

Star Wars Outlaws – Level Design Analysis

Introduction

This document aims to dissect the initial scene from the Star Wars Outlaws trailer, with a focus on level design and identification of potential issues.

Star Wars Outlaws is a 3D Third Person Action Adventure game, developed by Massive Entertainment and published by Ubisoft under license by Lucasfilm Games.

The ultimate goal is to reimagine this level using Unity, thereby delving deeper into the game's Level Design based on the trailer's content. It's important to note that this analysis is solely based on the video trailer and personal interpretations and preferences.

The specific Star Wars Outlaws gameplay trailer referred to here was showcased during Ubisoft Forward in June 2023.

The trailer likely showcases an early stage of the game's adventure, as is typical for initial trailers of this nature.

The document is structured into three sections:

1. Walkthrough Analysis
2. The Box Problem
3. Shaping the Level

1. Walkthrough Analysis

The gameplay starts with a cut scene where it's possible to see Nix, the animal companion of the main character, Kay Vess, rescuing a shell that contain a type of mollusk.

Following this, the gameplay section begins:

One of the first thing that stands out is the broad Field of View provided by the camera. More specifically, a fish eye lens appears to have been used, possibly to justify the use of 21:9 ratio. This perspective is particularly beneficial for viewing objects at the sides of the screen, especially in confined spaces. However, later it's possible to see how certain details can be challenging to discern without this perspective.



Figure 1: The gameplay starts with a cover situation

The protagonist is immediately placed in a cover situation with an enemy whose back is turned towards the player. This scenario encourages the player to take down the enemy, a suggestion further reinforced by distant enemies who are also turned away. Consequently, the player feels confident enough to undertake bold actions impossible to be alerted by other enemies in the area.



Figure 2: All enemies' backs are turned towards the player

The player's movement through a room full of enemies unaware of their presence, suggests two possible scenarios

- The player has previously traversed this area when there were no enemies;
- The player reached the place to rescue the shell via an alternative route.

The answer at this question will be provided later in the trailer.

Once the player passed through the door to take the enemy down, the exit from this location is clearly visible. the contrast between light and dark areas effectively guides the player towards their objective in this section.



Figure 3: The exit point is clear to see

The elevated viewpoint offers a comprehensive view of the entire environment, allowing the player to strategize their next move. It's likely that the player could drop from their current platform and head directly towards the exit.

Through this wide area, the game is supposed to give different approaches to the player in order to get out.

This expansive area seems designed to offer the player multiple approaches for exiting. In the trailer, the player opts to move right and follow the path. This route is safe and shielded, preventing detection from enemies in the lower area.



Figure 4: The path is safe on the right of the player

As the player progresses, they encounter two enemies engaged in conversation at the end of the path, where another cover provides a strategic point for planning the next moves.

This marks a pivotal moment in gameplay: up until now, the character has demonstrated typical movements for a third-person action game. However, this is where the game introduces the use of Nix, the animal companion. By simply pressing the RB (R1) button, the player can direct their camera to the location they wish to send Nix.

The cover affords the player ample time to strategize their next move with Nix, who offers a variety of approach options:

- Taking down enemies
- Distracting enemies
- Activating mechanisms

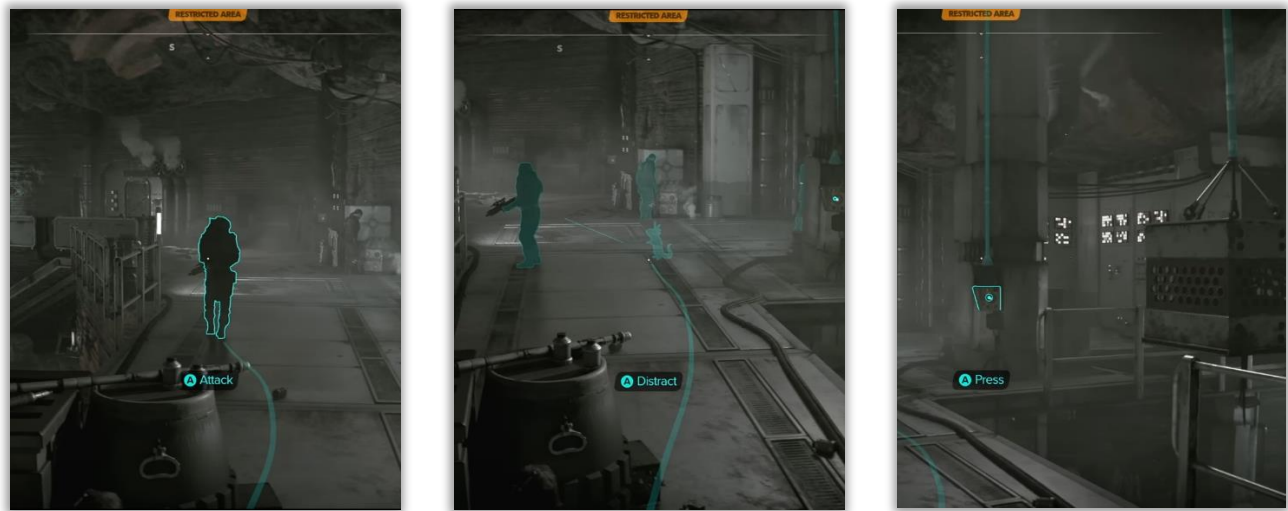


Figure 5: The three possible actions that Nix can perform

The player chooses the third action. By pressing the button, a metal box to the character's right begins to move along rails, a mechanism hinted earlier in the stage with another moving box on the ceiling.

As the box nears the player, she climbs onto it and uses its movement to reach another part of the area, bypassing other potential paths to the exit point.



Figure 6: A good position to see enemies' location

After releasing her grip, she lands on the ground and begins to move stealthily, using environmental furniture for cover. However, she is discovered, triggering an action sequence. With a quick draw, she eliminates the enemy and begins her escape. She ascends a ramp and encounters a stronger enemy wielding a massive shield impervious to her blaster. She switches her blaster to “focused” mode to break the shield and strike him.

From this point, the trailer shifts focus to showcase combat rather than escape. This allows viewers to observe enemy positioning during battle, environmental cover usage, explosive placement, and Nix’s utility in retrieving weapons or aids from the battlefield while the player is engaged in combat.



Figure 7: The UI helps to check how many enemies there are in front of the player

Eventually, she escapes using a grapple hook to reach the bike at the basement (indicating that she entered the structure from another route).

The trailer then transitions to a chase sequence and a glimpse of the game’s open world, which is not the focus of this document.

In the following chapter, will be discussed the defect shown in this trailer and propose potential improvements.

2. The Box Problem

Through this segment of the trailer, Ubisoft intended to showcase three key aspects:

- Combat System
- Interaction System
- Freedom of approach

One of the things the trailer failed is the understanding of how the player can interact with the box hanging on the rail.

At the start of the gameplay scene, it's not easy for the player to notice a moving box on the ceiling. This is largely due to the use of a fish-eye lens with a 21:9 ratio, which can distort perception and make certain elements appear more visible than they would be with a classic 16:9 ratio.

For instance, the first box is fully visible in the trailer solely because of this perspective. It begins to move just after Kay exits the room and becomes completely invisible once she moves to the right.

The UI (Blaster and Nix icons at the bottom right and left of screen) helps to delineate the actual 16:9 gameplay area (green lines), but as can be seen in the *Figure 8*, the box is barely visible, especially if the player's focus is on the enemies to the right.

In the following scene, when the player is deciding how to approach enemies, the same box passes next to Kay, hinting at how environmental elements can be used in gameplay. However, without the 21:9 ratio, this box is not visible at all. As can be seen in the *Figure 9*, it's unlikely that a player's focus would still be on the left side of the screen.

This chapter emphasizes this issue because if the studio wants players to be aware of their many options for completing a stage, it's crucial that these features are easily visible. In fact, when Nix's actions are used for the first time by a player, there appears to be a lack in UI as well.

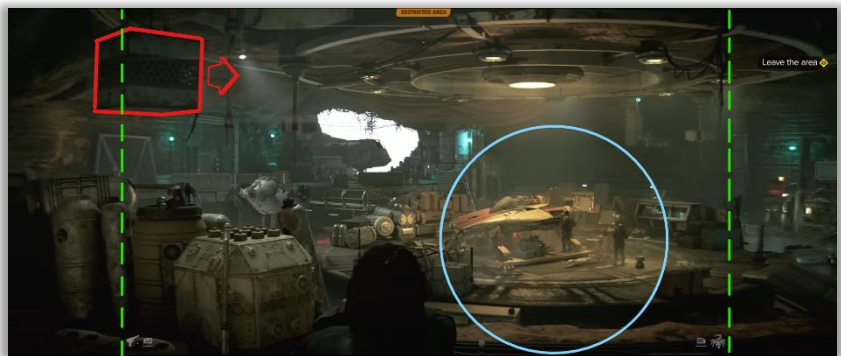


Figure 8: The box is hard to notice

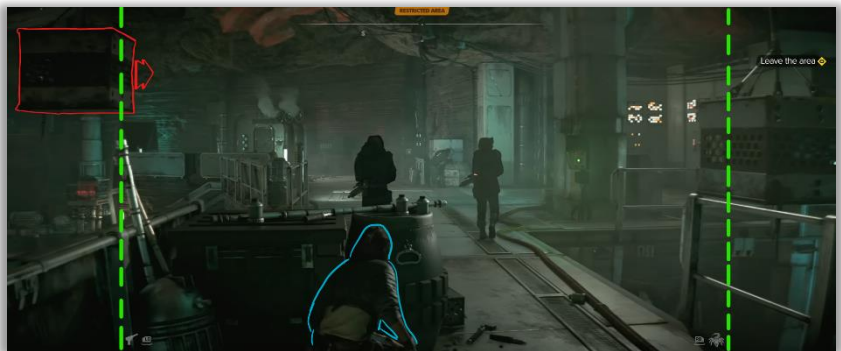


Figure 9: Without 21:9 ratio the box is barely visible

UI

When using Nix, the screen adopts a black and white color scheme to concentrate the player's focus on potential actions. The game employs the color blue to indicate interactive elements. For instance, if the player directs Nix to attack an enemy, that enemy will be outlined in blue. Similarly, if Nix is used to distract all enemies in the area, all of them will be outlined. This visual cue ensures that the player knows exactly who will be affected by their action.

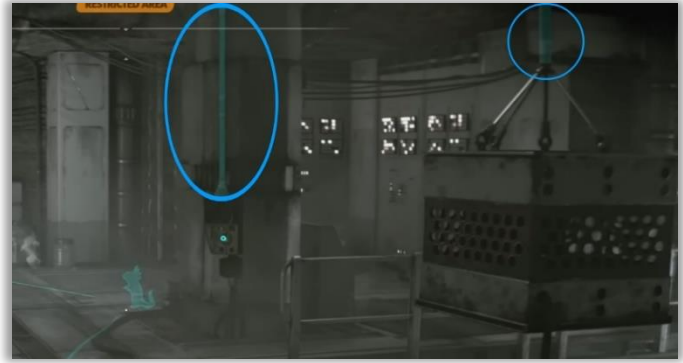


Figure 10: Using Nix, interactable elements are highlighted

Moreover, when the Nix button is pressed, a blue line appears on the cable attached to the box. This serves as a hint to the player that the button is also interactive. However, when the player interacts with it, only the button is highlighted, not the entire mechanism.



Figure 11: Once selected, the box could be outlined

Outlining the edges of the box could enhance comprehension of this action, especially if an arrow is used to indicate the direction of movement (as illustrated in the Figure 11).



Figure 12: UI has been already used to draw items

This approach aligns with how developers have designed the UI for using Nix. Later in the game, it's evident that the UI is used to specify which guns or aids are present on the battlefield through icons (*Figure 12*). In this context, clearly indicating to the player both the object involved in their selection and its movement is crucial, especially for those who may not have noticed the previous box on the ceiling.

Mechanics and environment introduction

But what is a better way to introduce this mechanism to the player?

Introducing this mechanism to the player can be done in several ways, but the key is ensuring that the player is aware of this action. Given that, this is an open-world game and the player may never encounter this room again. But, as supposed before, if this is one of the early stages in game, it's crucial to use them to teach mechanics that can be recognized and reused later.

One effective method could be to perform this action directly in front of the player. But how?

In the same way the level allows the player to take this action.



Figure 13: The "sample box" can be moved pressing the same button by a guard

The "sample" box should be placed before the other box that the player will use, allowing them to observe that these boxes can indeed move along rails. Essentially, it moves in front of the player.

The button could be activated by an enemy who, also in front of the player, could either use the "sample box" itself to move from one position to another (which would require more animation and implementation but would be very effective), or converse with an other guard about how those boxes are useful to move around the place (less expensive, and guard dialogues are used as a hint for players). The guard could then press the button as shown in the *Figure 13*.

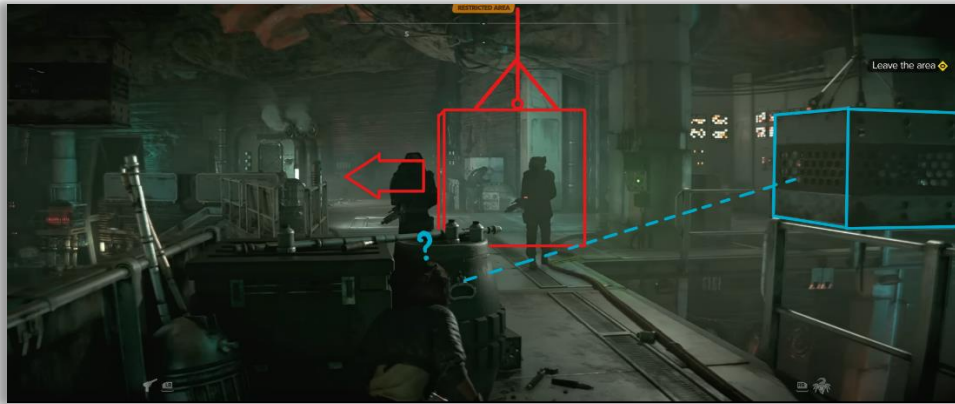


Figure 14: Passing in front of the player, it will be more noticeable

By the time the player starts evaluating which action to have Nix perform, everything they need to know has been shown right in front of them.

Environment Readability

Once the player initiates this action, they can expect the box to start moving. But what is its purpose?

The game attempts to signal to the player that they can grab onto the box by applying yellow paint to the edge of the box. However, due to either the quality of the YouTube video or the specific shade of yellow used, this detail is difficult to discern.

It's a common practice to put yellow details on the edges of a platform or an object to indicate that surface can be climbed.

Therefore, when observing the moving box, players might assume that it can be used to distract enemies, push one off the platform, or serve as a moving cover along the path.

To enhance this detail and make it more noticeable, a more vibrant color could be used. Additionally, an object that stands out due to its uniqueness, such as the rope shown in the *Figure 16*, could be used to draw attention.



Figure 15: How can player notice that box should be climbed?



Figure 16: A rope can help to draw more attention

All the enhancements discussed in this chapter are really easy to implement and they can significantly improve player's comprehension of the environment.

The gameplay video aimed to show this, and unfortunately, without playtesting data, it's challenging to determine whether these details were effectively noticed by players. However, incorporating these additional details could undoubtedly enhance the player's understanding of the freedom they have in their approach.

3. Shaping the Level

For this analysis has been realized a blockout model of the level in Unity 3D with Probuilder. The purpose is to just have an interactive version of the game and to draw all those spots that haven't been seen in the trailer.

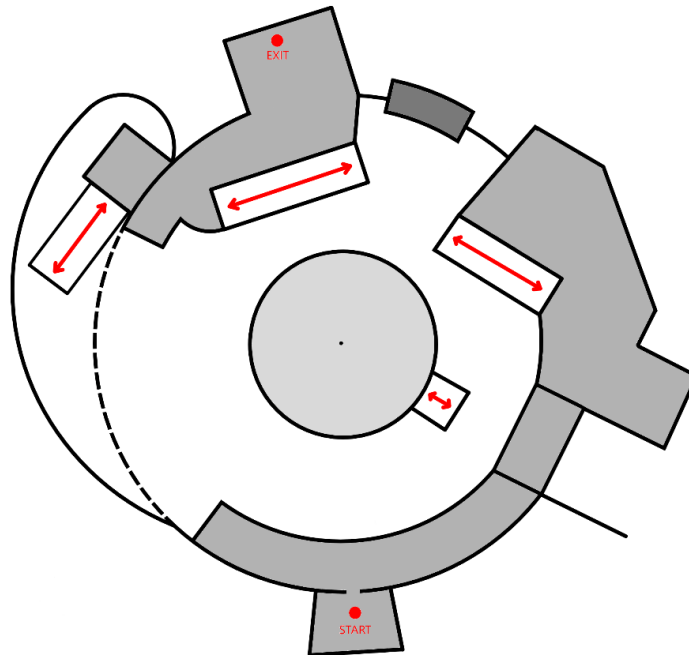


Figure 17: Map of the structure

During the trailer has been shown also a lot of doors with no interaction, so I imagined how they can lead to and how to enhance exploration in game.



Figure 18: The map modeled in Unity

Before show anything it's important to remark how this blockout has been realized just with the vision of the trailer, as such there is no knowledge about Kay and Nix's abilities or weaknesses, enemies' patrol or environment characteristics.

The game is playable at this link: [Star Wars Outlaws - Fan Made Blockout Level by DreamNauts Games \(itch.io\)](https://itch.io/game/star-wars-outlaws-fan-made-blockout-level)

Unused Doors

The trailer reveals a series of doors on both the first and second floors, and it's intriguing to speculate how they might be interconnected or where they might lead.

The first path built, carved into the rock to the east of the structure, connects three doors:

The first door is in the background when Kay is deciding which action to have Nix perform.

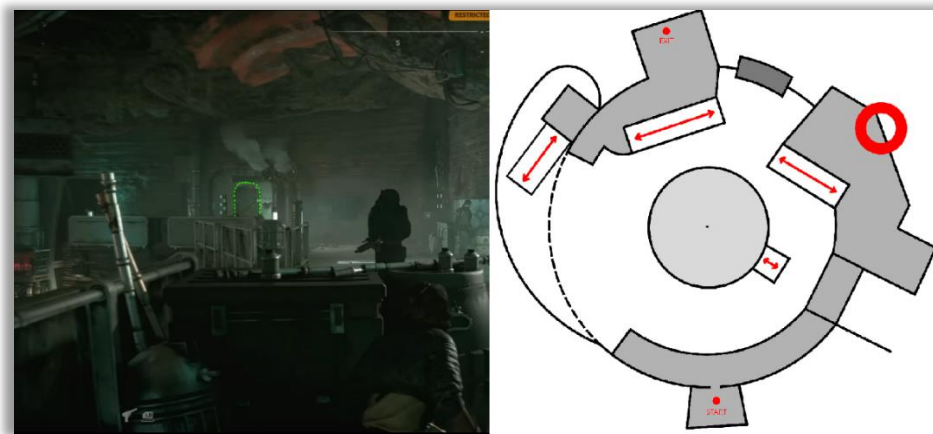


Figure 19: First door position

The second door is visible on the first floor when Kay is shooting near the exit.

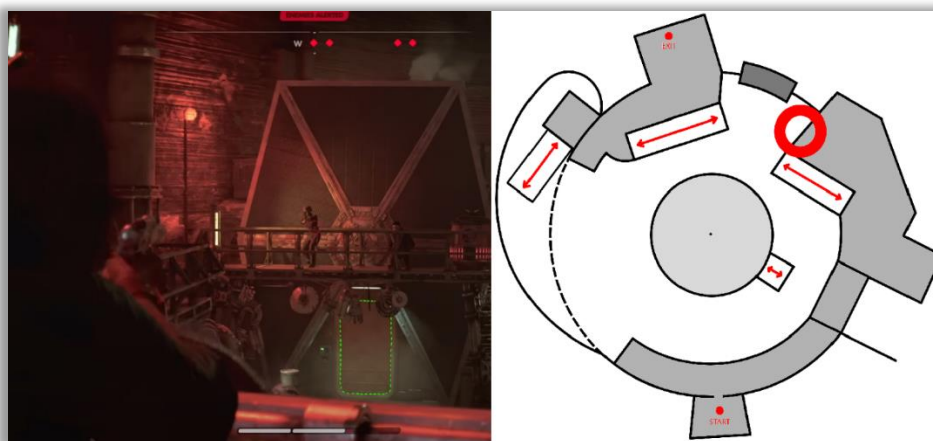


Figure 20: Second door position

The final door leads to a large room at the highest point of the entire structure, visible at the beginning of the level or when Kay is hanging onto the box.

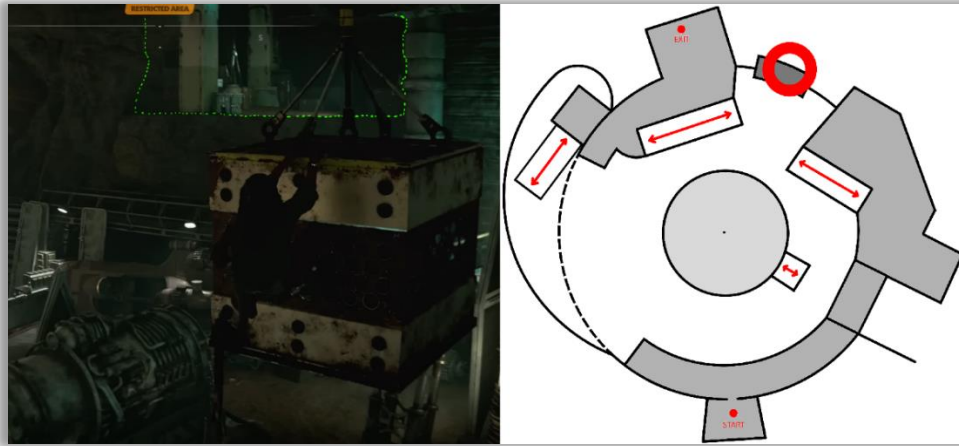


Figure 21: Third door position

All these spaces are interconnected by a single path that can guide the player in different directions.

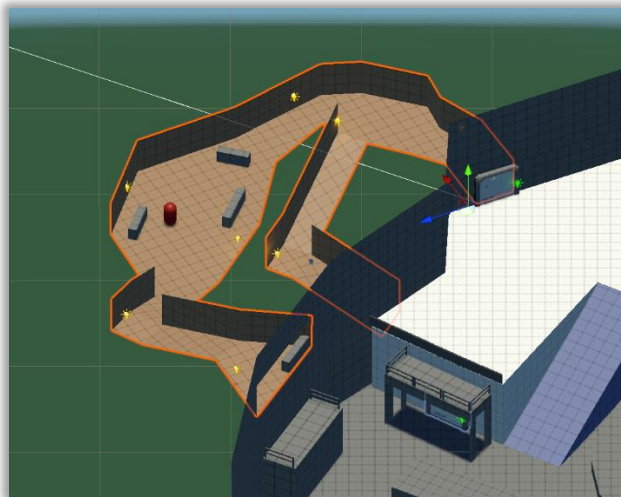


Figure 22: The path that connect the three doors



Figure 23: A top-down view of the path

The design alternates between wider and narrower spaces, giving players a sense that the map may contain various secrets and hidden passages.

For instance, as seen in the trailer, if players move rightward and instead of taking a lift with the box, proceed through the door in front of them, they could descend to the same position as the box or ascend to confront a patrolling enemy but gain an optimal view of all possible actions in the level.

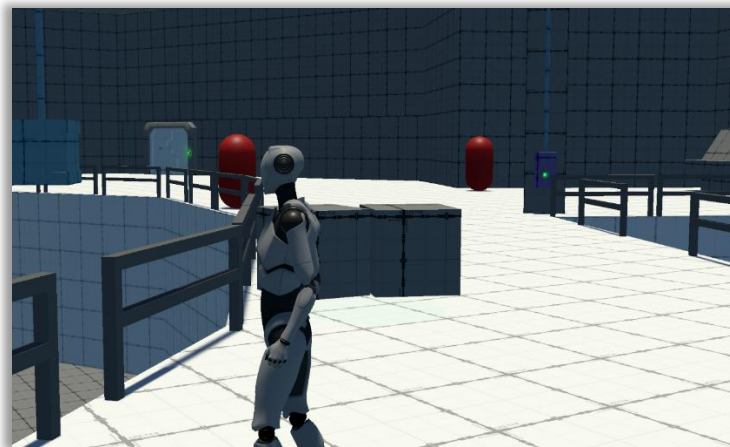


Figure 24: How the player sees the door in the trailer

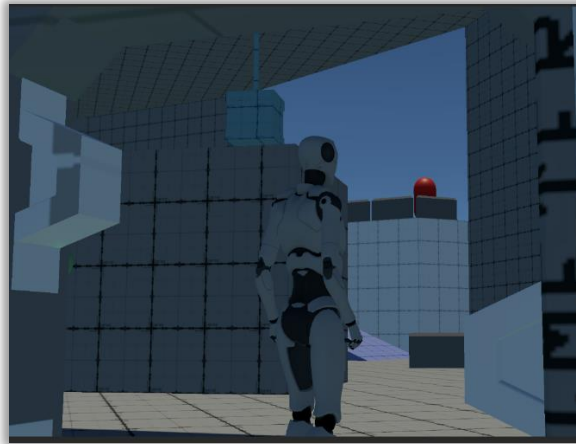


Figure 25: Where the lowest door leads

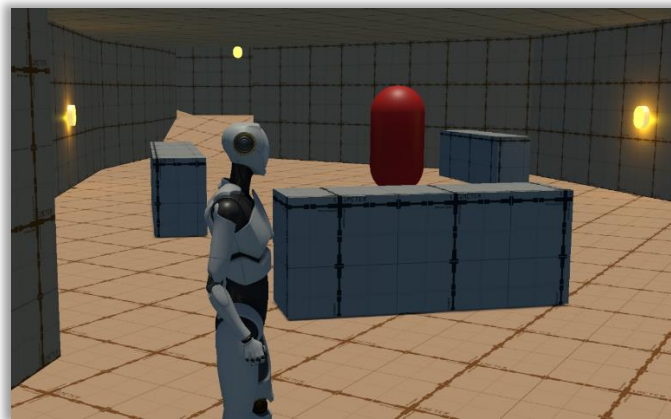


Figure 26: Inside the path, it has been placed an enemy

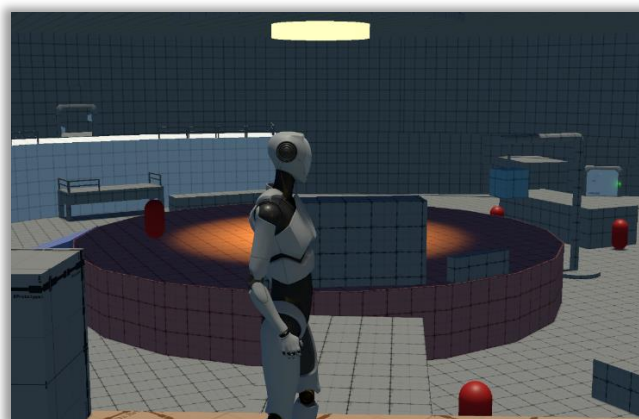


Figure 27: A strategic view in the highest point of the map

Another door seen in the gameplay is located near the exit, leading players to speculate about alternative routes to reach their destination. In a few brief frames, it's possible to see how this door connects to a ramp behind the main room of the building.



Figure 28: The door near the exit point



Figure 29: The hidden ramp leads to the door near the exit

This path was created while respecting the same proportions and layout, but I tried to imagine how players might reach that point. This leads us directly into the next section.

Ideas implemented

To reach this final door, players might prefer an approach that leads them to the left side of the map rather than following the path shown in the trailer.

From this advantageous position, players could see how this path could lead them directly to the exit but also be discarded by a higher concentration of enemies on that side..

The entire structure is designed to vary gameplay pace, compelling players to navigate up and down through different layers of the building.

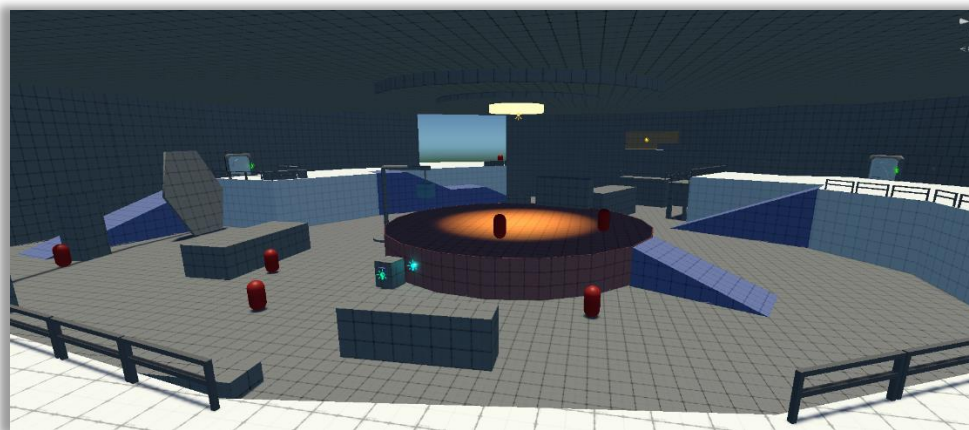


Figure 30: Player's point of view when the level starts

So if there are many enemies on a higher position on the right side but only one on the first floor, I imagine there would be more enemies on the first floor on the left side since there isn't a higher floor for enemy placement. This would discourage players from immediately reaching the ramp leading to the exit.

So I shaped the level in this way:

If players decide to descend from their current platform at the beginning of this area instead of going right, they could essentially go left or right once on the first floor.

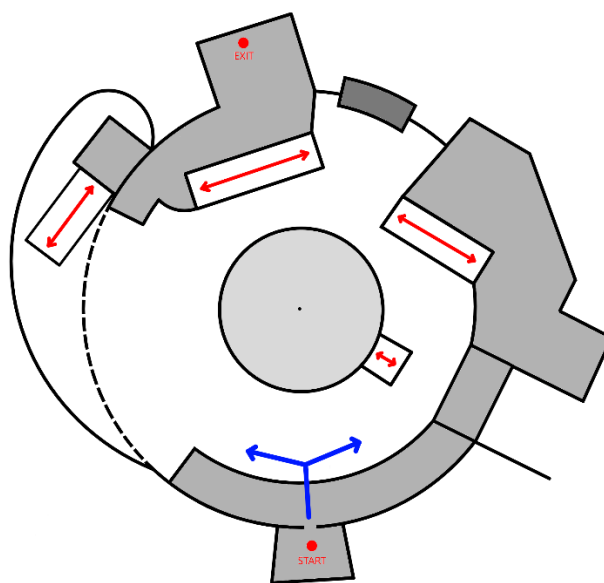


Figure 31: Possible player's routes after descending the starting platform

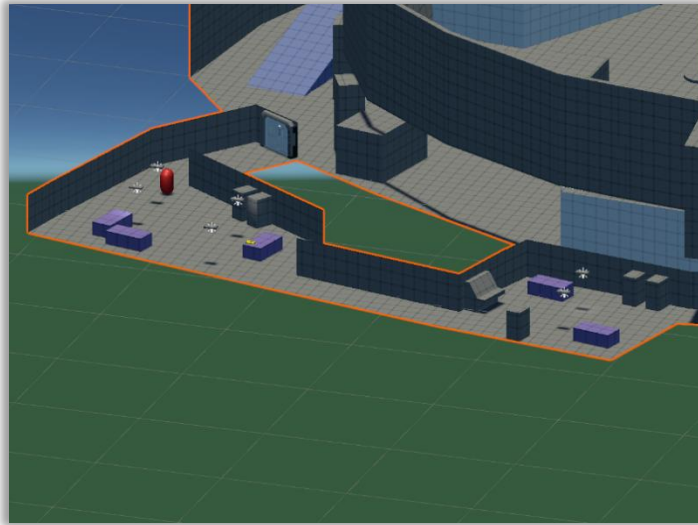


Figure 32: A hidden path

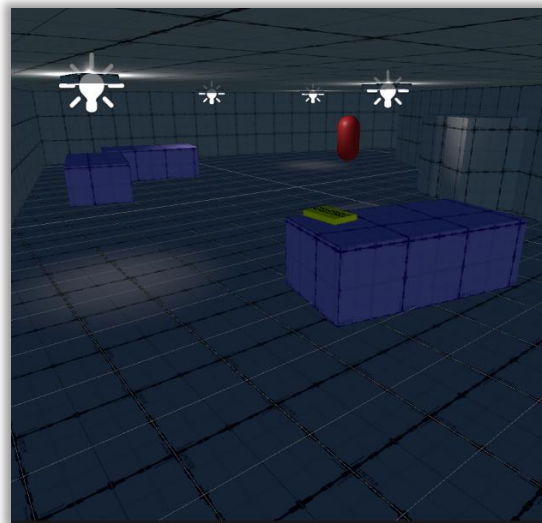


Figure 33: Inside the offices

Going forward upon the central platform could be risky since players could be seen by everyone. Going right could lead them to either end up in the same position as shown in the trailer or, as I imagined, below the box hanging to the rail could be a path leading players inside offices within this structure.

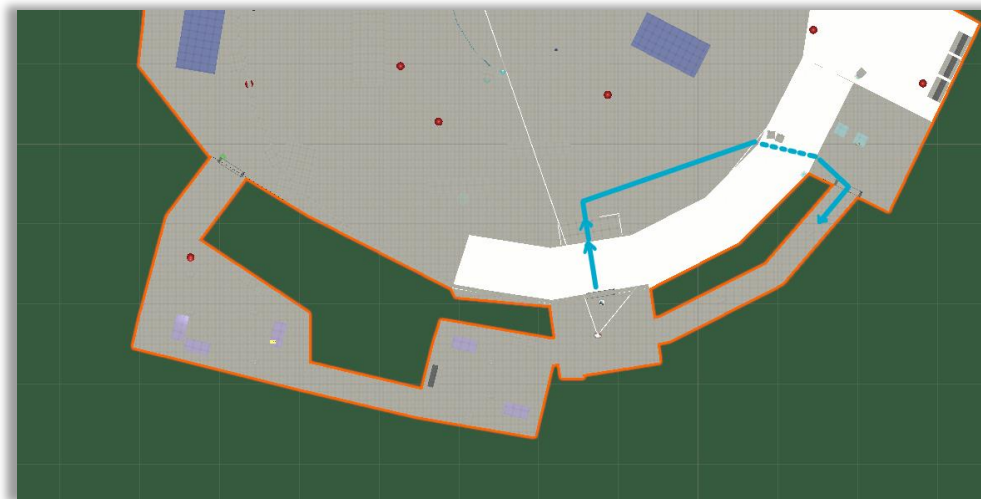


Figure 34: The route to reach the offices

From here, players could find another exit that brings them into an advantageous position and also allows them to collect important items for their quest. In this way, player exploration is rewarded.

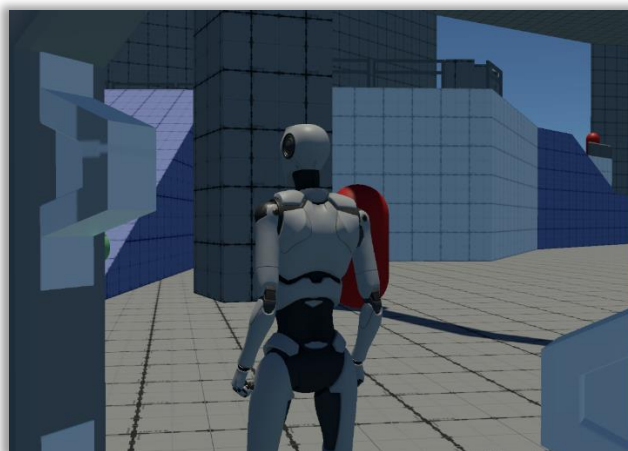


Figure 35: The ramp that leads to the exit is in front of the offices exit

If players decide to go left after descending from their initial platform, they will encounter many enemies. This could be an important moment to use Nix's abilities again. In fact, I placed another button similar to the one upstairs that could distract enemies. This way, players can create a clearer path and face fewer enemies.

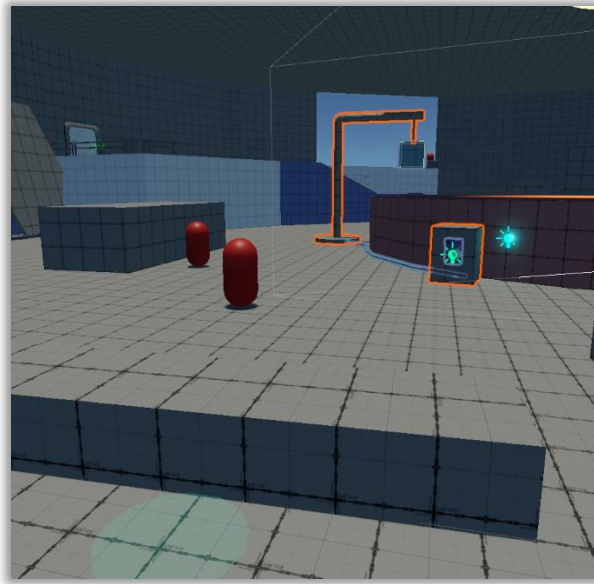


Figure 36: The button creates a bait by moving the robotic arm

Both routes lead to the same ramp. However, it's also important in this section to reward player exploration, especially if this last path is more challenging. Therefore, next to this ramp I placed a blaster that could help them defeat more easily the final guard present at this stage.

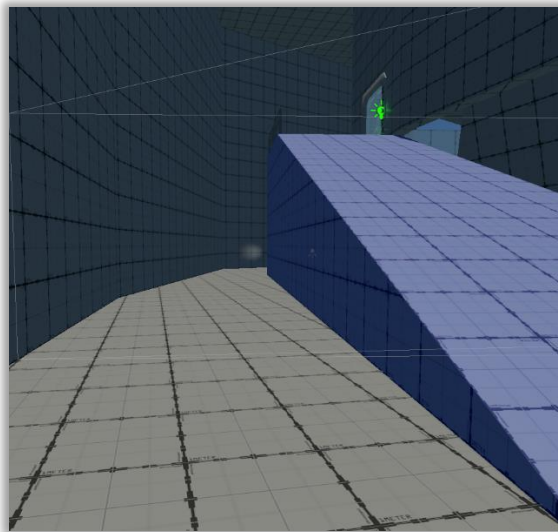


Figure 37: A light-hint near the ramp

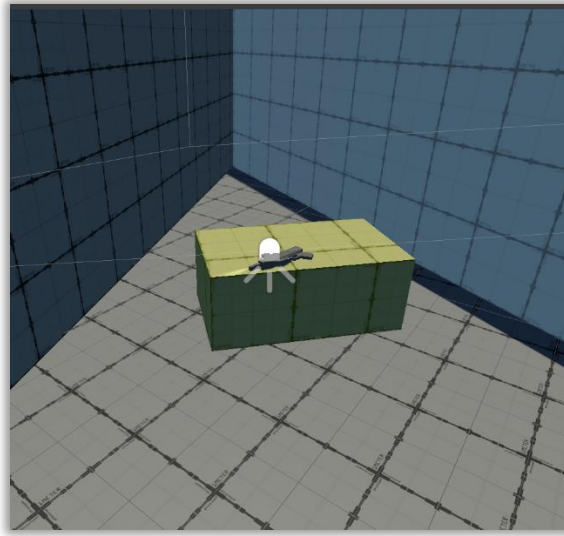


Figure 38: The reward for the player

In this way, the player has different approaches: some of them are visible (like the two buttons), while others are not immediately apparent but reward the player's exploration providing better views or important quest items.

The rest of the Level

The entire level has been designed based on what is seen in the trailer, with minor modifications for sections that lack footage or could benefit from improvements.

For instance, I introduced a new box near the one that the player will use as a lift, and it automatically starts moving once the player is close enough.

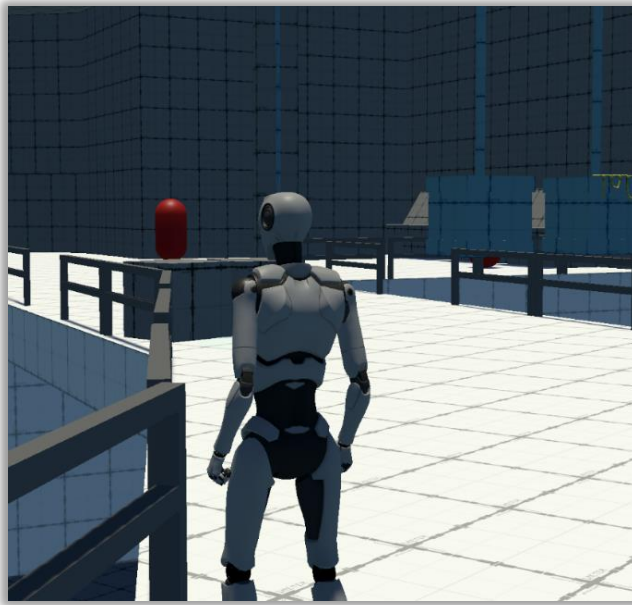


Figure 39: The sample box is now near the usable box

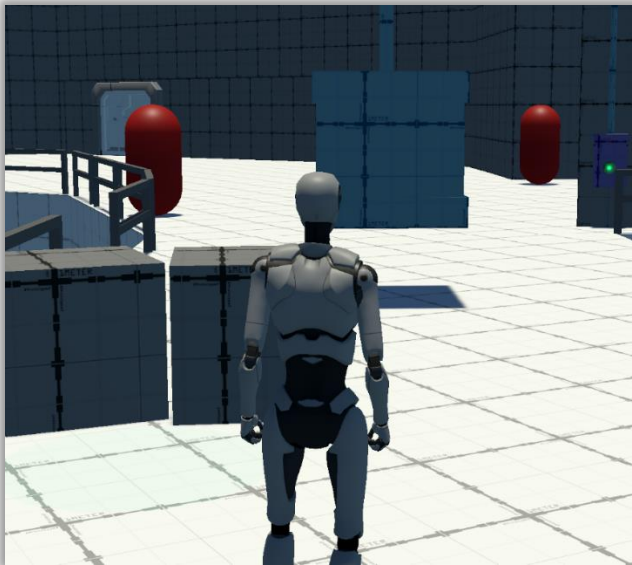


Figure 40: If the sample box moves in front of player, they cannot notice it

When the player approaches the button, I simulated Nix's action of pushing the button.

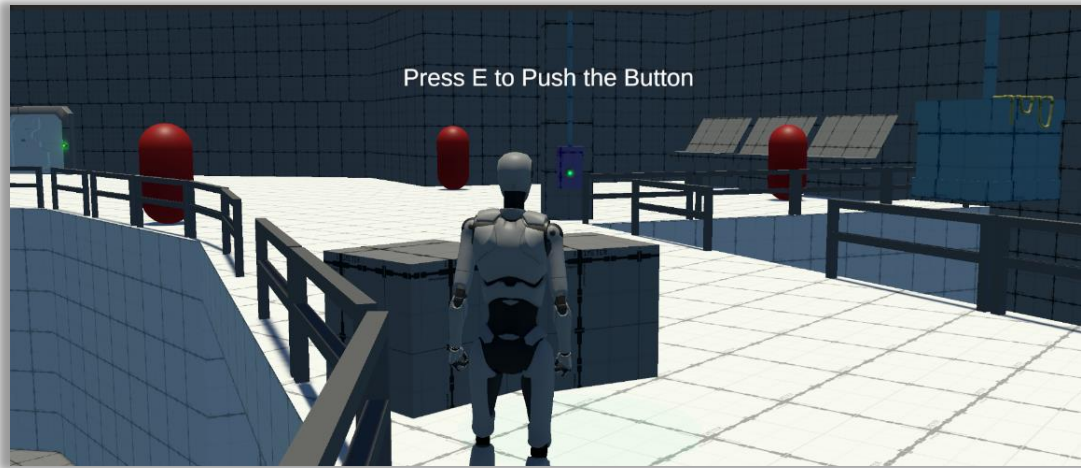


Figure 41: Recreating a similar trailer experience

Conclusion

In conclusion, this document presents a detailed analysis of level design in the Star Wars Outlaws trailer, proposes several enhancements to improve player experience and engagement and shows a personal playable version of it.

These modifications not only make gameplay mechanics more intuitive but also reward player exploration, thereby enriching the overall gaming experience.

As a Level Designer, my goal is to create immersive and interactive environments that offer players a balance of challenge and reward. This analysis and the proposed changes reflect this commitment to creating engaging and dynamic game worlds.