O No!

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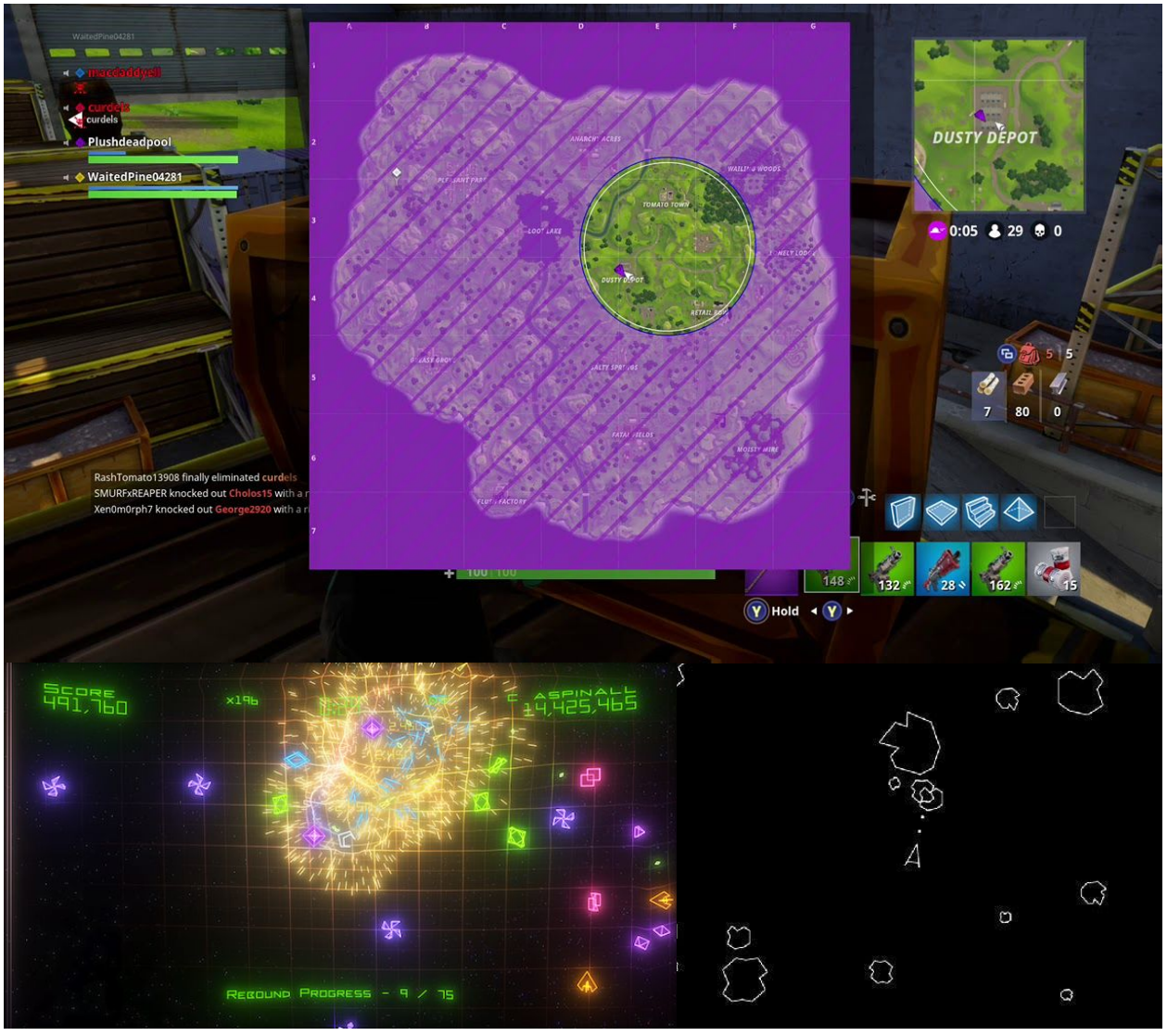
Idea

'O No!' is a survival based shoot 'em up where it's up to the player to remain alive for as long as possible, avoiding multiple enemy types and staying within the circle (of doom!) while trying to score as high as possible along the way.

The game's concept was heavily inspired by the smash hits: 'Player Unknown's Battlegrounds' and 'Fortnite,' along with games from the genre like 'Asteroids' and 'Geometry Wars.'

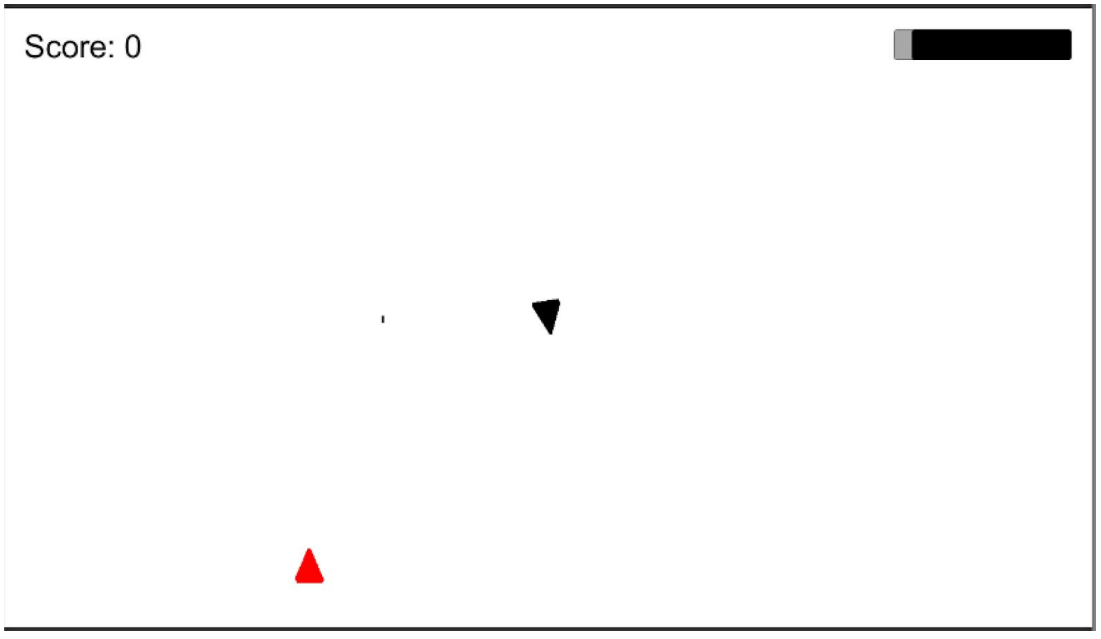


Prototype 1 - Foundations

For the first prototype, the foundations of the game that we wanted to make like: scores, health, UI, player movement, simple enemies, shooting and menus needed to be put in place so that we could then build onto it with ease. Unity's Space Shooter tutorial was followed as a refresher while also gaining insight on how some of the shoot 'em up systems work; showing how to handle static player movement, how shots are handled (still instantiated but deleted on exit) and scoring.

As the gameplay and feel was more important in the beginning stages of development, no detailed art or concept was added, with a sole focus on mechanics and functionality. However, the simplistic and minimal design of the basic grayscale shapes was also effective, just not original or intriguing enough.

There are many things to improve on in this iteration: refine the movement, implement move intuitive enemy behaviour, art/theme, more variation.

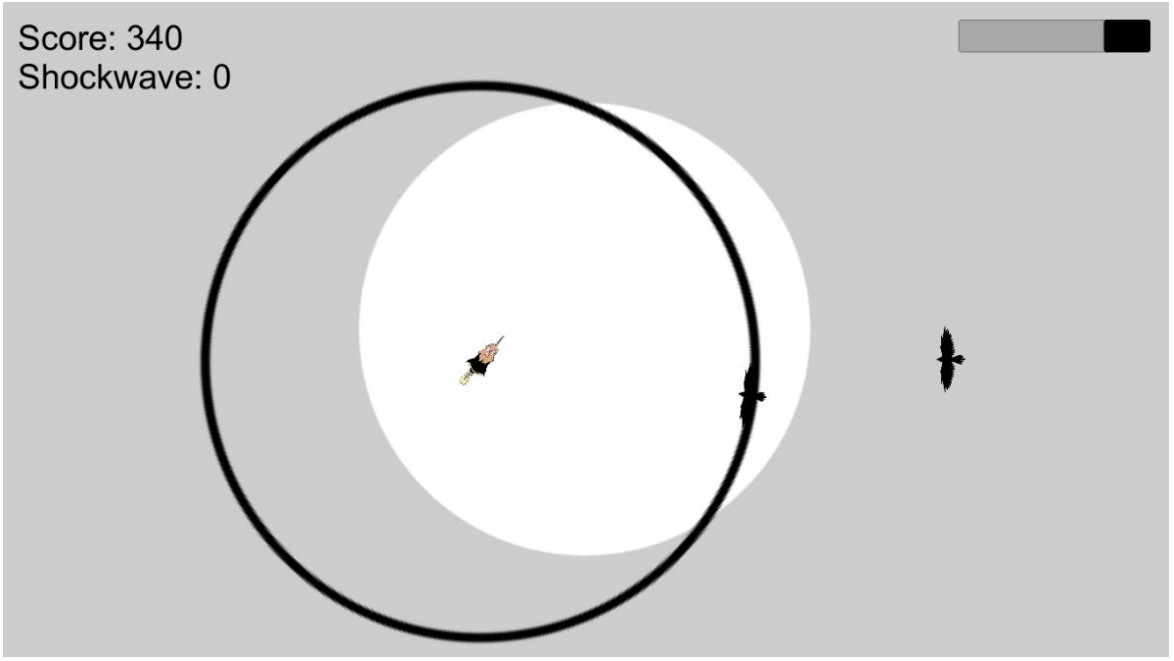


Prototype 2 - Theme

To increment and improve on the game, some more mechanics were added and tested. Like: the circle that takes away the player's health when outside of it, a power move that pushes away enemies and destroys shots, smarter enemy behaviour (follow player), the ability to win/lose the game and tried a more static movement type to see which is better.

The death circle uses a lerp, which when triggered, starts to scale down to a minimum size in which invokes the win condition, meaning the player has survived the game.

The enemy movement was done by feeding the direction vector to the player into the enemies Z rotation, pointing the front to the player then using 'MoveTowards' with the player as the target.



With the encroaching circle of doom idea, came the inspiration for our game's theme and context: magic. We wanted to put a twist on the traditional shmup, and try something different to the usual spaceship and laser beams. The player is instead a witch, and shoots magical spells at crow enemies. The goal for this art style was something akin to anime - cartoony and a little sketchy, with high contrast between pitch black and pastels.

These improvements made the game feel better to play, with an actual challenge emerging from the enemies following at a constant (stressful) rate and the player having an end goal in mind. The art allowed for a feel of the theme and what the player would be seeing.
We had someone playtest to see which of the two movement types are better suited for the game and observed that they overshot with the floaty controls making them frustrated but changing to static improved their mood. The feedback was that the floaty controls were hard to use while the static was easier, with the suggestion that they could be different difficulty modes instead.
This prototype marks the end of the main concepts of the game so what left to improve is to add more detail, update all sprites to themed characters, implement stored ideas (pickups, enemy types), polish effects/code/mechanics.

Prototype 3 - The Rest

Because we're working in Unity, we originally thought a more detailed and realistic art style would be suitable. However, after drawing up some sprites, we realised that it's far too difficult and time consuming to animate.

We decided to keep the art style for the second prototype, but not continue with it in the second iteration. Instead, we translated the sprites and redrew them in a pixelated style. This is much easier to animate, and we could churn out sprites much more quickly. The final boss is a menacing jester / clown, and the player must stay within a magic circle in order to retain their health.

This was the most featureful iteration yet with many level element functionality and assets being competed. First was the pause screen for ease of use and the ability to quit, this just involved stopping the game time and enabling UI elements but the enemies had to be set

manually (unknown why). The power ups were time consuming since I needed to make their behaviour from scratch but spawning them wasn't a problem since the collisions were already set up. I opted for polymorphism for both the pickups and enemies since most of the functionality was the same but I needed to do specific things for the object variations. The two minion style enemy types have different different speeds and taken hits but the boss was the biggest variant.

This object was large in size and needed to be the spawner of enemies and it spawned. Since both this and the pickups needed to spawned randomly but needed to be weighted (20-30% drop for pickups, higher chance for the boss to shoot, etc.), it required some float checking. It was intended to make a class for both to use but difficult to grasp the concept so the boss just uses (a kind of janky) method. Also it makes no sense for the boss to follow the player around so most of the functionality of the original class needed to be overridden.

By the end of development, there were a couple of issues that we would've liked to address, the main one being the UI. We spent too much time on the ingame art/animation that we forgot about refining the UI (buttons, text, etc.) and their positioning gets in the way of the boss demonstrating the lack of thought that went into it. Another issue, although not directed inherent, is the design of the level. The systems works but it's not confirmed to work from and player's standpoint, so we didn't get it player tested again for a more comprehensive idea of how the game should play to fun and engaging. Also would have loved to have everything animated and with more frames.
NOTE: game UI has been fixed in the bike version (seen below)

Lost Ideas

We had many ideas on what to put in, test or improve but due to either time and/or technical ability these were scrapped. The ideas included: multiplayer, follow mouse movement, dodge player shots, moving camera/expansive level and more advanced effects (particles etc.).

Link

Game Download: https://rei-ito.itch.io/o-no