Setting up Raspberry Pi for Tensile Tester operation

OS version : raspios bullseye

1. Follow the usual steps to create a RPi image and boot
2. For the following we use a terminal
3. Use `sudo raspi-config` to run the configuration;
    1. Set the host name to `tensilepi`
    2. Enable ssh
4. Change the default password to something like `t3ns1le` ; i.e., use `passwd`
5. Update the system; `sudo apt update` , then `sudo apt upgrade`
    1. This may take a while
6. Install and configure `tightvncserver` to enable VNC
    1. Follow the socketxp.com guide down to the SocketXP IoT Agent installation section
7. Configure `tightvncserver` to start at boot `sudo vi /etc/init.d/tightvncserver` then insert `#!/bin/sh # /etc/init.d/tightvncserver # Set the VNCUSER variable to the name of the user to start tightvncserver under VNCUSER='pi` finally, make executable and reboot `sudo chmod 755 /etc/init.d/tightvncserver sudo update-rc.d tightvncserver defaults sudo reboot`
8. An example VNC viewer configuration should rememble this one from "Chicken" ![[chicken*to*tensilepi.png]]
9. Install and configure `node-red` using this guide
    1. Execute in a terminal the following `bash <(curl -sL https://raw.githubusercontent.com/node-red/linux-installers/master/deb/update-nodejs-and-nodered)`
    2. Enable node-red to start at boot `sudo systemctl enable nodered.service`
    3. Check if it's running by `ps ax | grep node` and if not, start using `sudo systemctl enable nodered.service`
    4. Now you can bring up the node-red flow editor on a computer on the same network as the `tensilepi` by connecting to `http://tensilepi.local:1880` in a browser
10. Install the node-red dashboard and git packages `cd ~/.node-red npm i node-red-dashboard npm i npm install node-red-contrib-git-nodes`
11. Install and configure pigpio
    - `sudo systemctl enable pigpiod`
12. Restart node-red on the RPi `node-red-restart`
13. Once restarted, you can bring up the node-red dashboard on a computer on the same network as the `tensilepi` by connecting to `http://tensilepi.local:1880/ui` in a browser.
    - changes made in the flow editor will be reflected in the UI once they are "deployed"
14. The flow editor can be accessed by connecting to `http://tensilepi.local:1880`