

REV 0.1, April 2019:
 - Initial Design

REV 0.2, Mai 2019:
 - Minor Changes in Silk-Screen Markings
 - Added Pullup on UART-Lines with Solder-Jumpers to prevent Hardware-Resets when RX (DIO14) is left floating - XBee Resets automatically after RX keeps low for 6 seconds
 - Changed value of Resistor Network for Transistors

POWER-SUPPLY

- Power-Path Selection (USB or Network)
- Protection Circuit
- Stable 3.3 V

XBEE-3

- All Pins available on Connector
- Micro-Python Engine

16-Channel PWM

- PWM IC with I2C-Control
- connected to XBee-Module
- 4 Low-Side NPN-Switches

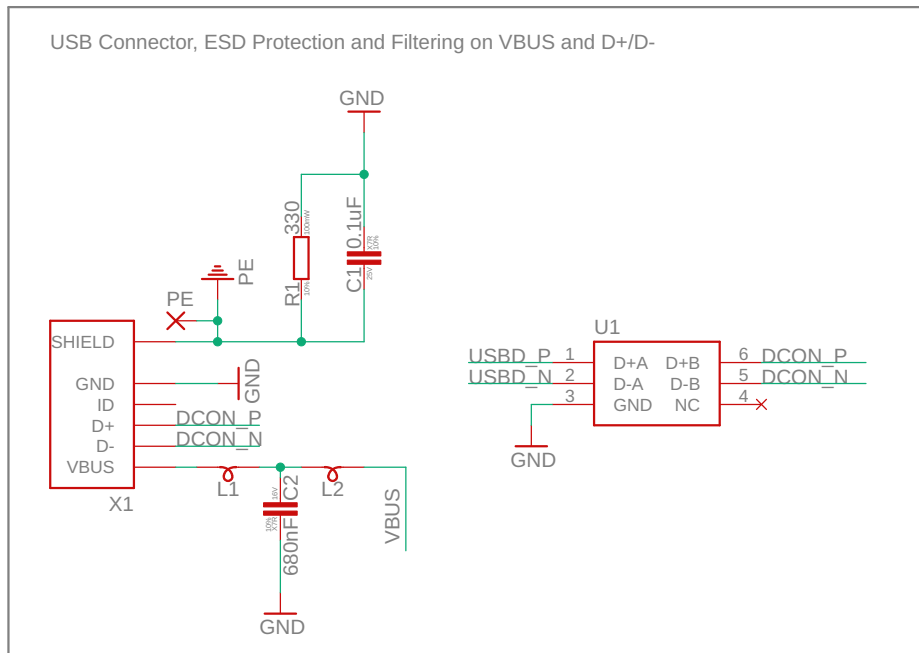
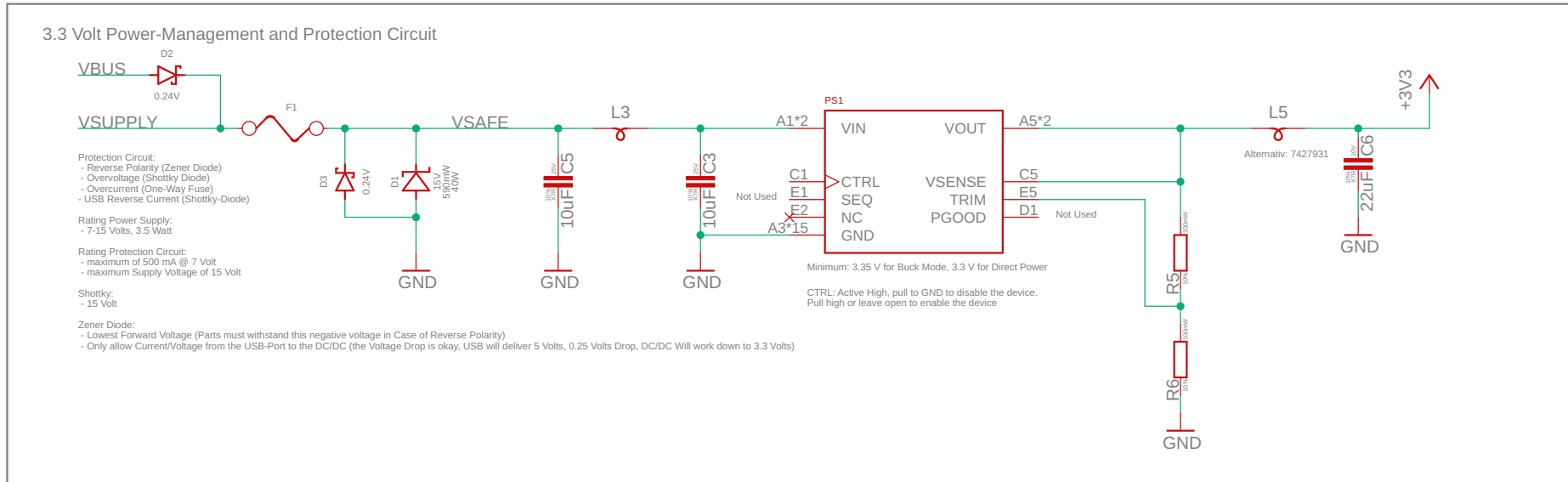
XBee 3 Carrier with 12x PWM and 4x LED-PWM for CC ICs

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3.3 Volt Power Management and USB-Connector



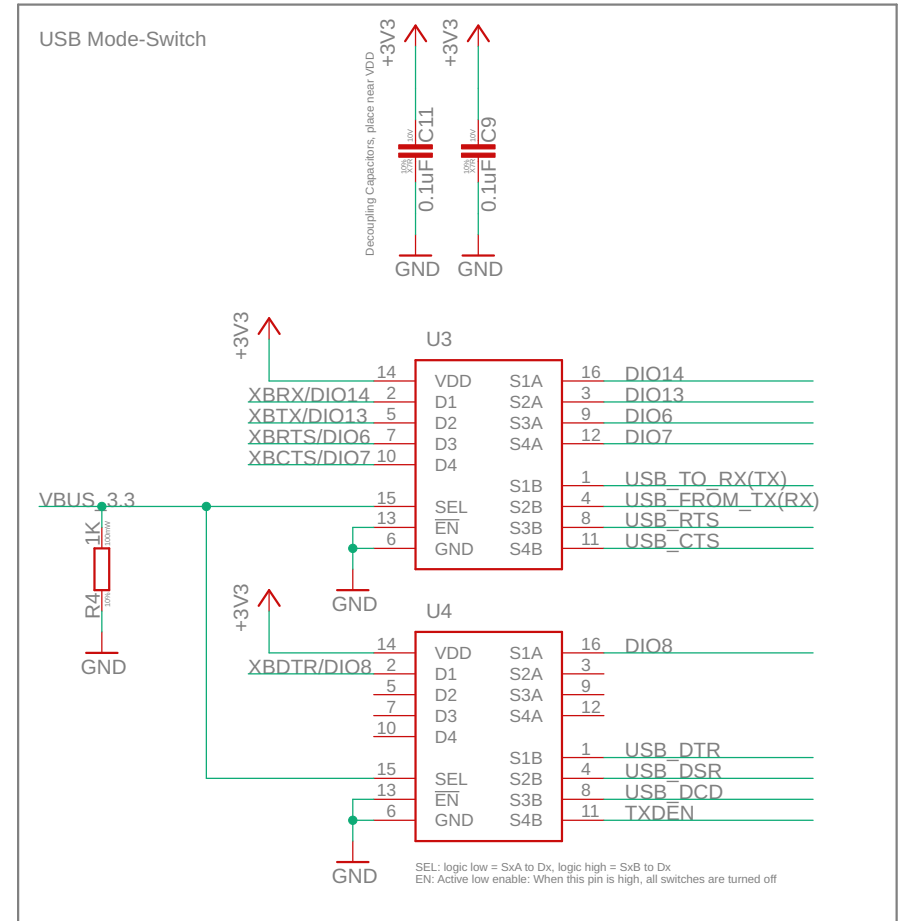
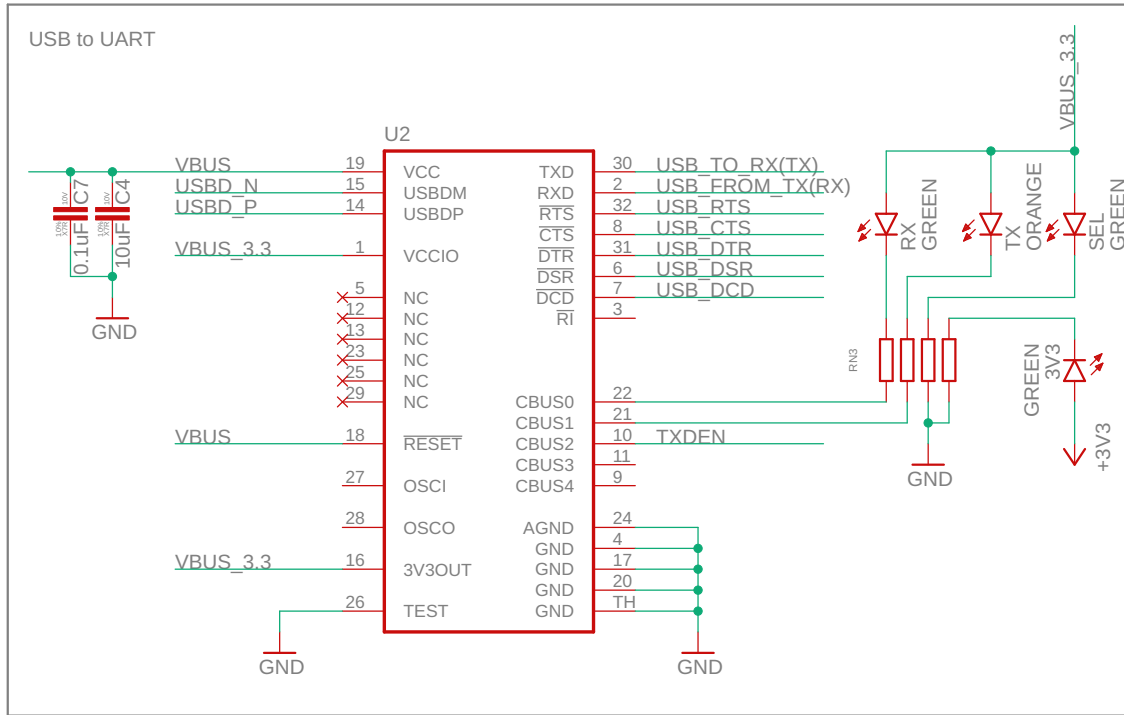
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USB to Serial and UART-Mux (for XBee-3 Programming or general UART communication over USB, USB has Priority)



USB Mode-Switch:

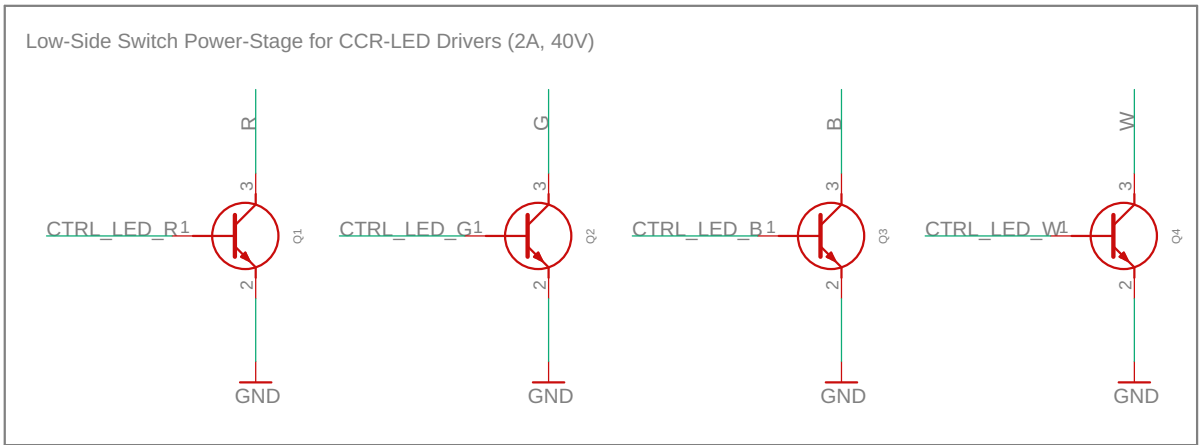
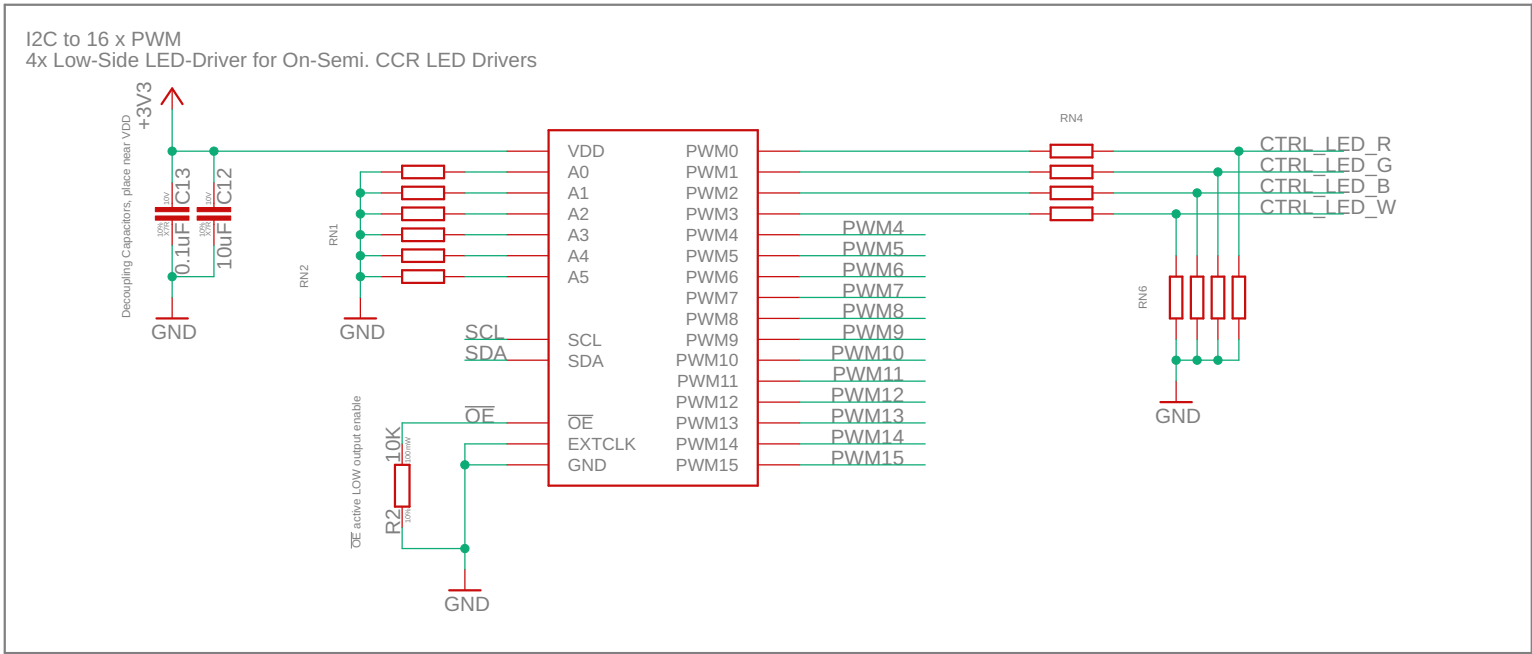
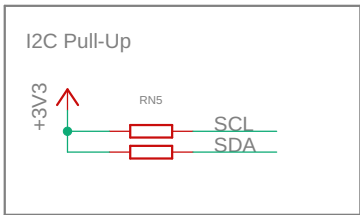
When USB is connected, the FTDI-Chips internal LDO will generate a stable 3.3 Volt to power the Chip. Additionally, the 3.3 Volt is used as a Signal to trigger the Analog/Digital MUX-ICs to route all UART-Signals to the USB. Hence, it is possible to leave a Microcontroller attached to the board even if you attach a USB-Cable: all UART-Signals will be routed to the USB Port allowing to flash/program/talk to the XBee3 chip.

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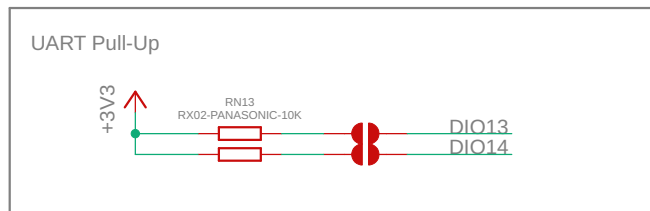
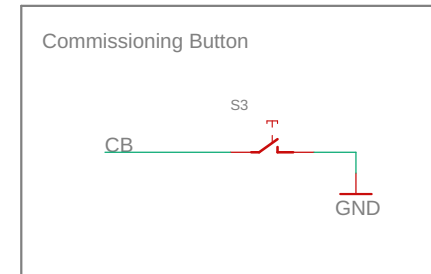
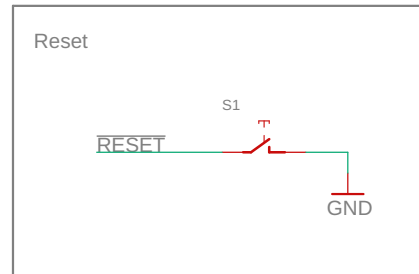
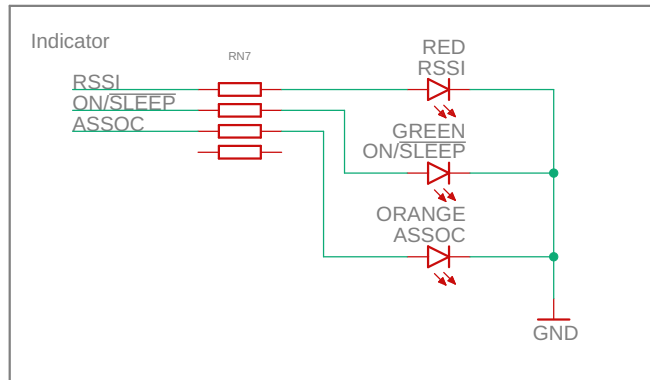
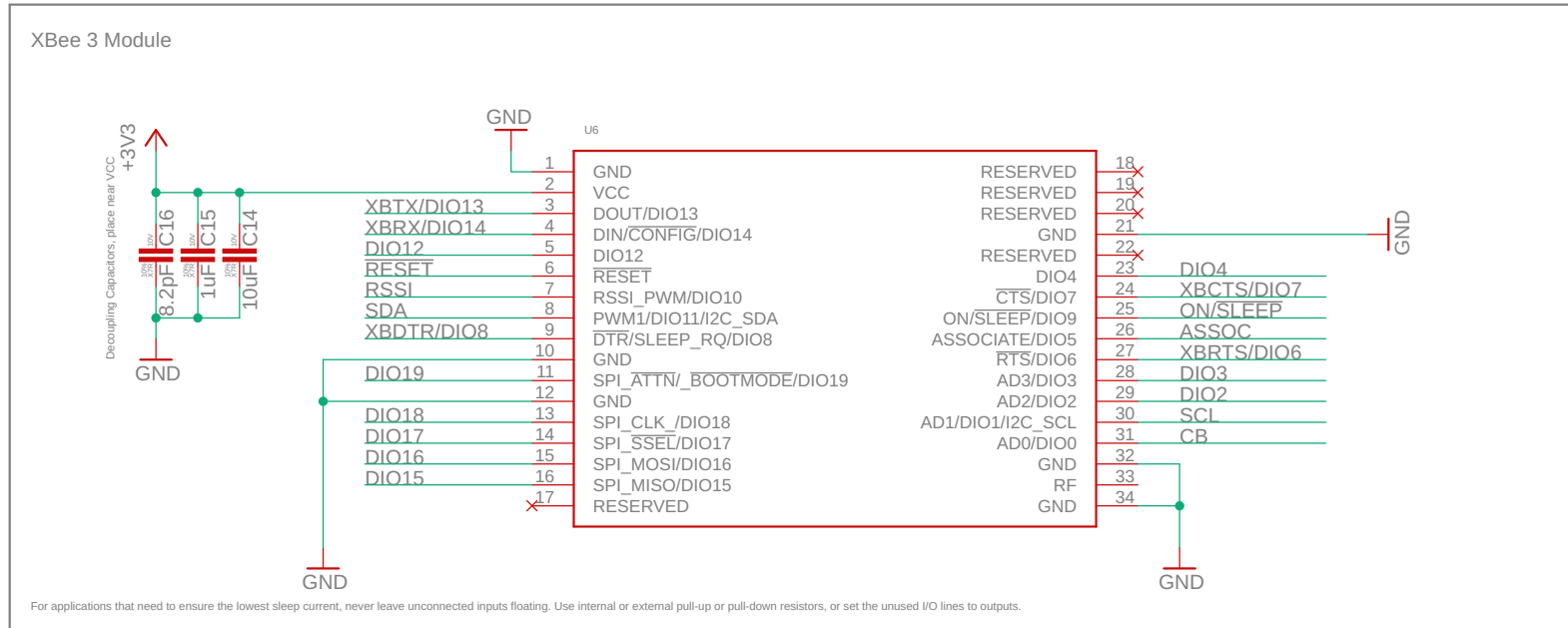
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XBee 3 Module

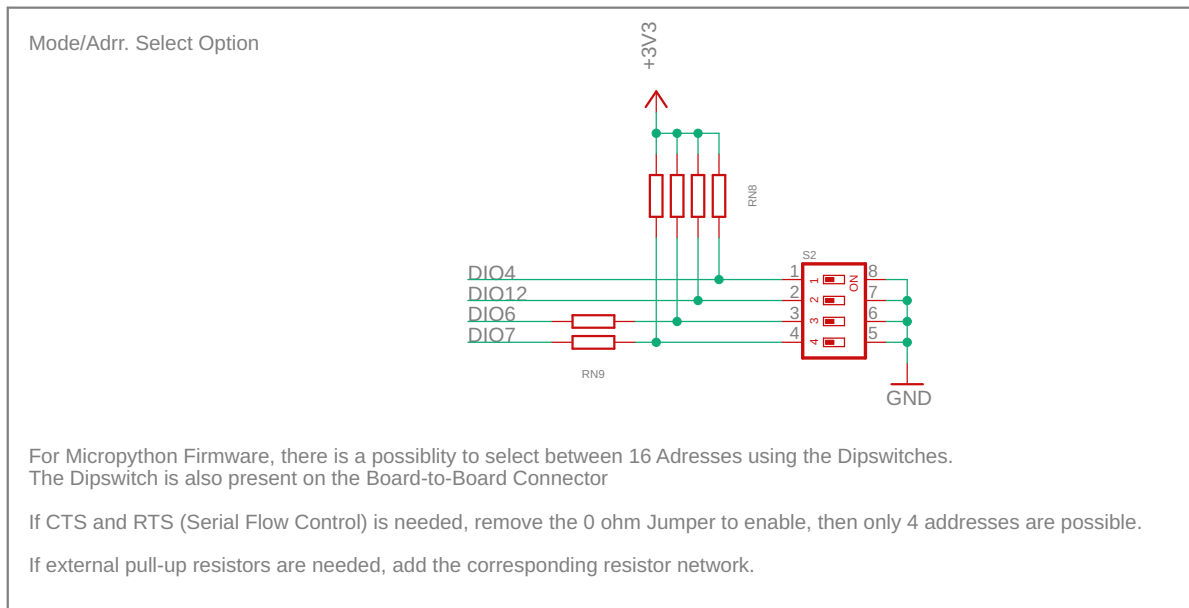
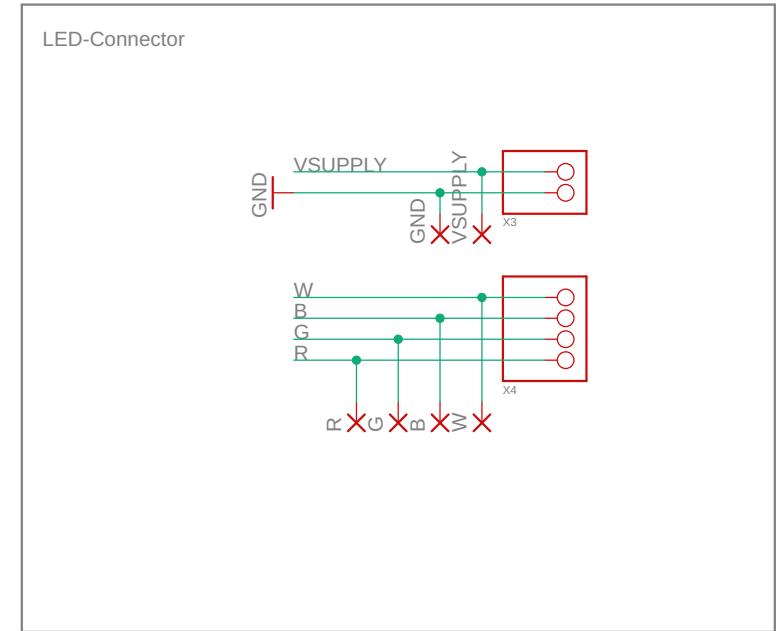
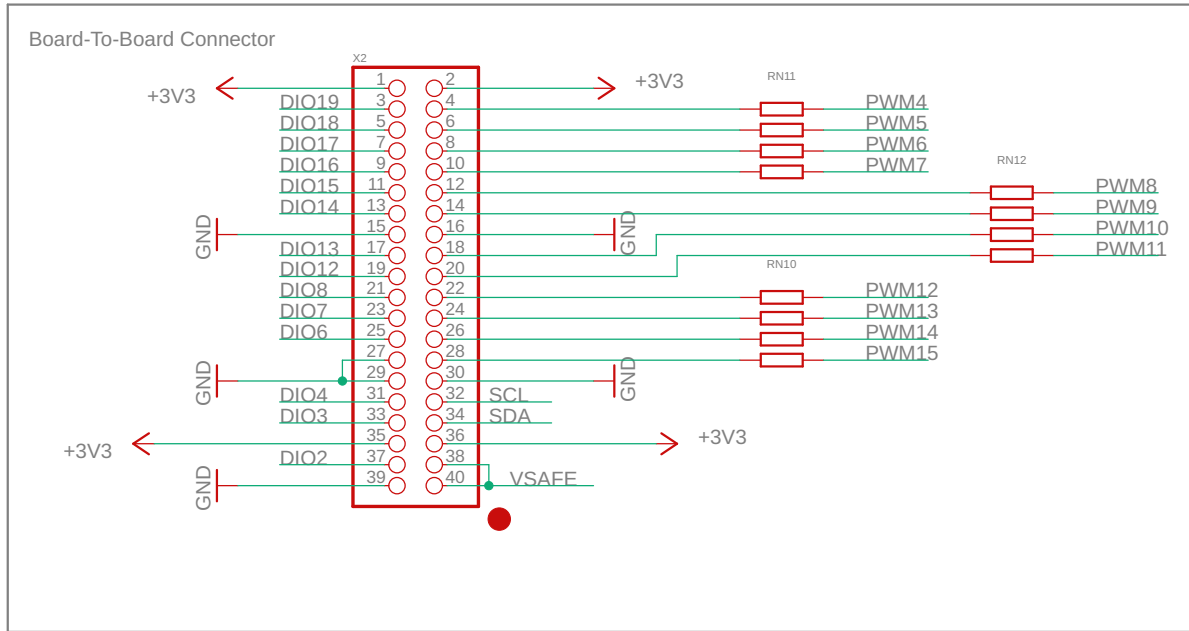


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1	LOGO
	M2.5
	M2.5

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