For HW2, we plan to create a VR environment that operates as an escape room. This play area is limited to one room. The player is directed and encouraged to interact with the environment as it has multiple objects to interact with. These objects will be used to escape the room. These objects may not only be intractable with the player but also with each other.

We design the room to be sizable enough to allow for traversal through teleportation as well as space for object interaction. We plan the teleportation around a “drag and drop” action with the oculus controller. The player pushes or pulls the joystick of the controller in the desired direction then releases pressure as confirmation. The figure below illustrates this concept.

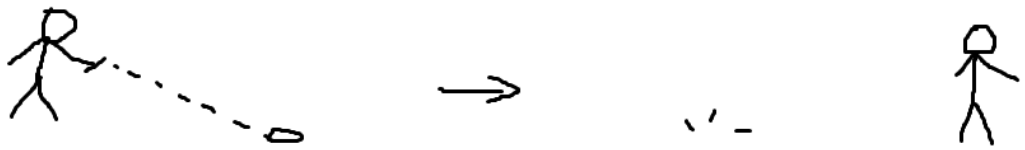

Figure 1: Teleportation for movement around the VR environment.

We do not plan to change the fundamentals of physics. Objects that should move on collision will while those that should not move, will not. Objects within the environment are subject to gravity. An example of this is with a painting on a wall. The object is interactable and is moveable. The following figures (see Figures 2A-2C) illustrate a player's interaction with a painting on a wall. They can use the controller to grab the painting off of the wall to look behind it. After being moved off the wall, and deselected, the painting falls to the ground. Some objects may return to their original position if it is important to a puzzle.

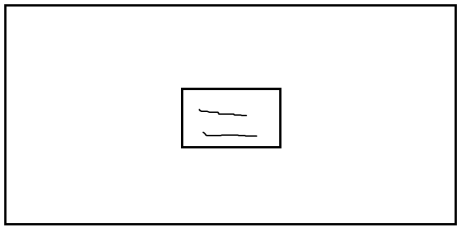

Figure 2A: Player can grab the painting off of the wall to look behind it.

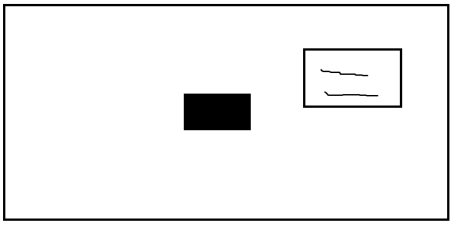

Figure 2B: Without player interaction, the object will fall to the ground.

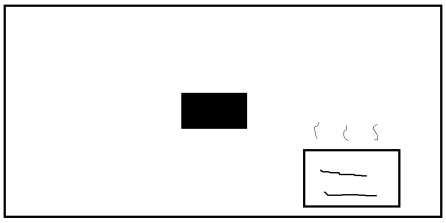

Figure 2C: Some objects may return to their original position.

These concepts are significant to the design of the VR environment for HW2 but are subject to change.