# Bio-Inspired Lightweight EV Underbody Protection to Serve High Volume Commercial and Automotive Market Designed and Developed by TPI Composites and Helicoid Industries

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SCOTTSDALE, Ariz., April 24, 2023 (GLOBE NEWSWIRE) -- TPI Composites, Inc., (TPI) (Nasdaq: TPIC) and Helicoid Industries Inc. collaborated to design a bio-inspired lightweight EV underbody protection panel using Helicoid™ technology. The solution leverages digital engineering, unconventional layup scenarios, biomimicry, advanced multiaxial intelligent weaving, and automated manufacturing to deliver a durable, low-cost, highly engineered automotive part for the commercial and consumer automotive markets.

This underbody protection panel will provide an alternative solution to current aluminum designs to protect high voltage battery packs from road debris. Combining the strength of both companies, this solution offers a low-cost product that is lower in weight, higher in load bearing capability and more resilient in impacts and crash scenarios compared to aluminum designs.

Developed in a manufacturing cell at TPI's Automotive Technology Center in Warren, Rhode Island using the latest in automated ply cutting and robotic pick and place technologies, the process is a seamless and cost-effective implementation of Helicoid™ architectures. A multiaxial non-crimp fabric technology is used to strategically compose the full Helicoid™ stack in sub-units. The stack layers are then robotically dosed and automatically placed and retrieved from a 2500T press, resulting in high performance precision parts.

"TPI Automotive offers full-service development and production solutions for OEM next generation vehicles with efficient designs, superior performance, and outstanding quality. We offer industrialization expertise for engineered solutions that are quick to market, and low investment for our customers' demanding technical and commercial battery enclosure and structural applications. We are excited to work with Helicoid to provide this innovative solution," noted Jerry Lavine, President, TPI Automotive.

**About TPI Composites, Inc.**

TPI Composites, Inc. is a global company focused on innovative and sustainable solutions to decarbonize and electrify the world. TPI delivers high-quality, cost-effective composite solutions through long-term relationships with leading OEMs in the wind and automotive markets. TPI is headquartered in Scottsdale, Arizona and operates factories in the U.S., Mexico, Türkiye and India. TPI operates additional engineering development centers in Denmark and Germany and global service training centers in the U.S. and Spain.

**About Helicoid Industries Inc.**

Helicoid Industries Inc. is a California based company with a family of patents related to the helicoid architecture for composites. The helicoid results in lighter, stronger, tougher, more durable, and overall lower cost composites. Our technology has been proven utilizing all major fibers, resins, and manufacturing processes.

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Source: TPI Composites, Inc.