

Powerconnector

J1 – Connection to battery
 1 – Battery+
 2 – Battery-
 J1 – Connection to motordriver
 3 – motordriver+
 4 – motordriver-

Supplieswitching

Both supplies can be optionally switched from an external device with up to two Reset-Pins. Each supply may be switched by any of the Reset-Pins, selected with JP1/JP2. The behaviour for open or uninitialized Reset-Pin is defined with JP3/JP4. Furthermore, when leaving JP1/JP2 open it is possible to set the switched supply permanently on or off, depending on JP3/JP4.

J2 – Reset-inputs from main-controller
 1 – RST_0
 2 – RST_1
 3 – GND

JP1 – Reset-Pin for switched 5V
 12 – RST_0
 23 – RST_1
 open – 5V on or off, depending on JP4

JP2 – Reset-Pin for switched 3,3V
 12 – RST_0
 23 – RST_1
 open – 3,3V on or off, depending on JP3

JP3 – Default 3,3V for open/uninitialized Reset-Pin
 closed – switched supply on
 open – switched supply off
 (set Reset-Pin "1" to turn on)

JP4 – Default 5V for open/uninitialized Reset-Pin
 closed – switched supply on
 open – switched supply off
 (set Reset-Pin "1" to turn on)

DC/DC-converter variants

Depending on the switching-logic for the RemoteControl-pin, these jumpers need to be configured to turn the converters on. Per default open, a converter with "positive" RC-logic is needed, eg. TRACO THN 30-2411WI or TDK CCG30-24-05S/P. When using converters with "negative" RC-logic (eg. TDK CCG30-24-05S) the jumper needs to be closed, connecting RC to -VIN.

JP5 – Converter RC-logic 3,3V
 closed – "negative logic"
 open – "positive logic" (default)

JP6 – Converter RC-logic 5V
 closed – "negative logic"
 open – "positive logic" (default)

Trim output 5V

Adj 5V
 optional network R11, RV1, JP7
 unmounted – fixed 5V output
 mounted – 5V output adjustable +-10% (JP7 closed)

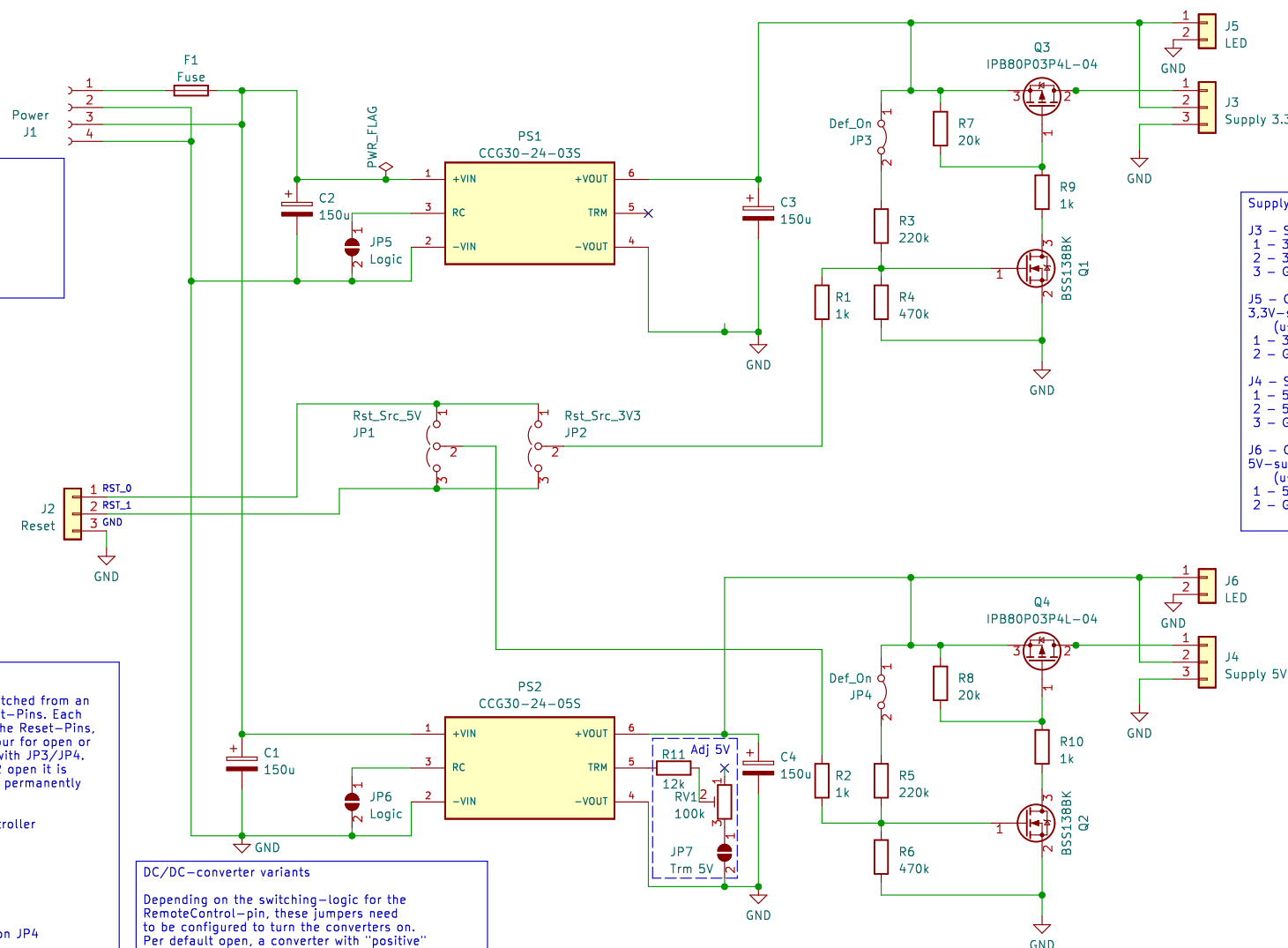
Supplyconnectors

J3 – Supply 3,3V
 1 – 3,3V switched with Reset-Pin
 2 – 3,3V permanent on
 3 – GND

J5 – Control-LED 3,3V-supply or additional 3,3V-supply
 (use series-resistor in LED-cable)
 1 – 3,3V permanent on
 2 – GND

J4 – Supply 5V
 1 – 5V switched with Reset-Pin
 2 – 5V permanent on
 3 – GND

J6 – Control-LED 5V-supply or additional 5V-supply
 (use series-resistor in LED-cable)
 1 – 5V permanent on
 2 – GND



Rev. 1.2: Configurable Outputvoltage added (Adj5V)
 Rev. 1.1: Configurable RC-pin-logic added (JP5, JP6)
 Author: rej2wi

Sheet:
 File: Car2.0_DcDcBoard.kicad_sch

Title: DC/DC-Board ESD2.0

Size: A4 Date: 2024-03-25

KiCad E.D.A. kicad (7.0.0)

Rev: 1.2

Id: 1/1