GAME DESIGN DOCUMENT:
Blockout-focused FPS Level Design

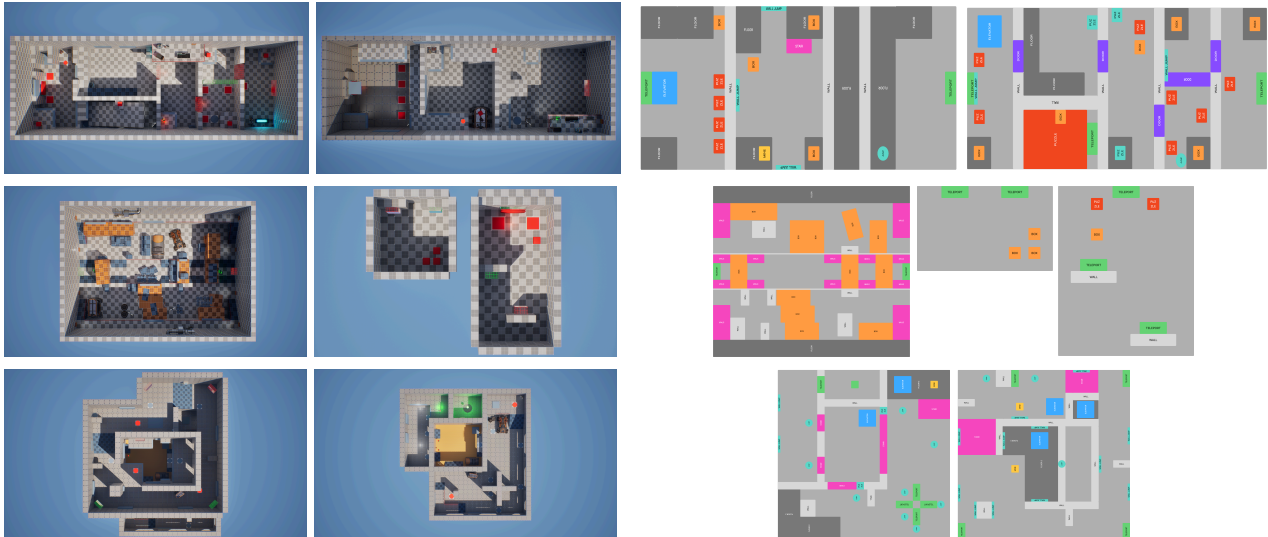

Figure 1. **Final level layout and gameplay structure. Left**: top-down overview of all five sectors, including tutorials, puzzles, and PvP arenas. **Right**: same layouts with annotations showing flow, verticality, and key interaction zones.

1. Map Name

Blockout-focused FPS Level Design

2. Platform

Unreal Engine 5.5

Supported Devices:

- PC (Windows)

3. Genre

First-Person Puzzle Platformer / PvP Hybrid

4. Short Description

A linear 5-sector level combining platforming, environmental puzzles, and PvP combat. The player learns basic mechanics progressively and is challenged to combine them in increasingly complex scenarios, culminating in two dynamic PvP arenas.

5. Narrative Background

The player navigates through a secret research facility where an experimental training protocol has gone rogue. As the player advances through testing zones and secure chambers, the environment shifts from clean labs to chaotic PvP arenas, reflecting the breakdown of control.

6. Core Mechanics and Features

- Basic FPS movement: walk, run, jump, crouch
- Climbing ledges, wall-jump, sliding
- Object manipulation: carry and throw cubes
- Interactions: buttons, platforms, terminals, ladders
- Timed platforming events and teleporters
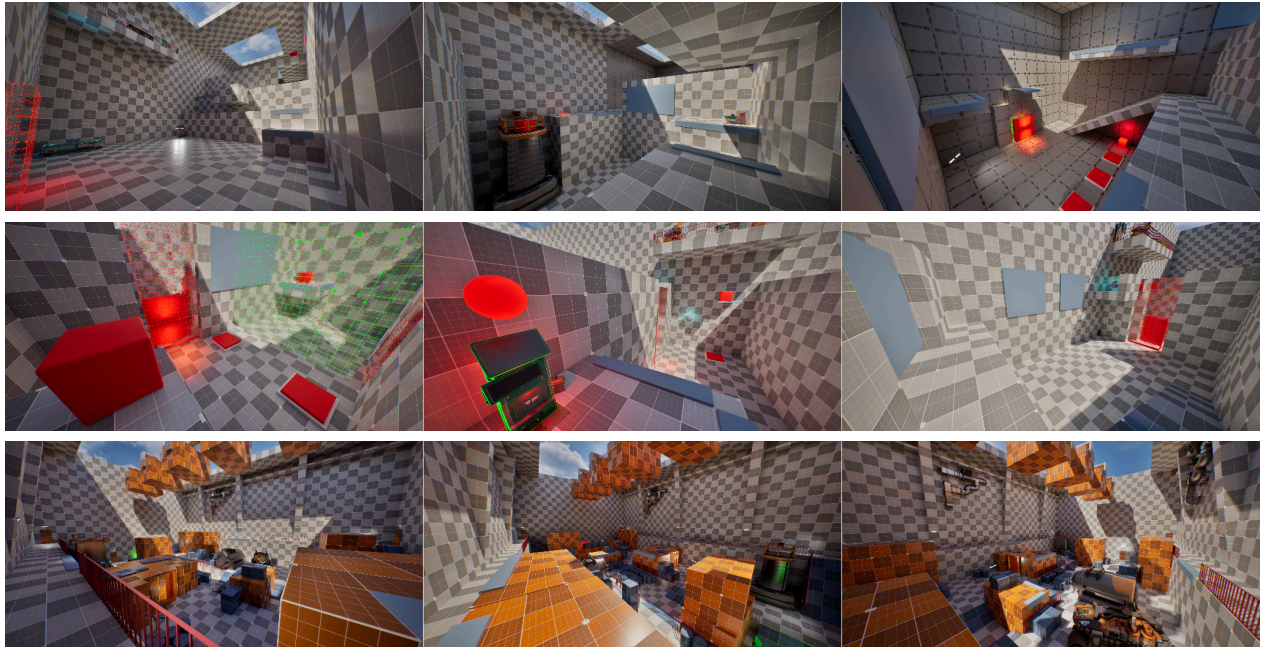- Combat areas with cover, verticality, and traps

Figure 2.1. **Early gameplay sectors: movement, puzzles, and first combat.** Top to bottom: **Sector 1** – basic movement training with a focus on timing and spatial navigation; **Sector 2** – core interaction mechanics: grabbing, throwing, and pressure-based puzzles; **Sector 3** – first PvP arena with grounded layout, tactical cover, and aggressive combat flow.
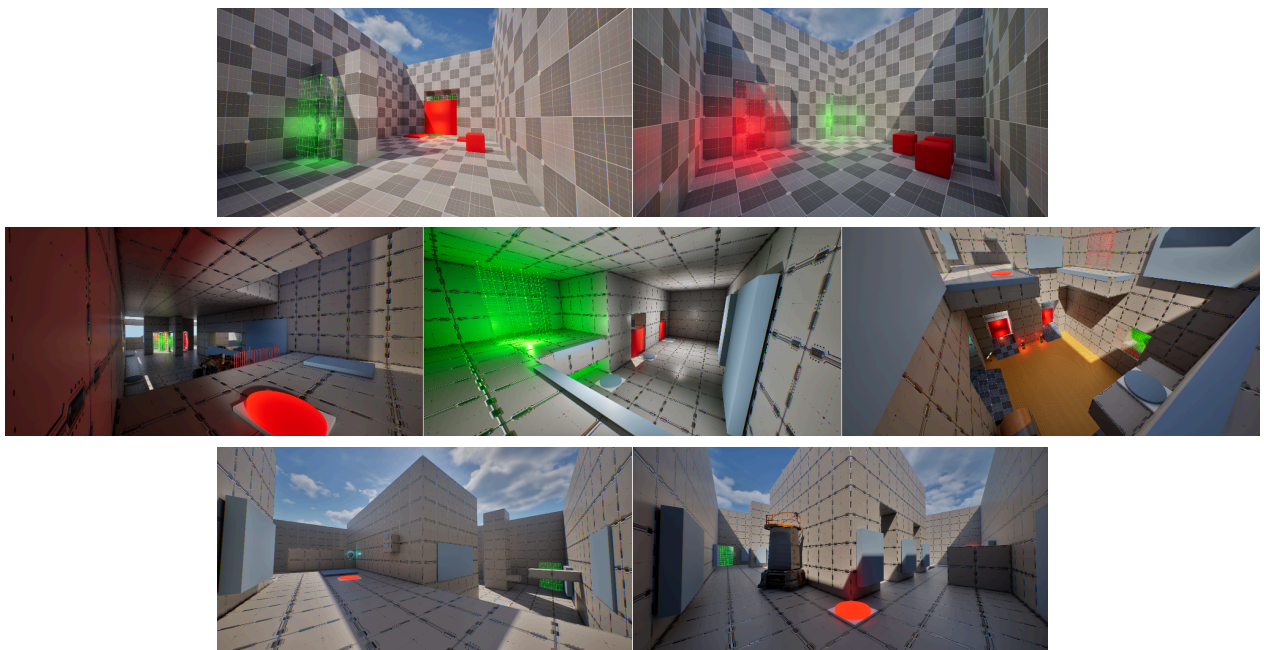

Figure 2.2. **Advanced navigation and final combat challenge.** Top: **Sector 4** – teleport-based puzzle requiring timing, spatial memory, and planning. Bottom two rows: **Sector 5** – two-level PvP arena featuring vertical gameplay, strategic cover, and fast repositioning under pressure.

7. Visual Style and Theme

- Setting: sci-fi research lab and tactical arenas
- Mood: contrast of sterile laboratories and chaotic PvP zones
- Style: industrial sci-fi, angular design, glowing accents
- Lighting: neon highlights, dynamic shadows, area-specific palettes

8. UE Features Used

- Blueprint scripting: platforms, traps, teleporters, timed events
- Modular blockout geometry
- Custom collision for advanced geometry
- Trigger-based tutorials and feedback

9. Map Goal

To build a seamless player experience where tutorial, exploration, puzzle-solving, and PvP are naturally integrated, allowing the player to master mechanics progressively before applying them in dynamic combat.

10. Playtesting and Balance

- Room sizes and traversal paths tested for pacing
- Vertical movements and sightlines tuned
- PvP zones optimized for no dominant positions
- Puzzle logic and teleports validated
- Fake exits and secrets implemented to encourage exploration

11. Contact Information

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12. Version

v1.0 (Blockout Complete)

13. Date

July 2025