SSHiing into the car

The ssh utility is useful for gaining terminal access to your car when you don't have a monitor around and when you don't need to do visualization (e.g. via rviz). Using this utility will give you the ability to edit and run your ROS code remotely and is especially useful when you want to rapidly develop and test new algorithms without the hassle a monitor can bring.

Before doing this, make sure both your laptop and car are connected to the f110 network as described here.

- 1. Open a terminal on your laptop and type \$ ssh <Jetson username>@<your car's IP address to connect to the car. You will be prompted for your Jetson login password; type this in as well.
 - a. The first time you SSH into the car, you will probably be told that the "authenticity of the host can't be established." Just type in "yes" and the dialog will not appear again.
- 2. If successful, you should see a prompt similar to ubuntu@tegra-ubuntu:~\$, which indicates that you're now connected to the car's terminal. Try starting roscore and running some ROS scripts. Don't forget to source your working directory's setup file beforehand.
- 3. Don't forget that while you're SSH'ed into the car, you're running over the wireless network. Try not to get too far away from the car so you don't accidentally get logged out, and make sure you save your work often.

Setting up Wireless Hot Spot on Jetson

As you begin to test on larger tracks, you may find a need to have a direct connection to your car, so as to not have to rely on the car being within a certain distance of your router. The solution here is to set up wireless hot spot on the Jetson. It is extremely easy.

Go to System Settings on your Jetson. Then Network.



On the bottom center of the pop-up window for the network, click on "Use as Hotspot..." You will no longer have internet connection because your wireless antennas will now be used as a hot spot rather than to connect to the previous Wi-Fi connection that you were on.

Note that if you plan on using the wireless hotspot feature often, you will want it to boot up on startup. To do this, open up Network Connections, under Wi-Fi select Hotspot and Edit.



Under General click on "Automatically connect to this network when available".