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NATION

NASA picks 3 Indian firms to make ventilators

NASA has selected three Indian companies to make a low-cost ventilator tailored for Covid-19 patients. The three Indian companies are Alpha Design Technologies Pvt Ltd, Bharat Forge Ltd and Medha Servo Drives Pvt Ltd, the US space agency said in a statement on Friday.

The prototype, which was created by NASA's Jet Propulsion Laboratory engineers in just 37 days, received an emergency use authorisation from the US Food and Drug Administration on April 30. Called VITAL (Ventilator Intervention Technology Accessible Locally), the high-pressure ventilator was designed to use one-seventh the parts of a traditional ventilator, relying on parts already available in the supply chains.

It offers a simpler, more affordable option for treating critical patients while freeing up traditional ventilators for those with the most severe Covid-19 symptoms. Its flexible design means that it can also be modified for use in field hospitals, NASA said. The Office of Technology Transfer and Corporate Partnerships at the California Institute of Technology (Caltech), which owns the patents and software for VITAL, is offering a free licence for the device. Caltech manages JPL for NASA.

Publication: The Free Press Journal	Edition: Mumbai
Date: May 31, 2020	Page: 01

3 Indian cos to make ventilators for NASA

WASHINGTON: NASA has selected three Indian companies, Alpha Design Technologies Pvt Ltd, Bharat Forge Ltd and Medha Servo Drives Pvt Ltd, to make a low-cost ventilator tailored for Covid-19 patients. The prototype, created by NASA's Jet Propulsion Laboratory engineers in just 37 days, received an emergency use authorisation from the US Food and Drug Administration on April 30. Called VITAL (Ventilator Intervention Technology Accessible Locally), the high-pressure ventilator was designed to use one-seventh the parts of a traditional ventilator. Its flexible design means that it can also be modified for use in field hospitals, NASA said. NASA has so far selected 21 companies -- eight US companies and 13 international companies (including three from India) -- to make the ventilator developed with inputs from doctors and medical device manufacturers.

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Date: May 31, 2020 Page: 08

तीन भारतीय कंपनियों को नासा से वेटिलेटर विनिर्माण का लाइसेंस

वाशिंगटन, तीन भारतीय कंपनियों को अमेरिका के राष्ट्रीय वैमानिकी एवं अंतरिक्ष प्रशासन (नासा) से कोविड-19 के मरीजों के लिए वेंटिलेटर के विनिर्माण का लाइसेंस मिला है। ये तीन भारतीय कंपनियां...अल्फा डिजाइन टेक्नोलॉजीज प्राइवेट लि., भारत फोर्ज लि. और मेधा सर्वो डाइव्स प्राइवेट लि. हैं। नासा की ओर से शुक्रवार को जारी बयान में यह जानकारी दी गई है। तीन भारतीय कंपनियों के अलावा 18 अन्य कंपनियों को भी यह लाइसेंस मिला है। इनमें आठ अमेरिका और तीन ब्राजील की कंपनियां शामिल हैं। नासा अमेरिका की अंतरिक्ष अनुसंधान, वैमानिकी और संबंधित कार्यक्रमों की स्वतंत्र एजेंसी है। नासा ने दक्षिण कैलिफोर्निया की जेट प्रॉपल्शन लैब (जेएलपी) में कोरोना वायरस के मरीजों के लिए विशेष रूप से वेंटिलेटर विकसित किया है। जेएलपी के इंजीनियरों ने एक माह से कुछ अधिक समय में इस विशेष वेंटिलेटर 'वाइटल' को डिजाइन किया है। इसे अमेरिका के खाद्य एवं दवा प्रशासन से 30 अप्रैल को 'आपात प्रयोग की अनुमति' मिल चुकी है।

Headline : Three Indian companies get licence to	Domain : The Times of India
manufacture NASA's coronavirus ventilators	
Date : May 30, 2020	Journalist: PTI

The three Indian companies are Alpha Design Technologies Pvt Ltd, Bharat Forge Ltd and Medha Servo Drives Pvt Ltd, the space organisation said in a statement on Friday.

Apart from the Indian firms, 18 other companies, including eight American and three Brazilian, have been selected to manufacture the critical breathing devices.

The National Aeronautics and Space Administration (NASA), which is an independent agency for space research, aeronautics and related programmes in the US, developed the ventilator specifically for coronavirus patients at its Jet Propulsion Laboratory (JLP) in Southern California.

The JPL engineers designed the special ventilator -- called VITAL -- in little over a month and received 'Emergency Use Authorization' from the Food and Drug Administration on April 30.

The VITAL (Ventilator Intervention Technology Accessible Locally) equipment uses one-seventh the parts of a traditional ventilator, relying on parts already available in supply chains, the space organisation said.

This high-pressure ventilator offers a simple, affordable option for treating critical patients while freeing up traditional ventilators for those with the most severe COVID-19 symptoms. Its flexible design means it also can be modified for use in field hospitals, the NASA statement read.

"The VITAL team is very excited to see their technology licenced," said Leon Alkalai, manager of the JPL Office of Strategic Partnerships.

"Our hope is to have this technology reach across the world and provide an additional source of solutions to deal with the on-going COVID-19 crisis," he said.

NASA said VITAL was developed with input from doctors and medical device manufacturers.

A prototype of the JPL device was successfully tested by the Human Simulation Lab in the Department of Anesthesiology, Perioperative and Pain Medicine at Mount Sinai on April 23.

A modified design, which uses compressed air and can be deployed by a greater range of hospitals, was recently tested at the UCLA Simulation Center in Los Angeles.

A high-fidelity lung simulator tested almost 20 different ventilator settings, representing a number of scenarios that could be seen in critically ill patients in an intensive care unit, it said.

"VITAL performed well in simulation testing with both precise and reproducible results," said Dr Tisha Wang, clinical chief of the UCLA Division of Pulmonary and Critical Care Medicine.

Headline: Three Indian companies get licence to	Domain: The Hindu
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<u>patients</u>	
Date: May 30, 2020	Journalist: PTI

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Headline: Three Indian companies get licence to manufacture NASA's Covid-19 ventilators	Domain: Hindustan Times
Date: May 30, 2020	Journalist: PTI

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"In addition, the setup and operation of the ventilator was quick and user-friendly. The UCLA team commends JPL for actively contributing to the Covid-19 response and successfully addressing one of the key medical needs in the sickest group of patients," a media statement said.

Headline: Three Indian companies get licence to	Domain: The Indian Express
manufacture NASA's coronavirus ventilators	
Date : May 30, 2020	Journalist: PTI

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Headline: Three Indian companies get licence to	Domain: Deccan Herald
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Date: May 30, 2020	Journalist: PTI

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Headline: <u>Three Indian companies get licence to</u> <u>manufacture NASA's coronavirus ventilators</u>

Date: May 30, 2020

Domain : The Economic Times

Journalist: PTI

The three Indian companies are Alpha Design Technologies Pvt Ltd, Bharat Forge Ltd and Medha Servo Drives Pvt Ltd, the space organisation said in a statement on Friday.

WASHINGTON: Three Indian companies have got licences from NASA to manufacture its indigenously developed ventilators for critical COVID-19 patients.

The three Indian companies are Alpha Design Technologies Pvt Ltd, Bharat ForgeNSE 6.22 % Ltd and Medha Servo Drives Pvt Ltd, the space organisation said in a statement on Friday.

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"In addition, the setup and operation of the ventilator was quick and user-friendly. The UCLA team commends JPL for actively contributing to the COVID-19 response and successfully addressing one of the key medical needs in the sickest group of patients," a media statement said.

Headline: <u>3 Indian companies get licence to</u> manufacture NASA's coronavirus ventilators	Domain: India Today
Date: May 30, 2020	Journalist: PTI

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Its flexible design means it also can be modified for use in field hospitals, the NASA statement read. "The VITAL team is very excited to see their technology licenced," said Leon Alkalai, manager of the JPL Office of Strategic Partnerships.

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Headline: NASA selects 3 Indian companies to make COVID-19 ventilators	Domain: Zee News
Date: May 30, 2020	Journalist: Bureau

NASA's Jet Propulsion Laboratory in Southern California on Friday (May 29, 2020) selected eight US manufacturers along with 13 International companies to make a new ventilator tailored for coronavirus (COVID-19) patients.

There were three Indian companies that were selected among the 13 International manufacturers from countries like Australia, Brazil, Canada, Mexico, Egypt, UAE, Turkey, and Malaysia.

The three Indian companies that were selected are:

- 1. Alpha Design Technologies Pvt Ltd.
- 2. Bharat Forge Ltd.
- 3. Medha Servo Drives Pvt Ltd.

The device, called VITAL (Ventilator Intervention Technology Accessible Locally), was developed by engineers at NASA's Jet Propulsion Laboratory (JPL) in just 37 days.

The high-pressure ventilator was designed to use one-seventh the parts of a traditional ventilator, relying on parts already available in supply chains.

It offers a simpler, more affordable option for treating critical patients while freeing up traditional ventilators for those with the most severe COVID-19 symptoms.

Its flexible design means it also can be modified for use in field hospitals.

The compressed-air design has also been submitted to the US Food and Drug Administration (FDA) for a ventilator Emergency Use Authorization and is currently under review.

Leon Alkalai, manager of the JPL Office of Strategic Partnerships and a member of the VITAL leadership team said that the VITAL team is very excited to see their technology licensed.

He added, "Our hope is to have this technology reach across the world and provide an additional source of solutions to deal with the on-going COVID-19 crisis."

A prototype of the JPL device was successfully tested by the Human Simulation Lab in the Department of Anesthesiology, Perioperative and Pain Medicine at Mount Sinai on April 23, 2020.

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Headline: NASA picks 3 Indian firms to make low cost Covid-19 ventilator	Domain : Zee Business
Date : May 30, 2020	Journalist: Bureau

NASA has selected three Indian companies to make a low-cost ventilator tailored for Covid-19 patients. The three Indian companies are Alpha Design Technologies Pvt Ltd, Bharat Forge Ltd and Medha Servo Drives Pvt Ltd, the US space agency said in a statement on Friday.

The prototype, which was created by NASA's Jet Propulsion Laboratory engineers in just 37 days, received an emergency use authorisation from the US Food and Drug Administration on April 30.

Called VITAL (Ventilator Intervention Technology Accessible Locally), the high-pressure ventilator was designed to use one-seventh the parts of a traditional ventilator, relying on parts already available in the supply chains.

It offers a simpler, more affordable option for treating critical patients while freeing up traditional ventilators for those with the most severe Covid-19 symptoms.

Its flexible design means that it can also be modified for use in field hospitals, NASA said.

The Office of Technology Transfer and Corporate Partnerships at the California Institute of Technology (Caltech), which owns the patents and software for VITAL, is offering a free licence for the device. Caltech manages JPL for NASA.

"The VITAL team is very excited to see its technology licenced," Leon Alkalai, Manager of the JPL Office of Strategic Partnerships, and a member of the VITAL leadership team, said in a statement.

"Our hope is to have this technology reach across the world and provide an additional source of solution to deal with the ongoing Covid-19 crisis," it added.

Headline : NASA comes up with simpler, more	Domain : India TV
affordable ventilator; 3 Indian companies in	
contention for manufacturing	
Date : May 30, 2020	Journalist: Bureau

In times when the whole world is in desperate need of readily available ventilators, NASA has come up with simpler, more affordable piece of tech that can be modified for field hospitals and go a long way in assisting the fight against coronavirus. The newly designed ventilator called 'VITAL' (Ventilator Intervention Technology Accessible Locally), uses one-seventh the parts of a traditional ventilator and relies on parts already available in the supply chain.

"It offers a simpler, more affordable option for treating critical patients while freeing up traditional ventilators for those with the most severe COVID-19 symptoms. Its flexible design means it also can be modified for use in field hospitals," NASA said while announcing that 8 US-based manufacturers had been selected to put together the final product.

"Our hope is to have this technology reach across the world and provide an additional source of solutions to deal with the on-going COVID-19 crisis."

The prototype was designed in NASA's Jet Propulsion Laboratory (JPL) in California, USA.

NASA also added that it is evaluating international manufacturers from countries including India.

Indian companies in contention are -- Alpha Design Technologies, Bharat Forge and Medha Servo Drives.

"VITAL performed well in simulation testing with both precise and reproducible results," said Dr. Tisha Wang, clinical chief of the UCLA Division of Pulmonary and Critical Care Medicine.

The nature of COVID-19, that it attacks the lungs in the latter stages and in turn makes a person breathe heavy, has brought about a sudden surge in the use of ventilators across the world causing a severe scarcity of the product.

Over 6 billion people worldwide have been infected by the virus while 366,000 have died.

Headline : Three Indian Firms Get Approval to	Domain : News18
Manufacture NASA's COVID-19 Ventilators	
Date : May 30, 2020	Journalist: Bureau

Three Indian companies have got licences from NASA to manufacture its indigenously developed ventilators for critical COVID-19 patients. The three Indian companies are Alpha Design Technologies Pvt Ltd, Bharat Forge Ltd and Medha Servo Drives Pvt Ltd, the space organisation said in a statement on Friday.

Apart from the Indian firms, 18 other companies, including eight American and three Brazilian, have been selected to manufacture the critical breathing devices. The National Aeronautics and Space Administration (NASA), which is an independent agency for space research, aeronautics and related programmes in the US, developed the ventilator specifically for coronavirus patients at its Jet Propulsion Laboratory (JLP) in Southern California.

The JPL engineers designed the special ventilator -- called VITAL -- in little over a month and received 'Emergency Use Authorization' from the Food and Drug Administration on April 30. The VITAL (Ventilator Intervention Technology Accessible Locally) equipment uses one-seventh the parts of a traditional ventilator, relying on parts already available in supply chains, the space organisation said.

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NASA said VITAL was developed with input from doctors and medical device manufacturers. A prototype of the JPL device was successfully tested by the Human Simulation Lab in the Department of Anesthesiology, Perioperative and Pain Medicine at Mount Sinai on April 23.

A modified design, which uses compressed air and can be deployed by a greater range of hospitals, was recently tested at the UCLA Simulation Center in Los Angeles. A high-fidelity lung simulator tested almost 20 different ventilator settings, representing a number of scenarios that could be seen in critically ill patients in an intensive care unit, it said.

"VITAL performed well in simulation testing with both precise and reproducible results," said Dr Tisha Wang, clinical chief of the UCLA Division of Pulmonary and Critical Care Medicine. "In addition, the setup and operation of the ventilator was quick and user-friendly. The UCLA team commends JPL for actively contributing to the COVID-19 response and successfully addressing one of the key medical needs in the sickest group of patients," a media statement said.

Headline : 3 Indian companies get licence from NASA to manufacture its Covid-19 ventilators	Domain: The Print
Date : May 30, 2020	Journalist: PTI

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Date : May 30, 2020	Journalist: PTI

The three Indian companies are Alpha Design Technologies Pvt Ltd, Bharat Forge Ltd and Medha Servo Drives Pvt Ltd, the space organisation said in a statement on Friday.

Apart from the Indian firms, 18 other companies, including eight American and three Brazilian, have been selected to manufacture the critical breathing devices.

The National Aeronautics and Space Administration (NASA), which is an independent agency for space research, aeronautics and related programmes in the US, developed the ventilator specifically for coronavirus patients at its Jet Propulsion Laboratory (JLP) in Southern California.

The JPL engineers designed the special ventilator -- called VITAL -- in little over a month and received "Emergency Use Authorization" from the Food and Drug Administration on April 30.

The VITAL (Ventilator Intervention Technology Accessible Locally) equipment uses one-seventh the parts of a traditional ventilator, relying on parts already available in supply chains, the space organisation said.

This high-pressure ventilator offers a simple, affordable option for treating critical patients while freeing up traditional ventilators for those with the most severe COVID-19 symptoms. Its flexible design means it also can be modified for use in field hospitals, the NASA statement read.

"The VITAL team is very excited to see their technology licenced," said Leon Alkalai, manager of the JPL Office of Strategic Partnerships.

"Our hope is to have this technology reach across the world and provide an additional source of solutions to deal with the on-going COVID-19 crisis," he said.

NASA said VITAL was developed with input from doctors and medical device manufacturers.

A prototype of the JPL device was successfully tested by the Human Simulation Lab in the Department of Anesthesiology, Perioperative and Pain Medicine at Mount Sinai on April 23.

A modified design, which uses compressed air and can be deployed by a greater range of hospitals, was recently tested at the UCLA Simulation Center in Los Angeles.

A high-fidelity lung simulator tested almost 20 different ventilator settings, representing a number of scenarios that could be seen in critically ill patients in an intensive care unit, it said.

"VITAL performed well in simulation testing with both precise and reproducible results," said Dr Tisha Wang, clinical chief of the UCLA Division of Pulmonary and Critical Care Medicine.

Headline: Three Indian companies get licence to	Domain : The Week
manufacture NASA's coronavirus ventilators	
Date : May 30, 2020	Journalist: PTI

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The coronavirus, which first emerged in China's Wuhan city, has claimed 1,02,836 lives in the US, with over 1.7 million confirmed cases so far. The global death toll has crossed 3,50,000. PTI LKJ IND AKJ IND

IND

Headline : कोरोना मरीजों के लिए अब देश में <u>बनेगा नासा का VITAL वेंटिलेटर, तीन</u> भारतीय कंपनियों को मिला लाइसेंस

Journalist: Bureau

Domain: Live Hindustan

Date: May 30, 2020

कोरोना वायरस संक्रमित गंभीर मरीजों की जान बचाने में उपयोगी और नासा की ओर से तैयार किए गए वेंटिलेटर का निर्माण देश में ही शुरू होने जा रहा है। तीन भारतीय कंपनियों ने नासा से इसका लाइसेंस हासिल कर लिया है।

लाइसेंस अल्फा डिजाइन टेक्नॉलजीज प्राइवेट लिमिटेड, भारत फोर्ज लिमिटेड और मेधा सर्वी डाइव्स प्राइवेट लिमिटेड को मिला है। अमेरिकी स्पेस एजेंसी नासा ने शुक्रवार को यह जानकारी दी।

भारतीय कंपनियों के अलावा 18 अन्य कंपनियों को नासा ने यह लाइसेंस दिया है। जिनमें अमेरिका की 8 और ब्राजील की तीन कंपनियां शामिल हैं। ये कंपनियां कोविड-19 के गंभीर रोगियों के लिए सांस लेने में सहायक वेंटिलेटर तैयार करेंगी।

नासा ने कोरोना के मरीजों के लिए यह वेंटिलेटर दक्षिण कैलिफोर्निया के जेट प्रोपल्सन लैब (जेलपी) में तैयार किया है। जेपीएल के इंजीनियरों ने यह खास वेंटिलेटर एक महीने में में ही तैयार किया है, जिसे VITAL नाम दिया गया है। इसे फूड एंड इग एडिमिनिस्ट्रेशन से इमर्जेंसी यूज ऑथराइजेशन मिल चुका है।

नासा का कहा है कि वाइटल को चिकित्सकों तथा चिकित्सा उपकरण विनिर्माण से सलाह लेकर विकसित किया गया है। कोरोना वायरस से अब तक अमेरिका में 1,02,836 लोगों की जान जा चुकी है। अमेरिका में इस महामारी से संक्रमित लोगों का आंकडा 17 लाख को पार कर चुका है।

Headline: <u>Three Indian Companies Get Licence To</u> <u>Manufacture NASA's COVID-19 Ventilator 'VITAL'</u>

Domain: Swaraj Mag

Date: May 30, 2020 Journalist: Bureau

The three Indian companies that got NASA's approval are Alpha Design Technologies Private Limited, Bharat Forge Limited, and Medha Servo Drives Private Limited.

Besides, eight companies from the United States, three from Brazil, and one each from Australia, Canada, Egypt, Malaysia, Mexico, Turkey, and the United Arab Emirates have also been approved by NASA to manufacture the ventilators.

The prototype, which was created by JPL engineers in just 37 days, received an Emergency Use Authorization from the Food and Drug Administration on 30 April, NASA said in a release on Friday (29 May).

Called VITAL (Ventilator Intervention Technology Accessible Locally), the high-pressure ventilator was designed to use one-seventh the parts of a traditional ventilator, relying on parts already available in supply chains, NASA said.

It offers a simpler, more affordable option for treating critical patients while freeing up traditional ventilators for those with the most severe COVID-19 symptoms. Its flexible design means it also can be modified for use in field hospitals.

Headline: NASA selects 3 Indian companies to make COVID-19 ventilators – Zee News	Domain : India Finance News
Date : May 30, 2020	Journalist: Kalpana Warrier

https://www.indiafinancenews.com/nasa-selects-3-indian-companies-to-make-covid-19-ventilators-zee-news/

New Delhi: NASA's Jet Propulsion Laboratory in Southern California on Friday (May 29, 2020) selected eight US manufacturers along with 13 International companies to make a new ventilator tailored for coronavirus (COVID-19) patients.

There were three Indian companies that were selected among the 13 International manufacturers from countries like Australia, Brazil, Canada, Mexico, Egypt, UAE, Turkey, and Malaysia.

The three Indian companies that were selected are:

- 1. Alpha Design Technologies Pvt Ltd.
- 2. Bharat Forge Ltd.
- 3. Medha Servo Drives Pvt Ltd.

The device, called VITAL (Ventilator Intervention Technology Accessible Locally), was developed by engineers at NASA's Jet Propulsion Laboratory (JPL) in just 37 days.

The high-pressure ventilator was designed to use one-seventh the parts of a traditional ventilator, relying on parts already available in supply chains.

It offers a simpler, more affordable option for treating critical patients while freeing up traditional ventilators for those with the most severe COVID-19 symptoms.

Its flexible design means it also can be modified for use in field hospitals.

The compressed-air design has also been submitted to the US Food and Drug Administration (FDA) for a ventilator Emergency Use Authorization and is currently under review.

Leon Alkalai, manager of the JPL Office of Strategic Partnerships and a member of the VITAL leadership team said that the VITAL team is very excited to see their technology licensed.

He added, "Our hope is to have this technology reach across the world and provide an additional source of solutions to deal with the on-going COVID-19 crisis."

A prototype of the JPL device was successfully tested by the Human Simulation Lab in the Department of Anesthesiology, Perioperative and Pain Medicine at Mount Sinai on April 23, 2020.

A modified design, which uses compressed air and can be deployed by a greater range of hospitals, was recently tested at the UCLA Simulation Center in Los Angeles.

Dr Tisha Wang, clinical chief of the UCLA Division of Pulmonary and Critical Care Medicine said that the VITAL performed well in simulation testing with both precise and reproducible results.

Headline: Three Indian Companies get licenses	Domain: Op India
from NASA to manufacture ventilators developed	
by the space agency for coronavirus patients	
Date: May 30, 2020	Journalist: Bureau

Three companies of Indian origin have been given license by the National Aeronautics and Space Administration (NASA) for the purpose of manufacturing its indigenously developed ventilator for the coronavirus patients.

NASA stated on Friday that the three Indian companies are Alpha Design Technologies Pvt Ltd, Bharat Forge Ltd, and Medha Servo Drives Pvt Ltd.

Apart from these, 18 other companies, out of which eight are American and three companies of Brazil have been permitted to manufacture the device.

The NASA has developed a ventilator, especially for coronavirus patients, at its Jet Propulsion Laboratory in South California. The engineers of JPL designed a special ventilator named VITAL in a little over a month's time and received 'Emergency Use Authorization' from the Food and Drug Administration on April 30.

The Space organization said, "The VITAL (Ventilator Intervention Technology Accessible Locally) equipment uses one-seventh the parts of a traditional ventilator, relying on parts already available in supply chains."

The high-pressure ventilator offers a simple affordable option for treating critical patients in place of traditional ventilators for those with the most critical symptoms of COVID-19. NASA said, "Its flexible design means it also can be modified for use in field hospitals."

John Alkalai, manager of the JPL Office of the strategic partnership said, "The VITAL team is very excited to see their technology licensed. Our hope is to have this technology reach across the world and provide an additional source of solutions to deal with the on-going COVID-19 crisis."

NASA stated that the VITAL was developed after input from the doctors and device manufacturers. A prototype of the JPL device was successfully tested by the Human Stimulation lab in the Department of Anesthesiology, Perioperative, and Pain Medicine at Mount Sinai on April 23. The design uses compressed air and can be easily deployed by a greater range of hospitals. It was recently tested at the UCLA simulation center at Los Angeles.

NASA added, "A high-fidelity lung simulator tested almost 20 different ventilator settings, representing a number of scenarios that could be seen in critically ill patients in an intensive care unit."

Dr. Tisha Wang, who is the clinical chief of the UCLA Division of Pulmonary and Critical Care Medicine said, "VITAL performed well in simulation testing with both precise and reproducible results."

A media statement said, "In addition, the setup and operation of the ventilator were quick and user-friendly. The UCLA team commends JPL for actively contributing to the COVID-19 response and successfully addressing one of the key medical needs in the sickest group of patients."

The Wuhan originated Corona virus has affected 5931293 people around the world. And has claimed lives of 3,65,051 people.

Headline: Bengaluru firm, 2 other Indian Cos to
make Nasa Covid ventilator

Date: May 31, 2020

Journalist: Chethan Kumar

A Bengaluru firm which works closely with the Indian Space Research Organisation (ISRO) and the Defence Research and Development Organisation (DRDO) — Alpha Design Technologies — is among the three Indian firms that has been picked by the US National Aeronautics and Space Administration (NASA) to manufacture a Covid-19 ventilator developed by the Jet Propulsion Laboratory (JPL).

Confirming the news to STOI, Alpha Design chairman and managing director CoI (retd) HS Shankar said that NASA has already begun the process of transferring the technology to the firms that have been licenced to manufacture the ventilator.

The two other Indian firms are Bharat Forge and Medha Servo Drives Private Limited. There three firms are among the 21 firms from across the world, including a few from the US that will manufacture the ventilator developed by JPL. Firms from Brazil, UAE, Malaysia and Mexico too

"The prototype, which was created by JPL engineers in just 37 days, received an Emergency Use Authorization from the Food and Drug Administration on April 30," JPL said in a statement.

The Ventilator Intervention Technology Accessible Locally — VITAL as JPL calls it — was designed to use one-seventh the parts of a traditional ventilator, relying on parts already available in supply chains.

"It offers a simpler, more affordable option for treating critical patients while freeing up traditional ventilators for those with the most severe Covid-19 symptoms. Its flexible design means it also can be modified for use in field hospitals," JPL said.

The prototype, which was created by JPL engineers in just 37 days, received an Emergency Use Authorization from the Food and Drug Administration (FDA) on April 30.

Shankar said: "We really appreciate the fact that they wanted the technology to reach different parts of the world and they decided to offer all the technology, including complete software, drawings and all documents for free of cost. And, so far it has been a very professional experience to see how quickly such an elaborate process has been completed in such a short time."

The Office of Technology Transfer and Corporate Partnerships at Caltech, which owns the patents and software for VITAL, is offering a free license for the device.

Shankar said that the companies will now have to make five prototypes which will be sent for clearance from FDA, which will allow them to market the product in the US and Europe. "For the Indian market, we will have to make five more prototypes and send it to ICMR for certification. Once this is done, we can start selling the product, which in my opinion is far more advanced than any other product in the market," Shankar said.

Headline : NASA picks 3 Indian firms to make low	Domain : Mumbai Mirror
cost Covid-19 ventilator	
Date : May 31, 2020	Journalist: IANS

NASA has selected three Indian companies to make a low-cost ventilator tailored for Covid-19 patients.

The three Indian companies are Alpha Design Technologies Pvt Ltd, Bharat Forge Ltd and Medha Servo Drives Pvt Ltd, the US space agency said in a statement on Friday.

The prototype, which was created by NASA's Jet Propulsion Laboratory engineers in just 37 days, received an emergency use authorisation from the US Food and Drug Administration on April 30.

Called VITAL (Ventilator Intervention Technology Accessible Locally), the high-pressure ventilator was designed to use one-seventh the parts of a traditional ventilator, relying on parts already available in the supply chains.

It offers a simpler, more affordable option for treating critical patients while freeing up traditional ventilators for those with the most severe Covid-19 symptoms.

Its flexible design means that it can also be modified for use in field hospitals, NASA said.

The Office of Technology Transfer and Corporate Partnerships at the California Institute of Technology (Caltech), which owns the patents and software for VITAL, is offering a free licence for the device. Caltech manages JPL for NASA.

"The VITAL team is very excited to see its technology licenced," Leon Alkalai, Manager of the JPL Office of Strategic Partnerships, and a member of the VITAL leadership team, said in a statement.

"Our hope is to have this technology reach across the world and provide an additional source of solution to deal with the ongoing Covid-19 crisis," it added.

Headline: NASA picks 3 Indian firms to make low	Domain : Pune Mirror
cost Covid-19 ventilator	
Date : May 31, 2020	Journalist: IANS

NASA has selected three Indian companies to make a low-cost ventilator tailored for Covid-19 patients.

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"Our hope is to have this technology reach across the world and provide an additional source of solution to deal with the ongoing Covid-19 crisis," it added.

Headline : Coronavirus outbreak: NASA picks	Domain : mid-day
three Indian firms to make low cost COVID-19	
ventilator	
Date : May 31, 2020	Journalist: PTI

The prototype, which was created by NASA's Jet Propulsion Laboratory engineers in just 37 days, received an emergency use authorisation from the US Food and Drug Administration on April 30

NASA has selected three Indian companies to make a low-cost ventilator tailored for Covid-19 patients. The three Indian companies are Alpha Design Technologies Pvt Ltd, Bharat Forge Ltd and Medha Servo Drives Pvt Ltd, the US space agency said in a statement on Friday.

#NASA (@NASA) has selected three #Indian companies to make a low-cost ventilator tailored for #Covid19 patients.

The three Indian companies are Alpha Design Technologies Pvt Ltd, Bharat Forge Ltd and Medha Servo Drives Pvt Ltd, the US space agency said in a statement on Friday. pic.twitter.com/mMDJDcFDv4

- IANS Tweets (@ians_india) May 30, 2020

The prototype, which was created by NASA's Jet Propulsion Laboratory engineers in just 37 days, received an emergency use authorisation from the US Food and Drug Administration on April 30.

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It offers a simpler, more affordable option for treating critical patients while freeing up traditional ventilators for those with the most severe Covid-19 symptoms.

Its flexible design means that it can also be modified for use in field hospitals, NASA said. The Office of Technology Transfer and Corporate Partnerships at the California Institute of Technology (Caltech), which owns the patents and software for VITAL, is offering a free licence for the device. Caltech manages JPL for NASA.

"The VITAL team is very excited to see its technology licenced," Leon Alkalai, Manager of the JPL Office of Strategic Partnerships, and a member of the VITAL leadership team, said in a statement.

"Our hope is to have this technology reach across the world and provide an additional source of solution to deal with the ongoing Covid-19 crisis," it added.

Headline: 3 Indian firms picked by NASA to make	Domain : Hindustan Times Tech
low cost Covid-19 ventilators	
Date : May 31, 2020	Journalist: Agency IANS

NASA has selected three Indian companies to make a low-cost ventilator tailored for Covid-19 patients.

The three Indian companies are Alpha Design Technologies Pvt Ltd, Bharat Forge Ltd and Medha Servo Drives Pvt Ltd, the US space agency said in a statement on Friday.

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"Our hope is to have this technology reach across the world and provide an additional source of solution to deal with the ongoing Covid-19 crisis," it added.

Headline: <u>Three Indian companies get licence to</u> <u>manufacture NASA's coronavirus ventilators</u> **Domain: Express Healthcare**

Date: May 31, 2020 Journalist: Press Trust of India

The three Indian companies are Alpha Design Technologies, Bharat Forge and Medha Servo Drives

Three Indian companies have got licences from NASA to manufacture its indigenously developed ventilators for critical COVID-19 patients.

The three Indian companies are Alpha Design Technologies, Bharat Forge and Medha Servo Drives, the space organisation said in a statement.

According to a PTI report by Lalit K Jha, apart from the Indian firms, 18 other companies, including eight American and three Brazilian, have been selected to manufacture the critical breathing devices.

The National Aeronautics and Space Administration (NASA), which is an independent agency for space research, aeronautics and related programmes in the US, developed the ventilator specifically for coronavirus patients at its Jet Propulsion Laboratory (JLP) in Southern California.

The JPL engineers designed the special ventilator — called VITAL — in little over a month and received 'Emergency Use Authorization' from the Food and Drug Administration on April 30.

The VITAL (Ventilator Intervention Technology Accessible Locally) equipment uses one-seventh the parts of a traditional ventilator, relying on parts already available in supply chains, the space organisation said.

This high-pressure ventilator offers a simple, affordable option for treating critical patients while freeing up traditional ventilators for those with the most severe COVID-19 symptoms. Its flexible design means it also can be modified for use in field hospitals, the NASA statement read.

"The VITAL team is very excited to see their technology licenced," said Leon Alkalai, Manager of the JPL Office of Strategic Partnerships.

"Our hope is to have this technology reach across the world and provide an additional source of solutions to deal with the on-going COVID-19 crisis," he said.

NASA said VITAL was developed with input from doctors and medical device manufacturers.

A prototype of the JPL device was successfully tested by the Human Simulation Lab in the Department of Anesthesiology, Perioperative and Pain Medicine at Mount Sinai on April 23.

A modified design, which uses compressed air and can be deployed by a greater range of hospitals, was recently tested at the UCLA Simulation Center in Los Angeles.

A high-fidelity lung simulator tested almost 20 different ventilator settings, representing a number of scenarios that could be seen in critically ill patients in an intensive care unit, it said.

"VITAL performed well in simulation testing with both precise and reproducible results," said Dr Tisha Wang, Clinical Chief of the UCLA Division of Pulmonary and Critical Care Medicine.

Headline: NASA picks 3 Indian firms to make low cost Covid-19 ventilator	Domain: Times now news
Date: May 31, 2020	Journalist: Bureau

NASA has selected three Indian companies to make a low-cost ventilator tailored for Covid-19 patients.

The three Indian companies are Alpha Design Technologies Pvt Ltd, Bharat Forge Ltd and Medha Servo Drives Pvt Ltd, the US space agency said in a statement on Friday.

The prototype, which was created by NASA's Jet Propulsion Laboratory engineers in just 37 days, received an emergency use authorisation from the US Food and Drug Administration on April 30.

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It offers a simpler, more affordable option for treating critical patients while freeing up traditional ventilators for those with the most severe Covid-19 symptoms.

Its flexible design means that it can also be modified for use in field hospitals, NASA said.

The Office of Technology Transfer and Corporate Partnerships at the California Institute of Technology (Caltech), which owns the patents and software for VITAL, is offering a free licence for the device. Caltech manages JPL for NASA.

"The VITAL team is very excited to see its technology licenced," Leon Alkalai, Manager of the JPL Office of Strategic Partnerships, and a member of the VITAL leadership team said in a statement.

"Our hope is to have this technology reach across the world and provide an additional source of solution to deal with the ongoing Covid-19 crisis," it added.

Headline: Three Indian companies get licence to manufacture NASA's Covid-19 ventilators	Domain: Live Uttar Pradesh
Date: May 31, 2020	Journalist: Bureau

Three Indian companies are among the 21 firms that have got the licences from United States' National Aeronautics and Space Administration (NASA) to manufacture the ventilators developed by the space agency's Jet Propulsion Laboratory (JPL) for treatment of COVID-19 patients, reports Times of India.

The three Indian companies that got NASA's approval are Alpha Design Technologies Private Limited, Bharat Forge Limited, and Medha Servo Drives Private Limited.

Besides, eight companies from the United States, three from Brazil, and one each from Australia, Canada, Egypt, Malaysia, Mexico, Turkey, and the United Arab Emirates have also been approved by NASA to manufacture the ventilators.

The prototype, which was created by JPL engineers in just 37 days, received an Emergency Use Authorization from the Food and Drug Administration on 30 April, NASA said in a release on Friday (29 May).

Called VITAL (Ventilator Intervention Technology Accessible Locally), the high-pressure ventilator was designed to use one-seventh the parts of a traditional ventilator, relying on parts already available in supply chains, NASA said.

It offers a simpler, more affordable option for treating critical patients while freeing up traditional ventilators for those with the most severe COVID-19 symptoms. Its flexible design means it also can be modified for use in field hospitals.

Headline : Coronavirus outbreak: NASA picks	Domain: One News Page
three Indian firms to make low cost COVID-19	
ventilator	
Date : May 31, 2020	Journalist: PTI

NASA has selected three Indian companies to make a low-cost ventilator tailored for Covid-19 patients. The three Indian companies are Alpha Design Technologies Pvt Ltd, Bharat Forge Ltd and Medha Servo Drives Pvt Ltd, the US space agency said in a statement on Friday.

#NASA (@NASA) has selected three #Indian companies to...

Headline : <u>NASA picks 3 Indian firms to make low</u> <u>cost ventilator</u>	Domain : AlKhaleej Today
Date : May 31, 2020	Journalist: PTI

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"The VITAL team is very excited to see its technology licenced," Leon Alkalai, Manager of the JPL Office of Strategic Partnerships, and a member of the VITAL leadership team, said in a statement.

"Our hope is to have this technology reach across the world and provide an additional source of solution to deal with the ongoing Covid-19 crisis," it added.

NASA has so far selected 21 companies - eight US companies and 13 international companies (including three from India) to make the ventilator developed with inputs from doctors and medical device manufacturers.

These were the details of the news NASA picks 3 Indian firms to make low cost ventilator for this day. We hope that we have succeeded by giving you the full details and information. To follow all our news, you can subscribe to the alerts system or to one of our different systems to provide you with all that is new.

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Headline: NASA Shortlists 3 Indian Firms To Build
Low-cost Ventilator For COVID-19 Patients

Domain: Republic World

Date: June 01, 2020 Journalist: Aanchal Nigam

After reviewing over 300 companies, NASA has selected three Indian firms among the 13 international manufacturers to make the brand new low-cost ventilator that would assist the patients of COVID-19. The engineers at NASA's Jet Propulsion Laboratory in Southern California have come with a prototype of the machine in 37 days and have even received an emergency use authorization from the US government.

The three Indian companies who will join NASA's venture to manufacture VITAL (Ventilator Intervention Technology Accessible Locally) are Alpha Design Technologies Pvt Ltd, Bharat Forge Ltd and Medha Servo Drives Pvt Ltd.

NASA has even shortlisted eight US-based companies to build the ventilator that would use only one-seventh of the parts that are required to build a traditional ventilator. While many countries are still rocked with the unprecedented outbreak of deadly coronavirus, VITAL is a 'simpler and more affordable' option for treating the critical patients of the coronavirus infection. Thus, NASA's new machine would enable hospitals across the world to free the traditional ventilators for severe patients of COVID-19 disease.

"The VITAL team is very excited to see its technology licenced," Leon Alkalai, Manager of the JPL Office of Strategic Partnerships, and a member of the VITAL leadership team, said in a statement.

"Our hope is to have this technology reach across the world and provide an additional source of solution to deal with the ongoing Covid-19 crisis," it added.

In total, NASA has shortlisted 21 companies out of total 331 interested firms, including three Indian, eight American, three Brazilian, and one each from Canada, Egypt, Malaysia, Mexico, Turkey, UAE.

Read - ISS Crew Welcomes Hurley And Behnken Onboard; NASA Chief Asks 'did You Get Any Sleep?'

Read - Enroute ISS, NASA-SpaceX Crew Give Tour Of 'Dragonship Endeavour'; Show Off Dragon Inside 'Firsts for humanity'

NASA's prototype of the ventilator has been hailed by the organisation's Administrator Jim Bridenstine. According to him, VITAL is one of the many "countless examples" that show the investments of taxpayers money in space exploration. The researchers at NASA have been able to push boundaries and achieve "firsts for humanity" to make life better on earth.

"This ventilator is one of the countless examples of how taxpayer investments in space exploration - the skills, expertise and knowledge collected over decades of pushing boundaries and achieving firsts for humanity - translate into advancements that improve life on Earth," NASA chief.

See how a team of JPL engineers, fueled by a desire to help as #COVID19 hit, worked to make a ventilator prototype – VITAL – in just 37 days. 100+ manufacturers from around the world have applied for a free license to build VITAL.

Headline : 3 Indian Cos get licence to manufacture Covid-19 ventilators	Domain : The Health Master
Date : June 01, 2020	Journalist: Bureau

Three Indian companies have got licences from NASA to manufacture its indigenously developed ventilators for critical COVID-19 patients. The three Indian companies are Alpha Design Technologies, Bharat Forge and Medha Servo Drives, the space organisation said in a statement.

According to a PTI report by Lalit K Jha, apart from the Indian firms, 18 other companies, including eight American and three Brazilian, have been selected to manufacture the critical breathing devices.

The National Aeronautics and Space Administration (NASA), which is an independent agency for space research, aeronautics and related programmes in the US, developed the ventilator specifically for coronavirus patients at its Jet Propulsion Laboratory (JLP) in Southern California.

The JPL engineers designed the special ventilator — called VITAL — in little over a month and received 'Emergency Use Authorization' from the Food and Drug Administration on April 30.

The VITAL (Ventilator Intervention Technology Accessible Locally) equipment uses one-seventh the parts of a traditional ventilator, relying on parts already available in supply chains, the space organisation said.

This high-pressure ventilator offers a simple, affordable option for treating critical patients while freeing up traditional ventilators for those with the most severe COVID-19 symptoms. Its flexible design means it also can be modified for use in field hospitals, the NASA statement read.

"The VITAL team is very excited to see their technology licenced," said Leon Alkalai, Manager of the JPL Office of Strategic Partnerships. "Our hope is to have this technology reach across the world and provide an additional source of solutions to deal with the on-going COVID-19 crisis," he said.

NASA said VITAL was developed with input from doctors and medical device manufacturers. A prototype of the JPL device was successfully tested by the Human Simulation Lab in the Department of Anesthesiology, Perioperative and Pain Medicine at Mount Sinai on April 23.

A modified design, which uses compressed air and can be deployed by a greater range of hospitals, was recently tested at the UCLA Simulation Center in Los Angeles. A high-fidelity lung simulator tested almost 20 different ventilator settings, representing a number of scenarios that could be seen in critically ill patients in an intensive care unit, it said.

"VITAL performed well in simulation testing with both precise and reproducible results," said Dr Tisha Wang, Clinical Chief of the UCLA Division of Pulmonary and Critical Care Medicine.

"In addition, the setup and operation of the ventilator was quick and user-friendly. The UCLA team commends JPL for actively contributing to the COVID-19 response and successfully addressing one of the key medical needs in the sickest group of patients," a media statement said.

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