G4RCE Development: Design Documentation

Feature 6: Multiple Track Selection

Track Creator: Cassandra Companion
Track Tester: Stephanie Petronella

Testing Part 1: The tracks themselves

Expectations: Each new track should have a collision layer (curbs or some other solid obstacle on the track). The race car should not be able to go through anything on this layer. Each new track can also have other layers, such as a mud layer, but these layers will have no effect on a race until future implementation. Additionally, there is a very basic expectation that the map should render without any problems and that a race car should be able to move freely around it (where there are no obstacles).

Type of testing: Manual. The 8-shaped track was tested by moving a car, using WASD input, against all the curbs on the track. The same type of testing is planned for the beach, lava, and snow tracks.

Results:
1. The lava and snow tracks could not render in because of a problem with file handling. We were able to fix this later by relocating files in the Tiled map editor.

2. The car did not start at the starting line on the track. On the 8 track, it started somewhere else on the road, and on the other tracks, it started somewhere completely off the road. We were not actually looking explicitly to test this, but we realized it is an important aspect to consider with each new track added to the game. A design decision will have to be made to address this, and future tests will have to test for this.

3. The car could overlap the curb (up to halfway through it) throughout the whole track. To fix this problem, the collision lines had to be readjusted to be closer to the edge of the curbs.

4. The race car could go through and past the curb at two locations. Both locations were locations, in the original Tiled map file, where collision lines started and ended. To fix this problem, we added additional collision lines at the problematic points.

3. Otherwise, the track worked as expected.

Testing Part 2: The menu

Expectations: A track should already be selected by default. Pressing play with this default should bring the user into a race with that track. Selecting a different track in the track selection menu (which should deselect the previously selected track) and then going back to the main menu and pressing play should bring the user into a race with this newly selected track. Basically, whatever track was last selected should be the one the user sees upon pressing play. The track that is selected should also be clearly indicated in some way in the track selection screen.

Type of testing planned: Either manually or in an automated way, different combinations and orders of clicks and selections will be tested to make sure the user will always enter the track that was last selected upon pressing play.

Actual testing has not been done yet because the code is not yet at this stage.

Feature 4: Mud Obstacle

Creator: Stephanie Petronella
Tester: Garrett Sullivan

Testing Part 1: Testing how the mud obstacles affect the car
Expectations: The mud obstacle should slow the car's speed when driven over. It should not stop the car like a wall would. Once the car has passed the obstacle it should no longer have any effect on the car's speed.

Type of testing: Manual. First, the map with the mud obstacle was loaded and the car was moved around in order to test if the mud would block the car's path or if it would allow the car to drive over it.

Results: Every mud obstacle collided with the car upon contact, not allowing the car to pass over them. There was also no indication that the car had slowed down, it just collided with mud. Essentially acting the same as the wall obstacles.