



# BUILT TO BREATH

AIRA - Bringing the world a low-cost ventilator that can be mass produced.

## ABOUT US

The Ventilator Project is a Non-Profit Organization tackling the global ventilator shortage with a low-cost ventilator that is mass producible.

Our team has developed AIRA, a ventilator built using components that are outside of the standard medical supply chain. This Supply Chain First Approach allows AIRA to be manufactured at a low-cost, and in turn it helps TVP keep its prices lower than competing ventilator companies. TVP is dedicated to always aligning our values with the world's needs.

## OUR ADVANTAGES

The TVP team is comprised of over 250+ volunteers, who are all determined to ensure that anyone who is in need of a ventilator will have access to one.



As a Non-Profit Organization, TVP has no obligation to shareholders. This helps us stay focused on the real problem at hand, and not on financial gain.



TVP has established a strong entrepreneurial culture, which allows us to keep our company extremely lean and agile.



AIRA comes equipped with the 3 most important ventilation modes for Covid-19 patients, including Pressure Control, Volume Control, and Pressure Support Ventilation.



The first iteration of our ventilator is focused on simplicity and ease of use, while delivering the necessary ventilation functions. Our priority is to make lives of medical professionals easier, not harder.

## WHY THE WORLD NEEDS TVP



### MARKET DEMAND

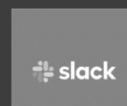
Estimates show that there is a 600K ventilator shortage in the United States, and a 13M unit demand globally. To provide more context, some countries like South Sudan, with a population of 11M, have more Vice Presidents (5) than ventilators (4).



### THE PROBLEM

The medical supply chain has been completely overwhelmed by a massive demand driven by the needs of Covid-19 patients. This has left manufacturers without the proper components necessary to build ventilators, which is where TVP has closed the gap.

## KEY PARTNERS



## Innovative Approach. Faster Results.



### Overview

#### Easy to Use

AIRA is designed to handle the needs of patients with acute respiratory issues. AIRA offers a sleek look and a modern solution with an LCD user interface for a seamless user experience.

#### Innovative Supply Chain

AIRA doesn't rely on the overwhelmed medical supply chain. Designed to manufacture, AIRA can be rapidly produced in high quantity.

#### Simple Integration

A simple & intuitive ventilator that eliminates the need for robust onboarding training. In line with what doctors are used to, AIRA can be integrated almost instantly into operation.

### Ventilator Options

- **Pressure Control (PCV)**- Allows the practitioner to control ventilatory pressure throughout the cycle in order to generate the pressure necessary to expand the collapsed alveoli.
- **Volume Control (VCV)**- Defines the volume administered to the patient (tidal volume  $V_t$  as the control variable). Airway pressure results from the compliance of the lungs and the inhaled volume.
- **Pressure Support (PSV)** - A flow-cycled modality in which, as in A/C ventilation, every breath is assisted and the positive pressure is automatically terminated at the end of inspiration.

### Specifications

#### DIMENSIONS

Height: 13 in

Width: 21 5/8 in

Depth: 9 3/4 in

Screen Size: 5 in

#### OPERATING

Ventilation Modes:

- Pressure Control (PCV)
- Volume Control (VCV)
- Pressure Support (PSV)

Battery Backup: 2 Hrs.

#### CONTROLS

Breath Rate: 0-30 BPM

Inspiratory Time: 0.5 - 5 sec

EAP/PEEP: 0 -25 cmH2O

Pressure Control: 1 - 35 cmH2O

FIO2: 21% - 100%

Pressure Support: 1 - 35 cmH2O

I:E Ratio: 3:1 - 1:3

Tidal Volume: 10mL - 2,000mL

#### MONITORS

Breath Rate : 0-100 BPM

Mean Airway Pressure: 0-75 cmH2O

PEEP: 0-75cmH2O

Graphic Waveforms:

- Pressure: 0 - 35cmH2O
- Volume: 0 - 2L

Peak Inspiratory Pressure: 0-75 cmH2O

#### DISCLOSURES

The Ventilator Project, Inc. is working to submit a specific ventilator prototype to the United States for review under the Emergency Use Authorization (EUA) authority. Although no determination has been made with respect to this design, the Department of Health and Human Services (DHHS) has declared liability immunity for medical countermeasures against COVID-19.

No material is intended to provide medical or other professional advice. All designs are intended for investigational use only.

The Ventilator Project, Inc, and all the board, staff, volunteers, associated faculty, students, doctors, and researchers make no guarantees, representations, or warranties, explicit or implied, with respect to the research or design, or the material on

