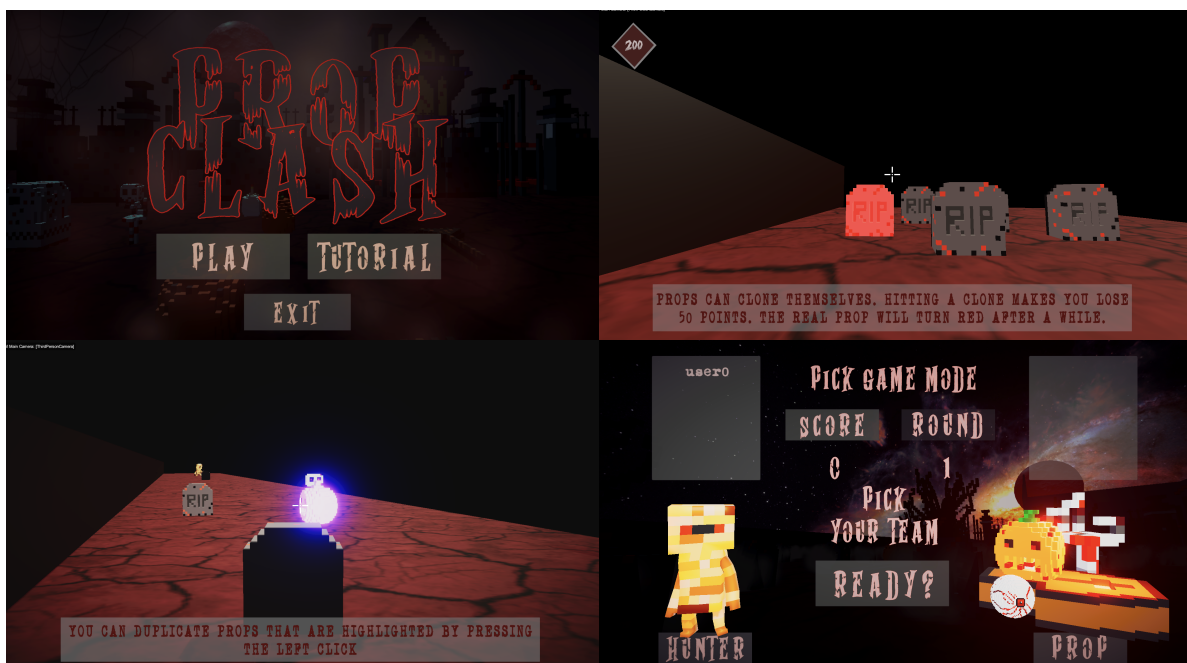
With the resources we had and the limited time we were able to achieve a playable and fun game; thus, a successful project. Yet, our greatest challenge was using the Netcode library which was not a successful choice we made thus if we didn't choose this library we would have had the ability to create a multiplayer game connecting by –

8. To what extent did you meet your project plan and milestones?

We were able to always have the output needed in each milestone; thus, would give it a 4/5 since there are elements in the high target that we didn't achieve.

## Summary

Last but not least, we have achieved more than 80% of what we planned to do in our game from the beginning. Prop clash now is a prop hunt based game which allows multiple players to play either against or with each other. The process of our game development started with designing in house models using MagicaVoxel software. Then we started the implementation of the networking to allow the multiplayer environment using Netcode library. Along with the Netcode setting up, we worked on the level design of the game and tried in every milestone to retouch it again to reach the perfectly spooky scene. Everything used in the scene is either from our in-house models or models implemented from scratch in Unity. The UIs and screens of the game are spooky dark based using the basic components in Unity with some imported fonts to match our theme. By the end, we managed to have two



modes for the game, assassination and deathmatch. The players can pick to have a score or round based mode when they start the game. Moreover, they can be either a hunter who tries to find the props in the scene and kill them, or to be a prop with different abilities like cloning and duplication in order to successfully hide from the hunter.



We managed during the playtesting to get different feedback on the game which helped us in fixing many bugs to get the cleanest version of the game. We added different cameras, the orbit and the third person, for the prop to be able to explore the scene in a better way. We also added more interactivity through audio and visuals to the hunter in the round mode. Moreover, we added an interactive hunter and prop tutorials for the players to play first in order to understand the different controllers and abilities. It's worth mentioning that during polishing up the game, we used the post processing to have more advanced visuals in our scene. All in all, after three months of dedicated work, we managed to deliver a fully functioning prop hunt multiplayer game with different modes.

