

Designing and Implementing a New Tetris Gameplay Experience

1 The reasoning behind the piece's design.

My piece is designed as a longer o block kinda like an oval i did this because of the mechanic i wanted to implement it makes it so the player gets 200 points for placing the block as well as clearing lines even if they are not full, i implemented this mechanic as i suck at tetris and want a scapegoat for when things get rough.

2 How the custom gameplay experience demonstrates the piece's potential.

With the piece being $\frac{2}{3}$ it is still challenging to fit into places but since it clears lines even when they are not full it makes the piece very versatile and adds a bit of a wildcard experience to my game. Also you can choose to clear 3 or 2 lines depending on rotation.

3 Challenges faced during implementation and how they were addressed.

My first issue was that when the piece was spawned in, it wouldn't have the tag applied to it even after i added it to the prefab in unity, so i had to add some logic that checked the spawned piece to see if it had the proper tag and if it did it makes all the blocks within that piece have the tag (even tho i added the tags to each individual block)

I then had an error of null reference when trying to clear with the new piece and it was because it was trying to clear an empty slot and didn't like that, to fix it i added a null check to my clear line function that checks if the cell is not null before deleting which fixed the issue of it trying to clear empty cells.