

As a player,
I want to be able to see my available moves of a token,
So I can minimise the chance of missing a potential move.

I want to see hints when I have attempted an illegal move,
So I know the reason for I cannot move to the position.

I want to play against real people,
So that I can enjoy the sheer happiness of victory or the bitter sorrow of losing.

I want to play against AI,
So that I can practice with AI until I feel comfortable playing against real people.

I want to see which player's turn it is in the game UI,
So that I know whose turn it is to act.

I want to remove one of the opponent's tokens when I form a mill,
So that I can win the game eventually.

I want to place my tokens freely as long as the position is not taken by another token before playing out my nine tokens,
So that I can strategize when moving the tokens.

I want to move my tokens to the adjacent position after all my tokens are placed as well as my remaining tokens on board is more than three.
So that I can attempt to create a mill and gain an advantage in the game.

I want to move my tokens freely when I only have three tokens left,
So that I can have a better chance of winning.

I want to auto-end my turn when I am done,
So that I can play the game more smoothly.

As a board,
I want to have the game board clearly distinguishing the "nodes" and "lines",
So that the players can effortlessly recognise the position to place tokens.

I want to check a given player's number of remaining tokens,
So that I ensure the player's move pattern complies with the rule.

I want to check a given player's possible moves when the player's token is greater than three,

So that if there are no possible moves for the current player, I can declare the victory of the other player.

I want to ensure in a single turn there is a maximum of one token moved from the board even if a player achieved a double mill,
So that the game meets the standard rule.

I want to ensure a player can only place/move a single token in a single turn,
So that the game's rule is followed.

I want to end the game when a player's remaining token is less than three,
So that I can declare the other player's victory.

I want to know which player has won the game,
So that I can acknowledge that player's victory.

I want to ensure players' turns are alternating when ended,
So that each player can take turns playing.

I want to ensure that a player cannot place or move a token in a position if that position is already occupied by another token.
So that the game's rule is followed.

I want to ensure that a player cannot take a token within a mill,
So the game's rule is followed.

As a developer,
I want to add a button to toggle nine men's morris's rules,
So that the players are clear of the game's rules.

(assumption)

As a game,

I want to ensure when both players' tokens are in a mill, the active player's turn is ended without taking a token from the other player. (e.g. play A moved a token which formed a mill. However, player B's tokens are all in a mill on the board. So Player A will not be able to remove a token from player B.)

So the game's rule is followed.

Note:

As the game could result in a draw “Nine men's morris is a **solved game**, that is, a game whose optimal strategy has been calculated. It has been shown that with perfect play from both players, the game results in a draw.” (Gasser, 1996). However, as such functionality requires the implementation of one of the advanced requirements (2.b), and our chosen implementation of the advanced requirement is (2.c), so this is not discussed in our project.

Reference

Gasser, Ralph (1996). *Games of No Chance*. p.101-113