Car-ball Final Report

The end result of Car-ball is a single-player game where the player drives a green car that can drive a soccer ball towards either goal. There are 8 cars total on each team. The player drives a green car, but, in terms of the other cars, they are programmed to drive towards the ball. There are 8 blue cars and 7 white cars, on the same side as the green car. When the player drives the car into one of the goals, a message is displayed on the console saying which goal the ball was driven into.

**Controls for the game:**

W: forward

S: backward

A: turn left

D: turn right

Right click: car flips forward

The car flipping forward is similar to a jump. It allows the car to hit the car in the air. Sometimes the car can get flipped upside down, but, in that case, the user must use the controls to right the orientation of the car.

**Production log:**

Around 9/15/2020

* Built stadium
* Created car models
* Wrote program to drive player-controlled car around

9/27/2020

* Instantiate works on car 1 (white car)
* Need to add AI controls to make the cars follow the ball and also the rand coordinates so that the cars don’t all land in the same place LOL

9/28/2020

* I have finished instantiating all the cars.
* I have also made it so that the cars generate in different spots on the field but still in the area that their “team” is supposed to be in.
* I have figured out how to make all the cars on one team go one way at the same time.

9/29/2020

* I have written the code that makes the cars follow the ball. At first, they went really slowly, but after adjusting one of the parameters in the command, they drive reasonably quickly. Currently, they stick to the ball and follow it around, even out of the arena.
* I am trying to figure out how to reload the scene without resetting the point system as well. Currently, I am trying to make it so that, when the ball goes in the goal, each of the different objects go back to their original position without the scene reloading.
* I didn’t manage to get the game to keep track of score, so, now, when you score, it just says which goal you scored in.
* I also changed the code that determines when you score and which goal you score in so that the if statement is simpler.
* Additionally, I made the walls of the arena taller so that the ball can’t get out except through the goals. This is what allows me to make the if statement simpler.