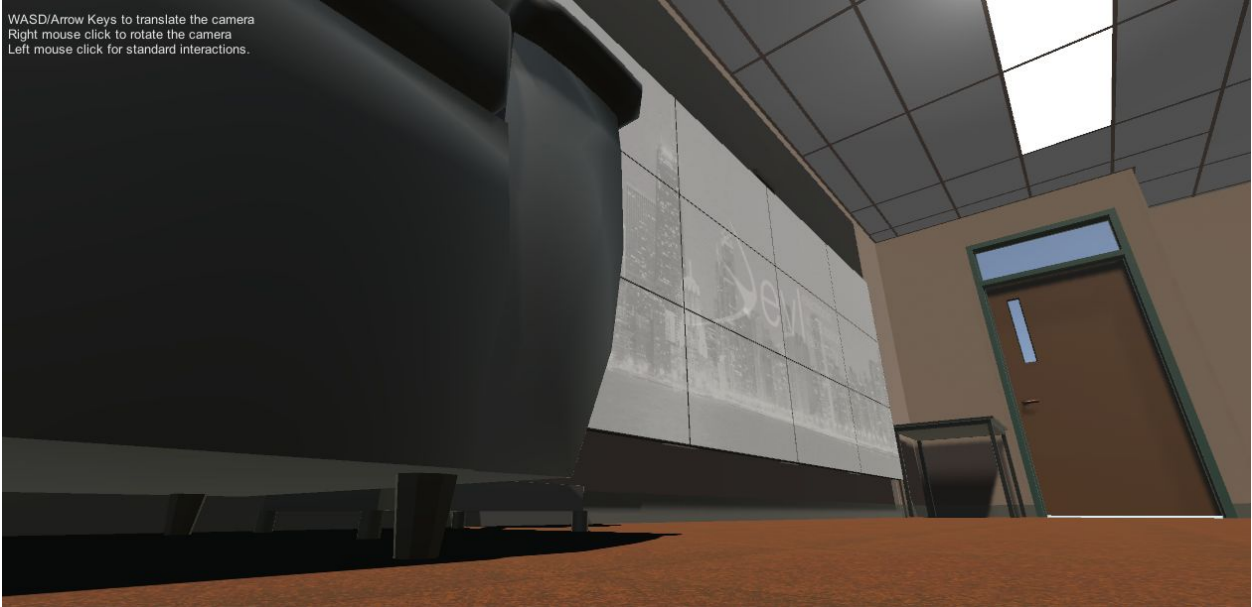
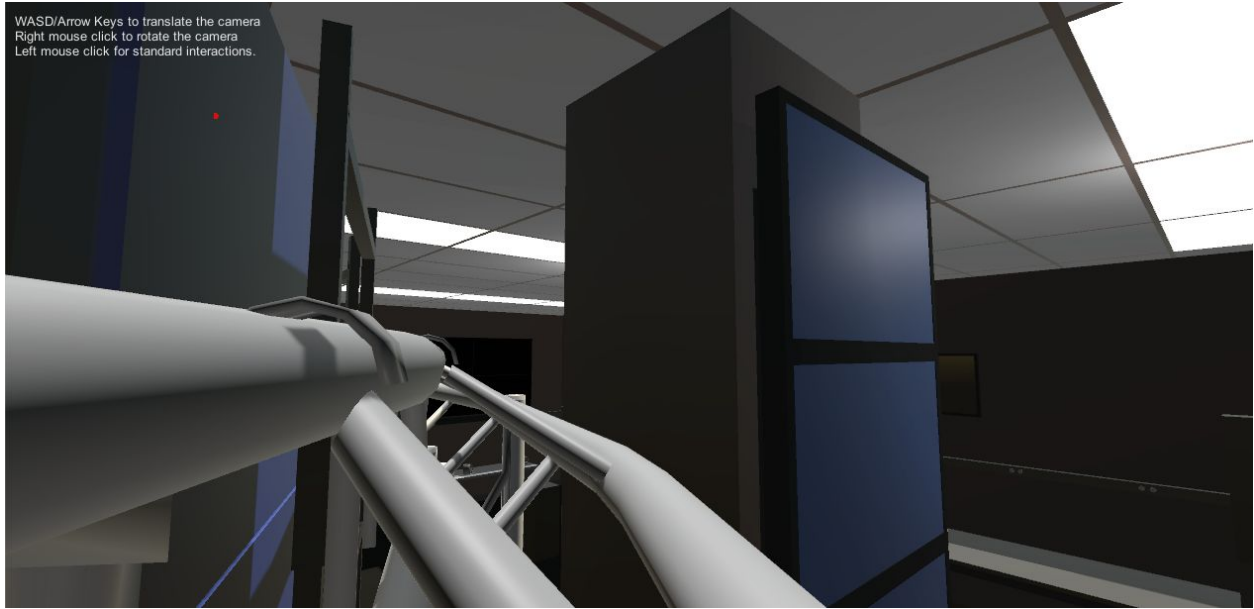




(scale: 6x)



(scale: 6x)



(scale: 6x)

Scaling the virtual world around you comes with both advantages and disadvantages, but more interestingly, gives you a new perspective on the world, both virtual and physical, creating a unique experience.

One big advantage to scaling up the virtual scene is the ability to make out insanely clear details. This can be especially useful in medical or complex scientific applications or visualizations. You can also explore what would be small spaces with ease; Small spaces become normal sized rooms.

One big disadvantage to scaling up the virtual scene is navigation, although that could be fixed with the right navigation controls. When using the keyboard controls, it took quite a long time to “walk” across the room compared to its 1 to 1 scale counterpart. It was very noticeable, and quickly became boring. However, by using the teleportation controls (like with the HTC VIVE), the experience became instantly better. There was little difference navigating the scaled room and the original room using teleportation controls. Another disadvantage is interaction with the virtual world, depending on what you want to do. If you walk across the table and pick up a mug, your view of the world is instantly blocked. This is a familiar behavior with other objects as well. It's only useful when the object originally was really tiny and in VR is a

manageable size for interaction. Depending on the application, another disadvantage might be low resolution textures and details when scaling.

The perspective scaled worlds give you is quite interesting. They make you think about different behaviors you want to execute around your environment. When I was walking through the normal sized room, I wanted to do normal things... like sit at the desk, or pick up the mugs. When I was navigating through the scaled world, I wanted to run on tables, jump from one table to the next, climb and hide in mugs, and scale down the CAVE2. Those were just a few examples, as I definitely wanted to explore other parts of the EVL in different ways. It would be enjoyable to turn the scaled EVL into an adventure game.