1.0 Use Cases

1.1 Use case 1: Playing the game

Name: The user wishes to play the game

Actors:

Primary: User wishing to play the game

Supporting: 2 to N other players whether they are human or AI

Precondition: User has the game on a computer able to play it with the necessary software and hardware, and the game is running/loaded

Trigger: User selects to play a game from some form of menu screen

Main Success Scenario:

1. Player 1 acquires a tile/plot of land from the map that is not already occupied
2. Player 1 may purchase a Roboticon from the market and customise it to support resource production
3. Player 1 can install the customized Roboticon on a plot of land they own
4. Players 2 through N go through the steps above
5. The colony produces resources from the tiles that are owned and have Roboticons on them
6. The players enter the auction in the market where they can chose to buy or sell resources to either the market or other players
7. If all plots of land are owned, game is finished and game should show results screen. If not go back to step 1

Secondary Scenarios:

- 1.1: There are no unoccupied plots of land that the player can take: this probably means that the game is over
- 2.1: The player does not have enough money to customise the Roboticon: do not allow the player to purchase one from the market
- 3.1: The player does not have any spare land tiles to place the Roboticon on: should not have allowed them to purchase it in stage 2
- 4: All points listed above 1.1, 2.1, 3.1
- 6.1: The player tries to sell more resources than they own: only allow the player to sell up to their stockpile count
- 6.2: The player tries to buy more resources than they can afford: only allows the player to spend up to their funds

Success Postcondition: The user plays a full game from start to finish and either wins or loses

Non-functional requirement: Have a dynamic story/narrative/dialogue that influences the game

1.2 Use case 2: In-game economy

Name: The game features an in-game economy where players can trade food, energy or ore.

Context: Players can choose to trade resources directly with the market or with each other in exchange for money.

Actors:

Primary: The user playing the game.

Supporting: The opponent whether it be human or AI.

Precondition: The player's roboticon has produced either food, energy or ore which they wish to trade in exchange for money.

Minimal postcondition: The player trades its goods with either the market or the opponent and earns money.

Success postcondition: The player trades its goods for the optimum price, whether it be the market price or the price the opponent is willing to buy for; therefore maximising their income.

Trigger: The user has produced food/energy/ore which they can trade for money.

Main success scenario:

1. Player 1's roboticon has produced food/energy/ore.
2. Player 1 wishes to trade their resources in exchange for money.
3. Player 1 checks the market price against the opponent's price.
4. Player 1 sees that if they choose to sell to the market rather than to Player 2 then they will earn more.
5. Player 1 enters the market screen and selects to sell a resource, whether its food, energy or ore for the given price.
6. The market pays the player for the resource.

Secondary scenarios:

1. Player 1 wishes to trade a resource that was produced by their roboticon.
2. Player 1 enters the market and checks the price that they could sell for.
3. Player 1 sees that there is already a high supply for one of their resources, meaning that the market price is low.
4. The player decides to wait until the market's supply depletes and thus the demand and price for that resource will rise.

1. Player 1's roboticon has produced food, energy or ore which they wish to trade.
2. Player 1 enters the market place.
3. The player does not compare the difference in price between the market and trading with the opponent.
4. Player 1 sells to the market for a lower price than what they could get if they sold to Player 2.

1.3 Use case 3: Occupying a land tile

Name: The user wishes to occupy a land tile.

Context: The player must choose a tile to occupy on their turn.

Actors:

Primary: The user playing the game

Stakeholders: The opponent whether it be human or AI

Precondition: The tile must not be occupied by the opponent.

Success Postcondition: The player now occupies that plot of land and can now place a Roboticon to produce either food, energy or ore. The game ends when all land tiles are occupied by either Player 1 or Player 2.

Trigger: It is the user's turn and they must choose a tile which they wish to occupy.

Main success scenario:

1. Player 1 chooses a tile that is next to its existing land.
2. The tile is not occupied by Player 2.
3. Player 1 adds this tile to its existing land and can now place a roboticon to produce either food, energy or ore.

Secondary scenarios:

1. Player 1 chooses a tile adjacent to its existing land.
2. The tile is occupied by Player 2.
3. Player 1 is forced to choose a different tile.

Non-Functional requirements: Player must choose a tile adjacent to their existing land.

1.4 Use case 4: Gambling

Name: The player can gamble money at the market.

Context: The market incorporates a bar where users can bet money.

Actors:

Primary: The user playing the game.

Stakeholders: The opponent, whether they be human or AI.

Precondition: The player must have sufficient funds for the amount of money they are gambling.

Success postcondition: The player wins a return greater than the amount they gambled.

Trigger: The player wishes to maximise his money in a quick and easy way.

Main success scenario:

1. Player 1 wishes to purchase a Roboticon to place on a tile but does not have enough money.
2. Player 1 does not want to wait until they have enough resources to trade to earn money.
3. Player 1 selects the bar where he can gamble some money to try and earn a profit quickly.
4. Player 1 wins big and quadruples their money!
5. Player 1 now has enough money to purchase a roboticon and continue producing resources.

Secondary scenario:

1. Player 1 would like to earn a profit quickly so that they can purchase more roboticons.
2. Player 1 visits the ‘bar’ in the market and gambles some money.
3. Player 1 loses three times and loses all their money.
4. Player 1 needs to wait till he can trade enough resources to purchase another roboticon.