

# QUARTERLY

Pursuing Safe & Reliable Exo Technologies for Humanity

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**Etcetera** 



#### ASTM Committee F48 Meetings

#### r40 meetings

ASTM Committee on Exoskeletons and Exosuits (F48) will be hosting in-person meetings at November Committee Week (Oct 30-Nov 4, 2022) in New Orleans, LA.



## The Exo Games are Coming!

If you are student or professor at a university, look for a future announcement on the details of the Exo Games. This event is envisioned to simulate the requirements of STEM student through real world application of exo technology to solve a challenge.

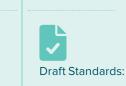
### **Quick Facts**

R2S Funding to Date:

\$292K







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ASTM International Launches Xcellerate™ Program for Emerging Technologies

ASTM Xcellerate<sup>™</sup> is an emerging technology program focused on strengthening the world's emerging technology from research to standards. Xcellerate<sup>™</sup> builds on ASTM's globally recognized standards development process to provide the speed and agility new technologies need to survive and thrive.

#### Learn More.

July 2022



#### ASTM International Workshop on Exoskeletons for Construction

The ASTM International UAE Chapter held a Workshop on May 11, 2022 at the Heriot-Watt University, Dubai Campus. The Workshop brought together a number of leading experts in the field of Exotechnology and Robotics who discussed this new industry and standards from F48, the ASTM Committee on Exoskeletons and Exosuits.





## Exoskeletons in the News

## Lightening the load for warehouse workers.

Verve Motion refers to the device as a "soft exosuit" — a wearable that is intended to make physical labor far easier. And since April 2020, it's been delivering them to customers who run warehouses. One customer, grocery store operator Ahold Delhaize — the parent of Stop & Shop and Hannaford — already has 350 exosuits in use.

Read More.

#### Ekso Bionics nabs FDA exoskeleton clearance for multiple sclerosis rehabilitation

To help multiple sclerosis patients who have trouble walking, Ekso Bionics is taking a leap forward with the first FDA



clearance in the condition for a robotic exoskeleton suit that provides power and balance to the legs.

Read More.

#### Bionic exoskeleton helps children with disabilities walk again

A bionic exoskeleton has been developed to help children with disabilities walk again. Atlas 2030, created by Marsi Bionics, is a pediatric gait exoskeleton which aims to help kids with neuromuscular diseases such as paraplegia, cerebral palsy, muscular atrophy.

Read More.

#### IIT and INAIL: New prototype exoskeletons for workers in the future

Researchers at IIT- Italian Institute of Technology and INAIL -Italian Worker's Compensation Authority



designed and realized innovative prototypes of wearable robotic exoskeletons for industrial use that will help make work in the industrial and manufacturing sectors safer.

Read More.

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#### Excellent Exo Chat – Listen Now!

Hosts, Bill Billotte and Nora Nimmerichter of ASTM International are discuss exoskeletons, robotics, and emerging technology on this new podcast. Listen to them as they discuss the work inside of ASTM International.

Listen to the Podcast.

#### Human Centered Design of Exoskeletons: Panel Discussion

Chris Reid, Boeing and William Marras, The Ohio State University hosted a panel discussion to discuss the potential project on human-centered design principles for the development and application of powered and non-powered exoskeleton technology. Learn More.

#### Symposium on Medical Devices of the Future – What's Needed for Fatigue, Fracture Resistance, and Durability in Transportation, Medical Devices, and Exoskeletons

Invited speakers will present contemporary design and material requirements and address methodologies in fatigue crack initiation, crack propagation, and failure analyses employed in ground vehicle, aircraft, aerospace, medical devices, etc. that may be employed in exosuits and exoskeletons. Learn more.

### CUSTOM TRAINING FOR EXO TECHNOLOGY

Interested in tailored training for your organization around exoskeleton standards and technology? The ASTM ET CoE can provide you with custom training or advisory services. Contact **etcoe@astm.org!**