Circuit Schematic of One Half of the Ventilator Splitter
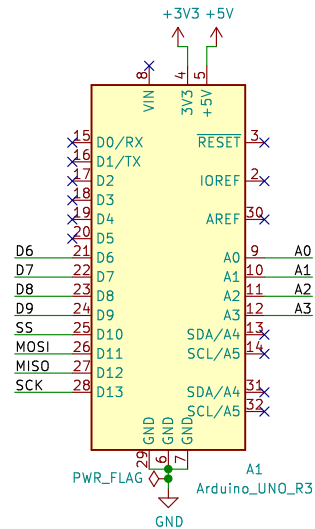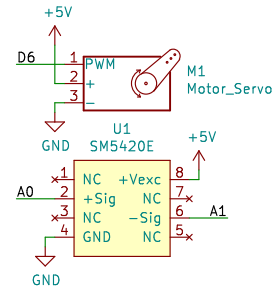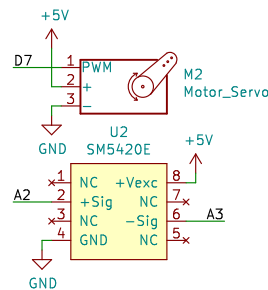
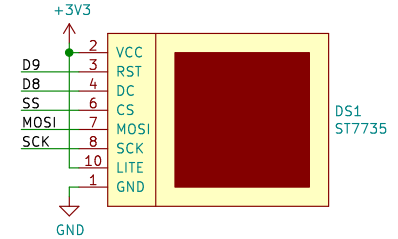## PIP Valve
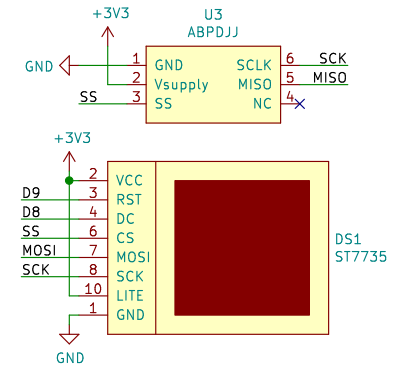
+5V

D6
M1
Motor_Servo
1 PWM
2 +
3 -

GND

U1
SM5420E
+5V

A0
1 NC +Vexc 8
2 +Sig NC 7 A1
3 NC -Sig 6
4 GND NC 5

GND

Arduino

+3V3 +5V

8 VIN
4 3V3
5 +5V

15 D0/RX   RESET 3
16 D1/TX   IOREF 2
17 D2
18 D3   AREF 30
19 D4
20 D5
D6 21 D6   A0 9 A0
D7 22 D7   A1 10 A1
D8 23 D8   A2 11 A2
D9 24 D9   A3 12 A3
SS 25 D10   SDA/A4 13
MOSI 26 D11 SCL/A5 14
MISO 27 D12
SCK 28 D13 SDA/A4 31
            SCL/A5 32

29 GND
6 GND
7 GND

PWR_FLAG
A1
Arduino_UNO_R3

GND

Spirometer

+3V3
U3
ABPDJJ

GND
1 GND   SCLK 6 SCK
2 Vsupply MISO 5 MISO
SS 3 SS   NC 4

+3V3

D9 3 VCC
  RST
D8 4 DC
SS 6 CS
MOSI 7 MOSI
SCK 8 SCK
  10 LITE
  1 GND

DS1
ST7735

GND

PEEP Valve

+5V

D7
M2
Motor_Servo
1 PWM
2 +
3 -

GND

U2
SM5420E
+5V

A2
1 NC +Vexc 8
2 +Sig NC 7 A3
3 NC -Sig 6
4 GND NC 5

GND