

# Tetris Puzzle Assignment

Nick Frasiak

<https://youtu.be/7PFG5akgvBg>

## Design Rationale justification

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

The interesting properties of my polyomino piece is the varying factors this piece can be used for. Since tetronimos can rotate, the dynamic of the pieces and the game totally changes. My piece is a mix of an L piece and an O piece, this makes the piece feel both unique but also familiar. The custom polyomino I created introduces an increased rotational complexity and adds more risk to the game. It becomes inefficient for flat line clears but is highly effective at filling in irregular gaps which is very common in Tetris.

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

The piece sequence changes how the board develops because it favours irregular surfaces and making recoveries over stacking, this forces the player to adapt their strategy and how they place the pieces based on existing gaps rather than relying on standard line clear patterns like the regular tetronimos do.

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

The board becomes more challenging because it doesn't stay flat for too long which forces the player to deal with uneven stacks and awkward gaps. This creates more difficult placement decisions and increases the risk of mistakes within, especially when the board height rises. Because the player can't rely on standard flat stacking strategies, they must constantly read and scan the board state to adapt their approach which encourages more planning and making decisions in the moment. This makes the challenge feel intentional rather than random as the difficulty comes from interacting with the boards shape. I believe this piece makes the game both challenging and easier depending on the situation.

