

## 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 how to properly use these systems.

[Section 1 - Storage, Mask & Cleaning](#)

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# VR Carts With Vive Pro Headsets

There are four VR carts located on the 2nd floor atrium. Two of them have Vive Pro 2 headsets (VR Carts 1 & 2), one has a Vive Pro headset (VR Cart 3) and the fourth has a Vive Pro EYE headset (VR Cart 4). Base stations are located overhead so a VR system can be used without having to run the VR room setup. To use a VR system, login to a cart with the local account, setup Wi-Fi, connect the VR headset & turn on the controllers, start Steam VR and start the program. Detail instructions are found in Sections 2 - 4.

***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, have a “VR buddy” so they can hand you the controllers and place you in the physical space so you do not accidentally hit equipment or somebody else!





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## Section 1 - Storage, Mask & Cleaning



# VR Cart - Storage

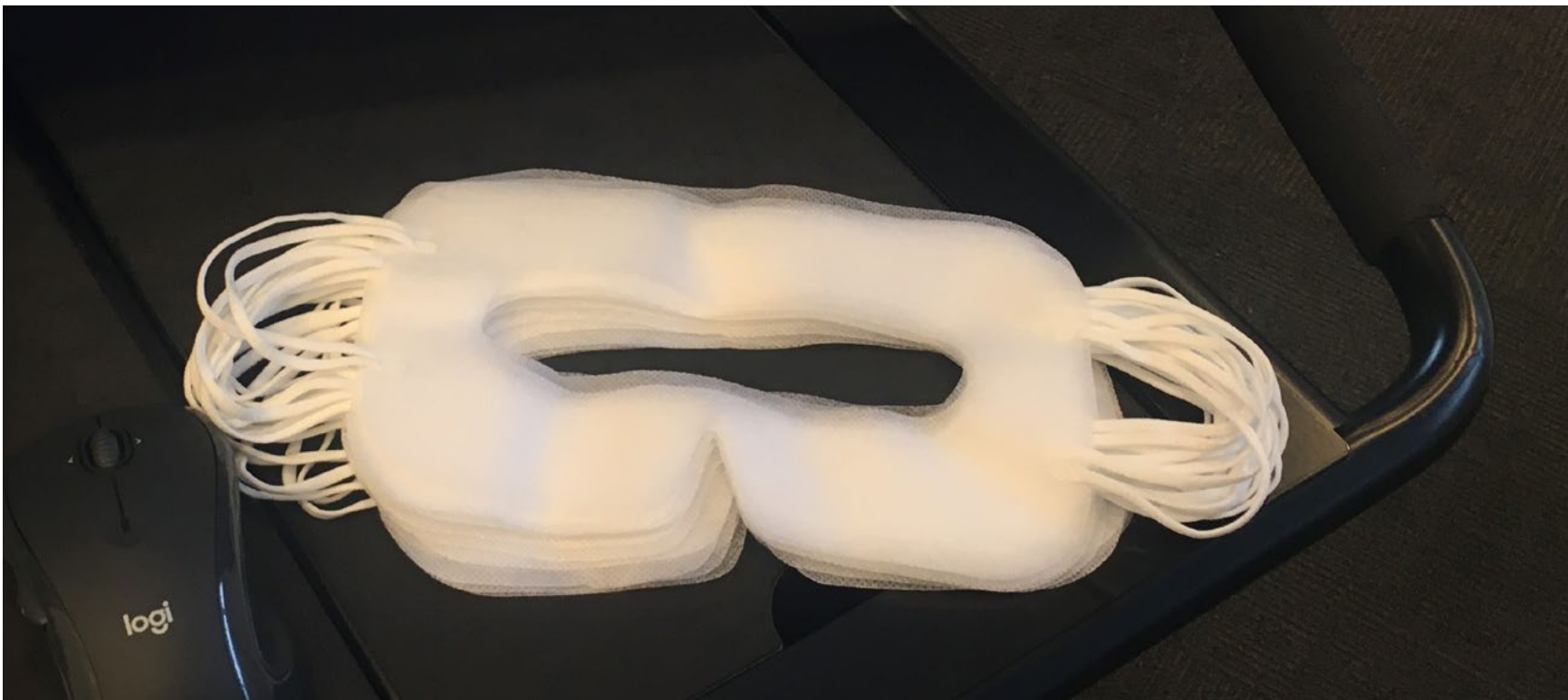
When finish, store the headset, controllers, and trackers back into the cart's cabinet. Make sure to place headset facing out as shown in the image below. A headset can be damage if the sun shines through the lenses. The light will be focused on the display and damage them.

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

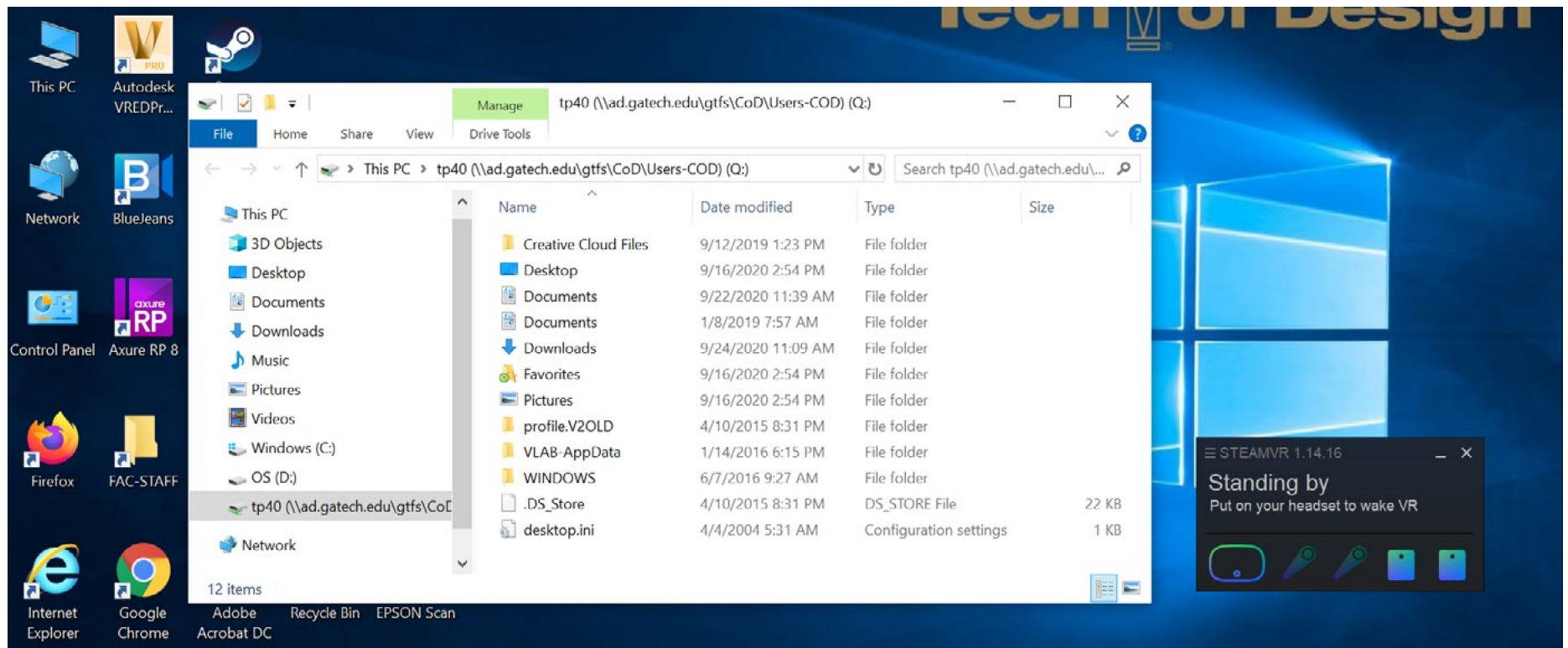
After using the VR system, make sure to clean the headset, controllers and tracker. Cleaning supplies should be available with the cart. Spray several towels with the cleaning solution and then wipe down the headset, including the exterior and face gasket. Repeat to clean the controllers and tracker(s),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



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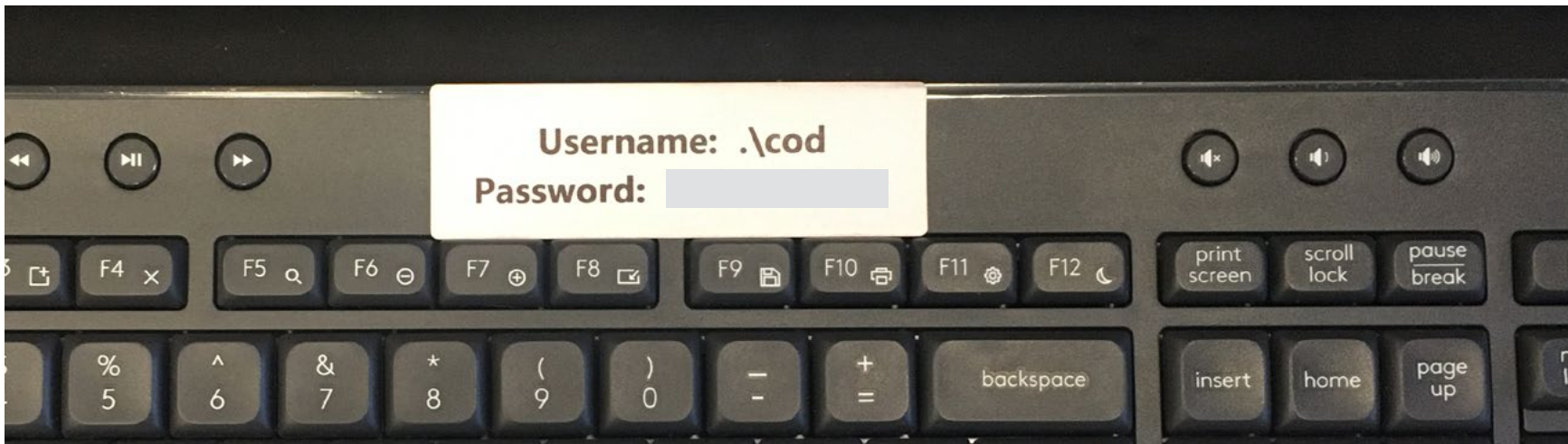
## Section 2 - Login & File Access



# VR Cart - Login

Log into the VR cart's computer using a local account (.\\cod). Because the VR carts are wireless, you cannot use your GT account to log in. If you try, the computer will hang on login, and you would have to reboot the computer.

The account name (.\\cod) and password are located on the keyboard, shelf or instruction card.

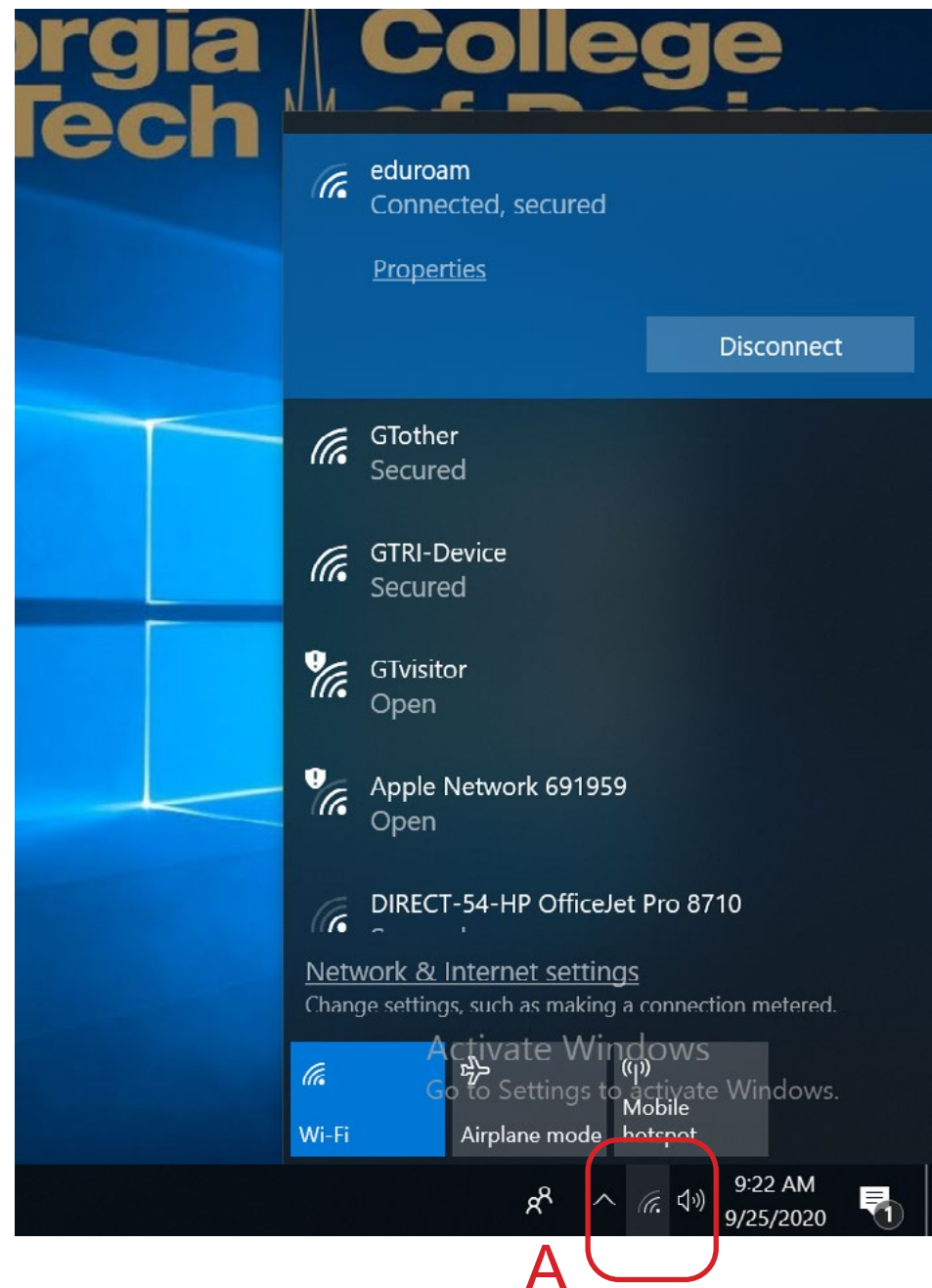




# VR Cart - Wifi Login

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 GT account. You will need to add the “@gatech.edu” at the end of your account name.

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.



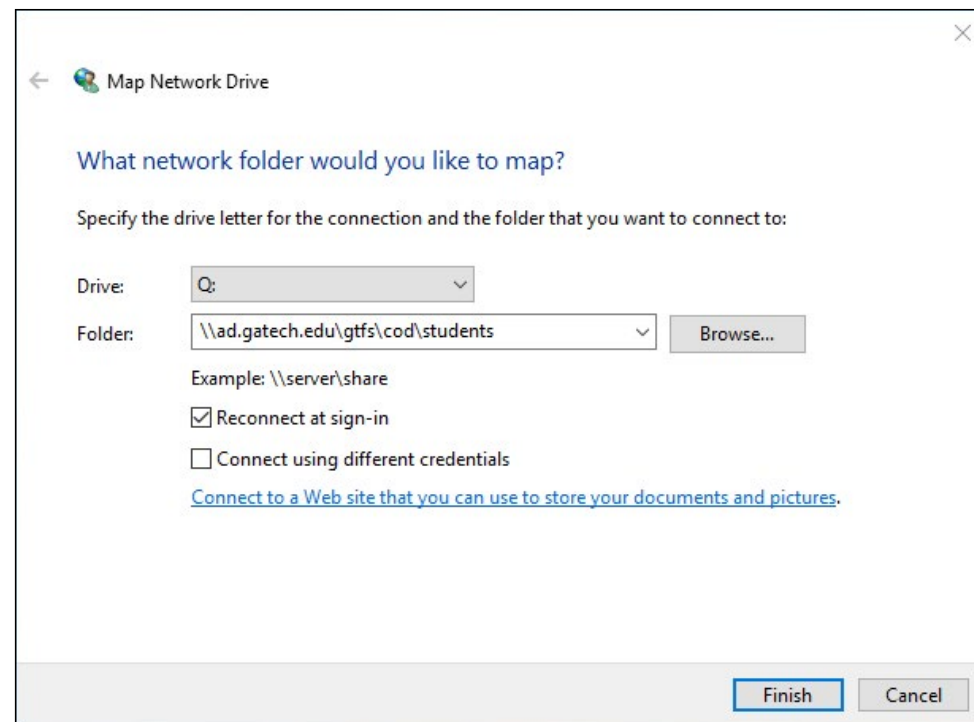
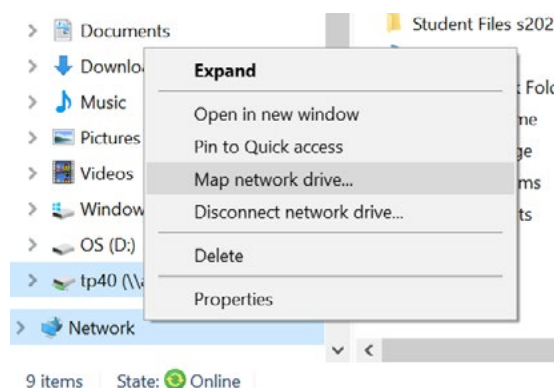
# VR Cart - File Access

Since you have logged into the carts using a local account, your GT account and course folders are not available. 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. Each VR Cart has a USB hub located externally on the cart's shelf. The D drive is available for your files.

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



## Section 3 - Vive Pro & Vive Pro 2 Headsets

This section will show you how to setup either the Vive Pro and Vive Pro 2 Headsets. The process for either one is the same. Note that the base stations are permanently installed overhead. The setup for the Vive Pro Eye Headset and the wireless option is covered in separate tutorials.



The Vive Pro Headset is blue with no rings around the front cameras. It has a resolution of 1440 x 1600 per eye, 90Hz max screen refresh rate and 110° field of view.

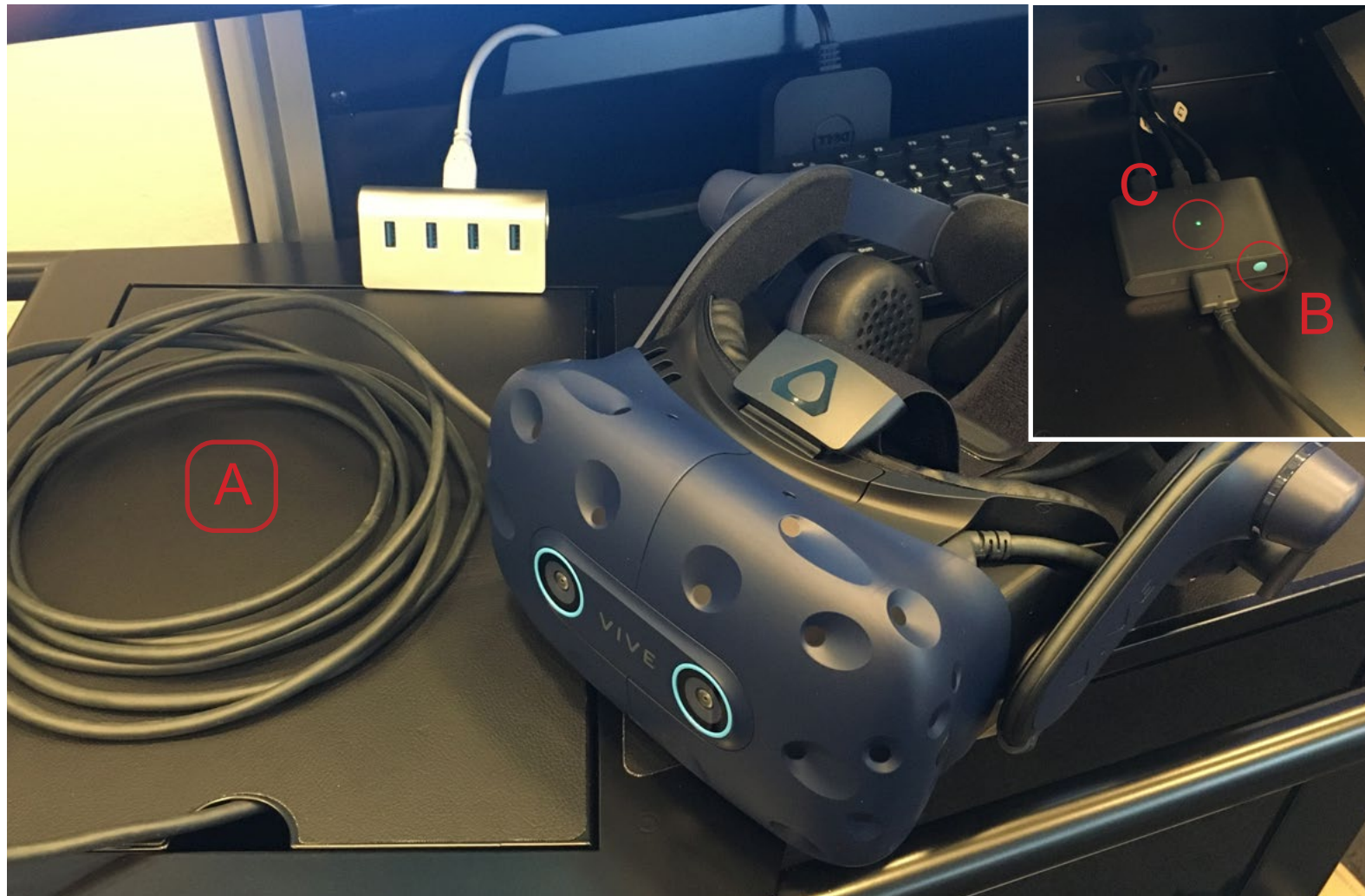


The Vive Pro 2 Headset has a black, front panel with no rings around the front cameras. It has a resolution of 2448 x 2448 per eye, 90Hz/120Hz max screen refresh rate and 120° field of view.



# VR Cart - Vive Pro & Vive Pro 2 Headsets

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). The symbol on the cable's connector should be pointing up. 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.

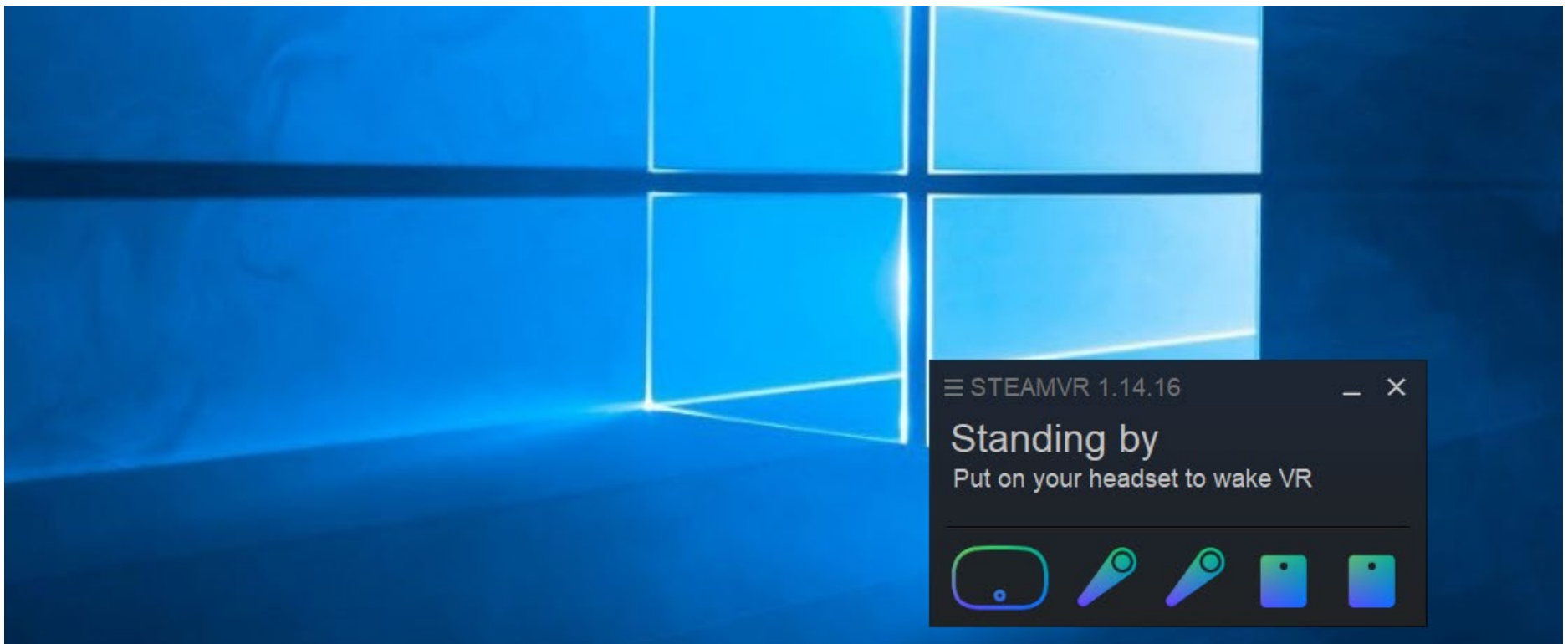


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## Using the VR Carts

### Section 4 - Steam VR

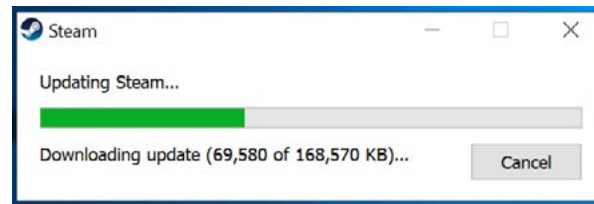
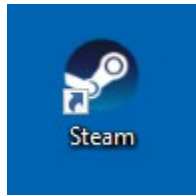
Once the equipment is properly setup and turned on, the Steam VR app can be started. Steam VR may start on its own depending on the cart's setup. This section walks you through process if it does not.



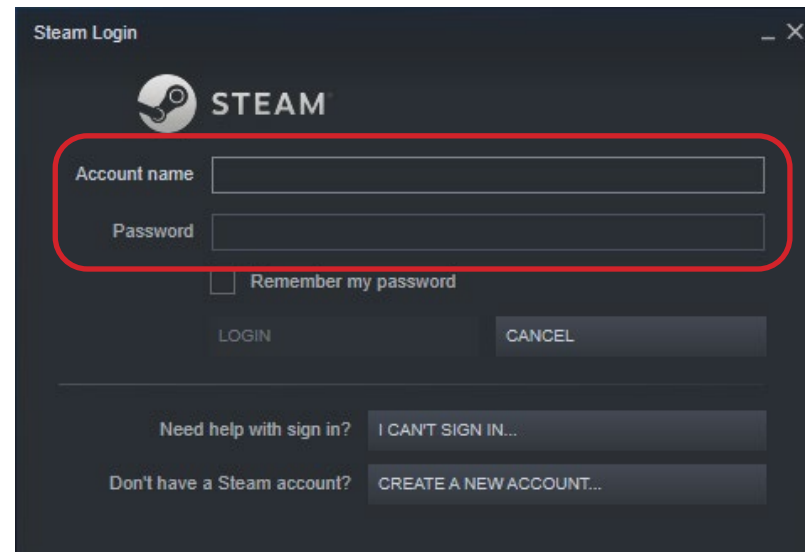
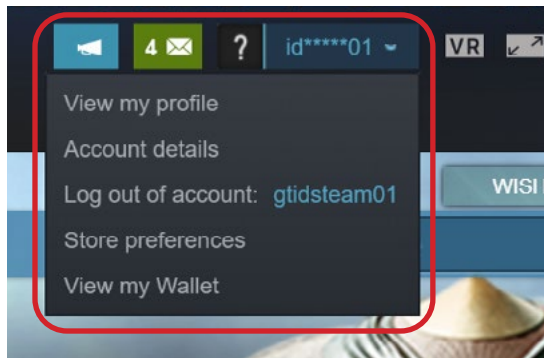


# VR Cart - Steam

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.



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.

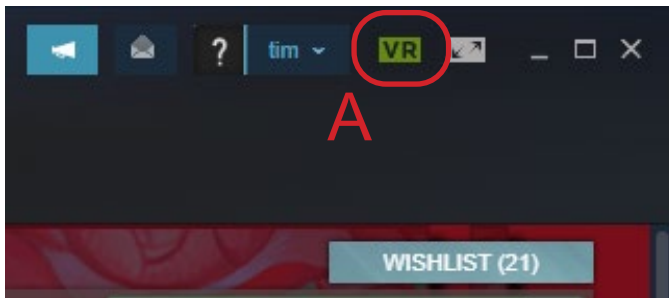


# VR Cart - Steam VR

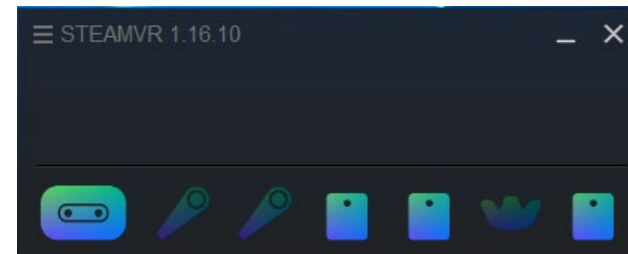
Start Steam VR. This is a separate program that connects to the Vive system. The icon for it is located in the upper, right hand corner of the Steam window (A). You can either search for the Steam VR program or look for the icon on the desktop.

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 if needed.

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



B



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# Appendix

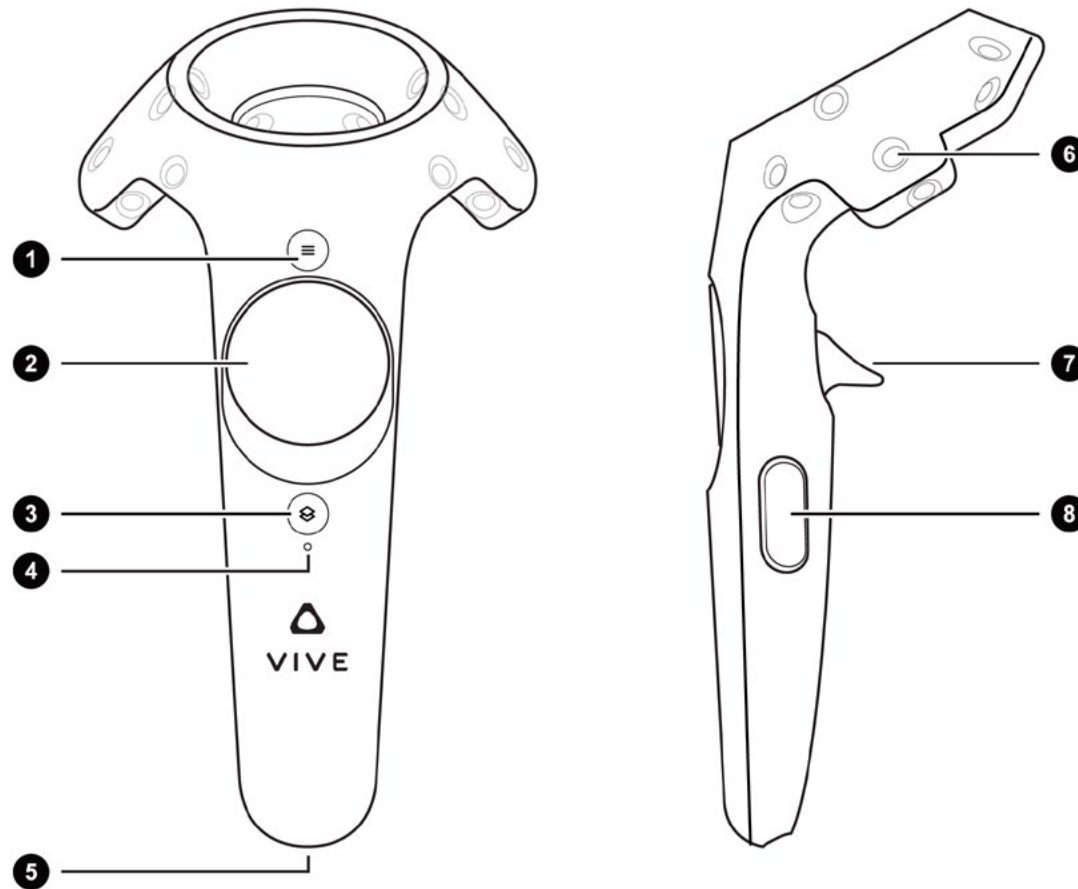
There is more to see ...





# 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



# 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 2022

Fusion 360

VRED Pro 2022.3

Gravity Sketch Landing Pad (<https://landingpad.me>)

VRED Pro Asset Manager 2022.3

3Ds Max Interactive

Keyshot 10 & Keyshot Network Rendering

Unity Hub

KeyVR

Unreal Studio

Axure 10

Steam & Steam VR

Alias Studio 2022

- Aircar
- Beat Saber
- Cosmic Sugar VR
- The Cubicle
- Desert Bus VR
- Gadgeteer
- Job Simulator
- Superhot VR
- Tabletop Slmulator
- Tilte Brush
- trori
- VR Museum of Fine Art

Maya 2022

HDR Lightmap

Marvelous Designer

Substance Launcher for Designer, Painter & Alchemist

OBS Studio (Video recording)