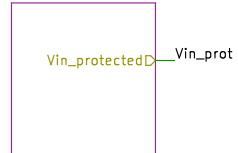
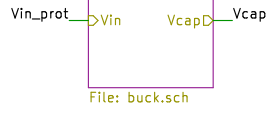


Sheet: Protection



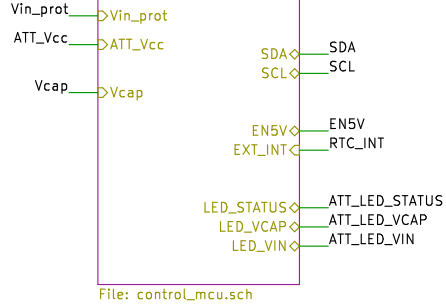
Sheet: Buck converter



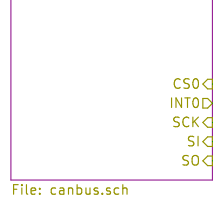
Sheet: Boost converter



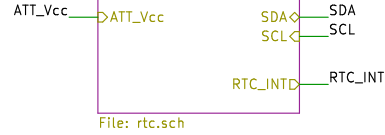
Sheet: Control MCU



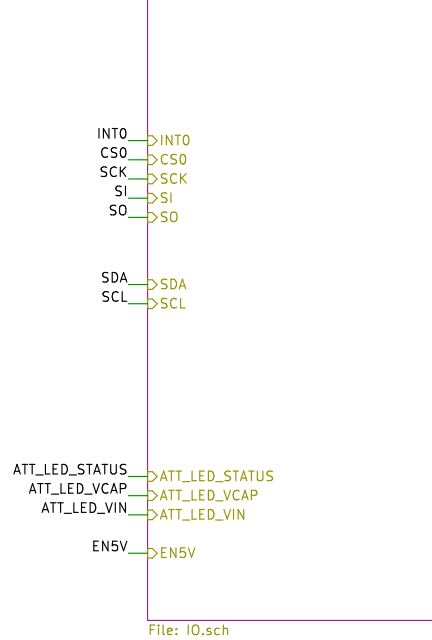
Sheet: CANbus interface



Sheet: RTC



Sheet: I/O



Sheet: PCB



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Sheet: /  
 File: SH-RPi.sch

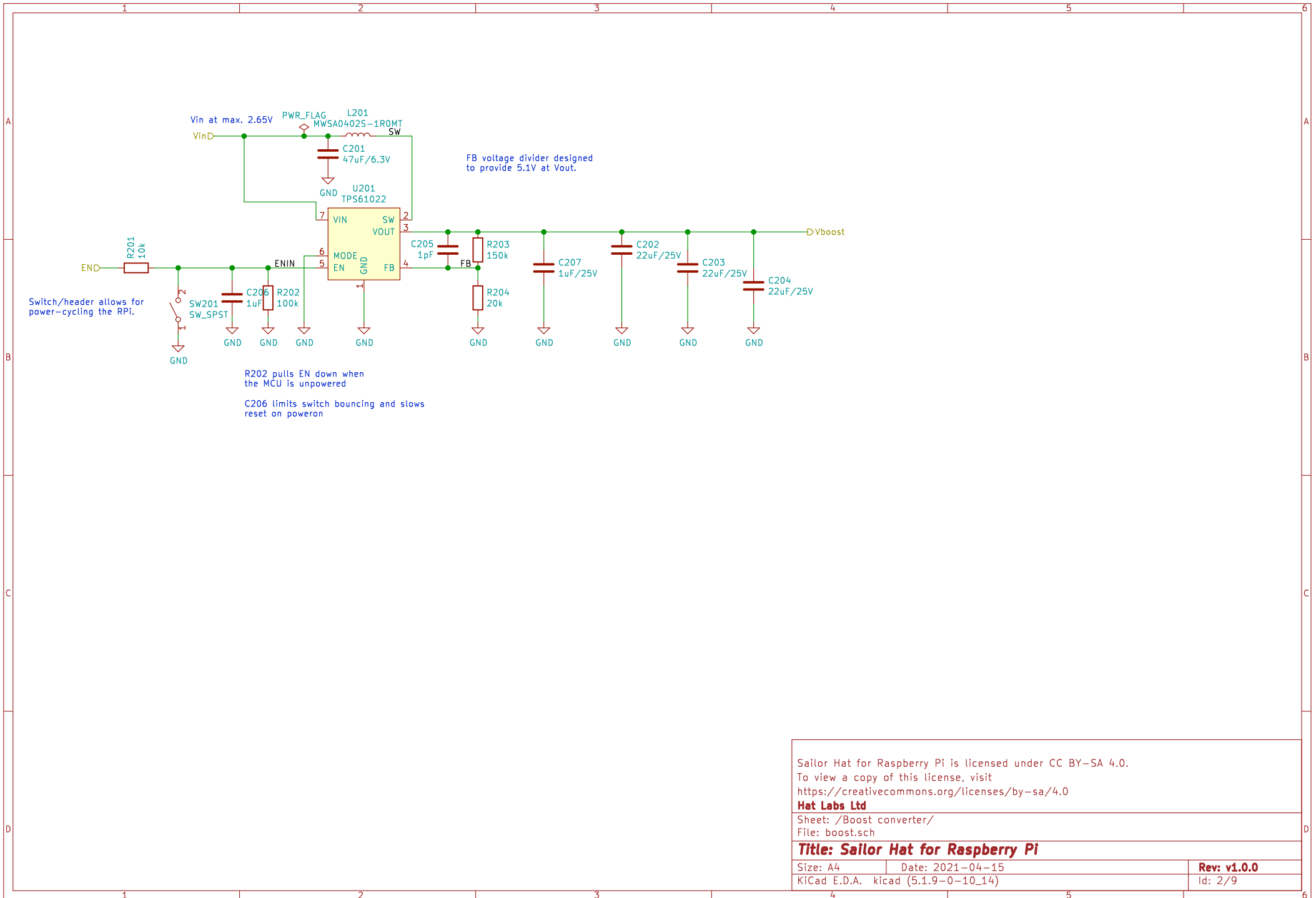
**Title: Sailor Hat for Raspberry Pi**

Size: A4  
 KiCad E.D.A. kicad (5.1.9-0-10\_14)

Date: 2021-04-15

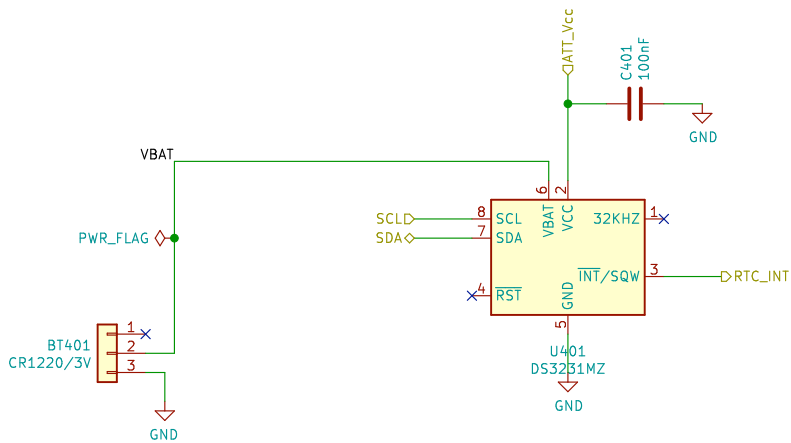
**Rev: v1.0.0**

Id: 1/9



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<b>Hat Labs Ltd</b>	
Sheet: /Boost converter/ File: boost.sch	
<b>Title: Sailor Hat for Raspberry Pi</b>	
Size: A4	Date: 2021-04-15
KiCad E.D.A. kicad (5.1.9-0-10_14)	Rev: v1.0.0 Id: 2/9





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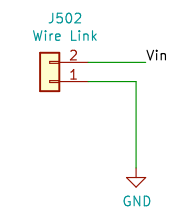
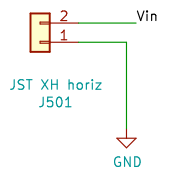
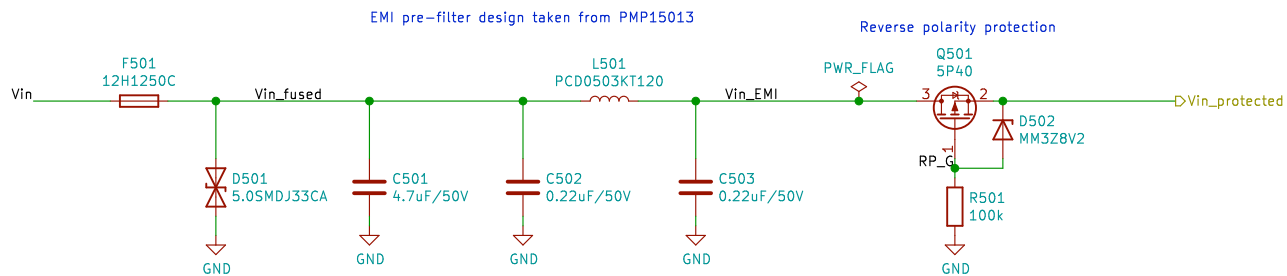
**Hot Labs Ltd**

Sheet: /RTC/  
 File: rtc.sch

**Title: Sailor Hat for Raspberry Pi**

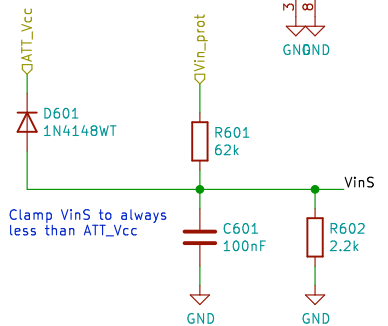
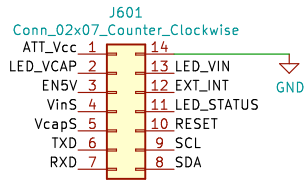
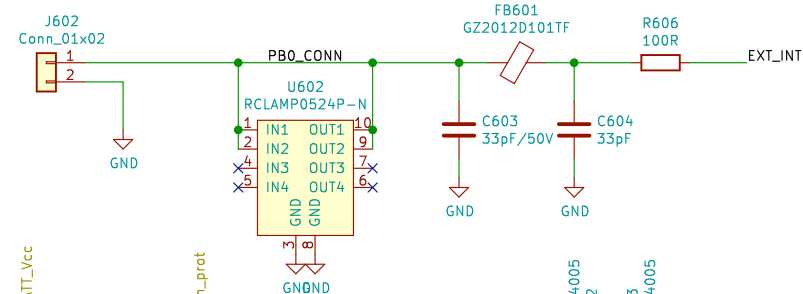
Size: A4 Date: 2021-04-15  
 KiCad E.D.A. kicad (5.1.9-0-10\_14)

**Rev: v1.0.0**  
 Id: 4/9

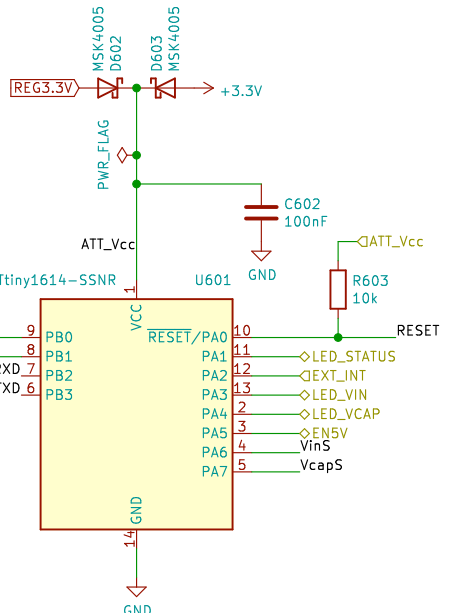


Optional wire link to power the board from NMEA 2000

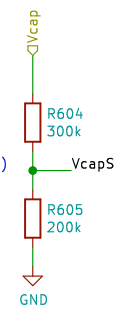
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<b>Hat Labs Ltd</b>		
Sheet: /Protection/ File: protection.sch		
<b>Title: Sailor Hat for Raspberry Pi</b>		
Size: A4	Date: 2021-04-15	<b>Rev: v1.0.0</b>
KiCad E.D.A. kicad (5.1.9-0-10_14)		Id: 5/9



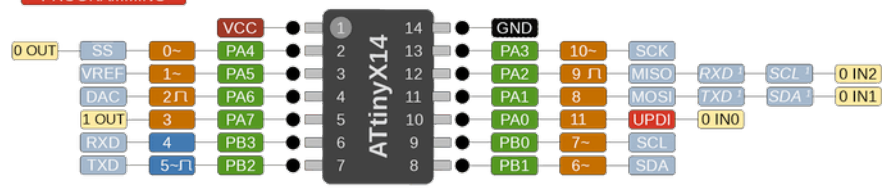
VinS scaled to provide 1.1V for 32V input



VcapS is scaled from 2.75V to 1.1V (this will also drain the cap over time)



- POWER
  - GROUND
  - PORT PIN
  - DIGITAL PIN \*
  - ANALOG | DIGITAL
  - LOGIC (CCL)
  - SPECIAL / OTHER
  - PROGRAMMING
- \* ~ PWM  
 ⚡ ASYNC INTERRUPT  
 † PERIPHERAL ALTERNATE LOCATION



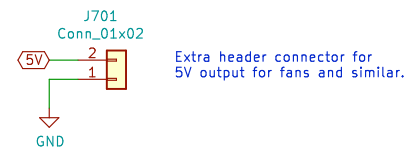
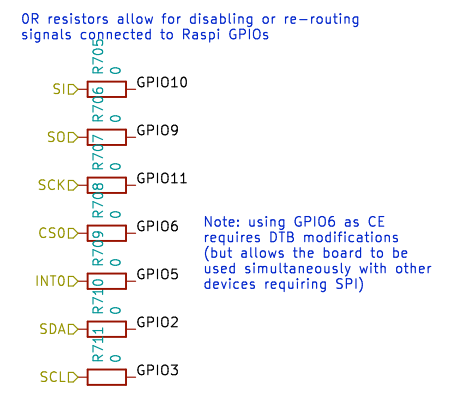
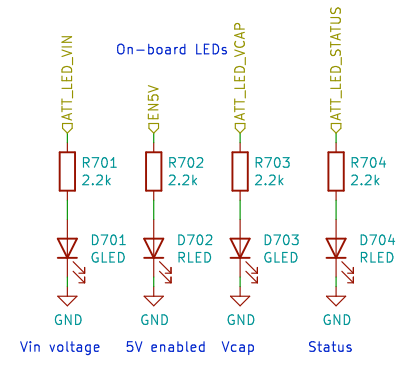
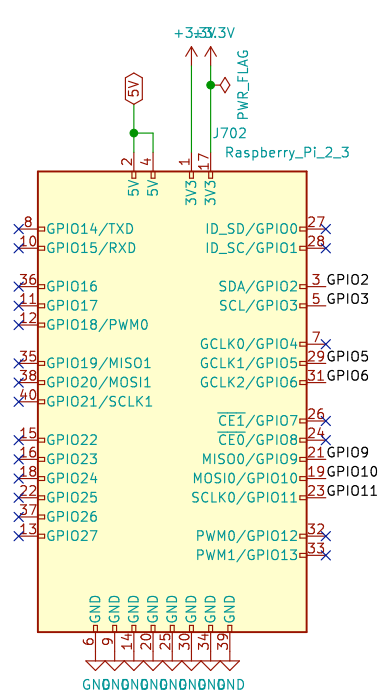
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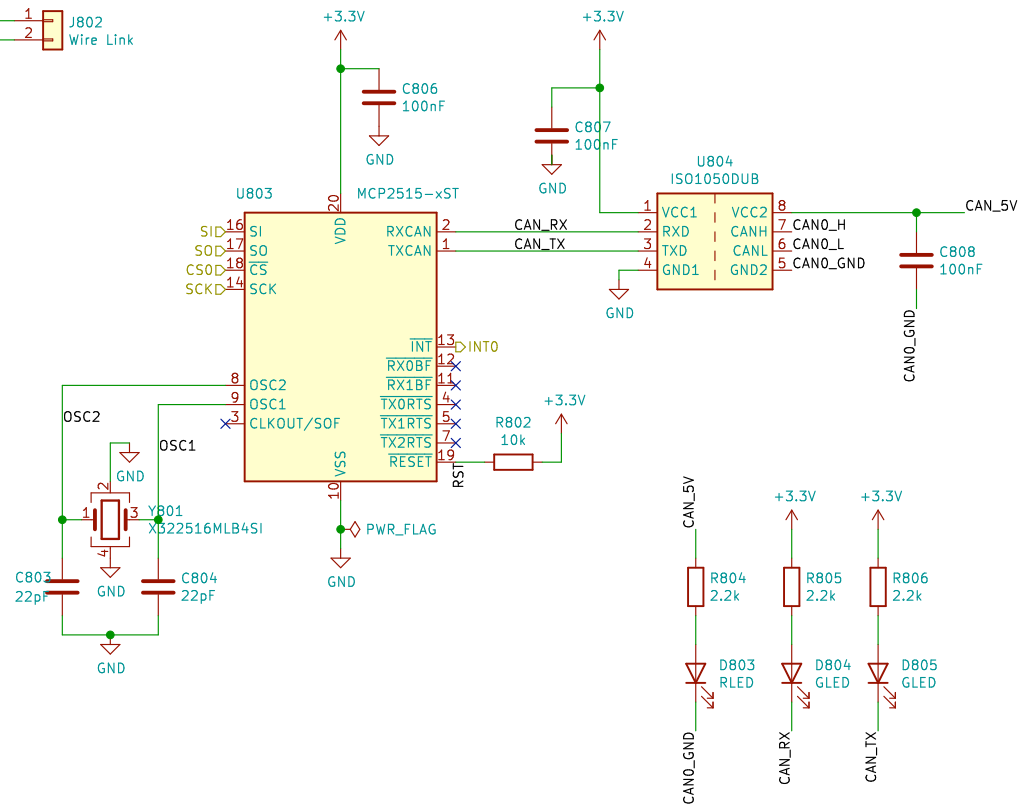
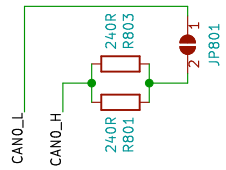
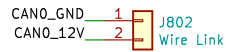
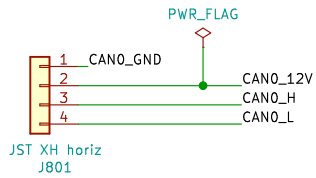
Sheet: /Control MCU/  
 File: control\_mcu.sch

**Title: Sailor Hat for Raspberry Pi**

Size: A4	Date: 2021-04-15	Rev: v1.0.0
KiCad E.D.A. kicad (5.1.9-0-10_14)		Id: 6/9

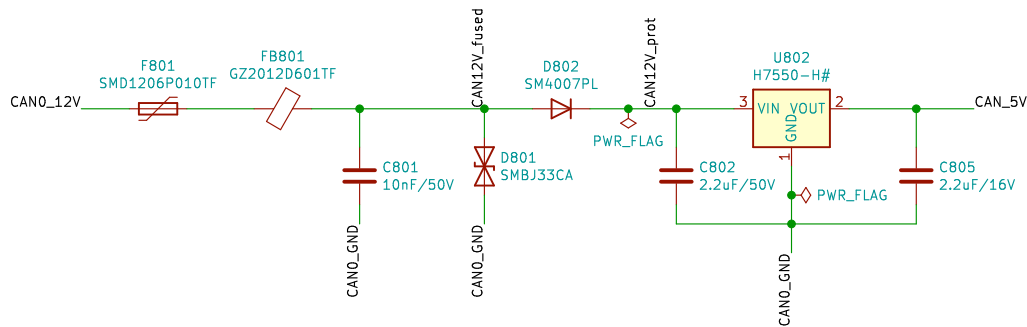


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<b>Hot Labs Ltd</b>	
Sheet: /1/0/ File: IO.sch	
<b>Title: Sailor Hat for Raspberry Pi</b>	
Size: A4	Date: 2021-04-15
KiCad E.D.A. kicad (5.1.9-0-10_14)	<b>Rev: v1.0.0</b> Id: 7/9



5V power feed for the bus side of the CAN bus transceiver

CAN indicator LEDs



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Sheet: /CANbus interface/  
 File: canbus.sch

**Title: Sailor Hat for Raspberry Pi**

Size: A4 Date: 2021-04-15

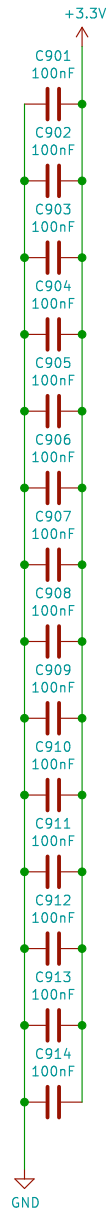
KiCad E.D.A. kicad (5.1.9-0-10\_14)

**Rev: v1.0.0**

Id: 8/9



Decoupling caps



H901  
MountingHole

This mounting hole meant for an optional zip tie support for the supercap



H902  
MountingHole



H903  
MountingHole



H904  
MountingHole

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Sheet: /PCB/  
File: pcb.sch

**Title: Sailor Hat for Raspberry Pi**

Size: A4

Date: 2021-04-15

Rev: v1.0.0

KiCad E.D.A. kicad (5.1.9-0-10\_14)

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