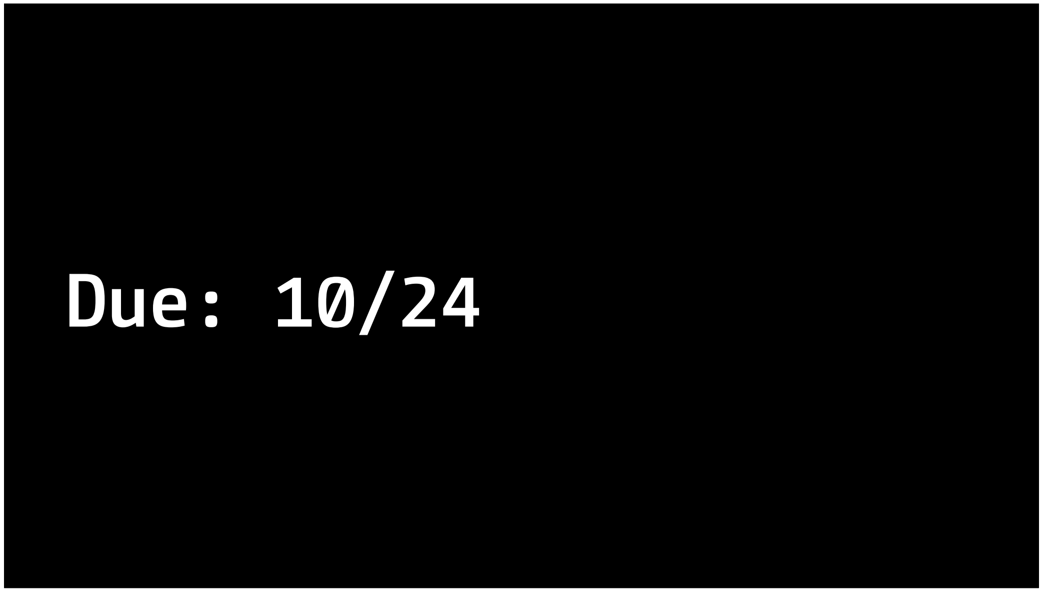
TECH 421 - Future of Digital Media

TECH 3706 - AR/VR in Architectural Environments

Thank you!



Due: 10/24

(Two weekends from now)

All work on logic/art of your programs is done. We will spend the day troubleshooting the build process.

10/26

In Class Showcase + Discussion

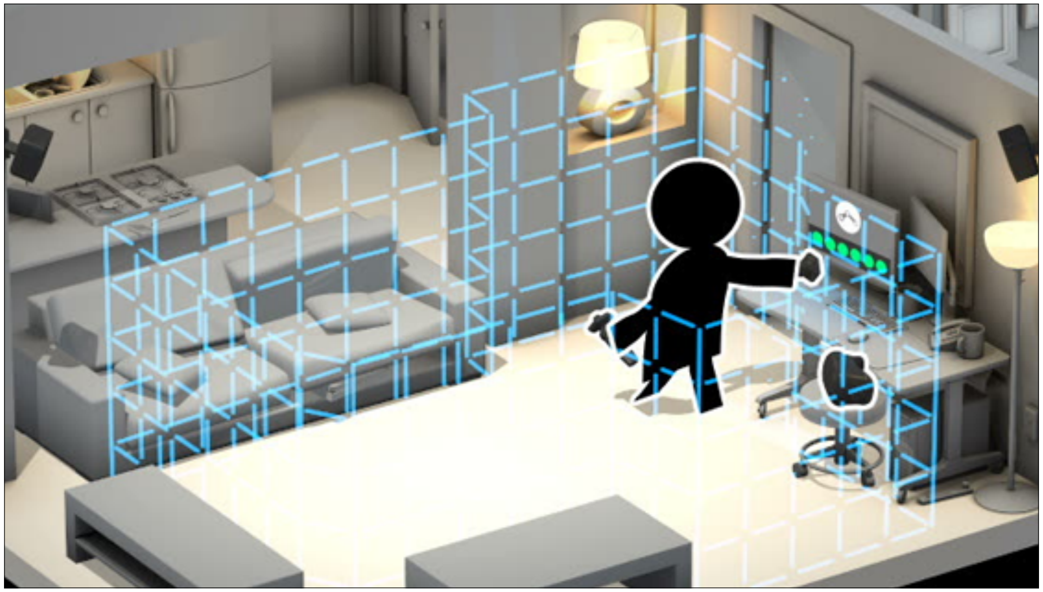
All Materials due 10/31:

Documentation

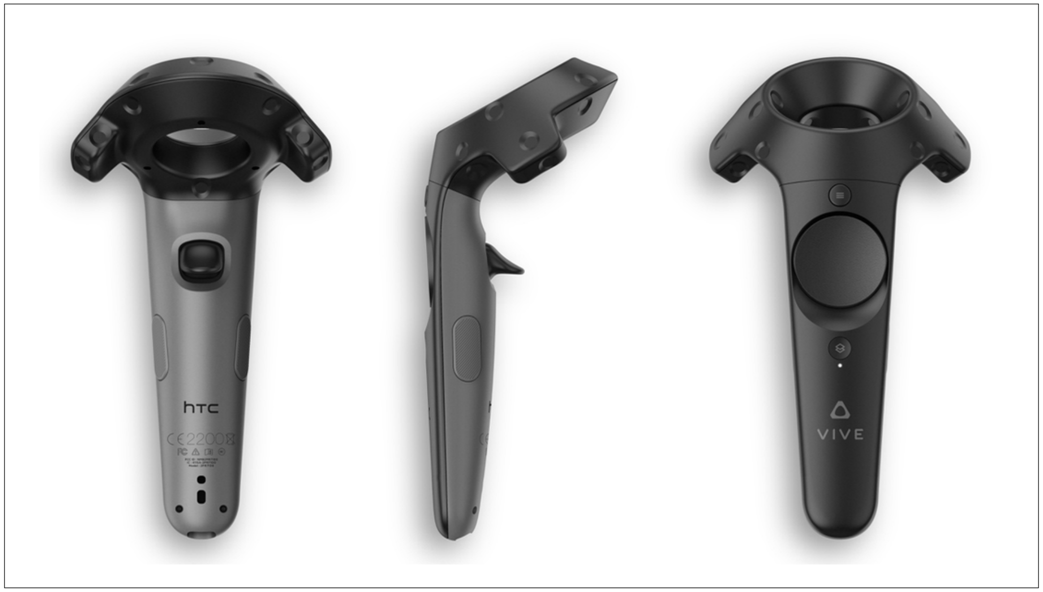
- Video of the program
- Planning documentation

Unity Project File

Finished (Compiled) Program



Vive uses “Chaperone System” that shows boundaries of available area if you get too close.

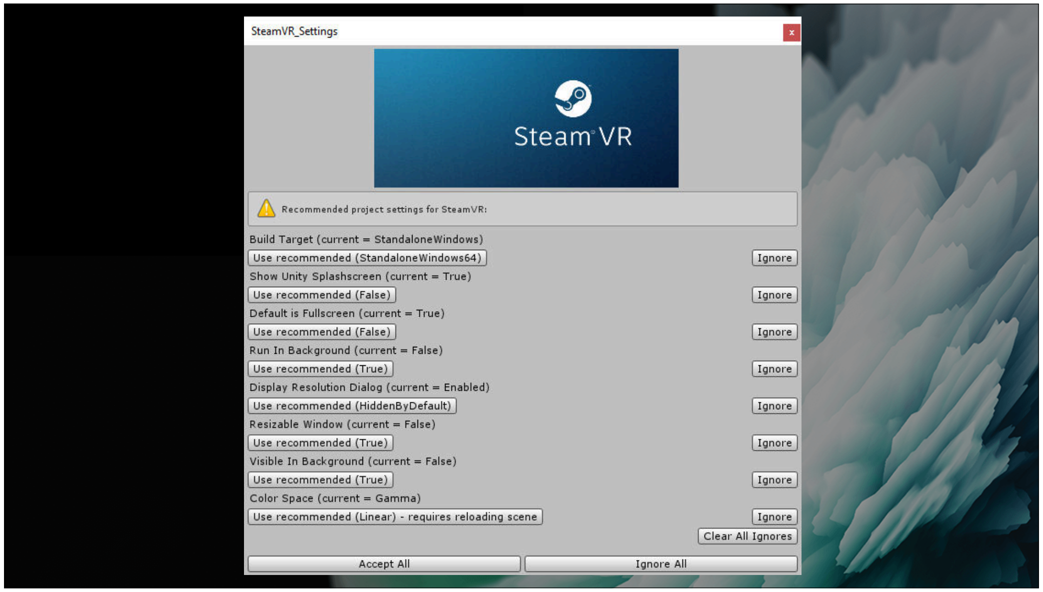


Hand presence and buttons:

- Hair Trigger
- Grip
- Touchpad (detects touch on X,Y Axis as well as press)
- Menu (above Touchpad)
- System button (below Touchpad) - similar to “bloom” gesture as it can’t be used in your app, just to pull up menu.

Importing SteamVR is even easier than HoloToolkit since you can get it from the Unity Asset Store.

Just search for SteamVR



Recommended project settings for SteamVR:

Build Target (current = StandaloneWindows)

Show Unity Splashscreen (current = True)

Default is Fullscreen (current = True)

Run In Background (current = False)

Display Resolution Dialog (current = Enabled)

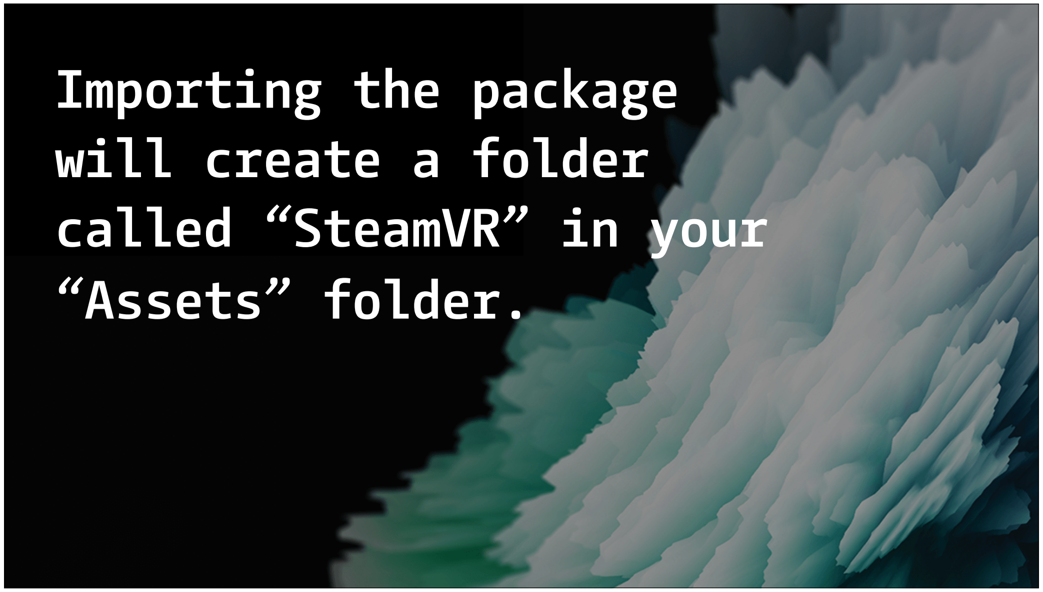
Resizable Window (current = False)

Visible In Background (current = False)

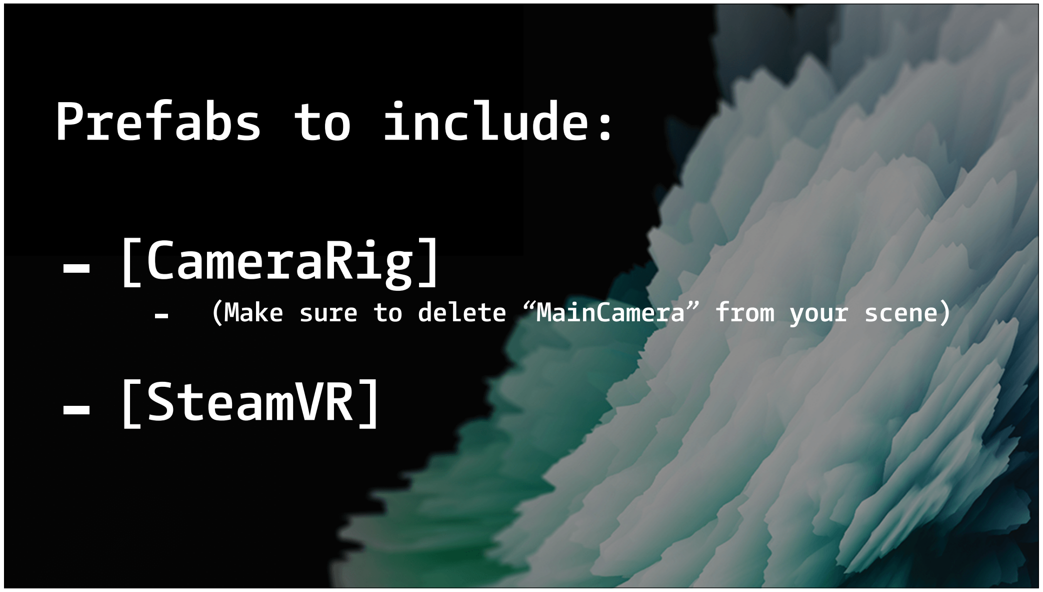
Color Space (current = Gamma)

When SteamVR loads, it will prompt you to update your project to these recommended settings.

Unless you have specific reasons not to, go ahead and hit “Accept All”



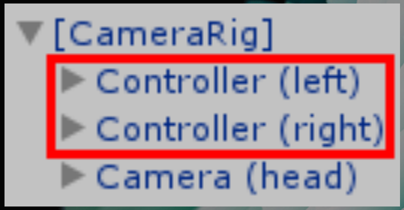
Importing the package will create a folder called “SteamVR” in your “Assets” folder.



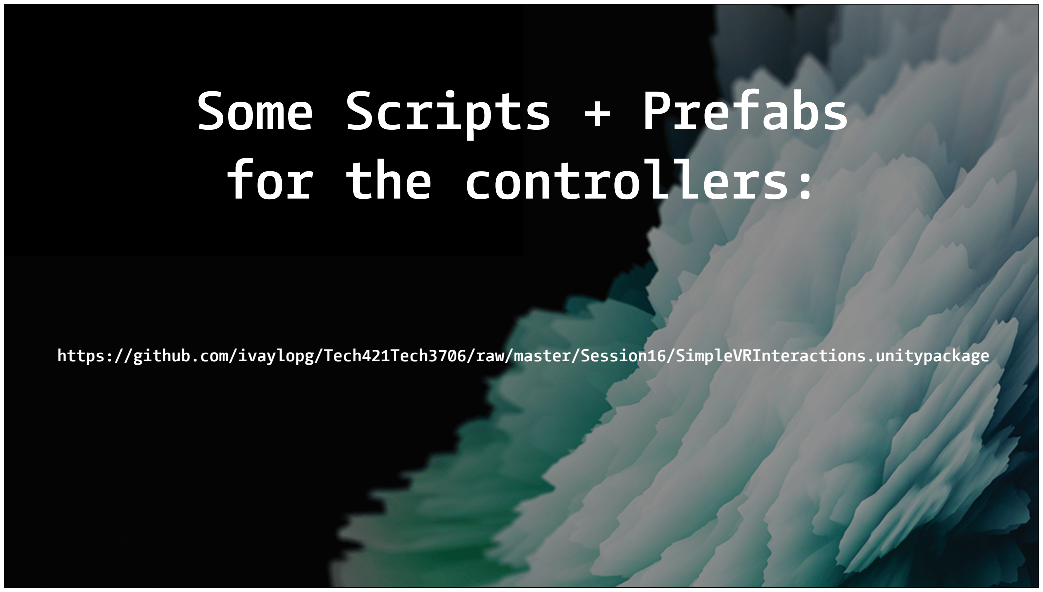
Prefabs to include:

- [CameraRig]
  - (Make sure to delete “MainCamera” from your scene)
- [SteamVR]

Nested under [Camera Rig] in your hierarchy, you will see the Vive Controller gameObjects:



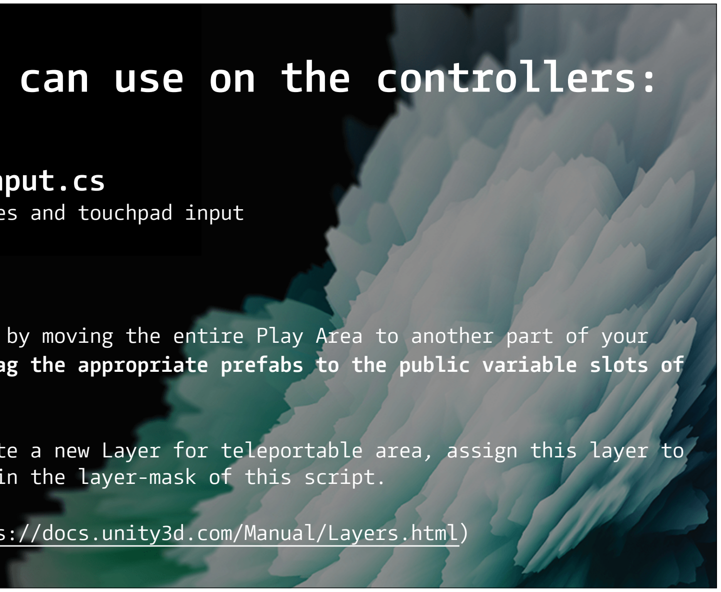
- [CameraRig]
  - Controller (left)
  - Controller (right)
  - Camera (head)



Some Scripts + Prefabs for the controllers:

https://github.com/ivaylopg/Tech421Tech3706/raw/master/Session16/SimpleVRInteractions.unitypackage

Scripts you can use on the controllers:



ViveControllerInput.cs

Reacts to button presses and touchpad input

LaserTeleport.cs

Allows you to teleport by moving the entire Play Area to another part of your scene. **Make sure to drag the appropriate prefabs to the public variable slots of this script.**

Also, remember to create a new Layer for teleportable area, assign this layer to the floor, and set it in the layer-mask of this script.

(Creating Layers: https://docs.unity3d.com/Manual/Layers.html)

Scripts you can use on the controllers:

ControllerGrab.cs

You will need to add a RigidBody and Collider to each controller. Make sure to setup your collider as a trigger and to resize it to something reasonable.

This script will allow you to pickup and hold any GameObject that has a Collider and RigidBody attached.

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Thank you!