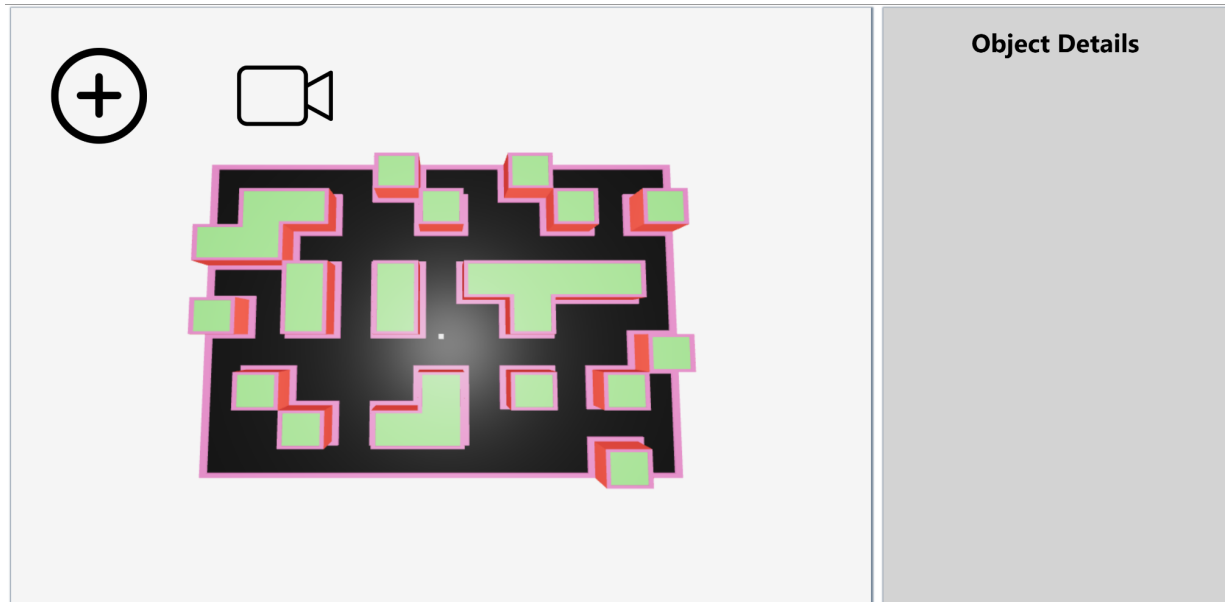# User Guide to the Tesla Challenge Site

By: Fawaz Mujtaba

The following website is a fun and interactive experience allowing users to create object configurations within a MongoDB, spool up simulated objects streaming data of those object configurations, and bounce around in a 3D map environment.

The home menu greets the user with a map and object details panel. Clicking the camera button will cycle the camera through two distances. Clicking the plus button will open up the Object Configuration Menu
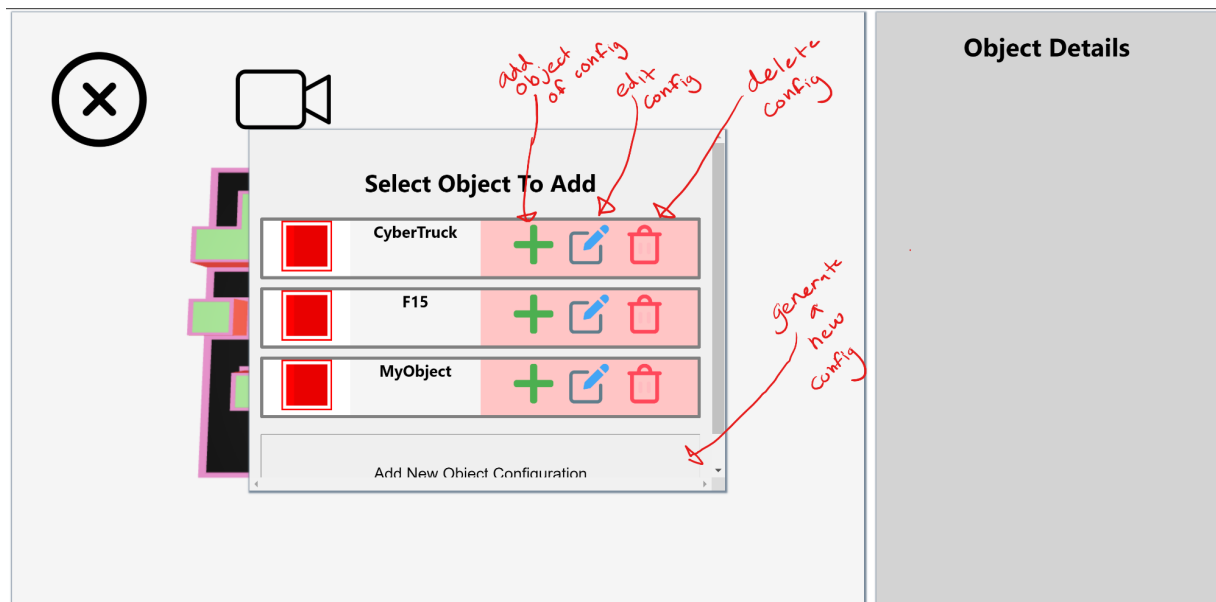
The Object Configuration Menu allows users to generate some pre-built config objects or generate some new configurations of their own. Note that only the prebuilt objects currently support movement. Just a design choice to allow the user to make modifying the location of their own objects a little easier


Adding a new configuration allows users to dynamically add as many fields as they desire with the only requirements being that the location and title be present in the configuration.

Once the configuration is added, the user may press the "plus" button to add the configuration to the simulator which will then stream data through a websocket to the site. Click the "X" button to close the configuration panel.
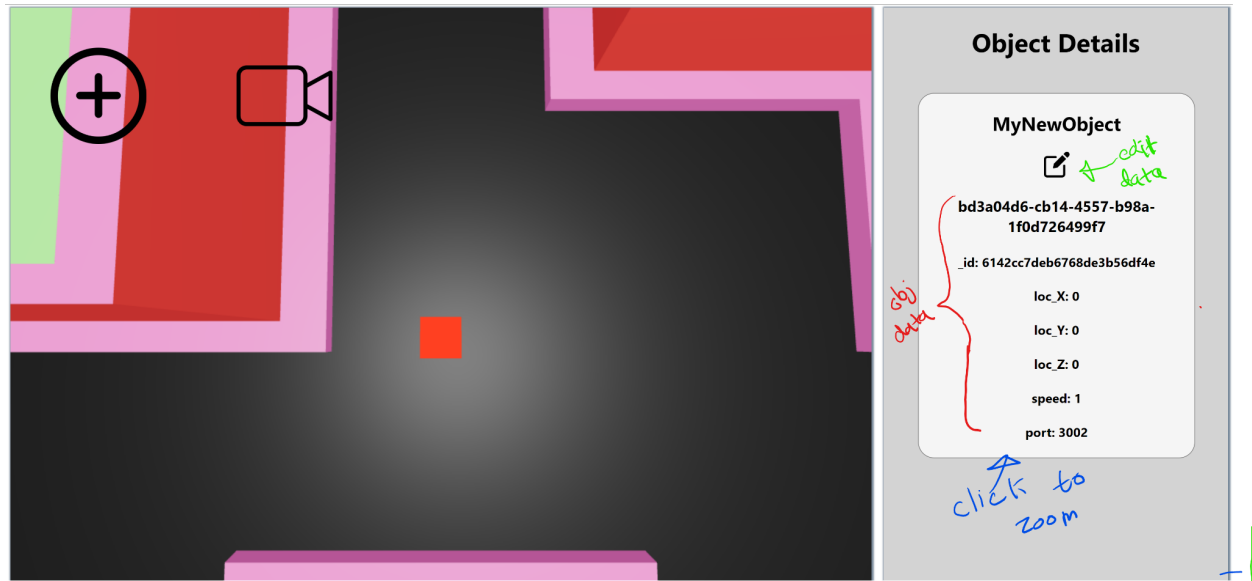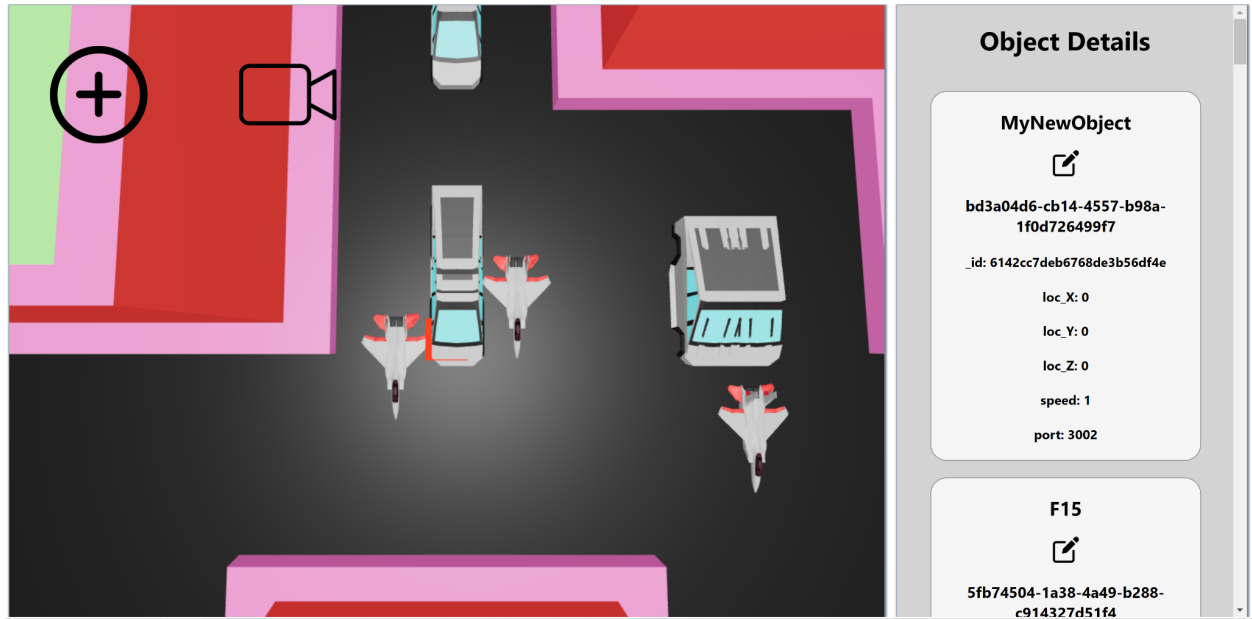
You can now see your newly added item in the world. Clicking on the object in the "Object Details" panel also allows the user to zoom in on the object on the map. You can also edit the data which will be sent back to the simulator to update it. This includes updating the location or the speed of the object. (Speed is relevant to the CyberTruck!)
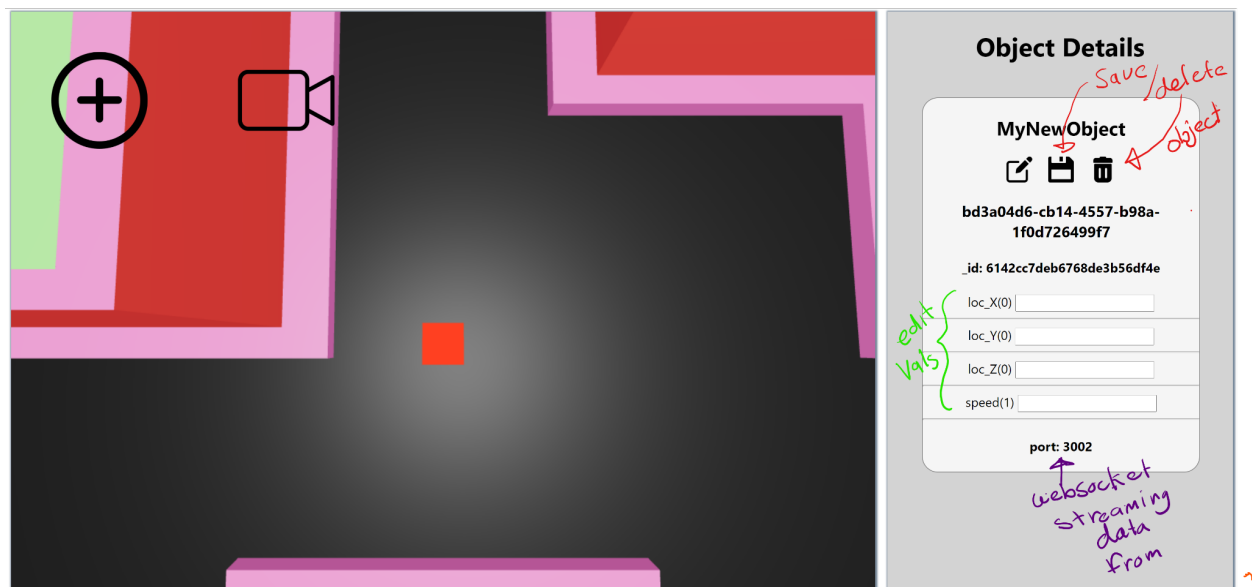
Note that the port number the object is connected to is also shown. The user also has the ability to delete the object by clicking on the trash can. This does NOT delete the configuration however.

Object Details

MyNewObject

bd3a04d6-cb14-4557-b98a-
1f0d726499f7

_id: 6142cc7deb6768de3b56df4e

loc_X: 0

loc_Y: 0

loc_Z: 0

speed: 1

port: 3002

F15

5fb74504-1a38-4a49-b288-
c914327d51f4

Once you add many CyberTrucks or F-15s you can see a really fun scene begin to develop!
Thank you for visiting/using this site