



Atlantic
Technological
University

SLIGO

ENGINEERING FAIR

Sunday 3rd March 2024
12PM - 5PM

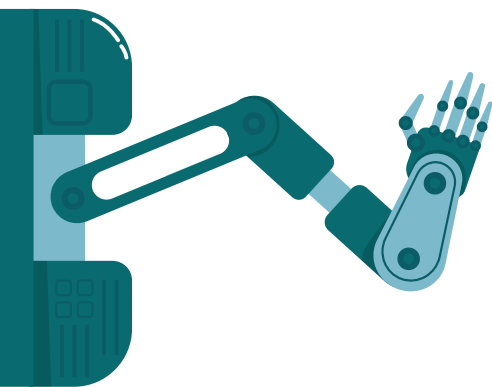
 **ENGINEERS
IRELAND**
NORTH WEST

 **STEPS
Engineers
Week**


Abbott

Sligo Engineering Fair 2024

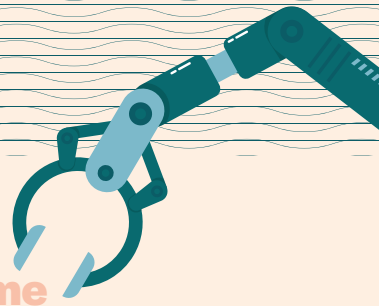
*Sunday 3rd March
12.00 - 5.00 pm*



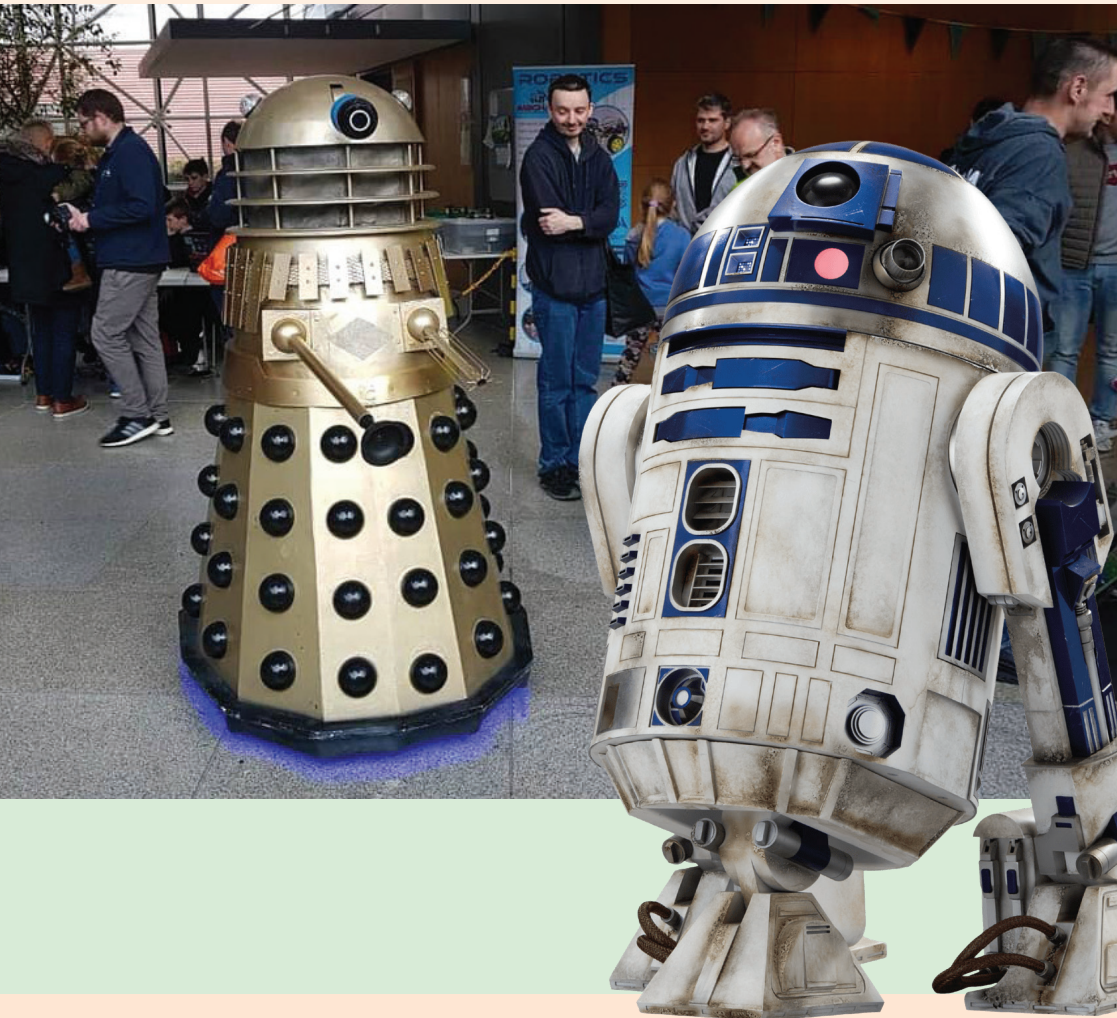
A Family event explaining engineering in a fun way

The Engineering Fair at ATU Sligo will include a wide range of performances, interactive displays workshops and demonstrations for all the family to enjoy. **Design, Build & Discover** with lots of fun guaranteed for both children and adults.

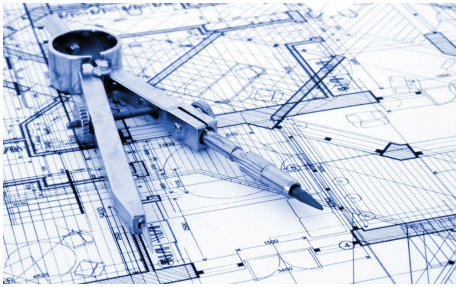
This year's Sligo Engineering Fair will all be live, in-person activities.



**You can expect a warm welcome
from our entrance guardians of
Film & TV, R2D2 and the Darlek**



What's on at the Sligo Engineering Fair?

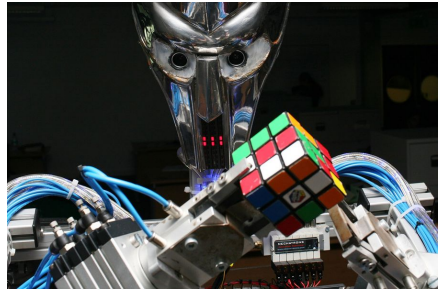


Meet the engineers with Engineers Ireland North West show reel (20 mins)

Room A0004
12.30, 1.30, 2.30, 3.30 & 4.30pm

Ever wondered what engineers do and how they contribute our everyday lives, then watch this fascinating short film from Engineers Ireland North West. Take a peek into the everyday lives of numerous engineers from all across the North West region; find out what they do, what their jobs are and how they work to make all of our lives work.

SUITABLE FOR AGES 7+



TheCubinator: RuBotII TheRubik'sCube SolvingRobot

Main Concourse
Drop in - All Day

RuBot II isn't just a robot; it's a spectacle, a performance, and an interactive experience. With an entry in the 2010 edition of the Guinness Book of World Records under its belt, the Cubinator has showcased its skills on stages, exhibitions, and live shows all around the world. Its quick thinking, fast-acting skills have left audiences in Europe, USA, and Asia spellbound and gasping in awe.



The SUPERHERO SCIENTIST

Extreme Engineering

How to build everything from the very big to the very small

with Dr Barry Fitzgerald

Room A0005

Time 1.00pm

The world around us is filled with brilliant technologies that we use everyday such as televisions, aeroplanes, cars, and smartphones. And it is thanks to engineers that we have these technologies.

The engineers of today are now working on the design of the astounding technologies of the future. Some of these will be found in space, some of these will be found at home, and some will be used in healthcare. And some of these technologies might even be inspired by science fiction such as Star Wars or superheroes!

So, get ready to explore the engineering of today that will lead to the extraordinary technologies you'll be using and improving in your future! It's time for Extreme Engineering!

Dr. Barry Fitzgerald (aka The Superhero Scientist) is a physicist, speaker, author, and science communicator who loves to talk about everything science and engineering! Barry has spoken around the world at schools and science festivals about the science of popular culture, in particular superheroes.

He is also the author of the popular science books 'Secrets of Superhero Science', 'Secret Science of Santa Claus', and 'How to Build an Iron Man Suit'. Barry has seen the 2016 film Captain America: Civil War more than 45 times, and his superpower will remain a closely guarded secret

MAKER SPACE

Imagine It - Create It

Makerspace

Main Concourse Drop in - All Day

ATU MakerSpace is a pioneering initiative that brings technology and creativity to secondary schools, inspiring students to consider science and technology as exciting career choices. Through engaging workshops and hands-on experiences, ATU Maker Space opens doors to a world of innovation and opportunity, bridging the gap between learning and real-world application. ATU Maker Space is part of the ATU Higher Education 4.0 project which is funded by the HCI under Pillar 3.





Engineering Room

DEMONSTRATIONS/ACTIVITIES

Room B1201

Drop in – All Day

About Abbott

At Abbott, we're dedicated to helping people live more fully, in everything we do. We're creating the future of healthcare through life-changing technologies and products that make you healthier and stronger, quickly identify when you have a medical need, and treat conditions to help you get back to doing what you love.

Abbott in Ireland

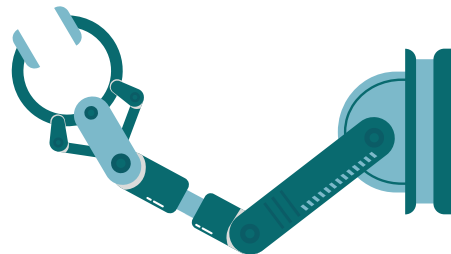
Abbott employs 5500 people across Ireland, in ten sites based in all four provinces.

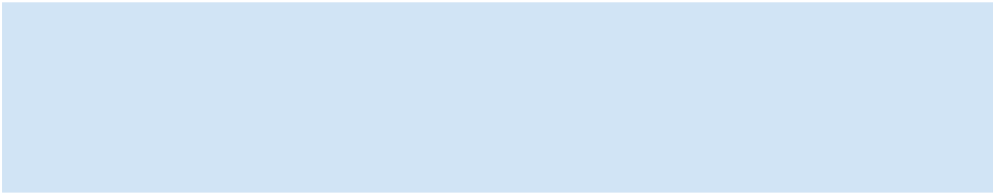
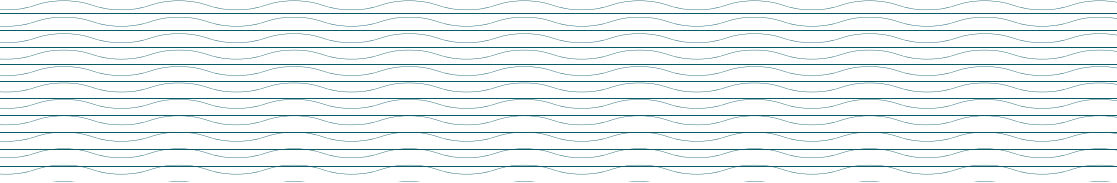
Abbott products manufactured in Ireland are now exported to more than 130 countries. The Engineers on our team, like everyone at Abbott, make a difference everyday working together to help people around the world live healthier and better, at all ages and stages of life.

Abbott & STEM

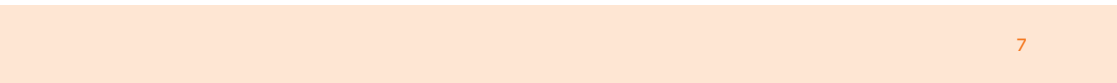
We are passionate about supporting young people and education. The future of healthcare and the future of our country will rely upon the innovation, creativity and imagination of the next generation of scientists and engineers.

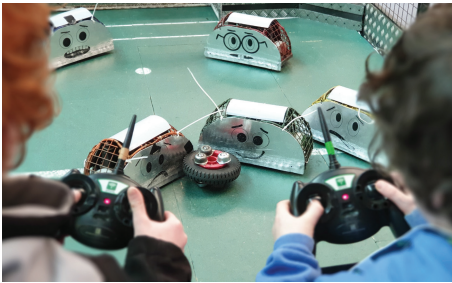
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INNOVATING FOR
the future

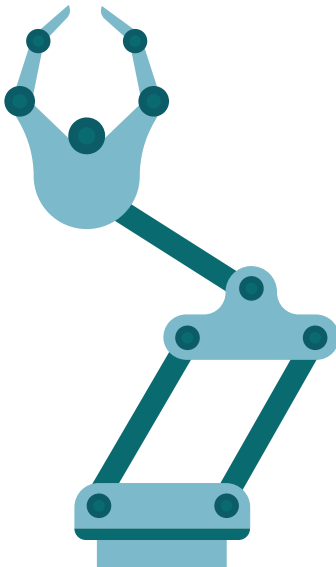




Racals Driven Robots

Lower Concourse
Drop in - All Day

A mini Robot Wars team of 5 robots that are driven by the public in a set of games. Operating in a 12x8 foot enclosed arena/soccer pitch with lights and sound. See how well you get on!



What Stuff Does with Circus 250

The Auditorium
12.30pm, 2.00 and 3.30pm

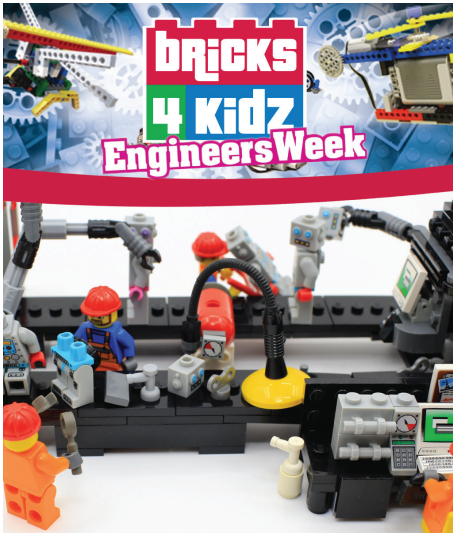
In a show of dazzling skills, expert scientific analysis and tongue-in-cheek commentary, What Stuff Does uncovers the rich and playful opportunities for us all when we start to understand how the physical world works. Part TEDtalk, part stand-up comedy, part mesmerising circus act, this is an utterly unique and hilarious one-man show.

Robin Dale is a professional juggler, including performing with Gandini Juggling, and a university research scientist in demand as a speaker at international conferences.



'How do you use engineering to do stuff?' worksheets

Main Canteen
Drop in - All Day



Bricks4kidz - Workshop

B1080

12.00, 1.00, 2.00, 3.00 & 4.00pm

Come along and join Bricks 4 Kidz and their fun and challenging workshop and explore engineering through using LEGO®, Technic & Robotics. The Engineering Fair & Engineers Week provide a unique opportunity for primary students to learn about engineering and together with Bricks 4 Kidz, you can help us build the engineers of tomorrow. LEGO® based education programmes have proven to be a very effective method of introducing engineering concepts to school age children and a Bricks 4 Kidz engineering workshop provides children of all ages with a fun and educational way to develop their understanding of engineering principles through building dragsters, roller coasters, buildings and much much more using our specially designed Lego® Technic kits.

Age 7+ Max 25 persons per session

Bricks4kidz - Freeform Room

B1081

Drop in - All Day

For those of you that just want to build your own freeform Lego machines or worlds, come along to the Bricks4kidz freeform room and get stuck in!



2D Game Programming Workshop with Neil Gannon

B2313 - 1pm & 3pm

Experience the process of developing a 2D game in the Unity game engine.

Ages 12+.

Max 20 per session



Build, Code and Play with Robots

RoboThink!

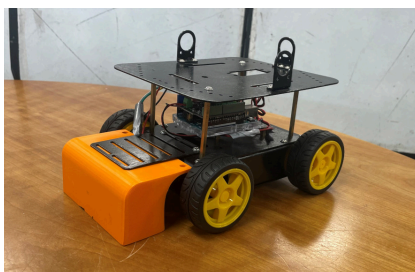
Main Concourse
Drop in - All Day

RoboThink is a fun-focused STEAM robotics program designed for children aged 5-13 years. At RoboThink, children learn the principles of engineering and technology by building and designing their very own robots. Through our engaging projects and curriculum, children learn about science, technology, engineering, art, and maths in a fun and interactive manner.

STEAM Education is an approach to learning that uses Science, Technology, Engineering, the Arts, and Mathematics as access points for guiding student inquiry, dialogue, and critical thinking. We learn through play, encouraging creativity, and teamwork and whilst having fun along the way. It promotes important life skills like critical thinking, teamwork, and problem-solving to name just a few all within a fun and creative environment.

RoboThink North West Ireland offer After School Clubs, Workshops, Birthday Parties and camps at Easter, Summer and Halloween in Sligo, Leitrim and Roscommon. Looking to book us for an event? Give us a call on 071 9153819 or email

northwest@robothink.ie



RoboTaxis Learn how to build a robotic taxi With Dr. Jamie Roche

Room E2004
12.30 and 3.00pm

Taxis driven by Robots! Could there be such a thing – come along to our workshop where we will reveal a futuristic mobile robotic taxi - that strangely look like they have been built using toys! Prototypes for these new vehicles would be equipped with the latest high-tech control systems, rendering them capable of automatically identifying required client destinations, even when speech is slurred or masked by strong regional accents.

This workshop is organised around an autonomous guided vehicle (AGV). It is intended to allow students to integrate and expand their knowledge in electronics, software development, control systems, and mechanical design. This is achieved by building, debugging, and demonstrating a completely functional mobile robot.

Interested in building a prototype, then come along to our RoboTaxi workshop.
Ages 10+
Maximum 15 people per session



Cyclelectrics

Main Concourse
Drop in - All Day

Exercise bike powered Scalextric car racing. The faster you pedal the faster your car races round. For children and adults alike and you may learn a bit about the importance of good exercise and diet and of course, how power transfers to make things move. Come along and have a race!

AVA - How Loud are You?

Main Concourse
Drop in - All Day

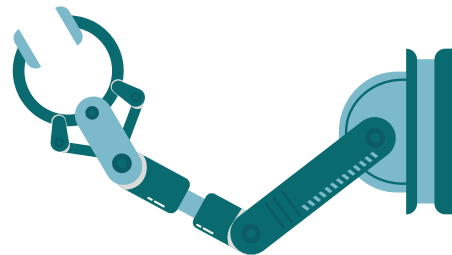


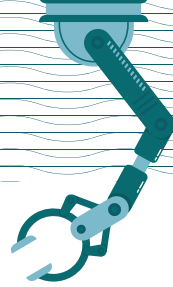
Every wonder how loud you really are? We want to measure the noise levels of Sligo Children and adults, so come along and test out our sound level meter. You will receive a cert with the recorded decibel level measurement – written proof of how loud you actually are!

Sustainable Shared Spaces

Main Concourse
Drop in - All Day

Our project is examining how we use our outdoor areas to better connect to nature and each other to improve mental and environmental health and our local communities. We will be engaging with the public about our project through a range of interactive activities, including Lego.





Engineering Discovery Zone

Live In-Person Family Engineering Fun Zone (all ages)

Main Concourse
Drop in - All Day

The Engineering Discovery Zone is an area with family friendly activities to engage with whilst waiting for your next show or workshop - play engineering games and more, including building a giant Jenga tower, a simple game that can teach us a lot about the world of structural engineering.

Buildings, after all, are vulnerable to the same forces that can topple a Jenga tower!

Also at the fair, demonstrations and stands with:

Engineers Ireland North West

National Schools Engineering Projects

Robotaxi Project

Ocean FM live outside broadcast

Sligo Bay RNLI

And much more!

The Sligo Engineering Fair is supported by Sligo Civil Defence



AIM

AIM
Advancing Innovation
in Manufacturing

Main Concourse
Drop in - All Day

The AIM Centre is at the forefront of advancing technology for manufacturing and supply chain; supporting businesses in the northwest of Ireland stay competitive, increase productivity and grow the region's economic impact.

We help businesses navigate challenges like

- How can we use technologies like AI and machine learning to improve product quality?
- Which manufacturing processes offer the biggest return on investment to modernise with technology?
- How can we prepare our workforce to embrace new technologies?
- How can we transform our manufacturing lines to be more circular?
- How can we use data to bring more agility into our supply chain to reduce disruption?

In addition to our advisory services, the AIM Exchange - in partnership with Skillnet - provides access to events and training programmes that equip employees with the skills they need to innovate, negotiate, lead, and deliver.

Workshop Tours

Toolmaking Workshop Tour:

12.15, 1.15, 2.15 & 3.15pm

Electrical Workshop Tour:

12.45, 1.45, 2.45 & 3.45pm

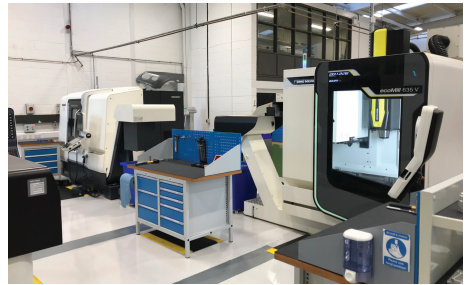
*Meet at the Engineering Technology
Stand at the Main Reception*



Come along to the Engineering Fair and have a guided tour of ATU Sligo's Toolmaking and Electrical workshops with the department of Engineering Technology.

Age 7+ Max 12 persons per session

In the Tool Room Workshop, there will be CNC 5 axis and 3 axis CNC mills together with a CNC lathe up and running for the day!



In the Electrical Workshop you will be introduced to the exciting world of electricity and electronics including installation techniques, wiring systems, distribution boards, motor controls and much more....

Join the tours for a great chance to see behind the scenes of engineering in action!



Sligo Engineering Fair Organisers sincerely thank Partners, Local Businesses and Community Groups for their support, including but not limited to:

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