

Use Case: Rotate a Piece.

Primary Actor: Player.

Stakeholders and Interests:

- ❖ Player: wants to play the game of Blokus
- ❖ Computer Player: wants to play game against human player/players.
- ❖ Developers: wants to maintain the game and make changes.

Pre-conditions:

- ❖ Game must be currently running and being played.

Post-condition:

- ❖ Player/Players can rotate a piece to be placed on the game board.

Main Success Scenario:

1. Player selects the desired game piece from a bar on the game's user interface.
2. Player hovers the cursor over the game board after making selection.
3. Selected game piece is displayed wherever the cursor is pointed on the game board.
4. The player can rotate the game piece by clicking on the rotate icons at the bottom center of the game's user interface. [Alt1: Rotate Game Piece]
5. The player can flip the game piece by clicking on the flip icons at the bottom center of the game's user interface. [Alt2: Flip Game Piece]
6. The player can repeat steps 1 through 5 before placing the piece on the game board.

Alternative Flows:

Alt1: Rotate Game Piece

1. The player selects the clockwise icon.
2. The game piece is rotated in a clockwise position.
3. The player selects the counter-clockwise icon.
4. The game piece is rotated in a counter-clockwise position.

Alt2: Flip Game Piece

1. The player selects the left arrow icon.
2. The game piece is flipped in that direction.
3. The Player selects the right arrow icon.
4. The game piece is flipped in that direction.

Exception:

- ❖ If at any time the game malfunctions the system informs the player of the problem, attempts to record such system failure and the use case ends.

Use Case: Place a Piece.

Primary Actor: Player

Stakeholders and Interests:

- ❖ Player: wants to play the game of Blokus
- ❖ Computer Player: wants to play game against human player/players.
- ❖ Developers: wants to maintain the game and make changes.

Pre-conditions:

- ❖ Game must be currently running and being played.

Success Guarantee (Post-conditions):

- ❖ Players can place desired game piece on the game board on their turn.

Main Success Scenario:

1. Player selects the desired game piece from a bar on the game's user interface.
2. Player hovers the cursor over the game board after selecting.
3. Selected game piece is displayed wherever the cursor is pointed on the game board.
4. The player places the game piece on the board. [Alt1: *Place a Game Piece*]
5. Player awaits their turn to place another piece. [Alt2: Game Ends]
6. Upon players turn repeat steps 1 through 5 accordingly.

Alternative Flows:

Alt1: *Place a Game Piece.*

1. The first piece laid by a player must cover a corner square.
2. If not a corner square, a game piece will not be placed on the game board.
3. New game piece must touch at least one other piece of the same color.
4. If new game piece does not touch at least one other piece of the same color, game piece will not be placed on the board.
5. The player places a game piece.
6. The game piece cannot be moved.
7. The Player is unable to place a game piece
8. The Player must pass their turn.

Alt2: Game Ends.

1. All players are unable to successfully place a piece.
2. The game ends.

Exceptions:

If at any time the game malfunctions the system informs the player of the problem, attempts to record such system failure and the use case ends.