*"Helping the world"* breathe freely, one device at a time."



# Background





Anatomical Depiction

Clinical Testing at Cottage Cystic Fibrosis Clinic

## **Overview / Design Specs**

Cystic Fibrosis is a disease causing thick, sticky mucus build up in the lungs, resulting in respiratory issues and a weakened immune system. Our device mimics chest physiotherapy with high frequency chest wall oscillations (HFCWO), shaking the lungs, dislodging the mucus, and allowing the patient to cough it out and breathe more freely.

### **Design Specifications:**

- Strong force 25.3 N
- Light weight 4.9 lbs.
- Cost effective \$332
- Coverage 6 motors

## Exploded View/ **Functional Flow Diagram**





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# **PulmonERI Cystic Fibrosis Vest**

Angeline Dela Cruz | Srishti Garg | Jane Heida | Kevin O'Leary | Akshaya Ramko





- Ventilation channels
- 3D printed in ABS



