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INTERNATIONAL MANUFACTURING TECHNOLOGY SHOW

NEWS RELEASE

Discover Innovation in America's Car Market With Season 3 of 'Manufacturing Explorers'

Father and son duo Travis and Max Egan get an inside look at EV design, automotive electronics manufacturing, and a green source for critical EV battery materials in this [IMTS+ Original Series](#).

McLean, Va. (September 26, 2023) — Numbers matter in Season 3 of the [IMTS+ Original Series "Manufacturing Explorers,"](#) brought to you by [Mazak](#), which premieres on Sept. 28 on [IMTS.com](#). Critical numbers encountered by showrunners (and father-son duo) Max and Travis Egan in their exploration of the automotive industry include the part count reduction in Tesla's Model Y (which has a single-piece rear casting), the 185,000 printed circuit boards produced each week by a Tier 1 automotive supplier, and the temperature of the plasma column (6,000 F) that synthesizes EV battery materials.

Season 3 of "Manufacturing Explorers" starts with a visit to [Munro & Associates](#) in Auburn Hills, Michigan. Sandy Munro, known as the "Teardown Titan," deconstructs and analyzes vehicles, and he has particularly focused on EVs. The tour starts with Munro explaining the genius behind the Model Y design – and really any design that consolidates parts for optimization. Munro calls items such as bolts "unfasteners." Any design that eliminates a connection is one less thing to go wrong, and it's something he happily points out as part of Munro's redesign services.

Munro also answers Max's questions about EV battery design (you'll be surprised), explores the design of electric motors (they are only about the size of a basketball), and provides insights into design and manufacturing efficiency. In a twist of fate, a fender bender at home provides the opportunity to rent a Model Y, and it's a contest to see who becomes the bigger fan and why.

In Episode 2, Max and Travis travel to [Magna Electronics](#) to meet up with another father-son duo, General Manager John Cunningham and manufacturing engineer Alex Cunningham. If you drive a modern vehicle, chances are you've experienced one of the millions of sensors manufactured by Magna, including those used for cruise control, parking assist, object detection, and tailgate cameras. Watch as Max experiences one of Magna's newer innovations, the Toyota Tundra trailer backup assist, then gets a firsthand look at how printed circuit boards are made.

In the final episode of Season 3, Max and Travis explore what might be the key to EV growth: the synthesis of lithium-ion cathode battery materials. Based in North Andover, Massachusetts, [6K Inc.](#) created the UniMelt® system, a production-scale microwave plasma process that produces critical materials. With an ultra-high temperature 6,000-degree plasma, battery element feedstock gets processed into high-value materials in just two seconds. Where conventional production processes of battery materials pose geopolitical risks and mining damage to the environment while also being fraught with fair labor issues, UniMelt is a green process that enables a diverse and reliable supply chain for EV battery components leveraging both domestic and recycled feedstock.

Season 3 is also bittersweet, as it's the final season with Travis and Max. The show started with Max as a young mechanical engineering undergraduate and Travis introducing him to his world of manufacturing. After one pandemic, five years, two degrees, and 10 road trips with dad and a camera crew, Max is now pursuing his dream career as a lead analyst in the renewable energy industry.

IMTS+ is where you can always find the personalities, innovations, and ideas that are moving the manufacturing industry forward. Watch, Read, and Experience the stories around the power of manufacturing technology. Visit IMTS+ on [IMTS.com](#) and discover the people in manufacturing who are transforming technologies, changing the future, and providing opportunities throughout the United States and beyond.

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Image Information



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Caption: Two father and son manufacturing duos at the Magna facility. At left are manufacturing engineer Alex Cunningham and General Manager John Cunningham; at right are Max and Travis Egan, co-hosts of “Manufacturing Explorers.”

About AMT – The Association For Manufacturing Technology

AMT – The Association For Manufacturing Technology represents U.S.-based providers of manufacturing technology – the advanced machinery, devices, and digital equipment that U.S. manufacturing relies on to be productive, innovative, and competitive. Located in McLean, Virginia, near the nation’s capital, AMT acts as the industry’s voice to speed the pace of innovation, increase global competitiveness, and develop manufacturing’s advanced workforce of tomorrow. With extensive expertise in industry data and intelligence, as well as a full complement of international business operations, AMT offers its members an unparalleled level of support. AMT also produces IMTS – The International Manufacturing Technology Show, the premier manufacturing technology event in North America. www.AMTonline.org

About IMTS – The International Manufacturing Technology Show

IMTS – International Manufacturing Technology Show – The largest and longest running manufacturing technology trade show in the United States is held every other year at McCormick Place in Chicago, Ill. IMTS 2024 will run Sept. 9-14. IMTS is ranked among the largest trade shows in the world. Recognized as one of the world’s preeminent stages for introducing and selling manufacturing equipment and technology as well as connecting the industry’s supply chain. IMTS attracts visitors from every level of industry and more than 117 countries. IMTS 2022 had 86,307 registrants, 1,212,806 net square feet of exhibit space, 1,602 booths, and 1,816 exhibiting companies. IMTS is owned and produced by AMT – The Association For Manufacturing Technology.

