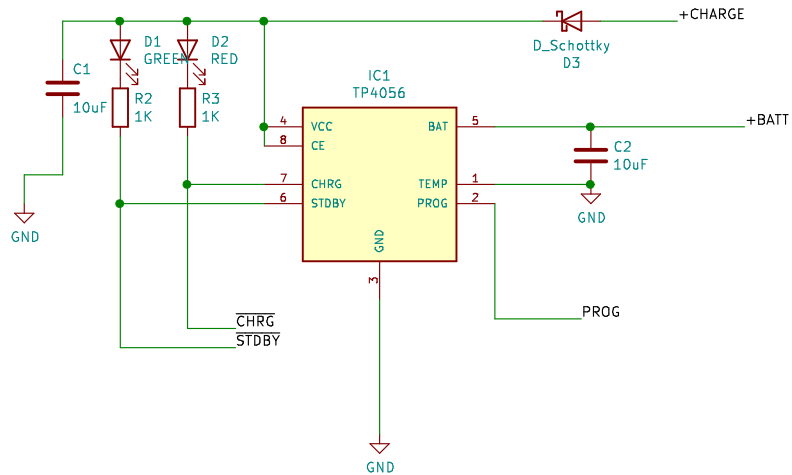


D1: Green  
Vf: 2.7-3.7v  
112-285mcd @ 20mA  
5mA: 260ohms  
Final Value: 1K

D2: Red  
Vf: 1.9-2.2v  
100-120mcd @ 20mA  
10mA: 180 Ohms  
Final Value: 1K

Schottky used as a voltage dropper to improve efficiency of TP4056. B5817W diode has a 0.2-0.4v forward drop at 0.0 to 0.5A current



Sheet: /charge-controller/  
File: charge-controller.sch

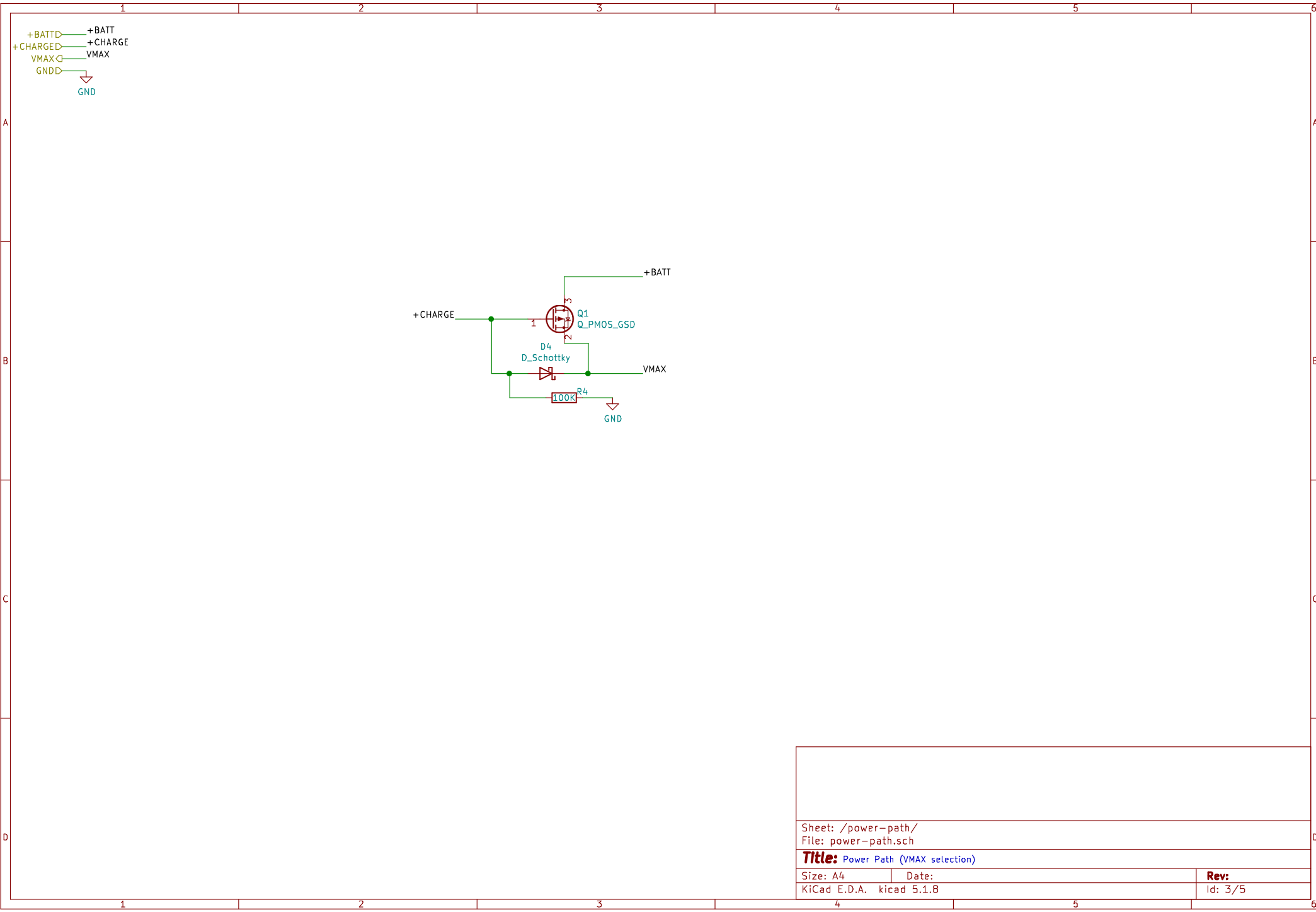
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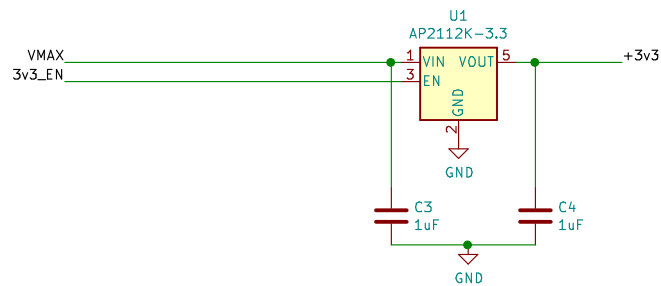
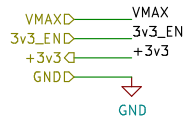
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Date:

**Rev:**

Id: 2/5





Sheet: /3v3-regulator/  
File: 3v3-regulator.sch

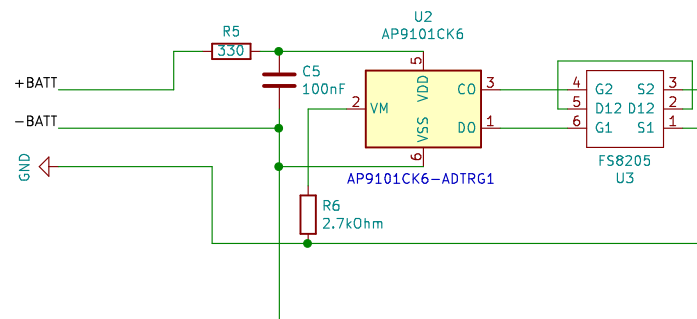
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Size: A4  
KiCad E.D.A. kicad 5.1.8

Date:

**Rev:**  
Id: 4/5

+BATTD — +BATT  
-BATTD — -BATT  
GNDD — GND



Sheet: /battery-protection/  
File: battery-protection.sch

**Title:** Battery Protection

Size: A4  
KiCad E.D.A. kicad 5.1.8

Date:

**Rev:**  
Id: 5/5