

DRDO designs SpO2 based supplemental oxygen delivery system

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Defence Research and Development Organisation (DRDO) has developed SpO2 (Blood Oxygen Saturation) supplemental Oxygen Delivery System for soldiers posted at extreme high-altitude areas. Developed by Defence Bio-Engineering & Electro Medical Laboratory (DEBEL), Bengaluru of DRDO, the system delivers supplemental oxygen based on the SpO2 levels and prevents the person from sinking in to a state of Hypoxia, which is fatal in most cases, if sets in. This automatic system can also prove to be a boon during the current Covid-19 situation.

The system reads SpO2 levels of the subject from a wrist-worn pulse oximeter module through wireless interface and controls a proportional solenoid valve to regulate the oxygen supply to the subject. The oxygen is delivered from a lightweight portable oxygen cylinder through nasal nares.

The system is a boon in the current pandemic as it can be used in the household for moderate Covid patients for Oxygen flow therapy with flow controlled at 2/5/7/10 lpm flow.

With its availability and simple to use facility by a common person, the system shall greatly reduce the workload and exposure time of doctors and paramedics to monitor the SpO2 levels of the patient.