Term Project Final Report

Initial project ideas were to make a dog in webgl using Sublime, HTML and JavaScript. The objective of the project was to make the dog walk to a certain point, sit, wag its tail, and grab a bone on different key clicks. This is better any of the other projects that we made in class because it is a dog and has different features then a human does. The plan was to make it have all of the same functionality of the robot/human (except for the jump).

For the progress on the project, I was able to make a dog in webgl. I found it more difficult to code a dog to walk because the dog has four individual legs and it’s hard to make them move at different times. I found it easy to make the dogs tail wag and for the dog to sit because it was just like some of the functions I used with the robot. I separated the functionality of the dog into multiple different functions to make it easier to read.

For implementation the dog was made up of two cubes for the body and head and five cones for the legs and tail. with the waging of the tail, I used two different keys to simulate the dog wagging its tail ‘u’ for up and ‘d’ for down and translated the tail (which was a cone) up and down. For the sit I would rotate the dogs body cube and the dogs back legs until it looked like the dog was sitting down. For the walk I translated the dog over a couple frames but I had trouble getting to move the dogs legs all at different times, if I had more time I would go back and give more time animating the dog.



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For contributions to the project, I was the only one who was making the project, so it is one hundred percent my doing. I made the dog walk, sit, and wag its tail on its own. I also made the dogs body parts change colors when the page is reloaded. I also made the key functionality so when a key is pressed it calls the specific function to translate or change the dogs position.

Some lessons learned were that its hard to animate the animals walking because all the objects have to rotate at different times. Another lesson learned is to keep different functionality in separate functions, so we don’t have misuses of variables and functionality. If a variable is only used inside of a function, it should be declared inside that function as to not be changes by outside forces and one the main program leaves that function the memory can be reallocated.

Future updates I would like to bring to the table, I would still like to implement the dog picking up a dog bone, but I think that would probably involve making more shapes and more animation than I really know how to do at the moment. I would also like to make bigger dogs and different animals such as cats. I would also like to better animate the walking animation of the dog so instead of the dog just translating I would rotate the dogs’ legs at different times to make it look more realistic.