Balance game - Production plan

# Production plan:

| Feature Number | Feature Title | | Description | User Stories | Dependencies | Time |
| --- | --- | --- | --- | --- | --- | --- |
| 1 | Player | Walk | Allow the player to move around. | When the player presses the movement keys, their character will move in the direction that the player pressed. |  | 2h |
| Camera movement (player as pivot) | Camera moves with the mouse. | The camera movement allows the player to check the surroundings and decide what to do next. |  | 2h |
| -------------Interactions with world------------- | Basic interactions with the world (ex: flipping levers). |  | World Environment | 12h |
| Flipping levers | By pressing the interaction key, the players can flip levers in the world. | When the players flip levers, certain actions connected to those levers will be activated, IE: opening doors, creating hazards, and possibly spawning items. | World Environment | 2d |
| Player weight effect on the world | The player's weight affects the balance of the platform/world. | When the player is closer to the pivot point the weight doesn't affect the world as much as if the player was closer to the edge of the platform/world. | World Environment | 2d |
| 2 | Lever Action | Open doors | Levers open doors for players to go through | Levers can be used to open doors for players to go through, effectively opening a new path which is often easier than the one available. | World Environment | 2d |
| 3 | Weight modifiers | Heavy | Drastically increases the weight of the player | When a player picks up a heavyweight, they get bigger, and heavier, meaning their effect on the balance of the world will increase, forcing them to take paths closer to the pivot point of the world. | World Environment | 2d |
| Light | Drastically decreases the weight of the player | When a player picks up a lightweight, they get smaller, and lighter, meaning their effect on the balance of the world will decrease, forcing them to take paths further away from the pivot point of the world. | World Environment | 2d |
| Reset | Resets the player's weight | When a player picks up a reset weight, their weight gets reset to "average" which is the starting weight for each world level. | World Environment | 2d |
| 4 | Server | Connection Token | Connection with the players to the server | When a player enters the matchmaker with another player, a connection token will be created and only those two players will be able to enter that lobby. |  |  |
| Player position | Position of the players in the world | Replication of the player position in the world. | Server | 2d |
| Player interactions with levers | Communication between players' interaction with the world levers | Players' interaction with the world levers. | Server | 2d |
| Player movement | Player movement in the world | The player has a button that allows him to join a room | Server | 2d |
| Lever interaction with world | Communication of the levers with world | Levers connection with the world, often opening or closing paths. | Server | 2d |
|
| Lobby creation for the co-op | Room for both players to connect to | A room where both players will be connected to, invisible for the players, only to get them together after the matchmaker is done matching. | Server, Matchmaker | 2d |
| Secure player connection with server | Secure player's personal information | Secure the player's personal information before reaching the server in order to keep them safe from attacks that might happen. | Server | 2d |
| Map selection | Show the available maps | Map selection screen where both players can vote on a map they would like to play. | Server | 2d |
| World balancing factor | Map balancing | The world balance has to be replicated to both players and is affected by both players. | Server | 2d |
| Boxes effect | Box weight effects on the world | Boxes will affect the world with their weight, players moving them will either complicate or ease their journey. | Server, World Environment | 2d |
| Matchmaker | Matchmaker between players looking for a game | The matchmaker allows all players to find a pair to play with, no special matchmaking rules are included like MMR (matchmaking rating) or WR (win rating) (in our case, completion rating). | Server | 2d |
| 5 | World Environment | Balancing pivot | The center of the world. | When players move, the imbalance of the world will tilt the pivot point, making the whole world tilt. This is also regarded as the center of the world. | World Environment | 2d |
| Weight modifier spawn positions | Spawn positions of weight modifiers | Weight modifiers increase, decrease, or reset the player's weight which determines how much they affect the balance in the world. | World Environment | 2d |
| Player spawns | Spawn positions of the players | The places where the players first spawn in the world, it also marks the starting point of the journey towards the end goal. | World Environment | 2d |
| Player end goals | End goal positions for each player | The places where the players have to go to finish the game. | World Environment | 2d |
| Door locations | Position of doors in the world. | Doors enable players to take paths that are easier to traverse, making it possible to reach the end goal faster. | World Environment | 2d |
| Lever locations | Position of levers in the world. | Levers are used by the players to activate certain things in the world, IE: doors, hazards, etc... | World Environment | 2d |
| Box locations | Position of the boxes in the world | Boxes are used to free up paths and distribute weight better throughout the world. | World Environment | 2d |
| -----Interactions---- | World objects interacting with each other |  |  | 2d |
| Levers opening doors | Levers will open doors | Levers will open doors for the players to traverse through. | World Environment | 2d |
| Player movement | Player movement affects the world | Players' weight affects the tilt of the world, making it easier or harder for their teammate, or themselves to move forward. | World Environment, Player | 2d |
| Player weight differences | Player weight affects the world | Players' weight affects how much tilt is added to the world, the heavier the player, the more effect its going to have. | World Environment, Player | 2d |
| Box weight | Box weight affects the world | Box weight will affect the world in a way, and wherever the players leave the boxes may determine their failure of the level or their success. | World Environment, Player | 2d |
| 6 | Animations | Player Animations | Animations of the player | Walking, increasing/decreasing/resetting size, falling, winning and losing animations for the player. | Player | 2d |
| Lever Animations | Animation of the levers | Pulling lever animation. | World Environment | 2d |
| Door Animations | Door opening animation | Opening door animation. | World Environment | 2d |
| Picking up weight modifier animation | Weight modifier animations | Weight modifier types will determine the type of animation they will trigger, IE: heavy weight modifier will trigger a player animation to increase its size. | World Environment, Player | 2d |
| Picking up or dragging a box | Box picking up or dragging animations (for the player) | When a player picks up a box or moves it by dragging it, the player will feature a different animation. | World Environment, Player | 2d |
| 7 | Menus | Title screen | The first menu, displayed when the player first opens the game | In the title screen the player will be able to see the game title, and some art in the background, with some music playing. |  | 1d |
| Main menu | The main menu. | The main menu will show up shortly after the title screen automatically, it will display some buttons and the same background art as in the title screen. |  | 1d |
| Looking for game screen | The LFG screen. | The LFG screen will feature a loading menu when the matchmaking is being done, and when complete it will match the players and load the next menu. | Server and Database | 1d |
| Level selection menu | Level selection menu for the players. | After matching the players will decide on a level to play, that will be done in this menu. | Server and Database | 1d |
| Options menu | The options menu | In the main menu there will be an options button that leads to this menu, where the player can change the volume of the game. |  | 1d |
| Level complete or failure screen | Screen displaying at the end of the level | Winning a game will display the winning screen, and a player animation. Losing will display the losing screen and a losing animation for the player. This screen will also feature a button that leads to the main menu. |  | 3h |
| 8 | Music | Background music | "Ambient" music | The same music will play throughout the entire game which can be turned up or down in volume in the options menu. |  | 2h |
| Winning or losing music effect | Music played after winning or losing the game | Winning a game will stop the background music briefly and start the winning music/effect. Losing will have the same action but instead play the losing music/effect. These musics/effects can be lowered in the same slider as the background music in the options menu. |  | 2h |
| 9 | Sounds | Picking up sounds | Sounds played when: Picking up things | In-game, when players pick up items, IE: weight modifiers, a sound will play. | Player | 3h |
| Falling off sounds | Sounds played when: Player falls off | When a player falls off the map, there will be a sound effect playing. | Player | 3h |
| Weight increase sound | Sounds played when: Player increases in weight/size | When the player increases in weight/size, a sound effect will play. | Player | 3h |
| Weight decrease sound | Sounds played when: Player decreases in weight/size | When the player decreases in weight/size, a sound effect will play. | Player | 3h |
| Weight reset sound | Sounds played when: Player resets weight/size | When the player resets its weight/size, a sound effect will play. | Player | 3h |
| Lever activation | Sounds played when: Lever is activated | When a player activates a lever, a sound will play. | World Environment, Player | 3h |
| Door opening | Sounds played when: Door is opened | When a door is opened, a sound will play. | World Environment | 3h |
| Hazard sound | Sounds played when: Hazard is activated | When a hazard is activated, a sound will play. | World Environment | 3h |
| Walking sounds | Sounds played when: Player walks | When the player walks, a sound will play. | Player | 3h |
| Picking up or dragging a box | Sounds played when: Player picks up/drags box | When the player picks up a box or moves it by dragging, a sound will play accordingly. | Player | 3h |
| 11 | Documentation | Spec sheet | Sheet with information about the game |  |  | 1d |
| GDD Update | Game Design Document |  |  | 2d |
| Production Plan Update | Production Plan |  |  | 2d |
| Presentation | Presentation |  |  | 2d |

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# Sprints:

|  | Start | End | Sprint | Content |
| --- | --- | --- | --- | --- |
|  | **7/10** | **14/10** | 1 | Player: Movement  Map: Balancing pivot  Player & Map: Player weight effect on pivot |
|  | **14/10** | **21/10** | 2 | Player & Props: Weight increase & reduction  Map: Test map making  Player: Spawn locations & Finish locations |
|  | **21/10** | **28/10** | 3 | Map: Lever positions  Map: Door positions  Server: Lobby creation  Boxes: Box interactions |
|  | **28/10** | **4/11** | 4 | Map: Test map polishing for presentation  Player: Interactions with world polishing |
|  | **4/11** | **11/11** | 5 | Retouching subjects that were left behind |
|  | **11/11** | **18/11** | 6 | Retouching subjects that were left behind |
|  | **18/11** | **23/11** | 7 | Polishing for presentation |
| **DELIVERY 2 23/11** | **23/11** | **30/11** | **8** | FIX and FINISH STUFF |
|  | **1/12** | **8/12** | 9 | Replication: Player movement  Replication: World tilt according to weight |
|  | **8/12** | **15/12** | 10 | Server: Matchmaking connections  Server: Lobby creation with token  Map: Player connection with levers |
|  | **15/12** | **22/12** | 11 | Map: Lever connection with world (ie: opening paths or blocking them)  Boxes: Box interactions with world |
|  | **22/12** | **29/12** | 12 | Server: security & lobbying  Animations |
|  | **29/12** | **8/1** | 13 | Visual polish  Menus  Sounds  Music |
| **DELIVERY 3 8/1** | **8/1** | **8/1** | **14** | FIX and FINISH STUFF |