

Hyderabad-based startup aims to save lives with portable oxygenerator



Amid the shortage of medical [oxygen](#) in several parts of the country due to the second wave of COVID outbreak, the Hyderabad-based startup 'The Phi Factory' is aiming to save lives through its innovative and affordable portable oxygenerator.

Speaking to ANI about the oxygenerator, the Co-founder of The Phi Factory, Praveen Gorakavi said, "Vayuputra has been developed with an objective to support the [COVID-19](#) patients who are under home isolation, with emergency [oxygen](#) supply at a low capital expenditure. During home isolation, in case a patient's oxygen saturation level drops, he or she is then admitted to the nearest hospital. But during this transit, many people are losing their lives due to the lack of oxygen. This situation can be avoidable."

He mentioned that oxygen cylinders and oxygen concentrators are available at a very higher rate in the current market and cannot be afforded by people. He felt that the product that is to be developed must be both economic at the same time life saving and that is when he came up with the idea of oxygenerator 'The Project Vayuputra'.

Asked about the capacity of the oxygenerator, Gorakavi said, "This oxygenerator consumes around 20 litre of hydrogen peroxide that can produce enough oxygen to last 12 hours."

Explaining the working of the oxygenerator, Gorakavi said that when hydrogen peroxide comes in contact with a metal oxide, a decomposition reaction takes place and oxygen along with water is derived. "Using a catalytic bed made out of metal oxide fixed in a container and when hydrogen peroxide passed through the catalytic bed, the reaction takes place giving us oxygen alongside water," he said.

He said the container contains three columns in order to filter all the water vapour in the produced Oxygen.

He further mentioned that the oxygenerator used 50 per cent concentrated hydrogen peroxide and said that one liter of such hydrogen peroxide would be able to produce around 240 litre of oxygen, which is enough for around 24 minutes.

He said the oxygenerator is fixed with a two-litre bottle of hydrogen peroxide making it usable for 48 minutes per bottle and the oxygenerator kit would be given along with ten two-litre bottles of hydrogen peroxide.

"Many Government organisations and various NGOs across the country who are supplying oxygen concentrators to the people are now moving towards this oxygenerator as this product is cheap compared to that of oxygen concentrators," Gorakavi said.

He said since this has been officially been put out into public on the Phi Factory's social media pages, there have been numerous queries and requests for the product from various parts of the country. "So far they have received around 45,000 requests from various individuals across the country. Many Government departments from various states have also contacted them for the same."

He mentioned that they have even been in touch with few very reputed companies for taking up this project and making deliveries to different places across the country. Gorakavi said, "On behalf of The Phi Factory, we are free sourcing this technology to various medical device manufacturers who are following good manufacturing practices, then we would authorise that facility to start manufacturing the oxygenerator and supply to their beneficiaries."

He mentioned that the price of this oxygenerator would be around Rs 2,500 that includes the oxygenerator along with 10 two-litre bottles of hydrogen peroxide.

Gorakavi said after getting the required approval, the product might possibly be available from May 15.

Oxygen