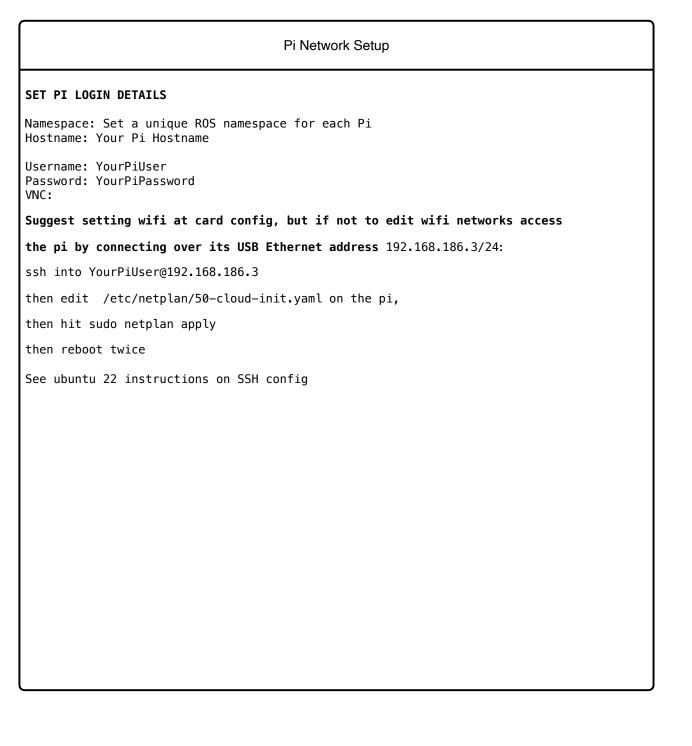
Pi iCreate3 NETWORK CONFIG NOTES

To set wifi network on iCreate: Press buttons 1 and 3 on bot til it turns blue Connect to robot hotspot then go to http://192.168.10.1 Then on main wifi network find local IP - eg nmap -sn 192.168.1.0/24 Set ROS2 namespace - pibot1, pibot2, pibot 3 etc Create 3 ROBOT SETUP https://iroboteducation.github.io/create3 docs/setup/provision/ Update robot firmware by logging in via web interface https://edu.irobot.com/create3-setup Install latest humble firmware: https://iroboteducation.github.io/create3_docs/releases/h_2_5/ Set up for local wifi and multi-robot setup ROS namespace



UBUNTU / ROS SETUP NOTES

```
Pi Ubunto 22.04 64 bit setup notes
 PRE-REQUISITE ASSUMES YOU HAVE INSTALLED
 1) Ubuntu 22.04 .03 64 bit LTS using raspberry imager.
2) You may wish to install desktop to allow for VNC access.
3) You can install raspi-config to set wifi, user name / password and IP address or edit
approriate files
Install raspi-config
sudo apt-get install raspi-config
If repository not found add
  echo "deb http://archive.raspberrypi.org/debian/ buster main" >> /etc/apt/sources.list
 hkp://keyserver.ubuntu.com:80 --recv-keys 7FA3303E
Install desktop manager to allow for VNC usage if not installing desktop
 Used XFCE desktop
    sudo apt install tasksel
    sudo apt install xfce4 xfce4-goodies
    Create /etc/lightdm/lightdm.conf
 To install VNC on ubuntu 22.04 pi 4.(use latest file in archive.pi)
 https://forums.raspberrypi.com/viewtopic.php?t=335487
 tightVNC description https://www.penguintutor.com/linux/tightvnc
 https://bytexd.com/how-to-install-configure-vnc-server-on-ubuntu/
Prevent Wayland from use
    sudo nano /etc/gdm3/custom.conf
Uncomment "WaylandEnable=false"
    THEN – to use headless
    sudo nano /boot/firmware/config.txt
       hdmi_force_hotplug=1
        hdmi_force_mode=1
        hdmi_group=2
        hdmi_mode=82
        #dtoverlay=vc4-kms-v3d
```

Install xfce then sudo startxfce4 if desktop not installed

Ros2 Humble Setup on Pi To install ROS2 Humble (not required for Bluetooth Library) Install Ros2 Humble Follow ROS2 instructions here https://docs.ros.org/en/humble/Installation/Ubuntu-Install-Debians.html With adaptations for Icreate3 here https://iroboteducation.github.io/create3 docs/setup/pi4humble/ • Install NTP: sudo apt install chrony Must always first run and setup in bash script. source /opt/ros/humble/setup.bash

