

1 Mandatory tools

Linux stuff :\$

2 Useful stuff

oh-my-zsh

Plugins

- **git** (autocompletion and explanation for git commands)
- **sudo** (`esc` + `esc` toggle sudo before command)
- **docker** (autocompletion for docker)
- Search for plugins for the tools you use the most

Aliases

- `..` (`..`) (each dot appending `'..'` means one folder before)
- **take <dir>** (`mkdir <dir>` ; `cd <dir>`)
- **d, 1, 2, 3...** (d shows latest directories visited, each number moves to corresponding dir)
- **l** = `ls -lah` (list long, all and for humans)

Pros

Very powerful **autocompletion** (case insensitive, navigate through autocompletion suggestions with arrow keys)

With **tab** you can move/write args/see cmd's options quickly and easily

Start writing a cmd and press `↑` `↓` to navigate through latest cmds matching the written beginning

Themes are really useful. Provide information as: git status of current dir (if working directory is a repository), information about last execution return code, information of the time elapsed since command execution until termination, etc.

Cons

Special matching char `*` does not work by default. (Fix it with `echo 'setopt +o nomatch' >> ~/.zshrc`)

Special attention when doing **source any-file.bash** files. Now will be **source any-file.zsh**. (Attention using ROS)

Some scripts won't work with zsh, if strange errors occurs, just try using bash.

Tips

Burn your **tab** key!



fzf

- `ctrl` + `r` → fuzzy finder for used cmds
- `ctrl` + `t` → fuzzy finder for files and dirs



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terminator

Pros

Multiple terminals in the same window with easy and quick navigation/creation/modification shortcuts. Highly recommended while working with ROS.

Tips

Right click on the terminal > Preferences > Profiles.

Then in **scrolling** tab: Add one more zero to scrollbar lines number. Big errors contains more 500 lines

Add one new **profile**, then go to **colors** tab, and select **black on white** as built-in scheme. This profile is now available right clicking in the terminal over the profiles list. It is really needed when working at the sun.

Shortcuts

- `ctrl` + `shift` + `o` → horizontal split
- `ctrl` + `shift` + `e` → vertical split
- `ctrl` + `shift` + `w` → close current pane
- `ctrl` + `shift` + `x` → expand current pane to full window size
- `ctrl` + `shift` + `z` → zoom current pane to full window size
- `ctrl` + `shift` + `←` `↑` `↓` `→` → resize panes
- `alt` + `←` `↑` `↓` `→` → move through panes
- `alt` + `a` → select all terminals
- `alt` + `g` → select grouped terminals
- `alt` + `o` → select one terminal



vscode

Pros

Easy installation → `snap install code --classic`

Extensions

- C/C++
- Python
- Clang-Format
- Git Lens
- Git Graph
- Markdown PDF
- Remote SSH
- Settings Sync
- Bracket Pair Colorizer
- Coding In The Sun!



Useful shortcuts

- `ctrl` + `k` + `s` → see all shortcuts (good place to search)
- `ctrl` + `k` + `c` → comment selected lines
- `ctrl` + `k` + `u` → uncomment selected lines
- `ctrl` + `d` → new cursor on next occurrence of selected text

Shell shortcuts

- `ctrl` + `a` → move cursor to the beginning of the line
- `ctrl` + `e` → move cursor to the end of the line
- `ctrl` + `l` → clear terminal
- `ctrl` + `z` → suspend current process
- If a process is suspended, it can be resumed typing **fg** (foreground) or **bg** (background)
- `ctrl` + `←` `→` → move cursor one word forward or backwards
- `ctrl` + `w` → cut last word
- `ctrl` + `k` → cut command from cursor to the end
- `ctrl` + `y` → paste cut string
- `alt` + `t` → swap last words
- `alt` + `.` → type last argument of last command

Useful commands

- man** an interface to the on-line reference manuals
- whatis** display one-line manual page descriptions
- whereis** locate the binary, source, and manual page files for a command
- which** locate a command
- whoami** print your effective userid
- watch** execute a program periodically, showing output fullscreen
- pwd** print working directory
- ping** send ICMP ECHO_REQUEST to network hosts
- nmap** Network exploration tool and security / port scanner (`sudo apt install nmap`)
- ifconfig** ... multiple configuration for network interfaces (`sudo apt install net-tools`)
- htop** interactive process viewer (`sudo apt install htop`)
- head,tail** output the first/last part of files
- more,less** file perusal filter for crt viewing/the opposite
- history** print last executed commands
- find** search for files or dirs in a directory hierarchy
- grep** print lines matching a pattern
- neofetch** . . . a fast, highly customizable system info script (`sudo apt install neofetch`)
- apropos** tells you commands that approximate the input you give
- gdb** the GNU debugger
- cmake-gui,ccmake** Graphical/Terminal User Interface for cmake (`sudo apt install cmake cmake-gui`)
- mount/umount** Attach/unattach filesystem to specific mountpoint
- dmesg** Print or control the kernel ring buffer

Shell special characters

- `~` Home directory
- `#` Comment
- `$` Variable expression
- `&` Background job
- `*` String wildcard
- `(cmd...)` Subshell
- `\` Quote next character
- `[]` Character-set wildcard
- `{cmds...}` Command block
- `;` Shell command separator
- `'...'` Strong quote
- `"..."` Weak quote
- `</>` Input/Output redirect
- `/` Pathname directory separator
- `?` Single-character wildcard
- `!` Pipeline logical NOT