Native circuitry 1

File: rail-review-1.kicad_sch

Native circuitry 2

File: rail-review-2.kicad_sch

Native circuitry 3

File: rail-review-3.kicad_sch

Native circuitry 4

File: rail-review-4.kicad_sch

Native circuitry 5

File: rail-review-5.kicad_sch

Native circuitry 6

File: rail-review-6.kicad_sch

Native circuitry 7

PWR_FLAG

GND

PWR_FLAG

REV_GND

File: rail-review-7.kicad_sch

PWR_FLAG

REV_VCC

PWR_FLAG

5V_LOCAL

PWR_FLAG

EFP_FAULT_AUX

PWR_FLAG

EFP_IN

External or diode-isolated supply

External or diode-isolated supply

External or diode-isolated supply

External or diode-isolated supply

External or diode-isolated supply

External or diode-isolated supply

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Smoothieware / CERN-OHL-S-2.0

Sheet: /

File: emitter.kicad_sch

Title: EMITTER PROTECTION CANDIDATE

Size: A3	Date:	**Rev: WIP**
KiCad E.D.A. 9.0.8		Id: 1/8

Native circuitry 1 / WIP — same-name global labels connect





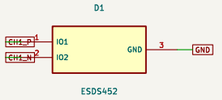


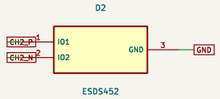


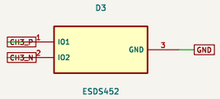


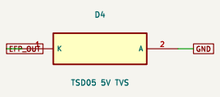


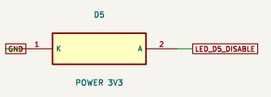


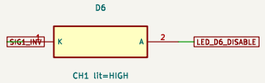


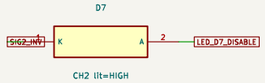


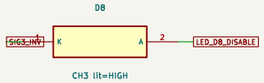














UNFINISHED — NOT FOR FABRICATION

Smoothieware / CERN-OHL-S-2.0

Sheet: /Native circuitry 1/
File: rail-review-1.kicad_sch

Title: Native circuitry 1

Size: A3	Date:	**Rev: WIP**
KiCad E.D.A. 9.0.8		Id: 2/8

Native circuitry 2 / WIP — same-name global labels connect

H1



M3 NPTH 3.2 mm

H2



M3 NPTH 3.2 mm

H3



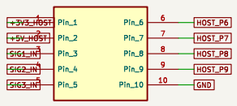
M3 NPTH 3.2 mm

H4



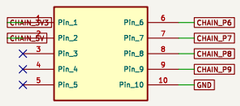
M3 NPTH 3.2 mm

J1



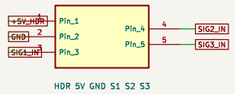
GADGETEER Y IN (host)

J2



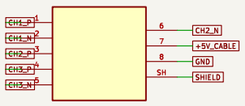
GADGETEER Y CHAIN

J3



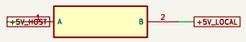
HDR 5V GND S1 S2 S3

J4



RJ45 NOT ETHERNET EMITTER

JP1



5V GAD link

JP2



5V CABLE link

JP3



5V HDR link

JP4



SHLD-GND bond

JP5



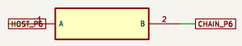
CHAIN 3V3

JP6



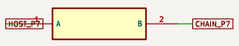
CHAIN 5V

JP7



CHAIN P6

JP8



CHAIN P7

UNFINISHED — NOT FOR FABRICATION

Smoothieware / CERN-OHL-S-2.0

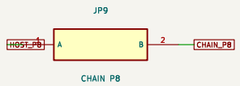
Sheet: /Native circuitry 2/

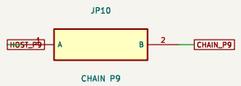
File: rail-review-2.kicad_sch

Title: Native circuitry 2

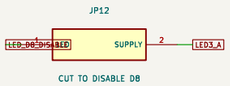
Size: A3	Date:	**Rev: WIP**
KiCad E.D.A. 9.0.8		Id: 3/8

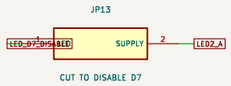
Native circuitry 3 / WIP — same-name global labels connect

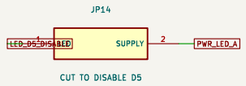


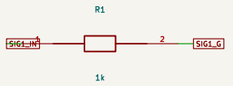


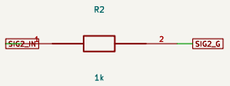




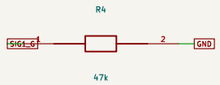


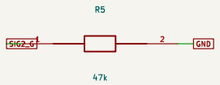


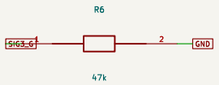


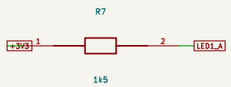


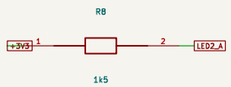


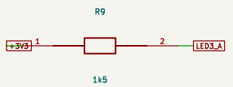














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Smoothieware / CERN-OHL-S-2.0

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File: rail-review-3.kicad_sch

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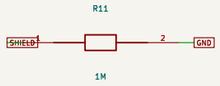
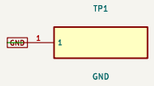
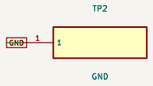
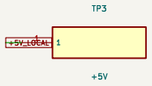
Size: A3	Date:	**Rev: WIP**
KiCad E.D.A. 9.0.8		Id: 4/8

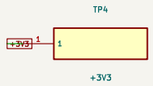
Native circuitry 4 / WIP — same-name global labels connect

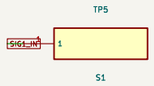


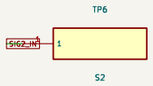


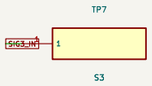


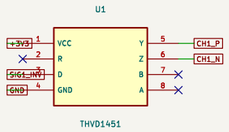


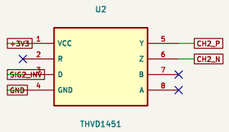


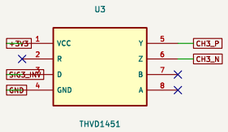


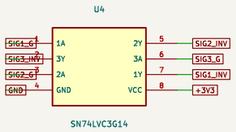


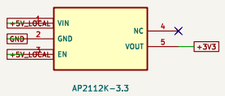


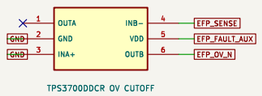


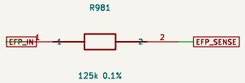














UNFINISHED — NOT FOR FABRICATION

Smoothieware / CERN-OHL-S-2.0

Sheet: /Native circuitry 4/
File: rail-review-4.kicad_sch

Title: Native circuitry 4

Size: A3	Date:	**Rev: WIP**
KiCad E.D.A. 9.0.8		Id: 5/8

Native circuitry 5 / WIP — same-name global labels connect

C980



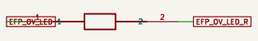
100nF 25V X7R

JP980



CUT TO DISABLE RAILO_OV PORTO

R983



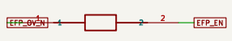
2.2k 1%

D981



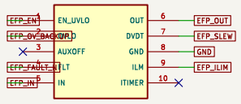
AMBER OVERVOLTAGE

R984



OR

U981



TPS259470ARPWR AUTO RETRY DIRECTION SELECTED

R985



6.64k 0.1%

C981



22nF 25V X7R

C982



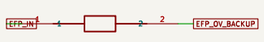
1uF 25V X7R

C983



1uF 25V X7R

R986



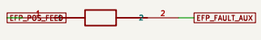
39k 0.1%

R987



10k 0.1%

R988



1k 0.25W

D982



BZX384-B4V7,115

C984



100nF 25V X7R

R989



10k 1%

UNFINISHED — NOT FOR FABRICATION

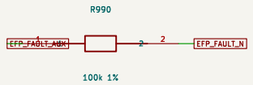
Smoothieware / CERN-OHL-S-2.0

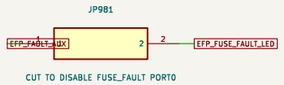
Sheet: /Native circuitry 5/
File: rail-review-5.kicad_sch

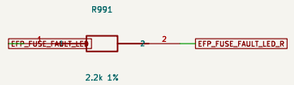
Title: Native circuitry 5

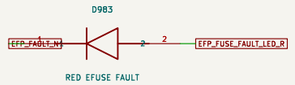
Size: A3	Date:	**Rev: WIP**
KiCad E.D.A. 9.0.8		Id: 6/8

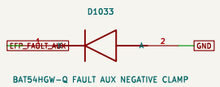
Native circuitry 6 / WIP — same-name global labels connect

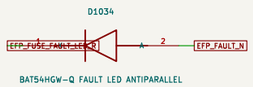


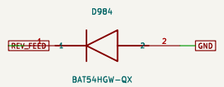






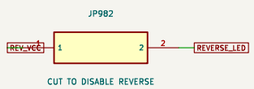






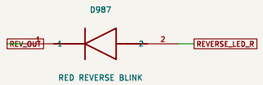


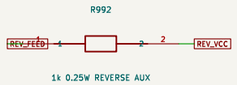


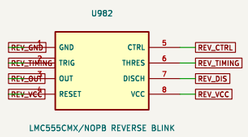


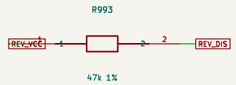












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Smoothieware / CERN-OHL-S-2.0

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Title: Native circuitry 6

Size: A3	Date:	**Rev: WIP**
KiCad E.D.A. 9.0.8		Id: 7/8

Native circuitry 7 / WIP — same-name global labels connect

D985



BAT54HGW-QX

C986



10nF 25V X7R

D986



BZX384-B4V3,115

D1030



BAT54HGW-Q REVERSE AUX NEGATIVE CLAMP

D1980



BAT54HGW-Q positive auxiliary isolation

D1981



BAT54HGW-Q SENSE negative clamp

D1982



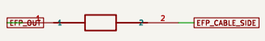
BAT54HGW-Q OVLO negative clamp

R1980



OR SOURCE_IN FITTED

R1981



OR SOURCE_OUT FITTED

R1982



OR SINK_IN DNP

R1983



OR SINK_OUT DNP

D1984



SMF15CA BIDIRECTIONAL RAW CABLE TVS

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Smoothieware / CERN-OHL-S-2.0

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