

Full List of Requirements

*All changes have been made in red (#4, #37) and any additional requirements (not mentioned in other team's requirements but stated in initial brief) are in purple (#24, #39, #40).

We decided to adopt the requirements of the team whose project we chose. We decided to do this as the game we chose was modelled to these specific requirements therefore, we thought it would be easier not to change/add additional requirements from our original set of requirements but to continue with the other team's requirements. However, we converted their requirements into a tabular form making them easier to read and assigned priorities and risks like we did with our original requirements.

#	Category	Description	Risks	Priority
1	Environment	One computer is required for the game, as networked play is not a requirement.		1
2	Environment	The computer must be equipped with a mouse or touchpad, and a keyboard.	Computer not working correctly.	1
3	Environment	The computer will be connected to a monitor of reasonable resolution for the viewing of the game map.	Monitor may not work correctly resulting in game not being properly displayed.	1
4	Environment	The software will be cross-platform, it will support any computer capable of running Unity.		4
5	Reliability	Software should operate reliably when newly installed on a system and must be free of bugs.	Presence of bugs may limit gameplay experience.	1
6	Maintainability	Software should be easily maintainable by its developers and any new developers.		3
7	Usability	The interface and menus must be clear and concise.		2
8	Usability	The structure of the game must be clearly conveyed to the player.	Players may become frustrated if the structure is not conveyed well enough	1
9	Initial Game	The system must ensure all	N/A - Easy to	1

	Conditions	plots of land are unallocated.	implement	
10	Initial Game Conditions	The system must ensure each player starts with the same amount of money	Balancing is an issue here, player needs to start with just the right amount of money to not be under/overturned	1
11	Initial Game Conditions	The system must ensure the market has 16 units of food, 16 units of energy, 12 roboticons and no ore		1
12	Initial Game Conditions	The system must allow at least two players, at least one should be a human player		2
13	Initial Game Conditions	The system must ensure human players provide a name to act as an identifier before the game begins.	N/A - Easy to implement	3
14	Functions	The game must operate in five phases: Acquisition, Purchase and Customisation, Installation of Roboticons, Production and Auction		1
15	Acquisition	The game should allow the player to purchase unallocated plots of land during the acquisition phase		2
16	Purchase and Customisation	The game should allow players to optionally access the market to buy and sell resources		2
17	Purchase and Customisation	The game should allow players to optionally upgrade their Roboticons to make them more effective at gathering a certain resource.		3
18	Installation of Roboticons	The game should allow players to optionally install a roboticon on a plot of land they own.		2
19	Production	The software must simulate the productions of each player by calculating the resources gained from each plot of land.	The calculations may be performed incorrectly.	2
20	Auction	The game should allow players to purchase from the market in		3

		the auction phase.		
21	Auction	The game should allow players to bid on any item apart from their own provided they have the money available to pay for it.		3
22	Game Termination Conditions	The game will end at the production stage of the turn in which the final plot of land has been allocated.	N/A - Easy to track when no available plots left	2sthetic
23	Game Termination Conditions	The software must calculate the score for each player based on the land and resources owned by that player.		2
24	Game Termination Conditions	The game must ensure the player with the highest score wins and is given the title of Vice-Chancellor The previous team's requirements did not mention the winner being announced as Vice-Chancellor however, this is a requirement requested by the client in the initial brief.	Need to balance score to encourage multiple paths to victory	2
25	Market	The game must feature a supply and demand market.		2
26	Market	The software should ensure the market prices adjust based on the number of each resource available to both it from both players and the amount held by the market		3
27	Market	The software should ensure the market always charges more for its resources than it buys them for.		3
28	Market	The game should ensure the market provides a gambling facility of in game money on chance based games	Need to balance to make gambling a risk, players should usually lose money and occasionally get lucky	3
29	Random Events	The game must have random events that affect the map in some distinct way	Could become unbalanced very easily, playtesting will be needed to	2

			fine tune effects	
30	Random Events	The game should ensure the random events occur during the production phase		2
31	Random Events	The game should ensure the random events and their effects should be made obvious to the player through animation and a message.		3
32	User Interface	The software should ensure the user interface for the game displays accurate and up-to-date information to allow the player to make informed decisions	Incorrect information accidentally being displayed.	2
33	User Interface	The software should implement a system of menus whilst continuously displaying the current state of the game map		2
34	User Interface	The game must display an options menu including a button to exit the game	Buttons may not work properly (i.e. nothing happens when pressed or link to wrong page)	2
35	Performance	The software must run fast enough to ensure players are not left waiting	Players may become disengaged with the game if they have to wait long	2
36	Performance	The minimum acceptable frame rate for the game will be 30 frames per second.		3
37	Saving	The game will be easily saved and loaded. <i>We decided not to implement this requirement as it turned out to be a lot harder to implement than previously thought. Full reasoning can be found in the implementation report.</i>		3
38	Time Limits	The purchase and customisation phase, installation of roboticons and auction must be time-limited	Players may get frustrated if time limits are too short. Play testing needed to determine time	2

			limits.	
39	Environment	The game will be used on UCAS open days and other promotional events, so it must in some way promote the university.		2
40	Environment	The aesthetic of the game should be futuristic, and the setting of the game should be based in a futuristic University of York campus.		3