MANUFACTURERS & ENGINEERS OF THE FUTURE

STEM PROGRAMME



Researched and Produced by: #MANUFACTURER

INCORPORATING:









EVENT DETAILS

🕔 **Date:** June 5, 2025 | **Time:** 12:00 – 4:00 PM

Location: Smart Manufacturing Week 2025, Hall 5, NEC Birmingham

Event Trail & Map: A dedicated guide will highlight key exhibitors, STEM-focused features, and companies offering apprenticeships and job opportunities.

Come and see how your skills and passions can help build the future!

Are you curious about how things are made, how robots work, or how technology is changing the world? The **STEM Programme at Smart Manufacturing Week 2025** is your chance to explore the exciting world of manufacturing and engineering, get hands-on with the latest tech, meet real engineers and inventors, and see how your interests could lead to amazing careers in this exciting industry.

Here's what to expect:

- 1. Explore exciting careers Discover the wide range of careers in STEM and find out what it's really like to work in manufacturing and engineering.
- **2. Get hands-on** Take part in interactive workshops, fun challenges, and live demonstrations that bring science and tech to life.
- **3. Meet the experts** Chat with professionals, ask questions, and make connections that could help shape your future.
- **4. Everyone's welcome** The programme is open to all students of all levels and backgrounds.





Brimming with cutting edge content, valuable peer-to-peer interaction and the best products and services available, the 4 co-located live events taking place during Smart Manufacturing Week attract over 13,500 manufacturers, engineers, industry leaders and technology solution providers, making it the largest festival of advanced manufacturing and engineering of the year.

INCORPORATING:









Your free STEM Programme pass will provide access to all 4 co-located events.

WHO SHOULD ATTEND?

Students (Year 10, 11, 12, 13 & University/College Level)

A unique opportunity to explore STEM careers before making important study and career decisions.

Educators & Schools

- Enhance curriculum learning with practical STEM experiences.
- · Connect with **industry leaders** to explore future collaboration opportunities.

Parents & Guardians

Learn about career paths, **apprenticeships**, and degree programmes to support informed career choices for students.

KEYNOTE SESSIONS INCLUDE:





INSTITUTE FOR MANUFACTURING MASTERCLASS

Apply here to secure a seat

12:00 - 15:00 - SMEs, Apprentices & FE Colleges: Digital Skills for Real World Impact (By application only)

IfM Theatre 5/E150

Are you an SME struggling to make the most of digital solutions? An apprentice eager to apply digital skills in the workplace? Or an FE college looking to enhance curriculum delivery? This session will showcase the value of getting involved in Digital Shoestring – an accessible, low-cost approach to tackling real business needs.



LEADERSHIP & STRATEGY THEATRE

14:00 - 14:20 – WISE delivers women-centered Equity, Diversity, and Inclusion solutions for the STEM sectors

LEADERSHIP & STRATEGY THEATRE

14:30 - 15:20 – Manufacturers and Engineers of the Future Panel Discussion

Hear from young professionals who have taken different routes into manufacturing and engineering, sharing their career journeys and advice for future talent.

Find out about

- Diverse career paths into manufacturing and engineering.
- Overcoming challenges and embracing opportunities in early career stages.
- The importance of mentorship and networking for career progression.
- Key skills and traits that set successful young professionals apart in the industry.

DON'T MISS:

T-1-FNY Robot – 5/H54

Meet our resident Robot, T-1-FNY (Tiffany) inspired by the famous Terminator films. Be intrigued by how Al and object recognition works and laugh at how a 300kg 8ft high

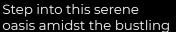


robot can be taught to do the ironing! New software updates on board will allow our audience to control aspects of the robots this year. But most important, out of all the technical and robotic upgrades, Tiffany now has a smart new pink pinstripe, and a number of new tattoos!

Catch her live on Stand 5-G54, grab a free tea & coffee voucher, and enjoy "Breakfast with T-1-FNY".

WELLBEING ZONE

Prioritising wellbeing in the manufacturing sector is essential not only for the health and safety of employees but also for driving productivity, engagement, and longterm success in an increasingly demanding industry.



expo, where you can disengage, relax, and recharge your mind. Leave your worries at the door and indulge in mindfulness activities, and discover techniques to promote a healthier worklife balance.



SPIN THE WHEEL - Hall 5 Entrance

Make sure you stop by and spin the wheel to win prizes including free drinks, VIP Upgrades and other mystery gifts!



COMPETITIONS

LIVE ACTION:





THE WORLDSKILLS UK INDUSTRIAL ROBOTICS COMPETITION



Hosted by FANUC, the competiton will challenge teams to collaborate and create a robot programme following industry best practices. A

FANUC robot will also be on-site, with hands-on 'try it yourself' sessions available for visitors after the qualifiers.

Visit Fanuc's stand - 5/F40

Visit the World skills challenge – 5/M150

GUITAR LEGENDS

Location – 5/E135

Ready to showcase your guitar talents to the world? Play a classic intro to a song in our recording booth and be in with a chance to win a bespoke 3D printed guitar!

Book your slot to take part! smartmanufacturingweek. com/guitar-competition



SHOWCASE ARENA

TECHNOLOGY

A dynamic presentation space serving as an interactive demo area for the latest in wearables, robotics, and beyond in front of a captive audience. smartmanufacturingweek.com/technology-showcase-arena

Come and see technology in action, and get hands on with the latest game changing kit!

PINT SIZED MAYHEM!

Head to stand **H60** and witness an Initiative championed by <u>Accu.co.uk</u>, where delegates can battle ant-weight fighting robots LIVE on the show floor. Their AccuBots, weighing traditionally no more than 150g, will be available for visitors to do battle with and see up close and personal how important it is to champion 3D printing technology, precision components, CAD design and innovation.

WASHING MACHINE PROJECT



washing machine project Come and see the Washing Machine Project showcasing the Divya – the world's

first flat-packable, manual washing machine. Designed to work off the grid, this innovative solution reduces water usage by up to 50% and cuts the time spent handwashing clothes by 75%, offering a life-changing alternative for communities without reliable access to electricity.

VIRTUAL WELDING SIMULATOR

Enginuity





Stand 5/L150

Ultimate Welding Showdown

Ever thought about a career in welding?

Not many have, but it is a very well-paid career route to take. Come along and see if you have what it takes to become a welder of the future.



Take part in the virtual welding competition, get onto the leader board, win prizes and talk to some brilliant welders face to face.

Q. Which 'Big for your Boots' artist loves welding?

Come to the stand and tell us to enter our prize draw to win a £100 Love to Shop voucher.



The team will deliver a short talk about the inspiration, impact and engineering behind the project, followed by a live demo using the Divya.

Visitors can to get hands-on and try it out for themselves.

Come and find them on Innovation Alley.

WORKSHOPS



IIOT & CONNECTIVITY THEATRE

FUEL THE FUTURE: POWERING TOMORROW WITH HYDROGEN

1 hour session for up to 20 students.

Choose a session: 12:00 or 13:00

Apply here to take part

This practical hand-on workshop session will allow students to build hydrogen power cells and use them to power a working model car.

LEADERSHIP & STRATEGY THEATRE

BUILDING STUDENT SKILL PROFILES & WORK EXPERIENCE PARTNERSHIPS

50 min workshop for up to 40 students.

13:00-13:50

Apply here to take part

This practical workshop will teach you how to create student skill profiles and collaborate with employers to design impactful work experience opportunities for all year groups.

Learn how to craft student skill profiles and collaborate with employers on drafting work experiences for the various year groups.

EXHIBITORS NOT TO MISS:



Stand 5/N132





The School of Future Transport Engineering at Coventry University are bringing the IMechE Formula AI Car developed and raced by a multidsciplinary team of motorsport, electrical and electronics engineers.

ALSO meet Robot Dog Faido capable of 'hearing' and 'seeing' by using AI to sense its environment.



The Manufacturers' Organisation

Stand 5/G174

At the forefront of delivering world-class engineering apprenticeships and skills training.

Find out why becoming an apprentice is a great choice for young people, from those that have applied.

niftylift

The winning team from the Apprentice Automation Challenge 2024 are exhibiting their innovative project. Stop by and see them and find out how they will use the knowledge and skills gained in the next steps of their careers.



AEROSPACE

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Stand 5/N160

Showcasing career pathways in the manufacturing sector.



STOP BY AT THEIR STAND AND DON'T MISS THEIR:

- · Count the Fastener Challenge
- · 3D printed keychains
- · Goodie Bags

INNOVATION ALLEY



Located at the very heart of the show, Innovation Alley is the UK's leading showcase of all the new and developing

technologies that will change the landscape of manufacturing over the next 5-10 years.

smartmanufacturingweek.com/innovation-alley

CHANGE MAKER MOMENTS

13:00 - 15:00 - Thursday 5th June 2025

Delivered by





This interactive thought provoking event brings professionals & young people together to inspire and share, whilst addressing the pressing recruitment challenges faced across the UK manufacturing sector.

50 x business leaders and 50 x tech native young people, from the local area, will have open discussions, share inter-generational perspectives, and develop actionable solutions.

Some of the world's biggest manufacturers will be ioining us as we aim to answer the question – what culture and skills do we need to attract the future workforce in Manufacturing?

AN AFTERNOON OF LUNCH & LEARNING:

- Careers Uncovered / Future Workforce **Uncovered** - this interactive alternative to the traditional fire-side panel removes the barrier of assumption as the audience gain a deeper insight into the individual pathways to careers from quest speakers
- Industry Insights young people work with business leaders to explore how emerging technologies such as Sustainable Manufacturing, Supply Chain, and Al are revolutionising the manufacturing industry
- Unseen Connections a unique spin on networking, enabling young people and business leaders to connect and learn from one another in a speed mentoring session. Participants are challenged to explore topics which support young people to navigate career paths in the rapidly evolving world of work, and encourage business leaders to consider the role they have to play.

50 spaces available – email enquiries@ smartmanufacturingweek.co.uk to apply.

BRAND-NEW SMART MANUFACTURING WEEK APP



Bringing all the event information straight to vour pocket. Access an interactive schedule, exhibitor directory, venue maps, live updates, exclusive networking

features, and on-demand content, all in one

Search xxxx to find

VISITOR TRAIL



Our STEM visitor trail will also help you navigate your way to the exhibition stands, Solutions

Theatre presentations and networking opportunities of most

relevance to you.

Pick up a printed visitor trail map when you arrive.

EMANUFACTURER

Pick up a copy of the latest issue of The Manufacturer magazine from the TM Studio to stay up to date with developments in the sector. You can also subscribe at themanufacturer.com

TREE PLANTED FOR EVERY VISITOR



In partnership with

Forest Nation, we've once again measured the emissions generated by our live shows and have now planted a total of 40,634 trees!

For every visitor who attends this year, we'll plant one more tree.

Join us in making a difference – register now and be part of our sustainability journey!

Find out more at

smartmanufacturingweek.com/tree-planting