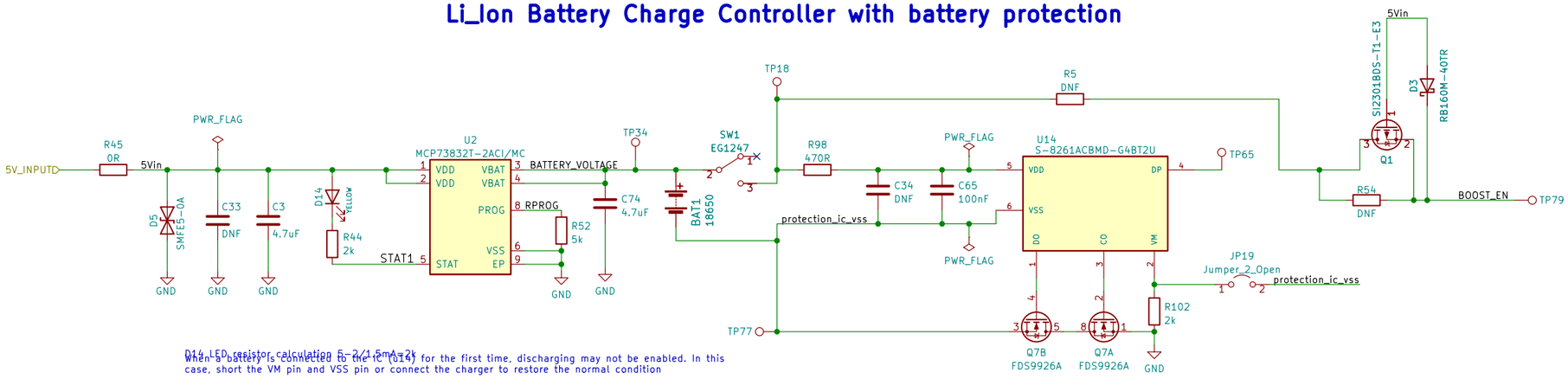
Li_Ion Battery Charge Controller with battery protection

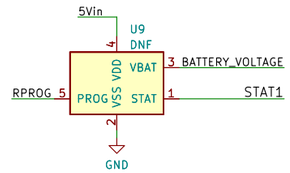


D14 LED resistor calculation E=2/1.5mA=2k

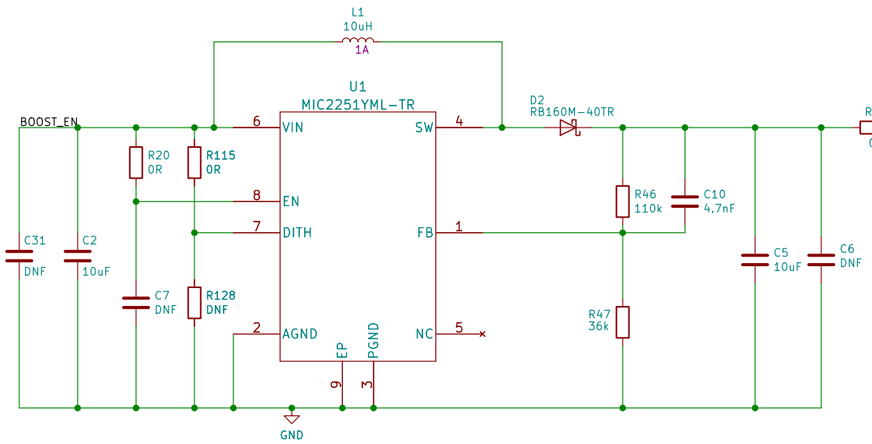
When a battery is connected to the IC (U14) for the first time, discharging may not be enabled. In this case, short the VM pin and VSS pin or connect the charger to restore the normal condition

In the case the battery charge protection ic is unavailable. All protection ic r's and c's can be removed and fit r5

Second footprint for battery charge controller



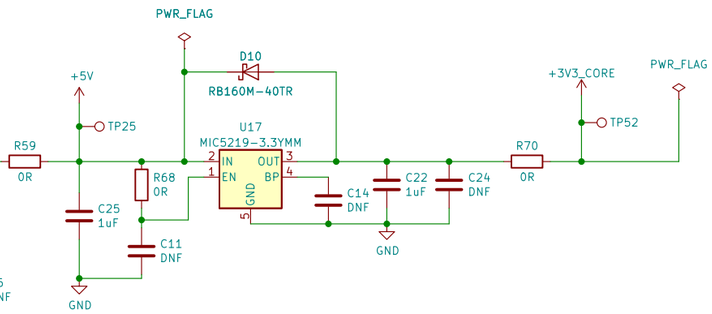
5V and 3V3 Power Supplies



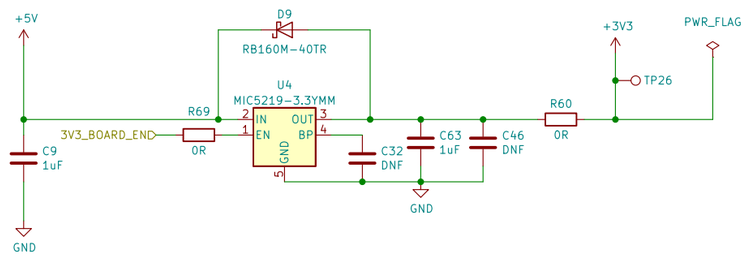
Vout=Vrefx(R1/R2 + 1)
Vref=1.24V
R2 not to exceed 5K

The diode must be rated for the peak inductor current, and its reverse voltage rating must be greater than the output voltage.

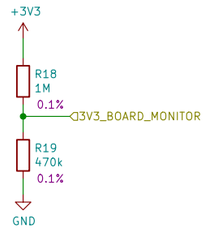
3V3_CORE



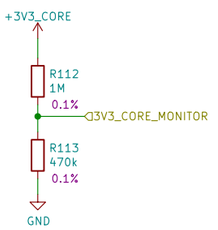
3V3_BOARD



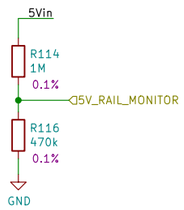
3V3_BOARD Monitor



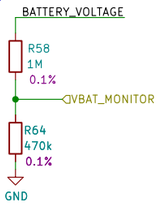
3V3_CORE Monitor



5Vin Monitor

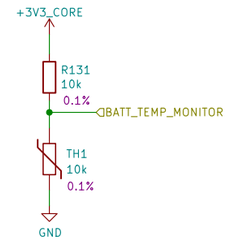


Battery Voltage Monitor



divider ratio=47/147=31.97
5/1024=1adc=4.88mm
(4.2/4.88m)*0.3197=275.15adc=fully charged and above

Battery Temperature Monitor



Part No: 304-010
Devtank LTD

Sheet: /PowerSupply/
File: PowerSupply.kicad_sch

Title: Open Smart Monitor

Size: A3	Date: 2022-09-26	**Rev: C**
KiCad E.D.A. kicad 6.0.7-f9a2dced07~116-ubuntu22.04.1		Id: 7/11