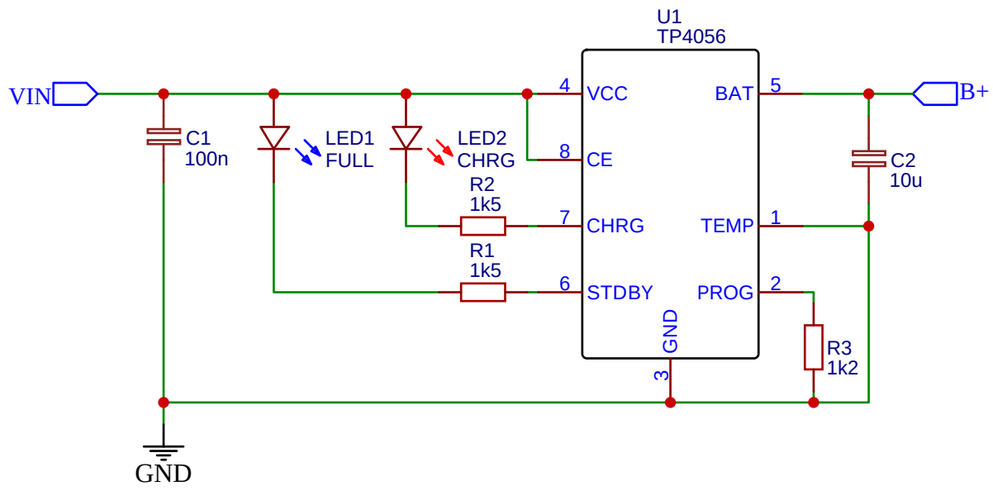
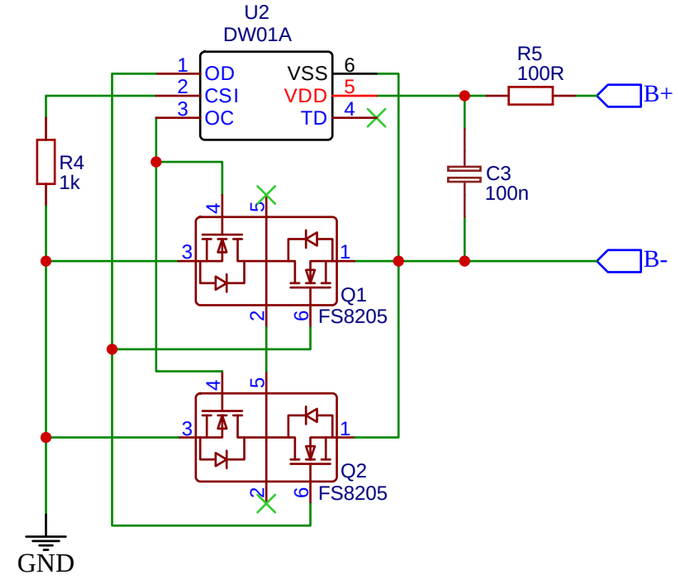
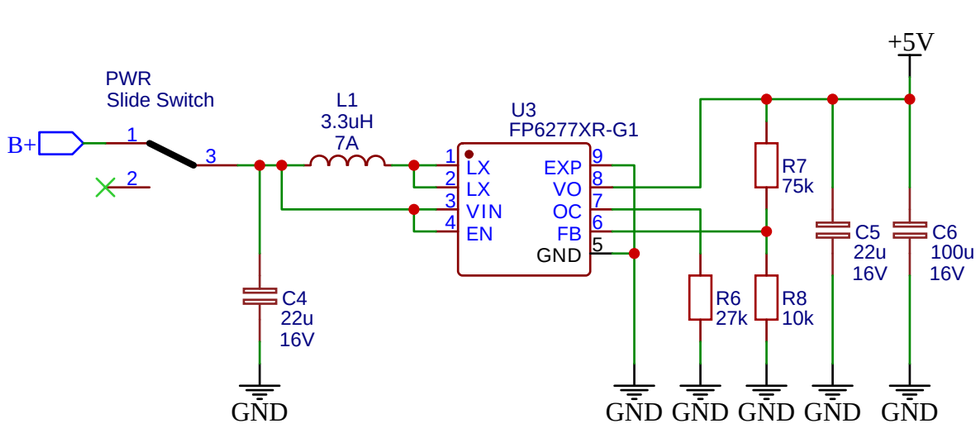
Battery Charger



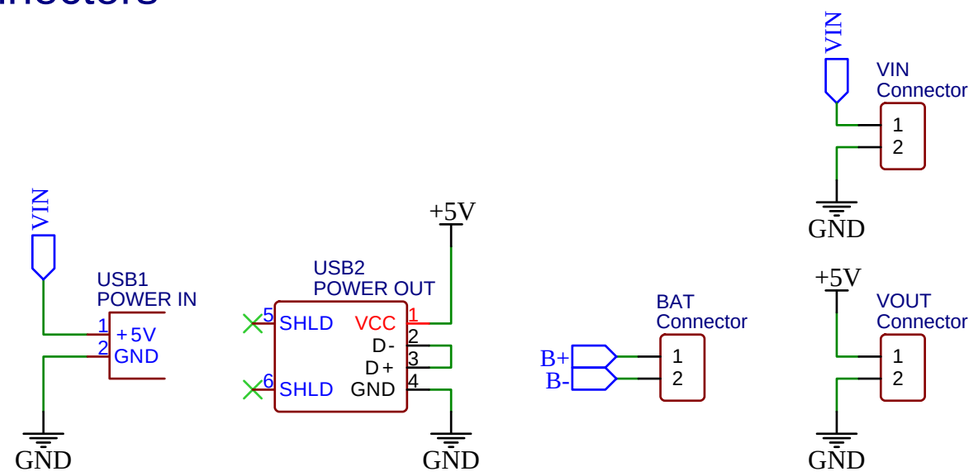
Battery Protection



5V Boost Converter



Connectors



Set charging current by selecting R3
1k2 - 1000mA (max)
1k5 - 780mA
2k - 580mA
4k - 300mA

$$R3 = \frac{1200V}{I\_LOAD}$$

Set switching current limit by selecting R6

$$R6 = \frac{180000}{I\_OUT - 0.2}$$ (max 7A / 27k)

Set output voltage by selecting R7/R8
V_OUT = 0.6V * (1 + R7 / R8)
(max 5.3V)

open source hardware
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Only use unprotected Li-Ion batteries which are rated for a discharge current of at least 7A !

TITLE: Li-Ion Battery Charger/Protector/5V 3A Booster		REV: 1.0
EasyEDA	Company: wagiminator	Sheet: 1/1
	Date: 2020-03-07 Drawn By: Stefan Wagner	