

Testing Plan

Unit Testing

- Sceptre
 - Can be crafted with one wood, two arrows and one key
 - Can be crafted with one treasure and one sunstone
- Midnight armour
 - Can be crafted with a sword and a sun stone
- Dungeon Builder
 - Test can generate dungeons
- Light bulbs
 - Test light bulbs will always be created off

Integration Testing

- Sun stone
 - Can be used to unlock door
 - Can be used interchangeably with treasure (e.g., building)
- Light Bulb
 - Test are connected to boulder and switch
- Wire
 - Test connection to switch and entities via switches
- Switch door
 - Test opened without a key
 - Test should remain open as long as it is connected to an active switch/circuit

System-Unit Testing via controller

- Sun stone
 - Can be picked up by player
 - When used as a key, does not disappear
- Sceptre
 - Test effect duration of mind control
- Time turner
 - Test can be picked up by player
 - Test can be used
 - Test when used rewinds the game back 5 ticks
 - Test older self exists as its own entity
 - Test battle older self
 - Test older self takes original path and eventually time travels as well
 - Test player inventory persists across time
 - Test entities' position and existence is correct in the game state
- Time Travelling Portal
 - Test can teleport
 - Test can time rewind the game to a state 30 ticks ago
 - Test older self exists as its own entity
 - Test battle older self
 - Test older self takes original path and eventually time travels as well
 - Test player inventory persists across time
 - Test entities' position and existence is correct in the game state
- Light bulb
 - Test can be lit up by placing a boulder on an adjacent switch
- Hydra Movement
 - Tests that a Hydra's movement works as a zombie

- Dungeon Generation
 - Test dungeon generation from origin
 - Test dungeon generation end at origin
 - Test dungeon generation standard
 - Test dungeon generation negative coordinates
 - Test dungeon generation large coordinates
 - Test dungeon generation large negative coordinates

System-Integration Testing via controller

- Sun stone
 - Test can be used to unlock door
 - Test cannot be used to bribe mercenaries or assassins
 - Test count towards treasure goal
- Sceptre
 - Player with sceptre – mind control mercenaries and assassins automatically become allies
- Midnight armour
 - Can be crafted with a sword and a sun stone – if no zombies currently in dungeon
 - Test midnight armour provides extra attack damage/ protection – lasts forever
- Swamp Tile
 - Test slows movement of all entities
 - Test does not slow the movement of player
- Persistence
 - Test the position of player is the same
 - Test the inventory of the player is the same
 - Treasure
 - Key
 - Potions
 - Wood
 - Arrows
 - Bomb
 - Sword
 - Sun Stone
 - Bow
 - Shield
 - Sceptre
 - Midnight Armour
 - Test that the durability of the weapons is the same
 - Sword
 - Bow
 - Shield
 - Arrows
 - Test all the positions of entities are the same
 - Walls
 - Exit
 - Boulder
 - Floor switch
 - Door
 - Portal
 - Zombie Toast Spawner
 - Test status of potions are still effective
 - Test health of enemies are the same
 - Test ally mercenary
 - Test the progress of goals are still the same

- Hydra Battles
 - Tests that Hydra's are damaged and healed correctly, as well as the player