|  |
| --- |
| Hibotics  Getting Started  Using RasPi control system |
|  |

**Getting Started**

Download **VNC Viewer** or another compatible VNC application.

Connect the Raspberry Pi to the daughter board (hat) and attach both to chassis. Connect to power and place on rail.

Connect the desired device to the wireless access point. SSID: **RasPi3** PASS: **Hibotics.** These settings can be changed by typing **sudo nano /etc/hostapd/hostapd.conf**  in terminal.

In the VNC software, add a new connection. The ip of the Pi is static: **192.168.0.10**. This can be changed by typing **sudo nano /etc/dhcpcd.conf** in terminal.

The default VNC login is Username: **pi** Password: **raspberry**. This can be used to login but should be changed for security.

The pi’s desktop should appear after connecting.

**Running Gui.py**

Gui.py is the main application for motor control as well as battery and sensor monitoring.

The file is located on the desktop. Clicking the file in VNC should bring up the IDE.

Clicking the play button at the top of the IDE runs the python script, displaying a control interface.

Gui.py can also be accessed by typing **python3 /Desktop/gui.py** in terminal**.**

In the UI, switch to **manual** control, a slider allows control of the motor speed.

An approximate battery voltage is also displayed near the stop button.

**Troubleshooting**

**The access point could not be found.**

The access point (ap) may take a minute or two to appear after the Pi is connected to power. If it still isn’t displayed, restart the pi.

**When reconnecting to the ap, it is unable to connect or says incorrect password.**

Try restarting the device’s wifi and reconnecting, sometimes it will decline a connection with authentic credentials.

**Cannot connect through VNC.**

Make sure the connecting device does not have an active VPN. Check that the device is still connected to the ap and credentials are correctly input in the VNC application.

**Motor does not move when slider is adjusted.**

Ensure the control hat is connected properly to the correct headers on the pi. In the interface, make sure the battery voltage is high enough. Once it reaches 5-6V the motor will not drive correctly and the pi may begin to power cycle due to voltage drops. Also check the connection between the hat and the motor.

**Settings changed in the config files have not take effect.**

The pi must be rebooted after changing any settings. Make sure the file is being saved before closing.