

Disposable Stethoscope May Help Stop Spread Of COVID And Other Infectious Diseases

Wichita State University



Early in the pandemic, researchers at Wichita State University's National Institute for Aviation Research (NIAR) pitched in to help the medical community by participating in a PPE-making coalition in Wichita that included Airbus Americas and other aviation manufacturers. As part of these efforts, engineers from NIAR and Airbus used their expertise in additive manufacturing to produce and deliver more than 2,000 disposable stethoscopes to the medical community.

Disposable stethoscopes are not new, but over the years, medical personnel have learned to expect poor acoustics and flimsy materials that are difficult to use. The Wichita-based coalition developed a premium disposable stethoscope designed for real-world applications - with the quality a medical professional would expect from their own stethoscope.

The positive feedback received from the medical community about the quality of the stethoscopes encouraged NIAR and Airbus engineers to continue to focus on the need for a premium disposable stethoscope. The engineers ultimately created a brand-new disposable stethoscope, and Wichita State's tech transfer office filed several patent applications.

Local entrepreneurs in Wichita, Kansas formed Ad Astra Medical Devices, LLC as a spinoff to commercialize the university technology. Marketed as the Ad Astra MD Gen2, the stethoscope boasts a sturdy, lightweight design that provides high acoustic quality at a budget. This enables the spinoff to offer a unique value proposition to the medical community: a Single Patient Stethoscope™ that can remain with a COVID patient from admission to discharge.

"The Ad Astra MD team is humbled for the opportunity to help stop the spread of infectious diseases through the delivery of the Gen2," said Dr. Michael A. Hale, Ad Astra Medical Devices' Chief Medical Officer. "The Single Patient Stethoscope™ has the potential to stop the spread of not just COVID-19, but also tuberculosis, C. diff, and MRSA."

NIAR is a department at Wichita State that provides world-class research, design, testing, certification and training to

the aviation and manufacturing industries. “NIAR has a history of supporting the aviation industry,” said John Tomblin, Executive Director of NIAR. “We are proud to use our unique skills and expertise to help transform other industries, including healthcare and medical technologies.”

To learn more about the AD Astra MD Gen 2 Single Patient Stethoscope™, visit adastramd.com.

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