**Program Testing**

Testing gameplay is a vital part of development. Eliminating any bugs, adjusting areas based on player experience and constantly trying everything possible within the game are key to ensuring a quality finished product. Gameplay testing can be split into two sections:

**Bug Testing:**

Bug testing consists of playing the game normally, as well as trying things that the player may not be expected to do. For example, trying to switch weapons while using one for an attack could cause an unintended effect if not considered in development. Because of this, it is important we dedicate time to push the game to its limit. Some strategies we plan to use are:

**Dedicated testing time:**

We will set aside several days to exclusively play the game once it is fully developed, and find as many bugs as possible, logging them as so:

|  |  |
| --- | --- |
| **Rough Description** | A title of sorts, describing the bug. |
| **How it occurred** | The situation that caused the bug. Can it be replicated? What happened? |
| **What was supposed to happen?** | The flow of events as they should have happened. |
| **Associated Entities** | Involved elements- What object is interacting incorrectly? |
| **Why could this have happened?** | Code errors, functions not being called, or simply blank if you don't know. |

Then, the programming team will look over the logged bugs, fix them, while other members of the group continue finding and logging them.

**Other Groups:**

We will allow other groups to play our game, watching carefully and logging (as shown above) any bugs they encounter. It is important a team member is present to witness bugs that they may have trouble replicating.

**Family and Friends:**

Due to the nature of the project being on GitHub, it is always available to all group members. This allows roommates, family, and other friends to test the game with a group member present. This is important to do as people who do not regularly play games may encounter things that people who regularly play them do not consider.

**Balance and Gameplay Testing:**

While the above testing is taking place, it is also important to note any non-bug-related problems, as follows:

|  |  |
| --- | --- |
| **Rough Description** | A title, describing what happened. |
| **Where did it occur?** | Which level? Where? |
| **What did the player do?** | Did the player do something unexpected? Did they use something unintentionally that we need to change? |
| **What was the player supposed to do?** | What should the player do differently in this situation? |
| **How can we make the player do what they're supposed to do?** | Inexperience, confused by level or weapon, etc. |

**How can we make the player do what they're supposed to do?**

How can we tackle this and make future players not do this? Do we need to smooth out a corner, so they don't stop? Is there an area we didn't expect them to access leading to a dead end?

Due to the nature of testing, most balance and gameplay testing results will come from Other Groups and Family and Friends. This is due to the team, as the developers of the game, being able to fix anything they identify, but it is vital to also fix the things that potential players encounter.