

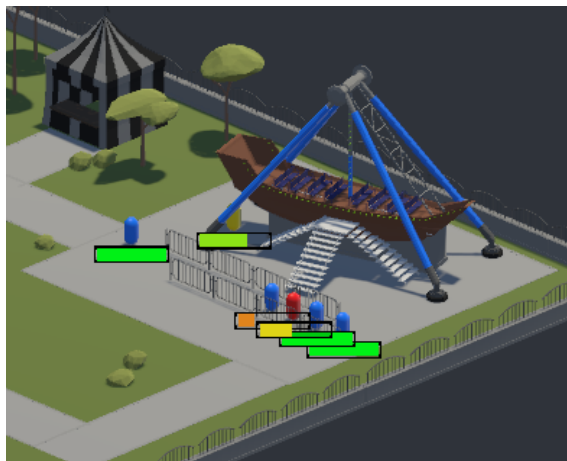
Milestone 3: Alpha Release

What have we done for this milestone?

1. Crowd Simulation

We have implemented visitor behavior profiles that vary based on the current situation, including normal behavior, waiting in a queue, being fully satisfied, or panicking.

We also changed how visitors are admitted into rides. The queue system for rides is designed to take in a specific number of people in batches to the rides, with the quantity determined by the ride's statistics. While creating more realistic simulation of a theme park, this also allows players to manipulate which visitors are permitted to enter the ride while they are waiting in the queue. By matching ride types with visitor types, the player can minimize the risk of problems and maximize visitor satisfaction in the game.



While visitors typically follow designated paths under normal circumstances, they may experience panic in specific situations. During panic states, their behavior becomes unpredictable, characterized by increased speed and random target selection. To mitigate the loss of visitor satisfaction, players have the ability to interact with panicked visitors, calming them down and restoring a sense of order.

The visuals and animations for ride events are currently a work in progress and will be refined before playtesting. The objective is to ensure that they are clearer and more intuitive for players to understand.

Visitors have two possible outcomes when it comes to leaving the park: they either exit when they are fully satisfied or when they are fully dissatisfied. The number of visitors who had an either enjoyable or unpleasant experience in the park, is tracked and used as a player score. This score serves as a reflection of the player's ability to create a satisfying and enjoyable park environment, motivating players to strive for high visitor satisfaction levels throughout the game.

2. Level Design & Assets

We have used the amusement park assets in Unity Asset Store for level design [1]. We try to keep the level design clean and not complicated since later on in the game there will be many visitors that make the game look crowded anyway. For this level we include 3 rides and 3 non-ride constructions, roads that visitors can walk around, waiting rows and an entrance.



4. Sound Effects & Music

We have enhanced the gaming experience by incorporating carefully crafted background music using professional software such as Garageband and Logic Pro. Currently, we have implemented one captivating background track, but we are actively working on expanding the collection. Additionally, we are developing a sound engine to give you more control over the placement and synchronization of sound effects, further immersing you in the game's world.

5. Satisfaction Bar

In the last milestone, we have implemented a basic satisfaction bar; however, each satisfaction bar was created under a new canvas. Considering the fact that we will have an abundance of visitors, that would be very costly and inefficient. This milestone we changed the implementation and now we have one canvas for all satisfaction bars that we have in the scene.

When the visitors wait for too long their satisfaction level drops proportional to the waiting time. Eventually when their satisfaction level drops to 0, they leave the park.

6. Animation for Visitors and Rides

We had issues on the animation process, thus it was postponed to the next step.

Challenges that we faced during this milestone:

Time

For this milestone we have accomplished more goals than the previous milestone. One of the challenges that we came across was the limited time that we have. If we had more time we could spend it on the design tasks. Our priority was functionality for this milestone. We will do more for the design and polishing in the next milestone.

[1]<https://assetstore.unity.com/packages/3d/environments/stylized-amusement-park-roller-coaster-197863>