

# Pufferface Interface Schematic

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**Title: Pufferface Interface Schematic**

Size: A4      Date: 2020-07-09

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**Rev: 2**

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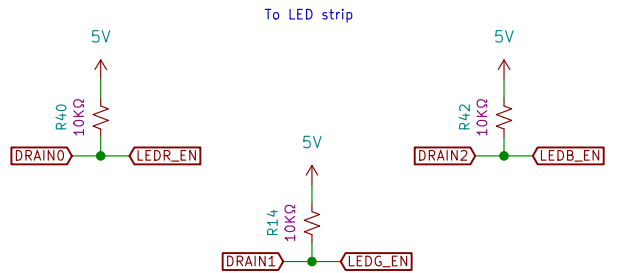
## Connections

I/O signals

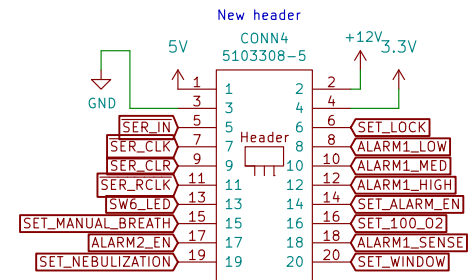
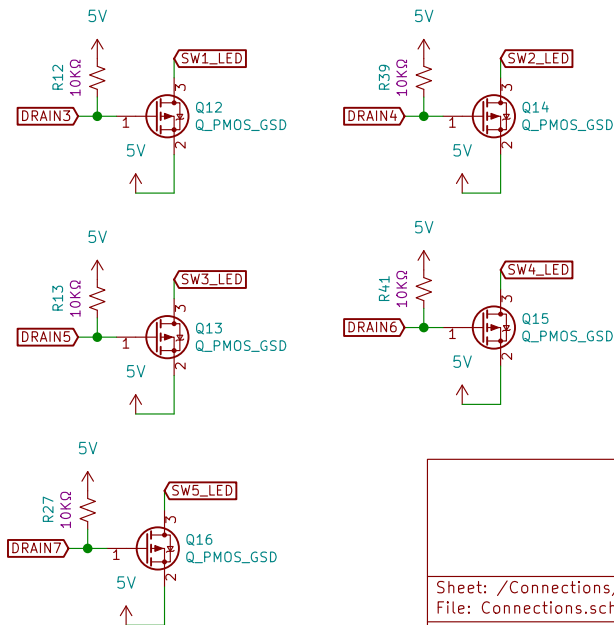
To Control Board

### Serial Control

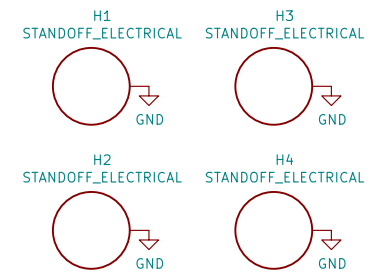
Note: 5V device, open drain outputs



To membrane buttons



Mounting holes



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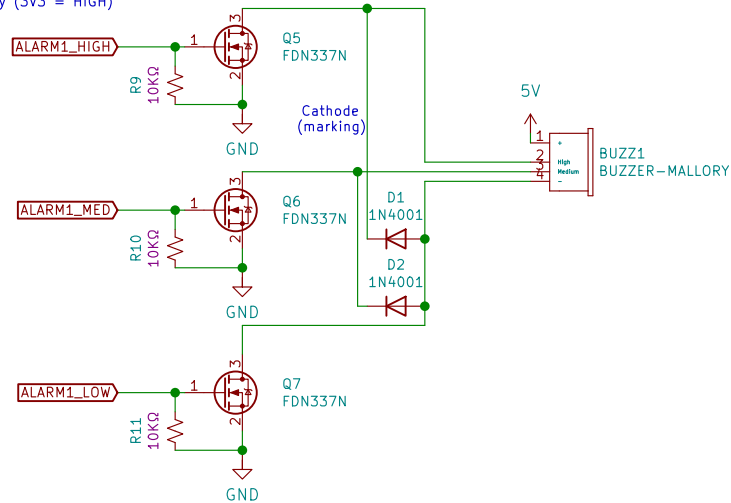
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## Alarms

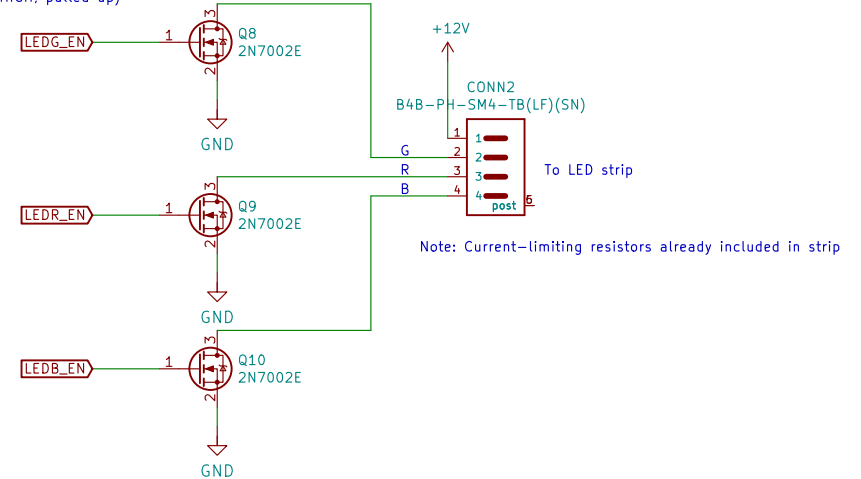
### Regulatory Medical Alarm

Driven by MCU directly (3V3 = HIGH)

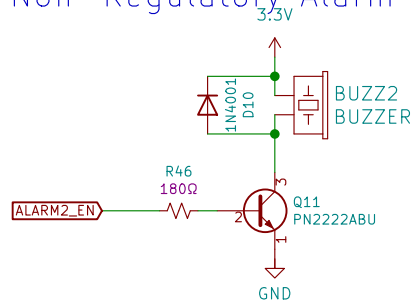


## LEDs

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



### System Non-Regulatory Alarm – Control Board



Click confirmation speaker – RPi

Sheet: /LEDsAlarm/  
File: LEDsAlarm.sch

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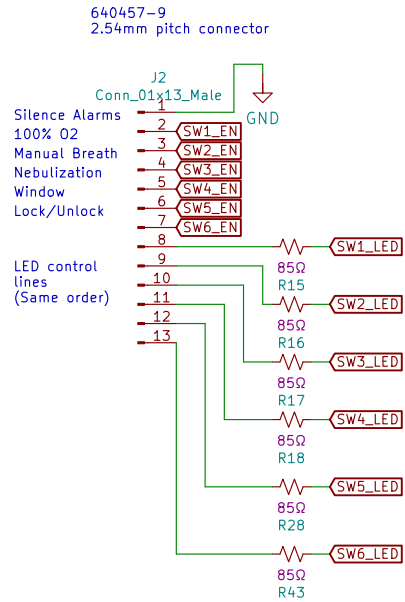
KiCad E.D.A. kicad (5.1.6-0-10\_14)

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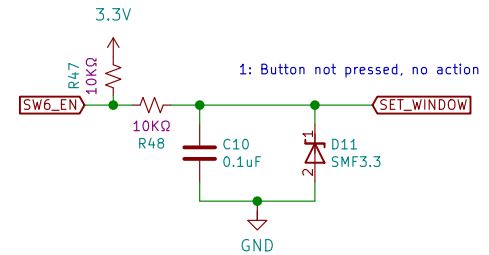
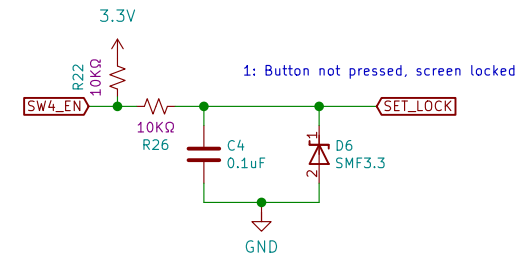
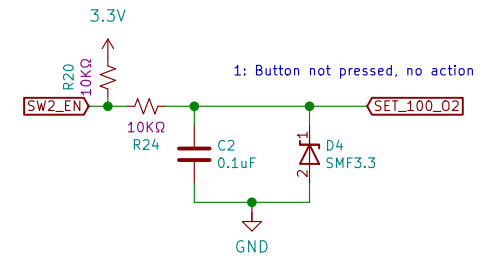
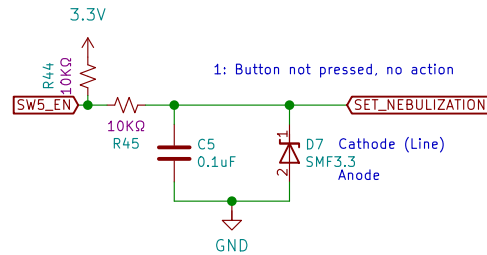
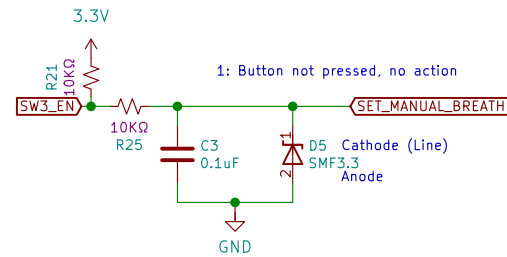
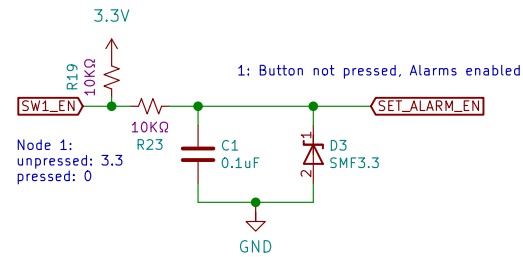
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# Switches

## Front Membrane Switches



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



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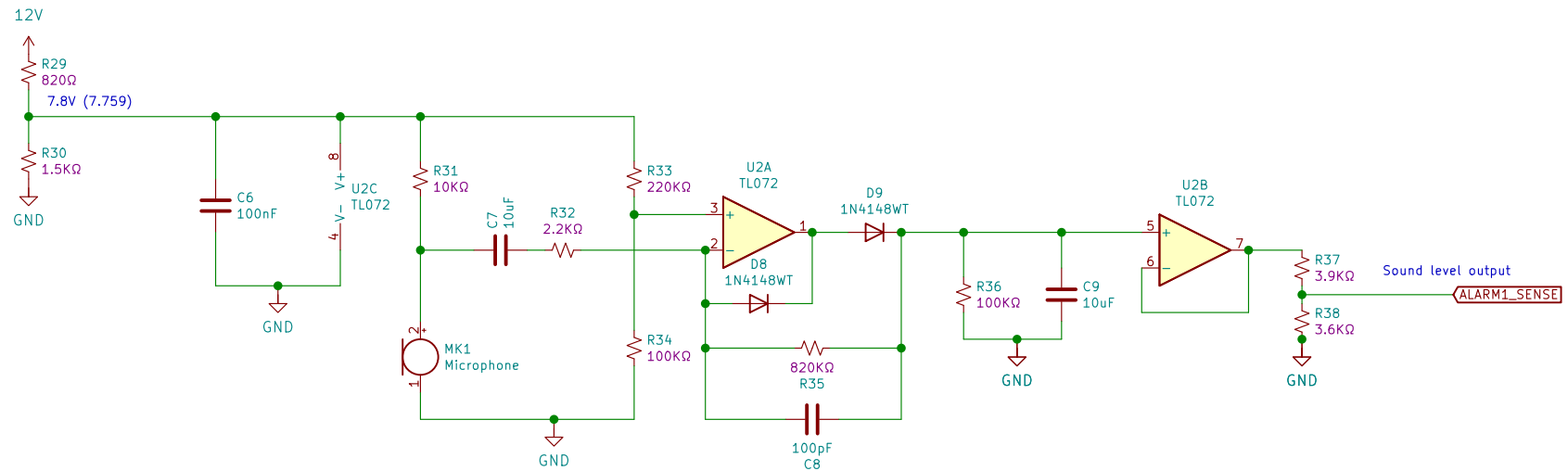
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# Alarm Detector

## Microphone



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