

Pufferface Interface Schematic

Sheet: Connections

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Sheet: LEDsAlarm

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Sheet: Switches

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Sheet: AlarmDetect

File: AlarmDetect.sch

Sheet: /
File: Pufferfish-Interface-2.sch

Title: Pufferface Interface Schematic

Size: A4 Date: 2020-07-09

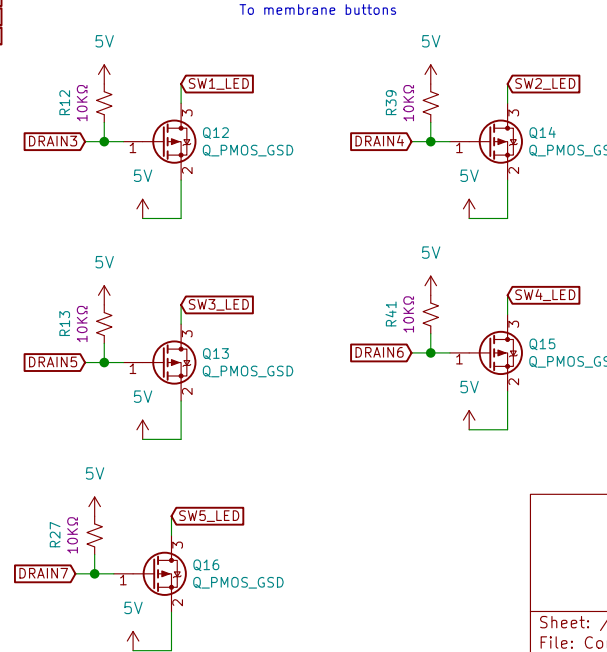
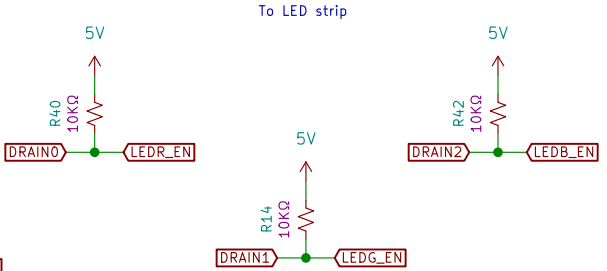
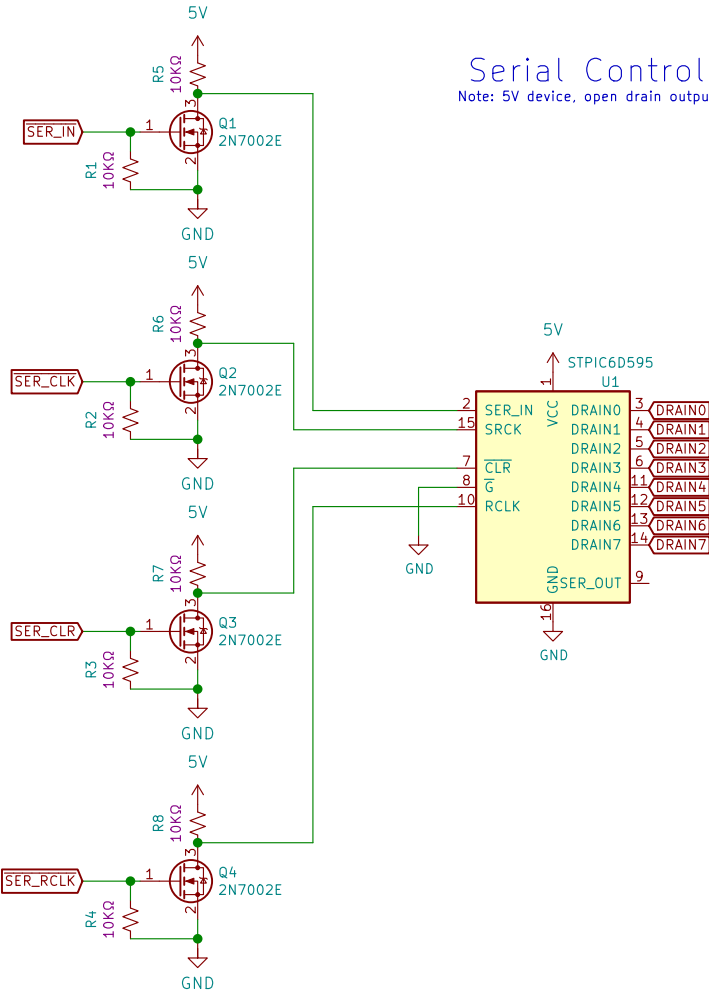
KiCad E.D.A. kicad (5.1.6-0-10_14)

Rev: 2

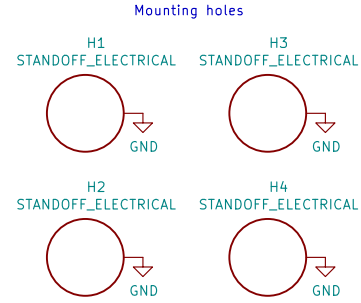
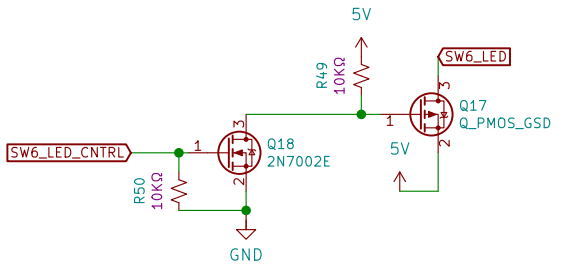
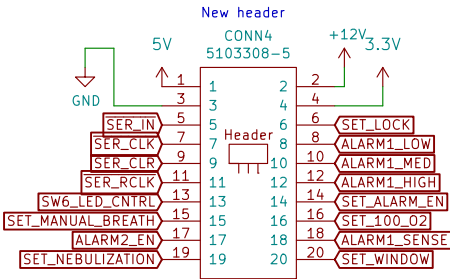
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Connections
I/O signals

Serial Control
Note: 5V device, open drain outputs



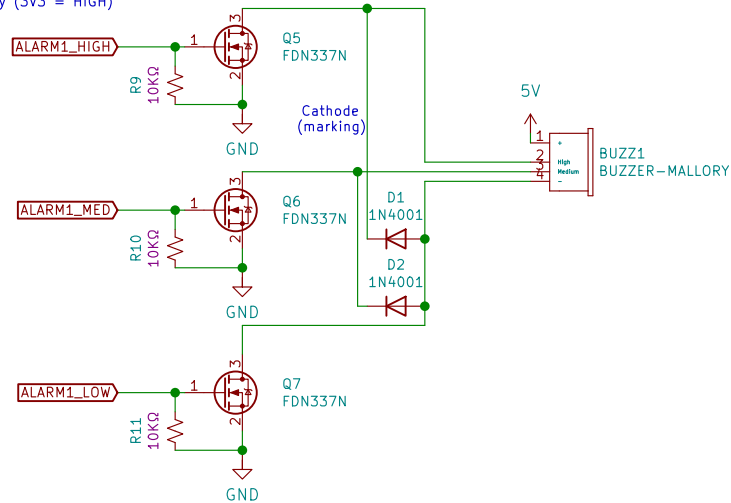
To Control Board



Alarms

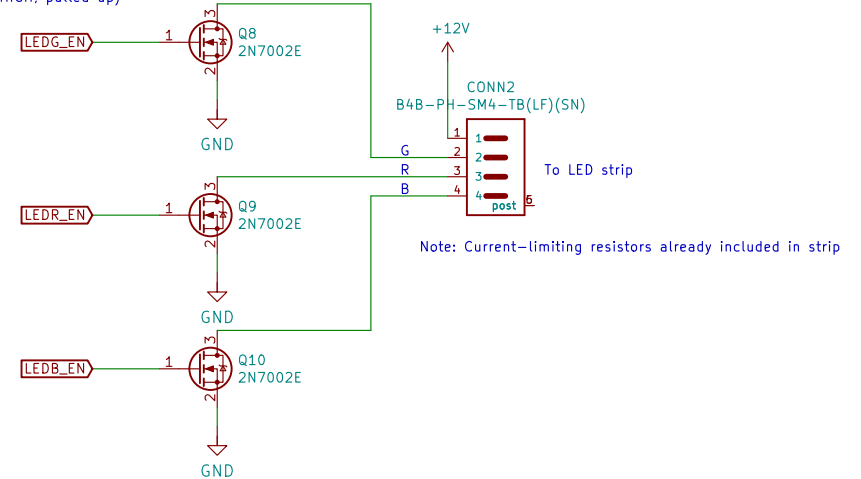
Regulatory Medical Alarm

Driven by MCU directly (3V3 = HIGH)

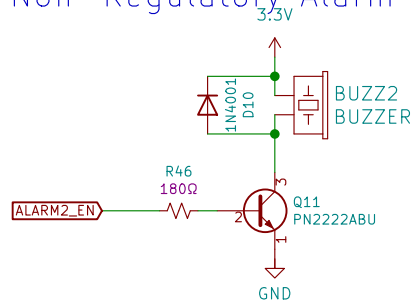


LEDs

Driven by barrel shifter
(5V = HIGH, pulled up)



System Non-Regulatory Alarm – Control Board



Click confirmation speaker – RPi

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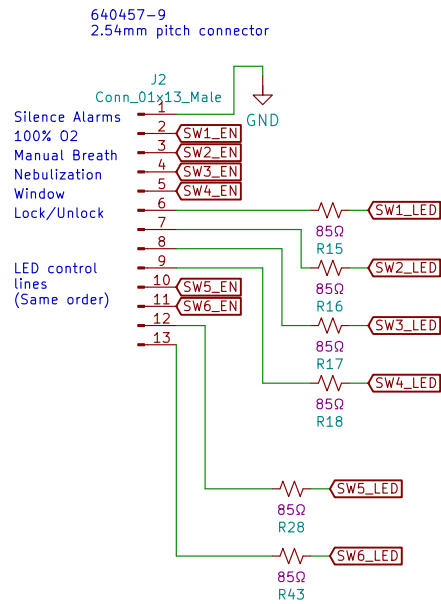
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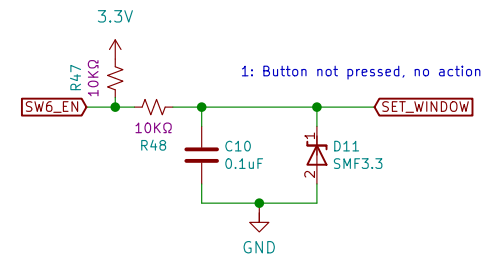
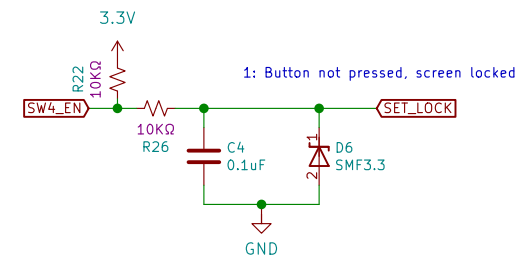
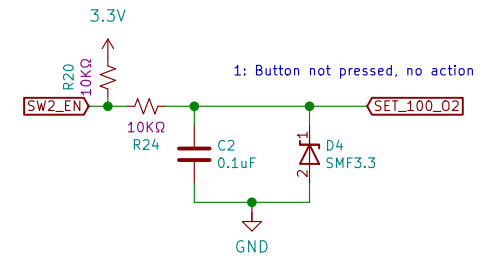
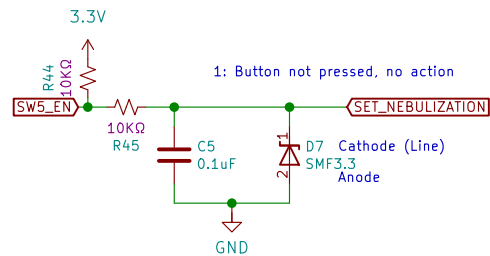
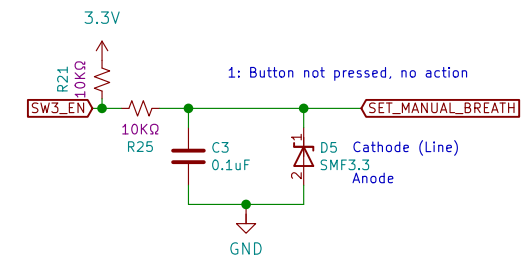
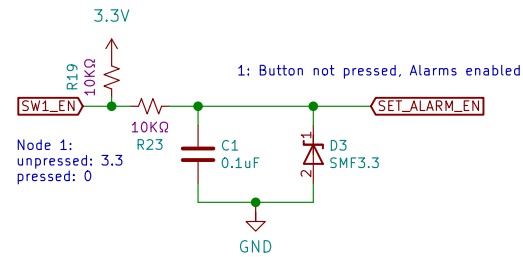
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Switches

Front Membrane Switches



Note: 5V high
Resistors sized assuming:
 $V_f = 3.3V$, $I_{max} = 20\text{ mA}$



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