

## **Tetris – In-Class Assignment**

### *The rules*

The rules to Tetris are fairly simple. Different shaped blocks descend from the top of the screen in a random order, one at a time. The blocks can be rotated 90 degrees by the player to orient them to fit the player's current need. Once a block cannot move any further down, either by touching the floor of the playing field or another block that has already struck the floor, it is locked into place in its current rotation. Should a solid row of blocks be formed horizontally, that is a consistent line of blocks with no gaps from the left side of the playing field to the right side, that row will be removed from the playing field and all blocks above the row will shift down by the amount of rows removed. Multiple rows can be removed at once if they are completed simultaneously. Should a block be placed in or above the ceiling of the playing field, the player loses. The objective is to score as many points as possible before breaking the ceiling of the playing field. In Nintendo's NES version, two player mode is available for players to compete for the high score simultaneously.

### *Gameplay Analysis*

Tetris is a game that brings a simple concept and converts it into a competitive experience. The game is enjoyable in small play sessions and can be fun to compete with others for the highest score. The game's simple design can be optimized by higher level players, allowing all ranges of skill levels to receive enjoyment from the game, making it an intuitively scalable design. The controls, however, did not feel as solid as controls in newer iterations of the title. If the player attempts to move a block left or right after speeding up the decent by pushing down, there is a slight delay that can cause errors when trying to achieve a higher score quickly. This similarly occurs with rotation. This led to many misplaced blocks that made my gameplay experience more difficult, but not in a positive way. Once the player discovers a rhythm in how to place blocks, the game becomes pretty easy. It quickly becomes apparent that any reason for losing is realistically because the player did not plan out their next move properly. This is a sign of fair gameplay, showing that difficulty is not arbitrarily created by the creators, but rather the symptom of well-designed gameplay.

### *What does Tetris teach us about design?*

There are a few things Tetris can teach us about design, but the design of Tetris is more difficult to expand into general video games as the genre of Tetris is very specific. For example, a first-person shooter won't learn much from Tetris' design. Tetris can definitely be used as a good example for puzzle or score attack games, however. Tetris shows designers the implications of well thought out gameplay. Something people don't think of when playing Tetris is how well the pieces available to the player fit together. While these pieces are given to the player randomly, they are all designed in a way that they can be placed together in a logical way to achieve no gaps. Even if players don't receive the piece they are looking for, there are ways to work around it given other pieces. This forward thinking comes from the developers design and should be considered when designing a puzzle game or score attack game. Designers should think about how players will achieve their goals given a set of tools without creating "cheats" to create arbitrary difficulty or easy ways out. For example, imagine if Tetris gave different shapes that don't match very well, so to make up for it they throw in a power-up that breaks the current block into pieces so when it touches the floor it fills in gaps. This would change the balance of the game and encourage players to simply wait for the power ups in order to win. This would also make winning the game fully dependent on whether the player received these power ups or not.