Design Rationale:

1. What interesting properties does your polyomino piece have within the systems of Tetris? Why?

The interesting properties that my polyomino piece has within the system of Tetris is the shape and size of the pieces. The Tetrominoes have their own size, dimensions, and perimeter which shows the scaling of how each piece builds up by its own tile based piece. For example the monomino piece is a single tile with the measure size of 1, a dimension of 1 x 1, and a perimeter of 4 within the shape. This is not always a noticeable thing but every piece fits with its children scale of what that piece will evolve to a bigger piece by scale. For example, the I piece can get more longer in scale once you add another tile to the piece, the L piece can get aligned with the S piece and the T piece since they are children of the polyomino L piece. The gameplay mechanics are also an interesting part in my tetris game because this game in particular you need to leave a few holes as much as you can when the game will start to speed up when you progress, making it more challenging to keep up with the falling polyomino piece that require timing and skills to play through the game.

2. What interesting relationships does your piece sequence have with the board state within the envisioned play session? Why?

For my Tetris board, the interesting relationship that my piece has with the board state within the envisioned play session is having the piece connect to another piece to clear the row on the base Tetris. Having a strong piece coordination allows you to make smart moves when moving your piece on the Tetris base and helps to create more of an idea of where your piece is going to be placed next once the piece randomly spawn on the board. Even when you don't have coordination on the piece, just having a well-placed piece can become more efficient for the player playing Tetris and finding ways to keep progressing throughout the level.

3. How do you expect your board state to provide an interesting challenge to players?

There are 3 different ways to look at what the challenge is when playing Tetris: The first way is by having a board that is two flat which makes the game boring and low-risk to play. The second way is by having a board that is messy which can get overcomplicated and to over done which will be hard to find the right

placement to place the pieces, and the third thing about this challenge is having a sweet spot to place your pieces which can be fixable if you play it right in the Tetris game. I think in my board state it will show an interesting tactic of playing Tetris but will also officially show what pieces you need on the board to fit in that space and how you can rotate your piece on the board efficiently so you can clear all the tiles in the board.