

SEE ALTIUM SCHEMATIC FOR FINAL IMPLEMENTATION



For authors and other info, contact Chief Electrical Engineer
<https://github.com/Northeastern-Electric-Racing/NER>

Northeastern Electric Racing

Sheet: /GLV_Battery Board/
File: GLV_Batt_Board.kicad_sch

Title: LFP Battery Board

Size: A | Date: 2023-02-01
KiCad E.D.A. kicad 7.0.1-0

Rev: 1
Id: 2/14

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A

A

B

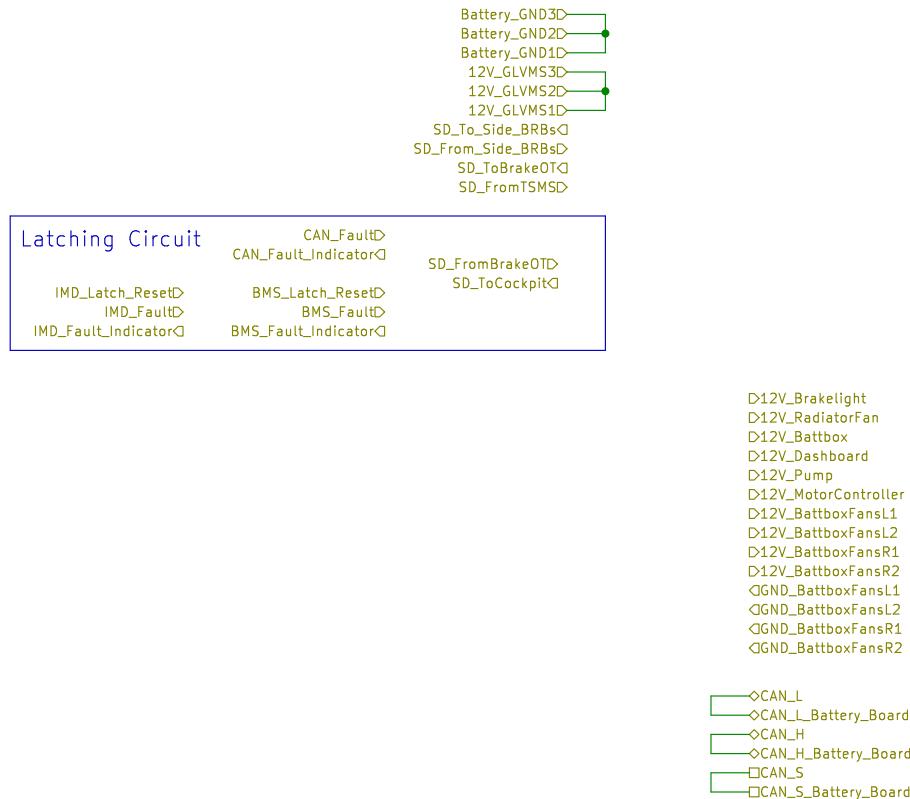
B

C

C

D

D



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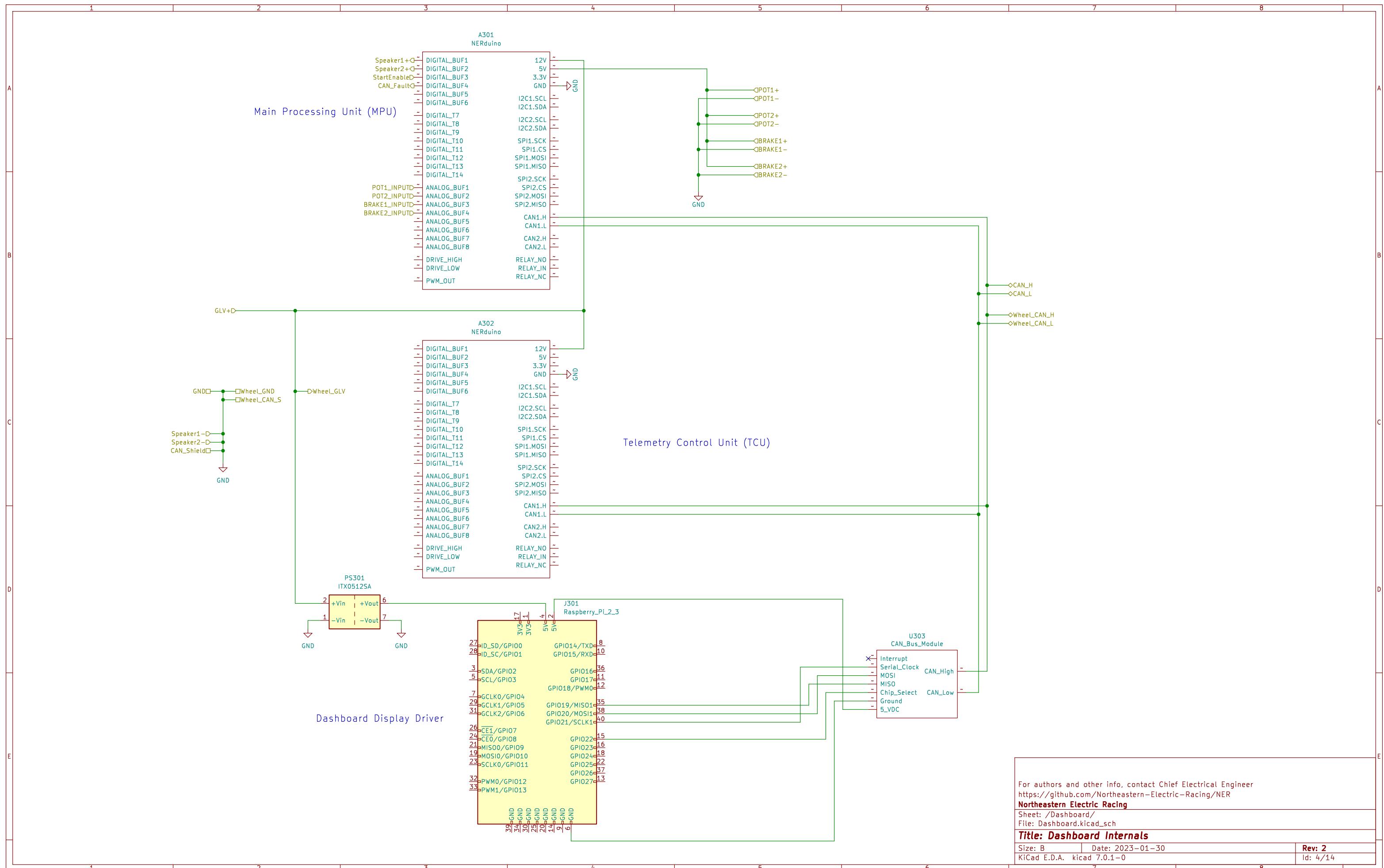
Northeastern Electric Racing

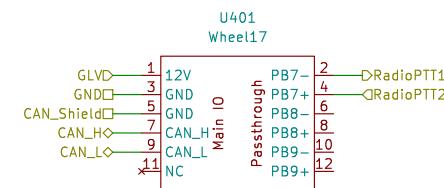
Sheet: /Power Distribution/
 File: PDU.kicad_sch

Title: Power Distribution Board

Size: A	Date: 2023-01-23
KiCad E.D.A.	kicad 7.0.1-0

Rev: 1
Id: 3/14





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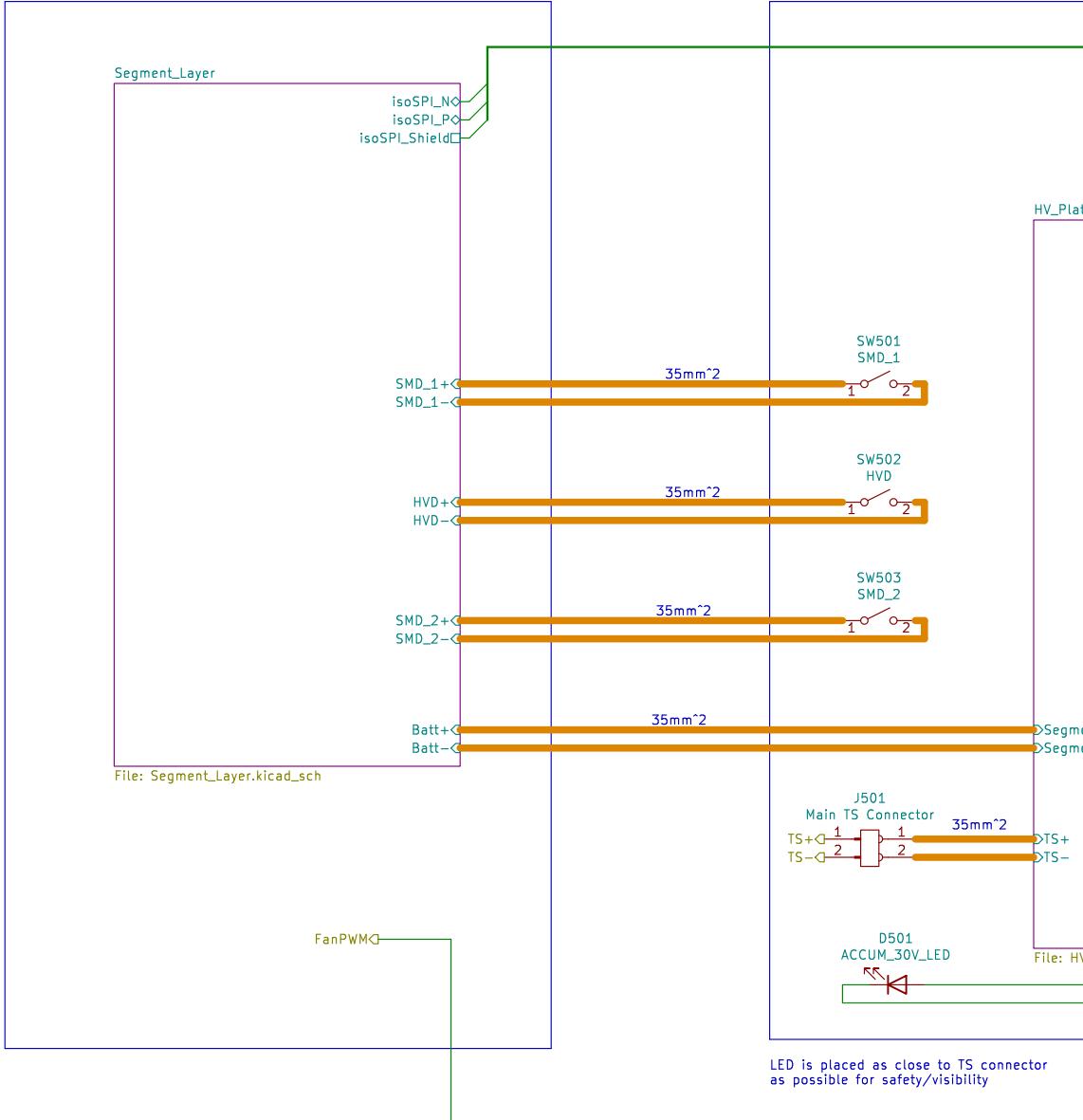
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 File: Wheel.kicad_sch

Title: Wheel PCB

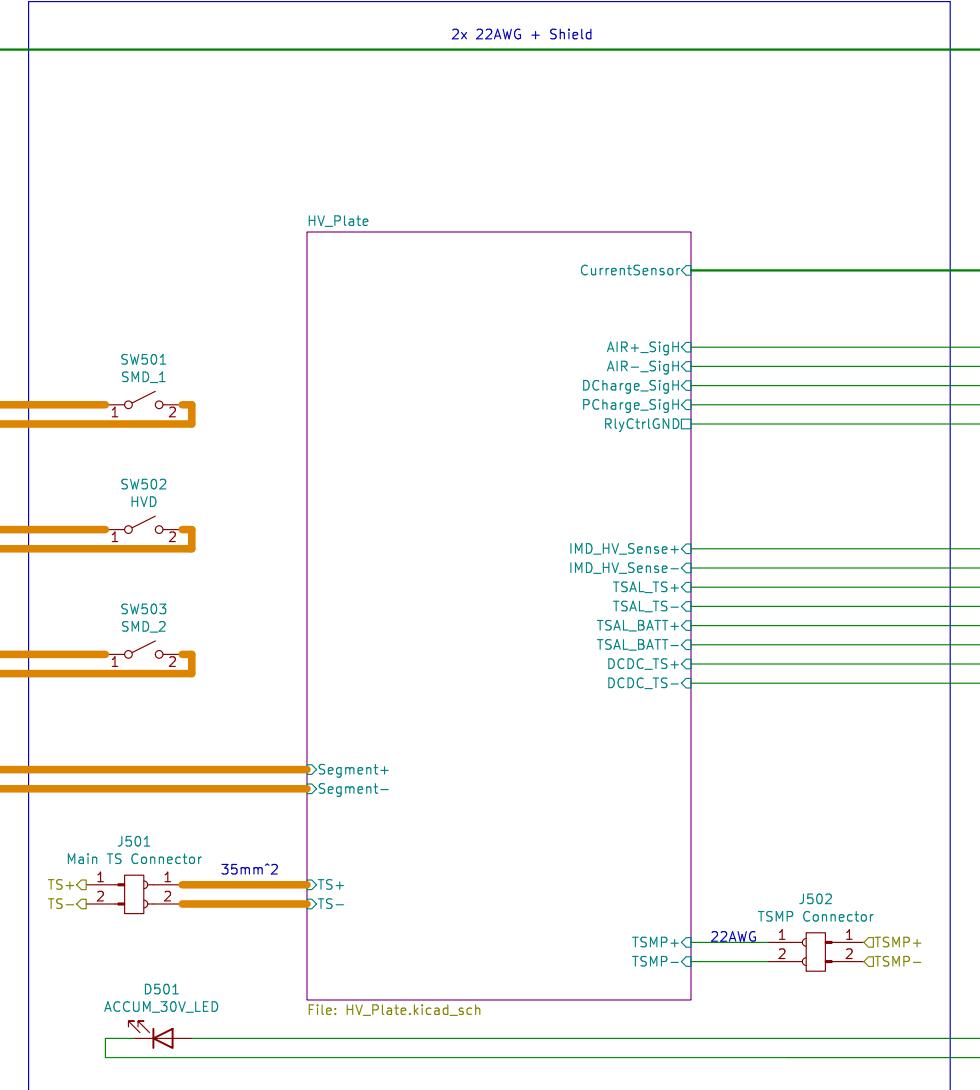
Size: A | Date: 2023-01-25
 KiCad E.D.A. kicad 7.0.1-0

Rev: 1
 Id: 5/14

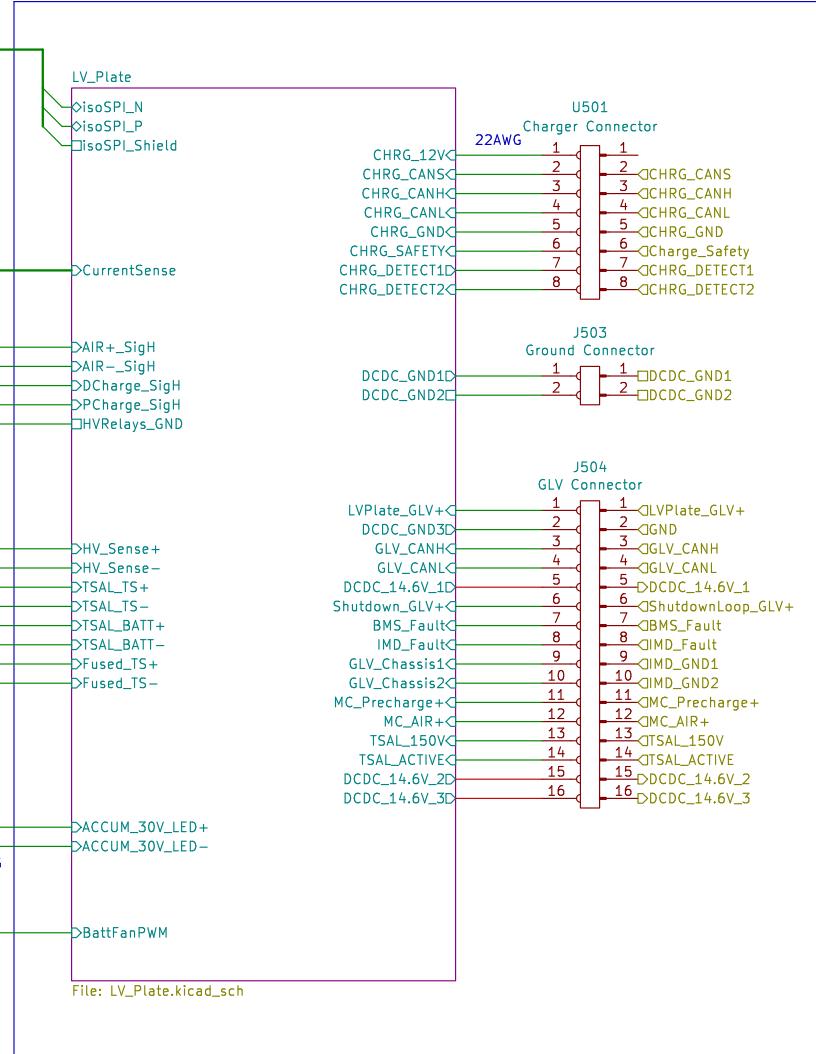
Segment Layer



HV Plate



LV Plate



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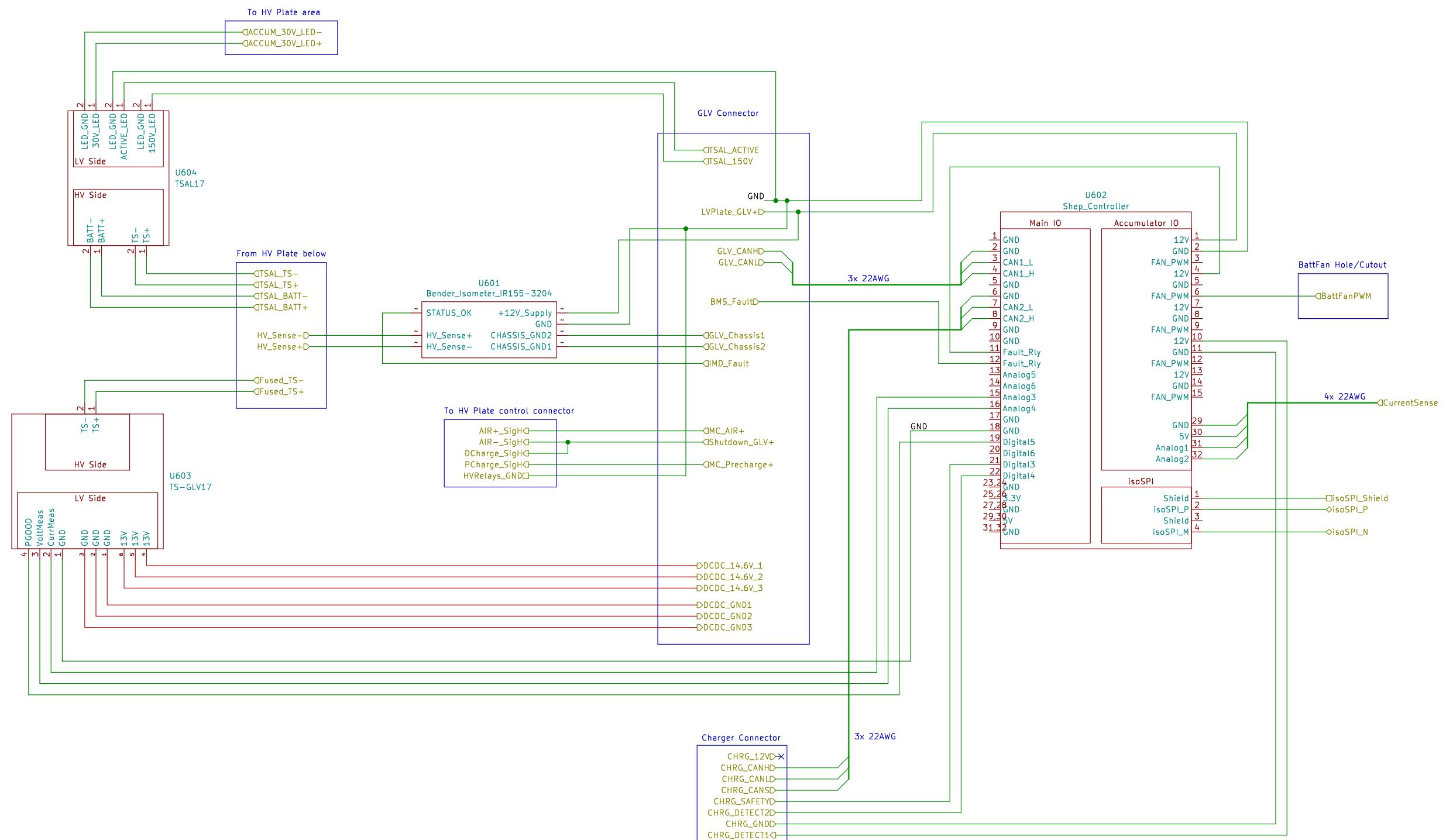
Northeastern Electric Racing
Sheet: /Accumulator Container/
File: Accumulator_Container.kicad_sch

Title: Accumulator Container

Size: B Date: 2023-04-29
KiCad E.D.A. kicad 7.0.1-0

Rev: 9
Id: 6/14

ALL WIRES 22AWG EXCEPT WHERE LABELED



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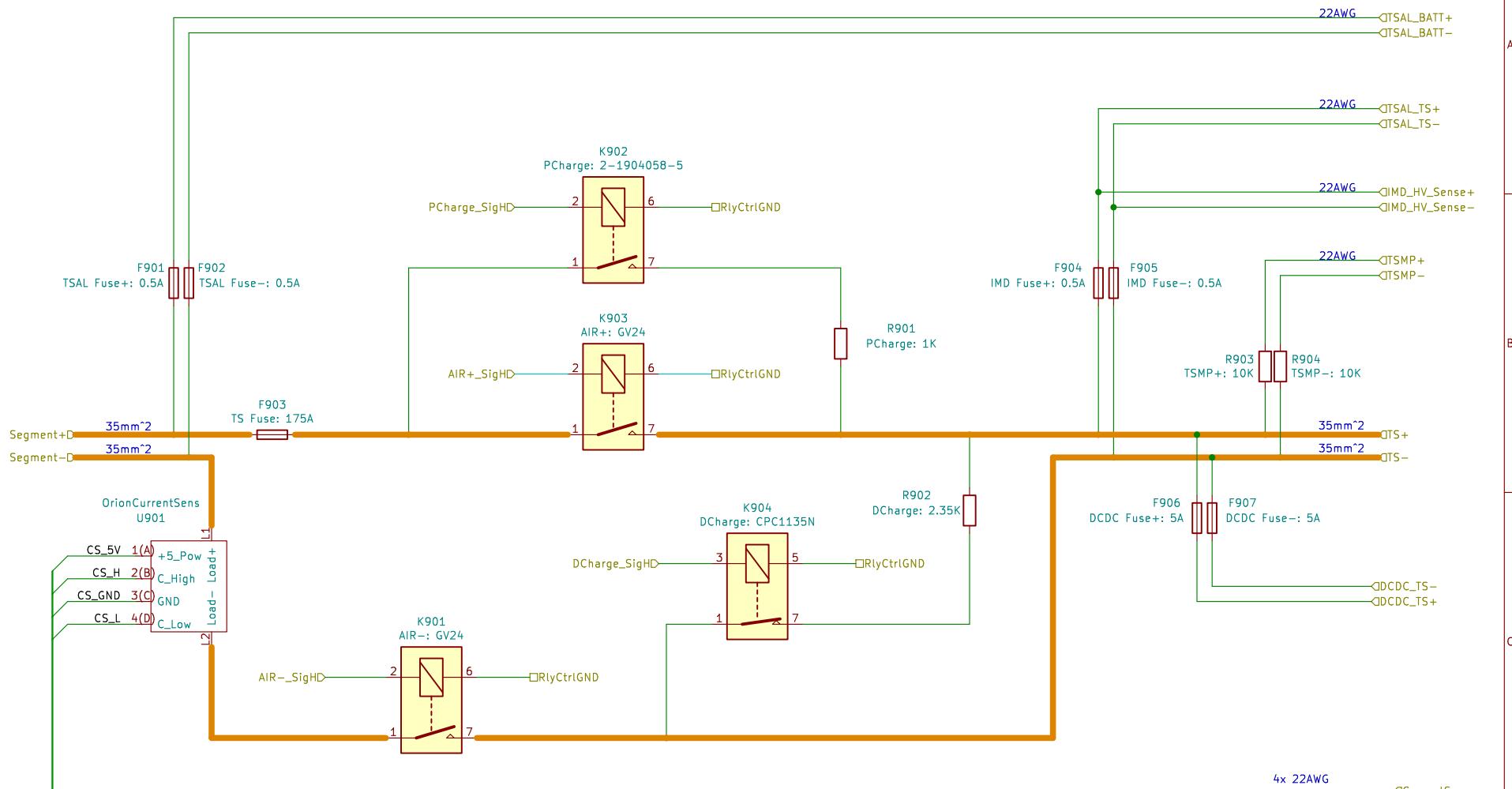
Northeastern Electric Racing
Sheet: /Accumulator Container/LV_Plate/
File: LV_Plate.kicad_sch

Title: LV Plate

Size: B	Date: 2023-01-25
KiCad E.D.A. kicad 7.0.1-0	Rev: 2

Id: 6/14

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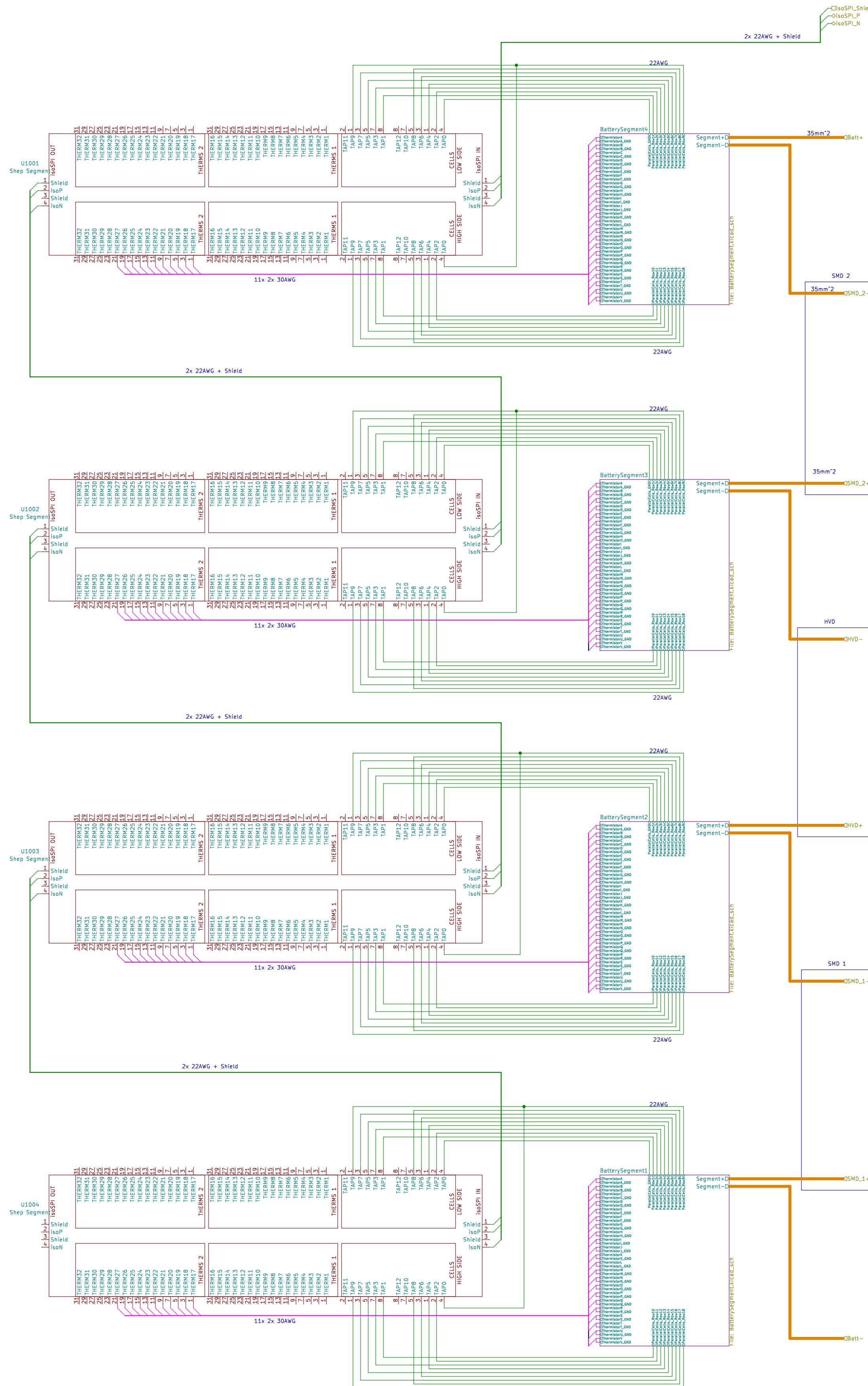
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Northeastern Electric Racing
Sheet: /Accumulator Container/HV_Plate/
File: HV_Plate.kicad_sch

Title: HV Plate

Size: A	Date: 2023-04-29
KiCad E.D.A. kicad 7.0.1-0	Rev: 3

Id: 9/14



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Sheet /Accumulator Container/Segment_Layer/

File: Segment_Layer.kicad_sch

Title: Segment Layer

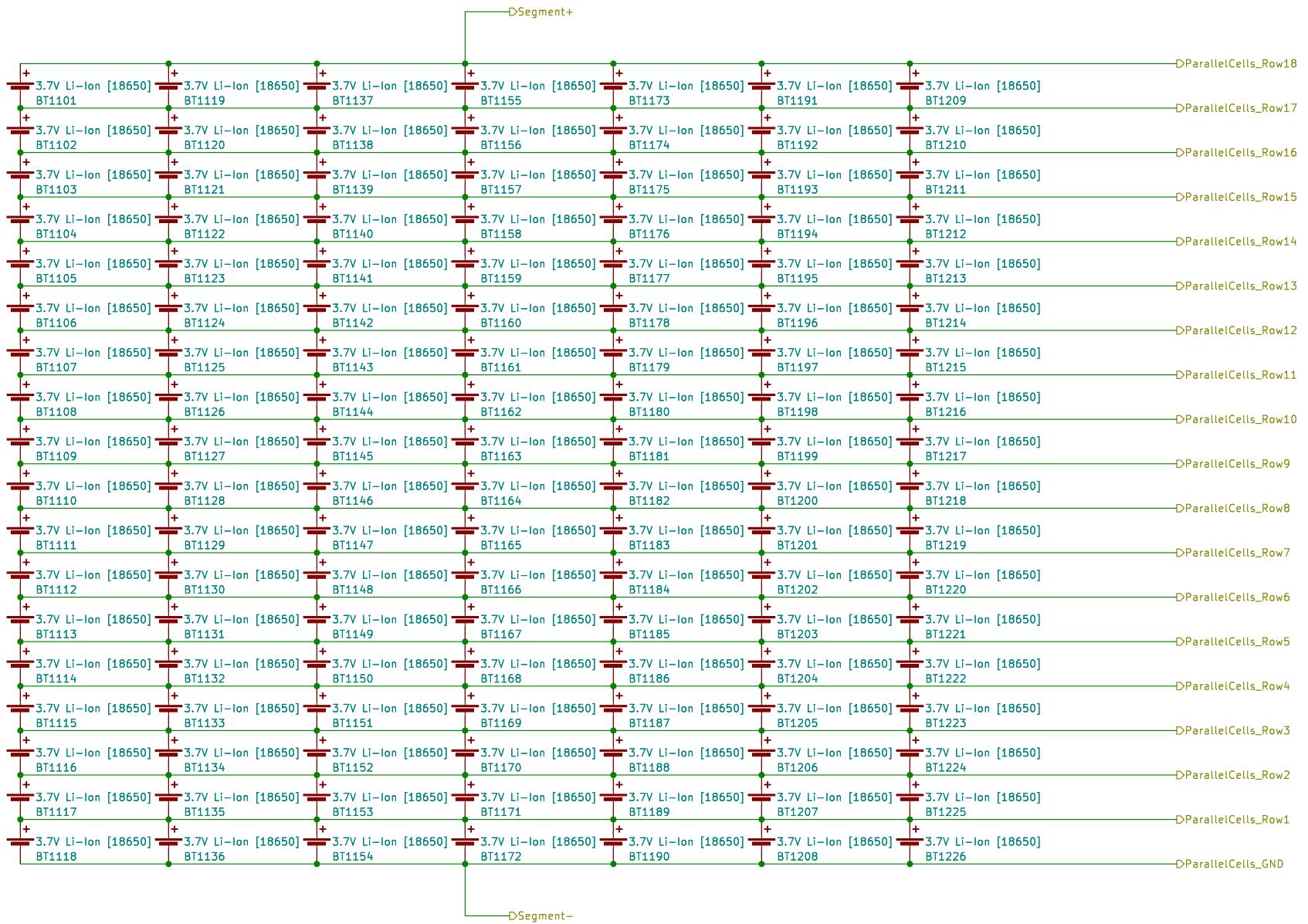
Size: C Date: 2023-01-25

KiCad E.D.A., Kicad 7.0.1-0

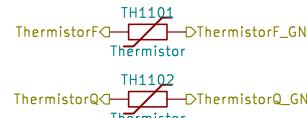
Rev: 2

Id: 10/14

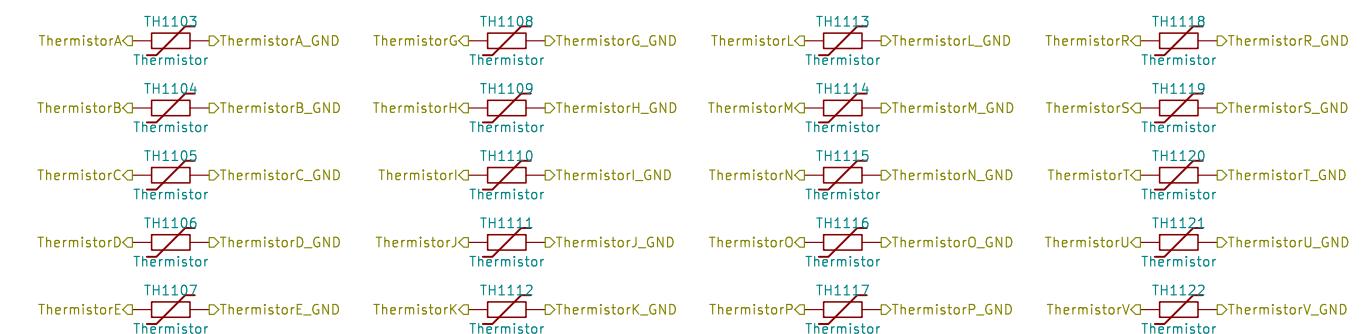
See Fusible Links Report 2022



Thermistors F & Q are critical, and are therefore independently grounded to the BMS. They are located in the center of the cell pack.



*Thermistors are distributed evenly throughout the segment. Each group of 5 has a common ground on the thermistor expansion.



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Northeastern Electric Racing

Sheet: /Accumulator Container/Segment_Layer/BatterySegment1/
File: BatterySegment.kicad_sch

Title: Accumulator Segment

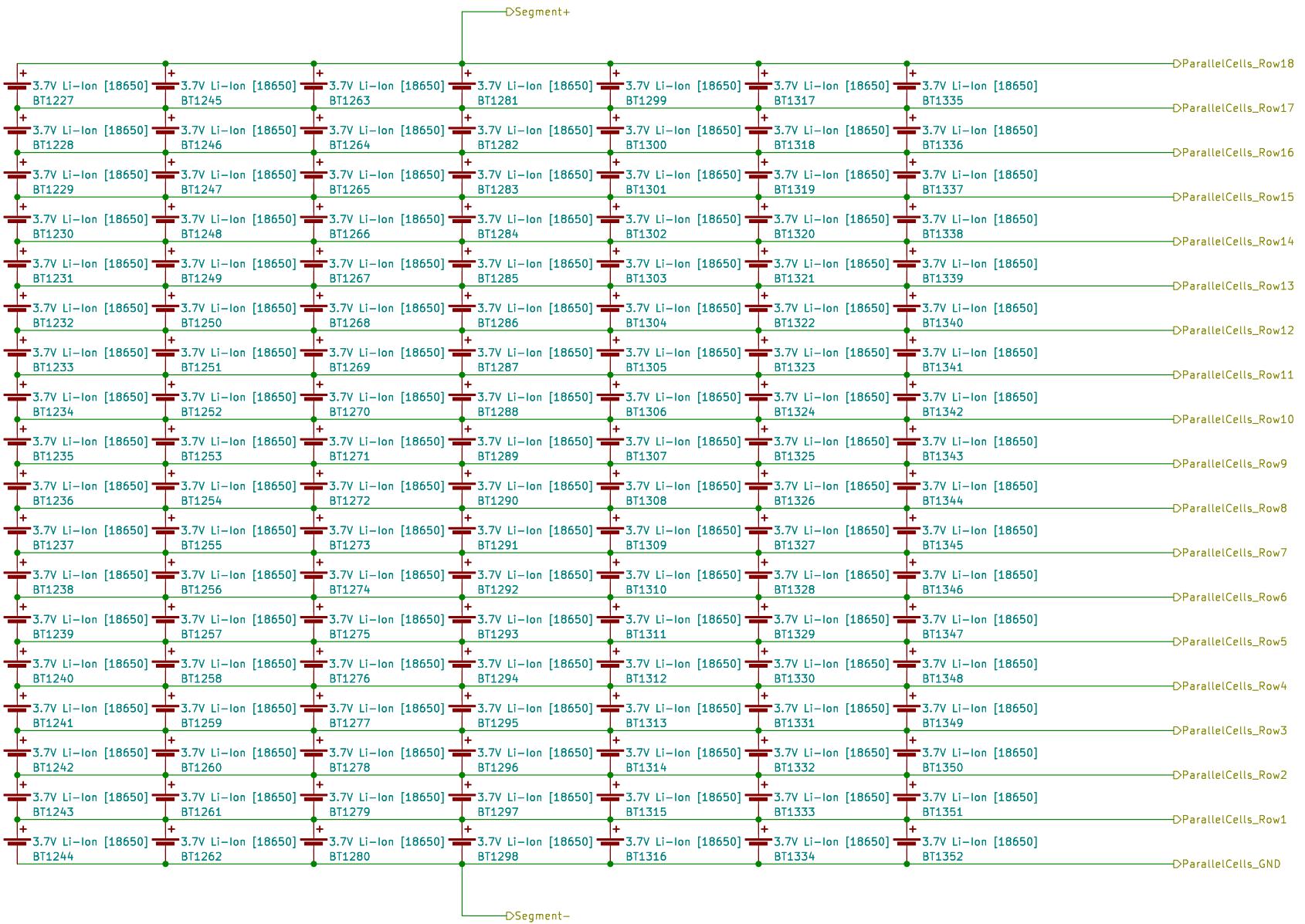
Size: B Date: 2020-11-11

KiCad E.D.A. kicad 7.0.1-0

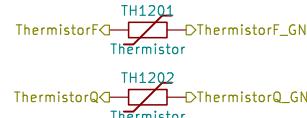
Rev: 3

Id: 11/14

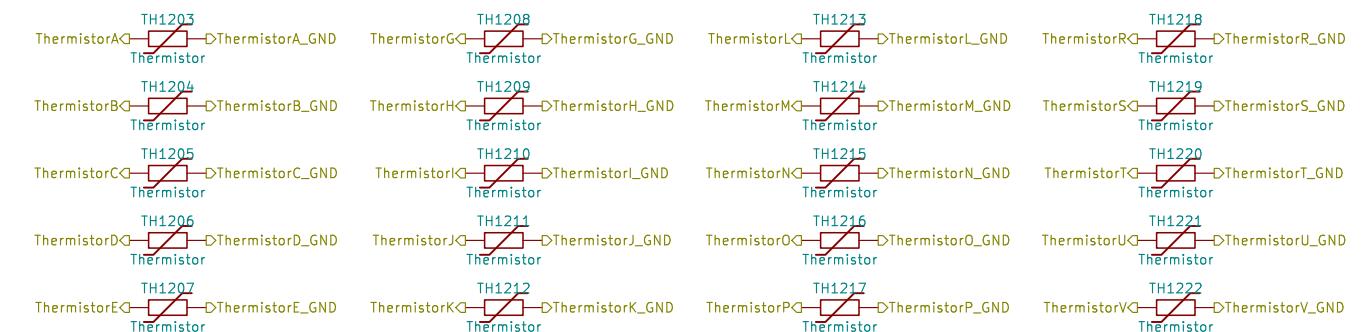
See Fusible Links Report 2022



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Sheet: /Accumulator Container/Segment_Layer/BatterySegment2/
File: BatterySegment.kicad_sch

Title: Accumulator Segment

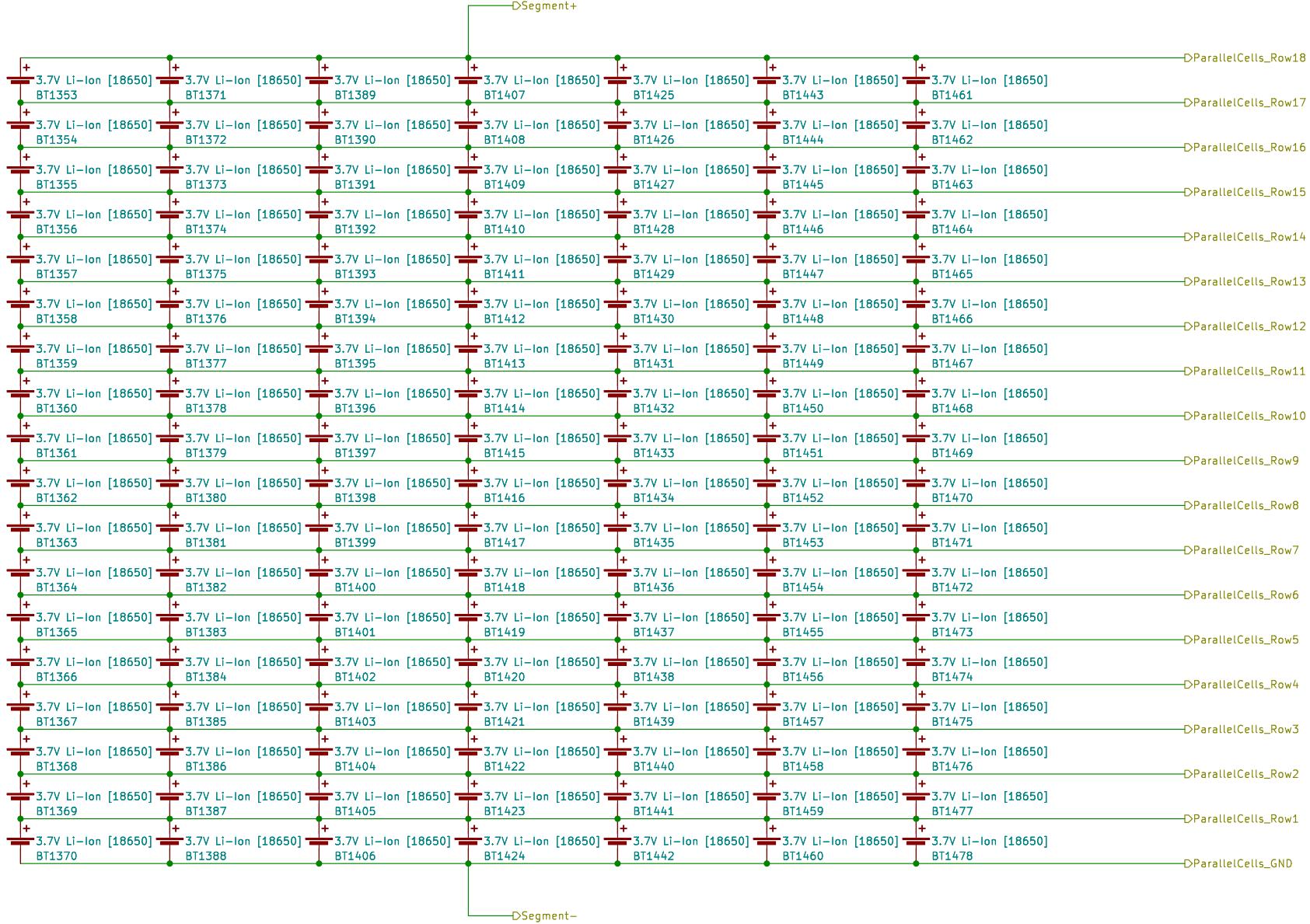
Size: B Date: 2020-11-11

KiCad E.D.A. kicad 7.0.1-0

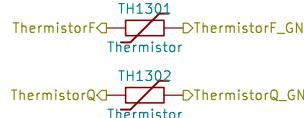
Rev: 3

Id: 12/14

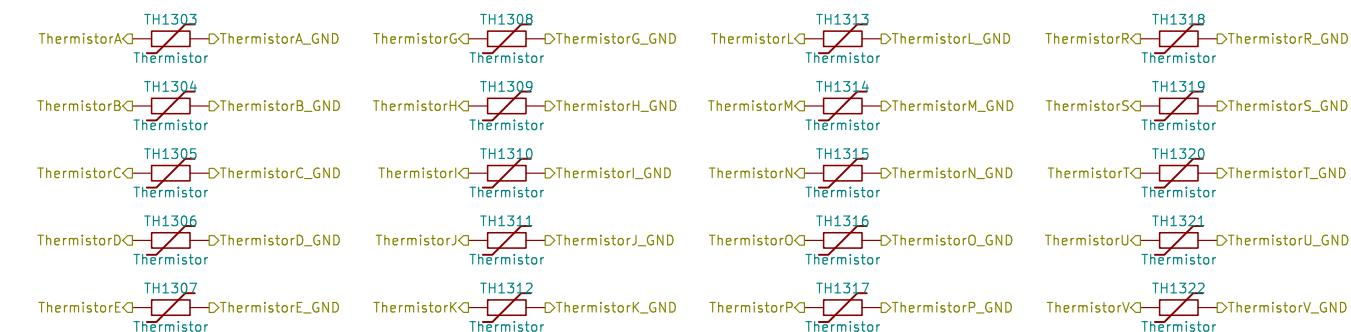
See Fusible Links Report 2022



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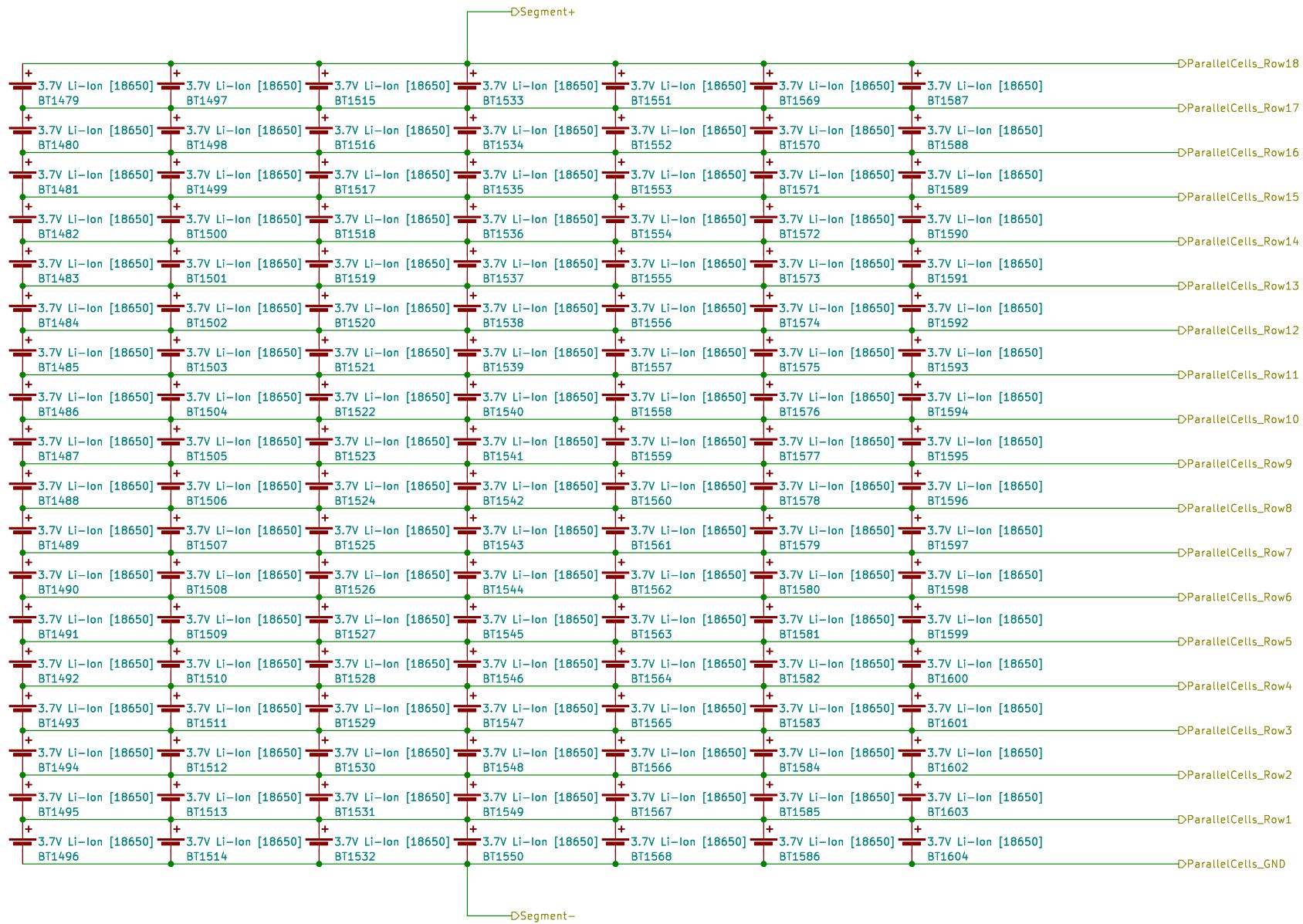
Northeastern Electric Racing
Sheet: /Accumulator Container/Segment_Layer/BatterySegment3/
File: BatterySegment.kicad_sch

Title: Accumulator Segment

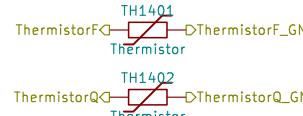
Size: B Date: 2020-11-11
KiCad E.D.A. kicad 7.0.1-0

Rev: 3
Id: 13/14

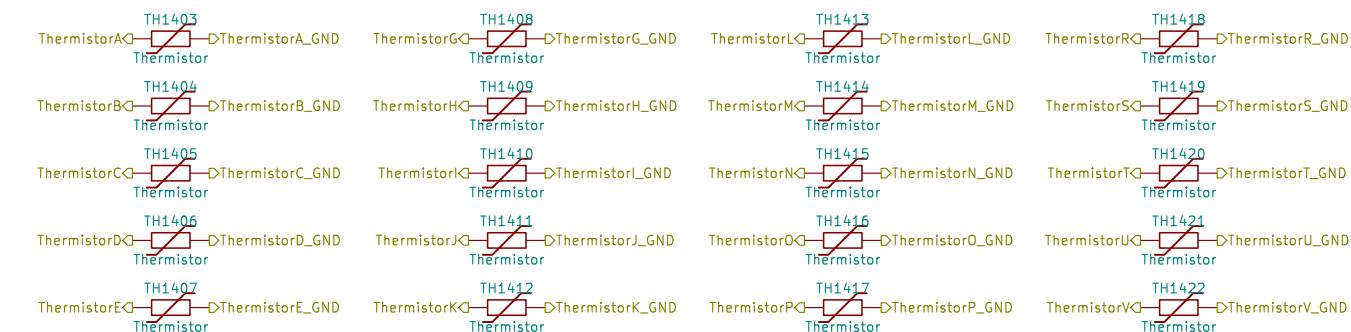
See Fusible Links Report 2022



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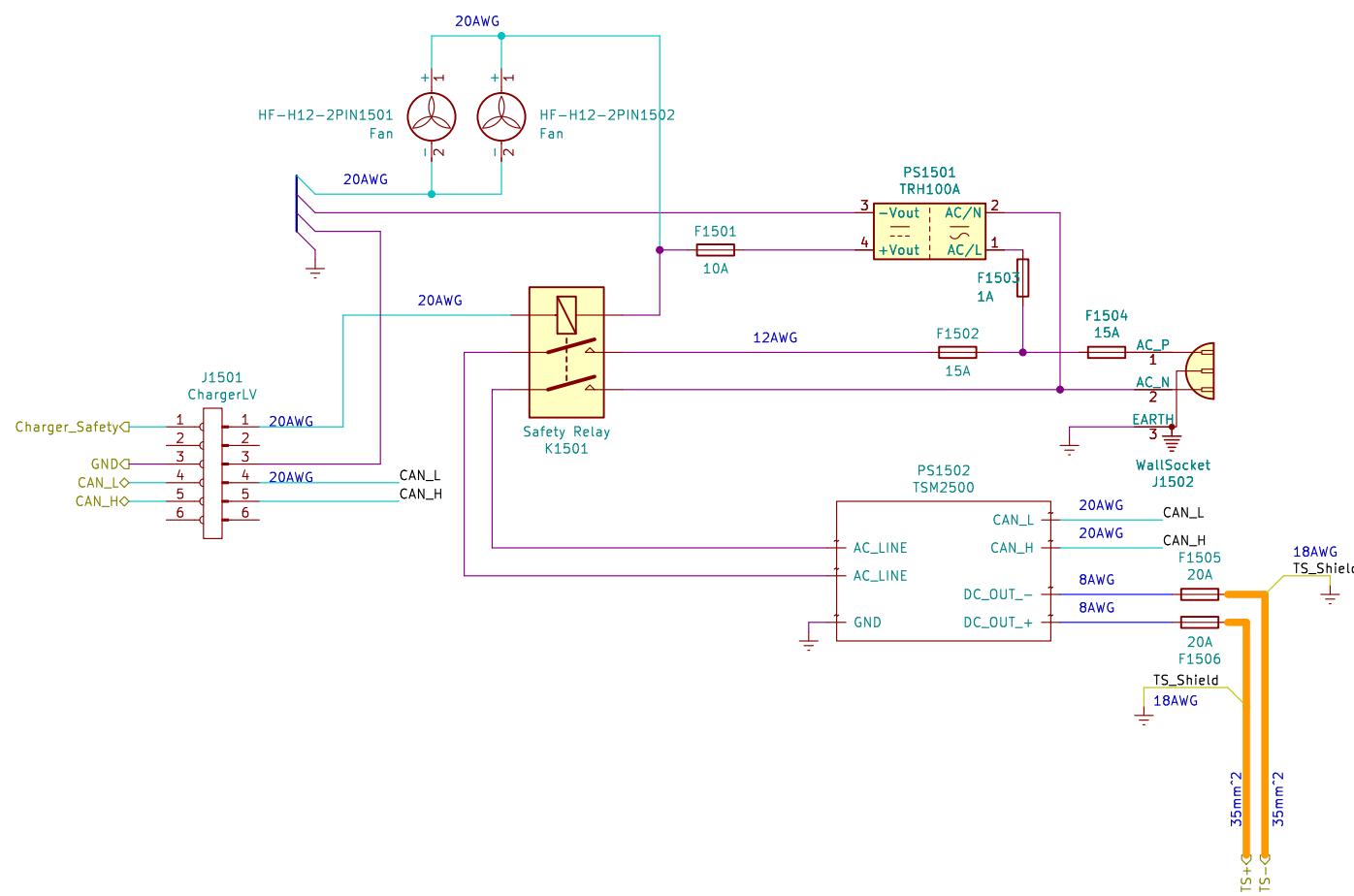
Northeastern Electric Racing
Sheet: /Accumulator Container/Segment_Layer/BatterySegment4/
File: BatterySegment.kicad_sch

Title: Accumulator Segment

Size: B	Date: 2020-11-11	Rev: 3
KiCad E.D.A.	kicad 7.0.1-0	Id: 14/14

1 2 3 4 5

All wires are 12 AWG unless specified



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Sheet: /Charger/
 File: Charger.kicad_sch

Title: Charging System

Size: A Date: 2023-04-29

KiCad E.D.A. kicad 7.0.1-0

Rev: 6

Id: 15/14

1 2 3 4 5