

# INSTALL-A-THON

(OS)2G

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# Intro to Linux

## Distribution

- How the computer works "underneath"
- Package managers

## Common

- Debian
- Ubuntu
- Mint

## Specialized

- Arch
- NixOS
- Nobara

## Desktop Environment

- Graphical User Interface
- File manager
- Icons
- Themes
- Window Manager

## Common

- GNOME
- KDE
- XFCE

## Window Manager

- Often bundled w/ DE
- Placement and appearance of windows

## Specialized

- i3
- bspwm
- qtile
- xmonad
- Awesome
- herbstluftwm

# Raspberry Pi Zero W

Today we will be installing **Raspberry Pi OS Lite (32-bit)** on the RPi Zero W.

## ⓘ Note

You could also try installing other lite distros, like Kali or Alpine.

1. Plug your SD card into your computer
2. Download and run the RPi Imager from the link
3. Select **Raspberry Pi Zero** as Device
4. Select **Raspberry Pi OS (other) > Raspberry Pi OS Lite (32-bit)** as OS
5. Follow prompts as directed
6. Enable SSH
7. ~~if it shows up~~ Enable USB Gadget mode
  - Else try Raspberry Pi Connect
8. Write the image to the SD card
9. Put the card into your Pi and plug your Pi into power / laptop

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<https://www.raspberrypi.com/software/>

# Connect to your Pi

Open a terminal or PuTTY and connect to your Pi.

```
ssh username@host
```

# Common Commands

## Moving Files

- `mkdir` makes directories
- `cd` changes directories
- `mv` moves files
- `cp` copies files
- `ls` lists files

## Editing Files

- `nano` is an easy text editor
- `vi`, `vim`, or `neovim` are what cool people use
- `emacs`

## Getting Stuff

- `nmtui` is the network manager
- `sudo` is "super user does" AKA admin permissions
- `apt` is a package manager
  - `apt search`
  - `sudo apt install`
  - `sudo apt update`
- `wget` downloads files from the internet

## Server-ish Stuff

- `systemctl` controls background processes
  - `sudo systemctl start` turns something on
  - `sudo systemctl stop` turns something off
  - `sudo systemctl enable` automatically turns something on
  - `sudo systemctl disable` undoes enable
- `cloudflared` is used to put websites on the internet

# Projects