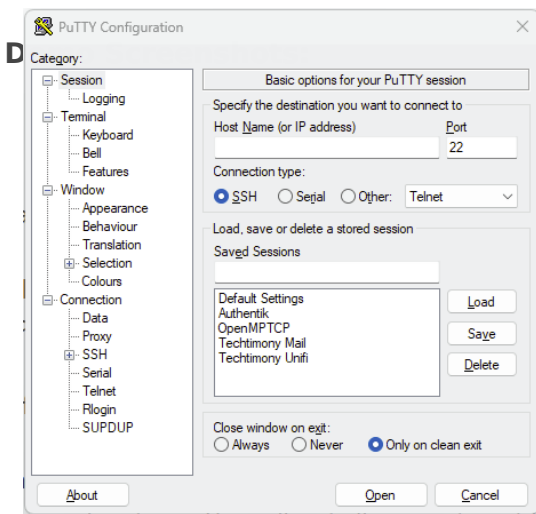


# Linux Basics

## Software

Here's some software you can use to manage the PiCar, and any linux server or device.

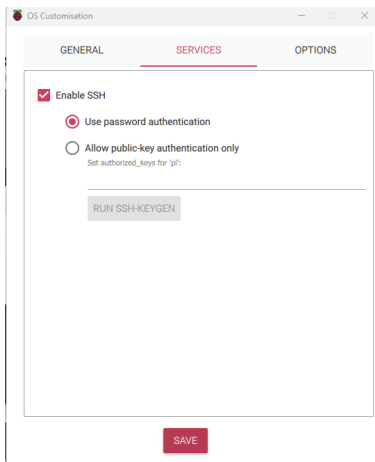
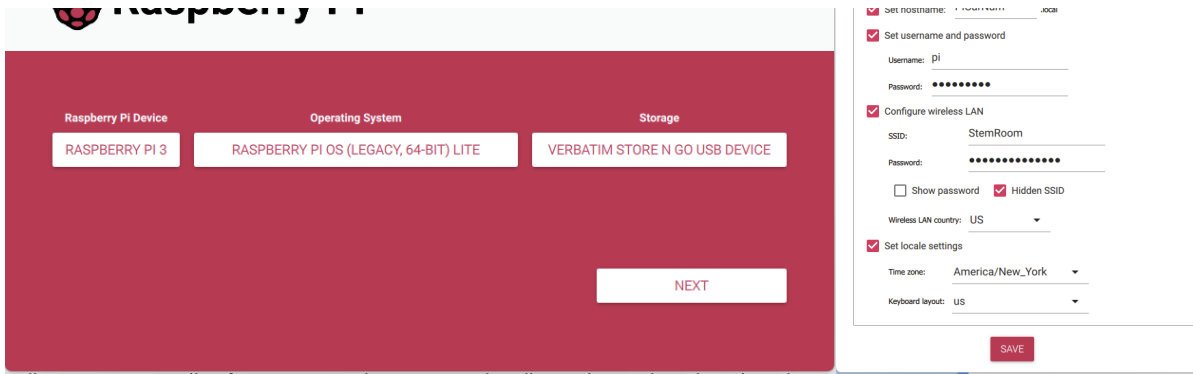
- Putty - Putty is a program for remotely connecting to the terminal interface of any linux server. This is called **SSH**. Putty is pretty simple, all it requires is the IP address or hostname of the device, and you'll be ready to connect!



```
liev@authentik: ~  
System information as of Fri Feb 23 01:46:46 AM UTC 2024  
  
System load:  0.0185546875    Users logged in:      0  
Usage of /:   52.0% of 14.66GB IPv4 address for br-22e3af0c89e5: 172.18.0.1  
Memory usage: 59%            IPv4 address for docker0:  172.17.0.1  
Swap usage:   8%             IPv4 address for ens18:   10.0.1.20  
Processes:    135  
  
* Strictly confined Kubernetes makes edge and IoT secure. Learn how MicroK8s  
  just raised the bar for easy, resilient and secure K8s cluster deployment.  
  
https://ubuntu.com/engage/secure-kubernetes-at-the-edge  
  
Expanded Security Maintenance for Applications is not enabled.  
  
15 updates can be applied immediately.  
To see these additional updates run: apt list --upgradable  
  
Enable ESM Apps to receive additional future security updates.  
See https://ubuntu.com/esm or run: sudo pro status  
  
Last login: Mon Feb 19 00:30:16 2024 from 10.0.1.60  
liev@authentik:~$
```

- Raspberry Pi Imager - This allows you to install software on Raspberry Pis easily. All you do is select the SD card, operating system, and change a couple settings.

### Demo Screenshots



# Commands

These PiCars primarily run Linux. The specific distribution of Linux being [Raspbian](#), which is based on [Debian](#).

These are some basic Linux commands that will help you get through setup. These are very basic, and I can't even touch on the thousands of possible commands and their combinations. This will just allow you to get through setup, and start driving.

## Navigation

**To list all files in a folder, execute:**

```
ls
```

**To enter a folder, execute:**

```
cd (folder)
```

**To leave a folder, execute:**

```
cd ..
```

**To go to your home directory, execute:**

```
cd ~
```

## File Editing

**To edit or create a text file, execute:**

```
nano <filename>
```

## Permissions

**If you ever do not have sufficient access or permissions to a file, type:**

```
sudo <your command>
```

## Power Controls

**To turn on the pi after a shutdown, plug it in.**

**To turn off the pi, execute:**

```
sudo shutdown now
```

**To reboot the pi, execute:**

```
sudo reboot now
```

If you have any other questions, google and stack overflow are your friends. Don't be afraid to look things up... I needed to a lot. :)

If you want to contact me (Liev) you can E-Mail [liev@dorfman.net](mailto:liev@dorfman.net)

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