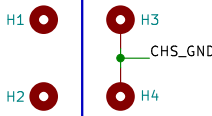
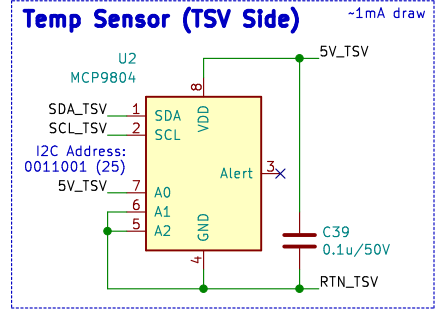
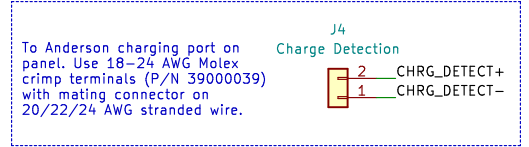
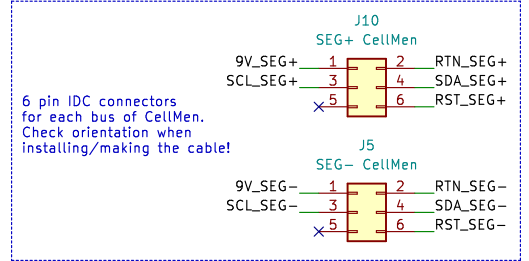
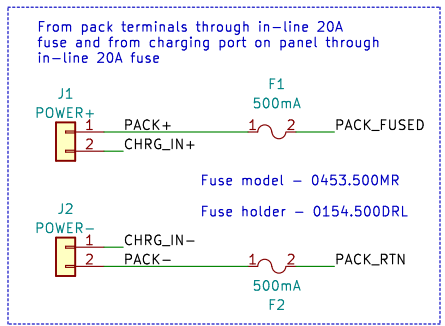


TSV <- Isolated high voltage TSV side of board

Low voltage side of board -> **GLV**

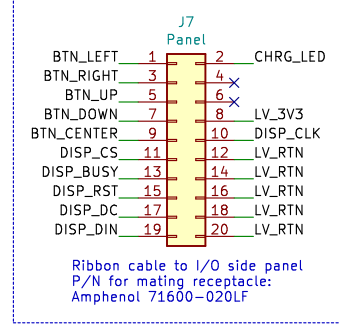
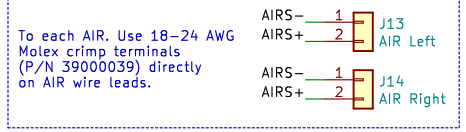
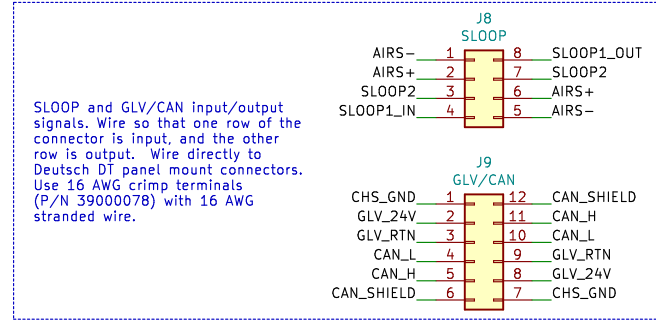
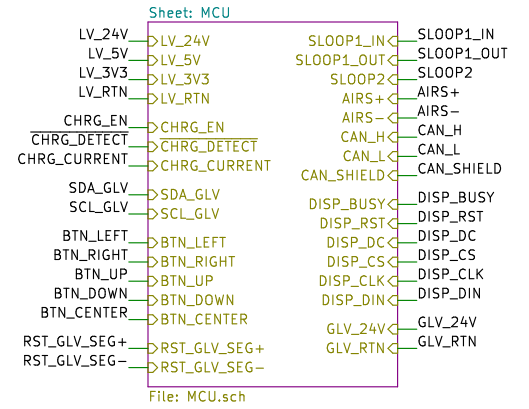
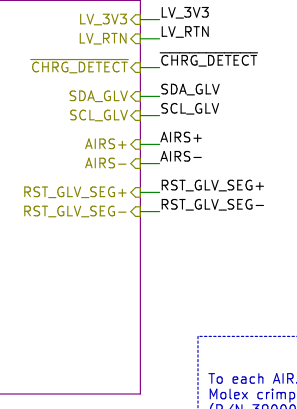
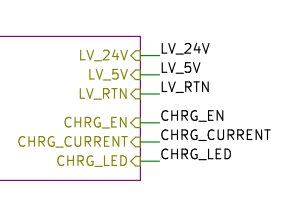
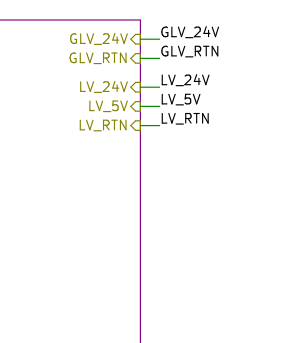
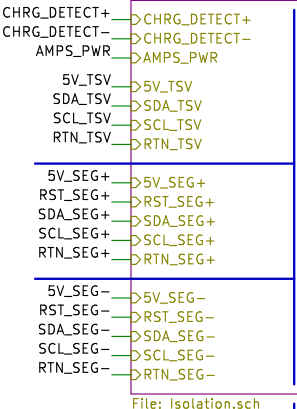
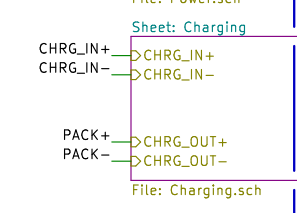
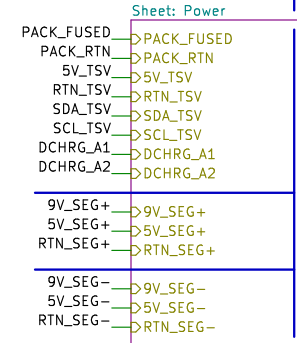
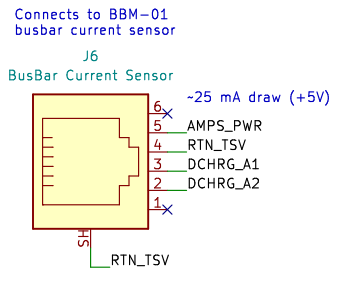


Connect plated mounting holes on GLV side to chassis ground in order to ground pack enclosure.

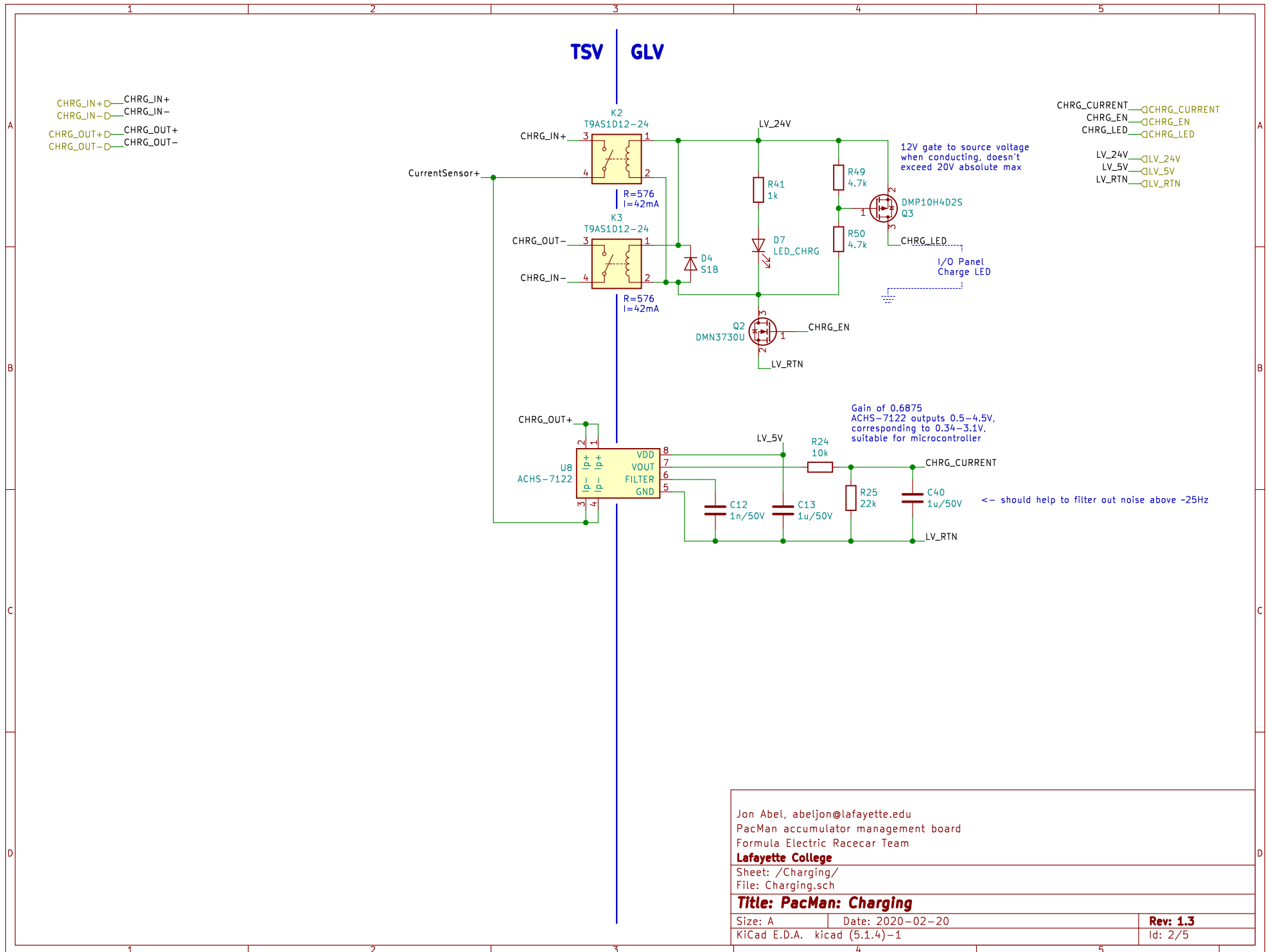


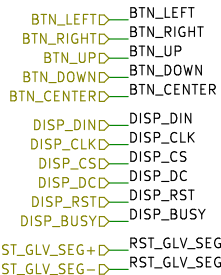
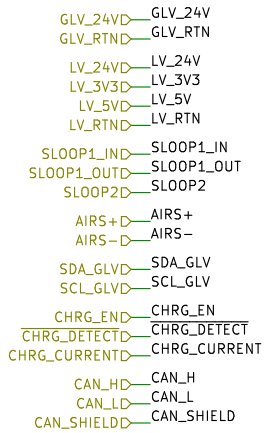
Required Logos

LOGO1 LAFAYETTE ELECTRICAL & COMPUTER ENGINEERING
LOGO2
LOGO3 DANGER High Voltage

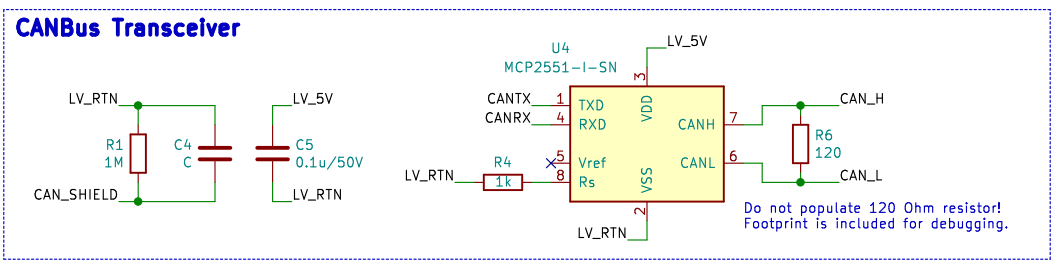
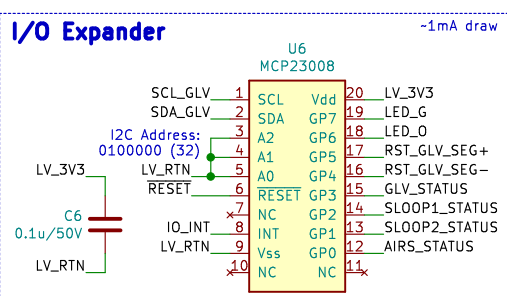
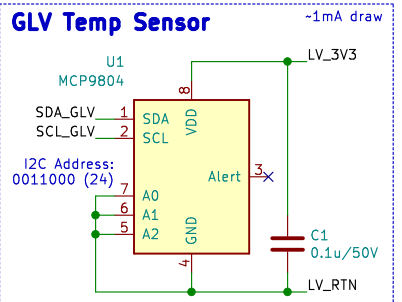
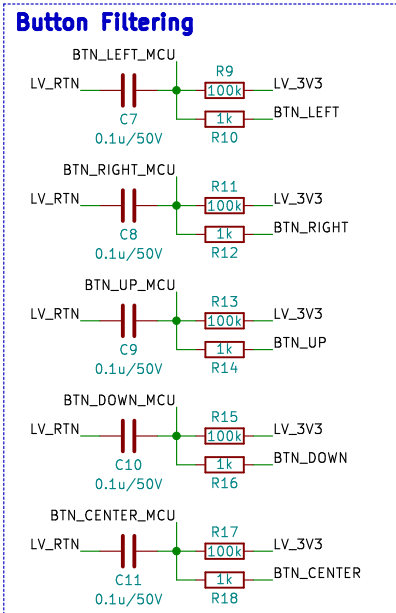
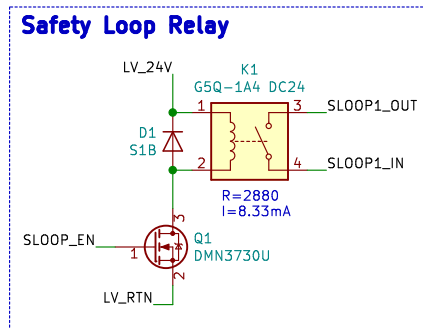
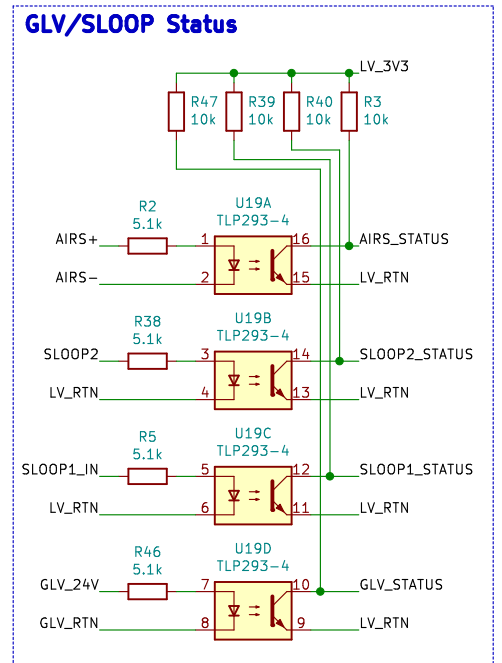
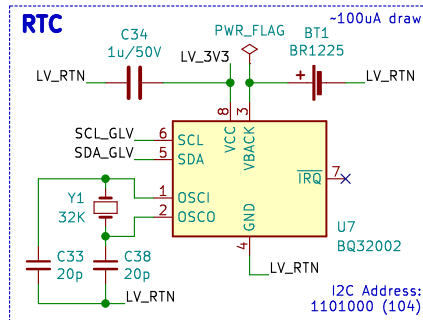
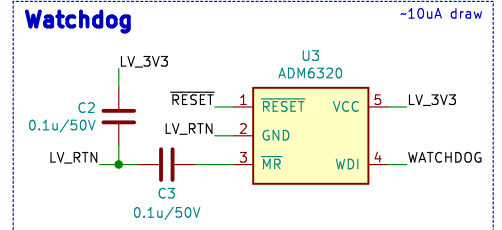
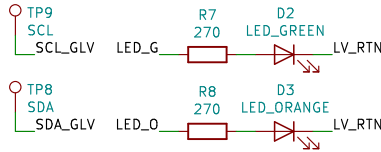
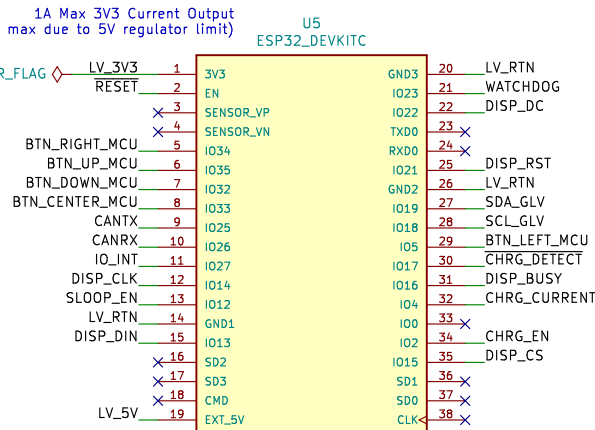
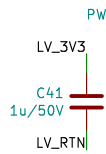


Jon Abel, abeljon@lafayette.edu
PacMan accumulator management board
Formula Electric Racecar Team
Lafayette College
Sheet: /
File: PacMan.sch
Title: PacMan
Size: A Date: 2020-04-08
KiCad E.D.A. kicad (5.1.4)-1
Rev: 1.3
Id: 1/5

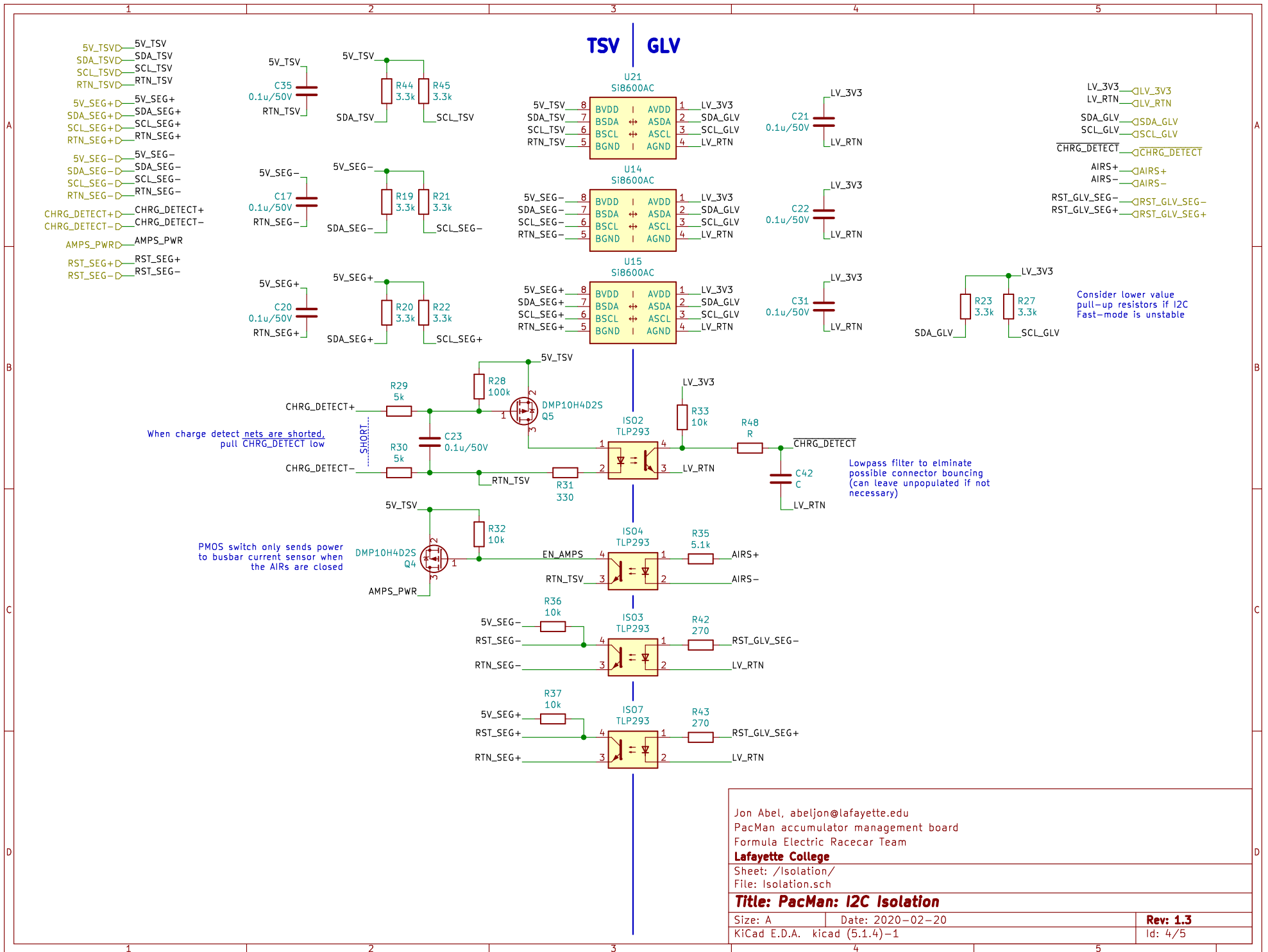




1A Max 3V3 Current Output
(-500mA max due to 5V regulator limit)



Jon Abel, abeljon@lafayette.edu
 PacMan accumulator management board
 Formula Electric Racecar Team
Lafayette College
 Sheet: /MCU/
 File: MCU.sch
Title: PacMan: MCU, SLOOP, CANBus
 Size: A Date: 2020-02-20 Rev: 1.3
 KiCad E.D.A. kicad (5.1.4)-1 Id: 3/5



Jon Abel, abeljon@lafayette.edu
 PacMan accumulator management board
 Formula Electric Racecar Team
Lafayette College
 Sheet: /Isolation/
 File: Isolation.sch

Title: PacMan: I2C Isolation

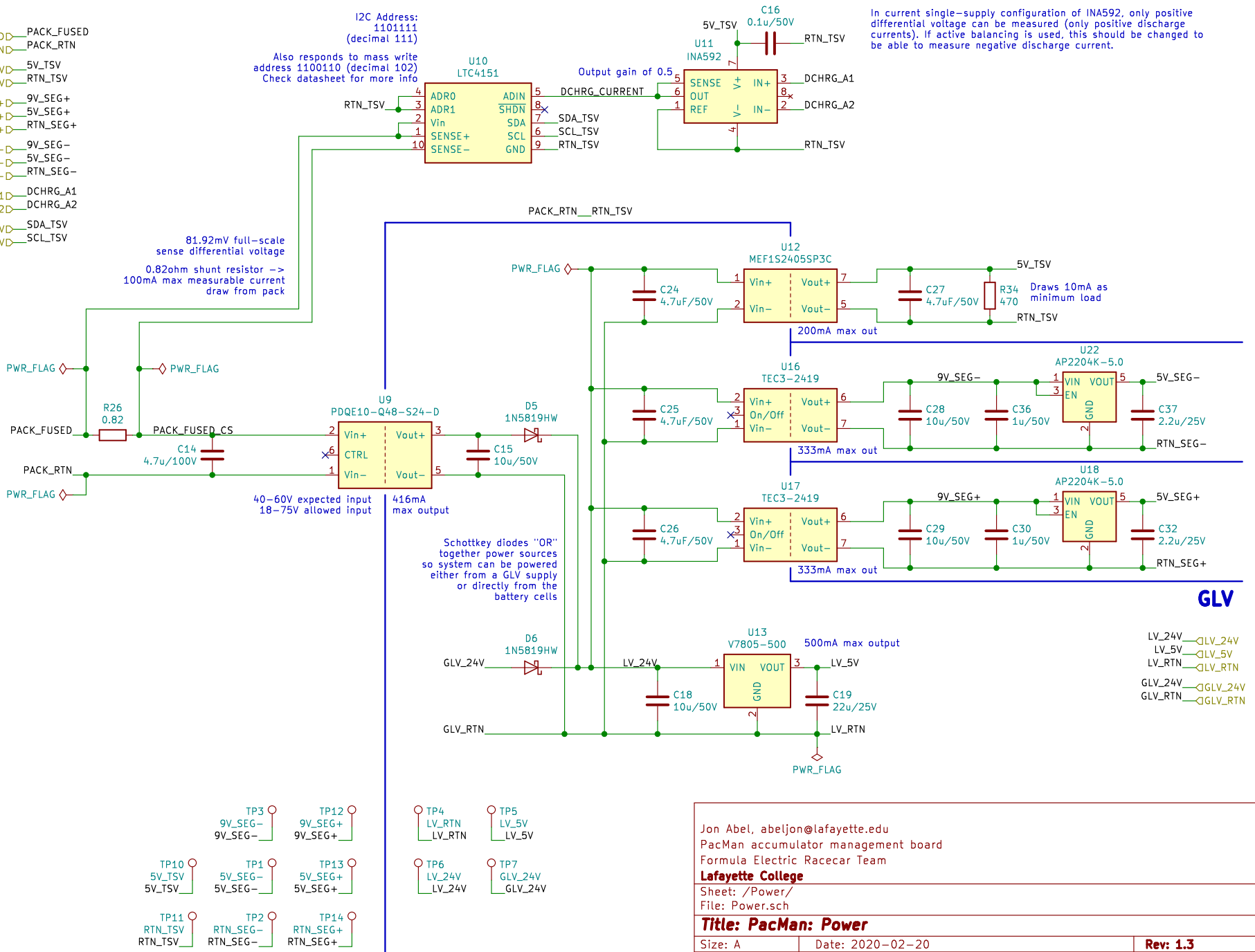
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TSV

- PACK_FUSED<D> PACK_FUSED
- PACK_RTND<D> PACK_RTND
- 5V_TSV<D> 5V_TSV
- RTN_TSV<D> RTN_TSV
- 9V_SEG+<D> 9V_SEG+
- 5V_SEG+<D> 5V_SEG+
- RTN_SEG+<D> RTN_SEG+
- 9V_SEG-<D> 9V_SEG-
- 5V_SEG-<D> 5V_SEG-
- RTN_SEG-<D> RTN_SEG-
- DCHRG_A1<D> DCHRG_A1
- DCHRG_A2<D> DCHRG_A2
- SDA_TSV<D> SDA_TSV
- SCL_TSV<D> SCL_TSV

I2C Address:
1101111
(decimal 111)
Also responds to mass write
address 1100110 (decimal 102)
Check datasheet for more info

In current single-supply configuration of INA592, only positive differential voltage can be measured (only positive discharge currents). If active balancing is used, this should be changed to be able to measure negative discharge current.



GLV

- LV_24V<D> GLV_24V
- LV_5V<D> GLV_5V
- LV_RTND<D> GLV_RTND
- GLV_24V<D> GLV_24V
- GLV_RTND<D> GLV_RTND

Jon Abel, abeljon@lafayette.edu
PacMan accumulator management board
Formula Electric Racecar Team
Lafayette College
Sheet: /Power/
File: Power.sch

Title: PacMan: Power

Size: A Date: 2020-02-20
KiCad E.D.A. kicad (5.1.4)-1

Rev: 1.3
Id: 5/5