The dark blue shape above is my newly designed graphic. I call it "U", although it actually resembles a door. However, for the sake of easier Unity coding, I've named it "U". The image on the right shows possible combination forms for reference.

Design Concept and Rationale:

After playing traditional Tetris for a while, I noticed that sometimes, after clearing a line, the remaining configuration makes it difficult to continue because some areas have only one cell empty. However, once a traditional Tetris piece is rotated to fill that single cell, it leaves a large amount of empty space above, which increases the difficulty of subsequent placements. In my numerous experiments, I found that the U-shaped (or door-like) piece can effectively resolve this issue.
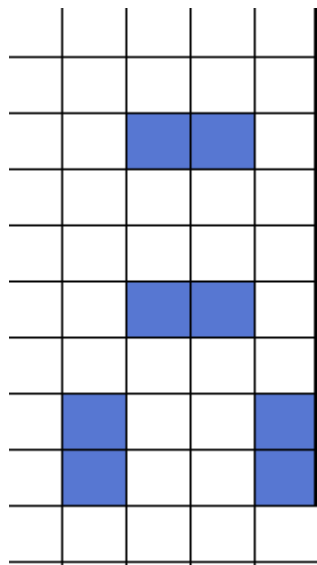
The U-shaped piece can take on both of the above forms through rotation, and both forms can effectively clear rows—whether it's one row or two.

Design Potential:

This design may seem rather unconventional since it isn't a connected shape. However, after playing several rounds of the game, it becomes clear that this graphic is very friendly for new Tetris players. First, it can be combined with many other pieces. Second, if only a single line is cleared, its consistent shape makes it favorable for clearing subsequent lines. Third, its fixed-position role has been observed during gameplay to help players build further structures more effectively on its basis.

Challenges:

When implementing this shape in Unity, the primary challenges were how to construct the shape and how to create a new rotation system for it. In traditional Tetris, apart from the I-piece, all pieces use the same rotation formula. However, the rotation formula for the U-shaped piece is completely different from those used in traditional Tetris. Therefore, I designed a new rotation formula to make the rotation of this shape more player-friendly during gameplay.