VR Hand Interaction Multiplayer Room

Final Presentation

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Introduction:

In this project we built a Virtual Reality application that enables two users to enter the same VR shared space and a mutual physical room and then together observe an object, move it around and scale it.

In the application the users can grab the objects and move them in all axes, spin and tilt the objects in every direction, enlarge and diminish the objects, all that while the other user will see in real time the object's motion and also the first user's hands representations as two spheres.

The application is built as a VR game in Unity and runs on (Oculus) Meta Quest 2 VR headset, the application is not cross platform since it requires the Meta Quest 2 hand tracking capabilities, more on that later.
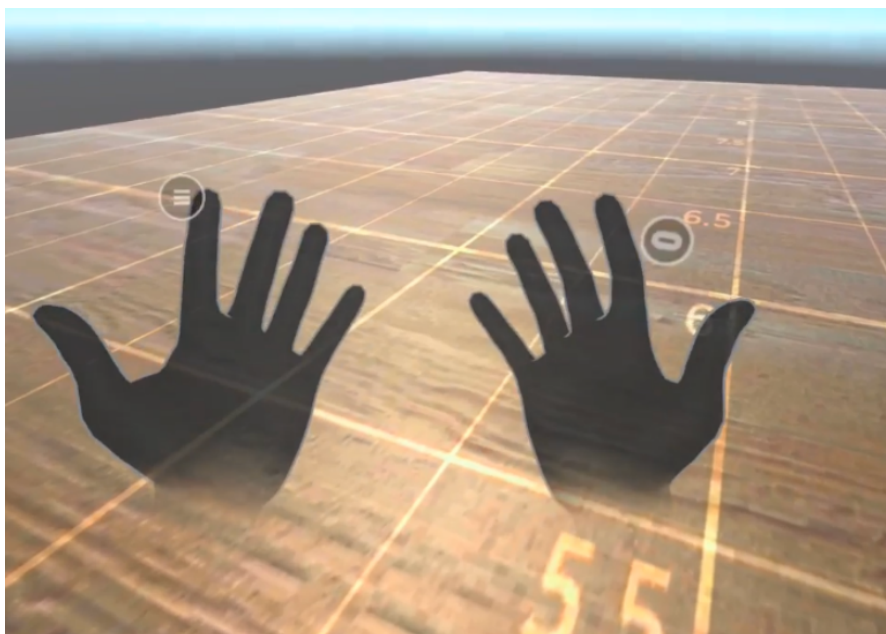
A good use for this type of application can be a design team working on a certain product, entering the application and being able to see the design in 3D, and discuss it as if it was in front of them in real life.
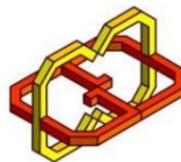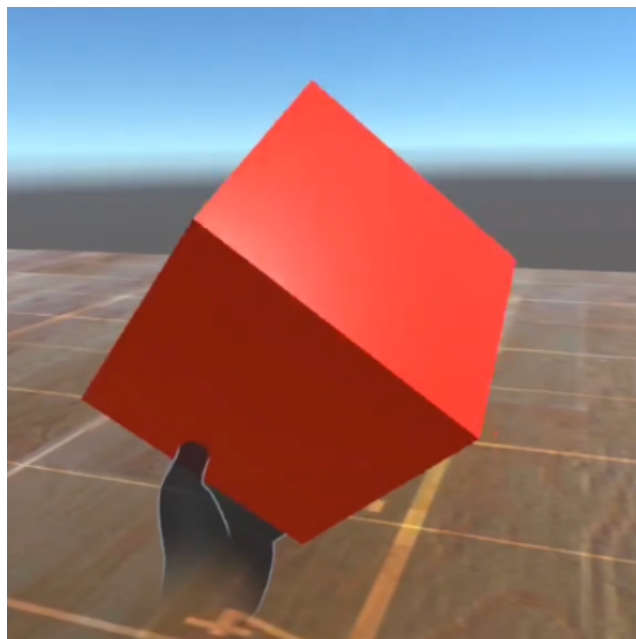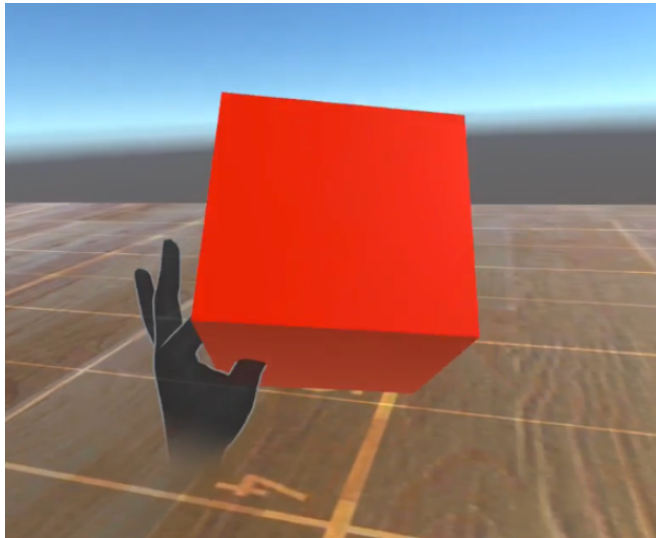
Application Description:

User hands are seen on the app in their exact positioning when in the headset's field of view
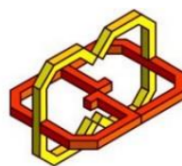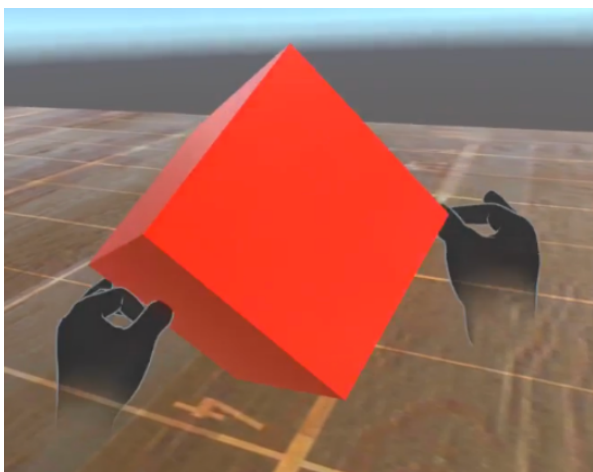
Other user hands are seen as spheres, a sphere for each hand.

The user is able to perform *grab* interaction with a pinch or closing a fist, enabling it to be moved to every direction and rotated on every axis.
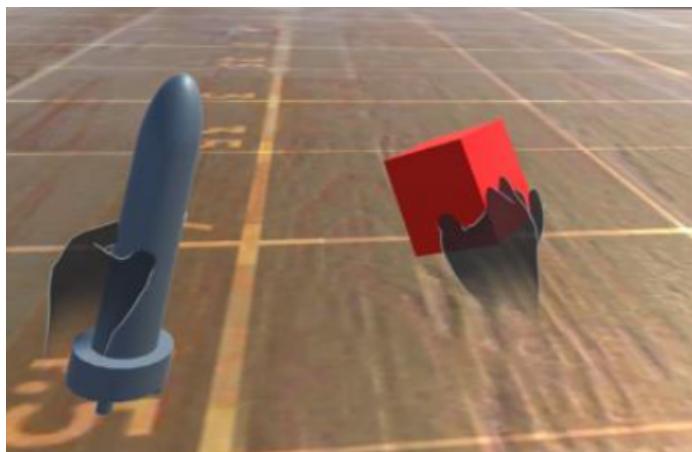
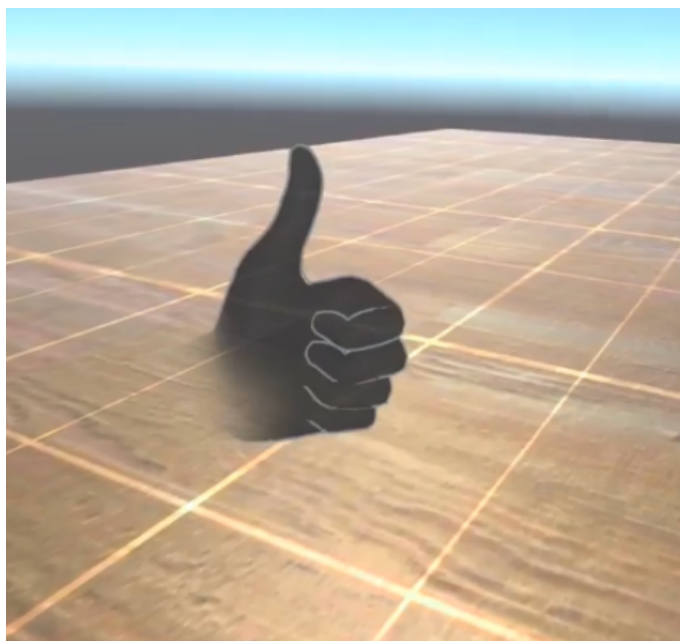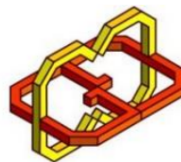The user is able to *scale* an object using both hands, with an intuitive two point grab and pull.

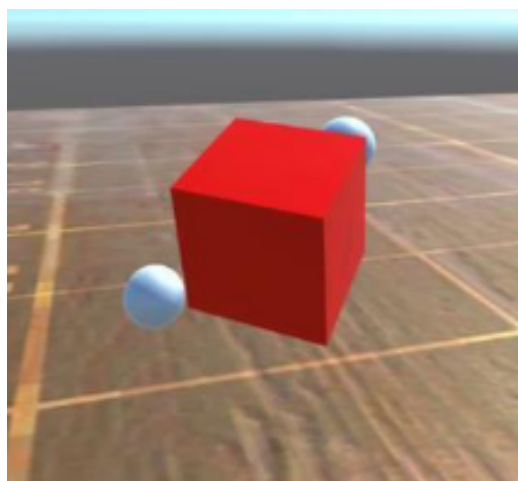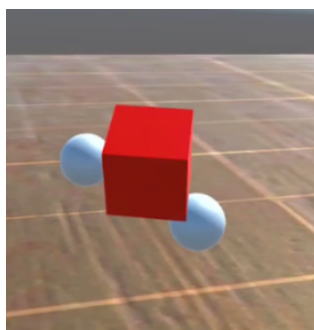The user is able to grab more than one object simultaneously.

Take ownership of the objects using "Thumbs ups" !

Other user hands are seen as spheres.

Thank You!