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Testing Plan

Much of the testing plan is geared towards making sure the variables that keep track of in game events are working properly. The correct setting and use of these variables is important because they are essential for the player to progress throughout the game. Another large portion of the testing is devoted to the use and creation of items, as they are essential to the balance of the game. Many of the tests are completed 10 times due to the random nature of the game.

Test	Input Value	Expected Outcome	Observed Outcome
Determine if input validation for integers is working	Input character on each screen that asks for integer input	Invalid input message	Invalid input message
Determine if the input validation is working for bound checking	Input an out of bounds integer on each screen that asks for integer input	Invalid input message	Invalid input message
Determine if enemies are moving around the ship as they are supposed to	Run the game 10 times, make sure an enemy attacks the player at least once in the first 10 turns	The enemy attacks the player at least once before the 10th turn on each run of the game	The enemy attacked the player at least once before the 10th turn on each run of the game
Determine if the Items are being created properly	Select the options to create each of the 3 items	Look in inventory after creating item, it should be there	Inventory shows created item
Determine if the items are being used and deleted properly	Obtain and use each item	Look in inventory before and after use, it should be there before but not after	The item was in the inventory before use but not after
Determine if the enemy is attacking for the correct amount of health	Keep playing the game until you encounter the enemy 10 times and record the damage done each time	Each recorded damage should be between 5 and 2	Each recorded damage is between 5 and 5
Determine if the Heal function is healing for the correct amount of points	After taking more than half health, go to the medbay and heal yourself and record the amount healed (do this 10x)	Each amount healed should be 4	Each amount healed was 4
Determine the heal function is not healing for over max health	After taking less than 4 damage, go to the medbay and heal (do this 10x)	The displayed player health should never be above 10	The displayed player health is never above 10

Determine if the use medkit function is healing for the correct amount of points	After taking more than half health, use a medkit to heal yourself and record the amount healed (do this 10x)	Each amount healed should be 3	Each amount healed was 3
Determine the use medkit function is not healing for over max health	After taking less than 3 damage, go to the medbay and heal (do this 10x)	The displayed player health should never be above 10	The displayed player health is never above 10
Determine if the mining tool defense item is working properly	Add a mining tool to your inventory and encounter the enemy (do this 10x)	The screen should display text stating that you used the mining tool and no health should be deducted	The screen displayed text stating that you used the mining tool and no health was deducted
Determine if the xenomorph deterrent item is protecting the player for the correct amount of turns	Use the xenomorph deterrent and move for 2 turns, and record whether the enemy attacks you (do this 10x)	The enemy should not attack you at all during these 2 turns	The enemy did not attack you at all during these 2 turns
Determine if the gotAccess data member is being set and accessed correctly	Attempt to open Tennessee's pod before and after obtaining access code	Player should not be able to open pod the first time, but should the second time	Player was not able to open pod the first time, but was the second time
Determine if the contact data member is being set and accessed correctly	Move to the com room and access the com speaker	The objective should say "contact hq" before, and " access coordinate code" after	The objective said "contact hq" before, and " access coordinate code" after
Determine if the codeCheck data member is being set and accessed correctly	Move to the nav room and access the nav terminal	The objective should say "contact hq" before and "communicate coordinate code" after	The objective said "contact hq" before and "communicate coordinate code" after
Determine if the activate data member is being set and accessed correctly	Correctly input the coordinate code to the com speaker in the com room	The objective should say "communicate coordinate code" before and "survive until rescue arrives" after	The objective said "communicate coordinate code" before and "survive until rescue arrives" after
Determine if the turn counters after the creation of each item is working correctly	Make each item and try to make that item again immediately after	A message should display saying you need to wait a certain number of turns	A message displayed saying that you need to wait a certain number of turns
Determine if the losing game by boredom functionality is working	Survive to round 25 without completing the first objective	A message should display stating that you died of boredom and the game should end	A message displayed stating that you died of boredom and the game ended

Determine if the losing the game by damage functionality is working	Encounter the xenomorph enough times to make hp go to 0	Message should display stating that you died from wounds and the game should end	Message displayed stating that you died from wounds and the game ended
Determine if the winning the game functionality is working	Complete all objectives and win the game	A message should be displayed stating that you and Tennessee are rescued and you win the game and the game ends	A message displayed stating that you and Tennessee are rescued and you win the game and the game ends
Determine if the alternate ending is working	Beat the game but do not unlock Tennessee	A message should display stating that you are rescued but the ship had to be abandoned, you win the game, the game ends	A message is displayed stating that you are rescued but the ship had to be abandoned, you win the game, the game ends