# Learn Ubuntu - Raspberry Pi Ubuntu 22.04.3 LTS

(GNU/Linux 5.15.0-1045-raspi aarch64)

#### **Quick Links:**

- Canonical: <a href="https://en.wikipedia.org/wiki/Canonical">https://en.wikipedia.org/wiki/Canonical</a> (company)
  - Ubuntu opensource is a project by canonical.
- Learn Systemd: Click here

# See power consumption and maximum time it can run on a powerbank of 10k mAh

See this doc - Electricity Power Usage of Devices

## Show hidden files in nautilus

Ctrl+h

# Blank Screen Delay & Screen Lock

Tags: #Turn display off timer, #Display screen off

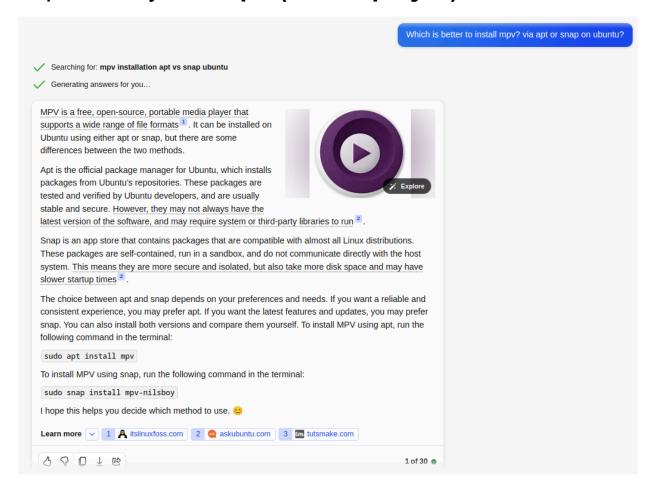
Source: <u>Ubuntu Docs</u>

Go to **Settings** from the top right power option menu.

Go to **Privacy > Screen.** Now set:

- Blank Screen Delay to Never
- Automatic Screen Lock to Disabled

# Why to consider **apt** vs. **snap** for installing any dependency like **mpv** (**music player**)



# Install htop

sudo apt install htop

# Install mpv

mpv docs: Ubuntu, Archlinux

```
sudo apt update
sudo apt install mpv
# Play youtube videos
# Step 1: Download and install yt-dlp as instructed in Install yt-dlp section.
# Step 2: Create mpv config file (source: 1 article for ubuntu, 2 reddit post comment)
touch .config/mpv/mpv.conf
# specify `yt-dlp` binary path to mpv config file
echo script-opts=ytdl_hook-ytdl_path=/usr/bin/yt-dlp > .config/mpv/mpv.conf
# Note: You must make sure that your user is present in the audio group otherwise you
would need to prefix sudo, e.g., `sudo mpv myFile.mp3`
######## FIND THE GROUPS A USER IS A MEMBER OF
groups pi
# In case your user is not part of "audio" group, you can add it like that (user=pi) #
source
sudo adduser pi audio
# Playing any youtube url now should work:
mpv --no-video "https://www.voutube.com/watch?v=LDEYsd0XE7Y"
mpv --no-video "https://www.youtube.com/watch?v=rtTI1rh9U5M"
# Play in loop
mpv --no-video --loop "https://youtu.be/IAKi-2tAiQA"
# Play a list of urls in a example-urls.txt file e.g.
cat example-urls.txt
# Output:
https://youtu.be/IAKi-2tAiQA # some comments here
https://www.voutube.com/watch?v=iUXGMoNswVw # some more comments here too
# Play above text file:
mpv --no-video --loop-playlist --playlist=./example-urls.txt
# Play above text with shuffling items:
mpv --no-video --loop-playlist -shuffle --playlist=./example-urls.txt
# Play youtube playlist directly
mpv --no-video https://www.youtube.com/playlist?list=PLMC9KNkIncKvYin_USF1qoJQnIyMAfRx1
```

```
# Play youtube playlist with shuffling
mpv --no-video --shuffle
https://www.youtube.com/playlist?list=PLMC9KNkIncKvYin_USF1qoJQnIyMAfRxl

# Open crontab entries by running `crontab -e`
# Play 20k thoughts daily at 6pm
# 0 18 * * * /home/pi/Downloads/music/s-play-20k-thoughts.sh

# contents of file: s-play-20k-thoughts.sh
mpv --no-video "https://www.youtube.com/watch?v=Q0xrqqA8wbs"

# Play 20k thoughts daily at 6pm (inline)
0 18 * * * mpv --no-video "https://www.youtube.com/watch?v=Q0xrqqA8wbs"
# Kill mpv at 6:05 pm
5 18 * * pill mpv

# play mp3 file
mpv sample-3s.mp3
```

## Install yt-dlp

NOTE: Please do not install mpv via apt because apt installs `2022.04.08` version (which is very old release as per release page from official page here) tested on 26 Jan 2024. So, install it via pip so you as docs of yt-dlp suggests:

Download the platform independent yt-dlp file from this page:

https://github.com/yt-dlp/yt-dlp#release-files

Then you can run following commands on the downloaded file:

```
wget https://github.com/yt-dlp/yt-dlp/releases/latest/download/yt-dlp
chmod +x yt-dlp
sudo mv yt-dlp /usr/bin/
```

## Install ddclient

```
apt-get install ddclient

# It will automatically ask for configuration and its pretty simple to follow up there with the steps mentioned in the official docs of namecheap here.
```

#### **Quick Links**

DDClient Docs: <u>Click here</u>
- Installation: <u>Click here</u>

Namecheap: How do I configure my DDCLIENT: Click here

DDCLIENT & Namecheap: Click here

# Set default editor for crontab & other applications

export EDITOR=/usr/bin/vi

## Reset crontab file

crontab -r

## Watch a command

```
# run date command every 2 seconds
watch date

# run date command every 2 seconds without header
watch -t date

# run date command every second without header
watch -n 1 -t date
```

## Control volume with cli

```
## WITH PACTL

# Set volume in percentage: ((source: awesome - https://askubuntu.com/a/1086235/702911)

pactl set-sink-volume @DEFAULT_SINK@ 30%

# increase in percentage
pactl set-sink-volume @DEFAULT_SINK@ +10%

# decrease in percentage
pactl set-sink-volume @DEFAULT_SINK@ +10%

## WITH amixer (setting in terms of alsamixer units)
# increase by 5%
amixer -M set Headphone 5%+ # For my case I replaced Master with Headphone)

# set volume percentage in alsamixer units e.g, set to 50%
amixer -M set Headphone 50%

# (confusing) using other values?
amixer -D pulse sset Master 48000
```

## Setting sound levels with cronjob

```
*****/home/pi/Downloads/music/sound-levels/set-sound-level.sh 55
# contents of file set-sound-level.sh

amixer -M set Headphone "$@%"
# Expected comand:
# amixer -M set Headphone 50%
```

```
In future if I need to set sound levels in a different way?

# Volume level control WORKS THOUGH BUT % LEVELS

# * * * * * export DISPLAY=:0 && amixer -D pulse sset Master 48000 >> logs.cron.sahil.txt 2>&1

# % LEVELS ARE NOT CORRECTLY UPDATED...

# * * * * * export DISPLAY=:0 && amixer -M sset Master 50% >> logs.cron.sahil.txt 2>&1
```

# Debugging cron jobs

Source: Click here

(Note: There are other logging solutions in the above link as well to debug cron jobs e.g., enabling logging for all cronjobs too).

```
# Notice the ending >> logs.cron.sahil.txt 2>&1
* * * * * export DISPLAY=:0 && amixer -D pulse sset Master 48000 >>
logs.cron.sahil.txt 2>&1
```

## **Install Docker**

Source: Click here

curl -fsSL https://get.docker.com -o get-docker.sh sudo sh get-docker.sh

### Install curl

sudo apt update && sudo apt upgrade

sudo apt install curl # verify curl --version