

# University of Nairobi Ventilators Model



*UoN Ventilators*

## **The Production Team**

- Dr. Peter Akuon - (EIE) Team Leader
- Prof. J.M. Mbutia - Co-Lead, IoT Laboratory, University of Nairobi
- Prof. Fredrick Were - Medical Doctor, Respirator Expert, UoN Medical School
- Dr. Ernest Odhiambo - Mechanical Engineering
- Davies Segera - Electronic Engineering
- Benson Onyango - Electrical Engineering
- Kinyua Wachira - Electronic Engineering
- Faris Abdulrahman - Electronic Engineering

The University of Nairobi multidisciplinary team of engineers and doctors have developed a locally manufactured portable ventilator that will reduce the cost of the current ventilators nearly by 90%.

The main advantage of the UoN ventilator over the existing commercial ventilators is:

- The biometric and data communication component with external data storage.
- the low cost portable ventilator
- “The data collected can be used for further research in both engineering and medical fields.
- The data will enable analytics and big data modelling of patient records to be used for further research.
- The machine incorporates smart intelligence and hence can be operated by health professionals while far from their patients.
- In future Kenyans with breathing difficulties will be able to use the ventilators in their households as they wait for the arrival of ambulances and health professionals.
- The machine will go a long way in helping health professionals save lives.
- The ventilator uses digital inputs and LCD display has reconfigurable pressure for adults and children.
- It is adaptable to multiple power sources, including solar power and hence can be used in remote locations without electricity.
- The ventilator will go a long way in saving many lives as it gets used in ambulances.
- It will go along way in helping Kenyans with many respiratory problems long after the COVID-19 is gone.

Prof. Stephen Kiama, the University of Nairobi Vice Chancellor, congratulated the team for the hardwork put in place.

**“This demonstrates our value of care for Kenyans.**