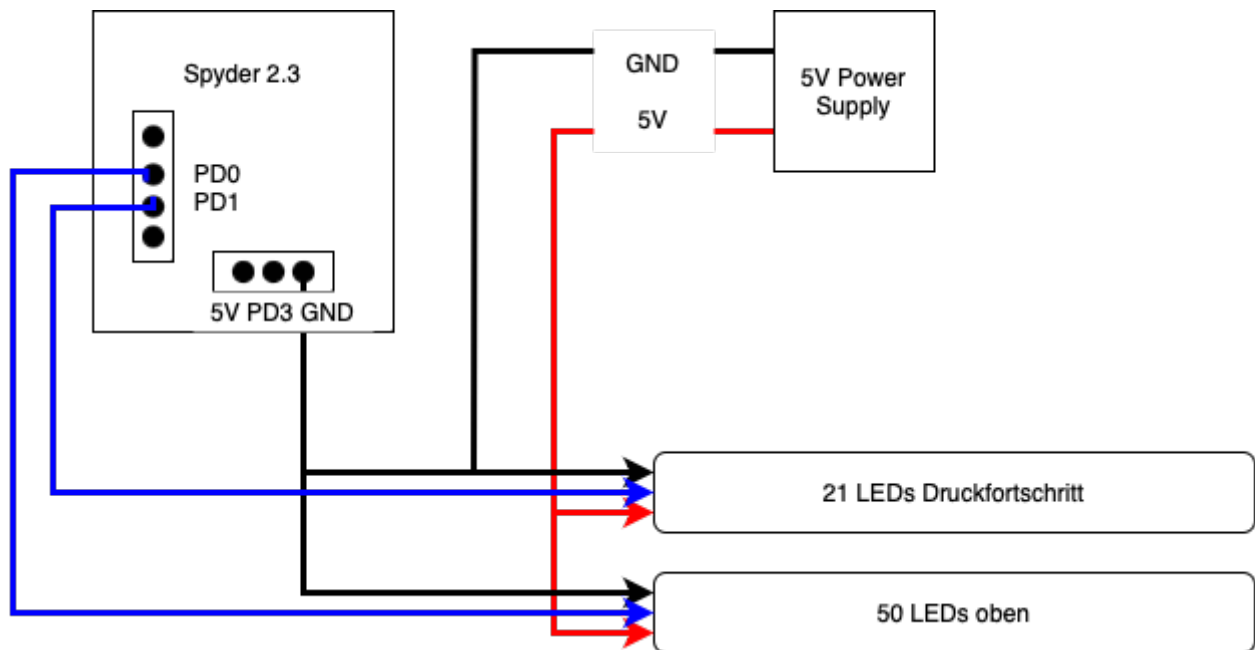
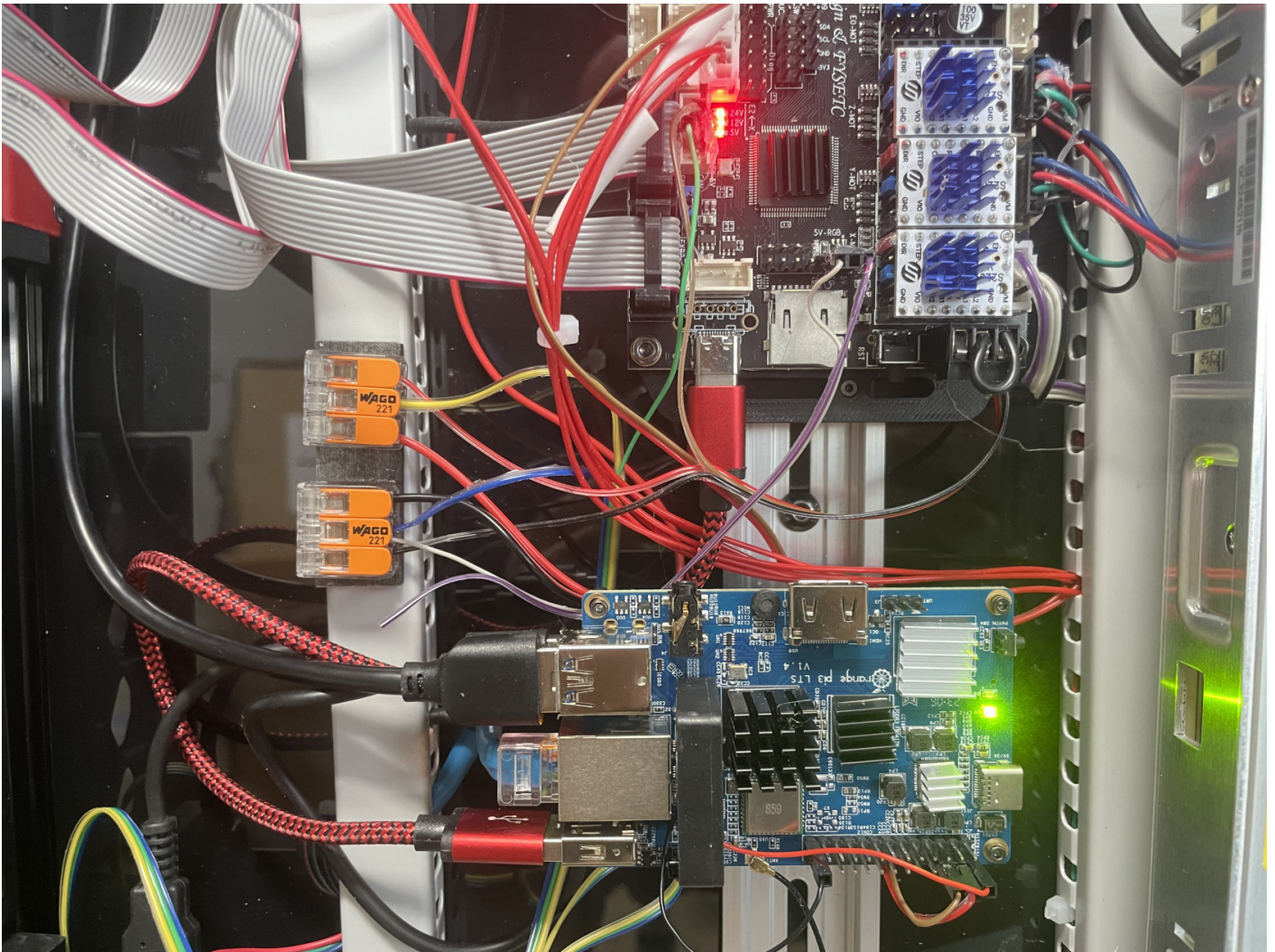


Bei der Verwendung eines externen Netzteils muss unbedingt GND gleichgeschaltet werden.



Verdrahtung



5V Netzteil



neopixel.cfg

```
[neopixel chamber_leds]
pin: PD0
chain_count: 50
color_order: GRBW
initial_RED: 0.2
initial_GREEN: 0.2
initial_BLUE: 0.2
initial_WHITE: 0.2
```

```
[neopixel progress_leds]
pin: PD1
chain_count: 21
color_order: GRBW
initial_RED: 0.2
initial_GREEN: 0.2
initial_BLUE: 0.2
initial_WHITE: 0.2
```

LED Effects

Für die Ansteuerung der LEDs nutze ich die LED Effects von Julian Schill

https://github.com/julianschill/klipper-led_effect

Damit werden sowohl die Neopixels im Stealthburner und dann meine chambers_leds und die progress_leds gesteuert.

```
#####
# LED Effects Animations #
#####

#####
## logo effects ##
#####

[led_effect sb_logo_busy]
autostart:      false
frame_rate:     24
leds:
  neopixel:sb_leds (1)
```

layers:

breathing 3 1 top (1,0,0)

[led_effect sb_logo_cleaning]

autostart: false

frame_rate: 24

leds:

neopixel:sb_leds (1)

layers:

breathing 3 1 top (0.0, 0.02, 0.5)

[led_effect sb_logo_calibrating_z]

autostart: false

frame_rate: 24

leds:

neopixel:sb_leds (1)

layers:

breathing 3 1 top (0.0, 0.0, 0.35)

[led_effect sb_logo_heating]

leds:

neopixel:sb_leds (1)

autostart: false

frame_rate: 24

layers:

breathing 3 1 top (1, 0.18, 0)

[led_effect sb_logo_cooling]

leds:

neopixel:sb_leds (1)

autostart: false

frame_rate: 24

layers:

breathing 3 1 top (0, 0, 1)

[led_effect sb_logo_homing]

autostart: false

frame_rate: 24

leds:

neopixel:sb_leds (1)

layers:

breathing 3 1 top (0.0, 0.6, 0.2)

[led_effect sb_logo_leveling]

autostart: false

frame_rate: 24

leds:

neopixel:sb_leds (1)

layers:

breathing 3 1 top (0.5, 0.1, 0.4)

[led_effect sb_logo_meshing]

autostart: false

frame_rate: 24

leds:

neopixel:sb_leds (1)

layers:

breathing 3 1 top (0.2, 1.0, 0.0)

[led_effect sb_logo_printing]

autostart: false

frame_rate: 24

leds:

neopixel:sb_leds (1)

layers:

gradient 0.3 1 add (0.3, 0.0, 0.0),(0.3, 0.3, 0.0),(0.3, 0.1, 0.0)

[led_effect sb_logo_standby]

autostart: false

frame_rate: 24

leds:

neopixel:sb_leds (1)

layers:

breathing 3 1 top (0.01, 0.01, 0.01)

[led_effect sb_logo_part_ready]

autostart: false

frame_rate: 24

leds:

neopixel:sb_leds (1)

layers:

breathing 3 1 top (0.0, 1.0, 0.0)

```
#####  
## nozzle effects ##  
#####
```

```
[led_effect sb_nozzle_heating]  
autostart:      false  
frame_rate:     24  
leds:  
    neopixel:sb_leds (2,3)  
layers:  
    breathing 3 1 top (1.0, 0.18, 0.0, 0.0)
```

```
[led_effect sb_nozzle_cooling]  
autostart:      false  
frame_rate:     24  
leds:  
    neopixel:sb_leds (2,3)  
layers:  
    breathing 3 1 top (0.0, 0.0, 1.0, 0.1)
```

```
[led_effect sb_nozzle_standby]  
autostart:      false  
frame_rate:     24  
leds:  
    neopixel:sb_leds (2,3)  
layers:  
    breathing 3 1 top (0.6, 0.0, 0.0, 0.0)
```

```
[led_effect sb_nozzle_part_ready]  
autostart:      false  
frame_rate:     24  
leds:  
    neopixel:sb_leds (2,3)  
layers:  
    breathing 3 1 top (0.6, 1.0, 0.0, 0.1)
```

```
#####  
## all led effects ##  
#####
```

[led_effect sb_critical_error]

leds:

neopixel:sb_leds

neopixel:chamber_leds

layers:

strobe 1 1.5 add (1.0, 1.0, 1.0)

breathing 2 0 difference (0.95, 0.0, 0.0)

static 1 0 top (1.0, 0.0, 0.0)

autostart: false

frame_rate: 24

run_on_error: true

[led_effect rainbow]

leds:

neopixel:sb_leds

neopixel:chamber_leds

autostart: false

frame_rate: 24

layers:

gradient 1 1 top (1,0,0,0),(0,1,0,0),(0,0,1,0)

#####

LED Effects Statics

#####

[led_effect set_nozzle_leds]

leds:

neopixel:sb_leds (2,3)

#neopixel:caselight

autostart: false

frame_rate: 24

layers:

static 0 0 top (0.0, 0.0, 0.0, 1.0)

[led_effect set_logo_leds]

leds:

neopixel:sb_leds (1)

autostart: false

frame_rate: 24

layers:


```
static      0 0 top    (1.0, 1.0, 1.0)
```

```
[led_effect set_chamber_white]
```

```
leds:
```

```
    neopixel:chamber_leds
```

```
autostart:      false
```

```
frame_rate:     24
```

```
layers:
```

```
    static      0 0 top    (0.0, 0.0, 0.0, 1.0)
```

```
[led_effect set_chamber_white_left]
```

```
leds:
```

```
    neopixel:chamber_leds (1-20)
```

```
autostart:      false
```

```
frame_rate:     24
```

```
layers:
```

```
    static      0 0 top    (0.0, 0.0, 0.0, 1.0)
```

```
[led_effect set_chamber_white_right]
```

```
leds:
```

```
    neopixel:chamber_leds (31-50)
```

```
autostart:      false
```

```
frame_rate:     24
```

```
layers:
```

```
    static      0 0 top    (0.0, 0.0, 0.0, 1.0)
```

```
[led_effect set_chamber_white_front]
```

```
leds:
```

```
    neopixel:chamber_leds (21-30)
```

```
autostart:      false
```

```
frame_rate:     24
```

```
layers:
```

```
    static      0 0 top    (0.0, 0.0, 0.0, 1.0)
```

```
[led_effect set_progress]
```

```
leds:
```

```
    neopixel:progress_leds
```

```
autostart:      false
```

```
frame_rate:     24
```

layers:

```
progress -1 0 add      ( 0, 0, 1),( 0, 0.1, 0.6)
```

```
static    0 0 top      ( 0, 0, 0.1)
```

#####

The Macros

#####

[gcode_macro set_progress]

gcode:

```
SET_LED_EFFECT EFFECT=set_progress REPLACE=1
```

[gcode_macro stop_chamber_effects]

gcode:

```
STOP_LED_EFFECTS LEDS="neopixel:chamber_leds"
```

[gcode_macro set_chamber_white]

gcode:

```
STOP_CHAMBER_EFFECTS
```

```
SET_LED_EFFECT EFFECT=set_chamber_white REPLACE=1
```

[gcode_macro set_chamber_white_left]

gcode:

```
STOP_CHAMBER_EFFECTS
```

```
SET_LED_EFFECT EFFECT=set_chamber_white_left REPLACE=1
```

[gcode_macro set_chamber_white_right]

gcode:

```
STOP_CHAMBER_EFFECTS
```

```
SET_LED_EFFECT EFFECT=set_chamber_white_right REPLACE=1
```

[gcode_macro set_chamber_white_front]

gcode:

```
STOP_CHAMBER_EFFECTS
```

```
SET_LED_EFFECT EFFECT=set_chamber_white_front REPLACE=1
```

[gcode_macro set_logo_leds_off]

gcode:

```
SET_LED_EFFECT EFFECT=set_logo_leds STOP=1
```

[gcode_macro set_logo_leds_on]

gcode:

SET_LED_EFFECT EFFECT=set_logo_leds

[gcode_macro set_nozzle_leds_on]

gcode:

SET_LED_EFFECT EFFECT=set_nozzle_leds

[gcode_macro set_nozzle_leds_off]

gcode:

SET_LED_EFFECT EFFECT=set_nozzle_leds STOP=1

[gcode_macro status_off]

gcode:

STOP_LED_EFFECTS

SET_CHAMBER_WHITE_FRONT

[gcode_macro status_ready]

gcode:

STOP_LED_EFFECTS

SET_LED_EFFECT EFFECT=rainbow

SET_CHAMBER_WHITE_FRONT

[gcode_macro status_part_ready]

gcode:

STOP_LED_EFFECTS

SET_LED_EFFECT EFFECT=sb_nozzle_part_ready

SET_LED_EFFECT EFFECT=sb_logo_part_ready

SET_CHAMBER_WHITE_FRONT

[gcode_macro status_busy]

gcode:

STOP_LED_EFFECTS

SET_LED_EFFECT EFFECT=sb_logo_busy

SET_CHAMBER_WHITE_FRONT

set_nozzle_leds_on

[gcode_macro status_heating]

gcode:

STOP_LED_EFFECTS

SET_LED_EFFECT EFFECT=sb_logo_heating

SET_LED_EFFECT EFFECT=sb_nozzle_heating

SET_CHAMBER_WHITE_FRONT

[gcode_macro status_cooling]

gcode:

```
STOP_LED_EFFECTS
SET_LED_EFFECT EFFECT=sb_logo_cooling
SET_LED_EFFECT EFFECT=sb_nozzle_cooling
SET_CHAMBER_WHITE_FRONT
```

[gcode_macro status_leveling]

gcode:

```
STOP_LED_EFFECTS
SET_LED_EFFECT EFFECT=sb_logo_leveling
SET_CHAMBER_WHITE_FRONT
set_nozzle_leds_on
```

[gcode_macro status_homing]

gcode:

```
STOP_LED_EFFECTS
SET_LED_EFFECT EFFECT=sb_logo_homing
SET_CHAMBER_WHITE_FRONT
set_nozzle_leds_on
```

[gcode_macro status_cleaning]

gcode:

```
STOP_LED_EFFECTS
SET_LED_EFFECT EFFECT=sb_logo_cleaning
SET_CHAMBER_WHITE_FRONT
set_nozzle_leds_on
```

[gcode_macro status_meshing]

gcode:

```
STOP_LED_EFFECTS
SET_LED_EFFECT EFFECT=sb_logo_meshing
SET_CHAMBER_WHITE_FRONT
set_nozzle_leds_on
```

[gcode_macro status_calibrating_z]

gcode:

```
STOP_LED_EFFECTS
```



```
SET_LED_EFFECT EFFECT=sb_logo_calibrating_z
```

```
SET_CHAMBER_WHITE
```

```
set_nozzle_leds_on
```

```
[gcode_macro status_printing]
```

```
gcode:
```

```
STOP_LED_EFFECTS
```

```
SET_CHAMBER_WHITE
```

```
SET_LED_EFFECT EFFECT=sb_logo_printing
```

```
set_nozzle_leds_on
```

```
set_progress
```

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