

## CSIR-NAL develops non invasive ventilator

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CSIR - National Aerospace Laboratories (NAL) Bangalore, a constituent of lab of CSIR has developed a Non Invasive BiPAP Ventilator in a record time of 36 days to treat COVID-19 patients.

BiPAP Non-Invasive ventilator is a microcontroller-based precise closed-loop adaptive control system with a built-in biocompatible "3D printed manifold & coupler" with HEPA filter (Highly Efficient Particulate Air Filter).

These unique features help to alleviate the fear of the virus spread. It has features like Spontaneous, CPAP, Timed, AUTO BIPAP modes with provision to connect Oxygen concentrator or Enrichment unit externally. The system has been certified for safety and performance by NABL accredited agencies. The system has undergone stringent biomedical tests and beta clinical trials at NAL Health Centre.

The major advantage of this machine is that it is simple to use without any specialized nursing, cost effective, compact and configured with majority of indigenous components. This is ideal for treating COVID -19 patients in Wards, Make shift Hospitals, dispensaries and home in current Indian COVID 19 scenario. CSIR-NAL is in process of taking it forward with the regulatory authorities for the approval and expected to get shortly. CSIR-NAL has already initiated dialogue with major public/private industries as a partner for mass production.