

Use Case: 4inARow

Iteration: 1

Actor: Player (1 or 2)

Goal in context: For one of the players to win the game by stacking 4 game pieces in a row, horizontally, vertically, or diagonally.

Pre-conditions:

1. A Connect 4 game must be in progress.
2. There must be available slots on the board.
3. It must be the player's turn.

Trigger: It is one of the player's turns, and they place the winning piece in a spot with three in a row.

Scenario:

1. A game of Connect 4 is in progress.
2. Each player has played a minimum of 3 turns.
3. There are 3 in a row on the board.
4. It is that player's turn.
5. They choose that slot.
6. They win the game.
7. The game closes.

Post-conditions:

1. If a player achieves 4 in a row, the game ends, and they are declared the winner.
2. If the board is full without a winner, then a draw is declared.

Exceptions: The opponent can block the win before the player can play their turn.

Priority: High. The goal of the game is this.

When available: Once there is a 3-in-a-row setup, it is that player's turn.

Frequency of use: Once a game, at most.

Channel to actor: Once it is the player's turn, they notice a 3 in a row.

Secondary actors: Opponent

Channel to secondary actors: Once it is their turn, they have the option to block.

Open issues: None

Use Case: 3InARow

Iteration: 1

Actor: Player (1 or 2)

Goal in context: for one of the players to reach three of their symbols in a row on the board, which results in their declared victory.

Pre-Conditions:

1. A TicTacToe game has been initiated.
2. There are 2 of a symbol in a row, requiring one more move.
3. It must be the player's turn.

Trigger: It is the player's turn, and they choose the winning move.

Scenario:

1. A TicTacToe game is in progress.
2. There are currently 2 in a row.
3. It is that player's turn that has 2 in a row.
4. They choose the missing slot, making it 3 in a row.
5. They win the game.
6. The game closes.

Post-Conditions:

1. The game ends once you achieve a 3 in a row.
2. If the board is full without a winner, then a draw happens.

Exceptions: The opponent can block the winning move if it is their turn.

Priority: High

When available: Once there are 2 in a row, it is that player's turn.

Frequency of use: Once a game

Channel to actor: Once it is the player's turn, they have two in a row.

Secondary actors: Opponent

Channel to secondary actors: Once it is their turn, they have the option to block.

Open issues: None