# Test Plan #2

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| TESTING | DESCRIPTION | EXPECTED OUTCOME | ATUAL OUTCOME | SUCCESS?  (YES / NO / MAYBE) | EVIDENCE |
| 1.0 Jetpack UI – Fuel gauge. | The fuel gauge to display current fuel quantity. | The fuel gauge should decrease as the player flies with the jetpack.  The gauge should never go below 0 and above max fuel. | Fuel gauge moves withing min and max. | YES | Visually confirmed. |
| 1.1 Jetpack UI – Fuel gauge light. | The light below the fuel gauge that can flash. | The light should start to flash when the fuel amount left is 25% of the total amount of fuel. Otherwise, it should stay off. (bonus – have light speed up as there are less fuel left). | Light starts to blink at 25% and stops if over. | YES | Visually confirmed. |
| 1.2 Jetpack UI – Fuel gauge alarm sound. | The beeping sound for when the player uses the jetpack in the air and have low fuel. | Beeping should only player when the player is using the jetpack, and they have less than 25% fuel left.  (bonus – have beep sound speed up as there are less fuel left). | Beeping only when in the air and 25% or less fuel. | YES | Visually confirmed. |
| 2.0 Pause Menu – Pauses game. | Just pausing the game. | The game should freeze, and the player controls and physics should pause too. Nothing should be doing anything except the pause menu.  Pause menu should appear when escape is pressed. | The game freezes and the pause menu are opened when the escape key is pressed. | YES |  |
| 2.1 Pause Menu – Resuming and resume button. | Resuming the game after it is paused. | When the escape key is pressed / resume button is pressed. The game should unfreeze. | The game resumes, either by the resume button or the escape key is pressed. | YES | Visually confirmed. |
| 2.2 Pause Menu – Main menu button. | Pressing the main menu button on the pause menu. | When the main menu button is pressed. The player should be taken back to the main menu. No artifacts of the game should be brought over. | The dialog window opens and clicking no will close it and yes will take you to the main menu.  Dialog text is also updated. | YES |  |
| 2.3 Pause Menu – Quit button. | Pressing the quit button on the pause menu. | When the quit button is pressed. The game should close. No crashing, applicating hanging or errors. Just close. | The dialog window opens and clicking no will close it and yes will close the game.  Dialog text is also updated. | YES |  |
| 3.0 Main Menu – Is there a main menu. | Checking the main menu. | The main menu should be loaded when the applicating is loaded.  The main menu should have no artifacts or visual errors. | The main menu is loaded when the game starts. | YES | The main menu is opened on application start. |
| 3.1 Main Menu – Start game button. | Pressing the start game button on the main menu. | This should get rid of the main menu and load the first level. | Loads me into the tutorial level. | YES | Loads the tutorial level. |
| 3.2 Main Menu – Quit button. | Pressing the quit button on the main menu. | The game should close when the quit button is clicked. No crashes or errors. | The confirmation screen is displayed and upon clicking yes, the game closes with no errors. | YES | Closes the game with no errors. |
| 4.0 Basic Movement. | A and D (Left and Right) movement. | When the A or D key is held, the player should move Left or Right with the respected keys. Once the keys are no longer being pressed, they player should slowdown and stop. | The player can move left and right.  They will also be slow down to a stop when they let go. | YES | Player on screen moves left and right and can visually confirm. |
| 4.1 Jumping. | W for jumping. | When the player presses W while on the ground, they should get an instant velocity upwards, gravity should then reduce the velocity until the player starts to fall. | When the space key is pressed, the player does jump. And if the player is in the air, they cannot jump. Gravity also works.  QOL: coyote time and input buffering. | YES | The player goes up and the comes back down. Visually confirmed. |
| 5.0 Jet Pack Flight. | Flying with the jetpack. (W) | When in the air, and the W key has begun to be held, the jet pack should add a force upwards. A and D should move the player left and right.  Also, the jet pack must give an upwards force and counter gravity, it should not fail to lift the player. | Holding W moves the player up and the jetpack animations work.  A and D moves the player left and right.  Upwards force is given. | YES | // |
| 5.1 Jet Pack Activation. | The jet pack activation under specific circumstances. | The jet pack must be active only when the player is in the air for a short amount of time and require W to be pressed and held again to activate. | The jetpack only works when in the air, and W is repressed. | YES | // |
| 5.2 Jet Pack and Ladders collision. | Jet pack behaviours with ladders. | While using the jetpack / in air and the player flies through a ladder, the player should go past.  When the player is on the ladder, they must not activate the jetpack unless they are on top of the ladder. (on top counts as off the ladder). | The player flies through ladders.  They cannot use the jetpack while on ladders. | YES | // |
| 6.0 Ladders Mounting. | How to use a ladder. (OSHA trained) | The player must only get on the ladder when at the bottom by pressing / holding W.  If the player is at the top of the ladder, then they must use S to enter the ladder.  The player must keep the current height while on the ladder.  If at top, the player will mount at the top of the ladder and be there. Same for bottom. | Pressing W at the bottom of a ladder will mount it and move the player to the bottom properly.  Pressing S at the top of a ladder will mount at the top.  The player keeps the hight they were at before mounting.  The player is at the location of mounting.  QOL: S mounts the ladder when falling. | YES |  |
| 6.1 Ladder Movement and Dismounting. | Moving on a ladder. | W must move the player upwards and S downwards.  A and D should dismount the player.  When the player reaches the top, they must get dismounted at the top. | W moves player up and S moves the player down.  A and D Immediately dismounts the player.  When the player reaches the top of a ladder. They will be dismounted.  QOL: A and D needs the key to be held for a bit before dismounting. | YES | Visually confirmed. |
| 6.2 Top of Ladder. | What happens when the player is on top of a ladder. | The player should stop climbing and be standing on top of the ladder.  While on top of the ladder, the ladder should act like a solid object for the player to stand on until the use S to mount. | The player stops climbing and is dismounted.  The ladder acts like a platform and the player can press S to mount. | YES | Visually confirmed. |
| 7.0 Boomerang Throw. | Attacking with the boomerang. | The player character will throw an item in the direction they are moving or when still, where they are facing.  The player can only throw ONE boomerang at a time. | The player throws the boomerang. The boomerang moves in the direction they are moving. (except up and down).  Only one can be thrown at a time. | YES | Visually confirmed. |
| 7.1 Boomerang Return. | Boomerang returning to the player. | Once thrown, the boomerang must either reach the max range (based on original throw position) or a collider before returning.  When returning, if the boomerang gets stuck on an object, it must know and still return to the player.  Once returned to the player, the player will get the boomerang back. | Once thrown the boomerang will go towards the target direction and if it reaches the max range or hit something then it will return.  If the boomerang gets stuck, it will give it back to the player.  The player can use the boomerang again once it touches the player or the boomerang is detected to get stuck and auto collects. | YES | Visually confirmed. |
| 8.0 Moving Platforms Moving. | The platform moving between points. | The moving platform must move towards one of the points and change target once it reaches the point.  The moving platform should be omni-directional. | The moving platform moves towards one the points and changes to the next target correctly.  They can move up, down, left and right. | YES | Visually confirmed. |
| 8.1 Moving Platforms Moving Objects. | Moving objects with the moving platform. | When the player is on the moving platform. The player must move with the moving platform and not slide off.  Any physics objects also need to move with the moving platform. | The player is moved with the moving platform.  No other physic objects, feature not yet Implemented. | YES | Visually confirmed. |
| 8.2 Collapsable Platforms. | How collapsible platforms should behave. | As soon as the player touches the collapsible platform, it should start to shake and then after a set time, fall through the map.  The platform must then return after a period has passed. It must appear and not move back up. | As soon as the player touched the collapsible platform. It begins to shake left and right.  After a period, the platform will then move downwards. | YES | Visually confirmed. |
| 9.0 Camera and Camera Movement. | How the camera transition to other sections of the level. | When the player reaches the edge of the screen, everything must freeze while the camera pauses, and the camera will quickly move in the direction the player was moving.  Once at the new position, everything they can be unfrozen.  The camera must move to get the level section in frame. | Camera moves to the next room and freezes the player movement.  Camera is smoothly move to the next position.  Jetpack not frozen.  Camera unfreezes everything that was frozen.  Room is in frame. | KINDA | Visually confirmed. |
| 10.0 UI screen scaling. | How UI elements get stretched and moved with different aspect ratios. | Jetpack fuel gauge must stay in the corners of the screen and no be distorted.  Main menu and pause menu buttons and UI layout must be maintained. | Doesn’t scale properly.  Decided to set the screen aspect ratio for now. | NO | Visually confirmed. |
| 11.0 Game Build (EXE) | Game build as an exe file. | Does the EXE work with all these features. | Game builds | YES | Visually confirmed. |
| ~~11.1 Game Build (WebGL)~~ | ~~Game build as a WebGL file.~~ | ~~Does the WebGL work on itch.io.~~ |  |  |  |
| 12.0 Fuel Canisters. | The collectable fuel canisters. | When a fuel canister is collected, the current fuel in the jet pack must go up by the amount on the fuel can.  The given fuel must never give fuel over the max amount. | Collects and gives fuel. Also respawns. This is intentional. | YES | Visually confirmed. |
| 12.1 Fuel Canisters Collecting. | Player interacting with the fuel canister. | When the player touches the fuel canister, they must be given the fuel. | They are given the fuel. | YES | Visually confirmed. |
| 13.0 Tutorial Level Works / Completable. | Is the level completable. | You can get from the start to the end of the tutorial level. | Yes | YES | Visually confirmed. |
| 13.1 Can complete the level. | Level complete trigger to load the main menu or win screen. | When the player reached the end of the level, they are taken to the main menu. | Not implemented | NO | Visually confirmed. |
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