Full List of Requirements

#	Category	Description	Risks	Priority
1	Map	At least three university landmarks.	N/A	3
2	Map	Each plot should be the same size	N/A	2
3	Map	Futuristic aesthetic, as game is based in the future.	Map could become indistinguishable from the university if we try to change too much of it.	3
4	Map Roboticon	Roboticon can be installed on plots of land owned by player	N/A	1
5	Map	All plots of land are unallocated at the beginning of a play session.	N/A - Easy to implement	1
6	Map	Every player has their own unique identifier applied to a plot of land that they own.	N/A - Easy to implement	1
7	Map Resources	Different features of plots will boost certain resource production and hinder others	Effects could be too powerful, testing will be needed to balance.	2
8	Resources	Three types of resource: Food, Energy and Ore	Need to balance power of resources so that players will want to obtain an equal amount of each.	1
9	Market Resources	There needs to be a market to buy and sell resources and equipment.	N/A	2
10	Market	The market should have a pub with a bar where "gambling" can take place for money.	Needs to be balanced as it could be used to inflate the economy.	2
11	Resources	Resources only produced with a Roboticon on that plot	Players may feel that there is no point to owning a tile without a roboticon on it.	2
12	Resources Market	There should be an optional auction to sell produced resources to other players or the market.	Could very easily break the economy if suitable prices are not set for market items.	2
13	Events	Random effects, which may be good or bad	Could be too powerful if not configured correctly.	2
14	Stakeholder	The game should promote the university	Hard to both create a futuristic aesthetic and keep likeness to the university.	4
15	Players	The game needs 2 players, one of which may be a computer	Many things could go wrong with an improperly designed A Two human players using one screen may make it possible for one of them to see information that they are not meant to. Also, transitions between phases and turns for multiple players could go wrong very easily.	2

16	Resources	The player should be shown how much food they need. If a player does not have enough food the rate at which the colony produces resources is reduced. If neglected for too long, they should be punished by losing a turn or having limited ability within a turn.	Need to avoid limiting production too much, as to avoid ability to escape effect. Loss of a turn can easily become very annoying and unbalanced	3
17	GUI Resources	Players should be shown how much of each resource they are producing each turn	Players should not be able to see what resources other players have, which is difficult if both are using the same screen.	1
18	Resources Roboticons	If a player does not have enough energy some of their roboticons will fail to produce resources. The more energy they lack the the greater the number of roboticons that fail to produce.	The player may get to the point where they fall into an uncoverable position because of this. Consider applying a penalty instead of outright failing to produce.	3
19	Market Resources	Market does not start with any ore	May make it hard for it to introduce new roboticons into the game	2
20	Map	Only one tile can be purchased per turn	Depending on size of map, this could make games last a very long time.	2
21	Market Roboticons Turns	Time limit on how long you have to buy, customise and install roboticons. Play test how long this should be.	Players could feel rushed through their turns. Playtesting needed to find a suitable amount of time that isn't too long or too short.	2
22	Resources	Each player should start with some money. The exact amount should be play tested.	Balancing is an issue here, player needs to start with just the right of amount of money to not be under/overturned	2
23	Resources Roboticons	Production should fail if a tile has the wrong type of roboticon installed for the type of resource on that tile	Player could fall into a loop of unrecovery if the set up their initial robotics wrong.	4
24	Resources Event	Random events that happen should sometimes change what a tile produces. Eg. a meteor turns a food tile into an ore tile.	Could become unbalanced very easily, playtesting will be needed to fine tune effects.	2
25	Roboticon	All roboticons with ore customisation are identical. Same for food and energy.	N/A	3
26	Roboticon Event	Random events can happen to roboticons. Eg. get rusty and slow production. Eg. Lightning strike causes energy to double.	Events could be too powerful. Playtesting will be needed to determine effects.	3
27	Roboticon	You should be able to remove roboticons from their current plot	N/A	3
28	Phase 1	Each player can buy a single unoccupied plot of land	Game may take a very long time to complete if only one plot is purchasable per turn. Game may also potentially last forever if it is not required to buy a tile every turn.	2

29	Phase 1	This phase should somehow be made competitive. For example the first player to hit a button gets the tile.	May be hard to implement with only one keyboard available	2
30	GUI Resources	In standard play players should not be able to see the other players resources, although a random event could change this.	This is very hard to implement if the two players are sharing a single screen.	2
31	Score Game end	The aim of the game is to become vice chancellor. This is the player with the highest score at the end of the game.	Need to balance score to encourage multiple paths to victory.	2
32	Game end	The game ends at the end of the turn where the last tile was purchased	N/A - Easy to track when no available plots left	2
33	Gambling	Gambling should be something simple like black jack / slot machine.	Need to balance to make gambling a risk, players should usually lose money and occasionally get lucky.	2
34	Gambling Phase 2 Phase 3	Gambling should be available during phases 2 and 3 so the player has to choose between taking their time on those phases or rushing so they can gamble too.	Too much gambling could occur in one turn. May be a good idea to implement a short cooldown.	2
35	Stakeholder	The game should be short enough to be playable as a demo in UCAS or open days.	Game may drag on for too long, if only one tile is purchasable per turn. Map may need to be relatively small.	3
36	Phase 2 Phase 3	If a player fails to complete the given tasks for these stages the phase should either end or a penalty should be applied. Play test this to see which is more fun.	Could be too harsh of a punishment, playtesting will be needed to fine tune.	3
37	Map Resources	Landmarks should buff or debuff adjacent tiles.	Could be too powerful, need playtesting to decide effects.	3
38	Map	Computer science should buff nearby tiles.	Could be too powerful, need playtesting to decide effects.	3
39	Score Game end	Money is the basis for the score and resources are worth what they could have been sold for in the final turn.	An incentive for selling to the market will be needed, else players will hoard ore and no more roboticons will be able to be made.	2
40	Map	Purchased tile do not have to be adjacent to currently purchased tiles	N/A - Very easy to implement	1
41	Map Resources	Having adjacent tiles could apply a bonus to their productions. Play test how large of an effect this should have	Could become unbalanced, playtesting will be needed to fine tune.	4
42	Phases	Phases 2 and 3 should be time-limited; that is, as soon as Phase 2 starts, there should be a fixed time limit in which Phase 2 must be completed (and similarly for Phase 3) If a player has time left in phase 2 or 3 they can choose to gamble. 1. Simultaneously each player may acquire a plot of land. First come	Many things could go wrong with phases and transitioning between them. A large amount of testing will be required to make sure this feature works correctly. This feature also needs to work for human and AI players, which may pose a challenge. We will also need to balance the time-limited	1

| | | first serve (i.e competitive for best tile)
 2. Simultaneously each player may purchase roboticons. Each player may make customisations to their purchased roboticons for a fee. These customisations allow a roboticon to produce a resource of a certain type.
 3. Simultaneously each player can install/remove their roboticons from tiles they own.
 4. Each player's colony produces (or fails to produce) resources based on the tiles and roboticons they have.
 5. Simultaneously each player can choose to buy / sell resources at auction. | phases so that players do not feel that they are being rushed through the turn. | |

Priorities

1. Essential for the game to function
2. Important to the playability/usability of the game
3. Requested feature that should be implemented in time
4. Optional addition