Technical advancements to a low-cost, high-performance ventilator

Supervisor: Dr Joseph van-Batenburg Sherwood

Theme(s): Biomechanics and Medical Devices

Project Type: Lab based

Project Description: In response to COVID-19, we designed JAMVENT (see JAMVENT.com), a novel solution to ventilation that can be built using off-the-shelf parts and perform the functions required by ICU ventilators.

The technology has potential for both treatment of COVID-19 and long-term use in addressing the global shortage. The current system is designed for adult use and in settings with compressed oxygen and air supplies. To expand the application range of the technology, additional design work is required.

This project is a great medical technology design project, and will involve designing, building, testing and evaluating new features for the JAMVENT system. The project would also be guided by Dr Jakob Mathiszig-Lee will, a consultant anaesthetist and clinical lead on the JAMVENT project.