

EXO QUARTERLY

Pursuing Safe & Reliable Exo Technologies for Humanity

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New R2S Projects

- 1 System and Method to Perform Job Classification for Return-to-Work Exoskeleton deployment (SwiftMotion)
- 2 Investigating Critical Challenges and Potential Solutions towards Developing Standards to Guide the Proper Use of Exoskeleton for Injured Workers' Return to Work (University of Michigan – Dearborn)
- 3 Development of Measurement Protocols for Efficient and Reliable Exoskeleton Testing and Evaluation (Virginia Tech)

New Standards

F3517-21 Standard Practice for Movement Tests When Using an Exoskeleton

F3518-21 Standard Guide for Quantitative Measures for Establishing Exoskeleton Functional Ergonomic Parameters and Test Metrics

F3519-21 Standard Guide for Establishing a Reporting Structure for Exoskeleton Analysis September 2021

Roundtable on Exoskeletons and PPE Interface Challenges

On 11 August, this roundtable built on the 2020 webinar 'Exoskeletons -Considerations When Deciding to Use Them as Personal Protective Equipment (PPE). Experts discussed challenges and opportunities with interfacing and testing exoskeletons with PPE in various settings including chemical/biological remediation, medical, first responder, and industrial.

Watch a video of the event.

Roundtable on Applications for Exoskeletons

On 31 August, this webinar covered applications in healthcare, military, industry, and construction. Speakers covered current usage, methods to determine which applications are most compatible with exoskeletons, policies, training, and practices when implementing exoskeletons, needed testing before implementation, and other relevant topics.

Watch a video of the event.



ErgoX 2021

A virtual experience, November 8 - 10, 2021, featuring three educational tracks - Cybersecurity, Exoskeletons, and Robotics and an overall theme of Artificial Intelligence.

Sponsorships and time slots for Vendor Talks are still available. Visit the symposium <u>website.</u>

Exoskeletons in the News

September 17 Exoskeleton Alleviates Knee Problems for Journalist

An exoskeleton brace

created by Roam Robotics helped alleviate knee issues for Brent Rose, a tech journalist. Rose said he was also able to do other tasks including carrying 50 pounds while jumping from a platform.

Full Story: Interesting Engineering

September 27 The Exoskeletons Are Here

While the use of exoskeletons in industry is still at the lower end of the spectrum, there

is growing awareness about the benefits of exoskeletons in industrial applications. In nature, some animals and insects have exoskeletons or external skeletons unlike most other living creatures, including humans, who have internal skeletons or endoskeletons. The early body armour



adopted by human beings for combat was inspired by these exoskeletal creatures. The exoskeleton as a wearable device to augment human capabilities is of more recent origin, even as the idea was considered by many early inventors.

Full Story: Electronics USA