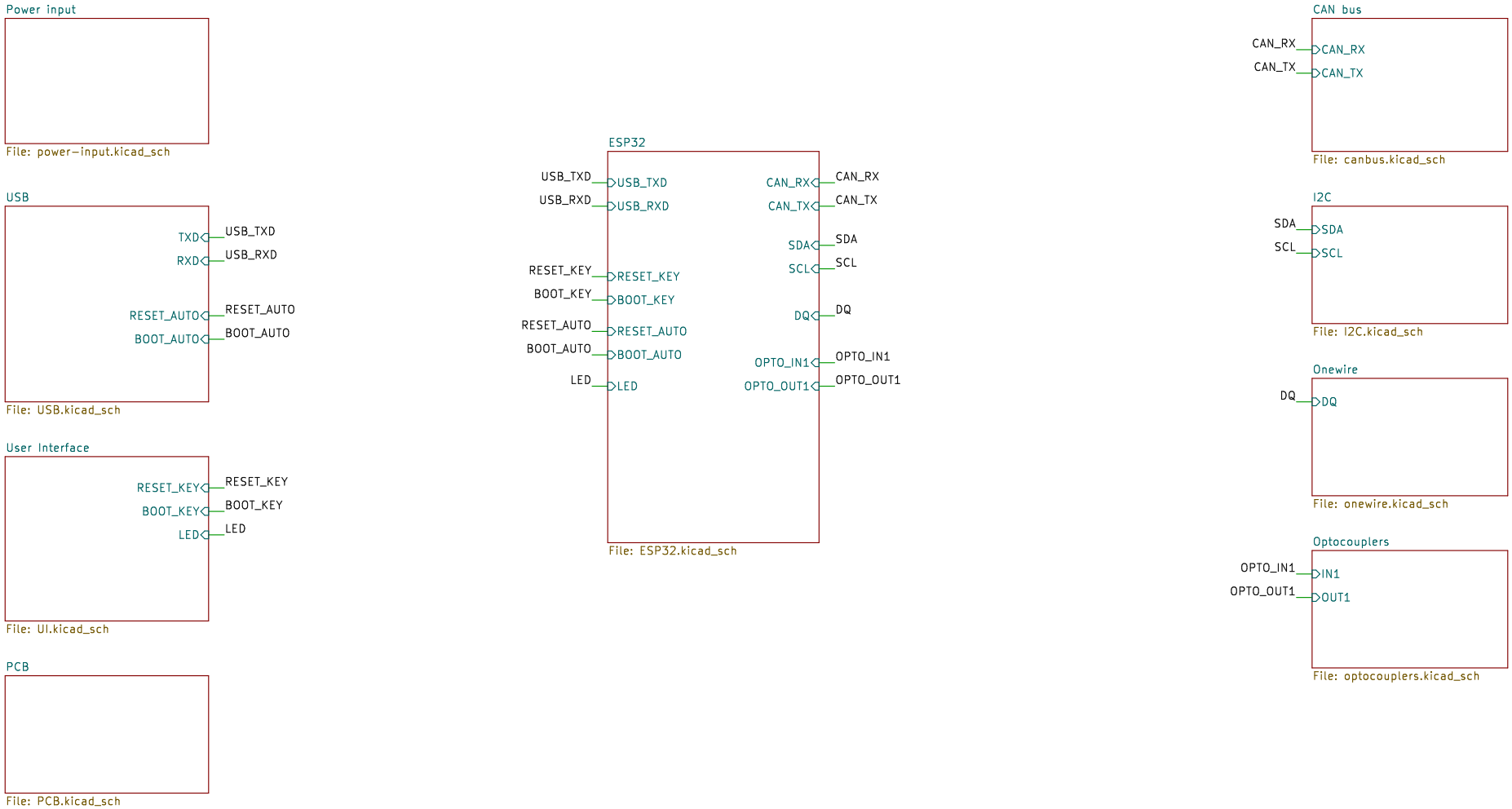

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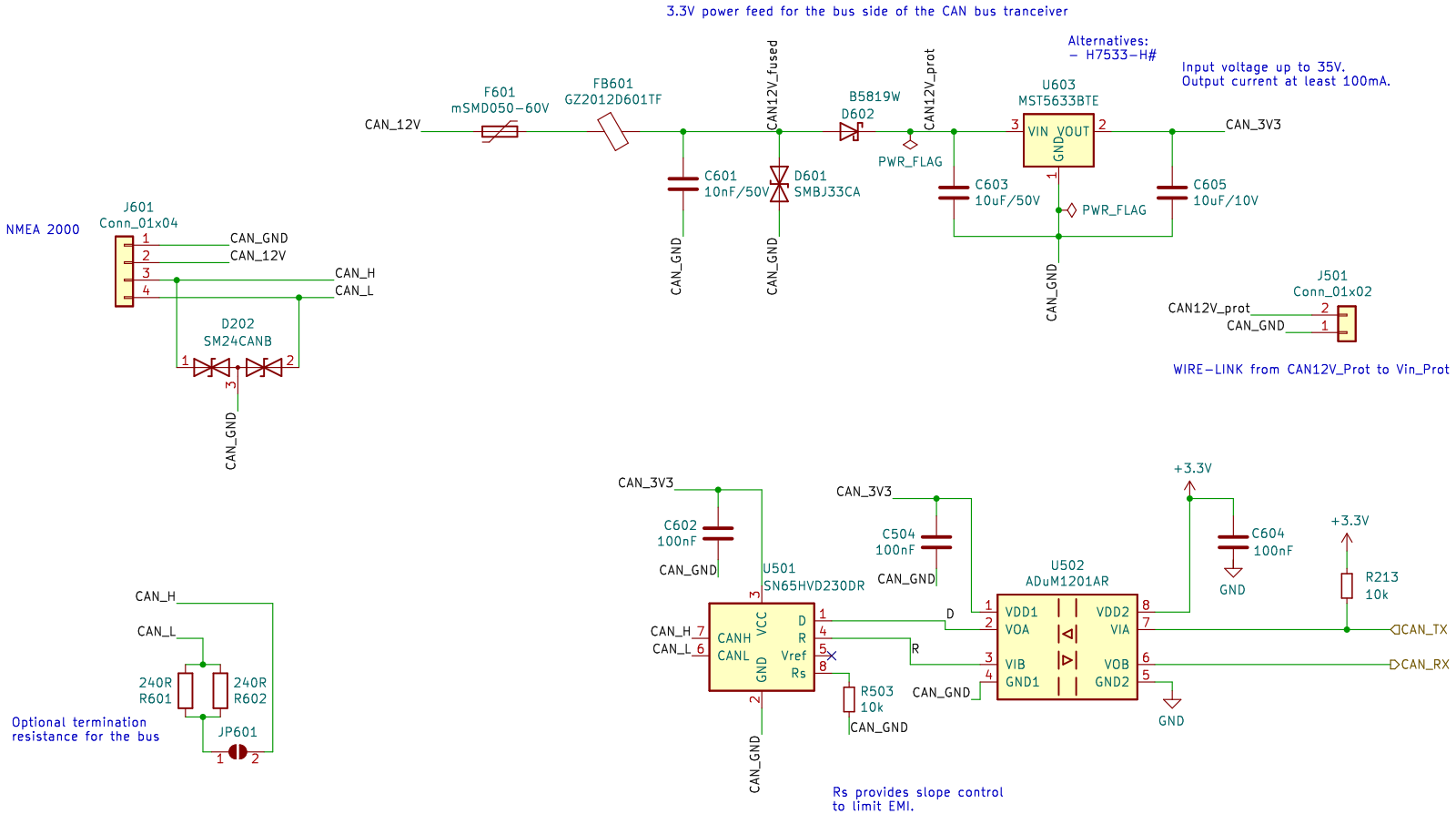
Sheet: /
File: SH-ESP32.kicad_sch

Title: Sailor Hat with ESP32

Size: A4	Date: 2023-08-10	**Rev: 2.0.3**
KiCad E.D.A. kicad 7.0.9		Id: 1/10



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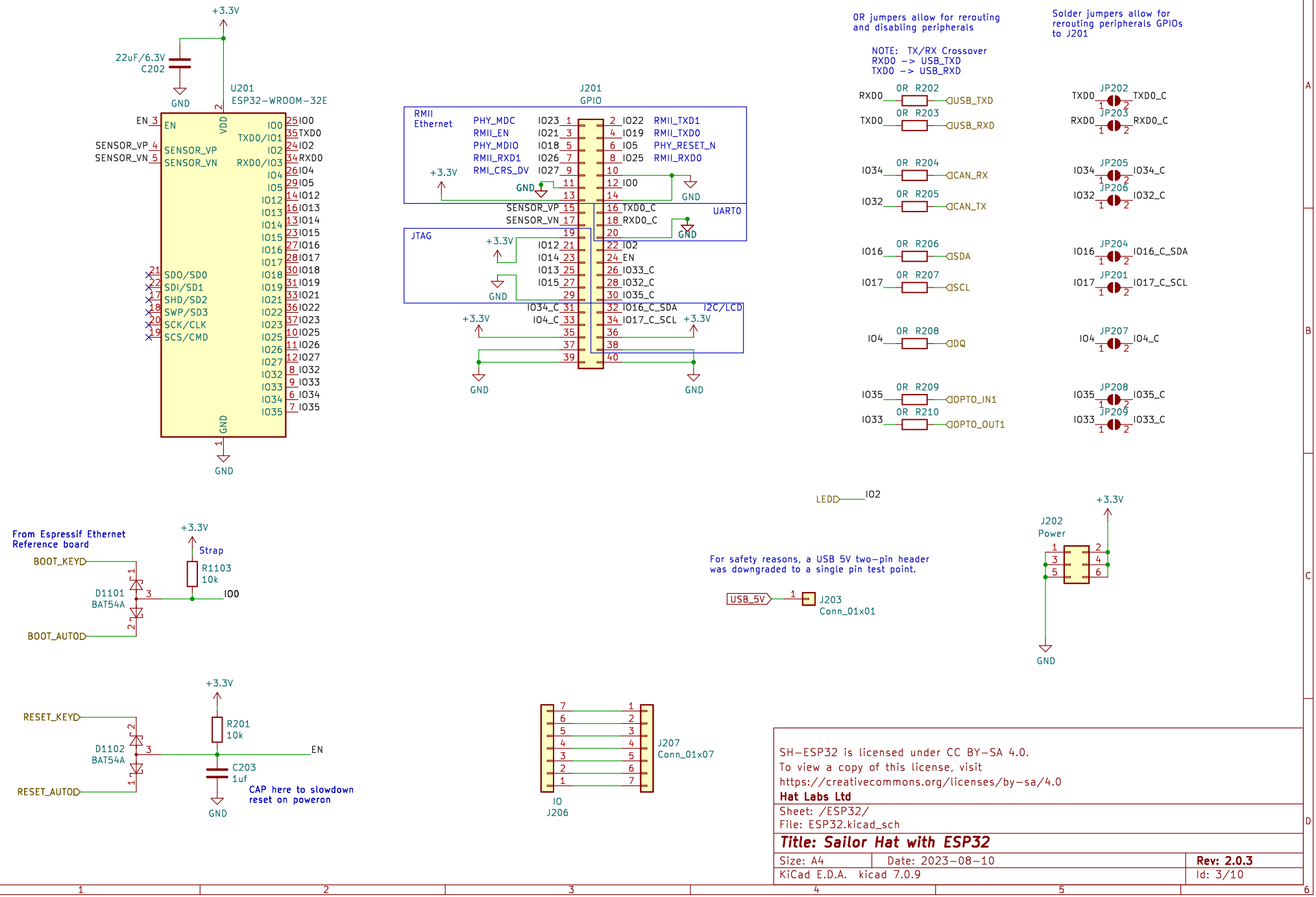
Sheet: /CAN bus/
File: canbus.kicad_sch

Title: Sailor Hat with ESP32

Size: A4	Date: 2023–08–10	**Rev: 2.0.3**
KiCad E.D.A. kicad 7.0.9		Id: 2/10


+3.3V
22uF/6.3V
C202
GND
U201
ESP32-WROOM-32E
EN
SENSOR_VP
SENSOR_VN
SDO/SD0
SDI/SD1
SHD/SD2
SWP/SD3
SCK/CLK
SCS/CMD
VDD
GND
IO0
TXD0/IO1
IO2
RXD0/IO3
IO4
IO5
IO12
IO13
IO14
IO15
IO16
IO17
IO18
IO19
IO21
IO22
IO23
IO25
IO26
IO27
IO32
IO33
IO34
IO35
J201
GPIO
RMII Ethernet
PHY_MDC
RMII_EN
PHY_MDIO
RMII_RXD1
RMI_CRS_DV
RMII_TXD1
RMII_TXD0
PHY_RESET_N
RMII_RXD0
UART0
TXD0_C
RXD0_C
JTAG
I2C/LCD
IO16_C_SDA
IO17_C_SCL
IO34_C
IO4_C
IO33_C
IO35_C
OR jumpers allow for rerouting and disabling peripherals
NOTE: TX/RX Crossover
RXD0 -> USB_TXD
TXD0 -> USB_RXD
R202
R203
R204
R205
R206
R207
R208
R209
R210
USB_TXD
USB_RXD
CAN_RX
CAN_TX
SDA
SCL
DQ
OPTO_IN1
OPTO_OUT1
Solder jumpers allow for rerouting peripherals GPIOs to J201
JP202
JP203
JP205
JP206
JP204
JP201
JP207
JP208
JP209
From Espressif Ethernet Reference board
Strap
R1103
10k
D1101
BAT54A
BOOT_KEY
BOOT_AUTO
R201
10k
C203
1uf
D1102
BAT54A
RESET_KEY
RESET_AUTO
CAP here to slowdown reset on poweron
LED
For safety reasons, a USB 5V two-pin header was downgraded to a single pin test point.
USB_5V
J203
Conn_01x01
J202
Power
J207
Conn_01x07
IO
J206
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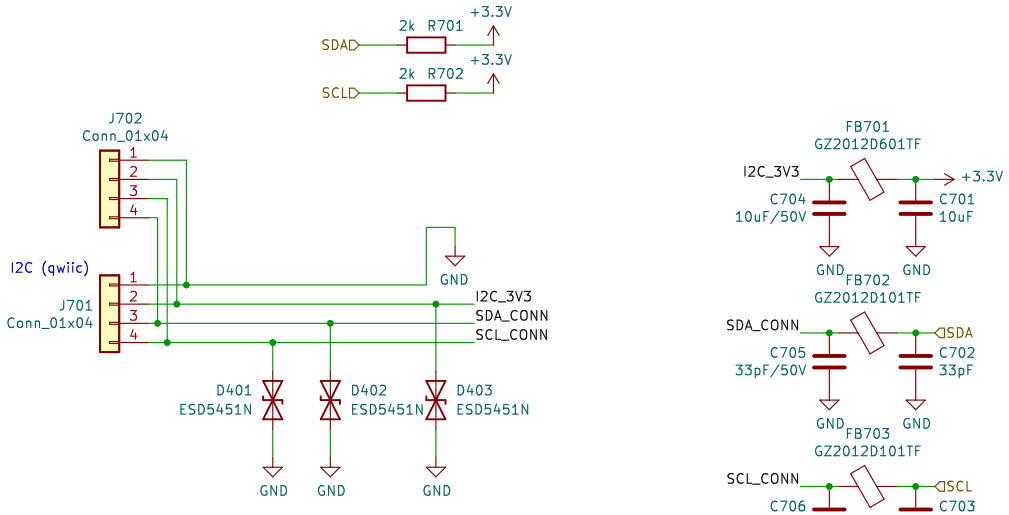
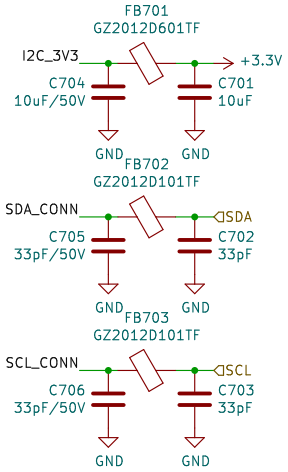
Hat Labs Ltd
Sheet: /ESP32/
File: ESP32.kicad_sch
Title: Sailor Hat with ESP32
Size: A4
Date: 2023-08-10
Rev: 2.0.3
KiCad E.D.A. kicad 7.0.9
Id: 3/10





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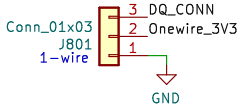
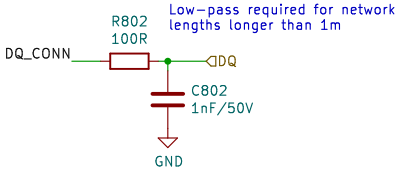
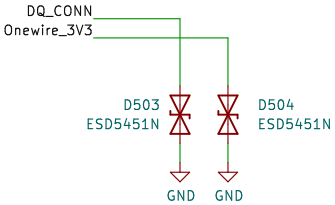
Sheet: /I2C/
File: I2C.kicad_sch

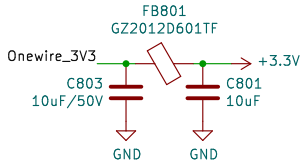
Title: Sailor Hat with ESP32

Size: A4	Date: 2023-08-10	**Rev: 2.0.3**
KiCad E.D.A. kicad 7.0.9		Id: 4/10







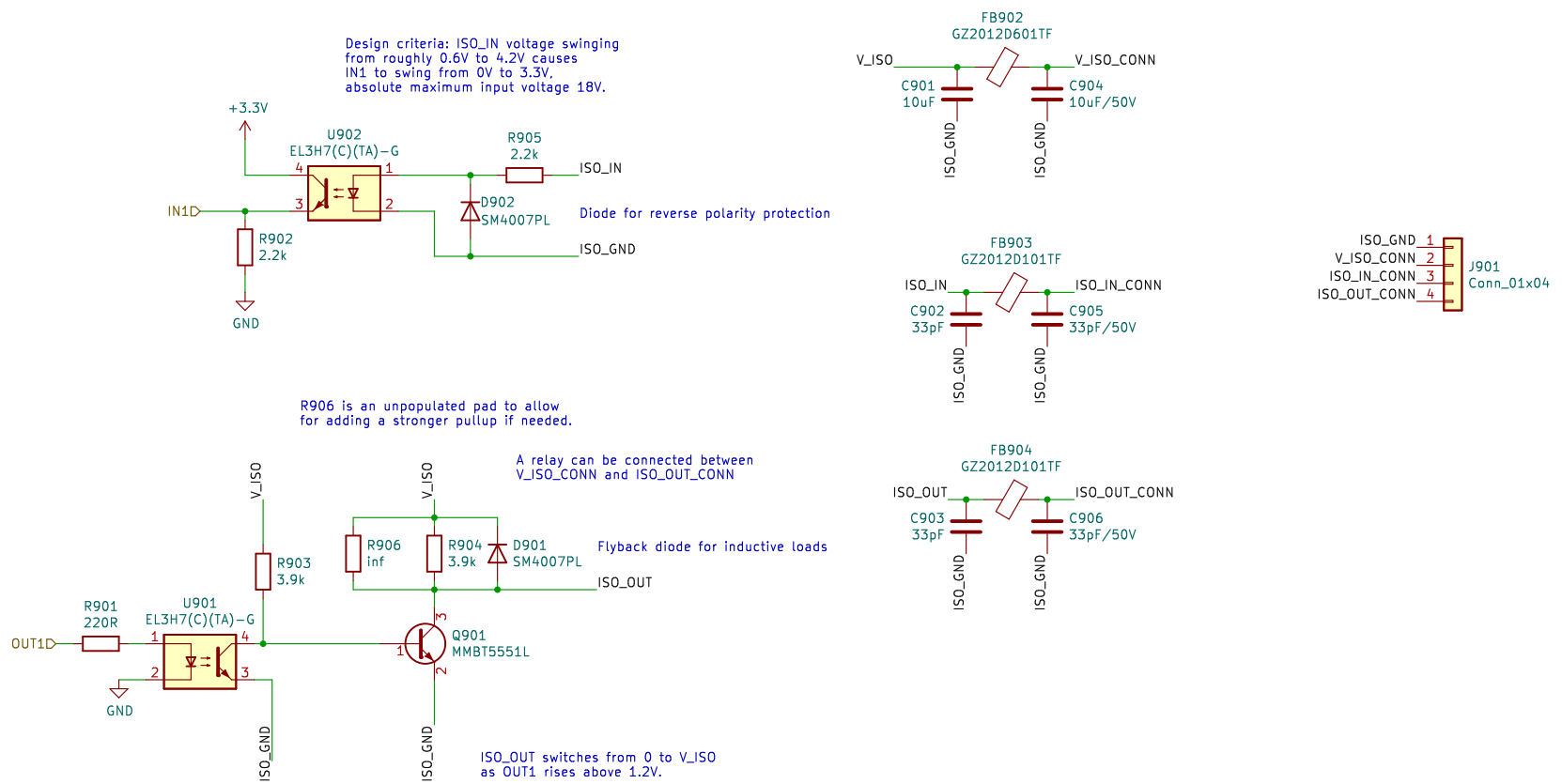


Hat Labs Ltd

Sheet: /Onewire/
File: onewire.kicad_sch

Title: Sailor Hat with ESP32

Size: A4	Date: 2023-08-10	**Rev: 2.0.3**
KiCad E.D.A. kicad 7.0.9		Id: 5/10



Hat Labs Ltd

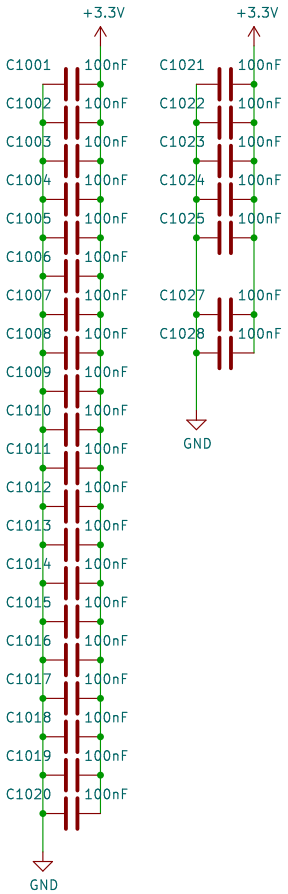
Sheet: /Optocouplers/
File: optocouplers.kicad_sch

Title: Sailor Hat with ESP32

Size: A4	Date: 2023-08-10	**Rev: 2.0.3**
KiCad E.D.A. kicad 7.0.9		Id: 6/10

Mounting holes

Decoupling caps

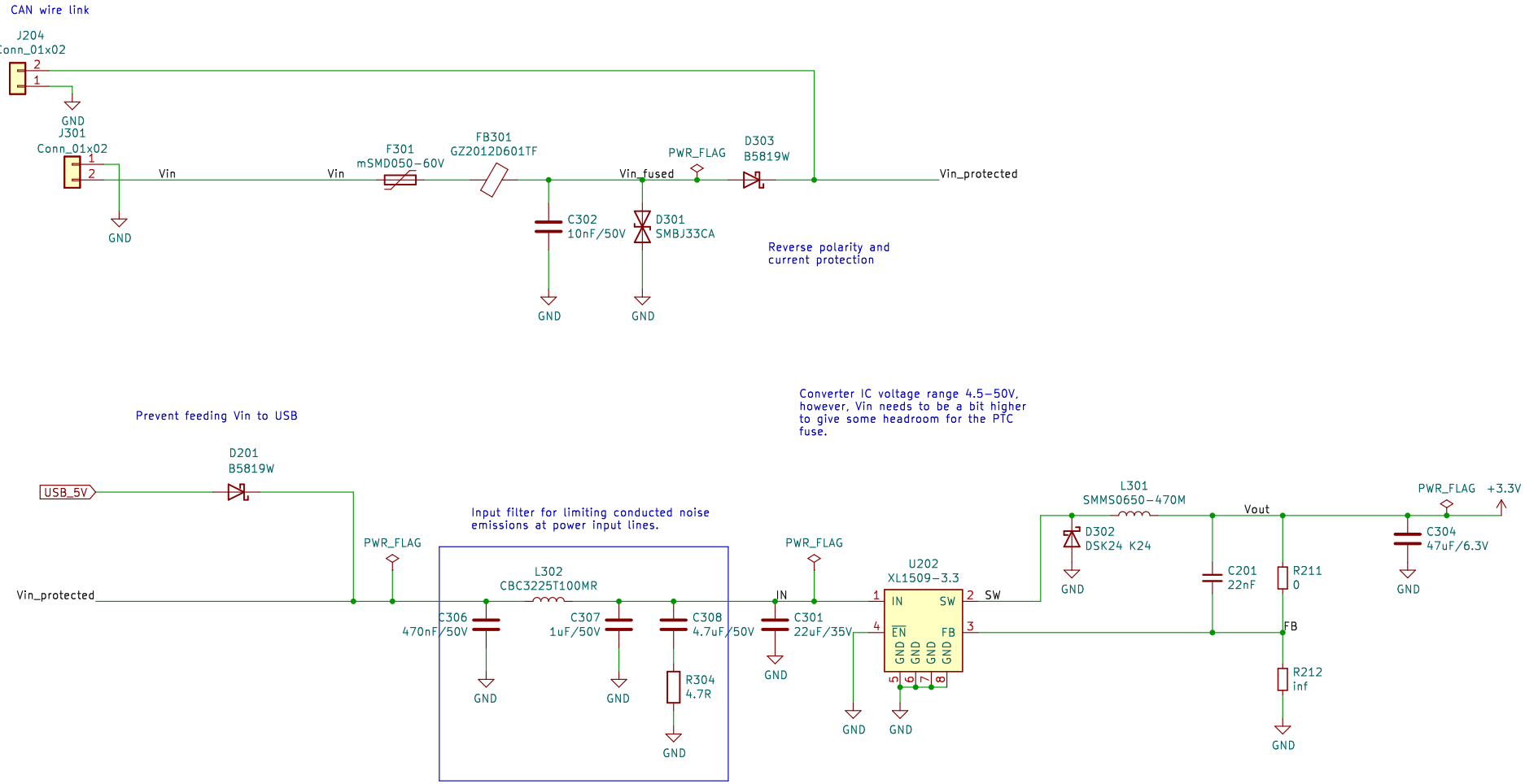


Hat Labs Ltd

Sheet: /PCB/
File: PCB.kicad_sch

Title: Sailor Hat with ESP32

Size: A4	Date: 2023-08-10	**Rev: 2.0.3**
KiCad E.D.A. kicad 7.0.9		Id: 7/10

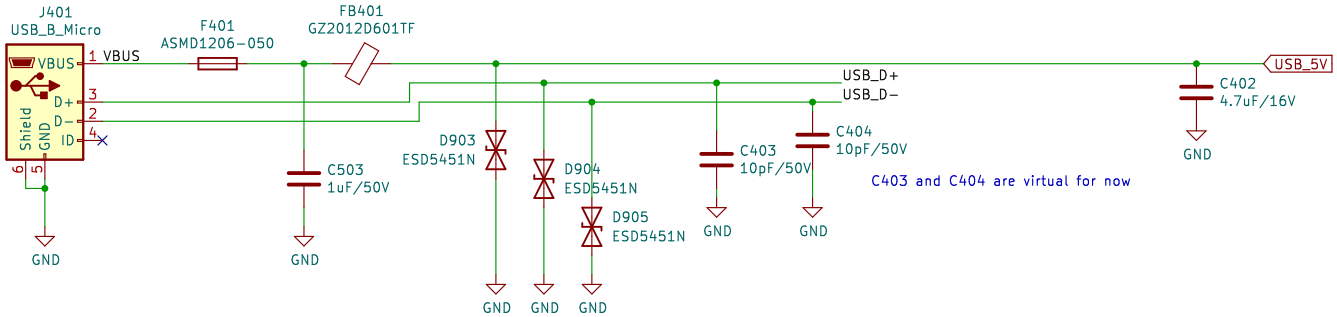


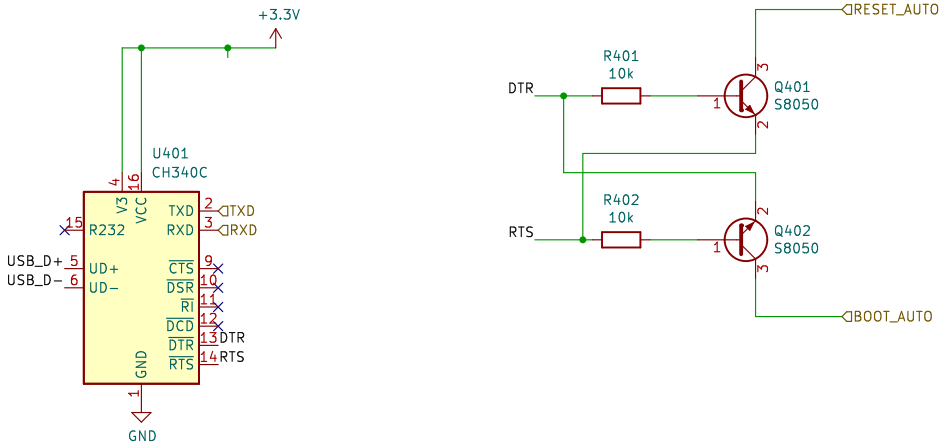
Hat Labs Ltd

Sheet: /Power input/
File: power-input.kicad_sch

Title: Sailor Hat with ESP32

Size: A4	Date: 2023-08-10	**Rev: 2.0.3**
KiCad E.D.A. kicad 7.0.9		Id: 8/10





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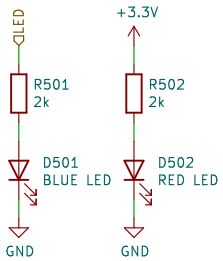
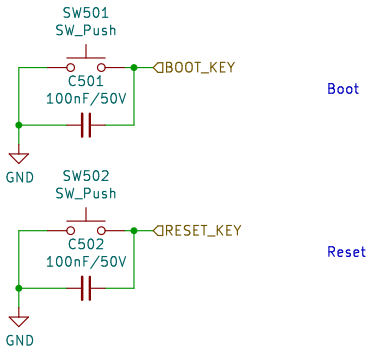
Sheet: /USB/
File: USB.kicad_sch

Title: Sailor Hat with ESP32

Size: A4	Date: 2023-08-10	**Rev: 2.0.3**
KiCad E.D.A. kicad 7.0.9		Id: 9/10





Boot

Reset

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Sheet: /User Interface/
File: UI.kicad_sch

Title: Sailor Hat with ESP32

Size: A4	Date: 2023-08-10	**Rev: 2.0.3**
KiCad E.D.A. kicad 7.0.9		Id: 10/10