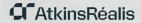
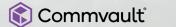
TEEMTECH

AWARDS

SUPPORTED BY



















WHAT THEY SAY...

I wanted to say how incredibly proud I am of the creativity, passion, and forward-thinking ideas demonstrated across these projects. The level of innovation and problem-solving has been really inspiring, and it's clear the future is in very capable hands. Each concept reflects not only strong technical ability, but also a thoughtful understanding of the world and how it might be improved. It's been a privilege to see these ideas, and I genuinely look forward to the day when I see some of them making a real difference in the world!

- Judge, Synthesia





Working on this product has been a valuable learning experience that has helped me develop various skills and insights. I have learned the importance of teamwork and communication, as collaborating with others requires clear discussions, compromise, and effective coordination to achieve our goals. Through research and problem-solving, I gained a deeper understanding of design principles, accessibility needs, and user preferences, especially for the elderly and those with disabilities.

- Students

We have gained invaluable insights and skills through partaking in TeenTech, which will have a lasting impact on us and our future studies. We were able to develop our programming skills on basic loops and commands, as well as problem-solving skills, which are essential when code does not work as expected. Learning how to effectively manage time was also crucial to ensure that our project stayed on track whilst juggling our studies as GCSE students. We also strengthened our communication and research skills, successfully integrating our ideas and bringing them to life. However, perhaps most importantly, we are able to gain a deeper understanding of the challenges faced by individuals with mobility concerns, which will help us understand our part in society and address often-overlooked issues by providing inclusive solutions.

- Students





Our students have come to see themselves as innovators, who are also then able to give actual shape to their innovative ideas in a real-world context. The value of feedback from the judges cannot be overstated, and for some of our students has been formative. In summary, all of our students have been empowered through engagement with the TeenTech Awards.

- Teacher



This project made us see how science and tech can help people in real life. It made us excited to do more projects like this in the future. We feel like we could have a career doing something similar. This project showed us we can be creative and bounce back from challenges. Knowing this project could help others kept us going. It taught us that hard work and care make projects meaningful.

- Students

Working on this project has been an eye-opening experience, especially as someone who hadn't previously delved into AI, programming, or computer science. Before developing a mock-up for my project, my background was primarily rooted in health sciences, where I've always been passionate about improving patient care and addressing issues like misdiagnosis and healthcare inequalities. This project, however, has allowed me to explore the intersection of technology and healthcare in ways I hadn't imagined before. It has opened my eyes to the possibilities of combining my passion for health sciences with technology to drive positive change in the future.

- Student





Through my project, I gained valuable insights into the fields of environmental technology, engineering design, and digital tools. This project not only strengthened my technical abilities but also deepened my understanding of how sustainability and engineering can work together to solve real-world problems. It has inspired me to explore the field of sustainable engineering more and consider how technology can be used to address environmental challenges. I hope to build on these skills and continue exploring ways to create impactful, sustainability-driven solutions.

- Student

This project has significantly broadened my perspective on science and technology, encouraging me to think beyond conventional approaches and consider innovative solutions to real-world problems. It has challenged me to think outside the box and explore how science and technology can directly impact people's daily lives. I found this experience incredibly valuable for my education and future career. This journey has been both educational and inspiring, motivating me to continue learning and discovering new possibilities within the field of science and medicine.

- Student





WELCOME FROM MAGGIE PHILBIN

One of the happiest times of my career was working on the BBC programme Tomorrow's World. It opened a window on the future and featured the technology that might make a better world possible.

The ideas showcased today are as bold and inspiring as any of the stories I covered on television. Young people are not only thinking about clever ideas but about the ethical implications for people and planet. Our industry judges were blown away by the quality of thinking.

The TeenTech Awards are a vibrant celebration of the talent and creativity of young people across the UK who have very much risen to the challenge of making life 'better, simpler, safer or more fun'. Their projects offer powerful insight into how young people would like to shape their future.

This year over 14,000 young people participated in our TeenTech Festivals, Innovation Days, and Virtual Masterclasses which lead into the Award programme.



The TeenTech Awards have a consistently strong record for diversity. A broad cross-section of schools participate, some from the most disadvantaged areas of the UK.

1615 students worked on projects: 930 identified as female, 681 as male, 4 as non-binary.

72 teams comprising 148 students have been invited to showcase their work: 93 who identify as female, 54 as male and 1 who prefers not to say.

Science and technology are moving at breathtaking speed, which makes TeenTech's work even more relevant than when we began 17 years ago. We want to inspire young people, give them confidence and especially, we want to make sure their voices and ideas are heard.

The continued success of the programme is due to a unique and powerful collaboration between students, teachers, our company and academic partners and many, many hundreds of volunteers.

We hope you will continue to support TeenTech in the future, providing encouragement, inspiration and practical support for a generation with the determination to change the world.

Maggie Philbin CEO TeenTech

THE TEENTECH AWARDS TEAM

Maggie Philbin **Darren Thomson** Martin Dare Erem Kassim-Lakha Kay Sawbridge Harry Ortmans Sally Dixon Bill Walker **Eleanor Merrick** Kathy Dare Sandra Cooper Rose McVeigh **Belinda Shelton** Andy Quested Harry McVeigh Ali Maggs Veronica Thorne Sarah Gunn Tom Walbrin Kerensa Jennings Andy Moore Andy Wilson Natasha Ramsden **Darren Thomson** Kate Bevan Dani Longhurst Della Burnside

TEENTECH AWARDS JUDGES

The TeenTech Awards encourage students to explore future industries, understand global issues and develop skills whilst discovering their potential to succeed. Students develop projects from autumn through spring, following a structured approach before electronic submission for judging.

We extend our heartfelt gratitude to our exceptional panel of 75 judges who have generously given their time and expertise. These industry leaders, academics and specialists from technology, healthcare, education, automotive, aerospace and other sectors have provided invaluable evaluation and feedback to our young innovators.

Judges looked for original ideas demonstrating thorough research, clear market understanding and evidence of industry collaboration. They awarded Contender, Bronze, Silver and Gold certificates with individual feedback to every participant. The leading projects in each category will showcase their work today.

Pooja Mahalingam Aravindakumar (AtkinsRéalis)

Dave Baker (Technology Strategist)

Chloe Barnicoat (Wincanton) Sayoni Batabyal (Haleon)

Jess Berry (Wincanton)

Miles Berry (Roehampton University)

Kate Bevan (Infosys Knowledge)

Mayhul Bhuva (Synthesia)

Alisdair Bowie (Horiba Mira Ltd)

Richard Brown (Synthesia)

Kat Bucon (FlightStory)

Meadhbh Conlan (Synthesia)

Matt Couch (AWS)

Evan Davis (BBC)

Charlotte Dollery (Commvault)

Alice Donovan-Hart (NHS Shared Business Services)

Cian Dowling (Synthesia)

Emily Edwards (The Access Group)

Charlie Ewen (Met Office)

Anni Feng (Hoare Lee)

Beth Fitzpatrick (AtkinsRéalis)

Jane Frankland (Knewstart)

Hannah Gibson (Diverse Integration)

Angela Gordon Lennox (Met Office)

Dr Denise Gorse (UCL)

Martin Grant (AtkinsRéalis)

Paul Gribben (De Montfort University)

Joanne Hardy (Roehampton University)

Teresa Harris Boag (Educational Specialist)

Iva Hauptmannova (Research Untangled Ltd)

Guneet Hawley (ARUP)

Alistair Heath (Hapcha)

Martin Hewitt (Fuellers)

Georgina Hodgkinson (Ask DT Software House)

Jennifer Hodgson (Institute of Cancer Research)

Phillip Kemp (AWS)

Anson Lai (AWS)

Andrew Laughlin (Which Magazine)

Andrew Lawrence (Commvault)

Tom Leggett (Thatcham Research)

David Machin (Sopra Steria)

Abeera Mohammed (Haleon)

Andy Moore (Bentley Motors Ltd)

Emma Morgan (Sopra Steria)

James Morris (City University)

Oona Muirhead (Policy Connect)

Edwina Mullins (SocialB)

Carole Nakhle (Crystol Energy)

Lettie Ndlovu (AWS)

Yvette Newbatt (Institute of Cancer Research)

Matt Norgate (Mars Wrigley)

Dan Price (Lancaster University)

Thayer Prime (Team Prime)

Rebecca Reason (Pepsico)

Richard Roberts (Sopra Steria)

Simon Robinson (Fuellers)

Luke Robinson (Wincanton)

Ketan Ruparelia (DMU)

Kristen Ryan (AWS)

Kristen Ryan (AWS)

Marzieh Saeidi (Synthesia)

Will Slack (Sprinklr)

Avni Solanki (Wincanton)

Sofia Sotiropoulou (Lonza)

Matt Speight (SSCL)

Richard Standing (Rolls-Royce)

Duncan Stanley (Monarch Chemicals)

Evelyn Steele (Haleon)

Helen Sturdy (NHS)

Andy Sumpter (Shopper Trak)

Adizah Tejani (HSBC)

Truc Tran (Snapchat)

Saaed Umar (Lancashire Teaching Hospital)

Blaine Williams (Commvault)

Andy Wilson (DropBox)

Peter Woodhams (Microsoft)



ABOUT TEENTECH

TeenTech was set up in 2008 to help young people understand the opportunities in the science, technology, digital and engineering industries, regardless of gender, ethnicity or social background. We support companies, councils, colleges and universities, providing them with strategies of engagement and ways to develop approaches which work well with young people.

Our programmes are carefully planned to engage teachers and parents as they are the main influencers in career decisions. We run a variety of sharply focused initiatives providing students with a coherent, engaging pathway into the industries of the future. They all meet Gatsby benchmarks. Our CEO, Maggie Philbin, has been named Digital Leader of The Year, Most Inspiring Woman in UKIT (Computer Weekly) and has been awarded an OBE and ten honorary degrees for her work with TeenTech.

OUR PROGRAMMES



Are you an innovator? Do you have an idea which could make life easier, simpler, safer or more fun? We want you to use your imagination to think creatively. This is a chance to ask "What if?" or even build a prototype of your idea. The TeenTech Awards are for students aged 11-16 (Years 7 to 11) and 17-19 (Years 12 to 13) working in teams of up to three to look at problems large and small to see if they can find a better way of doing things. This programme is supported by leading global science, technology and engineering companies.



TeenTech Festival days vary in size from innovation and technical workshops to large scale events bringing together students from 30-50 schools across a region with over 140 scientists, technologists and engineers from a wide range of companies for a day of challenges and experiments. We have measured the impact of events since 2008 and know there is a real shift in student perceptions, particularly amongst girls.



TeenTech Innovation Hacks bring the exciting world of science and technology prototyping to school, company and NHS sites. Hosted by well-known science and technology reporters, our interactive sessions are fun, engaging and provide real context to learning, helping young people understand more about careers and the way exciting emerging technology is shaping all aspects of our lives.



Our national programme for students aged 8 to 13 surfacing the "invisible" jobs powering the modern digital city. Our planet requires a radical shift in how we live together. How can we use energy more efficiently? How can we improve infrastructure? How can we live healthier and happier lives? These challenges will require solutions from the next generation of scientists, thinkers and leaders. Welcome to the 'Smarter, Kinder, Safer' TeenTech City of Tomorrow.



Our TeenTech Live virtual programme of sessions have gone from strength to strength. They are hosted by well-known science and technology reporters, and are interactive fun and engaging. Recent sessions have included Animation Masterclasses (featuring guests from Aardman Animations and Industrial Light and Magic), Augmented Reality Masterclasses, Natural Disasters, Sustainability, Accessibility, Space and more! They are free to join and can be watched by entire classes or year groups.



TeenTethics is a Royal Academy of Engineering-funded project that gives young people a voice in engineering ethics. Over 700 TeenTech students worked with engineers, creating a Charter for Ethical Innovation that reflects their values about how technology should be developed and its impact on people and the planet. This youth-created "living document" will evolve with technological change and invites contributions from young people under 25, while also being shared with engineers worldwide to promote ethical practice in the profession.

TEENTECH IN NUMBERS

DIRECT REACH

The number of students involved in TeenTech events every year:

>15,000

INDIRECT REACH

We estimate that through our whole school approach via teaching materials, Young TeenTech Ambassadors, assemblies and our website this rises to:

>75,000

SCHOOL PARTICIPATION

The number of schools participating in our events or using our resources this academic year:

>480



- ⇒ 99.5% Schools and employers who participate in TeenTech programmes say they will 'definitely' do so again.
- → 97% teachers say our programmes are useful to extremely useful in developing creativity, teamwork, confidence, and an understanding of the breadth of STEM careers
- → 97% say our programmes are useful to extremely useful in developing an understanding that gender, ethnicity and social class need not be a barrier to success.
- → 87% teachers say TeenTech improves student confidence about their abilities.

- → 90% teachers say TeenTech improves their own knowledge about industry.
- ⇒ 85 % teachers say we help students refocus their thinking about school subject choices and to consider career paths they never knew existed.
- Our students become TeenTech ambassadors, sharing their experiences with other students, companies and at global conferences
- → Data from our initiatives informs and improves all our programmes and is widely shared at conferences, in reports and in the press

SUPPORTING TEENTECH

TeenTech is completely funded by sponsorships and donations. If you would like to make a donation to TeenTech, please get in touch, or scan this QR code to donate via JustGiving.





OUR PARTNERS

















ATKINSRÉALIS

If technology is to be a way of life, then all careers will be STEM careers. It's crucial that employers sit at the heart of the skills system, partnering with educators to widen the gaze of young people as they look towards the world of work. AtkinsRéalis believe this is not a nice to have, it's a must have if we are to create a progressive and transformative journey for learners across the spectrum. Our answer to the skills crisis is the provision of STEM school and college governors who are anchored onto leadership teams enabling attainment in STEM subjects and amplifying concepts such as coding, data analysis, cybersecurity, artificial intelligence, and machine learning, by plugging in an operational programme of STEM ambassadorship over their 4 year term, to put STEM sustainably on the school agenda. Working with key delivery partners like TeenTech is fundamental to making this a reality.

We see the transformative power of early STEM engagement in action every day. A primary school lesson about computer software on micro:bits can spark a love for Python programming in secondary school. This passion then develops into a work experience placement with a software development team, where students learn to build processes that analyse geospatial data to integrate environmental awareness in the design for new railways. These experiences often lead to apprenticeship opportunities with the same team, which can progress into leadership roles such as Digital Lead for a major transport interchange. Ultimately, this journey can culminate in entrepreneurial success, with former students becoming CEOs of innovative tech start-ups.

AtkinsRéalis are committed to making access to digital education accessible to communities that reflect the diversity of society so that everybody has a chance to succeed.

AWS

We are committed to inspiring the future generations of technologists, and encouraging equitable access to careers in technology. Working with TeenTech we hope to dispel some of the misconceptions young people have and ignite their interest in STEM subjects. We are very excited to help the next generation of creative thinkers and future builders find their path by participating in the TeenTech Awards.

COMMVAULT

Commvault is proud to have sponsored TeenTech for the last year. Today's young innovators are tomorrow's tech superstars. As a company that help customers achieve continuous business in the face of continuous threats, Commvault sees firsthand how creative and tech-savvy young people are becoming. We support TeenTech's incredible work in showing 8-19 year olds that STEM careers can be incredibly exciting and rewarding, there are so many other ways to have a career in Tech beside the obvious.

Commvault is keen to support the generation of the future – the generation that's already creating apps, building robots, coding games, and solving problems in ways that even impress older generations – something which is so evident at these Awards Finals. We understand that the most relevant tech innovations often come from fresh perspectives and bold ideas, which is exactly what young people bring to the table. Supporting TeenTech isn't just about giving back to the community – it's about recognizing that young people aren't just the future of technology, they're already making it happen right now!







HALEON

Haleon is a proud sponsor of Teentech as we continue to learn so much from the younger generations in their application of technology and bringing new innovative thinking as shown by another year of hugely impressive entries in the Health Category. By collaborating with TeenTech we hope to inspire the younger generation and help them recognise the endless future opportunities and possibilities in science, technology, and engineering. Year after year we are constantly impressed with the level of detail and high-quality entries that we get to judge as part of the Health Category – it makes our job as judges very difficult but very enjoyable too!

NHS SHARED BUSINESS SERVICES

As part of the NHS family, we're uniquely positioned to provide services that increase efficiency and quality, save money, and make life easier for NHS employees and suppliers, enabling better patient care for all. With the success of the NHS heavily reliant on digital transformation and deploying the most innovative tech solutions, it's more important than ever that we encourage our young people to pursue STEM careers and support them as they shape the very future of healthcare.

SOPRA STERIA

At Sopra Steria, we believe the world is how we shape it. We think of and provide solutions for the long term. For a better future. And it's the next generation that will deliver this change. It's important to us that we're supporting and encouraging more young people – regardless of their background – into STEM careers, helping them see how they can drive positive change and inspiring them to become tomorrow's tech leaders.

SSCL

For more than a decade we've been providing critical services on behalf of major government departments and agencies, with the aim of empowering the UK public sector with digital solutions and innovative services that deliver better outcomes for UK citizens. We're committed to playing our part in attracting, encouraging, and empowering, the next generation of tech talent, which will help ensure that the public sector continues to benefit from the most innovate ways of working.

THE WORSHIPFUL COMPANY OF FUELLERS

A modern City of London Livery Company, with ancient roots, the Worshipful Company of Fuellers represents and engages with all sectors of the energy industry. All Livery Companies have a charitable element, and as well as the relief of poverty an important aim of the Fuellers Charitable Trust Fund is the advancement of education and research.

The Trust is therefore delighted to have supported TeenTech's wonderful work since 2019; the future of our industry depends on today's young people.



SHARING THEIR STORIES TODAY...

- → Charles Clayton (TeenTech Alumni)
- → Rory Cellan-Jones (Journalist and Author)
- → Prof Suzie Imber (Space Scientist)
- → Thamina Islam (TeenTech Alumna)
- → Zoe Laughlin (Insitute of Making)
- → Inel Tomlinson (Actor and Comedian)
- → Hannah Gibson (Diverse Integration)

AWARDS PRESENTATION CEREMONY

Welcome by Maggie Philbin, CEO TeenTech Charity

Presentation of Awards

Compères: We are delighted to welcome TeenTech Award alumni, Hibah and Bobby, to host the ceremony.

ENERGY & ENVIRONMENT - SUPPORTED BY AMAZON WEB SERVICES

A NOT SO GREEN PESTICIDE BY SAKINA

A research review of the environmental effects of pesticide use, and ways in which it affects the local environment.

BIRDS AT SEA BY WARISHA. PRIYA AND HARPUNEET

Birds at Sea is an innovative concept where specially adapted drones can be manufactured to enable rubbish to be captured and cleaned from the World's oceans and seas. Drone designs can be customisable and incorporate different designs being inspired by species of birds. These drones have GPS tracking and camera technology and will be manufactured in unison with funding from sponsors. These drones are programmable or capable of detecting rubbish and pollution and removing it from the water. Drones will prioritise plastic waste as these make-up three quarters of global marine pollution and the drones themselves, are manufactured using sustainable resources and materials.

THE DISASTER FREE DOME BY CHIARA

My product will reverse the massive destruction and loss of lives caused by floods, hurricanes and earthquakes in developing countries. It will be a cheap, versatile product that will prevent people from suffering injuries of even death in the face of a natural disaster. It will heat people during winter, cool them in summer, and guard them against the dangers of natural disasters in all four seasons. I will need to research hurricane wind speeds, floods, and the scale of the earthquakes. The second key component of the research will be discovering waterproof but highly insulating materials that are also strong and can resist wind and debris.

ECO-SUBLIME BY ALEX AND JODI

Our project is about generating flood defense system, A wave machine will be able to counter-act the floods and push them away with double the strength. Recycling the dirty flood water, we will provide filtration of the flood water to give to the people affected by the floods clean water.

RECYCLE AND CO BY TIFFANY, ISABELLA AND FINN

A solar-powered and AI-enabled public litter bin that sorts, compacts and distributes litter for minimal waste and maximal recycling.

WASTE2WATT BY JOANNE. JENNIFER AND OLIVIA

Waste2Watt is an innovative smart bin that transforms household food and garden waste into usable electricity through dual energy conversion technologies. The system utilizes Microbial Fuel Cells (MFCs) where bacteria break down organic matter, releasing electrons that generate electrical current through extracellular electron transfer. Simultaneously, the bin captures bio-gas from decomposition and employs zero-emission catalytic methane pyrolysis, separating methane into hydrogen and solid carbon, then burning the hydrogen cleanly with water as the only byproduct. Integrated AI optimizes electricity production and provides real-time monitoring through a companion app.

WEARABLE TECHNOLOGY

PAWPULSE BY SARA, MAHROSH AND NUR

PawPulse uses advanced technology to help you monitor your pet's health and activity. It includes sensors that track things like movement, heart rate, and even sleep, along with GPS for real-time location tracking. The device syncs with your phone or computer through Bluetooth or Wi-Fi, letting you view all the data in an easy to use app. The data is analyzed using AI, giving you insights into your pet's health trends, and the app keeps you updated with alerts and progress.

PULSE & THREAD BY BIANCA, NABAHA AND ANNIE

Pulse & Thread is a clothing brand aimed to help prevent people from consuming too much alcohol and caffeinated drinks to keep themselves healthy. This can be done by using a monitor on the piece of clothing which monitors your heart rate, sending a notification to your phone if you are consuming too much alcohol / caffeine. The brand is also aimed at selling clothes which are compatible with this monitor.

VIZION BY ALEXANDER AND ROBIN

Introducing Vizion - the future of mobile tech. This ultra-light headset reads brainwaves from your visual cortex, using cutting-edge research to project a sleek phone interface into your line of sight—no hands, no distractions. Stay fully aware of your surroundings while texting, streaming, or gaming, all without ever looking down. Vizion isn't just smarter—it's safer. Say goodbye to phone-snatching and hello to freedom. With gesture-based controls and immersive games, your hands become the controller. Sharing your screen with nearby friends is seamless. Live the moment—own your Vizion.

FUTURE OF TRANSPORT

CITYSAFE BY ANESHA. MELISSA AND NOOR

When it comes to transportation, safety is often a major concern. We've all heard stories of phones being stolen at train stations or people feeling uneasy while walking to a bus stop. Yet, most mainstream navigation apps prioritize the fastest route home, overlooking the importance of safety—something that matters deeply to many travellers. The City Safe app is designed to help users travel more safely without sacrificing efficiency. Our first main use for our app is route-planning that is focused on safety and our second main use of our app is a informal platform for people to report crime or general feelings of unease.

H2GO BY RORY AND MOHAMMAD

A new approach to hydrogen fuel generation – aiming to make hydrogen powered vehicles more practical and



eco-friendly by eliminating the need for external refuelling stations. Instead of relying on stored hydrogen in pressurised cans, the vehicle produces its own fuel on demand through a reaction between the aluminium and an acidic electrolyte, significantly decreasing the cost. This project tackles the two main challenges with hydrogen-powered vehicles: limited refuelling infrastructure and the economic-environmental impact of conventional hydrogen production, often reliant on fossil fuels. The system is scalable and 3D-printable, making it simple to manufacture.

SAFFTY STFFRING WHFFI BY HARRY

I am designing a biometric fingerprint steering wheel that aims to enhance vehicle security and personalise the driving experience by integrating biometric technology directly into the steering wheel. I am passionate about automotive technology and engineering, and I believe that this project could offer valuable insights into future vehicle security systems and user interfaces. More than 94 million cars were made in 2024 and 106,524 vehicles stolen over the course of 2024 my product will solve this problem and improve public safety and security.

TRAIN RAMPS BY CHARLOTTE, OLIVIA AND MAIA

Have you ever witnessed a wheelchair user struggling to get on the train? Or dropped something down the gap? Then 'Train Ramps' would be your saviour! 'Train Ramps' are automatic ramps, triggered by a button, which slide out from underneath the train. Pressure sensors sense the ground, increase the resistance, stop the current, and stops the ramp just before the yellow line, for safety. They are made of aluminium or recycled materials to be environmentally friendly and cheap! With barriers to avoid slipping, alarms and lasers for inclusivity and ridges, train ramps are easy for everyone to use!

HEALTH - SUPPORTED BY HALEON

BREATHWATCH BY FLORENCE. OLIVER AND AMIYA

BreathWatch, the smart inhaler attachment and paired wristwatch that alerts parents and carers (via the connected wristwatch) when their child or person they care for has used their inhaler, relieving the anxiety of whether the inhaler is being used as needed when at school or out on their own. If the child has not used the inhaler and the parent or carer is concerned, they can press the button on the wristwatch which will then send an alert to the inhaler to remind the child. There is an optional app to connect with the device.

GYMERATOR BY JAMIE, DARIUS AND MOHAN

This idea of Electricity Generating Gym is to save energy costs for the gym, while encouraging people to do exercise to help save energy. Other ideas in this area have mostly focused on cardio machines, whereas our idea is to move this on to weights and bring it to be a public service.

MICROBIOME MODUL ATOR BY UBAID

The Microbiome Modulator is a device attached to your gut system, which can monitor gut bacteria to get information about the gut health of a patient. It uses AI technology to do live analysis and give advice on the patients physical and mental health.

SUN CREAM SPRAYER BY JACKSON

The problem I have found is that many people struggle to reach their backs when applying sunscreen. This can cause severe burns that can eventually lead to skin cancer and other diseases. My product could reduce the load on health care services and reduce unnecessary injuries. This would result in less money being unnecessarily spent on easily preventable skin cancer, resulting in more effective prevention and treatment of other diseases. My product could raise awareness for skin cancer and the advantages of wearing sunscreen, further reducing the number of cases.

SAFETY & SECURITY - SUPPORTED BY COMMVAULT

KAB BY ABDUL AND KOBY

KAB is a luxury Smart Ring that has the unique feature to open doors using NFC wireless technology. This feature promises to protect your home from intruders and provide a stylish ring.

SAFE CHILDREN'S BICYCLE HELMET BY MALEE

My product helps tackle safety for children and disabled people when cycling. Integrated fall detection automatically sends an emergency call in the event of a fall to enable rapid assistance. The GPS system with navigation function also ensures users always find the right way and can be quickly located if needed. The helmet is connected to an app for parents so they can locate their child. This function helps children to move independently and more freely.

SAFE: POST BY JACK AND JAKE

Smart filters, safer feeds. Safe:Post is an innovative app and bolt-on powered by AI to help limit potentially controversial or damaging content being posted online. When you make a post on your social media, Safe:Post analyses and detects any controversial content alerting you to anything potentially problematic before you click send. Online safety, cyberbullying, and internet crime is a real threat to our safety, Safe:Post aims to offer a defence to make our online world a safer one.

SAFESTRIDE BY SAJIDAH, DELPHIA AND IFFY

The SafeStride is a innovative smart insole designed to make users have a safe experience and peace of mind whilst they're on the go. Adding a touch of safety with everyday wear, it helps the wearer to discreetly alert others when in danger, and make sure help is quickly on the way in case of an emergency. It is ideal for those who prioritise both comfort and security, the SafeStride ensures that personal safety is never compromised, no matter the situation.

TAY - HOME SECURITY AND MONITORING BY TIA AND ALICE

The goal of this project is to create an affordable, easy-to-install security monitoring system and an automated plant-watering system. By utilizing Arduino chips and sensors, we aim to offer a solution that is both cost-effective and accessible for individuals with minimal technical expertise. Additionally, the system will encourage users to learn text-based programming, fostering skill development while solving practical problems.

CREATIVE, DIGITAL AND DATA SKILLS

CALMI BY RÓISÍN, BETSAN AND MAIA

Calmi is a soothing customisable Virtual Reality experience designed to help you calm down.

OTHAEN GAME PROJECT (RISE OF THE FALLEN) BY WILLIAM

My project is a game set in a world where magic has fallen and monsters have risen. The protagonist must save the world's magic and destroy the darkness that threatens it. The game is envisioned to have multiple levels based on how the character / plot develops through play.

SIMPLE DATA SOLUTIONS BY ARNAV, PRANAV AND PRANAV

59% of businesses don't use statistical analysis when making decisions, and qualified data scientists can



cost over £60,000 per year. Simple Data Solutions seeks to broaden access to powerful data-driven insights to small businesses, academic researchers and students alike. Our program delivers 3 key features in a user-friendly webpage; a data cleaning function which uses machine learning to detect anomalies, a robust prediction algorithm synthesising cutting-edge statistical techniques, and a versatile data visualisation tool that allows users to tell compelling stores with interactive graphs. We empower small teams to turn data into action, making advanced analytics the new standard.

TERRANOVA BY REHAN. FIDA AND MUHAMMAD

TerraNova is a state-of the art rover designed to withstand, explore and terraform the harsh conditions of Mars - transforming it into a habitable environment. The rover will have an array of different features allowing it to carry out many different tasks, such as: moving boulders, introducing plant-life, monitoring planetary conditions and relaying information back to scientists on Earth.

UNITY LINE BY BELLA, JESS AND TOMMY

Our project is a helpline and App based on providing support to victims of racism and to lead them on how to deal with the discrimination. We aim to give support to anyone who feels like they need to talk about their experience; whether the past, present, mild or severe experience. We are always here to help.

URBAN BLOOM BY ALICE, TALIS AND JAMES

Our idea consists of a modular "plug & play" system for creating a rooftop garden using pre-planned irrigated components to set sized planters. The components include planters, grass mats, wall trellis, wall hanging pots and more, which you can find in a digital catalogue. Much research has gone into the type of plants that is used– pre-populated plants that are hardy and require little care and can be watered with self-driven built-in irrigation. Our carbon offset research will help our clients decide which product is most suitable for them. Our hope is to create more green spaces in under utilised spaces to enhance client well being and to improve the climate picture.

SKILLS FOR TOMORROW'S WORLD - SUPPORTED BY THE WORSHIPFUL COMPANY OF FUELLERS

TEAMWORK

Understanding how to build and work well as a team is a crucial skill. This award recognises the students who demonstrated the ability to work well together.

THINKING BIG AND BOLD

Being able to think differently and having the courage to consider new ways of doing things is a highly valuable skill. It often means taking a risk and having the courage to fail and then try again. This award recognises students who have looked at the world and considered fresh solutions.

TENACITY

Having the inner strength to keep going, even when you hit problems is a real skill for life. Students celebrated in this category have found ways to overcome obstacles.

COMMUNICATION

This award celebrates students who have been able to clearly communicate their ideas, whether in written, oral or visual ways. This is such a vital skill – it doesn't matter how strong your idea is , if you can't find a way of letting others know.

WORKING WELL WITH INDUSTRY

TeenTech actively encourages and supports students to seek feedback and advice from industry experts. Looking beyond your own experience will always make a project stronger and is also a way to build a very useful network for the future. All the teams celebrated in this category have made a serious effort to do this and embrace suggestions and ideas.

BEST INNOVATION (YEARS 7-11) - SUPPORTED BY SOPRA STERIA

INVSIHELP BY JOSHUA AND JOSEPH

Invisa Help is a dual smart help system that gives you cutting edge support on a wide variety of tasks in day-to-day life. This could be from giving you important information on someone (such as their name), helpful sugar count displays while shopping or even showing real time data in the conversations you are having (such as the stress levels of your peers).

JOULE GENERATION BY MALIK, JIBRAN AND ASHOK

This project innovation shows technology that can capture, harness and utilise kinetic energy from vibrations to be used as renewable energy for environmental sustainability and reduce the world's pressure on using harmful fossil fuels. The planning and research of this project shows the potential of using vibrations from large events such as earthquakes and how this could be scaled down to using everyday vibrations from trains, schools and motorways, etc. Device and prototype designs show how the project can be cost-effective and how the planet can deal with a real-world challenge and how to address them. The device is rain resistant and has anti-theft technology incorporated within it.

THE KINSULATOR BY KELLIE. SASHA AND RUBY

Self heating water bottle or food container which requires no charging and can generate its own energy and thermal heating.

OVALBRELL BY LIENA AND MAUELA

Are you tired of getting your backpack wet when it rains? The Ovalbrell will solve your soggy problems on the school run or at the weekend!

TRY-BFFORF-YOU-BUY CHANGING ROOM BY MARNIF

My product will eliminate long queues for changing rooms, and how long it takes to change into each item of clothing. It will also allow the customer to visualise how the piece of clothing will look like on. My product will also be made out of 100% recycled wood and the screen will be made out of recycled glass/plastics which will help with environmental problems. The main objective for this product is to make the average shopping experience more seamless and less stressful.



BEST INNOVATION (YEARS 12-13) - SUPPORTED BY SOPRA STERIA

CRYSTOELECTRO BY RENAAL

Crystoelectro looks into the possibility of using piezoelectricity to conserve the power within electrical car batteries. Increasing the distance that can be traveled on a single charge would not only benefit the driver but would also lower the demand for fossil fuels, reducing carbon emissions.

THE DRAGONFLY: DUDLEY MARKET RE-DEVELOPMENT BY KUNDAI AND RICHARD

The Dragonfly is a 'biophilic' architectural design of a 1:100 3D model showing the walk-in marketplace. The current market stalls are not 'fit for purpose' and Dudley Council is re-developing them in the 'Levelling Up' initiative. Our version creates efficient, standardised, storage facilities, comfortable seating areas and an eco-friendly environment. It will be an activity hub for community interaction linking to the new Bus Station and Metro Link. We gained expert guidance from a lead Engineer at ARUP which was invaluable and inspiring. He suggested we use 3D printing, Smart materials and AI sensors to improve how the structure interacts with the users and environment.

LIFE 101 BY IMOGEN AND IFECHUKWU

Life 101 is an innovative Al-powered storytelling app that transforms complex real-world topics into engaging, age-appropriate narratives for children aged 4-10. Using advanced GPT-based AI, StoryGAN image generation, and text-to-speech technology, the app creates personalized interactive stories, comics, audio books, and summaries that help children understand difficult concepts like emotions, social issues, and current events. The platform offers multiple learning modes with customizable animal guides and progress tracking features. Parents receive weekly email insights about their child's reading progress and comprehension levels. Life 101 addresses declining literacy rates by providing an environmentally sustainable, cost-effective alternative to traditional books while supporting parents in explaining challenging topics through child-friendly storytelling that encourages curiosity and emotional intelligence.

PHYSOSHOE BY SREYA

The Physo-Shoe is a smart, self-powered shoe that uses piezoelectric technology to monitor foot health in real time as the user trains. In recovery mode, it promotes healing and relieves pain by providing targeted electrical stimulation. The shoe wirelessly syncs to a mobile app, so a user can easily see data about their gait and be aware of potential injuries.

STITCHSAGE BY LIYANA

StitchSage is a crochet kit that connects to an app, designed to help beginners start their crocheting journey, or a seasoned crocheter learn new stitches, in a user-friendly simplified manner, while promoting sustainability in making and wearing clothing.

TAPP2REMEMBER BY BENEDICT

Tapp2Remember is an app I'm creating to help students like my sister, who struggle with organisation due to neurodiversity and executive function challenges. These brain functions control planning, memory, and focus, and when they work differently, daily tasks can feel overwhelming. My app uses NFC tags so you can tap items off a personalised checklist with your phone. It builds routine, muscle memory, and makes getting ready less stressful and more fun. I'm building it with AI to create a neurodivergent-friendly, accessible tool that reduces anxiety, builds independence, and frees up brain space for big ideas, not PE kits.

FOOD & RETAIL

BIOPLASTICS BY YASHVI AND SOFIA

Our project aimed to develop a sustainable, biodegradable plastic alternative to reduce plastic pollution and its harmful effects on the environment, wildlife, and humans by eliminating microplastics. We used agar-agar (from algae), water, and glycerine to create a plastic-like material that breaks down naturally. After research and testing, we developed a low-cost prototype suitable for everyday uses like food containers and packaging. This project highlights the importance of eco-friendly innovation. With future tech and machinery, we believe most single-use plastics can be replaced by biodegradable alternatives without sacrificing convenience or functionality.

BSFUTUREFOODS BY ADAM

BSFutureFoods is an innovative food technology concept that utilizes black soldier flies (BSF) to transform global nutrition. We produce sustainable gelatin for confectionery and protein supplements, providing an environmentally responsible alternative to conventional animal-based ingredients. Our solution requires significantly less land and water than traditional agriculture while creating a circular economy by converting organic waste into valuable nutrition. BSFutureFoods can help address food security, sustainability and affordability- offering nutritious products that align with planetary health.

CALMBITES BY SETH, NIVEDH AND SIHENG

Calmbites: Stress Relief Chews The Calmbites project aimed to develop stress-relieving chews, initially using Ashwagandha. While Ashwagandha offered benefits, its UK import difficulties, health concerns, and slow efficacy proved challenging. School rules against sticky gum also presented a major hurdle. This led to a pivot: Chamomile gumdrops. Expert advice favored non-sticky chews, providing a viable, school-friendly alternative. Next steps include making chamomile gumdrops, gathering student feedback, and assessing production costs. The project adapts, focusing on effective stress relief.

NHS FOOD WASTE APP BY KHADIJA. COLEBY AND PHOEBE

We have created an App for the NHS to be used by patients on admission to meet children's individual dietary and health requirements. This ultimately will help to reduce food wastage and therefore costs for the NHS.

THREADBACK BY TILLIE, JESSICA AND GEORGIA

ThreadBack is an innovative sustainable fashion app that transforms unwanted clothing and textiles into trendy, remodeled garments and accessories. Users donate clothes in any condition to local collection points, where skilled sewers from community partnerships including Ministry of Craft and Stitched Up creatively upcycle them into contemporary pieces. The remodeled items are sold through the app at affordable prices, with 15% of profits returned to donors and the majority donated to local charities supporting vulnerable communities. The platform tackles the massive textile waste crisis, where 92 million pieces globally enter landfill annually and single garments take over 200 years to decompose. ThreadBack creates a circular economy bridging sustainability with accessible fashion.

BEST RESEARCH

ELEVATED FIREFLY PETUNIA BY WILLIAM. UTKARSH AND JOSEPH

The Elevated Firefly Petunia is a genetically modified plant with added enzymes to enhanced it's bioluminescence while simultaneously playing a role in combating CO2 levels. This ability is harnessed to create what we call a 'gloasis' (glowing/oasis) gives it a unique use ascetically as well as attractive the attention of tourists.



JDV LOW DRAG CONCEPT TRAIN BY JAKE, DYLAN AND VIYAN

The JDV Low Drag Concept Train is a design research project exploring innovative future rail transport. This includes improved exteriors for aesthetics/aerodynamics (based on F1 car design), updated interiors for improved/easier hygiene and future power systems. We focused on three strands based on existing trains and improvements that could make transport more power effective/ fuel efficient, better designed from an ergonomic perspective and be more visually appealing. We have balanced 'form and function' in a prototype model to show the concept. We contacted Priestman Goode an internationally recognised Transport Design Consultancy and their advice was invaluable.

LIFE BEYOND EARTH BY DHWANI

This project explores the feasibility of creating a self-sustaining habitat on another planet, focusing particularly on Mars. It investigates essential life-support resources - energy, food, water, and shelter-combining both physics and architecture. Drawing from NASA research and journals, this project addresses challenges like radiation, low gravity, and resource scarcity. I also designed a conceptual architectural model to showcase potential solutions, such as hydroponics, solar/nuclear energy generation, and closed-loop ecosystems.

MULTI FUNCTIONAL FURNITURE FOR SMALL SPACE LIVING BY ABDUL

My multifunctional piece of furniture addresses the problem of a lack of space in student accommodation and tiny apartments. This multifunctional desk folds into a range of designs to suits different needs. It can easily be flat packed and put into storage, or for transportation at the end of the term and transported home.

TRANSPORTABLE KIDNEY PERFUSION MACHINE BY ANYA AND TAMARA

The team wanted to make a portable organ machine so that people were able to receive an organ no matter where they were located. The aim was accessible organs for all, narrowed down to a kidney machine as the project developed. The aim of the machine was to be lowering costs compared to current competitors which only market through private healthcare providers. The materials used would also aim to be biodegradable in order to optimise the conditions necessary for transporting kidneys across a long transportation period.

PATIENT SAFETY - SUPPORTED BY NHS SHARED BUSINESS SERVICES

CLINTEL BY SOPHIA

Clintel is an AI powered software aiming to health care professionals to make more accurate diagnosis by accumulating contextual information such as area and outbreaks that may have an impact on condition of a patient.

COCOON CARE BY ZAHRA, ZAHARA AND SHIVONNE

The CocoonCare is a sleeping bag-inspired, portable baby incubator designed for ease of transport, energy-efficient heating, and real-time monitoring as well as ensuring our target patient is safe. It is specifically developed for use in low-resource areas, emergency situations, and home care for premature infants. It combines simplicity, portability, and advanced biometric features that help regulate temperature and respond to environmental conditions.

MEDITRACE BY IZABELLE

I am creating an EpiPen box that alerts you when your child/friend/parent has opened it to use. The alert is triggered on opening and sends a safe and secure message to parents/carers and other emergency contacts to indicate the pen has been used. It then gives the EpiPen users' location to selected contacts, via the coding and Microbit to keep the user safe and secure.

MEMO:RE - MEMORY DEMENTIA AID DEVICE BY ETHAN. PARMLEEN AND EINAR

Memo:RE aims to help slow down the rate which dementia occurs, allowing the brain to have more memory-based activities to keep it challenged. It is a grown-up activity centre for Universal users to develop/engage their minds as sadly this is a real issue with 'early-onset' dementia. It includes memory-based tasks (Pans Game), voice recording, heart-rate monitor and sensory activities to keep the mind stimulated. In serious cases it could help re-teach simple actions/fine motor control such as tying shoes, opening bolts/locks and untightening screws. This was developed with advice from an Alzheimers expert. She suggested to develop the product in red as the last colour that is recognised.

RICHA BY BHAVYA

RICHA, named after my mother, stands for Response to Infectious Contamination in Hospital Airflow. This product came into creation to act as a solution to the common illness, Hospital Acquired Pneumonia - also known as HAP. RICHA is a device that can sterilise air containing high pathogen concentrations - Using a multi-layer filtration system and UV light chamber, RICHA can intake the surrounding air and clean it of all bacteria, before expelling the fresh, untainted air back into the atmosphere. Through the use of an assistant application employing artificial intelligence to track real time changes in pathogen concentration, the user can locate the area where sterilisation is needed most!

SLEEPWALKING MONITOR BY ANTHEA AND VIVIAN

Our sleepwalking monitor is located, like sport bands, around the person's ankle. It can be used by the dementia patients and children, who encounter sleepwalking at night. The monitor's main purpose is to ensure safety of the wearer, and to reduce stress and unease for their carer/guardians. As for its function, the accelerometer and small pulse sensor will be located inside the band to test for upright movements and a change in pulse. When activity has been detected, this system will be connected to the carer/guardian's device, and they will be notified.

DESIGN & CONSTRUCTION

CHARGE AHEAD BY ELIZA AND EVE

Electric vehicle batteries have a finite life: once they have been recharged to their limit, they then contribute to landfill and pollution. We want to change this. We plan to utilize old car batteries which aren't usable for cars which are going to be thrown away for sustainable solar energy storage and production in low income countries such as Namibia and Botswana. They will be used to store energy from solar farms in the Namib desert. The batteries will then be moved and can be connected to households or establishments, with the energy being utilised for household lighting; maintaining the cold temperature in food, water or medicine storage; or powering water sanitation equipment.

COMPACT SMASH BY ISY AND ANIKA

A more convient way to transport rackets - a collapsable racket to make group travel on public transport easier.

E SHOES BY BENJAMIN AND GEORGE

In todays throw away society, people own too many clothes and shoes and this is really bad for the planet, as well as very costly. We decided to design eshoes, multifunctional shoes that can be adapted for different environments, made in an eco- friendly way. Helping the world one step at a time.



EDUCATION

ADAPTOAPP BY FLORENCE AND JEMIMAH

The Adapto App is an innovative educational platform specifically designed to support children with learning disabilities including dyslexia, ADHD, dysgraphia, and dyspraxia. The app features advanced voice recognition technology that tracks teacher instructions and summarizes key points for students with attention difficulties. It organizes screenshots of text into customizable folders, automatically converts highlighted struggles into adaptive learning materials, and provides dyslexia-friendly fonts with colored filters for improved readability. Additional features include vocabulary assistance through tap-to-define functionality, supplementary math and English programs, and life skills training covering money management and social skills. The app addresses the critical gap where only 5% of people with learning disabilities gain employment, providing personalized educational support that adapts to individual learning needs.

READ WRITE SPEAK BY ELLEN. NEVE AND ISABELLE

This is an app designed on helping vulnerable teens, refugees and immigrants improve their English language skills. Through interactive features, it aims to support users in mastering reading, writing, and speaking, making it easier for them to adapt and thrive in an English-speaking environment. Through use of the device's microphone, it will provide users with feedback and personalised advice to help them improve.

SUPPORTING CHILDREN'S DEVELOPMENT THROUGH CLOTHING BY MIA

Clothing can be a force for good and for change, in this project I have tackled an incredibly important issue of young children's development specifically those with additional needs. Through extensive research and a user centred approach I have looked at how I can support young children in their learning, ensuring my designs are both thoughtful and innovative. I have been able to continue to iterate and developed prototype for a creative jacket with multiple features to both engage and offer a comfortable reassuring experience for the child.

TESTTITAN BY BIANCA

My AI chatbot, TestTitan, redefines revision by integrating directly into digital notebooks. It tackles three key student pain points: 1) Exam stress through bite-sized "Explain Like I'm 5" breakdowns 2) Inefficiency with in-notebook quizzes 3) Wasted time by eliminating app-switching. Built using Canva and Arsturn after discovering 80% of peers waste revision hours, it outperforms generic tools like Quizlet by providing contextual help where students work. This project sharpened my AI and design skills while showing how tech can democratise education. TestTitan is an intelligent, integrated solution for effective revision.

BEST USE OF AI - SUPPORTED BY SSCL

FAKECHECK BY AMITH AND HAL

FakeCheck is an AI-powered platform made to help users identify fake online reviews. It analyzes review text using advanced natural language processing (NLP) models and assigns a Trust Score (0-100) to show the reviews authenticity. Users can input a product URL to instantly assess credibility while shopping. Our website also offers features like a Wishlist, which tracks product reviews over time to detect suspicious patterns, and the Anything Scraper, which allows users to extract structured data from any webpage.

LEAFY LOG BY AAMNA AND AYANNA

LeafyLog is an innovative plant care app powered by AI, designed to make plant identification and maintenance easy. with just a photo, the app identifies the plant's species and provides you with detailed information on it's preferred conditions, native habitat and optimal care. What sets LeafyLog apart is its its custom care system, giving watering and nutrient reminders based on each plant's needs, preventing over- or under-care.LeafyLog makes plant care easy for beginners and helpful for experts. Its AI gives real-time tips and reminders, making plant care simple and stress-free.

NERVA BY NATALIE. ADANMA AND REYA

NERVA (Neural Emotional Response and Vital Analysis) is an innovative Al-powered wearable system designed to provide real-time mental health support for students. The multi-component device includes smartwatch, earbuds, and skin patch that monitor heart rate, blood pressure, skin temperature, vocal patterns, and facial expressions to detect emotional changes. Advanced AI algorithms analyze biometric data to identify stress, anxiety, and mood fluctuations, delivering personalized interventions including guided breathing exercises, meditation prompts, and crisis alerts. The companion app features an AI chatbot therapist, mood tracking, and customizable settings with privacy-first design. Unlike fitness-focused wearables, NERVA specifically targets mental wellbeing, offering immediate support without requiring direct communication with adults, addressing the critical gap in accessible mental health resources for young people.

SYMPTRAC BY ELIZAVETA AND MARILYN

This project looks at innovative ways the smart watch can acquire data about the wearer, as there is a gap in capturing audio information such as coughing. Using AI to analyse the sounds of different coughs the smart watch will give you different options to monitor your health.

VFRIDICA BY I OTTIF AND KANDARA

Veridica is an online resource designed to harness AI for learning rather than replace learning with AI. The AI will guide learners to information and resources rather than simply provide answers.

ETHICAL INNOVATION - SUPPORTED BY ATKINSRÉALIS

APPENDATA BY JACK AND REUBEN

It is a general knowledge app where like Duolingo there are lessons to do and get XP and move on to the next level. There are also places to make your own lessons to test friends and a leaderboard. The main standout from games like it is that it uses a confident/not confident feature to determine if you get more or less points depending on what you put and how confident you were of your answer.

DIABIRDIES BY MISHA

DiaBirdies is a gamified diabetes management app that motivates and supports children with Type 1 Diabetes to take control of their blood sugar management. The app, inspired by the popular Flappy Bird game, was developed by a teen with Type 1 Diabetes, for other kids managing this chronic condition. DiaBirdies aims to enhance time-in-range and add a layer of fun to the challenging task of controlling and monitoring blood glucose levels on a daily basis.

HAPTIX TECHNO-BRAILLE DEVICE BY TEMILOLUWA

I created Haptix as something that offers braille in a more accessible manner for the visually impaired and the blind. Braille devices are currently out of reach for schools and families, and so millions of individuals lack reading and learning. Using very small vibrations, Haptix mimics the sensation of braille dots—mapping digital text to touch. It started off as a simple prototype on an Arduino and now is growing into a dream: real-time text translation, support for many languages, and even AI to learn about every user. I believe that knowledge should be accessible to everyone, and Haptix is my contribution towards opening that door.

INCLUSIVE SPORTSWEAR BY ALICE

An in-depth and iterative research, design and make project which tackles the issue of inclusive sportswear for women particularly addressing religious and modesty requirements.



NAVASSIST BY KEWBIE AND LAURA

NavAssist is a navigation app designed to enhance mobility and safety for people with mobility challenges, sensory disabilities, and elders. Unlike conventional navigation apps, NavAssist is not just about finding the fastest route to get from A to B, but about personalising the safest, most accessible route, through the integration of road and accessibility data, and crime rate. Our aim is to bring our users an accessible and inclusive navigation experience, that is about finding the most wheelchair-friendly path, avoiding high-crime areas, and ensuring clear visual and auditory directions, and empower users to have greater independence and confidence in their daily travels.

SIGNAL CYCLE BY NIA

One of the biggest challenges for cyclists is letting motorists know their intentions. If they wish to turn, they must raise their hand from their handlebars. This is dangerous as it makes the bike unsteady and liable to swerve into oncoming traffic. My product aims to address this issue, and I believe that it could save lives. There is a button mounted on the handlebars. When this is pressed, a radio signal is sent to a micro:bit on the cyclist's helmet. The micro:bit then clearly indicates the direction that the cyclist intends to turn. Also, the helmet is uniquely shaped like a shark's fin, a design that improves aerodynamics and sets the product apart by its innovative engineering.

THE WEARABLE HELPER BY RANA

The Wearable Helper aims to support individuals experiencing homelessness by providing access to essential resources such as food, shelter, healthcare and clothing, through the use of a smart watch. This durable, waterproof and flexible watch features GPS tracking to help outreach teams locate and support people more efficiently. Privacy is protected, but if the watch detects danger or abnormal activity, it automatically shares the location. For example, it sends alerts if the person faints or has high blood pressure. The watch also connects to a discount program, making essential goods more accessible and restoring dignity, safety and independence.

TEACHER OF THE YEAR

TeenTech appreciate that behind every student project entered for the TeenTech Awards lies the dedication, time and organisational skills of a teacher, technician, librarian or assistant who has taken on the considerable extra work and planning that participation involves. There will be an individual award for a teacher who we believe has shown exceptional imagination and dedication to help their students.

This year's finalists are:

James Bonney - Bishop Luffa School

Charley Lockie - Bohunt School

Chezzelle O'Neill - Sale High School

Adrian Eynon (teacher) and Richard Cooper (technician) - Dudley Sixth Form College

Dr Davina Kirby - Harrogate Ladies College

YOUNG INNOVATOR OF THE YEAR - THE PEOPLE'S CHOICE

Every finalist has been asked to vote for a team other than their own.

THANK YOUS

Along with our sponsors we would like to thank the following, who have volunteered their time and talent to make the TeenTech Awards a very special day:

- » Andy Quested for leading the A/V team
- » Leigh Emmerson (Persistence Of Vision) for filming
- » Veronica Thorne for stage managing the ceremony
- » Oldham Sixth Form College, Bristol Grammar School and Channing School for providing student volunteers on the day.
- » Sopra Steria and Commvault for providing volunteers on the day.

Over 300 companies and 40 Universities are now working with TeenTech but we would like to especially thank the following who have provided exceptional support for student projects:

Accenture

ARUP

AIRSWIFT

AWS

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Lancashire Police Cyber Crime
MIRA Institute of Technology

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Which? Magazine

Wincanton

Universities supporting student projects for the TeenTech Awards:

Advanced Manufacturing & Engineering, University of Coventry

Birmingham City University

De Montfort University

Harper Adams University

The University of Bath

The University of Cardiff

The University of Central Lancashire

The University of Exeter

The University of Manchester

The University of Nottingham – Faculty of Engineering

The University of Oxford

The University of Leicester

The University of London, Queen Mary's College

The University of Portsmouth

The University of Roehampton

The University of Teeside

The University of Wales

The University of Warwick

Stanford University

