ZODIAC RACERS

Design Document

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Synopsis

Animals all over the land have gathered in the Festival Valley village square to watch or to compete in the Great Race. The first animal to cross the finish line after three laps around the Valley will be celebrated all year long. Animals of all sizes, strengths, and speeds have come to race and compete for this coveted first place prize.

Setting inspired by concept artwork from *Kung Fu Panda* by DreamWorks Animation

Characters

In a fully developed version of the game, all 12 animals of the Chinese Zodiac - Rat, Ox, Tiger, Rabbit, Dragon, Snake, Horse, Sheep, Monkey, Rooster, Dog, and Pig - would be playable as racer characters. Given our timeline, we have chosen three different characters: the Rat, Ox, and Tiger. The Rat has the smallest body size and vehicle, medium speed, and the fastest acceleration. Being the lightest, she is easily bumped off course by road obstacles or by other characters. The Ox is the largest and heaviest, and has the slowest top speed and acceleration. However, running into obstacles or other racers will not cause him to decelerate. The Tiger is of medium-build and medium acceleration, but has the highest top speed. Collisions will still slow her down considerably.
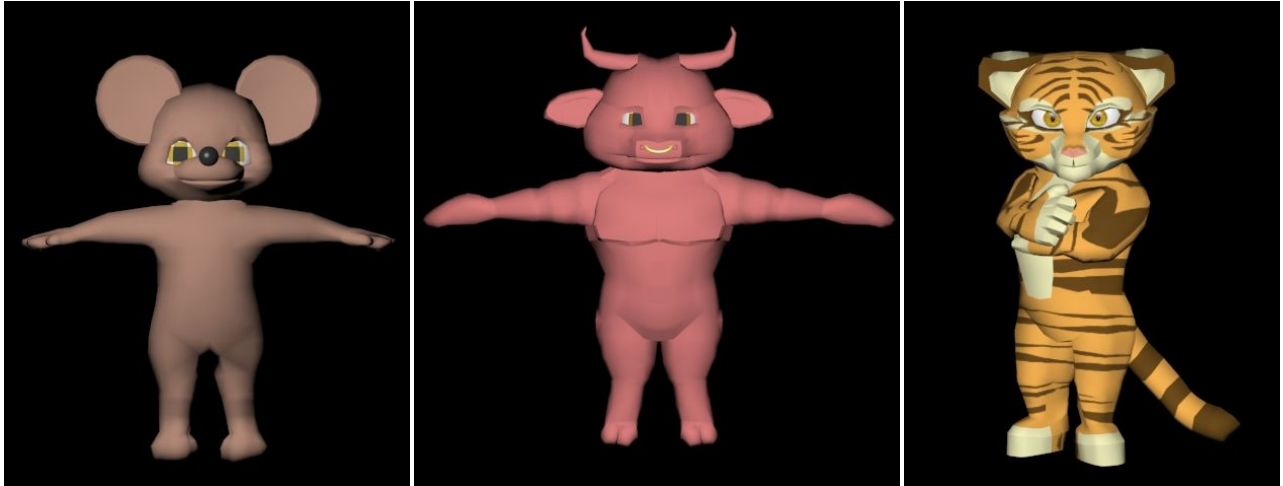
From left to right: Prototype models for the Rat and Ox, and the finished model for the Tiger

Items

Several powerups will be available and useful to change the race standings when obtained from item boxes. These include a speed boost, a speed decrease, a "shooting" power-up (in the form of cheese for the Rat), which will temporarily slow any other players that are shot, and a firecracker which can be dropped by a player in the lead to explode on collision with players in the rear, or can be thrown forward by a player in the rear to target players in the front. The result if hit is that the target comes to a complete stop, and must reaccelerate to top speed. The firecracker may be dodged by swerving around it and its explosion radius.


Firecracker Item

Gameplay

Each racer must navigate around the map to come in first place after three laps, either by successfully maneuvering through the track and avoiding obstacles, or by targeting other players and slowing them down, or both. Obstacles will include crates and market stands in the village marketplace.
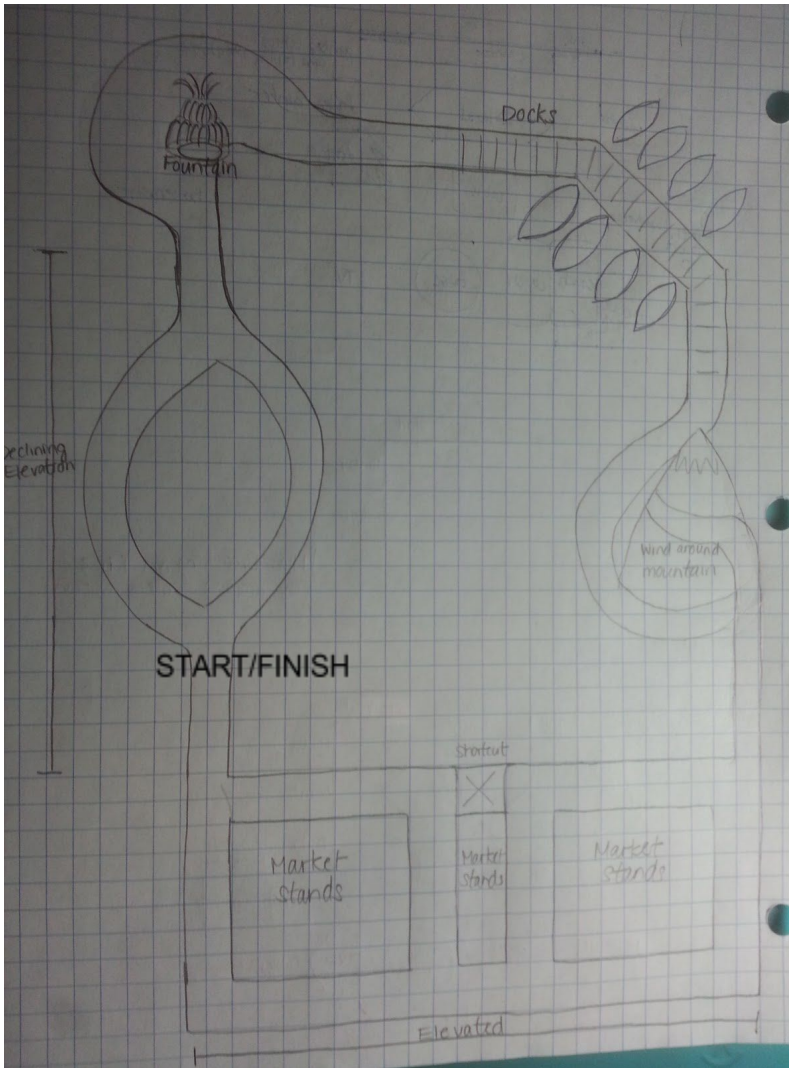

Gameplay with Tiger and Rat in racecar prototype, along with firecracker and cheese powerup
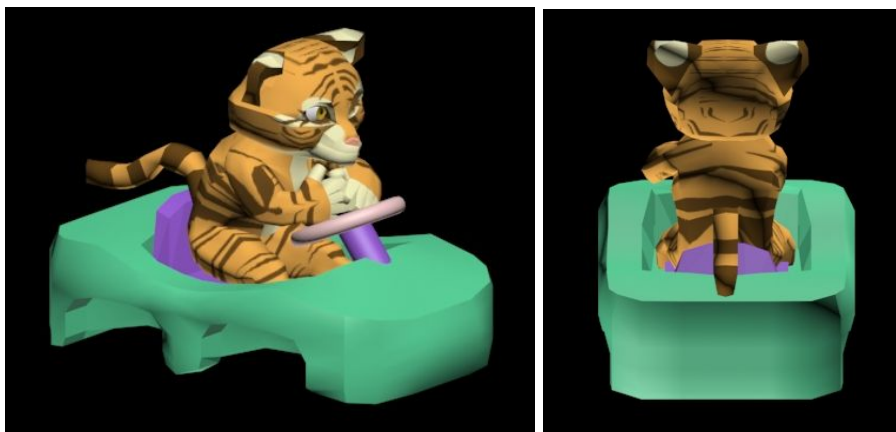
Front-side view and behind view of finished Tiger model in nearly-complete racecar

Level Design

The racetrack will consist of a special gate to mark the start/finish line, and head downhill towards a fork in the track that curves and converges into a single road leading to a fountain around which the player circles around. The racers then proceed across the docks and uphill to wind around the Mountain.

Finally, the player will have to navigate through the elevated market square. Here the crates and stands will feature prominently as obstacles. Note that there is a shortcut, but it will not always be accessible to the player.

Gate to serve as start/finish line

Production Details

Custom Assets

The following custom content will be created for this production:

- Original music composed for:
    - Main race theme
    - Title/character selection screen theme
- Custom 3-D models for:
    - Characters
    - Racecar
    - Buildings and market stands
    - Powerup items

Challenges

The following challenges are anticipated during development:

- Realistic physics - the car flips and spins when going uphill or downhill too quickly and the collisions between racers and with obstacles will be difficult to fine-tune.
- Everything but the scripts will be custom-made - production of this content alone will take as much time as its implementation - playtesting may be cut short.
- Manipulation of visual effects to produce item explosions

Contingencies

Due to time constraints, the opening cutscene and some custom 3-D models in the racetrack environment may be left out of the final release. In addition, the area of the track with the docks and mountain pass may remain railed for the final release. This is to ensure the player does not fall off the track at any point.

Schedule

Milestones

1. ~~January 23 - Project Charter~~
2. ~~February 6 - Game Prototype~~
3. ~~March 9 - Game Design Document~~
4. April 8 - Launch / Pitch
5. April 10 - Final Release

Timeline

1. ~~February 27 - Sensory Underload Design Challenge~~
2. March 11 - Be a Twit Design Challengee
3. March 13 - Game Deconstruction - Mario Kart 8
4. March 23 - LOL Commander Design Challenge