

Rubén G.S.
Making Devices

Sheet: /Dpad/
 File: Dpad.kicad_sch

Title: Dpad with debouncing filter

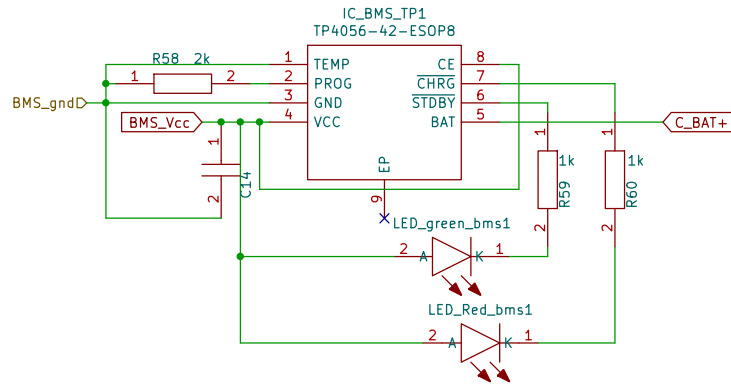
Size: A4 Date: 2023-07-03

KiCad E.D.A. 8.0.2

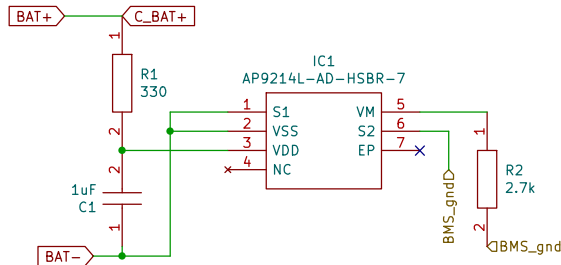
Rev: V1.0

Id: 3/4

Charging Circuit



BAT Protection IC



BMS CIRCUIT:

Charging:

- TP4056 as a well-known charging IC, up to 500mA with a 2.1K PROG resistor.
- We do not use NTC for the battery in order to save costs.

Protection IC:

- AP9214L-AD-HSBR-7 as main chip. It disconnects the ground of the battery from the rest of the circuit.
- 4.325V max voltage to 2.9V min voltage (protections).
- Auto-release.

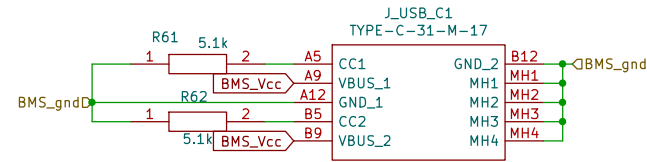
Boost Converter:

- TP561085TDGKR as main chip.
- Toggle Switch.
- 5V fix output voltage. 0.6A maximum output current

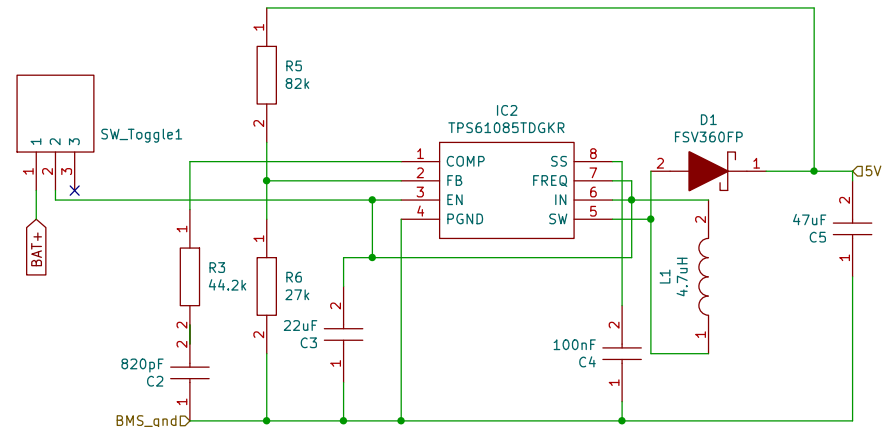
USB type C

- Type C connector.
- Only for charging

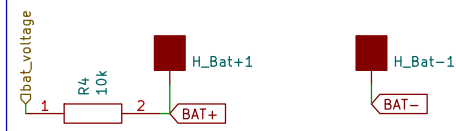
USB Connector



Boost converter



BAT Terminals



Rubén G.S.

Making Devices

Sheet: /BMS/

File: BatteryCharger.kicad_sch

Title: BMS

Size: A4

Date: 2024-01-03

KiCad E.D.A. 8.0.2

Rev: V1.2

Id: 4/4