# My

- CV
- Software
- Contact
- Hardware
- Services
- RSS
- Monitoring
- Recipes

# CV

My name is **Martin Rys** and I am a Linux systems administrator born and currently living in Czechia.

My hobbies are reverse engineering, embedded electronics, creating and self-hosting various services.

My hobby projects are mostly available on my GitHub & GitLab.

**Work experience**:

- November 2016 - Present
  - System administrator in a team of four for an SMB in the field of logistics
  - My role consisted of:
    - Dealing with internal helpdesk tickets from Developers and customers
    - Implementing monitoring systems for servers and applications
    - Working with CI/CD
    - Server maintenance and automation

**Technical background**:

- **Automation:** Ansible
- **Webservers:** Apache, Nginx
- **Programming languages:** Python, Bash, PHP
- **Operating systems:** Linux - Ubuntu, CentOS, Arch
- **Monitoring:** Elastic Stack, Grafana, Icinga, Smokeping
- **Virtualization/Containerization:** LXC/LXD, KVM, Docker
- **Other:** Nextcloud, InfluxDB, MariaDB/MySQL, Redmine

**Education**:

- Sš a Voš aplikované kybernetiky - Programming, High school graduate - 2012-2016

**Links**:

- LinkedIn: linkedin.com/in/martin-rys
- Personal website: rys.rs
- Contact me: martin@archlinux.org | rys.rs/contact

**Other**:

- Languages: English, Czech

- Citizenship: Czechia (EU/EEA)

# Software

This page is a list of software I use.

I denote the license in brackets, I try to stick with software that is free and open-source, if a piece of software is not FOSS, source, I mark it red, as I do not want to recommend such, but it is what I am stuck with.

# PC

- 7-Zip , p7zip (GPLv2 with unRAR restriction) - archiving tool
- Arch Linux and Arch linux ARM as my OS for my computers and VPS
- Arduino IDE (GPLv2/LGPL)
- Calibre - Read ebooks, especially EPUBs
- Charles (proprietary) – for HTTP monitoring
- Cheat Engine (No license, source code available) – hacking flash games/SP games - Never attach this to games that use an anticheat unless you aren't afraid of being banned
- Deezloader Remix (GPLv3+) - Download songs from Deezer
- ffmpeg (LGPLv2.1+) – for simple video editing
- Firefox (MPL 2), Chromium (BSD/MIT/LGPL) - Browsers I use. Chromium is an open-source browser that Chrome builds upon.
- KDE Connect (GPL) - Connect your phone with your desktop - share clipboard, files, read SMS, control media players...
- KeePassXC (GPL) - Cross-platform password manager, supports OTP (including Steam)
- Krita (GPLv3), GIMP (GPL), digiKam (GPLv2) - tools for image editing/drawing
- Libreoffice (various open/copyleft licenses) - An office suite. Be aware that OOXML standard that Microsoft Office uses by default is sometimes(very often) not displayed correctly anywhere, so get people to save in ODF formats instead.
- MultiMC (Apache v2) - Minecraft launcher
- Mumble (BSD, GPL), Riot (Apache v2), Telegram (GPLv3, proprietary server) - chat/voice/video clients with E2E encryption that are actually worth something. I use Telegram for stuff that can be insecure as they roll their own crypto and don't encrypt conversations and group conversations by default

- Nvidia drivers (proprietary) – Since the open-source nouveau driver won't work properly unless Nvidia releases the necessary firmware blobs
- OBS Studio (GPLv2+) - capturing video/streaming
- qBitTorrent (GPLv2+) - A torrent client.
- redshift (GPLv3) - tool for colorshifting to rest your eyes
- smplayer (GPLv2+) with mpv (GPLv2) as a backend - to play videos
- Steam (proprietary), GOG Galaxy (proprietary), Uplay (proprietary), Origin (proprietary), itch (MIT) - clients for games
- SmoothVideoPlayer (proprietary) - to do on-the-fly video interpolation - let's me watch movies and shows in 144 FPS
- Ventoy (GPLv3) - Create a multiboot flash drive that actually works
- virt-manager (GPLv3+) and KVM/QEMU (GPLv2) – for virtualization
- Visual Studio Code (MIT) - Plugins: Arduino, Draw.io integration, indent-rainbow, gitlens, shellcheck
- youtube-dl (The Unlicense) - video/audio downloader

# Windows only

- AIDA64 (8.20) (proprietary) – To get system specs, temps - Check here for newer version
- Chocolatey (MIT) - A package manager
- CrystalDiskInfo (MIT) - Monitoring tool for your drives and temperatures of your HW
- Everything (proprietary) - Tool for searching your files and folders
- HashCheck (BSD-style) - Add hash sum feature to the Properties tab of files
- MSI afterburner (proprietary) + Kombustor (proprietary) – for GPU stressing, overclocking and checking on temperatures
- Rufus (GPLv3+) – To create bootable flash drives when I’m stuck with Windows.
- ShareX (GPLv3) - screenshotting, capturing video, editing screenshots
- WinAuth (GPLv3)- 2-factor-authentication, has integration for custom 2FA like Steam, Battle.net, ...
- WinDirStat (GPLv2) - Tool for visualizing your disk space to help you clean useless stuff

# Linux only

- ANGRYsearch (GPLv2) - Tool for searching your files and folders

- Flameshot (GPLv3) - Screenshot tool, lets you draw over the screenshot while taking it.
- gparted (GPLv2+) - Partitioning tool. There is also a live image.
- nano (GPL) and gedit (GPLv2) – For text editing since I'm too lazy to learn vim or emacs
- pavucontrol (GPLv2) - sound mixer/audio control
- QDirStat (GPLv2) - Tool for visualizing your disk space to help you clean useless stuff
- Tauon Music Box (GPLv3+) - My favorite music player
- WINE (LGPLv2.1+) - Windows compatibility layer - play Windows games/use Windows software

# Android

- AdAway (GPLv3) - Blocks ads system wide, requires root
- DriveDroid (proprietary) - Boot images from your phone
- FreeOTP (Apache v2) - 2-factor-authentication, only has basic TOTP with no gimmicks
- F-Droid - Open source store with open source apps.
- KeePassDX (GPLv3+) - Using it to access my password database. Using Nextcloud to sync it.
- NewPipe (GPLv3) - Youtube player with all the features you could ask for
- Nextcloud (AGPLv3) – For cloud backup and file sharing
- Open Camera (GPLv3) - Camera app
- Google services (proprietary) - Gmail, account sync and such. I hope I can migrate all to Nextcloud sometime soon.
- StreetComplete - Help make OpenStreetMap better!
- ~~Usb Mountr (MIT) - Fakes mass storage so you can boot an image from your phone instead of using a flash drive. Requires root.~~
- WiFiAnalyzer (GPLv3) - Neat tool that shows APs, their settings and their signal strength. Doesn't show whether WPS is locked or not(Android API limitation).

# Browser addons

- Augmented Steam (GPLv3) - Chromium, Firefox - Makes the steam website stuck less
- Auto Resume Downloads (MIT) - Chromium, GitHub - Automatically resume failed downloads, helpful on shoddy networks
- AutoScroll (MIT) - Chromium - Middle click to scroll, just like in Windows

- ClearURLs (LGPLv3) - Chromium Firefox GitHub- Remove tracking and other garbage from URLs
- Dark Reader (MIT) - Chromium Firefox GitHub - Dark mode for the web, slightly buggy sometimes
- EditThisCookie (GPLv3+) - Chromium - Cookie editor
- Floccus (MPLv2)- GitHub - Sync my bookmarks across browsers from my Nextcloud server
- Forever Pinned (proprietary, source code available) - Chromium - keep a set of tabs always pinned
- HoverZoom+ (MIT) - Chromium - View video/images upon hover
- Netflix 1080p (MIT) - Chromium GitHub - Play Netflix in 1080p and 5.1
- Plasma Integration (GPLv3) - Chromium - For Plasma on Linux
- Reddit Enhancement Suite (GPLv3) - Chromium - Make Reddit bearable
- SponsorBlock (GPLv3) - Chromium Firefox GitHub - Skip specific segments on Youtube
- SSL Grade (GPLv3) -Chromium - Test website's TLS settings on ssllabs and show their grade
- Steam Database (BSD-3) - Chromium Firefox GitHub - Show links to SteamDB on Steam store pages
- Tamper Monkey (proprietary, source code available only for ancient versions, TODO: Check out Greasemonkey) - Chromium - Run various scripts
  - GitHub unroll comments
  - IPT fixes
  - MuseScore downloader
  - ScoreSaberEnhanced
  - Youtube continue watching - Autoclicks this stupid popup
- uBlock Origin (GPLv3) - Chromium, Firefox - Block ads, popups and similar stuff.
  - Make sure to enable extra filters:
    - Options -> Filter Lists -> Ads -> Adblock Warning removal list
    - Options -> Filter Lists -> Annoyances -> Fanboy’s Annoyance
- User agent switcher (MPLv2) - GitHub - Switch UA to make sites display content I want

# Contact

If you wish to contact me, you can do so at following places:

- Email (and Google Chat) - spleefer90@gmail.com
- Matrix(Riot) - @C0rn3j:matrix.org - Am rarely active there
- Steam - C0rn3j
- Telegram - @C0rn3j

You will get the fastest response via Telegram and email.

SSH pubkeys (these are here mostly for myself):

```
ssh-ed25519 AAAAC3NzaC1lZDI1NTE5AAAAILhC+Jgu/ZCOYVYT9UfMqfWW+WXkqApXPXMKP2rcWnBj [2025-05-26]|ansible
ssh-ed25519 AAAAC3NzaC1lZDI1NTE5AAAAIH2YnZYygUhQBLS0xdQ2/Zlg2/QtSJoasj5aDcUvK0pj [2025-05-26]|c0rn3j
ssh-ed25519 AAAAC3NzaC1lZDI1NTE5AAAAIIqnWQRCGgb6YDcbENshr2ElhDa82aGqYGT9kZ+EHqkc u0_a184@Xiaomi12
```

GPG keys:

```
0x8EC3D1684C633793
```

# Hardware

List of all the hardware I'm using and what I'm using it for.

Also has stuff of others that I want to keep track of.

# Mine

# Networking

- Xiaomi Redmi AX6S RB03 - Router flashed with OpenWRT FW, Device table
- TP-Link Archer C7 v2 - Router, flashed with OpenWRT FW, Device table
- TP-Link TD-W9980B - VDSL modem/router, flashed with OpenWRT (for W8980) FW, Device table
- D-Link - DGS-1100-08 - FW (B1 version)
- D-Link - DGS-1100-05 - FW (B1 version)
- Zyxel VMG3625-T50B - ADSL2/VDSL2 modem/router - FW
- TL-WN722N v2(?) - 2.4GHz b/g/n USB adapter, works well with pentesting tools

# Peripherals and Other

- BOSCH D-TECT 120 Professional - Expensive tool for detecting things in the walls to avoid even more expensive mistakes
- Split unit AC - Indoor VIVAX ACP-12CH35AEHI/I+ (with EU-OSK105 for Wi-Fi), Outdoor VIVAX ACP-12CH35AEHI/O+
- Dead AC - Indoor Toshiba RAS-B10J2KVG-E
- 12000 BTU portable AC - Gree GPC12AL-K3NNA1A - Cause otherwise I'd be cooked alive in here during summer.
- Corsair XENEON 27QHD240 - 240Hz, 1440p, 27", OLED - Main screen Firmware update
- ASUS MG279Q - 144Hz, 1440p, 27", IPS - Secondary screen
- ACER XB270HAbprz - 144Hz, 1080p, 27", TN - Main screen for secondary PC
- Genius SW-J2.1 1200 - 2.1 speakers. They sound alright.

- Idobao x YMDK ID75 - Fancy ortholinear 75% mechanical keyboard with FOSS firmware FW
- A4TECH XL-750BK - Laser mouse with 1000Hz polling rate and 3600 DPI, good enough for my needs, keeping it until it dies, then it's P93s only.
- 2x A4TECH Bloody P93, 1x J95 - Laser mice with 1000Hz polling rate and 3000(up to 5K) DPI, good enough for my needs. Also has extensive macro support and RGB lights.
- 3x Steam Controller - the only controller that works without hassle on all OSs, especially Linux
- Wacom Intuos Pen Small (CTL-480)
- 2x Korad KA3005P - Lab PSU
- WH-1000XM5 - BT Headset
- HyperX Cloud 2 - Headset - modified sound card to support USB-C instead of being soldered FW
- Brother PT-D600 - Label printer FW & SW. Last 9 characters of serial number: C8Z952846 (Downloads and installs are locked behind it)
  - Alternatively try 6.13.0 or 6.3.001 or 6.5.000 or different download server 6.3.001 or 6.5.000
  - `curl -H 'User-Agent: os/windows appName/P-touch Editor 6.5.0.0' 'https://p-touch.brother.com/es-contents/dlc/v11/bilsvc/categoryList?contentType=Template&langId=ENU&defaultLangId=ENU&paperType=Label&market=PT-HomeOffice'`
  - `curl -H 'User-Agent: P-touch Editor 6.5.0.0' -H 'Content-Type: text/xml; charset=utf-8' -X POST https://firmverup.brother.co.jp/KNE_ES_UPDATE_SSL/es_update.asmx/verCheck -d '<?xml version="1.0" encoding="utf-8"?><RequestInfo><FirmUpdateToolInfo><FirmCategory /><OS /><Area /><InspectMode>0</InspectMode></FirmUpdateToolInfo><ModelInfo><Model><Name>Brother PT-D600</Name><Spec>ALL_ALL</Spec></Model></ModelInfo></RequestInfo>'`
  - `curl -H 'User-Agent: P-touch Editor 6.5.0.0' -H 'Content-Type: text/xml; charset=utf-8' -X POST https://firmverup.brother.co.jp/KNE_ES_UPDATE_SSL/es_update.asmx/fileUpdate -d '<?xml version="1.0" encoding="utf-8"?><RequestInfo><FirmUpdateToolInfo><FirmCategory /><OS /><Area /><InspectMode>0</InspectMode></FirmUpdateToolInfo><FirmUpdateInfo><Model><SelialNo /><Name>Brother PT-D600</Name><Spec>ALL_ALL</Spec><Driver>Brother PT-D600</Driver><Firm><Category /><Id>PP-PTEDIT6</Id><Version>6.5.0.0</Version></Firm></Model><DriverCnt /><LogNo>2</LogNo><NeedResponse>1</NeedResponse></FirmUpdateInfo></RequestInfo>'`
- FUNC KB-460 Cherry MX Blue - Mechanical keyboard
- HyperX Cloud Alpha - Buy HyperX Cloud 2 instead, the only advantage this has is detachable cable, but you need ear pads from the old ones and get no USB sound card
- Kindle Paperwhite 4 32GB - Jailbroken e-reader Firmware update Software updates KOReader(kindlepw2)
  - Install latest JB hotfix first!
  - ;log mrpi after installing mrpi and dropping new packages in the folder
- 55" OLED 4K@120 Philips TV (55OLED718) VESA mounted with SQM3642
- Soundbar TAB8507B

- Yamaha P-125 with LP-1 and L-125 stand (all black)
- KELLY's Madman 50 Black Green 29"(19) - A bike
- Wenger Pegasus 17" - Laptop Backpack
- Rowenta CV5831F0 - Hair dryer
- Xiaomi Mi Dual Driver Earphones (Type-C) Black - Wired earphones
- AlzaPower Q100 Quick Charge 3.0 Black - power brick
- AlzaPower Source 16000mAh Quick Charge 3.0 - powerbank
- Xiaomi Power Bank 16000mAh - old powerbank
- TS80 - Soldering iron OEM firmware Custom firmware(TS80_EN.hex)
- Mi Band 6 - Fitness tracker - Mostly for notifications and MPRIS control via KDEConnect
- PS3 Slim - jailbroken
- Valve Index - VR
- BlitzWolf BW-SHP6 15A - IoT 230V electric socket Custom firmware
- TUSON Basic 80W - Glue gun
- KOKKEDAL chairs from JYSK (3601324)
- STRAFE RGB Mechanical Gaming Keyboard — Cherry MX Silent - Spare keyboard at this point
- IKEA BJÖRKÅN + NYSJÖN + REIHE TERMO 11-CR - Sink, undersink and thermostatic tap
- IKEA VALLAMOSSE for a thermostatic shower mixer
- Security keys: GoTrust Idem Key, YubiKey 5 NFC, YubiKey 5C NFC

# PC

- Corsair 450D Obsidian Series
- ASUS TUF GAMING X870E-PLUS WIFI 7 - UEFI update
- MSI MEG Ai1300P PCIE5
- AMD Ryzen 7 9700X + Noctua NH-D15 AM4 with back fan swapped for NOCTUA NF-F12 PWM Chromax Black Swap which is 120mm instead of 140mm due to RAM clearance
- GIGABYTE GeForce RTX 4090 GAMING OC 24G
- Intel 760p 1TB - Firmware update
- Apacer AS2280P4U Pro 2TB
- Kingston FURY Renegade NVMe 4TB - Firmware update
- 3TB WD RED
- 2x 6TB WD BLUE
- 2x 8TB WD Elements Desktop
- Kingston FURY Beast Black 64GB (2x 32GB) DDR5 5600MHz - KF556C40BBK2-64
- STW-3125 - front panel with 3x 5Gbit USB-A, 1x USB-C and lots of cards slots
- VP1200ELCD - 720W UPS

# PC

- Corsair Carbide Series 200R
- GIGABYTE GA-AX370-Gaming K5 - UEFI update
- Evga G3 750
- AMD Ryzen 5 3600 + NOCTUA NH-D14
- MSI GeForce GTX 1080Ti GAMING 11G
- ADATA SX8200 Pro 1TB
- 525GB MX300
- 3TB WD RED (dying)
- G.SKILL 2x16GB DDR4 3200MHz CL14 Trident Z - F4-3200C14D-32GTZ
- TRUST TYTAN 2.1 Speaker 19019-04

# Laptop

- Lenovo Legion 5 Pro (16ACH6H-82JQ) - UEFI update
- Ryzen 7 5800H
- Micron SO-DIMM 32GB KIT DDR4 2300MHz CL22 (2x16GB)
- NVIDIA GeForce RTX 3060
- AMD Radeon RX Vega 8
- 1TB SSD SKHynix HFS001TDE9X084N
- Intel AX200 802.11ax (replaced a buggy Realtek chip)
- 16" - 2560x1600@165

# Laptop

- DELL Vostro 3560 (0C05GV) - UEFI update
- i7-3612QM
- Corsair SO-DIMM 16GB KIT DDR3L 1600MHz CL9 Vengeance (2x8GB)
- AMD Radeon HD 7670M
- Intel(R) HD Graphics 4000
- 500GB 860 EVO
- 120GB 840 EVO
- Intel® Dual Band Wireless-AC 3160
- 15.6" - 1920x1080

# Phones & Tablets

- Samsung S5 mini (kminilte[G800F])
- Xperia Z (yuga[C6603])
- Xiaomi Redmi 3S (land)
- Xiaomi Mi 9T (davinci[128GB, EEA]) ROM update TWRP
- Xiaomi 12 (cupid) - Lineage GSM by Arian - TODO - reinstall to Arian's Vanilla and add MindTheGapps instead
  - `adb reboot recovery`
  - `adb sideload ~/Downloads/lineage-21.0-20240728-UNOFFICIAL-GMS-cupid.zip` from VOL UP sideload menu
  - `adb push ~/Downloads/lineage-21.0-20240728-UNOFFICIAL-GMS-cupid-boot.zip /sdcard` - install Magisk.apk, launch it, patch this file
  - `adb pull /sdcard/Download/magisk_patched-27000_8xwih.img` copy it back to desktop
  - `adb reboot fastboot`
  - `fastboot flash boot_a magisk_patched-27000_8xwih.img` + `fastboot flash boot_b magisk_patched-27000_8xwih.img`
- Lenovo Tab K10 (TB-X6C6F_EEA) - ROM update (arm64_bgN) - GSI Wiki entry
  - `7z e ~/Downloads/lineage-21.0-20240424-UNOFFICIAL-arm64_bgN.img.xz`
  - `adb reboot fastboot`
  - `fastboot flash system ~/Downloads/lineage-21.0-20240424-UNOFFICIAL-arm64_bgN.img`

# Raspberry Pi 5 8GB

- Arch Linux ARM, behind the TV running Kodi connected to Jellyfin, gets HDR with the GBM backend
- Terrible RTL9210 USB NVMe enclosure - Firmware update
- ADATA SX8200 Pro 2TB

# Spares

- FLATRON W2243S - 60Hz overclockable to 74Hz, 1080p, TN, 22" ish
- Raspberry Pi 3 model B
- 2TB external drive (offline backups)
- 256GB M.2 2280 NVMe SSD - MVZLW256HEHP-000H1
- another external drive (unused)
- ASRock B450 Pro4 - UEFI update

- Realtek RTL8852AE 802.11ax
- AMD Stock cooler - Wraith Stealth
- AK-PCCM2P-05 PCIe adapter
- MHPower MS9-12 (12V 9Ah)
- Corsair RM650
- MSI Radeon RX 580 ARMOR 8G OC
- AMD Ryzen 5 7600X
- GIGABYTE X670 AORUS ELITE AX rev 1.0 - UEFI update - NEVER BUY GIGABYTE AGAIN
- MSI MPG X870E CARBON WIFI - UEFI Uupdate - I no longer have it, hall of shame entry, anything but cold boot after 10+ minutes of rest results in booting with code 80, and the delayed cold boot boots in a fucked up way anyway

# Puzzles

- 2x2 Meilong
- 2x2 YJ MGC
- 3x3 Meilong
- 3x3 Meilong 3C
- 3x3 Meilong M
- 3x3 MoYu RS3M 2020
- 4x4 Meilong
- 4x4 YJ YuSu V2 M
- 5x5 Meilong
- 5x5 QiYi MS - Logo removable by ethanol
- 6x6 YJ Yushi V2 M
- 7x7 YJ Yufu V2 M
- Megaminx YJ Yuhu V2 M
- Square-1 Meilong
- 3x3 Meilong Mirror (silver)
- 3x3 Qiyi Axis - Logo removable by ethanol (but ever so slightly damages the texture)
- 3x3 Qiyi Fisher - Logo removable by ethanol (but ever so slightly damages the texture)
- 3x3 Yj Windmill
- 4x4 Fanxin Axis
- 4x4 Fanxin Fisher
- 4x4 Fanxin Windmill

# 3D Printers

## Ender 3 V2

# Cura settings

Start G-code:

```
; Ender 3 Custom Start G-code
; Heat up the bed and extruder at the same time, saves time, the power supply can handle it
M104 S{material_print_temperature_layer_0} ; Start heating extruder
M140 S{material_bed_temperature_layer_0}   ; Start heating bed
M109 S{material_print_temperature_layer_0} ; Wait for extruder to reach temp before proceeding
M190 S{material_bed_temperature_layer_0}   ; Wait for bed to reach temp before proceeding
G92 E0                                     ; Reset Extruder
G28                                        ; Home all axes
;G29                                       ; Mesh leveling (takes a while)
;M500                                      ; Save mesh
M420 S1                                    ; Load saved mesh
G1 Z2.0 F3000                              ; Move Z Axis up little to prevent scratching of
Heat Bed
G1 X0.1 Y20 Z0.3 F5000.0                   ; Move to start position
G1 X0.1 Y200.0 Z0.3 F1500.0 E15            ; Draw the first line
G1 X0.4 Y200.0 Z0.3 F5000.0                ; Move to side a little
G1 X0.4 Y20 Z0.3 F1500.0 E30               ; Draw the second line
G92 E0                                     ; Reset Extruder
G1 Z2.0 F3000                              ; Move Z Axis up little to prevent scratching of
Heat Bed
G1 X5 Y20 Z0.3 F5000.0                     ; Move over to prevent blob squish
```

End G-Code:

```
G91               ; Relative positioning
G1 E-2 F2700      ; Retract a bit
G1 E-2 Z0.2 F2400 ; Retract and raise Z
G1 X5 Y5 F3000    ; Wipe out
G1 Z10            ; Raise Z more
G90               ; Absolute positioning

G1 X0 Y{machine_depth} ; Present print
M106 S0                ; Turn-off fan
M104 S0                ; Turn-off hotend
M140 S0                ; Turn-off bed
```

```
M84 X Y E        ; Disable all steppers but Z
```

## Filament specific settings

- 2021-12 Ender 1.75mm filament
  - 60°C bed just doesn't stick, 70°C seems to cause warping, 65°~ seems to be the sweet spot
  - 190°C-200°C filament seems to have decent quality

# Printer itself

v4.2.2 mainboard

Upgrades:

- CR Touch
- 8x20mm replacement bed springs
- Landscape LCD mount

Tools:

- Feeler gauge

Firmware:

- Marlin 2.1.x-bugfix [2023-12-31]
  - Built using STM32F103RET6_creality environment, changes from stock noted below:
    - Configuration_adv.h
      - `PROBE_OFFSET_WIZARD` defined - *Add a Probe Z Offset calibration option to the LCD menu*
      - `BOOTSCREEN_TIMEOUT` changed from `3000` to `1500 - *(ms) Total Duration to display the boot screen(s)*
    - Configuration.h
      - `BLTOUCH` defined - *I own CR-Touch, so enable it*
      - `PROBE_MANUALLY` commented out - *Because we define* `BLTOUCH`
      - `USE_PROBE_FOR_Z_HOMING` defined - *Force the use of the probe for Z-axis homing*
      - `Z_MIN_PROBE_USES_Z_MIN_ENDSTOP_PIN` commented out - *Enable this option for a probe connected to the Z-MIN pin*
      - `Z_SAFE_HOMING` defined - *Use "Z Safe Homing" to avoid homing with a Z probe outside the bed area.*
      - `CUSTOM_MACHINE_NAME` changed from "Ender-3 V2" to "Former E3V2" - *Name displayed in the LCD "Ready" message and Info menu*
      - `NOZZLE_TO_PROBE_OFFSET` changed from `{ 10, 10, 0 }` to `{ -47, -8, -1.5 }` - *Measured by caliper and Z probe wizard and repeated print attempts*
      - `DWIN_MARLINUI_PORTRAIT` commented out

        - `DWIN_MARLINUI_LANDSCAPE` defined
        - `DEFAULT_AXIS_STEPS_PER_UNIT` changed from `{ 80, 80, 400, 93 }` to `{ 80, 80, 400, 100.5 }` - *Default Axis Steps Per Unit (linear=steps/mm, rotational=steps/°) - X, Y, Z [, I [, J [, K...]]], E0 [, E1[, E2...]]*
            - My esteps need to be more than default, measured by manually printing out 100mm of filament, measuring the actual printed out length as M and using it in the following equation: `(100/M) x E_Steps = New E-Steps`*
- Marlin 2.0.9.3
    - Built using STM32F103RET6_creality environment, changes from stock noted below:
        - Configuration_adv.h
            - LCD_SET_PROGRESS_MANUALLY defined
            - SHOW_REMAINING_TIME defined
            - PROBE_OFFSET_WIZARD defined
        - Configuration.h
            - BLTOUCH defined
            - PROBE_MANUALLY commented out
            - Z_MIN_PROBE_USES_Z_MIN_ENDSTOP_PIN commented out
            - USE_PROBE_FOR_Z_HOMING defined
            - AUTO_BED_LEVELING_BILINEAR defined - seems to be in stock? Check and remove if so
            - Z_SAFE_HOMING defined
            - CUSTOM_MACHINE_NAME set to have my nickname in it
            - Change NOZZLE_TO_PROBE_OFFSET to { -47, -8, 0 }
                - Varies wildly from someone else's measurement, why?

# Marlin build instructions

https://marlinfw.org/docs/basics/auto_build_marlin.html

https://marlinfw.org/docs/basics/install_platformio_vscode.html

https://marlinfw.org/meta/download/

Grab latest stable or latest bugfix (see what's usually recommended at the time of flash), unzip and open its config folder, read that to download configurations too.

Relevant config for the Ender is in `config/examples/Creality/Ender-3 V2/CrealityV422` - copy the two header files from the MarlinUI subfolder to the main firmware folder under Marlin subfolder, overwriting the defaults.

Screen FW needs to be in sync with printer FW, update from 4096 sector VFAT fs `mkfs.vfat -S 4096 /dev/sdg`, see Marlin config folder for instructions.

Printer FW won't update from a 4096 sector FS, use defaults (16k).

# Elegoo Saturn

On the way!

# Others

- Huawei HG622u - DSL modem/router
- LG TV 55UH605V - 4K TV. Has dumb dimming that can only be disabled via IN START menu(IR code 20DFDF20 - password is 0413).
- Brother MFC-9340CDW - Drivers
- Lenovo Yoga 7 2-in-1 16AKP10 (83JU0012CK)
- HP Envy 15" bq100nc x360 - UEFI update
- Philips LatteGo EP3246/70

# Services

# Public

- Books - Semi-public calibre-web instance of my entire digital library, guest is welcome.
- BookStack - This wiki
- FreshRSS - RSS/Atom reader - Used to be tt-rss but the developer isn't the nicest human being
- HasteBin - A pretty pastebin
- PrivateBin - A secure pastebin
- Jitsi Meet - Self-hosted Jitsi instance(Currently down)
- SmokePing - Checks and graphs latency
- Minecraft - minecraft.rys.pw
- Mumble - Running a server for Mumble VOIP (murmur)
- Speedtest- A speedtest on one my Scaleway VPSs. Limited to 200/200 and definitely not always reaching that, so take it with a grain of salt
- IP detection - I was annoyed that most sites didn't show both your IPv4, IPv6 and local IPs, so I made my own. You can curl ipv6.rys.pw or ipv4.rys.pw to get a plaintext response with your IP.
- Protocol decode tool - Made for my A4TECH mice
- Text replacer - Text Mechanic alternative
- Radio - Tauon Music Box lets you broadcast, so sometimes I do so
- Syncplay - syncplay.rys.pw:8999 - a SyncPlay server
- PS3 Game Update finder - Because the other tools are unavailable nowadays

# Private

- Keycloak - Authentication service
- Icinga - Monitoring of my services
- Mail (Administration) - So I can use this domain for email

- Matomo - FOSS Google Analytics
- Nextcloud - Hosted on my own hardware - for friends/family. Can be used for file hosting, contacts, video calling, listening to music etc.
- Wekan - TODO lists

# Commercial

- Scaleway - VPS
- Private Internet Access - 99$/3 years VPN
- Netflix - Paying Turkish prices
- Youtube - for listening to music and watching/uploading videos
- Deezer - For ripping most music I can find through Deezloader Remix.

# RSS

This is a list of my feeds on https://rss.rys.pw that serves as a backup

- Arch Linux: News
- Arch Linux: Releases
- Arch Linux Monthly Reports
- BookStack releases
- Cheat Engine releases
- Dolphin-emu News
- dxvk releases
- Flatseal releases
- Gamers Nexus
- GitLab releases
- G Suite updates
- http-server-upload releases
- Jitsi News
- jitsi-meet-electron releases
- KeePassXC releases
- LineageOS
- Linux releases - Filter out 'longterm' and 'linux-next'
- LOOT releases
- LXD releases
- Marlin releases
- Matomo releases
- Nextcloud releases
- OAuth2 Proxy
- OpenWrt Releases
- Phoronix
- PHP releases
- postmarketOS Blog
- python-deezer-py releases
- python-elevenlabs releases

- python-hsaudiotag3k releases
- python-jxlpy releases
- RouterOS releases
- sc-controller releases
- qdirstat releases
- RPCS3 Blog
- Synthesia releases
- Tasmota releases
- TWRP News
- WineHQ News
- xkcd.com

# Monitoring

Monitoring commands for monitoring.rys.rs

TODO: Migrate to Ansible roles

```
'/usr/lib/monitoring-plugins/check_curl' '--hostname=a4.rys.rs' '--ssl=1.2+' '--string=Enter
output' '--use-ipv4'
'/usr/lib/monitoring-plugins/check_curl' '--hostname=analytics.rys.pw' '--ssl=1.2+' '--
string=Sign in - Matomo' '--use-ipv4'
'/usr/lib/monitoring-plugins/check_curl' '--hostname=auth.rys.rs' '--ssl=1.2+' '--
string=Keycloak' '--url=/admin/master/console/' '--use-ipv4'
'/usr/lib/monitoring-plugins/check_curl' '--hostname=www.bloody.com' '--sni' '--ssl=1.2+' '--
string=V2024.1115A_MUI' '--timeout=30' '--url=/en/product.php?pid=10&id=229&fid=16' '--use-
ipv4'
'/usr/lib/monitoring-plugins/check_curl' '--expect=403' '--hostname=books.rys.rs' '--ssl=1.2+'
'--string=Keycloak' '--use-ipv4'
'/usr/lib/monitoring-plugins/check_curl' '--hostname=cloud.rys.rs' '--ssl=1.2+' '--
string=Corncloud' '--url=/login' '--use-ipv4'
'/usr/lib/monitoring-plugins/check_curl' '--hostname=haste.rys.pw' '--ssl=1.2+' '--
string=Duplicate & Edit' '--use-ipv4'
'/usr/lib/monitoring-plugins/check_curl' '--hostname=ip.rys.rs' '--ssl=1.2+' '--string=Your
IPv4' '--use-ipv4'
'/usr/lib/monitoring-plugins/check_imap' '--certificate=5,10' '--hostname=mail.rys.rs' '--
port=993' '--use-ipv4'
'/usr/lib/monitoring-plugins/check_curl' '--hostname=mail.rys.rs' '--ssl=1.2+' '--string=login
here' '--url=/login.php' '--use-ipv4'
'/usr/lib/monitoring-plugins/check_curl' '--hostname=mail.rys.rs' '--ssl=1.2+' '--
string=Roundcube Webmail' '--url=/webmail/' '--use-ipv4'
'/usr/lib/monitoring-plugins/check_curl' '--hostname=mumble.rys.rs' '--use-ipv4'
# Missing???
'/usr/lib/monitoring-plugins/check_tcp' '--hostname' 'mumble.rys.pw' '--port' '64738'
'/usr/lib/monitoring-plugins/check_curl' '--hostname=paste.rys.pw' '--ssl=1.2+' '--string=zero
knowledge' '--use-ipv4'
'/usr/lib/monitoring-plugins/check_curl' '--hostname=ping.rys.rs' '--ssl=1.2+' '--
string=Network Latency' '--use-ipv4'
# Missing???
```

```
'/usr/lib/monitoring-plugins/check_http' '--hostname=radio.rys.pw' '--ssl=1.2+' '--
string=Matomo'
'/usr/lib/monitoring-plugins/check_curl' '--hostname=rss.rys.rs' '--ssl=1.2+' '--string=Main
stream · FreshRSS' '--url=/i/' '--use-ipv4'
'/usr/lib/monitoring-plugins/check_curl' '--hostname=rys.rs' '--ssl=1.2+' '--string=Hardware'
'--url=/books/wiki/page/start' '--use-ipv4'
'/usr/lib/monitoring-plugins/check_curl' '--hostname=speedtest.rys.rs' '--ssl=1.2+' '--
string=LibreSpeed' '--use-ipv4'
'/usr/lib/monitoring-plugins/check_tcp' '--hostname' 'syncplay.rys.rs' '--port' '8999'
# Missing?
'/usr/lib/monitoring-plugins/check_http' '--hostname=text.rys.pw' '--ssl=1.2+' '--string=AGPL'
'/usr/lib/monitoring-plugins/check_curl' '--hostname=wekan.rys.rs' '--ssl=1.2+' '--
string=meteor_js' '--use-ipv4'
```

# Recipes

https://rys.pw/recipes