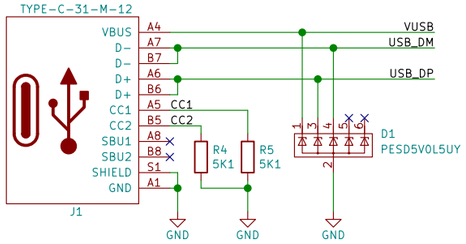
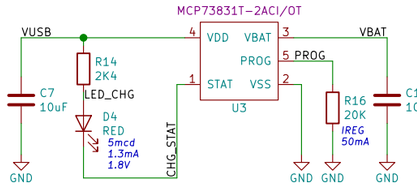
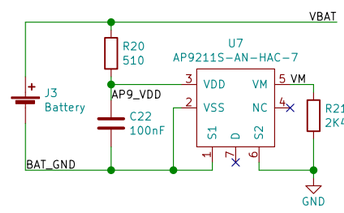
USB Type-C Interface



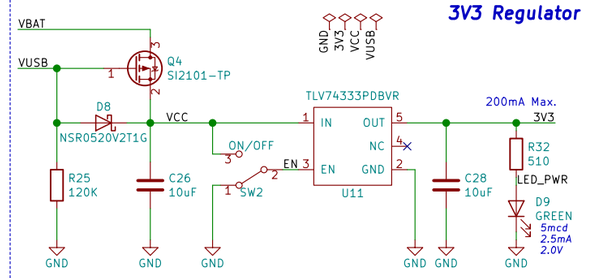
Battery Charger



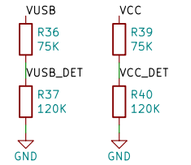
Battery Protection



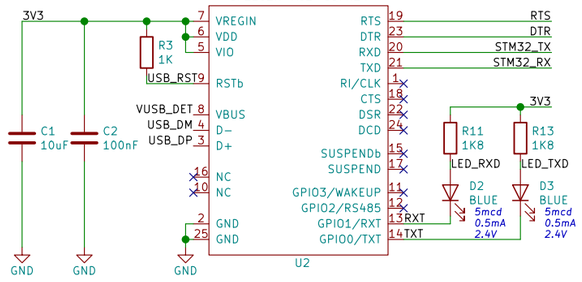
3V3 Regulator



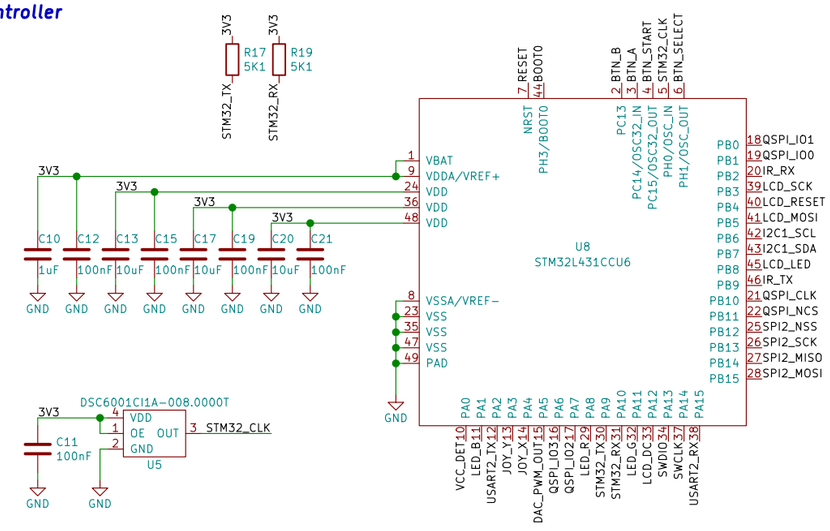
Voltage Dividers



USB<->USART Bridge

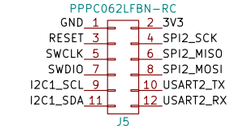


Microcontroller



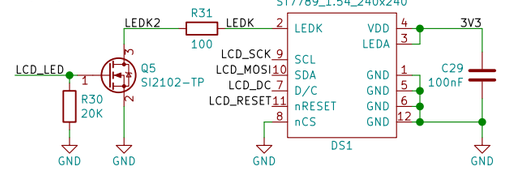
Expansion Port

1	GND
2	3V3 (OUTPUT ONLY)
3	RESET (ACTIVE LOW)
4	SPI2_SCK
5	GPIO (PA14) / SWCLK
6	SPI2_MISO
7	GPIO (PA13) / SWDIO
8	SPI2_MOSI
9	I2C1_SCL
10	GPIO (PA2) / ADC1_IN7 / USART2_TX
11	I2C1_SDA
12	GPIO (PA15) / USART2_RX

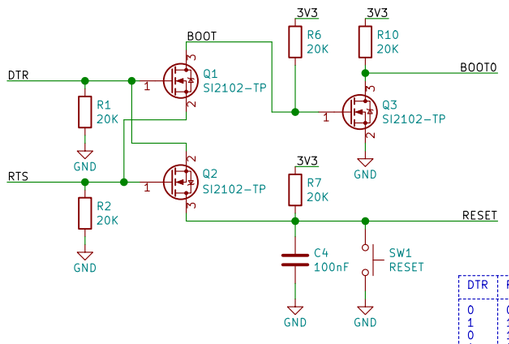


Warning:
- I2C1 is shared with on-board accelerometer.
- SPI2 is shared with on-board microSD socket. Use a GPIO as CS.
- Maximum current per pin is 20mA.
- Total maximum current (including on-board components) is 200mA.
- Never exceed total maximum current when running on battery!!!

Display

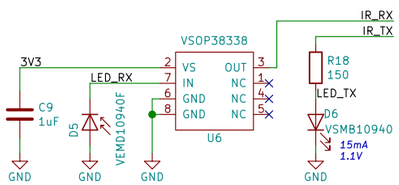


Reset and Boot Mode Selector

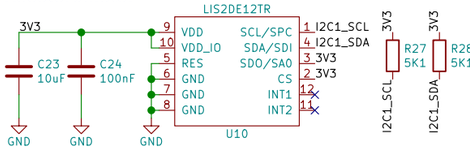


DTR	RTS	BOOT0	RESET
0	0	0	1
1	1	0	1
0	1	0	0
1	0	1	1

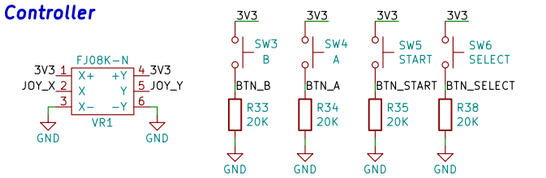
IR Interface



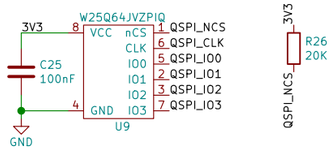
Accelerometer



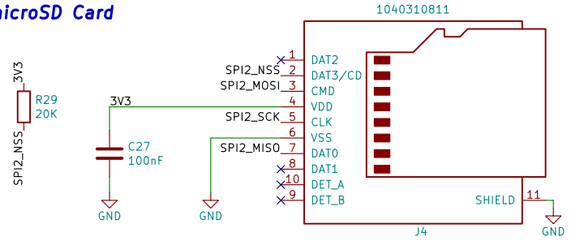
Controller



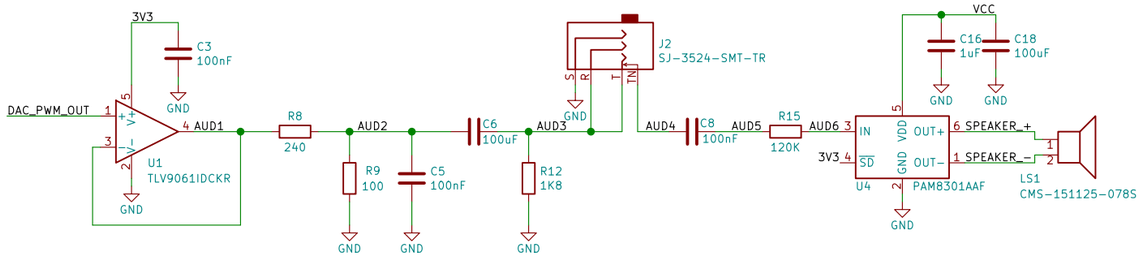
Flash Memory



microSD Card

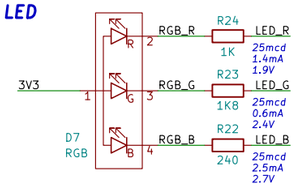


Audio Output



Note: For more details open the file audio-simulation.asc in LTspice

RGB LED



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The OpenHandheld Project

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File: openhandheld-mx.sch

Title: OpenHandheld MX

Size: A3	Date: 2020-06-19	**Rev: v0.2**
KiCad E.D.A. kicad 5.1.6		Id: 1/1