

# CSE-316: MICROPROCESSORS, MICROCONTROLLERS AND EMBEDDED SYSTEMS SESSIONAL

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## *Non-Invasive Mechanical Ventilator*

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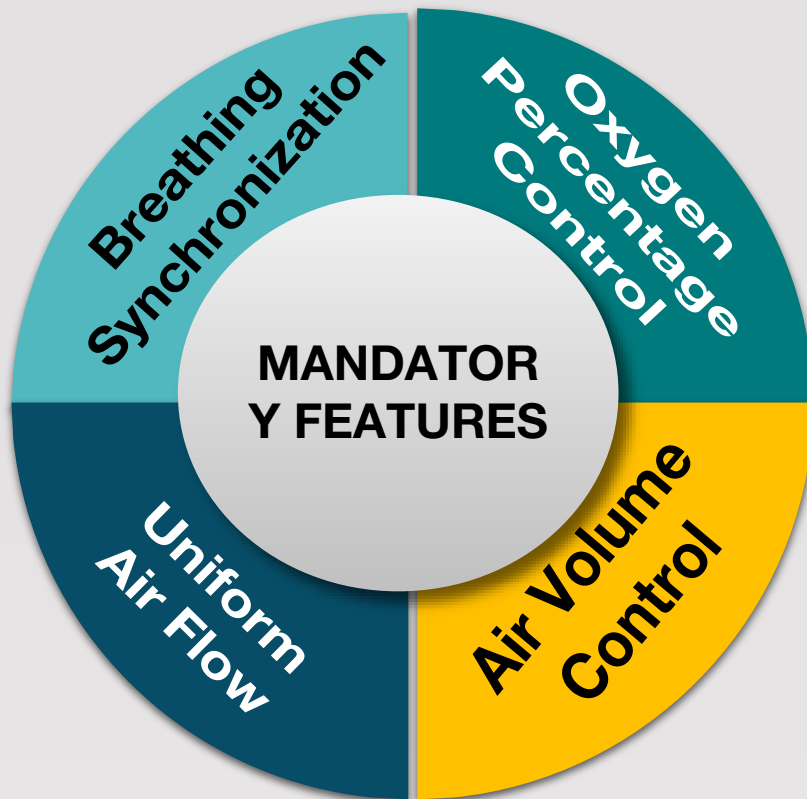
1805019 – MD Rownok Zahan Ratul

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1805030 – Md Toki Tahmid



# Components in a Modern Mechanical Ventilator



## Essential Features

### Gas Delivery Control

- Accumulator
- Inspiratory Flow Regulator
- Humidifier



### Power Sources

- Power Supply
- Gas Supply
- Pressure Generator



### Monitoring

- Pressure
- Volume
- Gas Concentration
- Flow

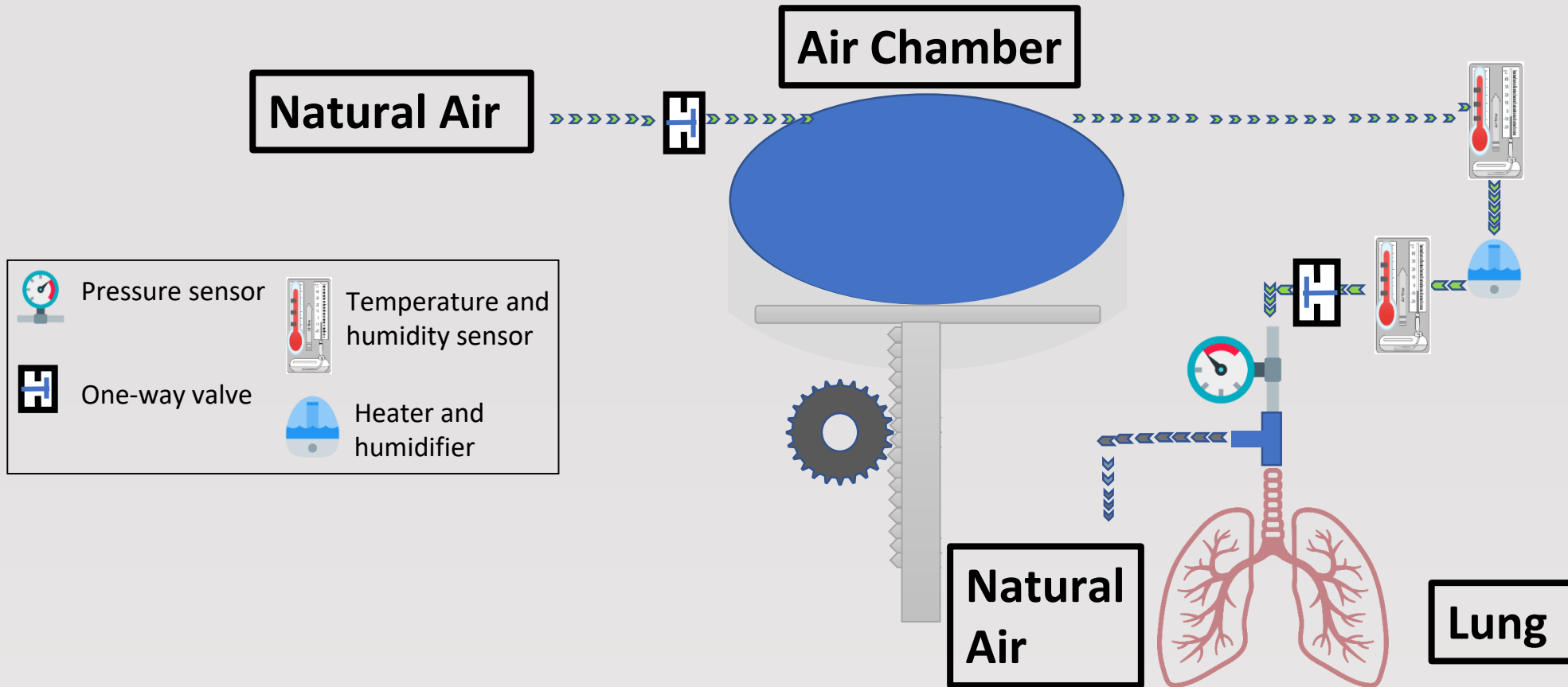


### Safety Features

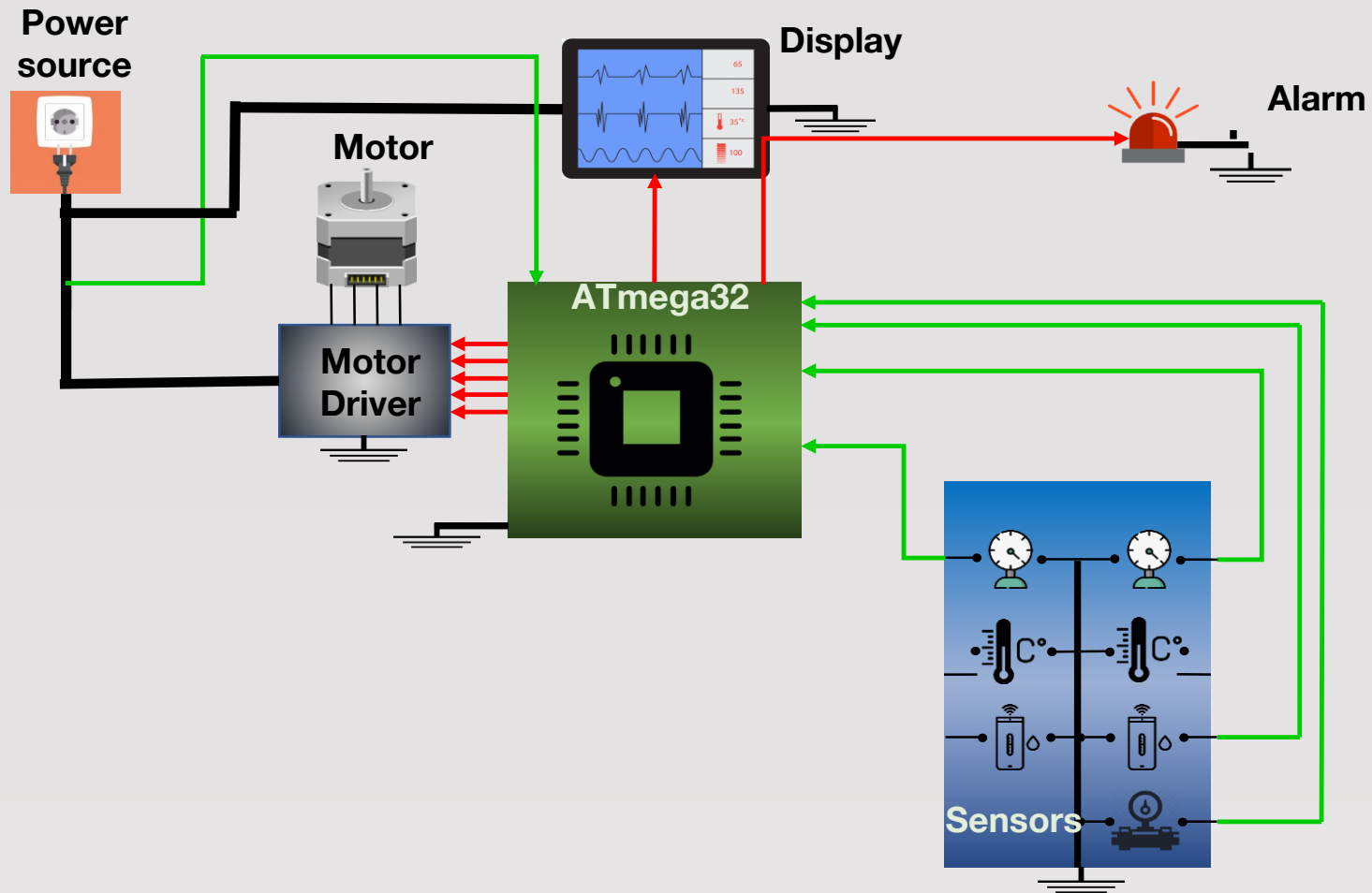
- Filters
- Alarms



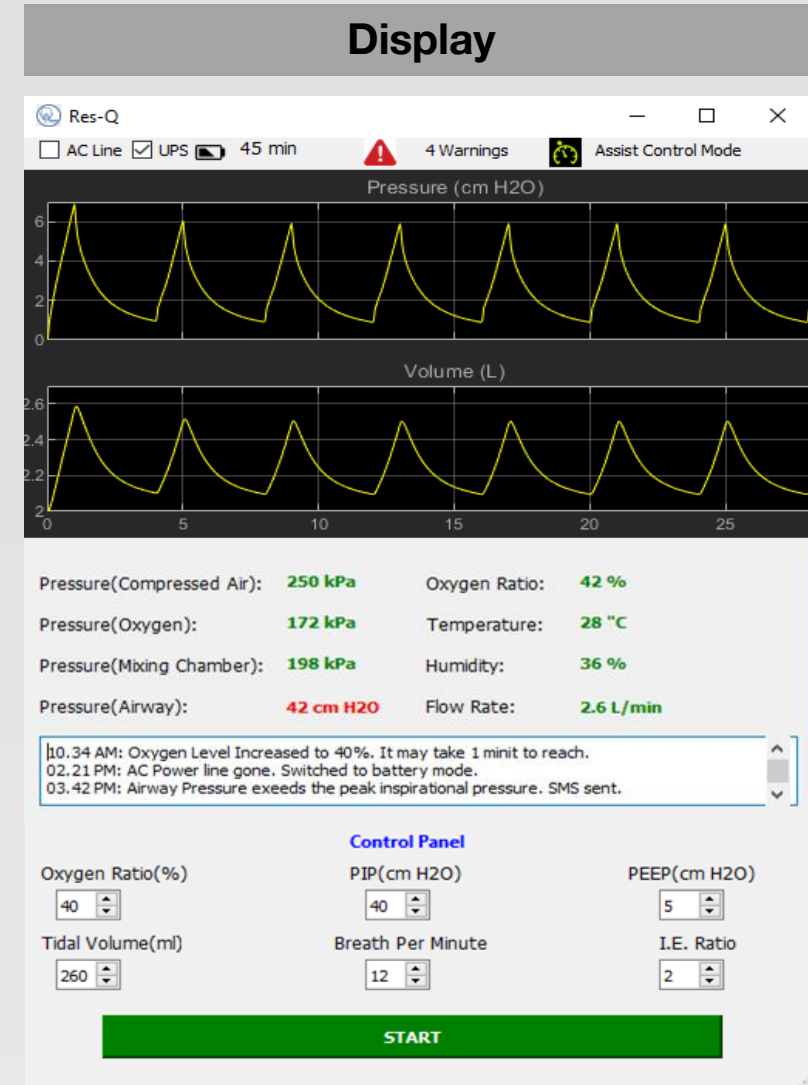
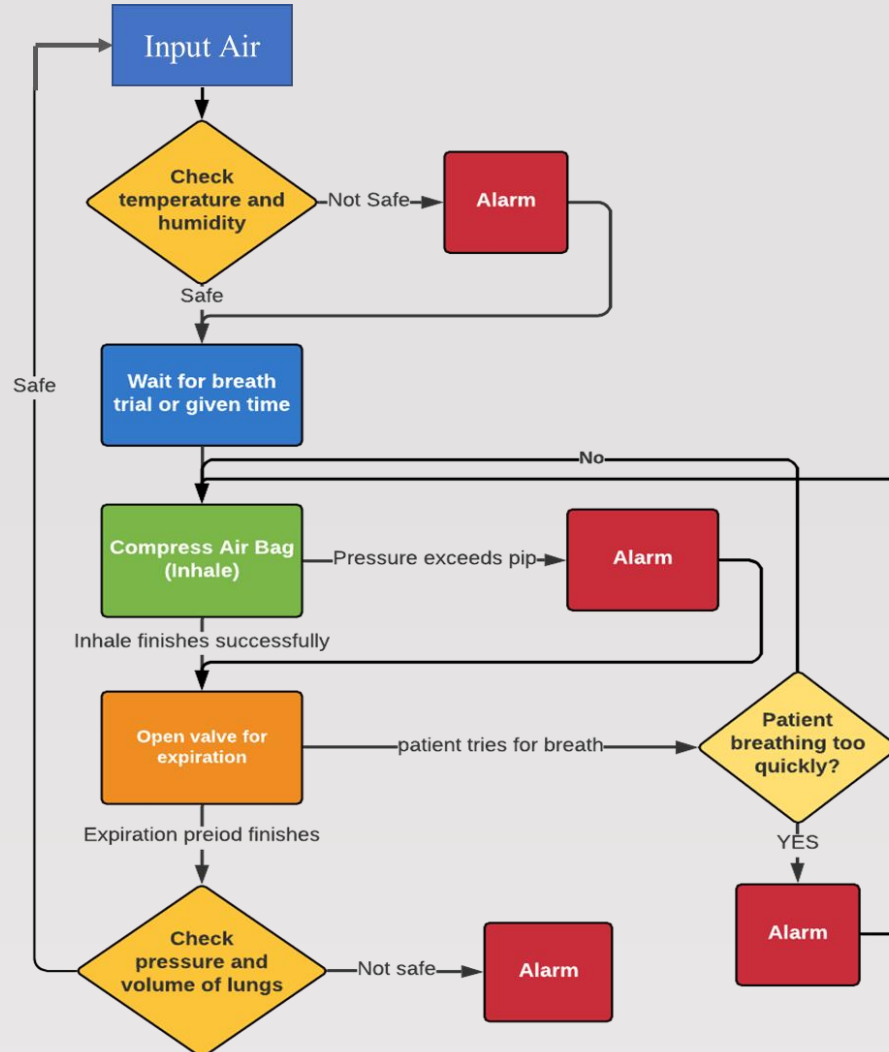
# Working Principle of Our Mechanical System



# Electrical Circuit Diagram of Our Design



# Controlling Method and Control Panel of Our Design



Thank You