

Test number	Test description	Criteria for passing the test / expected outcome	test passed (yes/no)
1	Start a new game and click on a plot.	Upon clicking the plot it must be highlighted in purple	yes
2	Acquiring more than one plot. Click a plot to acquire it, then click any other unacquired plot.	It must not be possible to click on plot and acquire it and then right after click another and acquire that one as well	yes
3	Acquiring a plot that has already been acquired by the human player. When allowed to acquire plots. Click one that you have previously acquired	Nothing should happen. You should not reacquire that plot or advance to the next stage of the game.	yes
4	Acquiring a plot that has already been acquired by the AI player. When allowed to acquire plots. Click one that the AI player has previously acquired	Nothing should happen. You should not acquire that plot or advance to the next stage of the game.	yes
5	Buying 1 roboticon when you have enough money. On your first turn. When at the roboticon buying stage of the game. Use the spinbox to change the number of roboticons you wish to purchase to 1. Then click the purchase button	Your money should decrease by the cost displayed an uncustomised roboticon should be added to your inventory	yes
6	Buying 2 roboticons when you have enough money. On your first turn. When at the roboticon buying stage of the game. Use the spinbox to change the number of roboticons you wish to purchase to 2. Then click the purchase button	Your money should decrease by the cost displayed and 2 uncustomised roboticons should be added to your inventory	yes
7	Attempting to buy 4 roboticons when you do not have enough money. On your first turn. When at the roboticon buying stage use the spin box to change the number of roboticons to four and click the purchase button	A popup message should be deployed telling you that you don't have enough money. Your inventory should remain unchanged.	yes
8	Attempting to buy 0 roboticons. At the roboticon buying stage of the game use the spinbox to set the number of roboticons you wish to buy to 0 and click the purchase button	Nothing should happen	yes
9	Start a new game. When in the buying roboticons stage set the spinbox 1 look at the price displayed then set it to 2	The price displayed for 2 should be double the price displayed for 1	yes
10	When in the buy roboticons stage of the game let the timer run to 0 (and do nothing else)	You should be taken to the placing roboticons stage when the timer runs out	yes
11	When in the customising roboticons stage of the game let the timer run to 0 (and do nothing else)	You should be taken to the placing roboticons stage when the timer runs out	yes
12	When in the buy roboticons stage click the customising roboticons button in the top right corner of the screen	You should be taken to the customising roboticons stage	yes
13	When in the buy roboticons stage and you know that the market has at least 4 ore (you can confirm this in the buying and selling resources to and from the market stage). Set the spinbox to largest value you can then click the produce roboticon button and then try to set the spinbox to largest value you can again		
14	When in the customising roboticons stage click the place roboticons button in the top right corner	After the market has produced a roboticon you should be able to set the value to a value that is one larger than before	yes
15	When in the customising roboticons stage try to customise a roboticon for energy when you don't have enough money i.e: start a new game, acquire a plot then buy 3 roboticons, go to the customising roboticons stage and then click the energy customisation button.	You should be taken to the placing roboticons stage	yes
16	When in the customising roboticons stage try to customise a roboticon for ore when you don't have enough money i.e: start a new game, acquire a plot then buy 3 roboticons, go to the customising roboticons stage and then click the ore customisation button.	A popup message should open to tell you that you don't have enough money. Your inventory should not change	yes
17	When in the customising roboticons stage try to customise a roboticon for energy production when you don't have any uncustomised roboticons. Start a new game acquire a plot, buy no roboticons and then go the customising roboticons stage and click the energy customisation button	A popup message should open to tell you that you don't have enough money. Your inventory should not change	yes
18	When in the customising roboticons stage try to customise a roboticon for ore production when you don't have any uncustomised roboticons. Start a new game acquire a plot, buy no roboticons and then go the customising roboticons stage and click the ore customisation button	A popup message should open to tell you that you don't have any uncustomised roboticons. Your inventory should not change	yes
19	When in the customising roboticons stage and you have enough money and at least 1 uncustomised roboticon customise a roboticon for ore production	The the amount of money displayed for the price should be removed from your inventory The number of ore roboticons in your inventory should increase by 1 and the number of uncustomised decrease by 1	yes
20	When in the customising roboticons stage and you have enough money and at least 1 uncustomised roboticon customise a roboticon for energy production	The the amount of money displayed for the price should be removed from your inventory The number of energy roboticons in your inventory should increase by 1 and the number of uncustomised decrease by 1	yes
21	When in the roboticon placing stage click on an unacquired plot	Nothing should happen	yes
22	When in the roboticon placing stage click on a plot acquired by the AI	Nothing should happen	yes
23	When in the roboticon placing stage with at least one energy roboticon click on a plot that you own with no roboticons on it	A menu should open that contains a button with "place an energy roboticon" written on it	yes
24	When in the roboticon placing stage with at least one ore roboticon click on a plot that you own with no roboticons on it	A menu should open that contains a button with "place an ore roboticon" written on it	yes
25	When in the roboticon placing stage with no customised roboticons in your inventory click on a plot with no roboticons on it	A menu should open that contains the text "you have no uncustomised roboticons" and only one button to close the menu	yes
26	When in the roboticon placing stage click on a plot that you own that already has a roboticon on it	A menu should open that contains the text "This plot already has a roboticon on it" and only one button to close the menu	yes
27	When in the roboticon placing stage click on a plot that you own to open a menu and click the close button	The menu should close and nothing else should happen	yes
28	When in the roboticon placing stage with at least one energy roboticon click on a plot that you own with no roboticons on it and click the place energy roboticon button	The menu should close, an energy roboticon should be placed on the plot and the number of energy roboticons in your inventory should be reduced by 1	yes
29	When in the roboticon placing stage with at least one ore roboticon click on a plot that you own with no roboticons on it and click the place ore roboticon button	The menu should close, an ore roboticon should be placed on the plot and the number of ore roboticons in your inventory should be reduced by 1	yes
30	When in the roboticon placing stage click the finished by turn button in the top right corner	You should be taken to the stage where you can buy and sell resources to and from the market	yes
31	When in the buying and selling resources to and from the market stage click a plot that you own	Nothing should happen	yes
32	When in the buying and selling resources to and from the market stage click a plot that the AI owns	Nothing should happen	yes
33	When in the buying and selling resources to and from the market stage click a plot that is unacquired	Nothing should happen	yes
34	When in the buying and selling resources to and from the market stage use the buy ore spinbox to set the amount of ore you want to buy to 0 and click the buy ore button		
35	When in the buying and selling resources to and from the market stage use the buy energy spinbox to set the amount of ore you want to buy to 0 and click the buy energy button	Nothing should happen	yes
36	When in the buying and selling resources to and from the market stage use the sell ore spinbox to set the amount of ore you want to sell to 0 and click the sell ore button	Nothing should happen	yes

37	When in the buying and selling resources to and from the market stage use the sell energy spinbox to set the amount of energy you want to sell to 0 and click the sell energy button	Nothing should happen	yes
38	When in the buying and selling resources stage set the buying energy spinbox to the largest value you can	This value should be the same as the quantity of energy the market has in stock	yes
39	When in the buying and selling resources stage set the buying ore spinbox to the largest value you can	This value should be the same as the quantity of ore the market has in stock	yes
40	When in the buying and selling resources stage set the selling energy spinbox to the largest value you can	This value should be the same as the quantity of energy you have in your inventory	yes
41	When in the buying and selling resources stage set the selling ore spinbox to the largest value you can	This value should be the same as the quantity of ore you have in your inventory	yes
42	When in the buying and selling resources stage and you have more than one energy set the selling energy spinbox to the largest value you can and click the sell energy button	All the energy from your inventory should be removed and the total for the transaction that was displayed should have been added to the money in your inventory	yes
43	When in the buying and selling resources stage and you have at least one energy set the selling energy spinbox to 1 and click the sell energy button	1 energy should be removed from your inventory and the total for the transaction that was displayed should have been added to the money in your inventory	yes
44	When in the buying and selling resources stage and you have more than one ore set the selling ore spinbox to the largest value you can and click the sell ore button	All the ore from your inventory should be removed and the total for the transaction that was displayed should have been added to the money in your inventory	yes
45	When in the buying and selling resources stage and you have at least one ore set the selling ore spinbox to 1 and click the sell ore button	1 ore should be removed from your inventory and the total for the transaction that was displayed should have been added to the money in your inventory	yes
46	When in the buying and selling resources stage and the market has at least 3 ore set the buying ore spinbox to 3 and look at the total cost displayed	the displayed value should be 3 times as large as the displayed value for the cost of ore	yes
47	When in the buying and selling resources stage and the market has at least 1 energy set the buying energy spinbox to 1 and look at the total cost displayed	the displayed value should be the displayed value for the cost of energy	yes
48	When in the buying and selling resources stage and the market has at least 3 energy set the buying energy spinbox to 3 and look at the total cost displayed	the displayed value should be 3 times as large as the displayed value for the cost of energy	yes
49	When in the buying and selling resources stage and the market has at least 1 ore set the buying ore spinbox to 1 and look at the total cost displayed	the displayed value should be the displayed value for the cost of energy	yes
50	When in the buying and selling resources stage and you have at least 4 ore set the selling ore spinbox to 4 and look at the total cost displayed	the displayed value should be 4 times as large as the displayed value for the cost of ore	yes
51	When in the buying and selling resources stage and you have at least 5 ore set the selling ore spinbox to 5 and look at the total cost displayed	the displayed value should be 5 times as large as the displayed value for the cost of ore	yes
52	When in the buying and selling resources stage and you have at least 6 energy set the selling energy spinbox to 6 and look at the total cost displayed	the displayed value should be 6 times as large as the displayed value for the cost of energy	yes
53	When in the buying and selling resources stage and you have at least 10 ore set the selling ore spinbox to 1 and look at the total cost displayed	the displayed value should be the displayed value for the cost of ore	yes
54	When in the buying and selling resources stage set the buying energy spinbox to the largest value you can then click the sell energy button	All the energy in your inventory should be removed and the total value that was displayed for the price should be added to the money in your inventory	yes
55	When in the buying and selling resources stage set the buying energy spinbox the largest value you can then click the buying energy button	The value stored in the buying energy spinbox should be reduced to zero	yes
56	When in the buying and selling resources stage set the buying energy spinbox the one more than half the maximum value that it can be set to then click the buy energy button	The value in the buying energy spinbox should be reduced by 1 (to the new maximum value)	yes
57	When in the buying and selling resources stage set the buying ore spinbox the largest value you can then sell click the sell ore button	All the ore in your inventory should be removed and the total value that was displayed for the price should be added to the money in your inventory	yes
58	When in the buying and selling resources stage set the buying ore spinbox the largest value you can then click the buy ore button	The value stored in the buying ore spinbox should be reduced to zero	yes
59	When in the buying and selling resources stage set the buying ore spinbox the one more than half the maximum value that it can be set to then click the buy ore button	The value in the buying ore spinbox should be reduced by 1 (to the new maximum value)	yes
60	When in the buying and selling resources stage set the selling energy spinbox to 1 then click the sell energy button	The amount of energy in your inventory should be reduced by one and the price of energy should be added to the money in your inventory	yes
61	When in the buying and selling resources stage set the selling energy spinbox the largest value you can then click the sell energy button	The value stored in the selling energy spinbox should be reduced to zero	yes
62	When in the buying and selling resources stage set the selling energy spinbox the one more than half the maximum value that it can be set to then click the sell energy button	The value in the selling energy spinbox should be reduced by 1 (to the new maximum value)	yes
63	When in the buying and selling resources stage set the buying energy spinbox to one less than the largest value you can then click the buy energy button (when you have at least 2 energy)	The amount of energy in your inventory should be reduced to 1 and the total amount of money displayed for the transaction should be added to your inventory	yes
64	When in the buying and selling resources stage set the buying ore spinbox to one less than the largest value you can then click the buy ore button (when you have at least 2 ore)	The amount of ore in your inventory should be reduced to 1 and the total amount of money displayed for the transaction should be added to your inventory	yes
65	When in the buying and selling resources stage set the selling ore spinbox the one more than half the maximum value that it can be set to then click the sell ore button	The value in the selling ore spinbox should be reduced by 1 (to the new maximum value)	yes
66	When in the buying and selling resources stage buy 1 ore	The value for ore in the markets stock should be reduced by 1	yes
67	When in the buying and selling resources stage buy 2 ore	The value for ore in the markets stock should be reduced by 2	yes
68	When in the buying and selling resources stage buy 1 energy	The value for energy in the markets stock should be reduced by 1	yes
69	When in the buying and selling resources stage buy 2 energy	The value for energy in the markets stock should be reduced by 2	yes
70	When in the buying and selling resources stage sell 1 ore	The value for ore in the markets stock should be increased by 1	yes
71	When in the buying and selling resources stage sell 2 ore	The value for ore in the markets stock should be increased by 2	yes
72	When in the buying and selling resources stage sell 1 energy	The value for energy in the markets stock should be increased by 1	yes
73	When in the buying and selling resources stage sell 2 energy	The value for energy in the markets stock should be increased by 2	yes
74	When in the buying and selling resources and all plots have not yet been acquired stage click the finished with the market button	You should be taken to the roboticon placing stage (with all plots and your inventory unchanged)	yes
75	When in the buying and selling resources and all plots have been acquired stage click the finished with the market button	You should be taken to the game over screen	yes
76	Play the game until it ends and you win	Your score (money) should be displayed correctly, a lower score should be displayed for the AI and there should be a message displayed stating that you won	yes
77	Play the game until it ends and you lose	Your score (money) should be displayed correctly, a higher score should be displayed for the AI and there should be a message displayed stating that the AI won	yes

78	Play the game until it ends and you draw with the AI	Your score (money) should be displayed correctly, the same score should be displayed for the AI and there should be a message displayed stating that it was a draw	yes
79	Play a complete game, count how many plots the AI acquired and keep track of when they were acquired	The AI should have acquired the same number of plots as you did and should have acquired each one either before or after you completed your turn (before being able to buy and sell resources from the market) depending on who went first	yes
80	Play a complete game, see if the AI places roboticons on plots	The AI should have placed at least one customised roboticon on a plot that it owned during the game	yes
81	When in the buying roboticons stage click on an unacquired plot	Nothing should happen	yes
82	When in the buying roboticons stage click on a plot that you have acquired	Nothing should happen	yes
83	When in the buying roboticons stage click on a plot that the has AI has acquired	Nothing should happen	yes
84	When in the buying and selling resources stage click on an unacquired plot	Nothing should happen	yes
85	When in the buying and selling resources stage click on a plot that you have acquired	Nothing should happen	yes
86	When in the buying and selling resources stage click on a plot that the has AI has acquired	Nothing should happen	yes
87	When at the game over screen click on a plot that you have acquired	Nothing should happen	yes
88	When at the game over screen click on a plot that the AI has acquired	Nothing should happen	yes
89	Play a complete game, note how long it took the AI to take its turn	It should not have taken more than 16 seconds per turn (4 seconds to acquire a plot, 4 seconds to buy roboticons, 4 seconds to customise them and 4 seconds to place them)	yes