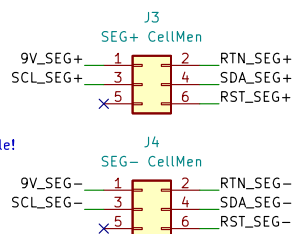
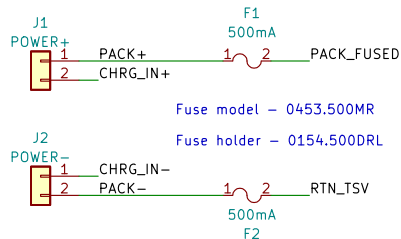


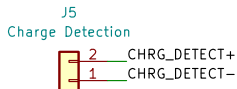
TSV <- Isolated high voltage TSV side of board

Low voltage side of board -> GLV

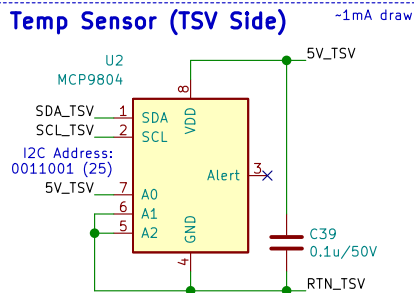
From pack terminals through in-line 20A fuse and from charging port on panel through in-line 20A fuse



To Anderson charging port on panel. Use 18-24 AWG Molex crimp terminals (P/N 39000039) with mating connector on 20/22/24 AWG stranded wire.



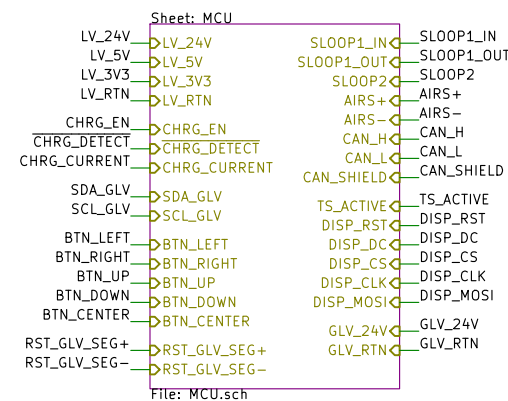
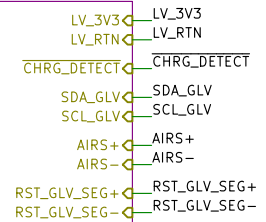
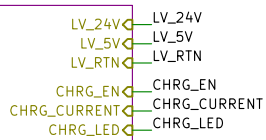
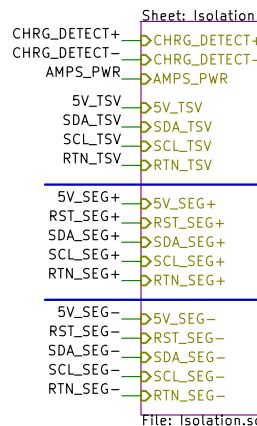
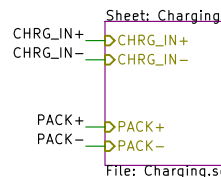
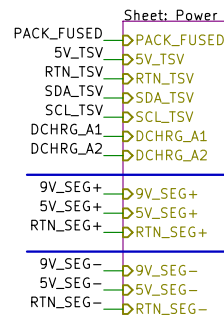
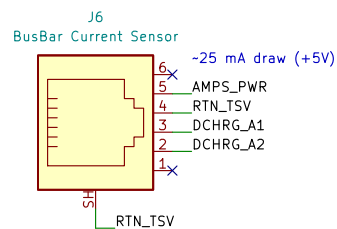
## Temp Sensor (TSV Side)



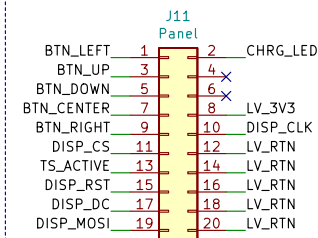
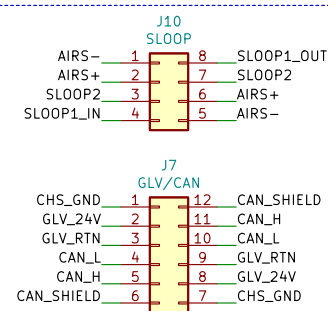
## Required Logos



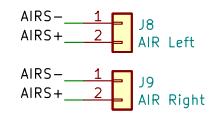
Connects to BBM-01 busbar current sensor



SLOOP and GLV/CAN input/output signals. Wire so that one row of the connector is input, and the other row is output. Wire directly to Deutsch DT crimp mount connectors. Use 16 AWG crimp terminals (P/N 39000078) with 16 AWG stranded wire.



To each AIR. Use 18-24 AWG Molex crimp terminals (P/N 39000039) directly on AIR wire leads.



Ribbon cable to I/O side panel P/N for mating receptacle: Amphenol 71600-020LF

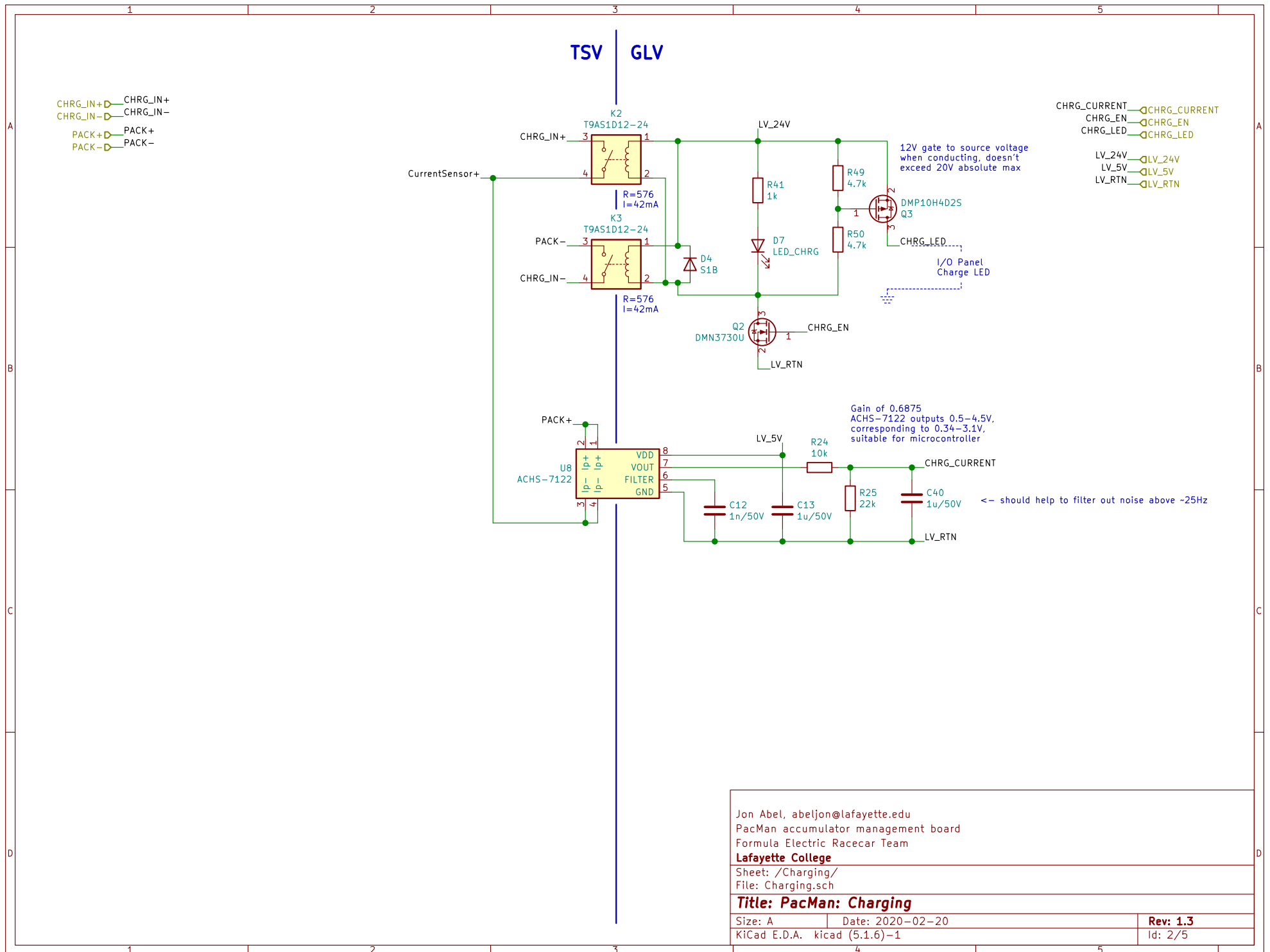
Jon Abel, abeljon@lafayette.edu  
PacMan accumulator management board  
Formula Electric Racecar Team  
**Lafayette College**

Sheet: /  
File: PacMan.sch

**Title: PacMan**

Size: A Date: 2020-04-08  
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Rev: 1.3  
Id: 1/5



Jon Abel, abeljon@lafayette.edu  
PacMan accumulator management board  
Formula Electric Racecar Team

**Lafayette College**

Sheet: /Charging/  
File: Charging.sch

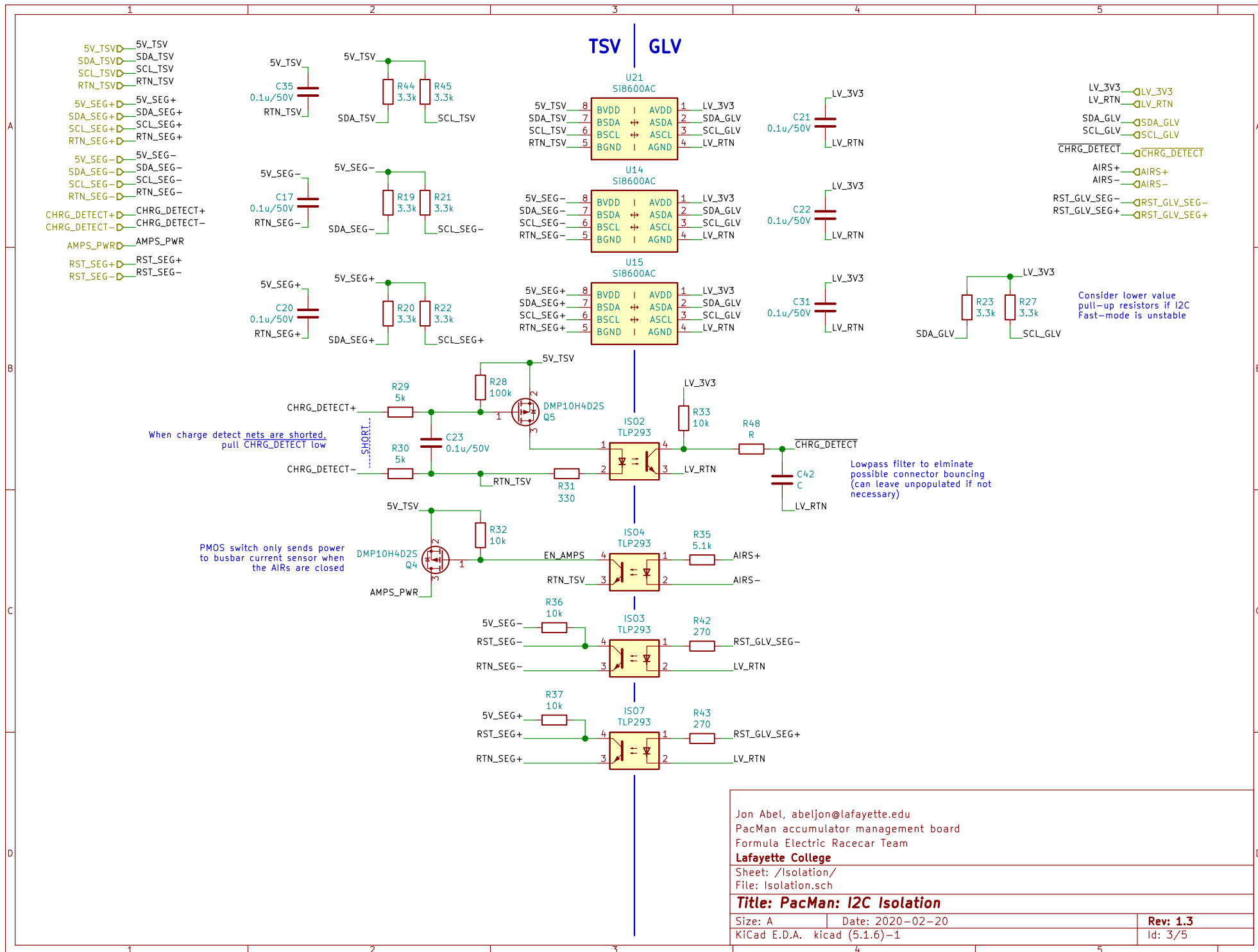
**Title: PacMan: Charging**

Size: A Date: 2020-02-20

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**Rev: 1.3**

Id: 2/5





LV\_24V LV\_24V  
LV\_3V3 LV\_3V3  
LV\_5V LV\_5V  
LV\_RTND LV\_RTND

CHRG\_END CHRG\_EN  
CHRG\_DETECT CHRG\_DETECT  
CHRG\_CURRENT CHRG\_CURRENT

SDA\_GLV SDA\_GLV  
SCL\_GLV SCL\_GLV

BTN\_LEFT BTN\_LEFT  
BTN\_RIGHT BTN\_RIGHT  
BTN\_UP BTN\_UP  
BTN\_DOWN BTN\_DOWN  
BTN\_CENTER BTN\_CENTER

RST\_GLV\_SEG+ RST\_GLV\_SEG+  
RST\_GLV\_SEG- RST\_GLV\_SEG-

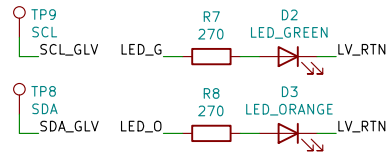
GLV\_24V GLV\_24V  
GLV\_RTND GLV\_RTND

SLOOP1\_IND SLOOP1\_IN  
SLOOP1\_OUTD SLOOP1\_OUT  
SLOOP2D SLOOP2

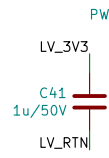
AIRS+D AIRS+  
AIRS-D AIRS-

CAN\_HD CAN\_H  
CAN\_LD CAN\_L  
CAN\_SHIELD CAN\_SHIELD

TS\_ACTIVED TS\_ACTIVE  
DISP\_RSTD DISP\_RST  
DISP\_DCD DISP\_DC  
DISP\_CSD DISP\_CS  
DISP\_CLKD DISP\_CLK  
DISP\_MOSID DISP\_MOSI



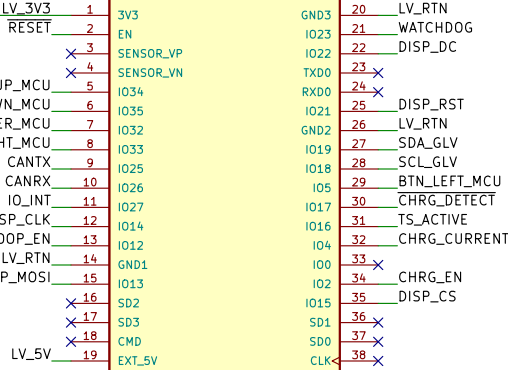
1A Max 3V3 Current Output  
(~500mA max due to 5V regulator limit)



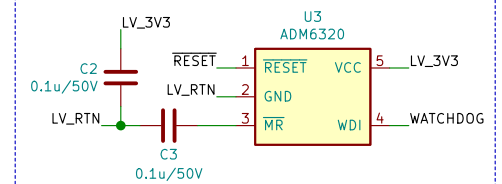
PWR\_FLAG LV\_3V3  
RESET  
BTN\_UP\_MCU  
BTN\_DOWN\_MCU  
BTN\_CENTER\_MCU  
BTN\_RIGHT\_MCU  
CANTX  
CANRX  
IO\_INT  
DISP\_CLK  
SLOOP\_EN  
LV\_RTND  
DISP\_MOSI

LV\_5V

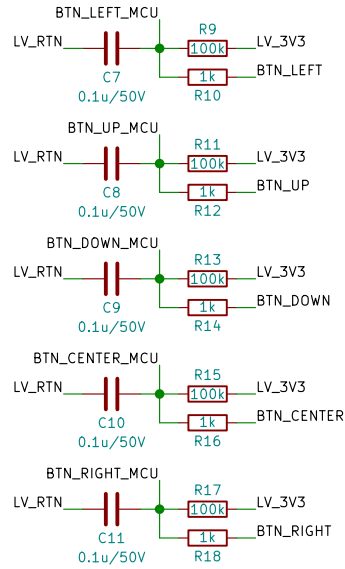
U5  
ESP32\_DEVKITC



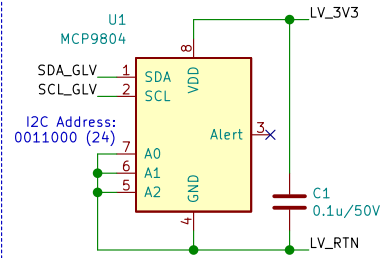
### Watchdog



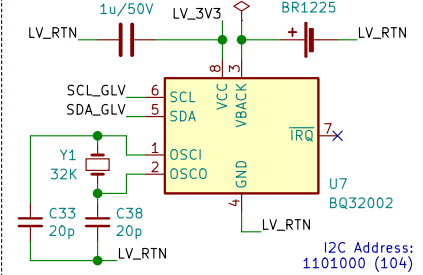
### Button Filtering



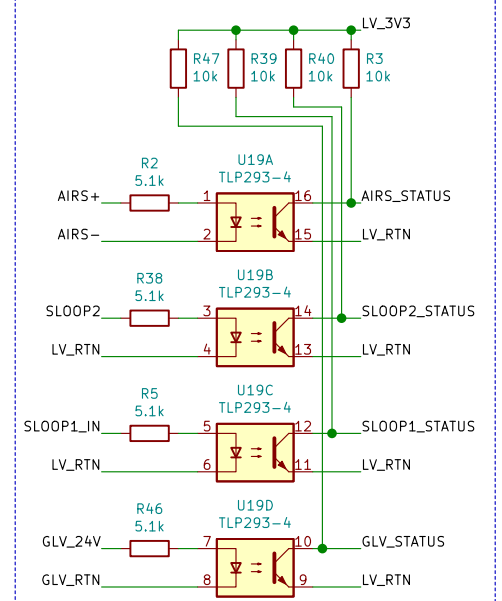
### GLV Temp Sensor



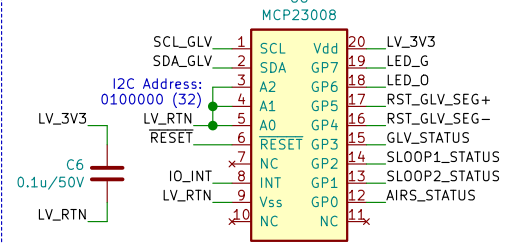
### RTC



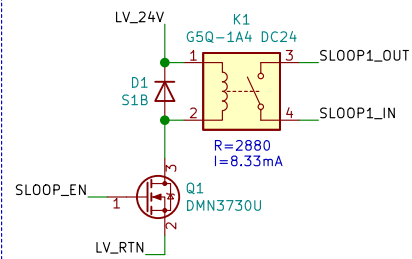
### GLV/SLOOP Status



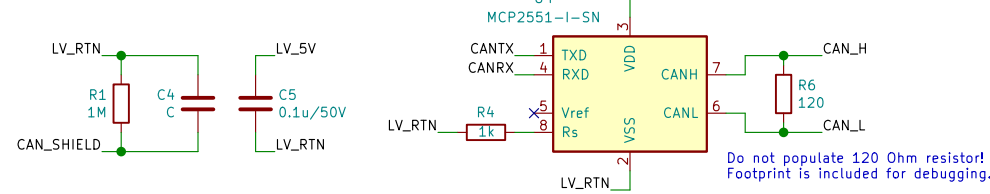
### I/O Expander



### Safety Loop Relay



### CANBus Transceiver



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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  
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Rev: 1.3  
Id: 5/5