**VirtualBox:**

(VirtualBox does not work with WindHawk)

camInstall VirtualBox

Install VirtualBox Extension Pack

Download Linux Mint Cinnamon Edition ISO

<https://itsfoss.com/install-linux-mint-in-virtualbox/>

But, after you click Start Linux, it will take you to the Linux Desktop, where you need to click Install Linux app.

Resolution: 1920x1080 (virtual)

* Switch to View -> Scaled Mode in VirtualBox

Install Devices Guest Addition CD

Devices: Shared Clipboard and Drag and Drop Bidirectional

**Install Zotero:**

curl -sL https://raw.githubusercontent.com/retorquere/zotero-deb/master/install.sh | sudo bash

sudo apt update

sudo apt install zotero

after: install Firefox and Libroffice plugin for Zotero

Link Zotero to RStudio:

Tools Options R Markdown Citations Zotero Library: ~/Zotero

**Install OnlyOffice:**

flatpak install flathub org.onlyoffice.desktopeditors

run: flatpak run org.onlyoffice.desktopeditors

Zotero plugin: require API

**Install Libroffice:**

sudo add-apt-repository ppa:libreoffice/ppa

sudo apt-get update

sudo apt-get install libreoffice

**Printers:**

Add by https protocol in settings,

35.8.228.79: HP LaserJet 600 602 603…

- check Duplex Unit

35.8.228.80: HP Color LaserJet Pro MPF M477

- duplex is not an option

- have not tested scanner

**Zoom:**

Can download and run deb file from site

**R:**

This page works for Mint 22/ R 4.4:

<https://linuxcapable.com/how-to-install-r-lang-on-linux-mint/>

Old instructions for Mint 21

[~~https://www.digitalocean.com/community/tutorials/how-to-install-r-on-ubuntu-22-04~~](https://www.digitalocean.com/community/tutorials/how-to-install-r-on-ubuntu-22-04)

* ~~wget -qO- https://cloud.r-project.org/bin/linux/ubuntu/marutter\_pubkey.asc | sudo gpg --dearmor -o /usr/share/keyrings/r-project.gpg~~
* ~~echo "deb [signed-by=/usr/share/keyrings/r-project.gpg] https://cloud.r-project.org/bin/linux/ubuntu jammy-cran40/" | sudo tee -a /etc/apt/sources.list.d/r-project.list~~
* ~~sudo apt update~~
* ~~sudo apt install --no-install-recommends r-base r-base-dev~~

For use in VSCode:

* sudo apt install build-essential libcurl4-gnutls-dev libxml2-dev libssl-dev
* install.packages(“languageserver”)

**Git:**

sudo add-apt-repository ppa:git-core/ppa

apt update

apt install git

(if you just do the install then you will get the version at the time the OS was released)

don’t forget to set name/email:

Install

**Git Credential Manager:**

Download the Debian (\*.deb) Git-Credential-Manager:

<https://github.com/git-ecosystem/git-credential-manager/releases/latest>

Install and Configure:

sudo dpkg -i <path/to/\*.deb>

This will probably work: sudo dpkg -i ~/Downloads/gcm-linux\*.deb

git-credential-manager configure

Use the freedesktop.org Secret Service API on [this page](https://github.com/git-ecosystem/git-credential-manager/blob/main/docs/credstores.md)

git config --global credential.credentialStore secretservice

Will ask you to log in to GitHub on first Push – using two factor authentication

Will ask you to save a password for the keyring (I do not think it is necessary)

**Git Credential Manager On HPCC:**

Download latest gcm-linux-amd64.2.X.X.tar.gz

wget https://github.com/git-ecosystem/git-credential-manager/releases/download/v2.6.1/gcm-linux\_amd64.#.#.#.tar.gz

Secure copy file to HPCC (can do through ondemand)

In folder you want to install:

* tar xavf gcm-linux\_amd64.2.6.1.tar.gz -C /path/to/install/folder

Go to installation folder

Chmod +x git-credential-manager

./git-credential-manager configure

git config --global credential.credentialStore cache

The first time you Push you will be asked to authenticate the device on GitHub.

* Use Authentication Method #1: Device Code
* Go to <https://github.com/login/device>
* Login if you need to
* Put in the 8-digit code on GitHub and allow authentication of device

I think it asks for authentication by machine….

**RStudio/Quarto/VSCode/Chrome:** download from website

**EquatIO:**

Issue: MSU does not allow you to install Chrome Store App

So, you need to:

1. Login to Chrome under a different user
2. Install EquatIO through the web store
3. Login to Chrome with MSU ID to validate EquatIO
4. EquatIO will still not run until you log out of your MSU account

**ADMB:**

https://www.admb-project.org/downloads/admb-13.2/QuickStartUnix.html

# Add the following to the end of your .bashrc file while using nano

# or your text editor of choice:

export PATH="/home/$USER/<location of admb>:$PATH"

**R devtools:**

Install libcurl:

sudo apt-get install libcurl4-openssl-dev

Install pak package in R

# list dependencies need by devtools

pak::pkg\_sysreqs("devtools", sysreqs\_platform="ubuntu")

Now, install devtools

INLA (needs sf…)

pak::pkg\_sysreqs("sf", sysreqs\_platform="ubuntu")

lme4 (needs nloptr)

pak::pkg\_sysreqs("lme4", sysreqs\_platform="ubuntu")

apt-get -y update

apt-get -y install make cmake

Tidyverse, rtmb, languageserver work

**Lapack/Blas:**

~~sudo apt-get install libblas-dev liblapack-dev (already there – did nothing)~~

[~~https://csantill.github.io/RPerformanceWBLAS/~~](https://csantill.github.io/RPerformanceWBLAS/)

~~Probably just need to install OpenBlas:~~

sudo apt-get install libopenblas-base

system.time(solve(diag(1000) + 0.1))

**CMDSTANR:**

# we recommend running this is a fresh R session or restarting your current session

install.packages("cmdstanr", repos = c("https://stan-dev.r-universe.dev", getOption("repos")))

During startup - Warning message:

package ‘stats’ in options("defaultPackages") was not found

Error: package ‘stats’ does not have a namespace

This happened because the stats package was renamed stats2 – I do not know what caused this. I changed back the name and everything was good again.

cmdstanr::install\_cmdStan()

**PDF viewer (Okular)**

https://community.linuxmint.com/software/view/okular

**Conference Room Setup (USB-C speaker, mic, camera)**

Display link drivers: <https://www.synaptics.com/products/displaylink-graphics/downloads/ubuntu>

* Make sure USB is plugged in when installing
* sudo apt install ./Downloads/synaptics-repository-keyring.deb
* sudo apt update
* sudo apt install displaylink-driver

**Teams setup (Linux):**

Edge works best

Need to do test call

Test call will detect devices (but not the USB-C devices)

After test call, go to setting – all connected devices, including USB-C, should appear

Will need to do another test call to complete handshake with the USB-C devices

**HP Color Printer:**

sudo apt update

sudo apt upgrade

apt-cache search hplip

sudo apt install hplip hplip-gui

sudo apt install printer-driver-hpijs hpijs-ppds

sudo apt install printer-driver-pxljr # For Color printers

* might require other drivers for scanner – was installed automaticallt
* HP Toolbox will allow you to duplex (Print Settings General) but the “Duplex Unit” is not detected so this option will not appear in the print dialog. In other words, you need to switch between single/duplex in the Toolbox and then print.

**Other Stuff:**

Before installing OneDrive-GUI

sudo apt install libxcb-cursor0

~~Installing newest version of R:~~

~~https://www.ubuntuupdates.org/package/core/focal/main/base/libicu66 (need to verify download)~~

~~https://www.linuxcapable.com/how-to-install-r-lang-on-linux-mint/~~

For R in VSCode:

apt-get install libxml2-dev

To create a shortcut to a file (symlink):

Control-Alt-Shift (drag)

Installing packages in R:

sudo apt-get install r-base-dev

Kernels:

Update Manager. Go to View / Linux Kernels:

Stop printer discovery:

sudo systemctl mask cups-browsed

* Need to reboot computer
* (can be done in Printer dialog – something about Printer Discovery)

MIPI Camera

sudo apt install linux-modules-ipu6-oem-22.04d linux-modules-ivsc-oem-22.04d (kernel 6.5-10XX??)

DisplayLink Drivers

sudo apt install evdi-dkms

sudo aptitude install libdrm-dev - ??

sudo apt install libfreetype6-dev libpng-dev libtiff5-dev libjpeg-dev libharfbuzz-dev libfribidi-dev libfontconfig1-dev

install devtools package

devtools::install\_github("QFCatMSU/gg-qfc")

install tidverse package

httpgd ->unigd -> systemfonts -> libfontconfig1.dev

devtools -> pggdown -> libharfbuzz-dev libfribidi-dev

https://login.live.com/oauth20\_desktop.srf?code=0.AVkAMHEXIi9k2UGSEXQjetVoffrDcDQQvKtFoKktMINkhdH7ALg.AgABAAIAAAAmoFfGtYxvRrNriQdPKIZ-AgDs\_wUA9P8t54uHwe6YzdY7cuRnr3Yz2XMWV0UQbgmcgAC-fvF-kEkhQAldopfO0TklmrYxkjPgGSXUd5h8o8PK9PqVfjNF4iVnSG1BnUZaRqotsZyAtKNcz95dHYF4\_QWfZ5TRC0nRf18NxZWBZjimk0KkpCgnJqmgpDGYGphcA9DfqwVXBE-h9TKf9T8ROW-nZlvwZvo2UxsT6HNmAL1-jo8zj3pDBkwg2YsPQ2GHOjFTXhB91pYueKa64r1CoPot8Y6XVzkBcUzXBrqh0ou2Aydc6onWLjE3\_umTy1itO0taLZczwPB4YnzihrFEZyzeozMNDjeEP4IHbc3ja9mLvx2McGFJxlJ3gLHWBLBV2EjUjjIqKUnEoQ9SLdzrg2iIgGTvzD29wP\_eyjRXQVdnAb1TqRqabxGh8Mvj-HcHyWHpzScIoFv3MoHcYF1LRZqQ\_85AncNBy27RPX0aWhnptal2FRsaRRHf3HMbulcHEXU6GUEuGJFWFu3-Vtb40Cb173m1fC\_v2W69E7Yg1SvXBFaRwpB1BHwagj0GjuT-Z1YHN3QorSRBPEu6xoKkc0\_CNfrjrIb\_bFH0hLaymDM6hb7aemcUI6QZ0GQ9OPJYL4zjY\_sPuGWJagrMTrDWRjt11UP-udeApN5L2mwuvASOYzVh0ZK5simnciE8ndMGQicd-lX61vlgU9JM4TzYokreDwqvWyk67WJ\_huCdfQKnJC0BYk1OSHlKnsPRgkAxayQsTo3R6l5BjOL1SCRkCbjDjbJs3U2juJwkUtf7rRpgL1KBZjxQb7Gk\_xxCLz5eASd7mB\_vv-jGUOs4pepuKqPLH\_8JB0A9AudM6NnLXYKiUb7acYENQbd7118-nEayPczGsojg3QndkA&session\_state=3729aa7f-ea67-403d-91e8-50bd89ecc7d7

For sf and rnaturalearth packages:

Sudo apt update

sudo apt install libudunits2-dev libgdal-dev cmake