

NEWS RELEASE - US National FOR IMMEDIATE RELEASE

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“Robot Skin” - Synthetic Resonant Transfer Membrane Barrier Process -- US Patent Granted

Columbia, MO : Today, WINDGO, Inc., a research and development company specializing in vibrational transfer technologies announced that they were granted US Patent # 9,943,995. WINDGO’s latest patent innovation is designed to provide a method of manufacturing a unique sensory membrane skin that has the ability to transfer vibrational stimulus through a membrane while maintaining a flexible and protective surface. Applications include synthetic robotic skins comprising epidermis and interstitial layers allowing sensors to be located in a safe and stable environment underneath the surface layers of the membrane skin.

Patented methods allow sleeves, gloves, actuator arm shafts, and sensory probe appendages to be covered with permanent or removable protective membrane layers providing biocompatibility and tactile feel through a series of ‘resonant filaments’ that transfer sensory stimulus through the membrane wall by utilizing a special grid of fibril resonators. The user of the sensory membrane is isolated from the external surface while being able to “feel” the environment around them. Industries affected include industrial automation, medical devices, virtual reality, public health, sensory haptics, and automotive systems.

The invention can be applied to smart sensor systems and can measure amplitudes and frequencies of physical vibration within an elastic compound or coated structure. These advanced material processing methods will allow the Internet of Things (IoT) communication markets to access readings that have been impractical to integrate into products of the past. Innovations with these new resonant transfer membranes will allow products to become stronger, more flexible, and intelligent within applications like robotic skin layers.

WINDGO, Inc. is focused on the IoT End-Node market expansion that is forecasted to exceed one trillion dollars by 2025. Their new patent protects the methods of producing resonant transfer membranes. Elastic compound membrane materials referenced in the patent include silicone, latex, rubber, PVC, and neoprene.

The invention is based on smart material science technologies that evolved from the original works of inventor Fielding Staton. His invention of the Absorbud in 2013 has led to industry changing advancements in macro, micro, and nano-based technologies.

Inventors:

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About WINDGO, Inc.: WINDGO, Inc. (www.WINDGO.com) is a privately held company based in Columbia, MO. Founded in 2016, WINDGO, Inc. has researched, developed, and produced a variety of smart window products and other intelligent product subsystems in the sensory and digital signage markets. WINDGO, Inc. has several patent holdings including Absorbud and Smart Damping Adhesives within its Intellectual Property holding company – Newtonoid, LLC which has been in the research and development business since 2013.