Heuristic Evaluations

Expert One Evaluation

Controller Layout *-do the controller actions have consistently mapped and learnable responses?*	The controller layout works well once it's been learnt. The learning curve to understanding on how to use the controller and its layout is easy enough for anybody to learn.
Burden on the Player *-is the controller difficult, frustrating or satisfying to use?*	The controller is satisfying and fun to use, but gets frustrating as soon as you need to make fast and quick actions in the tested game.
Game Story Immersion *-does the controller have a distinct look and feel that can relate to the game?*	Yes, the controller fits well with the theme and game story, you get a good idea that you are loading up a cannon or a mortar to shoot the enemies.
Error prevention *-can the inputs get stuck or break, are the controls too flimsy for excessive use?*	The side wheel for moving the aim feels kind of flimsy and loose, would be good to redesign it to make it feel sturdier.
User control and freedom *-is the user limited somehow in what they can do?*	That would depend on the game, the game that was tested gave a lot of freedom on what they were allowed to move to and shoot.
Visibility of system status *-is the user aware of which directional plane they are currently in at any one time?*	I was not always sure in which direction I had to spin the side wheel when changing directional planes, but I was always aware of which directional plane I was currently in.
Controller Provides Feedback *-are the effects of the different user actions immediately noticeable?*	Yes, overall feedback was good, only issue that would appear was the ball would not always activate the shoot function and damage the target.

Expert Two Evaluation

Controller Layout *-do the controller actions have consistently mapped and learnable responses?*	The controls are consistent and intuitive in their design, however, it can be difficult to learn fully, as it is very easy to confuse which axis is being controlled.
Burden on the Player *-is the controller difficult, frustrating or satisfying to use?*	The controller is satisfying to use and controls the game smoothly, however it can be confusing to use as it is easy to mix up the two directional axes you can use.
Game Story Immersion *-does the controller have a distinct look and feel that can relate to the game?*	The controller is very visually appealing and fits well with the game's story, although it could be more closely matched to the aesthetic, as it looks more like a 16th century cannon than a 21st century mortar.
Error prevention *-can the inputs get stuck or break, are the controls too flimsy for excessive use?*	The crosshair will move to the opposite side of the screen when it reaches the edge, preventing the user from becoming stuck in one direction. Although the controls served well for this evaluation, the capstan wheel in particularly felt flimsy, and may not stand up to repeated use.
User control and freedom *-is the user limited somehow in what they can do?*	The user is limited to moving the crosshairs on two axis, one at a time, and shooting. This is a very limited control scheme, however it is suited to the design of the game. However, the player has no ability to restore lives, and there is no way of increasing the crosshair aiming speed. This makes it near impossible to proceed past a certain point of the game, which could be very frustrating for some players.
Visibility of system status *-is the user aware of which directional plane they are currently in at any one time?*	Although the player's lives are shown clearly in the game, there is no indication of score or kills, which may make the player demotivated, as they are not gaining anything. In addition, there is no indication of enemy numbers, which again, leaves the player without a visible means of tracking their progress. There is also no indication of which axis the user is controlling, which can lead to confusion and frustration.
Controller Provides Feedback *-are the effects of the different user actions immediately noticeable?*	The tactile response from the capstan is both satisfying and provides good feedback, telling the player when they are moving the crosshairs. There is also good audio feedback from the cannonball moving through the controller. However, There could be greater feedback when switching axes, as it seems

	much less tactile and noticeable than the others.

Expert Three Evaluation

Controller Layout *-do the controller actions have consistently mapped and learnable responses?*	- easy to learn and relatively consistent
Burden on the Player *-is the controller difficult, frustrating or satisfying to use?*	- Challenging but fun - Would be easier with two knobs to turn instead of a switch - personal opinion: would feel more intuitive if the switch was inverted (left = vertical right=horizontal) and the horizontal movement was flipped so turning the wheel clockwise made it go right. I think I feel this way because while I'm pulling the bottom of the wheel toward me with my finger, I would be pulling and turning the cannon right if it were rigid.
Game Story Immersion *-does the controller have a distinct look and feel that can relate to the game?*	- yes. it totally works. Consider making a pirate version yarrr
Error prevention *-can the inputs get stuck or break, are the controls too flimsy for excessive use?*	- It's easy to make mistakes until you're used to it - Occasionally the cannon doesn't fire. You could cover this is in the story line by saying that the player's cannon is faulty. That way the faults can be canon
User control and freedom *-is the user limited somehow in what they can do?*	- The user can't move sideways and up at the same time, having two wheels or motion control or tilt detector on the actual barrel could help?
Visibility of system status *-is the user aware of which directional plane they are currently in at any one time?*	- Necessary statuses are clear
Controller Provides Feedback *-are the effects of the different user actions immediately noticeable?*	- Shots are shown in a spark effect. Could animate it to draw the eye towards it, e.g. pump the scaling up or down quickly