**HsKa**

**Holodeck**

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1. **Main Menu Scripts**

**NOTES:**

* These scripts are all related to the Main Menu. Scripts such as the “Up” and “Down” arrows, or the buttons with the names of the faces, have not been included as they are self explanatory in behavior and functionality.
* The general behavior and intention of behavior will be explained. The general functionality can be seen in the script itself. We have included comments where we deemed them necessary.

**FaceButton.cs**

**USE:** Used for accessing a list of faces which are available to load. It will also turn off the removal of faces (DeleteState) if it was turned on.

**DeleteButton.cs**

**USE:** Used in removing placed faces.

**BEHAVIOR:** When ON, clicking any face placed in the surrounding environment will delete it (move it to a pool of inactive instances) instead of picking it up for being repositioned.

It also stops the face from updating while it is being focused, meaning that it will halt Rotation and WatchMe while we gaze at it.

**RotateButton.cs**

**USE:** Used for rotating every face that has been placed.

**BEHAVIOR:** This rotation will override any individual WatchMe or rotation activated on the faces, including the speed of their rotation. The speed for this Global Rotation is fixed, and is equivalent to the value of “Normal” displayed in the popup menus.

If Global Rotation is activated while Global WatchMe was activated, it will also turn off Global WatchMe.

**WatchButton.cs**

**USE:** Used for forcing every face that has been place to face (pun intended) the user.

**BEHAVIOR:** As with the Global Rotation, it will override any local WatchMe or Rotation of the faces. The speed at which the faces rotate towards the user is called “WatchMeSpeed”, and can be changed from the Inspector, inside Unity.

If Global WatchMe is activated while Global Rotation was activated, it will also turn off Global Rotation.

**ShowPopUpButton.cs**

**USE:** Allows the user to choose whether or not faces will produce popup menus when they are gazed at.

1. **Scripts in FacePrefab**

**NOTES:**

* These scripts are divided into two categories: scripts which handle the popup menu, and scripts linked to the “FacePrefab” itself. The former deals with “FaceCanvas” and its children, which constitute components of the popup menu. The latter deals with creation, movement and placement of the game objects spawned from the prefab. It also includes code for the actions which the faces can perform (rotation, watchMe etc.)

**FaceBehavior.cs**

**USE:** Contains all the operations the face can perform. It implements all the operations from the Popup Menu. It also resolves issues related to spawning and placing faces in the environment.

**NOTE: ALL instances of FaceBehavior are handled in the SimpleFaceManager Singleton. SimpleFaceManager.cs implements functions for Global Rotation and WatchMe, as well as for spawning faces and popup menus.**

**SetupFace.cs**

**USE:** Attributes the textures and meshes to the spawned face.

1. **Scripts in PopUpScripts**

**PopUpPanelManager.cs**

**USE:** Handles the popup menu once it has been activated from FaceBehavior. It deals with activation/deactivation and orientation.

**PopUpRotation.cs**

**USE:** Handles the local Rotation by calling the respective methods in FaceBehavior. Rotates at a user selected speed. The default speed is that of Global Rotation.

If local Rotation is activated when local WatchMe is also active, it will also turn off the local WatchMe.

**PopUpWatchMe.cs**

**USE:** Handles the local WatchMe by calling the respective functions in FaceBehavior. Speed off rotation towards user is the same as that of the Global WatchMe.

If local WatchMe is activated when local Rotation is also active, it will also turn off the local Rotation.

**PopUpSpeed.cs**

**USE:** Allows the user to cycle through three different speeds for local Rotation: “Slow”, “Normal” and “Fast”. By default, it is set to “Normal”.

**BEHAVIOR:** The “Normal” speed is the same as the Global Rotation speed.

“Slow” is 50% of “Normal”

“Fast” is 250% of “Normal”

1. **Other Scripts**

**SimpleFaceManager.cs**

**USE:** Used in handling the different faces that are spawned from the prefab. Global operations are triggered from here. Has stacks for simple and efficient storage of loaded faces. Assigns each face a “FaceID”.

**SampleFaceButton.cs**

**USE:** Used in creating the faces. Contains the algorithms for loading textures and meshes. It also creates multiple threads to better take advantage of the processor HoloLens uses.

**SimpleObjectPool.cs**

**USE:** “A very simple object pooling class.”