Prof. Tim Purdy School of Industrial Design Georgia Tech

#### VR Series

### Using the VR Carts

The VR Carts with the Vive Pro headsets are available for you to use for studio and class work. Please make sure to review this guide fully to learn about how to properly use these systems.

Section 1 - Storage, Mask & Cleaning

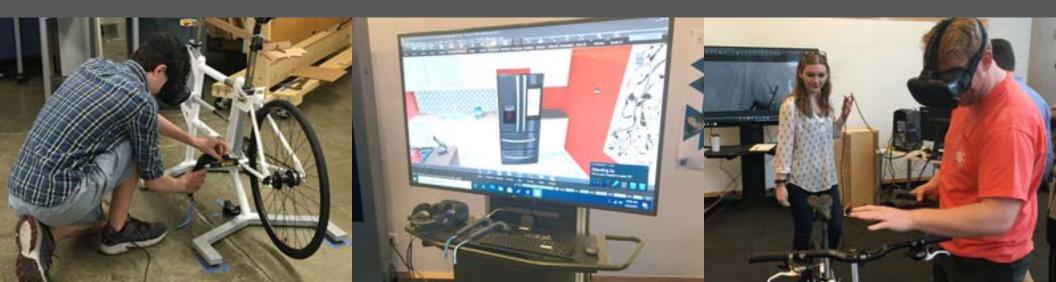
Section 2 - Login & File Access

Section 3 - Vive Pro Eye Headsets

Section 4 - Vive Pro Eye Headset Wireless

Section 5 - Steam VR

<u>Appendix</u>



### VR Carts With Vive Pro Headsets

There are three VR carts located on the 2nd floor atrium. Two of them have Vive Pro Eye headsets while the third headset is just a Vive Pro with wireless option. All three systems us the Base Stations 2.0, which are located overhead.

There are also Trackers available to use with each Vive system. These can be attached to the body or physical objects to help enhance the immersion experience. If not using the trackers, make sure they are power off, otherwise they may show up in your scene by accident.

Note: You can start with any cart since it will power on the base stations automatically when Steam VR is started. However, the opposite is true. When exiting Steam VR, it will power down the base stations so they do not stay running. If multiply carts are being used, other carts may have to restart Steam VR to power the base stations back on.

When using all the systems, please follow social distancing guidelines, use a VR mask along with regular mask and clean the VR headset and controllers after use or swapping out with another user. Also, have a VR buddy so they can hand you the controllers and place you in the physcial space so you do not accidentally hit equipment or somebody else!



## Section 1 - Storage, Mask & Cleaning



#### VR Cart - Storage

When finish, store the headset, controllers, and trackers back into the cart's cabinet. To helpout other students, make sure to plug in the controllers, trackers and wireless power block to recharge. If you used your personal account for Steam and eduroam, log off of them and make sure to logoff the local account.





#### VR Cart - Mask

As extra precaution, use a VR mask with a regular face mask when using the VR headset. These should be located in the shelf's storage compartment on the right side.



#### VR Cart - Cleaning

After using the VR system or between switching users, make sure to clean the headset, controllers and tracker. Cleaning supplies should be available with the cart. Spray several towels with the cleaning solution and then wipe down the headset, including the exterior and face gasket. Repeat to clean the controllers and tracker(s), if used.



## Section 2 - Login & File Access

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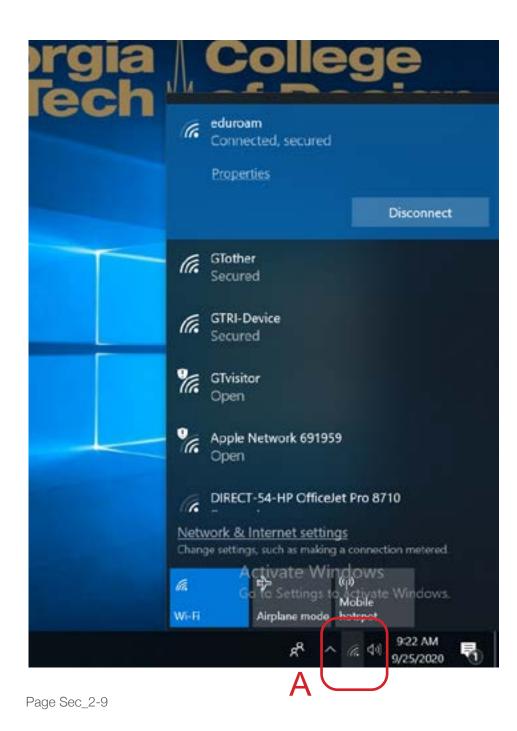
### VR Cart - Login

Log into computer in the VR cart using the account located on the keyboard. Because the VR carts are wireless, you cannot use your GT account if the wifi is not setup. If you try, the computer will hang on login.



#### VR Cart - Wifi Login

Verify that the wifi is working. Click on the wifi icon (A) in the bottom right hand corner of the screen. Check that the "eduroam" wifi is "Connected, secured". If not, use the Connect button and log in using your own GT account. If it does not connect properly, then right mouse click on eduroam menu and choose Forget. Select the Connect button again. It should ask you to enter your Gt account information.



#### VR Cart - File Access

Since you have logged into the carts using a local account, your GT account and course folders are not available as usual. You can access your files one of two ways on the VR carts.

The first method involves coping the files to a USB drive and copying them onto VR cart. Use your on computer or one of the lab computers to access the files and save them to a USB drive.

The second method involves mapping your account to the VR Cart. Open a File Explorer window and right mouse click on the Network drive. Select "Map network drive ..." from the menu. For the drive letter, select the "Q". Type in the Folder area the following: \\ad.gatech.edu\gtfs\cod\students Select Finish. You will be asked to login. A list of student accounts should show up. Select your account from the list. You should have access to all your files in your account. For better speed accessing the files, you will prob-

ably still want to copy them to the local hard drive.

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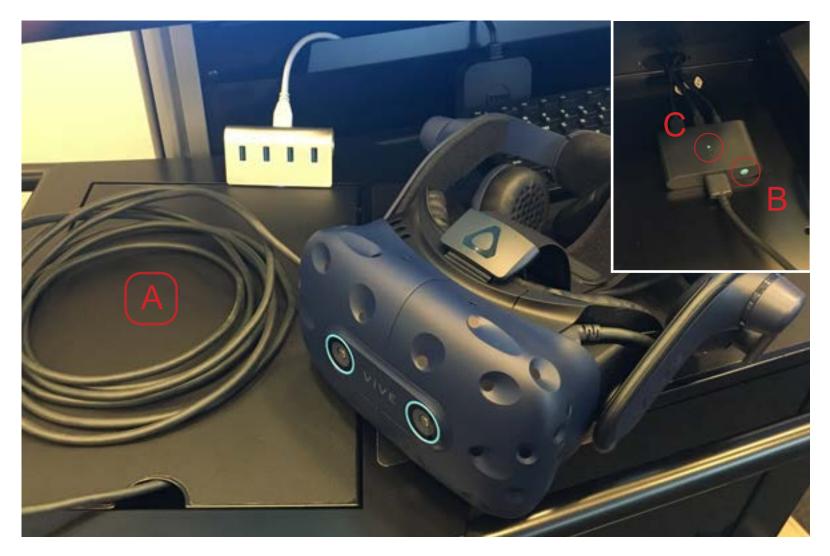
## Section 3 - Vive Pro Eye Headsets

This section deals with the Vive Pro Eye Headset which has an attached cable. Before starting Steam VR, this cable needs to be attached to the Connection box. These steps are detailed on the next couple of pages.



### VR Cart - Vive Pro Eye Headset

Remove the headset from the cabinet and plug in the headset to the connection box. It is located under the access panel on the left side of the cart's shelf (A). Make sure that the connector is securely plug in and that the connectors on the opposite are securely plug in as well. Press the blue button on the connector box (B) and verify that the LED light comes on (C).



#### VR Cart - Controllers

Unplug the Controllers. Press and hold the power button (A) for 3 seconds to turn them on. The Controllers tend to go to sleep rather quickly so you may need to turn them back on before actually using the VR system.



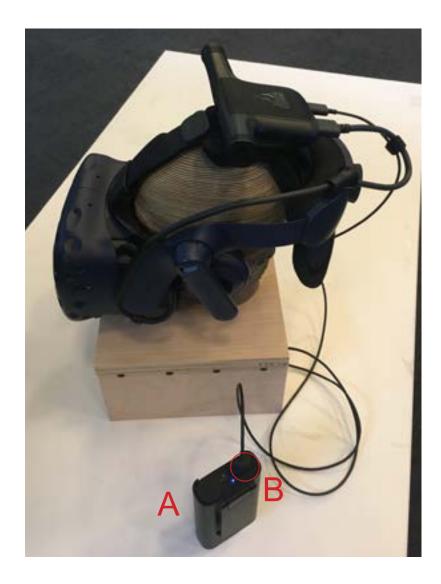
## Section 4 - Vive Pro Eye Headset Wireless

This section deals with the Vive Pro Eye Headset which has a the wireless option installed. This requires an extra couple of steps to use. These steps are detailed on the next couple of pages.



## VR Cart - Vive Pro Eye Wireless

Remove the headset from the cabinet and attach the power block(A). Press and hold the button on the top of the power block until it turns on (B). On the wireless unit attached to the headset, press and hold the Vive logo button until the green led starts flashing (C).





### VR Cart - Vive Wireless App

On the computer, start the Vive Wireless app (A). If the headset has been turned on, it should connect to it (B). If the signal strenght is weak, make sure the wireless recieve is properly placed. It is attached to the top of monitor and should point forward. The wireless headset should be in the line of site to the wireless reciever.



#### VR Cart - Controllers

Unplug the Controllers. Press and hold the power button (A) for 3 seconds to turn them on. The Controllers tend to go to sleep rather quickly so you may need to turn them back on before actually using the VR system.



## Section 5 - Steam VR

Once the equipment is properly setup and turned on, the Steam VR app can be started. To start Steam VR, it may require you to start Steam first. This section walks you through process.

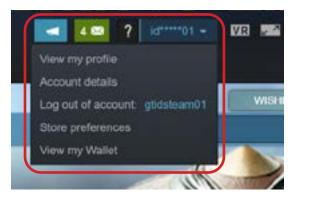


#### VR Cart - Steam

Start Steam. The Vive system uses the Steam VR to work so Steam must be started first. If Steam has already been started and an account is setup, then many of the VR programs will start Steam VR automatically. Also, Steam updates often.

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Log into Steam if needed. Because you have logged into a common account, Steam should automatically log into an IT account (GTIDsteam01, pw: 4VR@gatech). If not, use the account information to login. You can use your own Steam account but make sure to logoff when finished using the VR Cart.



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Don't have a Steam account?	CREATE A N	EW ACCOUNT_	

#### VR Cart - Steam VR

Start Steam VR. The icon for it is located in the upper, right hand corner of the Steam window (A). This is a separate program that connects to the Vive system.

If ever thing comes up properly, then the Steam VR window should show all the icons in blue (B). Controllers have a tendency to go to sleep after a few minutes of in-activity. Power them on again if needed.

Since the base stations are mounted and don't move, a Room Setup should not be required.





# Appendix

There is more to see ...



## VR Cart - Appendix Software

The software on each cart was developed to gives students the applility to expolre different aspects of VR technology.

Want to use something else, please contact Prof. Purdy (tim.purdy@design.gatech.edu).

Adobe Creative Suite 2021	Fusion 360
VRED Pro 2021.3	Gravity Sketch Landing Pad (https://landingpad.me)
VRED Pro Asset Manager 2021.3	3Ds Max Interactive
Keyshot 10.1 & Keyshot Network Rendering	Unity Hub
KeyVR	Unreal Studio
Axure 9	Steam & Steam VR <ul> <li>Aircar</li> </ul>
Alias Studio 2021.2	<ul> <li>Beat Saber</li> <li>Cosmic Sugar VR</li> </ul>
Maya 2020	<ul> <li>The Cubicle</li> <li>Desert Bus VR</li> </ul>
HDR Lightmap	<ul><li>Gadgeteer</li><li>Job Simulator</li></ul>
Marvelous Designer	<ul> <li>Superhot VR</li> <li>Tabletop Simulator</li> </ul>
Substance Launcher for Designer, Painter & Alchemist	<ul> <li>Tilte Brush</li> <li>trori</li> <li>VR Museum of Fine Art</li> </ul>
OBS Studio (Video recording)	

SolD@GT

#### VR Cart - Appendix Vive Controller Functions

1 - Menu Button, 2 - Trackpad, 3 - System/Power, 4 - Status Light, 5 - Micro USB Port,

6 - Tracking Sensor, 7 - Trigger Button, 8 - Grip Buttons

