* Burn the image on the SD card following the instructions in the Econolite’s document (Appendix A)
* Before inserting the SD card into the CVCP, note its MAC address (usually found on a white label pasted on the CVCP)
* Register this MAC address in the University of Arizona’s allowed DHCP clients list.
* Insert the SD card in the CVCP and insert the board into a signal controller.
* Connect an Ethernet port (top left) of the CVCP to the CATNET.
* Attach a serial connector with a null modem to the CVCP and connect the other end (USB) to a computer.
* Open the serial connection with the CVCP at baud rate of 115200.
* If this procedure is performed on Windows, the COM port on which the serial device is connected needs to be noted. This can be found in the “Device Manager”. One can find the device manager by right-clicking on the start menu.
* Once the serial connection is established, login to the CVCP by entering following default credentials:
  + Username: ubuntu
  + Password: Boundary
* By default, one can not use SSH to login as a root in Ubuntu 18.04. To allow so, get the root privileges for current session:

sudo su

* Now the root user, edit the sshd\_config file found in /etc/ssh/sshd\_config:

nano /etc/ssh/sshd\_config

* Note that nano is installed by default on the CVCP image. For instructions on using nano, refer the documentation on following link: https://linuxize.com/post/how-to-use-nano-text-editor/
* Add the following line to the file, you can add it anywhere but it’s a good practice to find the block about authentication and add it there.

PermitRootLogin yes

* Save and exit the file.
* Restart the SSH server:

systemctl restart sshd or service sshd restart

* For further SSH sessions, the username “root” can be used instead of “ubuntu”.
* Now, check the network connection with the CATNET by pinging any outside servers. For example:

ping google.com

* Update the ubuntu repositories by entering following command:

sudo apt-get update

* This command may fail if the CVCP is unable to update the date and time automatically after getting the internet connection. In that case, set the date/time manually in the UTC timezone by entering following command (note the formatting of the date time):

sudo date --set="yyyy-mm-dd hh:mm:ss"

* Now re-run the command to update repositories.
* Once updating of repositories is complete, run the following command to install required packages

sudo apt-get install -y chrony build-essential tcpdump libssl-dev zlib1g-dev python3-pip

* Install the required python packages

sudo pip3 install pyinstaller

sudo pip3 install apscheduler

sudo pip3 install sh

* Install CyVerse iCommands by following the official instructions available on <https://learning.cyverse.org/projects/data_store_guide/en/latest/step2.html>
* Install docker by following the official instructions from Docker on following link: <https://docs.docker.com/engine/install/debian/>
* Now, assign the static IP address to the Ethernet port of the CVCP by modifying the /etc/network/interfaces file. Open the file using nano:

nano /etc/network/interfaces

* Replace the lines corresponding to eth0 in this file with following lines:

auto eth0

iface eth0 inet static

hwaddress ether mm:mm:mm:mm:mm:mm

address aaa.aaa.aaa.aaa

netmask nnn.nnn.nnn.nnn

gateway ggg.ggg.ggg.ggg

* In above lines, replace mm:mm:mm:mm:mm:mm by MAC address of the CVCP, aaa.aaa.aaa.aaa by desired IP address, nnn.nnn.nnn.nnn by desired netmask, and ggg.ggg.ggg.ggg by desired gateway
* Reboot the CVCP by entering

reboot

* Now the CVCP can be connected to the desired network and should be able to communicate with devices in this network.