



December 2024 Newsletter

What an awesome, rewarding year we have had at STEAM-ED!

HOT OFF THE PRESS - VEX IQ Robotics Nationals 7-8 December in Palmerston North

STEAM-ED – National Champions!

We are thrilled to announce that Damian Walder (12yrs), Jeremy Walder (10yrs) and Finley Frith (12yrs) won the Elementary School division of the VEX IQ NZ Robotics Championships! As well as winning tournament play (allianced with a team from College St Normal School from Palmerston North), they also won the 'Design Award' and finished ranked 3rd in the Robot Skills (Driving and Programming combined) challenge. Damian and Jeremy (like all the competitive club members) have progressed through our various robotics classes up to club, and Finley is currently in our experienced robotics class, being added to the team as the ball loader for Nationals.

We had three teams competing in the Elementary School division and two in Middle School. Siblings Rebecca, Ryan and Aiden Miller won the 'Judges Award' in the Middle School division. All of the teams performed well, and we are very proud of the way they represented us, against some tough competition from all around NZ. Many teams had a similar design of robots, whereas all five of our robots were original and reflected the thought and design process that had taken place by each team throughout the season.



Holiday Programmes

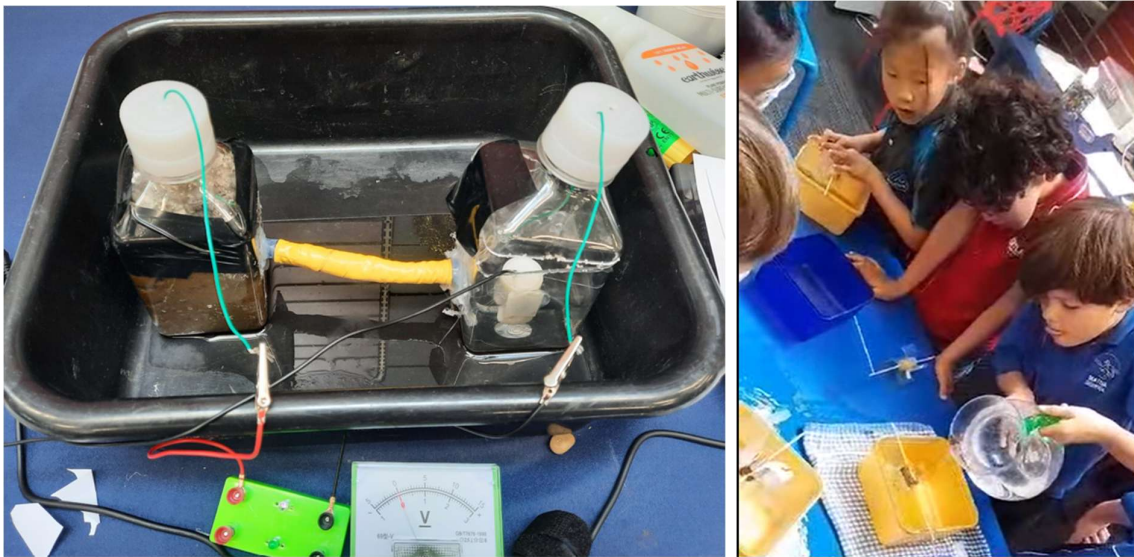
The October holiday programme was extremely busy with most days booked out! One highlight was our 'Build a Robotic Arm' day when we had a visit from Peke Waihanga Artificial Limb Service and one of their clients showing us the range of prosthetic arms available and how they work. Jo, who was born without one of her lower arms, was impressed with the problem solving as the kids tried to build a prosthetic arm using our VEX robotics kits! Another was our Digital Audio Workstation Day with children creating ringtones and other musical masterpieces, and we also built a Mars Colony complete with launch/landing pads, waste processing plants and entertainment hubs.

In our upcoming January holiday programme, we are excited to explore the world of Artificial Intelligence with the assistance of Datacom, and we will also be thinking about physics when we create a miniature theme park!



Afterschool and Homeschool programmes

Our Term 4 STEAM topic, “Nature-based STEAM Solutions”, has gone well. Students explored the biotech potentials of seaweed, experimented with various compostable bioplastic recipes, made models of renewable energy systems, modelled cities designed with nature-based STEAM solutions, and learned exactly why we call fossil fuels fossil fuels. During the last two weeks, our seniors are exploring how to generate small amounts of electricity from swamp sludge using a microbial fuel cell that we will make. This is an emerging technology with potential to address some of our waste, water pollution, and energy problems in the future.



Our Term topic will be “Gadgets, Gizmos and Gears”. We will explore the exciting world of physics and engineering, and use the Engineering Design Process to understand how forces shape the world around us and how engineers use forces to make things that work. We’ll use VEX Simple Machines Kits and other design & build challenges to discover how machines make everyday tasks easier, and solve problems. Enroll your child for a fun, hands-on journey through physics, problem-solving, and invention! [Enrolmy | STEAM-ED](#) for more details and to book online.

Pre-School Visits to STEAM-ED

This term early childhood students from New Shoots had fun exploring magnetism with our magnet-powered mini-cycles, sound waves with tuning forks and Boomwhackers, and playing with forces by making cardboard tubes into ramps of various heights and rolling ping pong balls through. The students have also been enjoying the mBots with new driving challenges each week. We look forward to our last visit of the year from them, with some fun and colourful Christmas-themed STEAM activities and an mBot Santa Sleigh present delivery challenge planned.

We welcome enquiries from other ECE's for classes in 2025.



Tahatai Coast School and the STEAM-ED Olympics!

In mid-September we had the pleasure of hosting five Yr4 classes from Tahatai Coast School. The unit they were working on was "STEAM and the Olympics" so we developed a relay of sailing (balloon powered boats), archery (miniature bows and arrows made by the students), high jump (using cups and rubberbands), cycling (3D printed cycles propelled by opposing magnets) and bowling (ping pong ball through an arch). The kids had a blast with some rewarded for their efforts with our STEAM-ED medals.



If your school has a unit of study which you are wanting an EOTC experience for, please enquire with us and we can see what we can customise for the students.

We can also provide a STEAM based activity for Teacher Only Days!

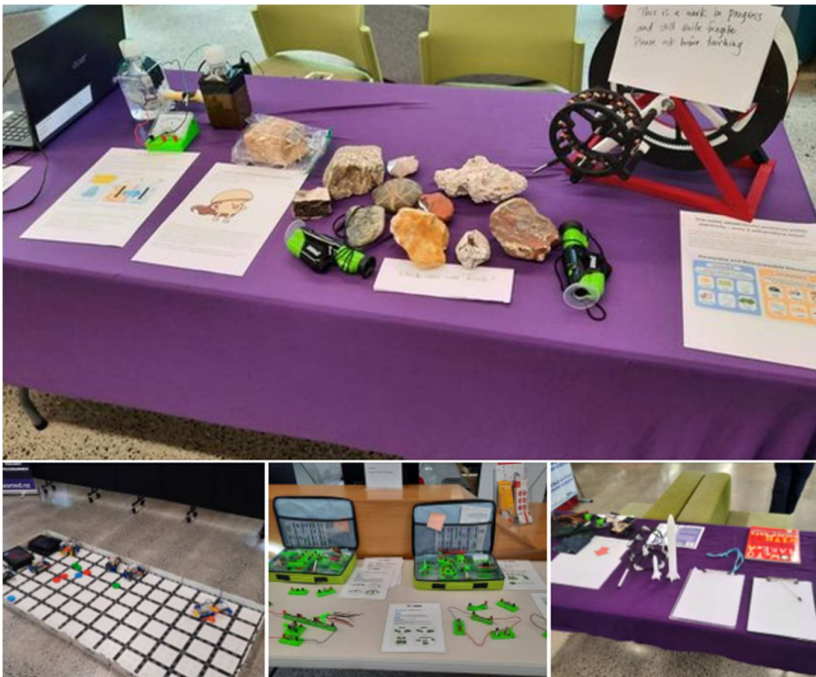
Pasifika Festival

On 2 November, with the support Sequal Lumber, we made a few additions to our VEX Go robots and took them to the Pasifika Festival out at Katikati. It was a great atmosphere and we were thrilled that some children whom we had previously worked with at schools, excitedly came up and showed their parents how they could programme and drive the robots. The kids loved that our logo was quite similar to the design used in “Moana” too!



Homeschool Expo

The very first Tauranga Homeschool Expo was held at the University of Waikato on Saturday, 23 November with a wide range of products and services on offer. To promote the homeschool classes we provide on Monday and Wednesday mornings, we took along a range of hands-on activities for the children and their parents to explore. With quite a few visitors from out of town, we were often asked if we had a branch in other main centres (Auckland, Hamilton, Rotorua) – it seems there isn’t much else available like us elsewhere!



Funding & Support

We are so appreciative of the support we receive from all of our funders and sponsors, whose contributions enable us to continue to provide our services and keep fees at an affordable level for parents. We couldn't do it without you!

Since our last newsletter we are thrilled to have received support from the following:

TECT – Operational Costs \$35K

NZ Lotteries Community Organisation Grants – for our In-School Robotics Project (2 yrs)

Tauranga City Council Community Grant - for our In-School Robotics Project

Four Winds Foundation – Operational costs

LawVu - Sponsorship

Ian Macrae – Equipment

Mercury Energy – Equipment

Lions Club of Tauranga – Donation to Equity Fund

We are currently in the middle of a drive to obtain more sponsors, or donations for our Equity Fund. If we haven't yet contacted you and you would like to contribute to growing Tauranga's future innovators, please contact us on info@steamed.nz

We wish you all a lovely festive season, and hope you are able to enjoy some free time and relaxation with family and friends!

