



Lincoln UTC
A college for science
and engineering

Newsletter

February 2022



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Vice Principal's Foreword

As I watch the news each day it appears that society is constantly surrounded by mounting media attention focused on COVID, politics and out of control energy prices. Whilst we can't get away from this news at the UTC, it does, for the most part, feel like a tranquil space where staff and students can escape the pressures of the 'outside' world and focus on what we do best, learn.

As pressure eases from the restrictions of COVID we are able to spread our wings a little and return to our core values and implement our vision: 'Working together to develop the skills for success in industry and university'.

We are constantly developing new industry links in readiness for work experience, later this academic year for year 10 and 12, as well as for the newly developing Technical Level qualifications that will start within the engineering department in September 2022. Some of our new contacts within local industry that we are working with are: Bifrangi UK, HGL Dynamics, Greenray Turbine Solutions, Linwave Technology, Lincolnshire Food Partnership and Telegyne e2v Technologies. I am excited to see these links develop over the next few months

We have also had many opportunities come our way in the form of potential apprenticeships, from the NHS Allied Trust, the Engineering Development Trust (identifying routes into STEM careers), Anglian Water and Rolls Royce (degree level apprenticeship). These kinds of opportunities are often communicated through our parent Facebook page as well as details emailed directly to our students.

On Wednesday 23rd February I will be attending Coventry University with 15 students that will be participating in taster sessions. These include Motorsport Engineering, Mechanical Engineering, Aerospace Dynamics and Electronic Engineering. Watch this space for more university taster days!

We have worked very hard to ensure that the skiing trip to Sestriere goes ahead as planned even in light of government guidance changing in Italy on a weekly basis. Students will be 'on the piste' by the time you read this newsletter.

A date for your calendar...in the summer we will be running a year 10 outward-bound trip to North Wales, Ogwen Cottage, from 18th to 22nd July. The trip is being heavily subsidised by the Outward-Bound Trust and Lincoln UTC resulting in a very reasonable cost to each student of £150. Year 10 students will already know about this opportunity from the assembly held by myself on Wednesday 9th Feb. Interest will, I predict, be high for this trip. Please ask your son / daughter to pick up information from Mr Clifton on their return back to the UTC following the half term break.

Talking of the half term break... have a lovely, well-earned break!

Stay safe and take care,

Stuart Hamer
Vice Principal

Househam Sprayers Visit

Following the completion of his studies at Lincoln UTC in 2018, Adam Kemp secured a position as a Design Engineer with industry partner, Househam Sprayers. Adam is now our primary contact at Househam and he regularly contributes to the project-based learning curriculum and facilitates visits. This term, a group of year 10 students had the opportunity to meet him on site at Househam Sprayers.

During the visit, Adam told our students: “As a Design and Production Engineer I complete a wide variety of design specifications and work as part of a team to improve the machines by adding features and correcting drawings.

“Studying a STEM curriculum relevant to my career aspirations ensured that I gained specific knowledge and skills, allowing me to work efficiently at Househam almost straight away. I also have excellent practical ability which is reflected in my designs when I consider physically building the machines; and completing regular work experience whilst at Lincoln UTC played a key part in this.”

Adam provided a real life industry scenario for students to get to grips with as part of their project to master Microsoft Excel. Using Adam’s part ordering planner spreadsheet, students must use the explanation sheet to input the correct formula and calculate the order date for each component based on the type of machine and build start date. Over the course of this academic year all year 10 students will visit Househam when they complete this particular project.

Househam is the UK’s largest manufacturer and supplier agricultural crop sprayers, and this trip was a great opportunity for our students to apply their learning to real industry experience.



Joseph Banks Laboratories Visit

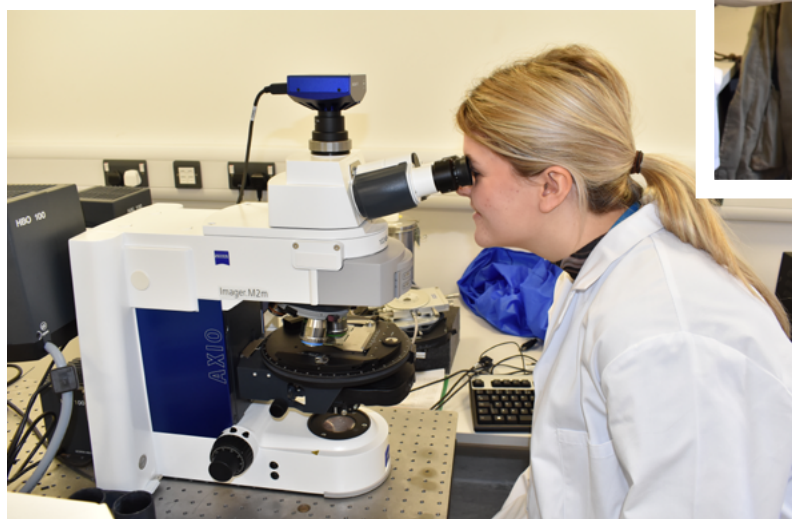
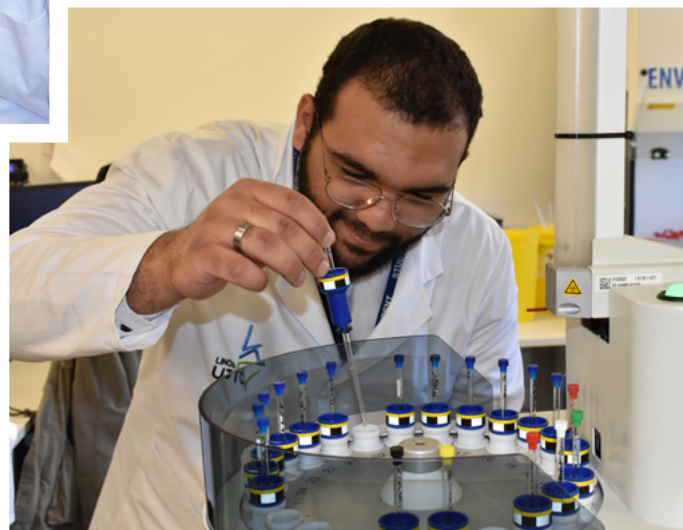
The close connections between Lincoln UTC and the University of Lincoln provide our students with opportunities to explore the subjects of science and engineering alongside researchers within state of the art facilities, starting their careers well ahead of their peers.

Over the course of the academic year all students will visit the University's laboratories and workshops on multiple occasions to strengthen their subject knowledge and use a wide range of industry grade equipment.

This term our A Level chemists visited the Joseph Banks Laboratories to experience studying science at degree level.



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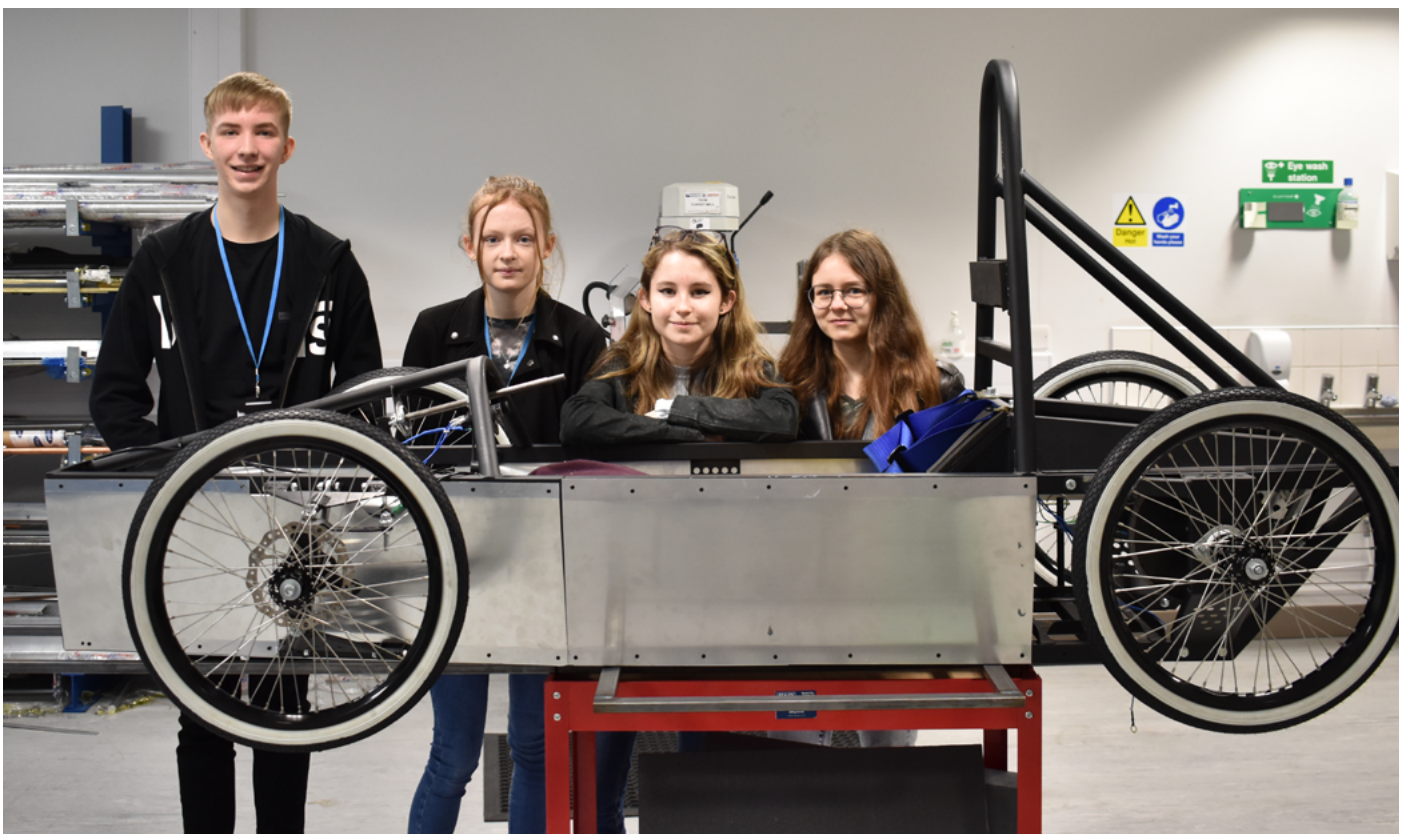


Greenpower Go-kart Project

This term two groups of UTC students began working on the Greenpower Go-kart Challenge, which provides students with the opportunity to design, build and race an electric single seater car on some of the UK's top motor circuits. Key stage 4 students will be entering the 11-16 age category, whilst our key stage 5 students enter the 16-25 age category.

Both UTC teams have chosen to build the Greenpower Kit Car, utilising the materials, resources and manufacturing capabilities of our engineering department. The season runs from April to October and we are looking forward to following the progress of both teams.


We would like to thank Industrial Diesel Power Ltd. and DMW Consultancy Services Ltd. for sponsoring the project by donating £200 each, and Craig Willford from Bardney Racing Federation who visited the UTC to work with both teams on fiberglass body work.



Automatic Pill Dispenser

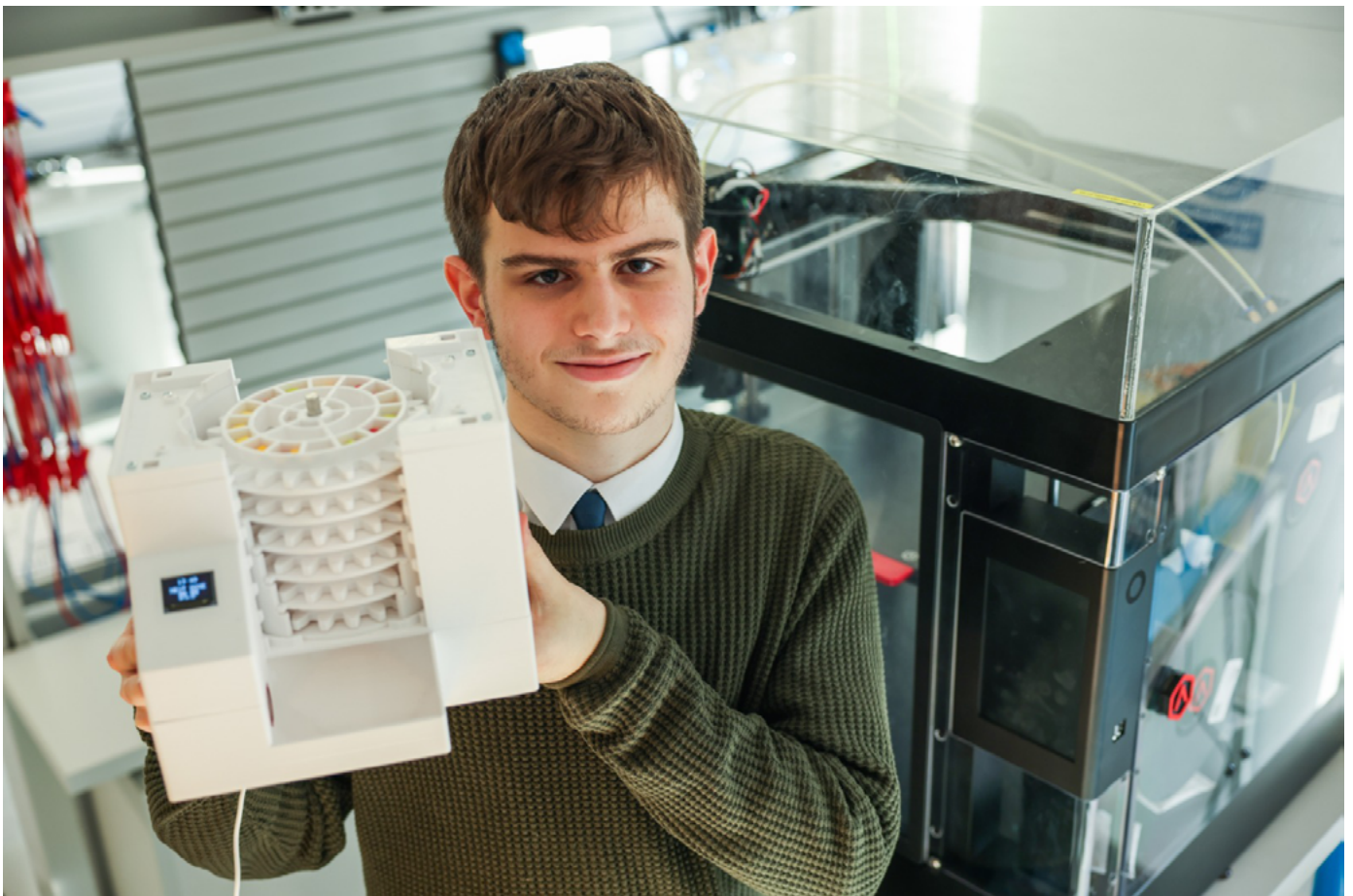
Year 13 student, Edward Pitts-Drake, was recently featured in the local news with his invention, an automatic pill dispenser. The product was inspired by his grandparents who have been diagnosed with dementia and need assistance with taking the correct doses of medication at the correct time.

The dispenser holds 4+ weeks of medication with two doses per day, and has an internal alarm to alert when a dose is available. It has a camera programmed to detect the presence of a hand, and will initially set off a reminder alarm if the medication has not been taken after a set period of time before sending an email alert to Edward.

 News ▶ Lincoln News ▶ Technology

The Lincoln student who created automatic pill dispenser to help his grandmother

The genius invention includes a motion sensor camera and holds four weeks of medication



National Apprenticeship Week

This term we celebrated National Apprenticeship Week. According to data from the Department of Education, in 2021 over three times the percentage of year 13 leavers at Lincoln UTC secured apprenticeships compared to the national average for other mainstream schools and colleges (33% vs. 10%).

Our most recent leavers secured prestigious apprenticeships with a wide range of employers including the RAF, Festo, Rolls Royce, the Police, BAE Systems, Anglian Water, and A Green Engineering.

We work in tandem with local businesses to provide students with the opportunity to benefit from educational opportunities grounded within real industry experiences. The large majority of alumni that have secured apprenticeships did so as a direct consequence of the relationships they formed with these employers whilst students at the UTC.

Whilst studying at the UTC, Jack was invited by Jason Green to complete work experience at engineering manufacturing firm A Green Engineering. Following the completion of his course, Jack was offered a full-time apprenticeship with the company.

Jack said: “My work experience placement kickstarted my career. It gave me the opportunity to meet Jason and demonstrate the practical application of my skills and work ethic.

“I secured my apprenticeship as a direct result of the relationship I formed with A Green whilst at the UTC.”



International Day of Women in Science

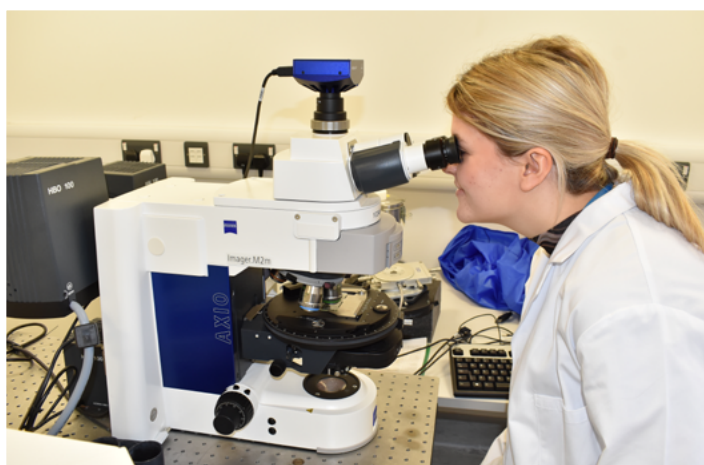
This term we celebrated the International Day of Women in Science on the 11th February. A significant gender gap has persisted throughout the years at all levels of science, technology, engineering and mathematics (STEM) disciplines all over the world. Even though women have made tremendous progress towards increasing their participation in higher education, they are still under-represented in these fields.

Data published in 2019 by the Department of Education highlighted that school girls in England are substantially less likely to consider taking STEM subjects at A Level in comparison to boys. Despite this both genders named STEM subjects as leading to the highest paid jobs.

Lincoln UTC plays a fundamental role in encouraging girls in the local area to challenge this stereotype by providing the opportunity for 14-18 year olds to study a specialist curriculum based around science, technology, engineering and maths.

Year 12 scientist Abby Cucksey said: "I am currently studying A Level Chemistry, Biology and English Literature. In future I hope to study veterinary science at university, and achieve my goal of becoming a vet.

"I am proud to be challenging the traditional narrative with my career path in science. and I hope that in future more girls will do the same."



Term Dates 2022/23

Term 1

5th September - 14th October

Staff Training Days: 1st & 2nd September

Holiday: 17th October - 28th October

Term 2

31st October - 16th December

Holiday: 19th December - 2nd January

Staff Training Days: 3rd & 4th January

Term 3

5th January - 10th February

Holiday: 13th February - 18th February

Term 4

20th February - 31st March

Holiday: 3rd April - 14th April

Term 5

17th April - 26th May

Bank Holiday: 1st May

Holiday: 29th May - 2nd June

Term 6

5th June - 21st July

Staff Training Days: 24th July

Holiday: 24th July - 31st August