**Bookings and Enquiries**

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Please visit our website for more information:  
http://www.utas.edu.au/stem

**Costs**

Note that a minimum of 20 students is required for a session to run

- **90 Min Sessions**: at the University  
  ($6 per student) *

- **120 Min Sessions**: at the University  
  ($8 per student) *

- **‘Under Pressure’ Sessions (120 Min)**: at the University  
  ($12 per student) *^  

*This also includes the cost of ‘Hydraulicus’ kits, which students can keep (1 kit between two)

*GST must be added to all of the above figures

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**More Information**

Sessions take place at the School of Engineering and ICT (Sandy Bay Campus). Please contact us for pricing information on sessions run at your school.

- Most of our sessions are available throughout the school year. Do one session before lunch and a second after lunch to save on transport costs.

- A parallel professional learning program for teachers is available in all of the Australian Curriculum: Science content areas. Please contact us to design a program that suits your professional development needs.

Our team has also developed and delivered programs in the areas of aviation, basic chemistry, electromagnetism, energy and heat transfer, and robotics.

Also keep in mind that our STEM Education and Outreach program is quite flexible, so please contact us to see if we can meet your needs and those of your students.
Hands-On Minds-On

STEM Sessions

Kids love engaging in hands-on activities and seeing how the theory relates to the real world. These sessions aim to do just that. Run by the School of Engineering and ICT at the University of Tasmania (Sandy Bay), we hope to provide an environment where students can really enjoy STEM content through an inspiring, age-appropriate, inquiry-based approach.

Go to http://tiny.cc/stemlinks to see how each of these programs are linked to Australia’s Curricula.

**The Sky Is The Limit** 120 min  Gr: 3-6
Blast rockets into space using safe (yet fun!) methods of propulsion. Learn about Newton’s laws and gravity, i.e. the reason why what goes up, must come down! This really is rocket science!

**Eggs-treme Crashes** 90 min  Gr: 3-6
Design and build a car that must be able to protect a raw egg, while speeding down a steep ramp towards a very solid barrier! Explores the physics and engineering behind cars, as well as their various safety features.

**Electricity On Wheels** 120 min  Gr: 3-6
Create and race electric powered cars against other students, modifying and improving your design as you go. Practice engineering design processes & experiment to improve your vehicle.

**It’s Electrifying** 90 min  Gr: 3-6
Create electronic circuits in a solder-less environment with our ‘Electronic Toy Bricks’ and ‘Neopia’ resources. Expose students to real electronic components and learn how they are used to create useful tools such as radios or a street lamp.

**Let’s Be Civil** 90 min  Gr: 3-6
How do we build large structures while making sure they don’t fall down? Learn about civil and structural engineers, and how they design and construct skyscrapers and bridges.

**It’s Full Of Hot Air** 120 min  Gr: 3-6
Construct your own balloon-powered car and learn about the principles of friction and pressure behind your vehicle’s propulsion. Modify your design with consideration of the forces at play to make your car faster.

**Let’s Dive Right In** 90 min  Gr: 3-6
Explore the principles and forces behind sea vehicles’ movement and control using simple low-cost materials. Construct a powered boat and discover how submarines are able to float, hover and sink.

**Seeing The Light** 90 min  Gr: 3-6
Watch light transmit data across rooms with optical fibres while learning the basic principles behind how light travels through different media. This session provides students with an understanding of the science of light and its uses in current technology.

**Cooking Up A Storm** 90 min  Gr: 3-6
Explore the chemistry behind common kitchen ingredients, why it is important to follow the packaging instructions on food items, and the role of insulation in keeping food cold. Students then extend their knowledge of insulation to design and test a solar cooker.

**Thrill Rides** 90 min  Gr: 3-6
Take the role of an honorary rollercoaster engineer in order to build a rollercoaster and find out what makes these rides so thrilling! Discover how energy and forces work together to provide the experience of a lifetime.

**Work Smarter Not Harder** 90 min  Gr: 3-6
This is about simple mechanical machines. Use gearing to make things move and turn while learning about torque and power. Find out how to lift your teacher using one hand and a piece of wood!

**It Sounds Great!** 90 min  Gr: 3-6
Listen to music no one else can hear and construct speakers out of the simplest materials. Students learn about how sound is created, sound waves and vibrations, and the basic principles behind the design and construction of speakers.

**Under Pressure** 120 min  Gr: 4-6
Build your own fluid-powered dinosaur using our ‘Hydraulicus’ kits and learn the principles behind levers and hydraulics, in this engaging hands-on session. Students get to take the dinosaur home after the session.

**Eh! The Sky Is Eh! The Limit**
Design and construct skyscrapers and bridges. Learn about civil and structural engineers, and how they design and construct large structures while making sure they don’t fall down.

**Sporty Science** 90 min  Gr: 4-6
Can the longest legs jump the furthest? What makes a swimming pool “fast”? Explore these questions and others throughout this sports-inspired hands-on workshop.

**Get A Grip** 120 min  Gr: 5-6
Explore assistive devices, the circulatory system, and the physics of breathing. Become a biomedical engineer to design a prosthetic arm from low-cost materials that can show both strength and dexterity.

**Renew Your Energy** 90 min  Gr: 5-6
Learn how hydrogen, solar, and wind power operate by ‘creating’ them in the classroom. Use solar cells to power motors and vehicles. Use the engineering design process to discover the best way of utilising energy from the wind and investigate hydrogen by extracting it from water!

**Just Add Water** 90 min  Gr: 5-6
Water is a vital fluid. Learn about the basics of water, why it is so important, its unique properties, and its function in the environment.

**Clean Up Your Act** 90 min  Gr: 5-6
A lot of work is done by engineers to make sure the water we use is safe. Learn about the different ways water is cleaned and treated before it enters our homes, and how sewage and wastewater are treated when they leave our homes, then design and construct a water treatment system.

**Getting Water From A to B** 90 min  Gr: 5-6
Engineers play a large role in getting water to where it needs to go. Learn about water pressure, then use the engineering design process to design and construct a water storage and transport system.

Our sessions are closely aligned with the Australian Curricula in Maths and Science.

Sessions for K-2 grade levels are also available.