NanoPi V2X-Hub Setup

Installing OS

1. Download appropriate image file for NanoPi on your PC
   a. Download link provided
      i. https://drive.google.com/file/d/1-MVs9aIsdL_S-eH1LzXAEOBevWtOL_OY/view?usp=sharing
   b. Un-zip downloaded package
2. Using an image installer, install the image on your SD card
   a. If loaned from Saxton Lab, an SD card is provided
   b. A few image installers:
      i. Windows – Rufus
      ii. MacOS – Etcher
      iii. Linux – Etcher
3. Eject SD Card from PC when finished
   a. Insert in NanoPi
   b. Connect NanoPi to a monitor via HDMI
   c. Power NanoPi

Installing V2X-Hub

1. Establish an internet connection
2. Open a Terminal (Terminator) and run:
   a. `sudo apt-get install git`
3. Open a web browser and go to:
   a. https://github.com/usdot-fhwa-OPS/V2X-Hub
4. Copy link for cloning:
   a. https://github.com/usdot-fhwa-OPS/V2X-Hub.git
5. In Terminal, enter:
   a. `git clone https://github.com/usdot-fhwa-OPS/V2X-Hub.git`
6. Following the ARM-specific instructions in the Docker_Instructions.md folder on GitHub:
   a. `cd V2X-Hub/configuration/arm64/`
   b. `chmod +x initialization.sh`
   c. `sudo ./initialization.sh`
7. When prompted for a login:
   a. `Login: v2xadmin`
   b. `Password: V2xHub#321`
   c. This will be your V2X-Hub administrator login information
8. Installation will automatically begin. Skip to section 11 if no errors occur
   a. If confronted with error "No module named setuptools_rust," enter:
   b. `python3 –m pip install setuptools`
   c. `python3 –m pip install setuptools-rust`
   d. Copy and paste "sudo…cargo" under Debian/Ubuntu from website to Terminal:
      i. https://cryptography.io/en/latest/installation.html#debian-ubuntu
      ii. When prompted, select <Yes>
   e. `python3 –m pip install cryptography`

           `i.` If cryptography install fails, run:
                1. `sudo apt-get update`
                2. Repeat steps 8d-8e

9. Once cryptography is successfully installed, run the previously failed setup using:
    a. `sudo pip3 install docker-compose`
10. Repeat steps 6(c)-7
11. Installation is complete
    a. In a browser, go to: https://127.0.0.1:19760
    b. Accept/save the credentials on the screen
    c. Open a new tab and go to http://127.0.0.1
    d. Login to V2X-Hub using login information above