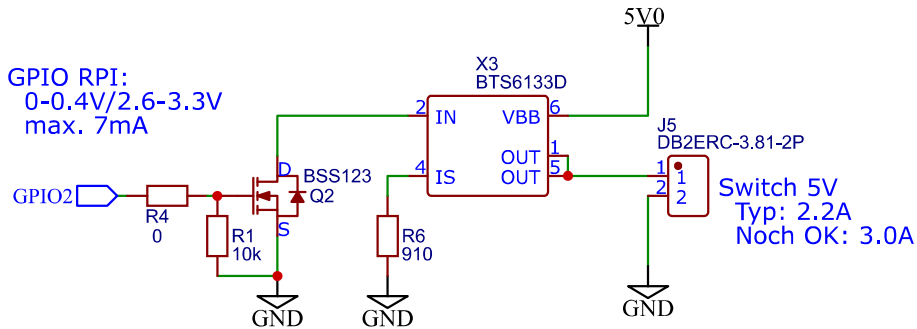
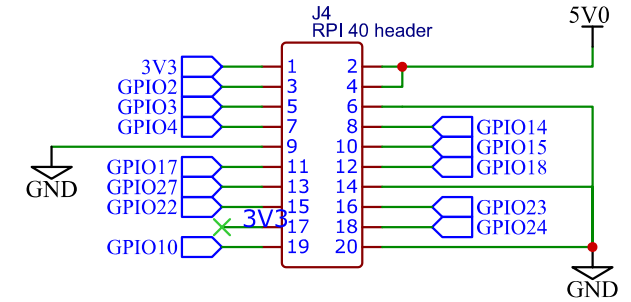
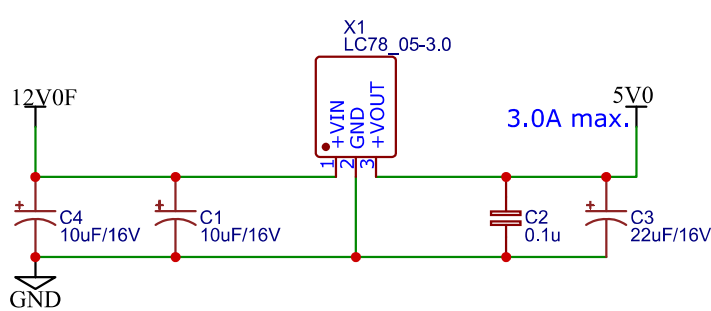
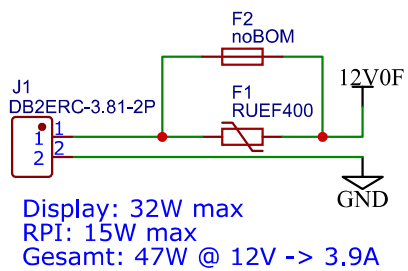
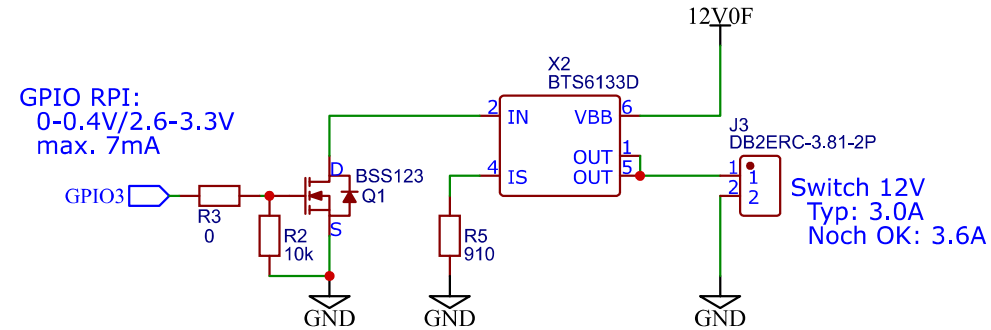




Switch Auslegung:  
 $R_{dson} (@5.5V): <26m\Omega$   
 $R_{dson} (@12V): <18m\Omega$   
 $R_{th} (junction-freeAir): 80K/W$   
 $@5.5V: I=2.2A \Rightarrow dT=10K, I=3A \Rightarrow dT=20K$   
 $@12V: I=3.0A \Rightarrow dT=13K, I=3.6A \Rightarrow dT=20K$



Switch Anforderungen:  
 Display Pges (Logik + LED): typ. 21W, max. 27W  
 Display Treiber: In 12V+-0.5V, Schätzung Pmax = 5W  
 Auslegung auf min: 32W/12V=2.7A

Raspberry 4 B:  
 - CPU: Broadcom BCM2711, Quad core Cortex-A72 (ARM v8) 64-bit  
 - GPU: VideoCore VI, OpenGL ES 3.1, Vulkan 1.2  
 - Supply: 5V/3A via USB-C or header  
 - GPIOs:  
 - Level: 0/3.3V  
 -  $V_{IL}: <0.8V, V_{IH}: >2.0V$   
 -  $V_{OL}: <0.4V, V_{OH}: >2.6V$  (min. 7mA)  
 - configured as INPUT on Power-Up  
 - Register settings, e.g.: Pull-Up/Downs, output strength  
 - Wifi: 802.11b/g/n/ac, Bluetooth: 5.0 BLE

Raspberry HW-Information:  
<https://www.raspberrypi.com/documentation/computers/raspberry-pi.html#introduction>