

Immersive Experience Week 1

Civil and Structural Engineering

Use core concepts and real-world constraints to design a civil engineering masterpiece

Build a structure to carry weight across two points in a graduate recruitment-style group task

Compete against other attendees to impress the judges and become the most successful engineer

Materials and Aerospace Engineering

Understand the physics of flight when manufacturing a high-performing aerofoil

Work with a Rolls Royce engineer to improve and test 3D-printed aerofoil designs

Find the optimum conditions for flight using a wind tunnel

Discuss your results with top material and aerospace engineers and propose solutions to achieve the most aerodynamic design

The Boeing Experience

Visit an airfield and explore a range of commercial aircraft with pilots and aerospace engineers

Learn how the design of different aircraft and gliders varies depending on function

Rig and derig a glass fibre glider with traditional controls, working as a team to lift the wings and secure the main rigging pins

Work alongside electrical engineers and pilots to programme a fly-by-wire control panel

Engineering in the 21st Century: Robotics and Machine Learning

Discover how modern engineering has become more efficient with the invention of ground-breaking technology

Investigate how innovative biomedical engineering solutions will improve medical diagnostics and enhance treatments

Explore how automation and data are taking over the manufacturing industry

Design your own AI creation with top robotics engineers

Decipher what the future of engineering looks like and how you can help solve global challenges

How to Become a Successful Engineer

Your path to success: understanding the key decisions ahead and how to maximise your chances of success

Making the right subject choices: A-level/IB/university and beyond

Securing work experience and designing an impactful CV/resume

Powerful interview techniques

Coaching from engineers on what you can do now to stand out in the future

Immersive Experiences Days Week 2

Enter the Supercar Studio

Gain access to the largest collection of classic cars in the UK and discover the evolution of the motor vehicle

Meet engineers who have helped create the world's most prestigious cars

Learn the unique engineering features of one of the most sought-after cars in the world

Take apart a petrol engine under the supervision of a top mechanical engineer

Assess the transformation of vehicles as we move away from petrol towards electric energy

Design your own electric vehicle under the guidance of experts

Engineering and the Environment: The Thames Barrier

Visit an engineering megastructure, The Thames Barrier: a world-leading sustainable engineering feat in London

Explore the intricacies of the environmentally friendly design and uncover its dual purpose

Use what you've learnt in a simulated climate emergency: work together to protect the inhabitants of the Thames Estuary from imminent tidal flood risk

Present your group proposal to a panel of leading environmental advisors

Receive live feedback on your solutions

The Rise of the Smart City

Discover the cities of the future: smart, sustainable urban spaces

Investigate how we can engineer innovative solutions to tackle the challenges of climate change and population growth

Layout the plans and designs for your own smart city and receive feedback from experts

Network with engineers and senior project leaders: find out what it takes to work for an award-winning engineering firm

Electrical Engineering

Explore the key principles behind electrical engineering

Take apart a household appliance and break it into its constituent parts

Put your creativity to the test and use existing components to invent something from scratch

Automate your new invention with a microchip and compete to win a prize from our panel of expert judges

Networking Event With Top Engineers

Take part in a private networking session with top engineers

Put your newfound knowledge to the test

Have your burning questions answered by those in the know

Receive valuable advice from experts in the field