

#startupindia



Department for Promotion of Industry and Internal Trade  
Ministry of Commerce and Industry  
Government of India



**INVEST INDIA**  
NATIONAL INVESTMENT PROMOTION  
& FACILITATION AGENCY

# STARTUP SOLUTIONS FOR COVID-19 SUPPORTED BY COVID-19 TASKFORCE

## CRITICAL- CARE EQUIPMENT


MAY 2020





## CRITICAL- CARE EQUIPMENT


### ABSSTEM TECHNOLOGIES LLP

Details Of the Founders	Details Of the Product	Market Status	Support Needed
<p><b>Name:</b> Mohit Sharma <b>Website:</b> <a href="https://absstem.com/">https://absstem.com/</a> <b>Location:</b> Delhi</p>	<p><b>Product:</b> PSA (Pressure swing adsorption) technology-based Medical oxygen plant <b>Target Audience:</b> Hospitals and medical institutions, CPAP, NICU or any critical care unit w</p>	<p><b>Startup Stage:</b> Early Traction <b>Price:</b> INR 15 lakhs to 100 lakhs <b>Production:</b> 6 oxygen generator per day</p>	<p><b>Deployment:</b> They need support to connect with the government hospitals and quarantine centers</p>
<ul style="list-style-type: none"> <li>• A medical oxygen generator provides medical grade oxygen onsite using electricity only. The capacity of the machine varies from 4 to 200 oxygen cylinders (2 to 100 ventilators).</li> <li>• Following are the benefits of using Medical oxygen generator in COVID-19:               <ul style="list-style-type: none"> <li>○ It produces oxygen inside the hospital with electricity (reduces the dependency on external factors)</li> <li>○ No manpower is required for the operation of this machine</li> <li>○ It eliminates the entry of non-hospital staff inside the hospital</li> <li>○ The machine is capable of producing oxygen for 1 ventilator to 100's of ventilators.</li> <li>○ This machine is installed once and can be installed at any place and this can be a perfect solution.</li> </ul> </li> </ul>			



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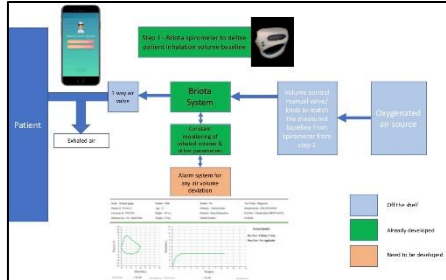
### BIODESIGN INNOVATION LABS PRIVATE LIMITED

Details Of the Founders	Details Of the Product	Market Status	Support Needed
<p><b>Name:</b> Gautham Pasupuleti</p> <p><b>Website:</b> biodesigninnovationlabs.com</p> <p><b>Location:</b> Delhi</p>	<p><b>Product:</b> RESPIRAID - Automated Respiratory Assist Device</p> <p><b>Target Audience:</b> Hospitals and medical institutions</p>	<p><b>Startup Stage:</b> Early Traction</p> <p><b>Price:</b> INR 80,000</p> <p><b>Production:</b> 20,000 units per day</p>	<p><b>Deployment:</b> They need support to connect with the government hospitals and quarantine centers</p>
<ul style="list-style-type: none"> <li>RespirAid uses simple mechanics, which is already tried and tested in other fields, for automating Manual ventilation.</li> <li>It is safer, reliable and consistent than manual ventilation, low-infrastructure and skill requirement than mechanical ventilation</li> <li>Multi-mode operation manual, battery/Direct current powered DC gear motors are the prime driver for the device, whose actuation is controlled by a microcontroller, based on the input from the user, entered through the device's interface.</li> </ul>			



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### BRIOTA IVS

Details Of the Founders	Details Of the Product	Market Status	Support Needed
<p><b>Name:</b> Gautham Pasupuleti <b>Website:</b> www.briota.co <b>Location:</b> Pune</p>	<p><b>Product:</b> Briota Portable Ventilator <b>Target Audience:</b> State Governments</p>	<p><b>Startup Stage:</b> Validation <b>Price:</b> INR 15,000 <b>Production:</b> 100 units per day</p>	<p>NA</p>
<ul style="list-style-type: none"> <li>Briota has developed India's first CDSCO Approved digital handheld Spirometer Kit with Mobile Software for Asthma and COPD Patients.</li> <li>With the current Covid-19 crisis - they are redesigning our Spirometer to be used in a portable Ventilator.</li> <li>Briota's CDSCO certified Spirometer and related mobile app and software can be quickly redesigned into a low-cost portable ventilator system which will help the medical professional to first measure Covid-19 patient's lung capacity and then provide required ventilation support as needed.</li> <li>They can get the working prototype ready within a week and then with the help of companies like Bajaj Electricals - manufacture 100s of ventilators per day.</li> </ul>			 <p>The diagram illustrates the Briota system architecture. It starts with a Patient connected to a mobile app (labeled 'Briota System'). The app is linked to a 'Spirometer Kit' (CDSCO certified) which is connected to a 'Ventilator'. The Ventilator is connected to an 'Oxygenated Air Source'. A legend indicates that blue boxes are 'DRI to start', green boxes are 'Already developed', and orange boxes are 'Need to be developed'.</p>



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### BRIOTA TECHNOLOGIES PRIVATE LIMITED

Details Of the Founders	Details Of the Product	Market Status	Support Needed
<p><b>Name:</b> Aditi Pais</p> <p><b>Website:</b> <a href="http://www.briota.co/index.html">www.briota.co/index.html</a></p> <p><b>Location:</b> Pune</p>	<p><b>Product:</b> SpiroPRO - Critical care Home Monitoring kit for healthy lungs</p> <p><b>Target Audience:</b> Patient with underlying lung diseases, Health Authority, etc.</p>	<p><b>Startup Stage:</b> Early Traction</p> <p><b>Price:</b> INR 17,000</p>	<p>NA</p>
<ul style="list-style-type: none"> <li>• SpiroPRO is a home monitoring kit built to monitor daily lung health conditions of high-risk patients for actively verifying fever, other respiratory symptoms, and lung capacity which can lead to an increase in susceptibility towards the COVID-19 virus.</li> <li>• SpiroPRO kit consists of a handheld spirometer, connected to a user-friendly mobile app named "NEHA" for conducting daily lung exercise &amp; spirometry test. Kit also consists of a digital thermometer &amp; pulse oximeter for daily monitoring symptoms of COVID -19.</li> <li>• Their dashboard is made for health authority consists of a heatmap for quarantined and under observation COVID -19 patients.</li> <li>• It also connects with the NEHA app and can review the daily progress of these patients for further follow-up.</li> </ul>			



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### SUKOON SOLUTIONS PRIVATE LIMITED

Details Of the Founders	Details Of the Product	Market Status	Support Needed
<p><b>Name:</b> Amod Kumar <b>Website:</b> <a href="http://www.sukoonsolutions.com">www.sukoonsolutions.com</a> <b>Location:</b> Pune</p>	<p><b>Product:</b> Pre-Hospital Critical Care System <b>Target Audience:</b> Forces, Government, etc.</p>	<p><b>Startup Stage:</b> Early Traction <b>Price:</b> INR 17,000</p>	<p>NA</p>
<ul style="list-style-type: none"> <li>• Their team has developed the following devices for improving Critical Care Response: <ul style="list-style-type: none"> <li>○ Light Weight folding Stretcher</li> <li>○ Rapidly deplorable weather-resistant, portable emergency rooms</li> <li>○ Advance First Aid Kits for rescue, resuscitation, and transport</li> <li>○ Manual Ventilation Kit with training videos for community-level volunteers</li> <li>○ Ambulance Kit for converting any transport vehicle into a Working Ambulance</li> <li>○ Training Videos to prepare masks, working barrier suites, and sanitation utilities</li> <li>○ Dead Body Bags and Boxes: Cooling and Non-Cooling systems and videos</li> <li>○ Portable, high purity Oxygen Concentration Devices that run with Solar Energy</li> <li>○ Village level critical care corner/cabin with complete training package (under process)</li> </ul> </li> </ul>			



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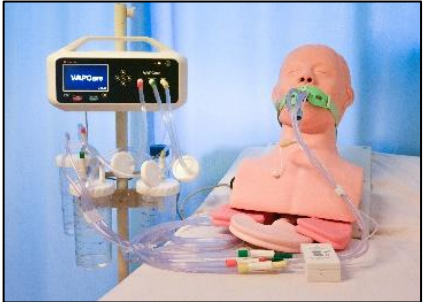
### TESLON TECHNOLOGIES PRIVATE LIMITED

Details Of the Founders	Details Of the Product	Market Status	Support Needed
<p><b>Name:</b> Harsha Muroor <b>Website:</b> <a href="http://teslon.io">http://teslon.io</a></p>	<p><b>Product:</b> Carenation remote care delivery platform <b>Target Audience:</b> Governments, Health ministries, large hospitals</p>	<p><b>Startup Stage:</b> Scaling</p>	<p><b>Logistics:</b> They need assistance in supply chain movement</p>
<ul style="list-style-type: none"> <li>• Carenation is an advanced remote healthcare delivery platform that is built with global standards.</li> <li>• The company offers two products:               <ul style="list-style-type: none"> <li>○ Portable ICU Monitoring System</li> <li>○ Patient App - for those quarantined and with mild symptoms.</li> </ul> </li> <li>• The startup has developed a cart and backpack called Carenation which works as a screening cart and backpack which can provide effective screening options.</li> <li>• The startup has also developed an app that can be used to track (location), manage, monitor (health), and educate the patient in isolation.</li> <li>• The app provides easy access to advice from care co-ordinators and teleconsults to doctors.</li> </ul>			<div data-bbox="1541 802 2024 1075"> <p><b>CAPABILITIES CONTINUED</b></p> </div>



## CRITICAL- CARE EQUIPMENT

### INNACCEL TECHNOLOGIES PRIVATE LIMITED

Details Of the Founders	Details Of the Product	Market Status	Support Needed
<p><b>Name:</b> Parth Sarthi Sharma <b>Website:</b> <a href="http://innaccel.com/">http://innaccel.com/</a> <b>Location:</b> Bangalore</p>	<p><b>Product:</b> VapCare <b>Target Audience:</b> COVID-19 treatment center with ICU facilities</p>	<p><b>Startup Stage:</b> EarlyTraction <b>Production:</b> 1,000 units per month</p>	<p><b>Funding</b> <b>Manufacturing Support</b></p>
<ul style="list-style-type: none"> <li>• VapCare is automated secretion management and oral hygiene system for ICU patients on mechanical ventilation. It provides a completely closed system for intelligent and accurate removal of saliva and secretions in a ventilated patient.</li> <li>• VAPCare brings three unique benefits to healthcare systems:               <ul style="list-style-type: none"> <li>○ Provide effective secretion clearance and oral hygiene management in ventilated patients with limited nursing staff and reduces VAP in these patients</li> <li>○ Prevent cross-infection of nurses and healthcare workers from COVID patients thereby increasing caregiver safety</li> </ul> </li> <li>• Free up critical nursing time by automating a frequent and laborious process.</li> <li>• VapCare is a proprietary product with its core technology protected by patents granted globally.</li> </ul>			<ul style="list-style-type: none"> <li>• </li> </ul>





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### RAYIOT SOLUTIONS PVT. LTD

Details Of the Founders	Details Of the Product	Market Status	Support Needed
<p><b>Name:</b> Ranjana Nair</p> <p><b>Website:</b> <a href="http://www.raybaby.us">http://www.raybaby.us</a></p> <p><b>Location:</b> Bangalore</p>	<p><b>Product:</b> Respiration Monitor (mini ICU)</p> <p><b>Target Audience:</b> Government Taskforces and Quarantine Facilities</p>	<p><b>Startup Stage:</b> Validation</p> <p><b>Price:</b> INR 19,900 per unit</p> <p><b>Production:</b> 5,000 per unit</p>	NA
<ul style="list-style-type: none"> <li>• What it does: Acts like mini ICU units that can intelligently manage quarantined spaces by tracking respiratory rate (early indicator for SARS or CoVI). Using AI, quarantined patients can be categorized on risk and admitted to ICU.</li> <li>• Important Feature: Uses AI algorithm and sensor hardware to track breathing and predict health events (including fever and COVID symptoms).</li> <li>• Where to use: Quarantine facilities. Any space can be converted into a mini ICU space with this product. A central database to track who is getting worse in Quarantine and who is getting better in quarantine. Also enforces quarantine which is the need of the hour.</li> <li>• Why it's important: Non-contact, non-invasive, reusable, affordable mini ICU units with minimal clinic setting. Also reduces inflow into hospitals and reduces the burden on healthcare professionals.</li> </ul>			