Practical Gaming 2024

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# Name of Project

# Gameplay

Describe how to play the game here, specify keys/mouse etc. what needs to be done to unlock further features etc.. i.e. a walkthrough which covers all of what is to be seen to be marked.

Virtual Reality Interactive Sim

**Environmental Mechanics**

* Climbing Points: Rope, Gutter, Overhanging Grab Points
* Climb Up to a vent to stealthily walk past enemies
* Door Codes (Find access codes around the level, input by typing a button)
* Hacking/Bypass Minigame (Break off panel, then for example, remove a fuse, or replace it into another position.)
* Half-Life Style Physics Puzzles (Push a plank over a drop to cross)
* Moving heavy Obstacles out of the way
* Picking up key cards and putting them into an inventory slot on your chest

**Player Mechanics**

* Equipment Slots on player chest
* Weapon Slots on Player Chest
* Objective Info on a wrist device
* Weight(Stamina) cost for types of objects? Lifting heavy objects such as planks have a stamina cost, climbing costs extra, running out of stamina will cause to lose grip (exemption for weapons & tools.)
* Health Stim Jab
* Shooting

**Player Choice**

* Player gets to choose between different pathways
* One pathway will have a more difficult set of puzzles, but easier enemies
* Another pathway will have easier puzzles but more difficult and higher numbered enemies
* Another less obvious pathway could be a vent you can climb to stealthily bypass. But will have a most difficult puzzle.

# Coding

Under each of the following headings, please describe the concept, why is it or isn’t it useful/needed, where do you implement in your project, you may provide screenshots or cut and past code segments etc..

* Frame Rate Independence
* Interfaces
* Inheritance
* Case pattern
* Observer Pattern
* Polymorphism
* Communication between scripts/game objects
* Instantiation and Prefabs
* Magic Numbers
* Model Animation
* Self made models and or animations
* Interactions between objects/scripts
* Propper code placement
* Code repetition
* Feature 1
* Feature 2
* Feature 3