

MTA Hosts Record-Breaking TDI Challenge to Inspire the Next Generation of Engineers

Worcester, UK, July 10, 2024 – The Manufacturing Technologies Association (MTA) is delighted to announce the most successful Technology, Design, and Innovation (TDI) Challenge to date. Organised by MTA's Technology & Skills Manager, Sami Ortiz, this year's event has grown larger than ever, featuring over 23 finalists presenting their innovative projects to an esteemed panel of 13 judges.



This year's TDI Challenge is proudly hosted by Yamazaki Mazak at their state-of-the-art facility in Worcester. Mazak, an inspiring leader in the manufacturing sector, provided participants with an exclusive tour of their factory, further igniting the passion of these young innovators.

The 2024 TDI Challenge is generously sponsored by the Gene Haas Foundation, Vision West Nottinghamshire College, and Imagineering, who are all pioneers in the industry. Andrew Ward, representing the Gene Haas Foundation and serving as one of the judges, emphasised the significance of such events for the future of engineering. "This type of challenge is crucial for our sector. These young talents are the future of engineering, and we must nurture their potential as they will soon be changing the world," said Ward.

James Selka, CEO of MTA, expressed his enthusiasm for the event's growth and impact. "The TDI Challenge is not only growing, it is thriving! I extend my heartfelt thanks to Sami Ortiz and our sponsors for their unwavering support. This event exemplifies how the industry can come together to shape the future of the manufacturing sector. Despite the rapid growth of the UK industry, there is a concerning decline in the number of young engineers. They are our future, and having some of the biggest names in the industry judge their projects is an honour for both MTA and the students."

The 2024 TDI Challenge is open to students aged 14-19, providing a unique opportunity to showcase their creativity and innovation. Participants were invited to submit a design for a new product or concept and a two-minute video demonstrating its application and benefits. Finalists were chosen from the video entries submitted by the end of May 2024 and from four live semi-finals held at London Design & Engineering UTC, Silverstone UTC, WMG Academy for Young Engineers and Norfolk UTC. The finalists were invited to present their ideas in detail at today's event, where the winners were announced.

MTA's Technology & Skills Manager remarked, "It is fantastic to see so many students and teachers from all over the UK engaged in the manufacturing and technology sector. This year's competition is our biggest yet, showcasing projects in robotics, software, machinery, and more. It's the perfect occasion to witness the future of our industry."

The TDI Challenge not only celebrates student creativity but also highlights the importance of industry and education collaboration in addressing future challenges and opportunities. This year's event also features former TDI Challenge winners from 2022 and 2023, who have returned as judges, sharing their inspiring journeys and the impact the challenge had on their careers.

Scarlett Ward, a former TDI Challenge winner from 2022, who was just 16 years old and in Year 11 at the time, has finished Sixth Form and is now deciding where to study at either Imperial College London or University College London (UCL). Her project, an underwater laser alarm designed to prevent drowning of animals and adults, has continued to evolve. She expressed her gratitude for the challenge, stating, "Being a judge is an honour. This challenge changed my life, and I hope to help change someone's life through this event, just as it did for me." She is still developing her project and

is now on the path to market it, thanks to the support and guidance received from judges during the challenge.

Bhavy Metakar, the 2023 TDI Challenge winner, who was 18 and in Sixth Form at the time, is now in his first year studying Electronic and Electrical Engineering at UCL. He reflected on his experience, highlighting how the challenge provided a unique opportunity to present and manage the market value of his project, a crucial skill for engineers. "This challenge was a great starting point and a significant addition to my CV," he said. He has since joined a research group to further improve his project and is currently working on a startup linked to his project, aiming to merge innovation with practical application.

The winners of the TDI Challenge 2024 are:

1ST PLACE: INDIGO WERNICK

Project: Product design to help people with dyspraxia

School/College: Ysgol Gyfun Gymraeg Bro Edern

Prize: £400 for student - £1000 for School/College



Indigo expressed that her project required immense time and dedication. Her motivation for entering the competition was deeply personal, as she suffers from dyspraxia and believes her project can aid others with similar disabilities. She chose the TDI Challenge inspired by friends who participated last year. She was utterly astonished to learn she had won.

2ND PLACE: NITHIPHAT TANGPRASERT (BILL)

Project: Sign language translation device

School/College: Charterhouse

Prize: £300 for student - £800 for School/College



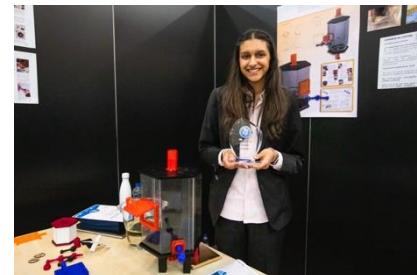
Bill attributed his victory to luck. He aims to further develop his project using the judges' feedback and even mentioned the possibility of re-entering next year to showcase his progress.

3RD PLACE: AMAYA LUNAVAT

Project: Cooking Oil and Wastewater Separator

School/College: North London Collegiate School

Prize: £200 for student - £400 for School/College



Amaya's favourite part of the day was exploring other students' projects and exchanging ideas with like-minded individuals about the future of engineering. Her primary goal was to enjoy the experience, with winning being an added bonus.

GROUP CATEGORY WINNER:

Project: **PI 5**

School/College: WMG Coventry

Students Daniel Hill, Hadi Dhoomun, Jacob Hallworth, Bethan Davies, William Cattell

Prize: £400 for students, £400 for school/college



The TDI Challenge exists to help teachers and lecturers promote the extraordinary work completed by their Design and Technology (D&T) and Engineering students, celebrating the creativity and innovation within the curriculum.

For more information, visit www.thetdichallenge.co.uk

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About the MTA and TDI Challenge:

The MTA's TDI Challenge aims to promote and celebrate the work of Design and Technology and Engineering students. It provides a platform for young people to showcase their talents to an industry that values innovation. The competition is open to students aged 14-19 and helps bridge the gap between education and industry through collaboration.

The Manufacturing Technologies Association is the UK's trade association for companies in the manufacturing technology sector. MTA members design, manufacture, and supply the advanced machinery, equipment, and intellectual property that enable the creation of the products we rely on daily and that drive our economy.

Key aspects of manufacturing technology include machine tools, cutting tools, metrology (measuring) equipment, additive manufacturing (3D printing), surface finishing, robotics and computer-aided design and manufacturing products (CAD/CAM), as well as the technology which is enabling the digitisation of manufacturing – the fourth industrial revolution. These combine to make up complete systems - increasingly automated and adaptive - that manufacturers deploy, making the sector fundamental to the prosperity, health and defence of the nation.

The MTA delivers marketing support and networking opportunities; specific and relevant economic and technical information; representation to Government and other stakeholders; help for exporters; and support for learning and development within member companies and beyond.

The MTA owns and runs MACH, the UK's premier event to showcase manufacturing technologies. The biennial exhibition, held at the NEC, attracts over 26,000 attendees and over 500 exhibitors, and the last edition, MACH 2024, saw over £200,000,000 of business attributed to it.

Established in 1919, the MTA has been at the core of the UK's engineering-based manufacturing economy for over a century.

The MTA has broadened its support for the sector by forming a new cluster of trade associations, which now includes the Engineering Industries Association (EIA) and Additive Manufacturing UK (AMUK).

For more details, visit www.mta.org.uk.

Picture Captions:

- TDI Challenge 2024 winners (1st, 2nd, 3rd place) with their innovative projects
- Finalists and Judges of the TDI Challenge 2024 at the Yamazaki Mazak facility

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