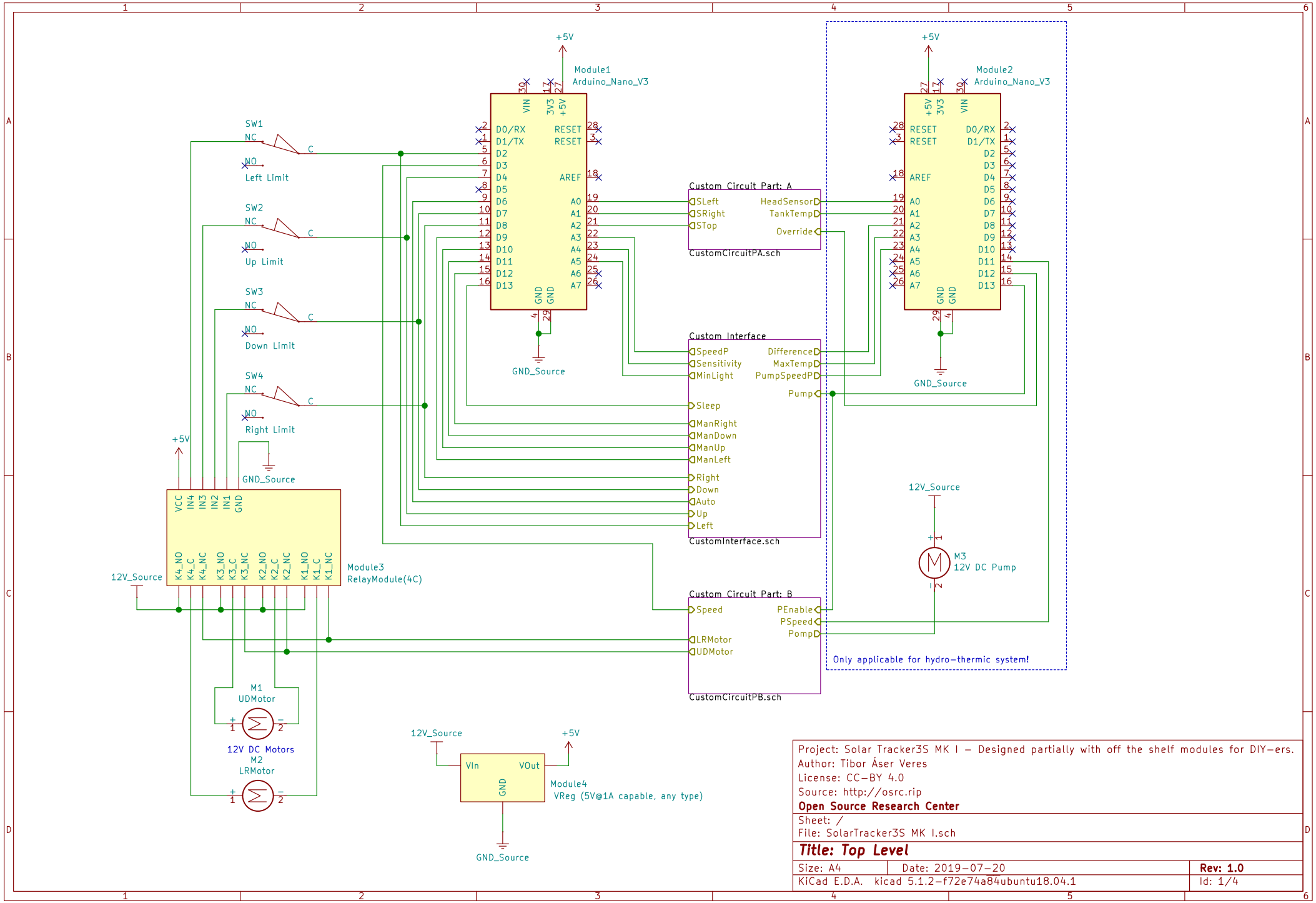

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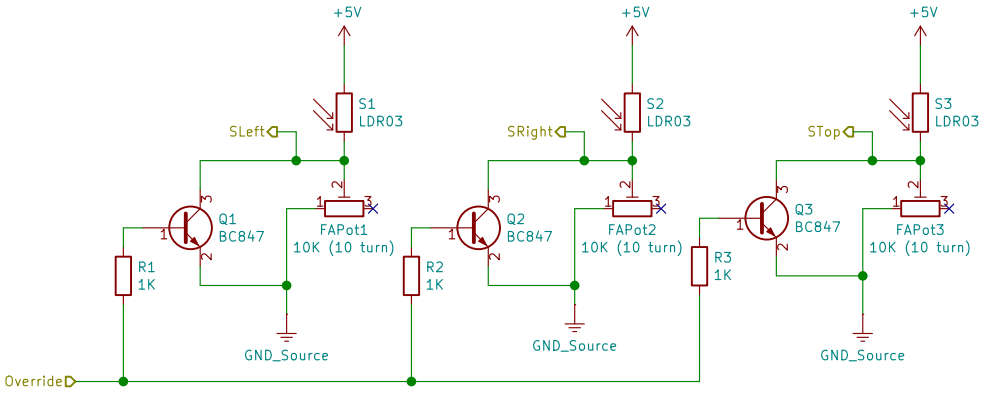
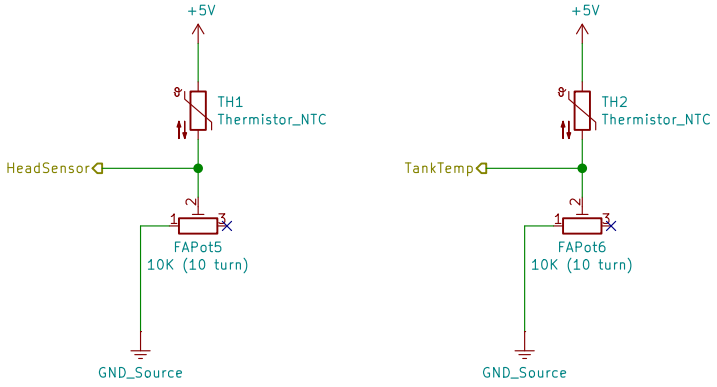
Sheet: /
File: SolarTracker3S MK I.sch

Title: Top Level

Size: A4	Date: 2019-07-20	**Rev: 1.0**
KiCad E.D.A.	kicad 5.1.2-f72e74a84ubuntu18.04.1	Id: 1/4



Q1-3 and R1-3 only required for hydro-thermic system for overheat protection.



Only applicable for hydro-thermic system!

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Sheet: /Custom Circuit Part: A/
File: CustomCircuitPA.sch

Title: Sensor Circuits

Size: A4	Date: 2019-07-20	**Rev: 1.0**
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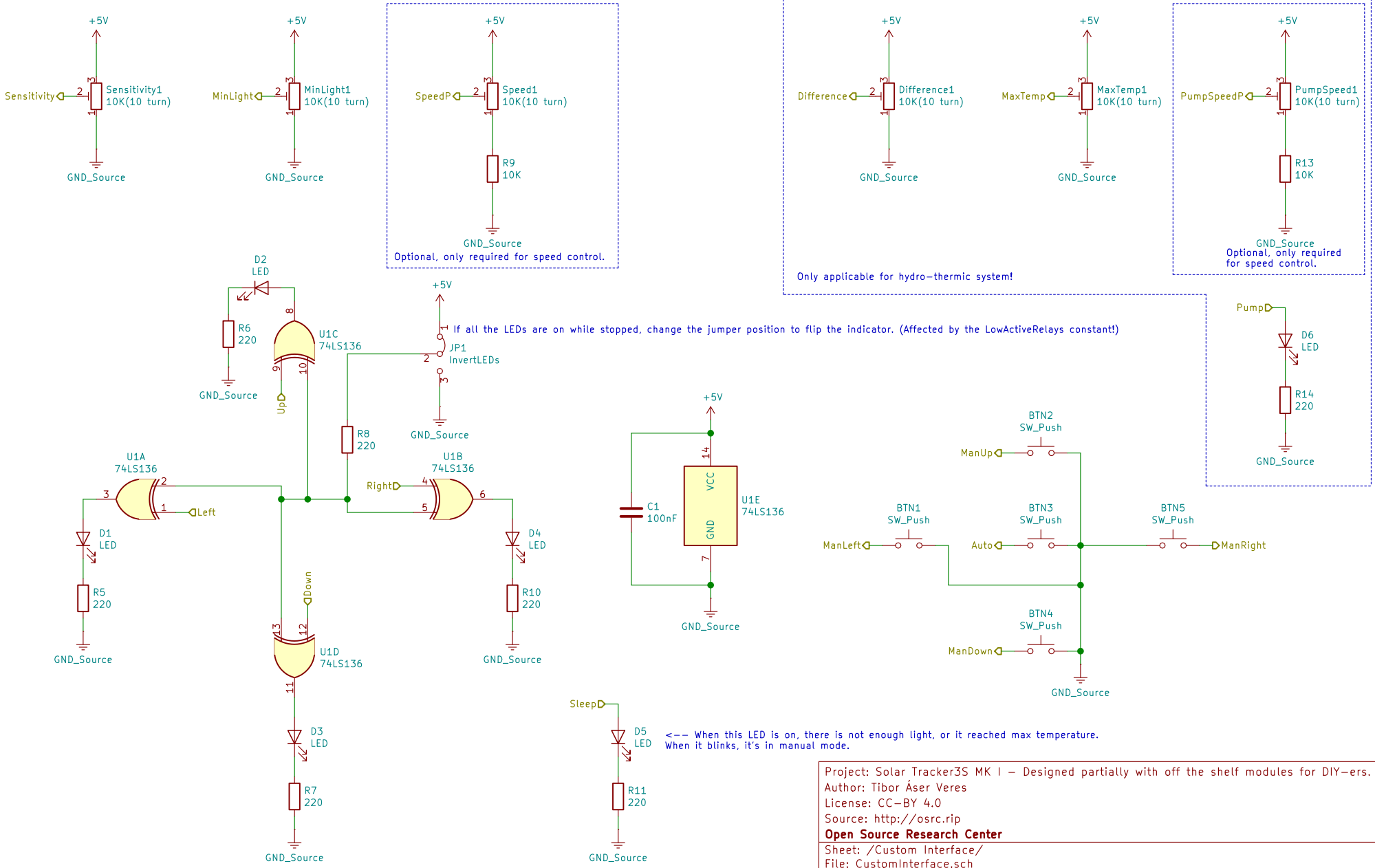
This sheet contains all the indicators, and controls.
You may wanna put these on a separate board from the rest. It should be an easily accessible, well organized and labeled interface.



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Sheet: /Custom Interface/
File: CustomInterface.sch

Title: User Interface

Size: A4	Date: 2019-07-20	**Rev: 1.0**
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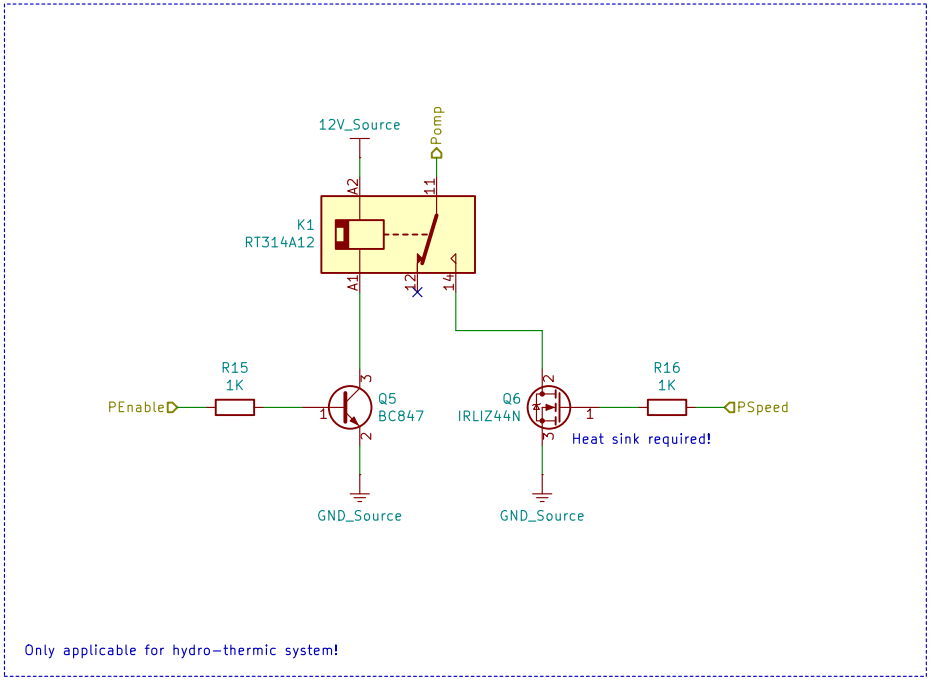
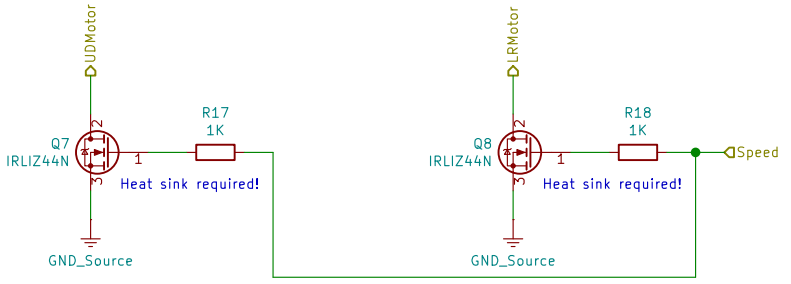
Implementing PWM speed control is optional but highly recommended, since the controller(s) will turn on PWM after the relays close, and shut down PWM before releasing the relays, to protect contacts from high current DC switching...
But why use relays and not H bridges?! Because: A) This allows use of AC motors if required. B) Relay modules are cheaper, and easier to find a good one then approrpiate high current H bridge at the same price.
C) That's what we both had available.
(PWM speed control doesn't work with AC motors however the rest of the circuit should!)





If speed control is not necessary then Q6-8 and R16-18 are not required,
instead pin 14 of K1 as well as UDMotor, and LRMotor goes directly to GND.

(In case of using AC motors and pump, NO contacts of the relay module
as well as pin 1 of the pump goes to live, while pin 14 of K1, UDMotor,
and LRMotor goes directly to neutral! PWM is only for DC motors!)

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Sheet: /Custom Circuit Part: B/
File: CustomCircuitPB.sch

Title: High Current Circuits

Size: A4	Date: 2019-07-20	**Rev: 1.0**
KiCad E.D.A. kicad 5.1.2-f72e74a84ubuntu18.04.1		Id: 4/4