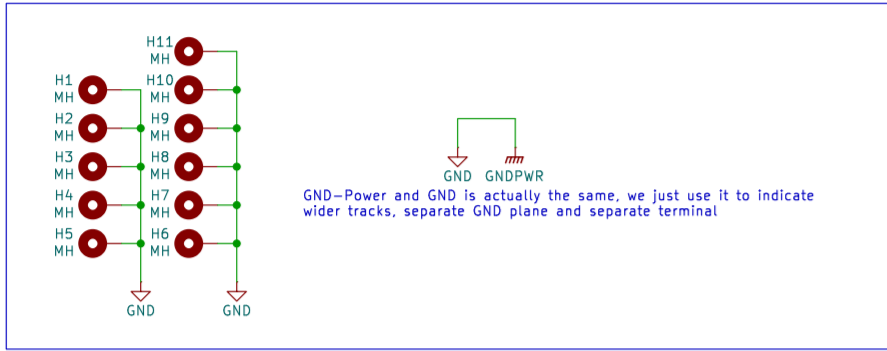
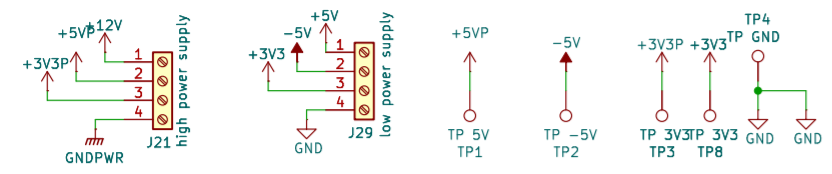


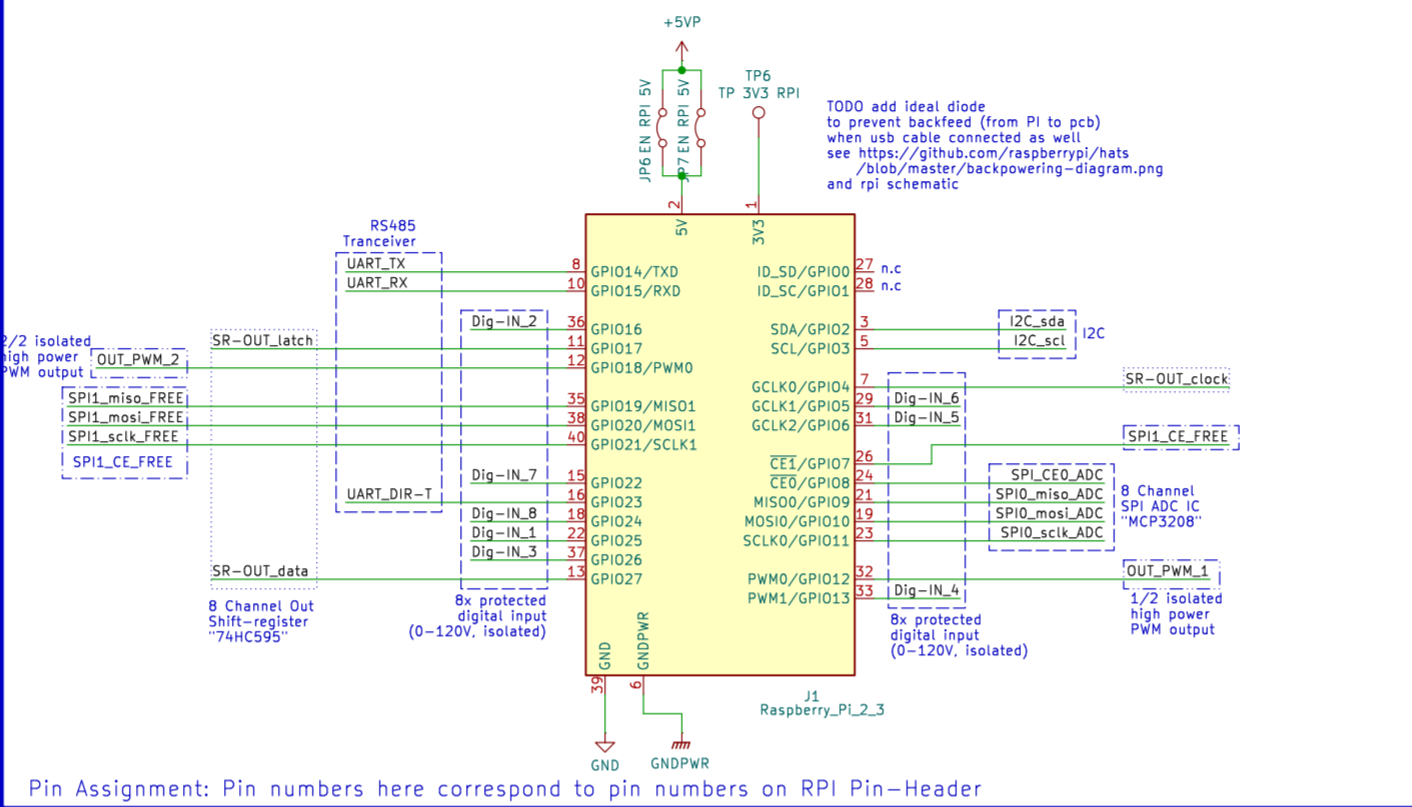
Supply IN Terminals (from supply-board)



TODO Next Version:

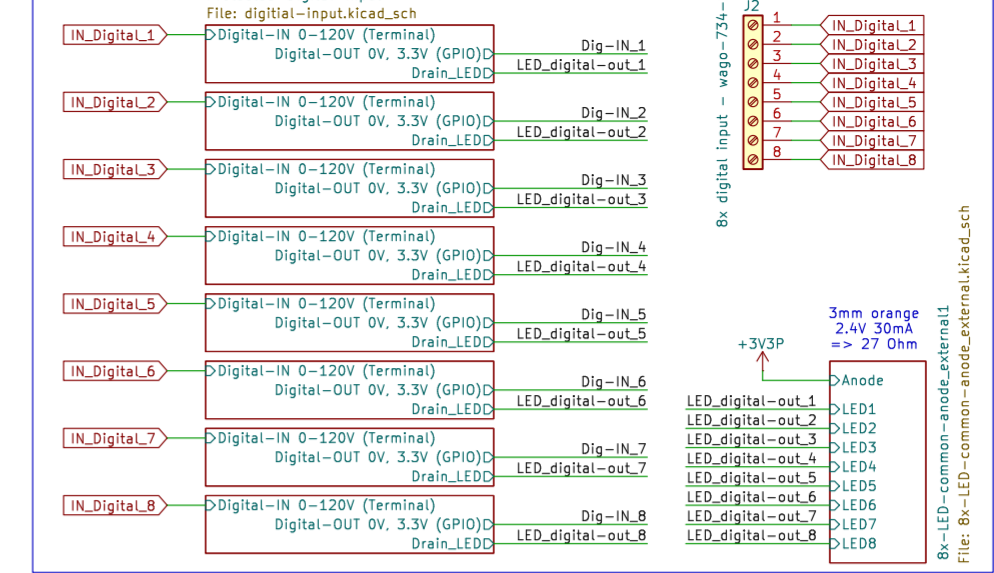
- Digital inputs: Isolate GND (separate GND terminal for opamp diodes)
- Fixed voltage digital inputs (24V) with voltage divider + protection diode, since some 24V sensors might consider 5V as low
- Pull-down R analog input (currently leds randomly on when input unused)
- UART: Add RX TX leds
- Add diode to prevent backfeeding when USB supply connected too
- Pin Assignment: Swap PWM1 with DIG-IN_4 so pwm outputs are on different RPI pwm-channels if thats an issue

Connect to Raspberry Pi 40x pin-header

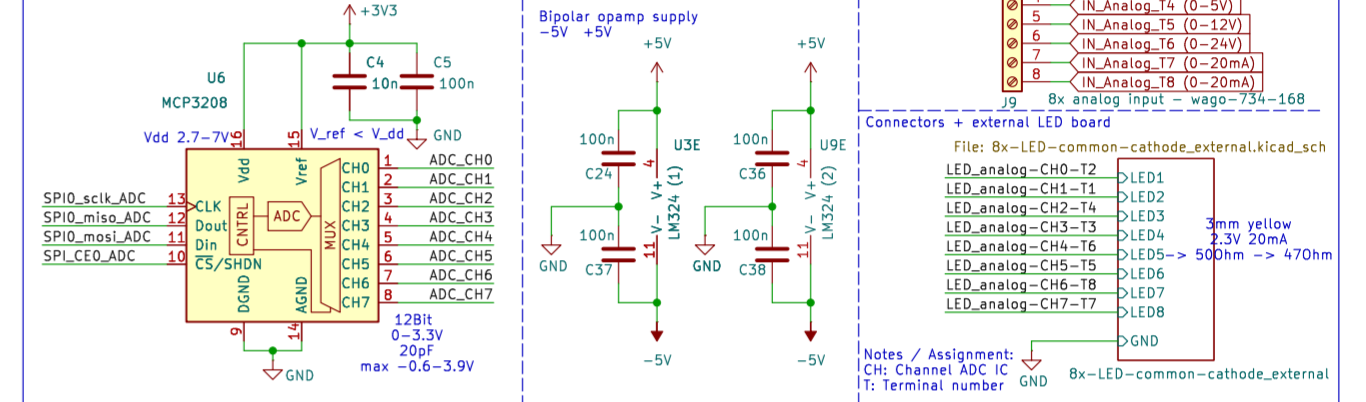


Pin Assignment: Pin numbers here correspond to pin numbers on RPI Pin-Header

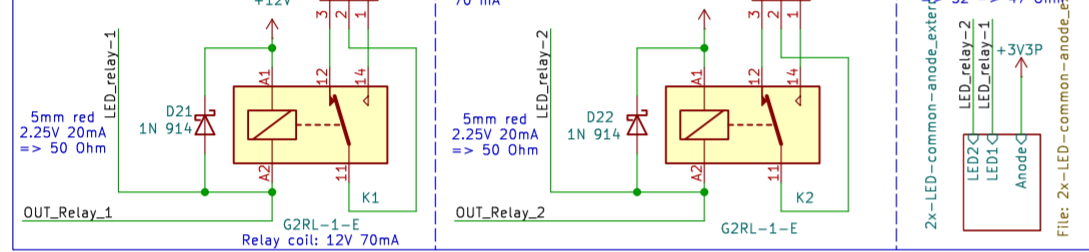
8x Digital Input (0-120V)



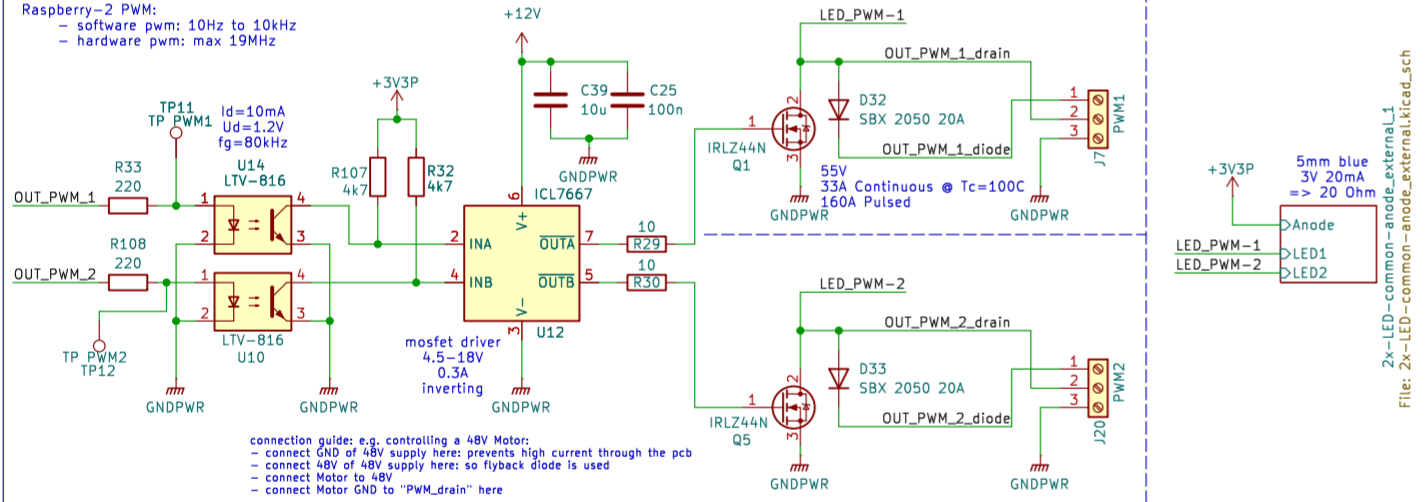
8x Analog Inputs (different Voltage/Current ranges)



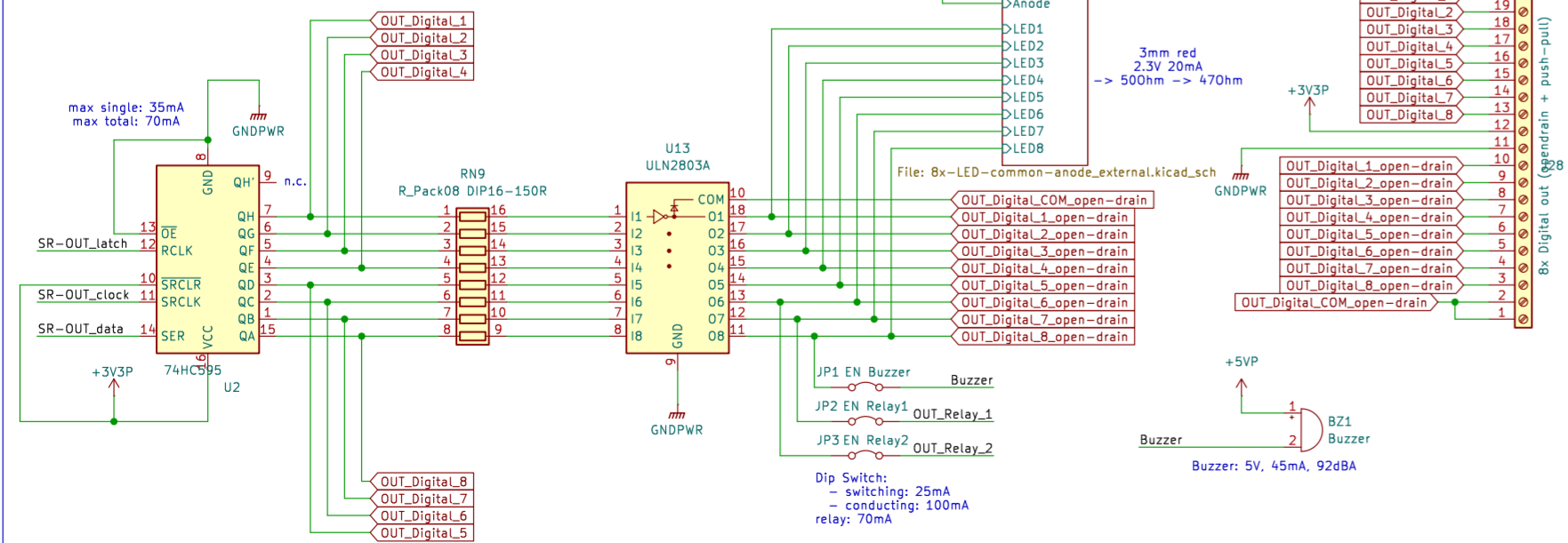
2x Relay output



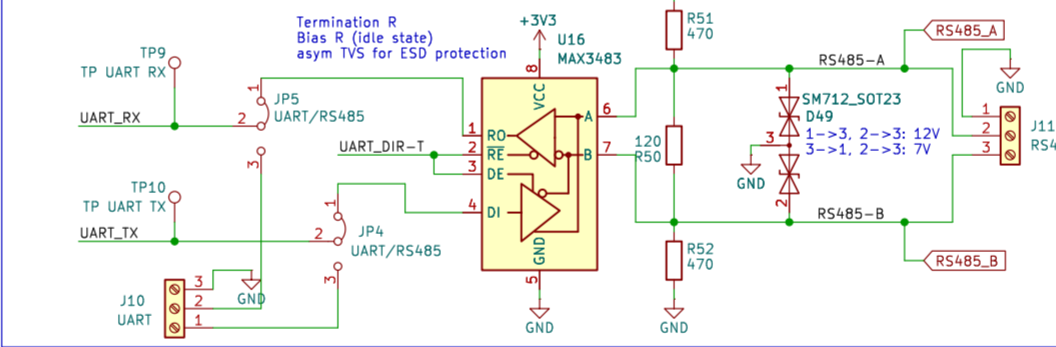
2x PWM output (33A open drain)



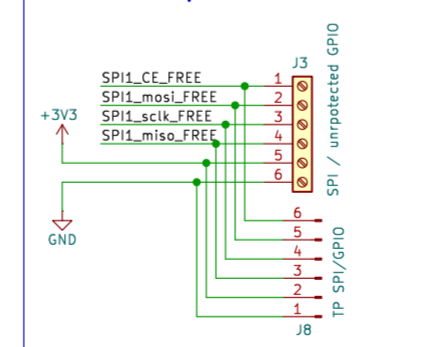
8x digital output (8 Bit shift register + darlington)



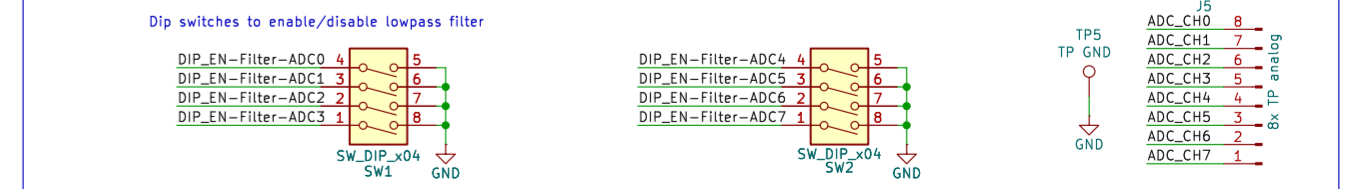
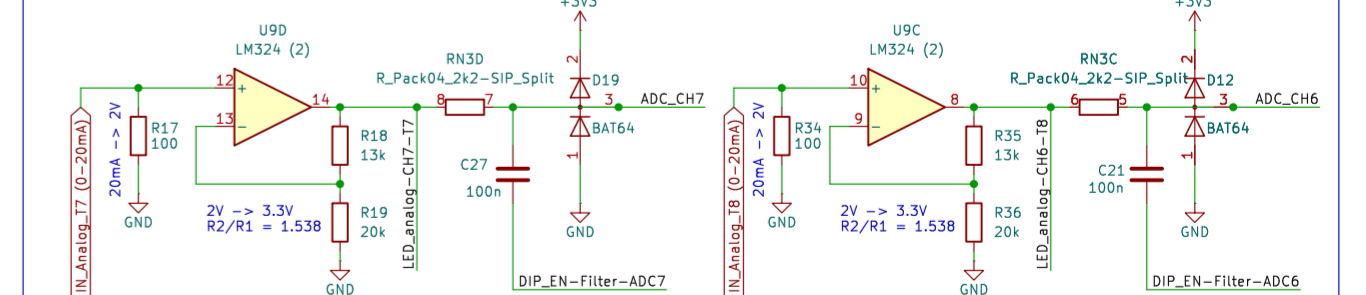
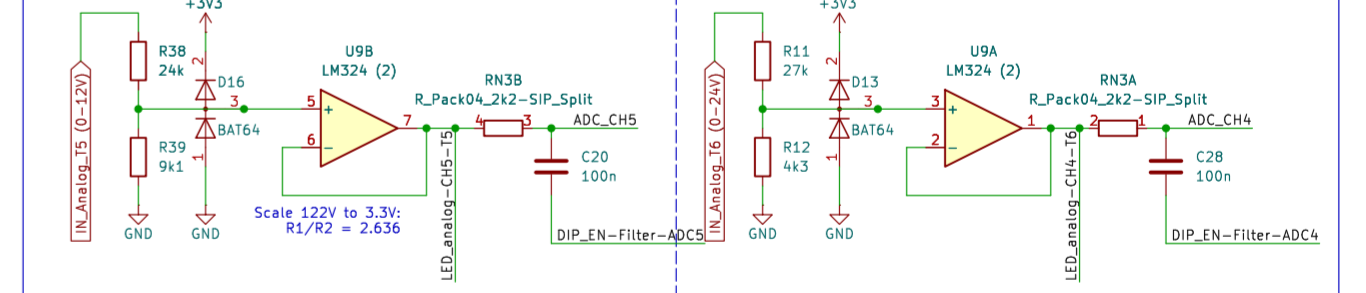
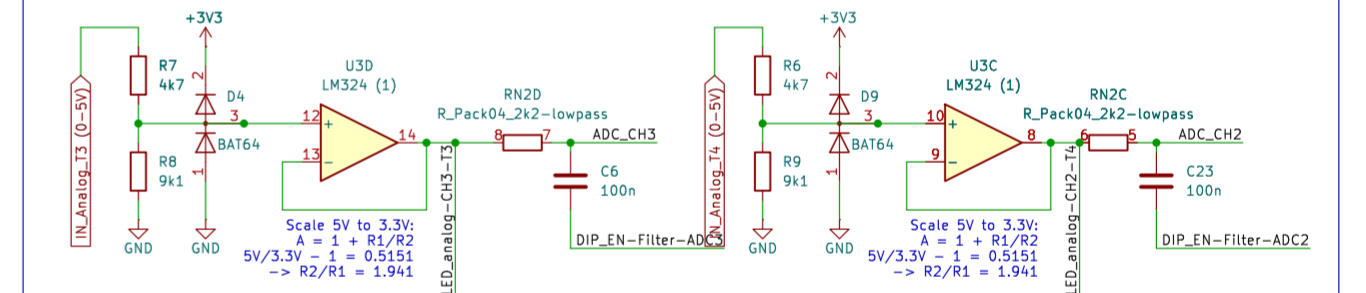
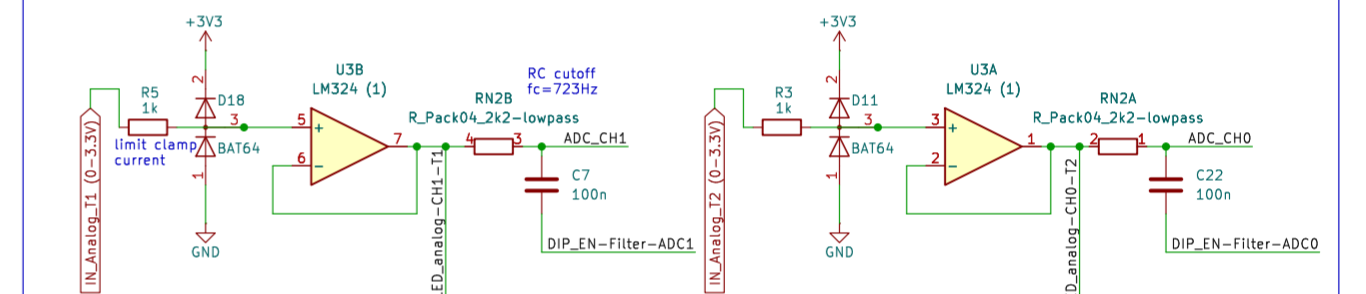
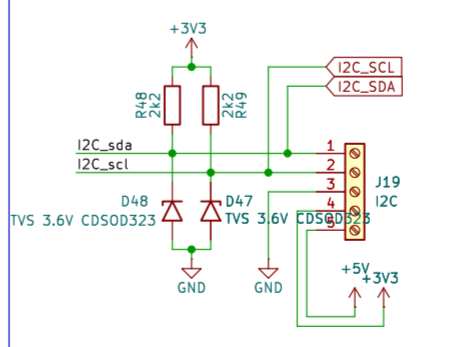
UART <-> RS485



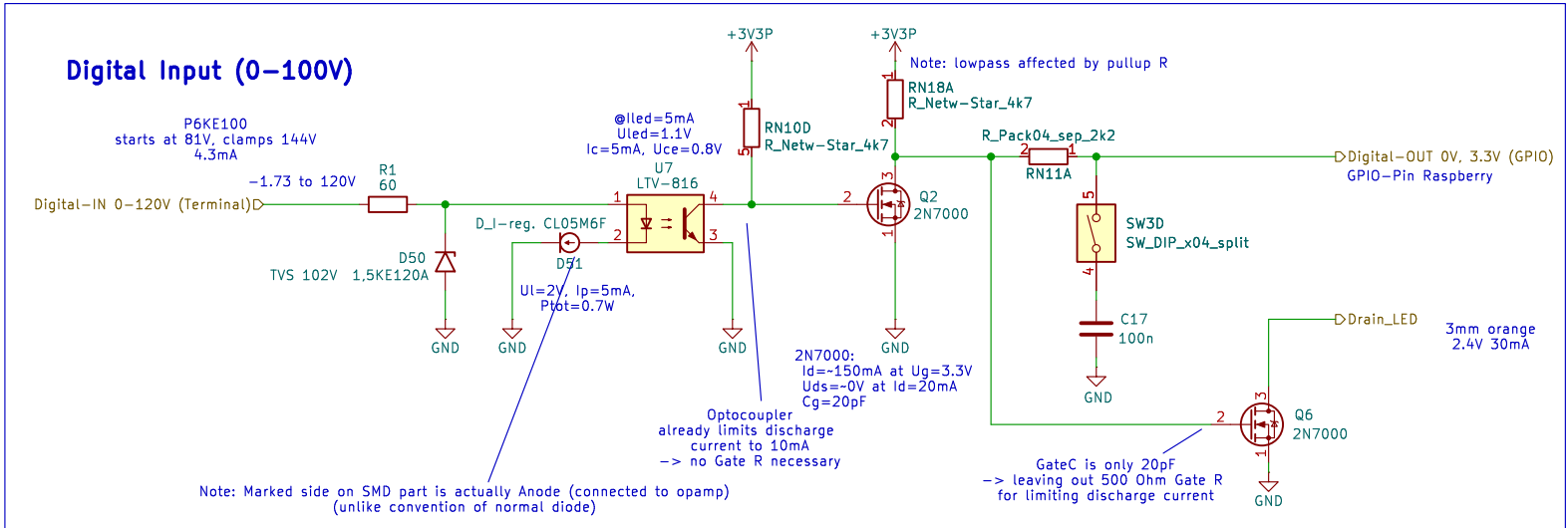
SPI / unprotected GPIO



I2C pullup + protection



A Raspberry Pi-compatible PCB that extends the GPIO header with protected I/O, relays, and various features for versatile use in prototyping and project development



Sheet: /Protected-Digital-Input/
 File: digital-input.kicad_sch

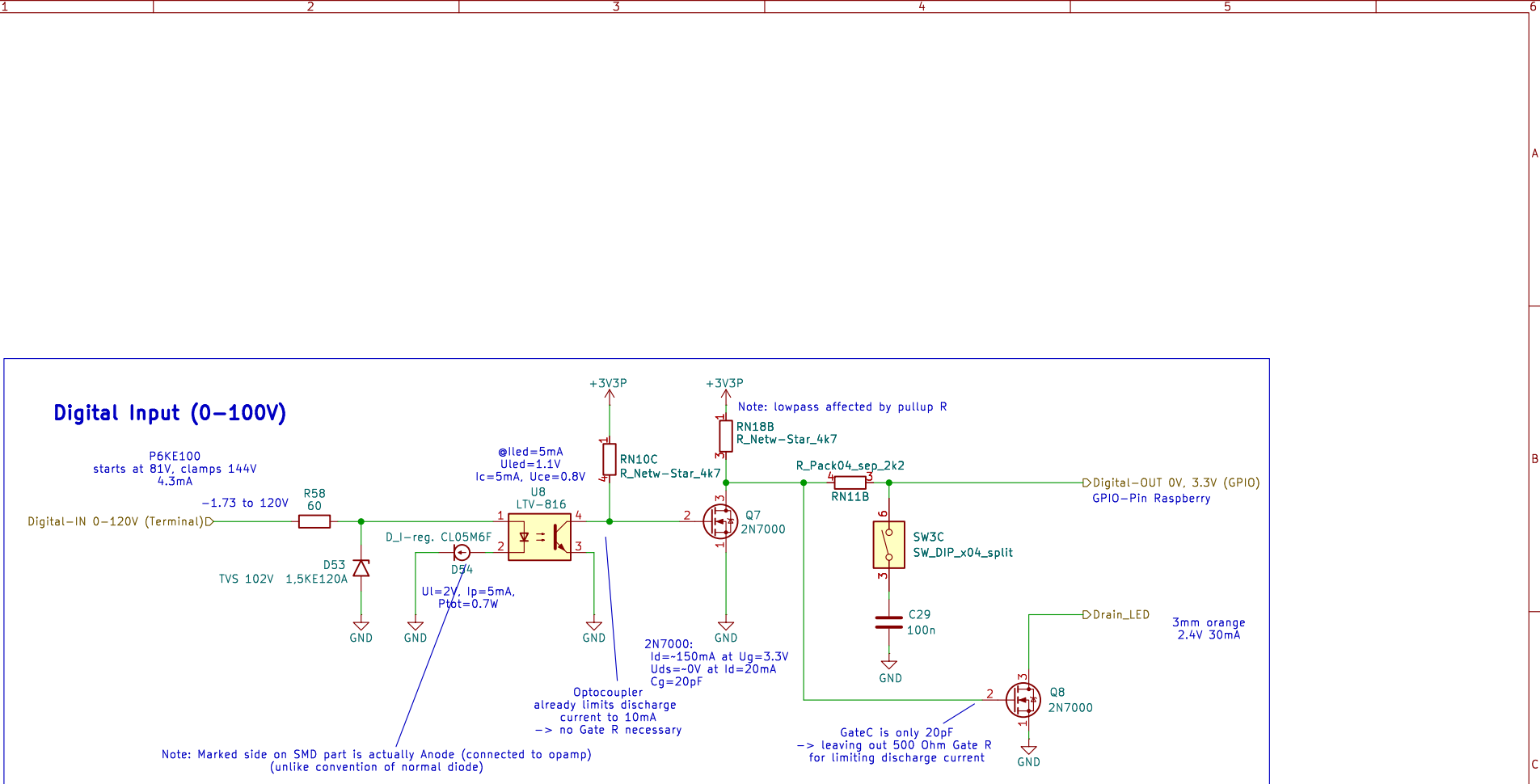
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 KiCad E.D.A. 8.0.7

Date:

Rev:

Id: 2/14



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 File: digital-input.kicad_sch

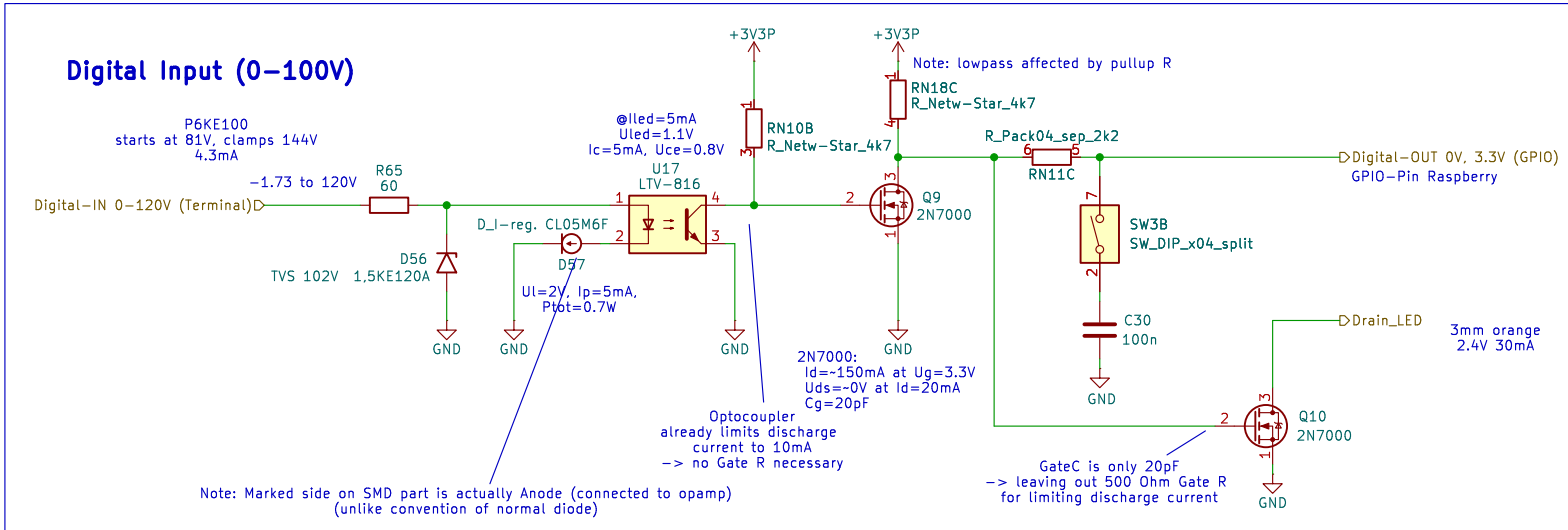
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Date:

Rev:

Id: 3/14



Sheet: /Protected-Digital-Input2/
File: digital-input.kicad_sch

Title:

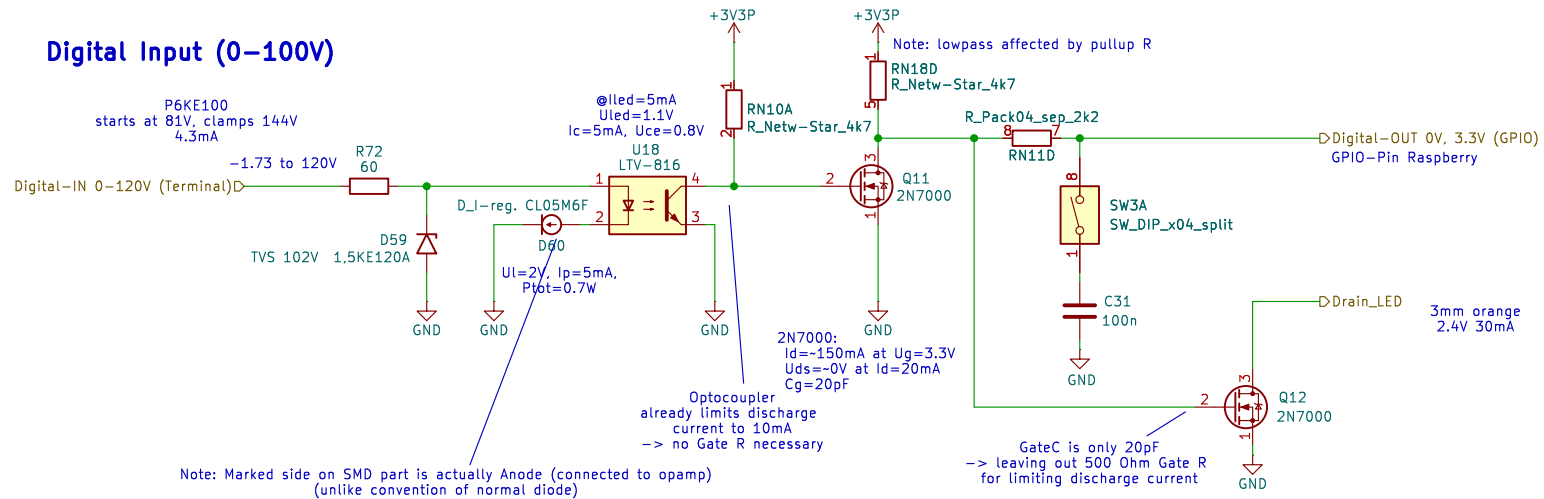
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KiCad E.D.A. 8.0.7

Date:

Rev:

Id: 4/14

Digital Input (0-100V)



Sheet: /Protected-Digital-Input3/
File: digital-input.kicad_sch

Title:

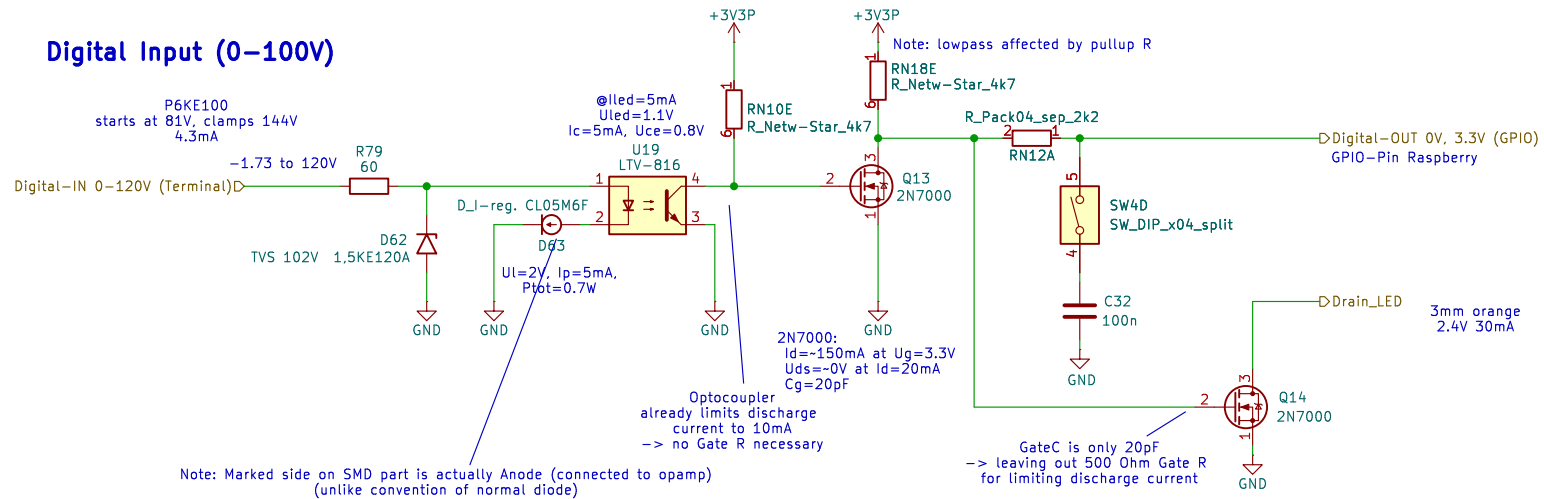
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Date:

Rev:

Id: 5/14

Digital Input (0-100V)



Sheet: /Protected-Digital-Input4/
 File: digital-input.kicad_sch

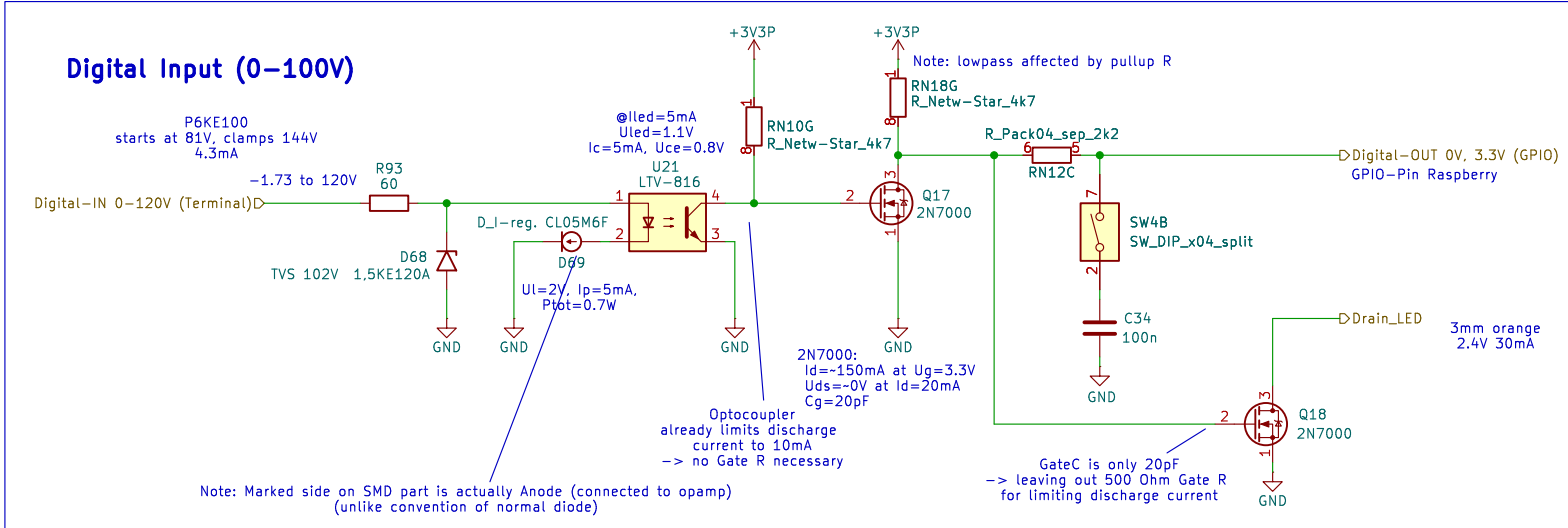
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Size: A4
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Date:

Rev:

Id: 6/14



Sheet: /Protected-Digital-Input6/
File: digital-input.kicad_sch

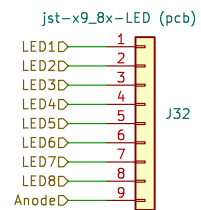
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Size: A4 Date:
KiCad E.D.A. 8.0.7

Rev:
Id: 8/14

Note: Legacy hierachial sheet
This was outsourced to separate pcb project
"led-boards_v0.1"

Connector for external LED board



Sheet: /8x-LED-common-anode_external1/
File: 8x-LED-common-anode_external.kicad_sch

Title:

Size: A4

Date:

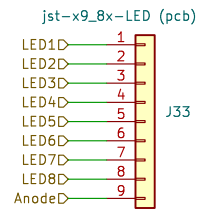
Rev:

KiCad E.D.A. 8.0.7

Id: 10/14

Note: Legacy hierachial sheet
This was outsourced to separate pcb project
"led-boards_v0.1"

Connector for external LED board



Sheet: /8x-LED-common-anode_external/
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Title:

Size: A4

Date:

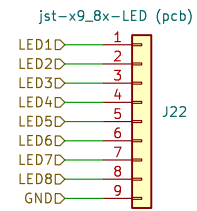
Rev:

KiCad E.D.A. 8.0.7

Id: 11/14

Note: Legacy hierachial sheet
This was outsourced to separate pcb project
"led-boards_v0.1"

Connectors for external LED board



Sheet: /8x-LED-common-cathode_external/
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Title:

Size: A4

Date:

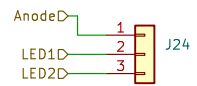
Rev:

KiCad E.D.A. 8.0.7

Id: 12/14

Note: Legacy hierachial sheet
This was outsourced to separate pcb project
"led-boards_v0.1"

jst-3-XH_2x-LED (pcb)



Sheet: /2x-LED-common-anode_external_1/
File: 2x-LED-common-anode_external.kicad_sch

Title:

Size: A4

Date:

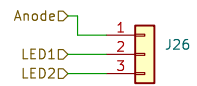
Rev:

KiCad E.D.A. 8.0.7

Id: 13/14

Note: Legacy hierachial sheet
This was outsourced to separate pcb project
"led-boards_v0.1"

jst-3-XH_2x-LED (pcb)



Sheet: /2x-LED-common-anode_external_/
File: 2x-LED-common-anode_external.kicad_sch

Title:

Size: A4

Date:

Rev:

KiCad E.D.A. 8.0.7

Id: 14/14