

Ventilator Assembly Instructions

Parts List:

Computer assembly

- Arduino UNO or C++ compatible board (1)
- Arduino-compatible breadboard (1)
- Breadboard jumper wires
 - Male-to-male (15)
 - Male-to-female (5)
- Arduino-compatible LCD screen (1)
- Arduino-compatible potentiometers (5)
- Car Manifold Air Pressure (MAP) Sensor (2)

Pump assembly

- Check valve with polypropylene housing, Viton diaphragm (1)
- Acrylic components
 - Stationary plate (1)
 - Moving plate (1)
 - Baseplate (1)
 - Gears (2)
 - Gear racks (2)
- Geared stepper motors (2)
- Solenoid valves (2)
- ½" NPT male to ¼" hoses barb connectors (4)

Ventilator & mask assembly

- Electrical tape
- Epoxy adhesive
- Standard O² tubing, cut from BVM adult #5 Mask (7 feet)
- Hydrophobic bacteria filter (1)
- ¼" barbed connection adapters (2)
- ¾" NPT male to ¼" hoses barb connectors (2)
- Non-rebreather elongated adult mask (1)
- Thermovent 600 HME filter (1)
- Drippers for pressure relief (3)
- 96"Lx4" diameter vinyl vent duct (1)

Assembly:

1. Drill holes in base plate for angle brackets
2. Drill holes in base plate for solenoid valves
3. Drill holes for Arduino
4. Glue gear rails onto base plate
5. Mount angle brackets on base plate
6. Mount cylinder top plate on the base plate
- 7.