Setting up Raspberry Pi for Tensile Tester operation

OS version : raspios bullseye

1. Follow the [usual steps](#)
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"

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