Workspace

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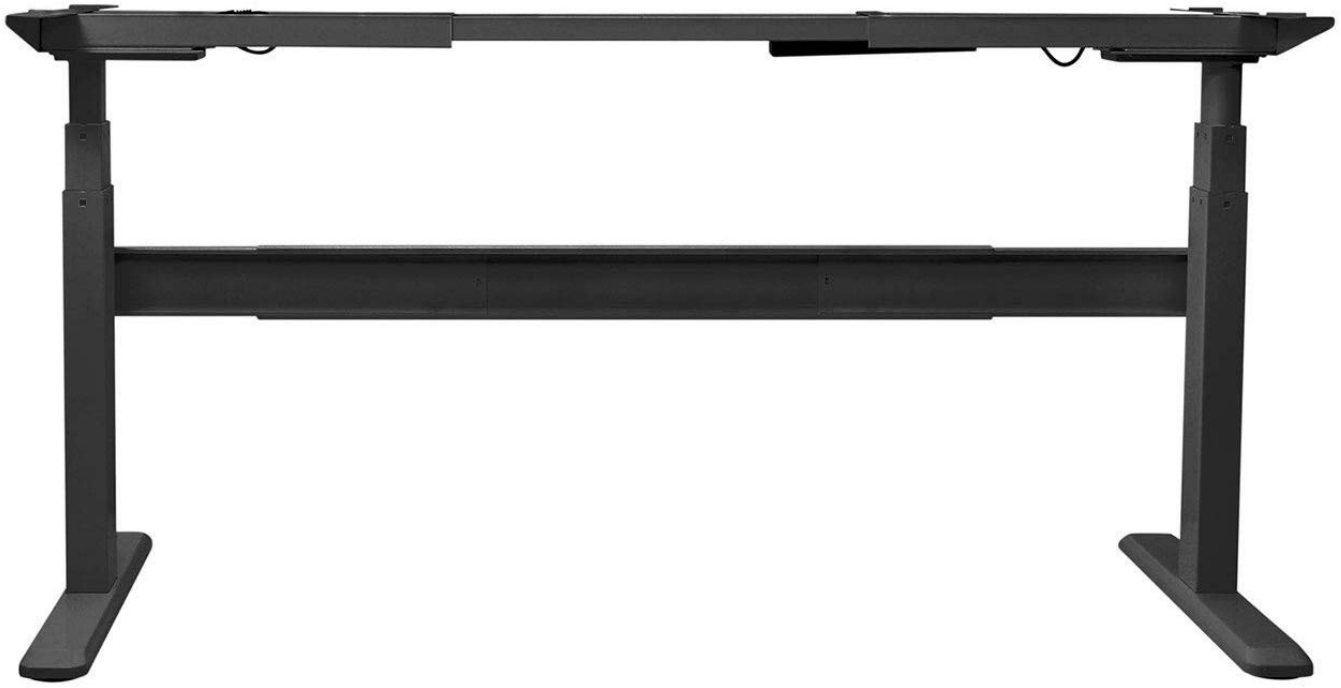
Physical

Physical

Standing Desk

The page is for the following standing desk unit with the touch based input remote as seen on the picture.



Controller Setup

See attached pdf manual for details.

Software

Software

Xorg AMDGPU

I own a AMD Vega64 and an using it with i3 on Manjaro. The misaligned monitors on the greeter and the manual resolution and refresh rate switching were super annoying.

Setup

- Updated Manjaro with kernel >5.0 including amdgpu kernel driver
- AMD Vega64
- Monitor capable of 144Hz and Freesync
- Second Monitor not capable of those things

144Hz modline

This was relative simple, amdgpu is pretty verbose on startup and prints *all* available modlines for the connected outputs on the card into `/var/log/Xorg.0.log`. With a simple `less /var/log/Xorg.0.log` I quickly found it somehwere along with

```
[     6.454] (II) AMDGPU(0): Printing probed modes for output DisplayPort-2
[     6.454] (II) AMDGPU(0): Modeline "2560x1440"x60.0  241.50  2560 2608 2640 2720  1440 1443
1448 1481 +hsync -vsync (88.8 kHz eP)
[     6.454] (II) AMDGPU(0): Modeline "2560x1440"x143.9  586.00  2560 2568 2600 2640  1440
1465 1473 1543 +hsync -vsync (222.0 kHz e)
[     6.454] (II) AMDGPU(0): Modeline "2560x1440"x119.9  482.64  2560 2568 2600 2640  1440
1447 1455 1525 +hsync -vsync (182.8 kHz e)
[     6.454] (II) AMDGPU(0): Modeline "2560x1440"x99.9  398.23  2560 2568 2600 2640  1440 1496
1504 1510 +hsync -vsync (150.8 kHz e)
```

and used the one with my desired configuration.

xorg config

To get my setup working as expecting without manual configuration on every startup, I needed to place a persistent config in the xorg config folder so e.g. `/etc/X11/xorg.conf.d/10-monitors.conf`.

There, I configured both my GPU driver and the monitors like following.

The *Monitor* sections are straightforward. *DisplayPort-2* is my 144Hz display, so I added the modline as a new preset `2560x1440_full` and used it in the *PreferredMode* option. Further I enabled DPMS, the *Display Power Management Signaling* so the system could turn of the Montiors just in case.

The *Device* section contains the preferred options for the given GPU drive, in my case *amdgpu*. I enabled *TearFree* as well as *VariableRefresh*, the first one should reduce tearing on both displays while the latter one enables FreeSync on my 144Hz monitor. After a reboot, my monitor indeed reported it was using FreeSync!

```
Section "Monitor"
  Identifier "DisplayPort-2"
  Modeline "2560x1440_full"  586.00  2560 2568 2600 2640  1440 1465 1473 1543 +hsync -vsync
  Option "Primary" "true"
  Option "PreferredMode" "2560x1440_full"
  Option "DPMS" "true"
EndSection

Section "Monitor"
  Identifier "DisplayPort-1"
  Option "PreferredMode" "2560x1440_59.95"
  Option "LeftOf" "DisplayPort-2"
  Option "DPMS" "true"
EndSection

Section "Device"
  Identifier "AMD-VEGA"
  Driver "amdgpu"
  Option "VariableRefresh" "true"
  Option "TearFree" "true"
EndSection
```

Software

fan2go

My setup on ws01.havok.xyz

This will setup the fans to both value temps of cpu + ssd or gpu + ssd.

```
fans:
  - id: radiator_fans
    minPwm: 60
    startPwm: 60
    hwmon:
      platform: nct6798-isa-0290
      index: 5
    curve: cpu_ssd_curve

  - id: case_top_fans
    hwmon:
      platform: nct6798-isa-0290
      index: 2
    neverStop: false
    curve: cpu_ssd_curve

  - id: case_gpu_front
    hwmon:
      platform: nct6798-isa-0290
      index: 3
    neverStop: false
    curve: gpu_ssd_curve

  - id: case_gpu_rear
    hwmon:
      platform: nct6798-isa-0290
      index: 4
    neverStop: false
    curve: gpu_ssd_curve

sensors:
```

```
  - id: cpu
    hwmon:
      platform: k10temp-pci-00c3
      index: 1
  - id: chipset
    hwmon:
      platform: asusec-isa-0000
      index: 1
  - id: gpu
    hwmon:
      platform: amdgpu-pci-0b00
      index: 2
  - id: ssd_1
    hwmon:
      platform: nvme-pci-0100
      index: 1
  - id: ssd_2
    hwmon:
      platform: nvme-pci-0400
      index: 3

curves:
  - id: cpu_curve
    linear:
      sensor: cpu
      steps:
        - 0: 80
        - 60: 80
        - 70: 80
        - 75: 124
        - 95: 255

  - id: ssd_curve
    linear:
      sensor: ssd_1
      steps:
        - 0: 80
        - 50: 80
        - 60: 120
        - 65: 150
```

```
      - 70: 255

- id: gpu_curve
  linear:
    sensor: gpu
    steps:
      -  0: 80
      - 65: 80
      - 70: 80
      - 95: 255

- id: cpu_ssd_curve
  function:
    type: maximum
    curves:
      - cpu_curve
      - ssd_curve

- id: gpu_ssd_curve
  function:
    type: maximum
    curves:
      - gpu_curve
      - ssd_curve
```

Software

lazyvim

Fixing multiple rust-analyzer running

https://github.com/LazyVim/LazyVim/discussions/3825#discussioncomment-9937797

in ~/.config/nvim/lua/plugins add a file called mason.lua with content

```
return {
  {
    "neovim/nvim-lspconfig",
    opts = {
      setup = {
        rust_analyzer = function()
          return true
        end,
      },
    },
  },
}
```

Removing unwanted Markdown warnings

in ~/.config/nvim/lua/plugins add a file lint.lua

```
return {
  {
    "mfussenegger/nvim-lint",
    opts = {
      linters = {
        markdownlint = {
          args = { "--disable", "MD013", "--disable", "MD012", "--" },
```

```
        },
      },
    },
  },
}
```

Add prefered hidden file viewing

in ~/.config/nvim/lua/plugins add a file neo-tree.lua

```
return {
  "nvim-neo-tree/neo-tree.nvim",
  opts = {
    filesystem = {
      filtered_items = {
        visible = false,
        show_hidden_count = true,
        hide_dotfiles = false,
        hide_gitignored = false,
        hide_by_name = {
          -- ".git",
          -- '.DS_Store',
          -- 'thumbs.db',
        },
        never_show = {
          ".git",
        },
      },
    },
  },
```

Add prefered color scheme

in ~/.config/nvim/lua/plugins add colorscheme.lua

```
return {
  -- add gruvbox
  { "catppuccin/nvim" },
```

```
  -- Configure LazyVim to load gruvbox
  {
    "LazyVim/LazyVim",
    opts = {
      colorscheme = "catppuccin",
    },
  },
}
```