



AURA

***AUCKLAND UNIVERSITY
ROBOTICS ASSOCIATION***



**2017 Sponsors Information
Package**

**VEX Robotics World
Championships**

About AURA

The Auckland University Robotics Association (AURA) consists of students from a range of faculties at The University of Auckland who have a passion for engineering, technology and robotics.

We compete both nationally and internationally in the VEX Robotics Competition (University division), which requires teams to build robots, testing our understanding and ability to implement engineering concepts through a sports-inspired game. AURA also has strong ties with the VEX community, volunteering at robotics events as well as mentoring high school teams participating in the VEX Robotics Competition.

In April 2017, we are sending a team to the VEX World Championships. In order to get to the USA and compete, we are looking for sponsors to help us cover expenses.

AURA's Recent Achievements:

2016:

- RoboWars Australia National Champion
- RoboWars Australia National Runner-Up

2015:

- VEX U World Excellence Award (most prestigious award)
- VEX U World Robot Skills Challenge 1st Place
- VEX U World Programming Skills Challenge 1st Place
- VEX U World Tournament Finalists (2nd Place)

2014:

- VEX U World Excellence Award (most prestigious award)
- VEX U World Robot Skills Challenge 1st Place
- VEX U World Programming Skills Challenge 1st Place



AURA members at the 2015 VEX Robotics World Championships

About VEX

The VEX Robotics Competition is a global programme with over 16,000 teams from 40 countries involved. To maintain the challenge in the sports-inspired competition, each year an entirely new game is released. Not only are teams required to design, build and program new robots to compete each season, but they are also required to master a new set of rules and strategies.

In the process of developing these robots, students gain experience in:

Technical Skills

- Workshop tools
- CAD software
- Computer programming
- Mechanical knowledge
- A practical understanding of physics principles

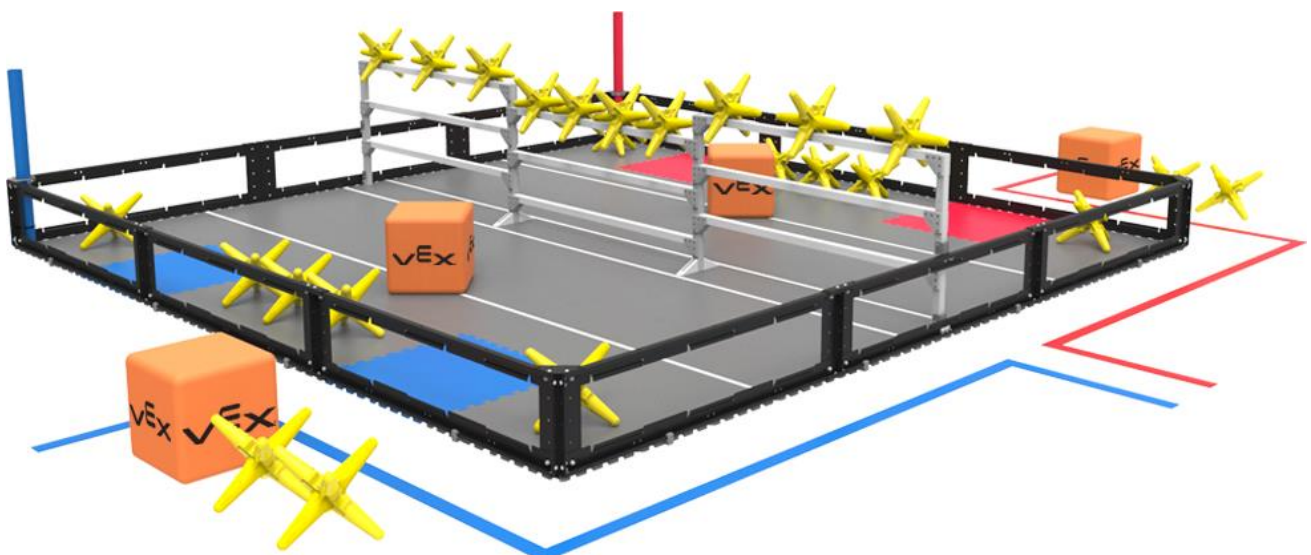
Organisational Skills

- Teamwork
- Leadership
- Budgeting
- Project management
- Event management

Starstruck

“Starstruck” is the 2016-2017 VEX Robotics Competition game. Teams try to score points by using their robots to throw stars and cubes over a fence to their opponent’s side – with more points for getting the objects further away. In addition, teams can hang their robot off a pipe at the end of the game for extra points. Each game has a duration of just 2 minutes – resulting in fast-paced action.

In VEX U (the University division), teams play in a 1v1 format – unlike the 2v2 format used in High School. Our robots are larger and we have the advantage of using an unlimited quantity of 3D printed parts and custom electronics. Our games begin with a 45 second autonomous period followed by 75 seconds of driver control.



VEX Starstruck Field - Copyright 2016 VEX Robotics Inc.

Sponsorship

In April 2017, AURA are sending six team members to Louisville, Kentucky, to compete in the 2017 VEX Robotics World Championships. We are seeking sponsorship to assist with the costs of travel to the USA.

Planned Expenses

Travel Expenses	Per Person	Total
<i>Flights</i>	\$2,441.00	\$14,646.00
<i>Accommodation</i>	\$679.33	\$4,075.98
<i>Food</i>	\$210.00	\$1,260.00
<i>Competition Transport</i>	\$155.31	\$931.86
<i>Insurance</i>	\$49.50	\$297.00
<i>Visas</i>	\$19.87	\$119.22
<i>Total</i>	\$3,555.01	\$21,330.06

Other Expenses	Per Person	Total
<i>Shirts (3 per person)</i>	\$105.00	\$630.00
<i>Pull-Up Banner</i>		\$200.00
<i>Total</i>	\$105.00	\$830.00

Tiered Sponsorship

Platinum Sponsor (\$5,000+)

- Exclusive naming rights of robots
- Extra-large logo on Banner, Robot, Shirt and Website
- Special mention on website

Gold Sponsors (\$1,500+)

- Large logo on Banner, Robot, Shirt and Website
- Special mention on website

Silver Sponsors (\$1,000+)

- Medium logo on Banner, Robot and Website
- Special mention on website

Bronze Sponsors (\$500+)

- Small logo on Banner, Robot and Website
- Special mention on website

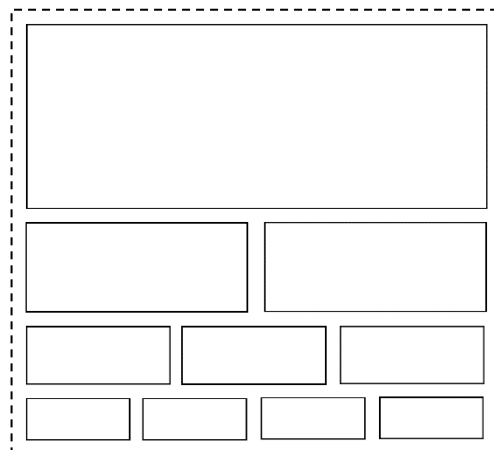
Sponsorship

Logo Placement

Banner

All sponsors will be proudly recognised on a pull-up banner on display at the World Championships, open days, and all other events, with logos up to the following sizes:

- Platinum: 80x32cm
- Gold: 38.5x15.5cm
- Silver: 25x10cm
- Bronze: 18x7.2cm



Robot

Each robot will feature two logos (one per side) of up to the following sizes:

- Platinum: 12x9cm
- Gold: 8x6cm
- Silver: 6x4.5cm
- Bronze: 4x3cm



Examples of side banners on robots

Shirt

Platinum and Gold sponsors will be recognised on the rear of our team shirts, with logos up to the following sizes:

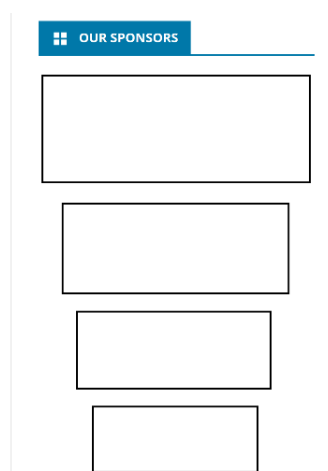
- Platinum: 20x8cm
- Gold: 10x4cm



Website

All sponsors will be independently thanked on our Sponsors page, with logos also on the side-bar of our website on all pages, with logos of up to the following sizes:

- Platinum: 6.5x2.6cm
- Gold: 5.5x2.2cm
- Silver: 4.7x1.9cm
- Bronze: 4x1.6cm

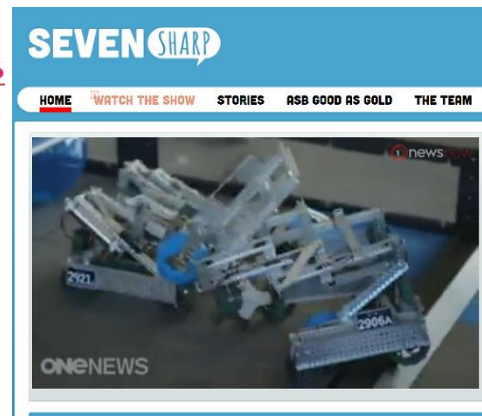


Sponsorship

Exposure

New Zealand is well represented at the VEX Robotics World Championships held annually in the USA. With nearly 1,400 teams competing from nations including the USA, China, Puerto Rico, Mexico, Japan, Australia, England and Canada, as well as international media coverage, sponsors will have their company and brand exposure on a diverse international stage.

Company logos can be visibly displayed on our banner, robot, shirts and website, to a large national and international audience. New Zealand robotics teams have featured in local community papers, the NZ Herald, Stuff.co.nz, TVNZ's Breakfast show, Seven Sharp, Newshub and 3 News. In any of the team's public press coverage, AURA will be sure to thank sponsors and make sponsor logos visible on photographed uniforms and/or robots.



Future Employment

Sponsors will directly appeal to a large group of engineering and science students as they enter the workforce from New Zealand's top university.

These students will have the strong theoretical and practical understanding of engineering concepts that The University of Auckland's Engineering and Science degrees provide, as well as being equipped with the team and practical skills required at industry-level that they have gained through their time with AURA.

AURA's Goals

1. Provide a Mechanism for Competitive Robotics at The University of Auckland

- AURA competes internationally in the VEX Robotics Competition. AURA has had great success over the years in the various aspects of the game.
- Each year AURA competes in an entirely autonomous Robot Soccer competition.
- We've started to compete in the Australian RoboWars tournament with great success.
- AURA is starting a Mini Robot Rumble competition – affordable combat robotics.

2. Encourage Students from all Faculties to Participate in Robotics Related Activities

- AURA consists of students from a range of faculties at The University of Auckland (from Engineering to the Sciences and Arts), each bringing different skillsets to the team.

3. To Act as a Social Organisation for Like-Minded Robotics Enthusiasts

- Those in AURA who do not travel to the World Championships typically spend the weekend together, watching the live stream in the early hours and enjoying each other's company.
- We regularly hold Board Game Nights – an evening of fun with games.
- Our weekly Tuesday evening meetings go beyond just building the robots, with students hanging out and going for dinner together afterwards.

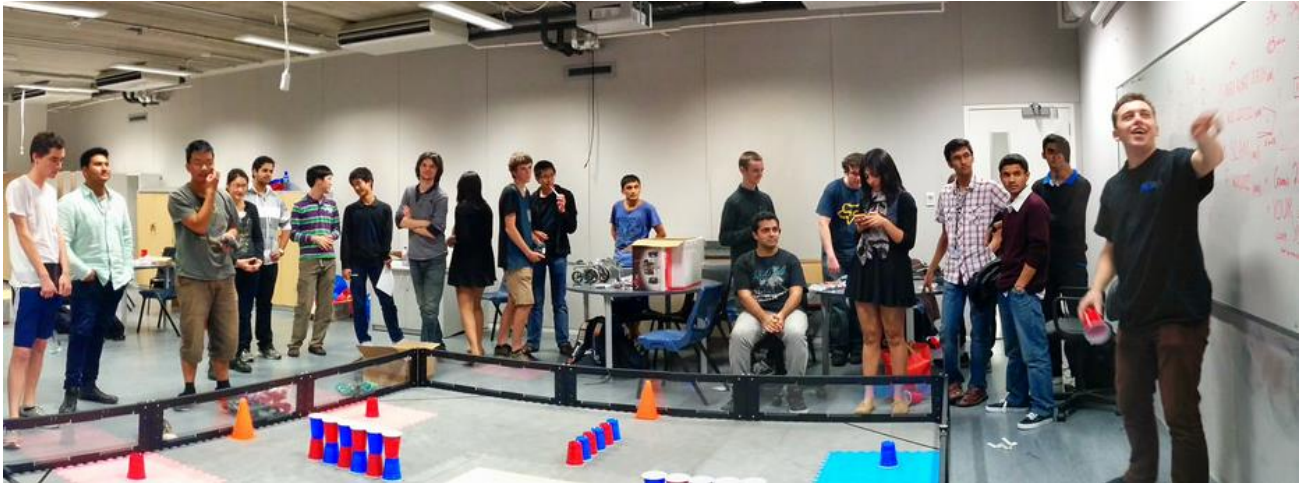


Having fun after watching the VEX Worlds Live Stream

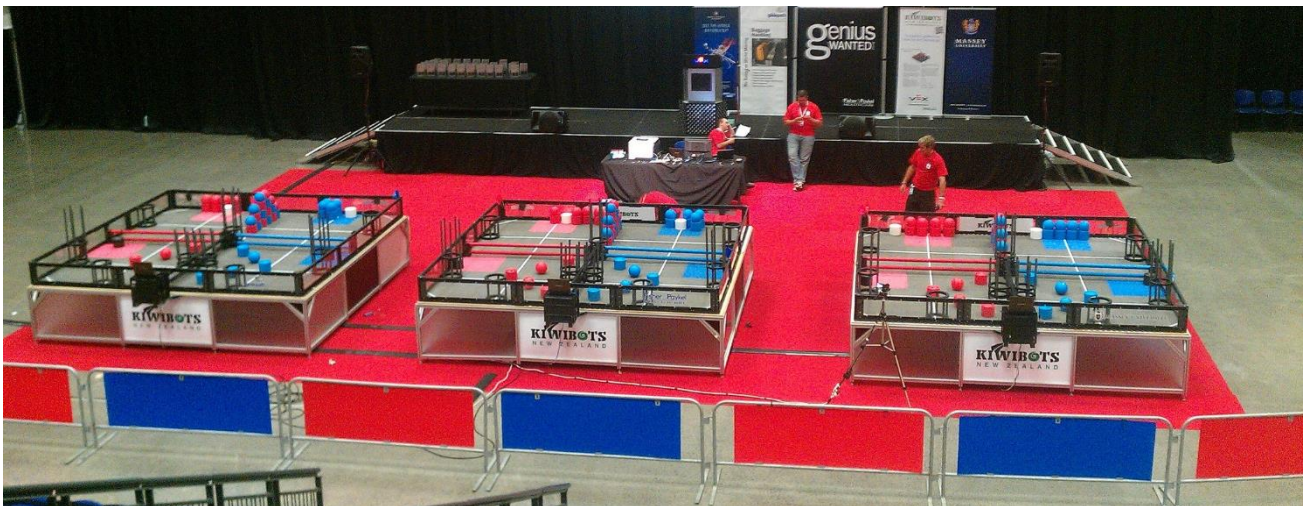
AURA's Goals

4. Support High School Robotics Teams through Mentoring Programs and Hosting Competitions

- AURA mentors a large number of High School VEX teams across the Auckland region on a regular basis.
- AURA volunteers organise and coordinate regular robotics scrimmages over the weekends for High School VEX teams.



An AURA hosted workshop



VEX NZ National Championships set up and ready

5. Develop a Foundation for Research in Robotics Related Fields at an Undergraduate Level

- AURA research projects have included the development of sensors and electronics for competitive robots, developing a deeper understanding of low level systems that can be used in robotics, and the design of a humanoid robot for university research purposes.

Mentoring

AURA is proud to provide mentors for a large number of High School VEX teams across the Auckland region.

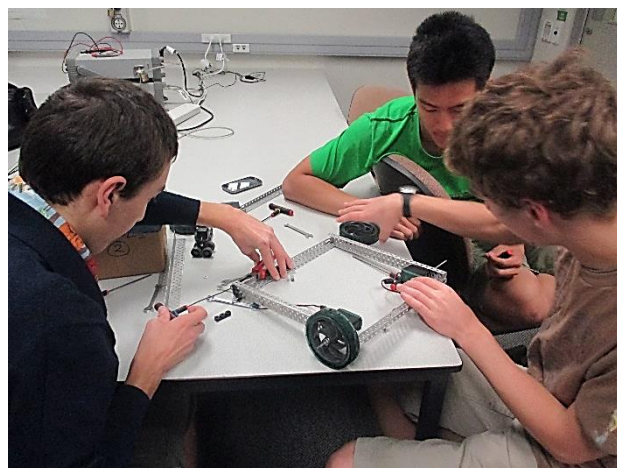
Mentors visit High School teams on a regular basis (e.g. weekly), helping students develop their robot designs from paper to reality. AURA mentors are experienced VEX-users and are able to apply the skills developed in their science and engineering degrees to provide sound technical support to High School teams.

AURA helps a range of High Schools, from establishing and supporting new teams to encouraging already existing teams to further challenge themselves.

Mentoring provides an avenue for encouraging High School students to study Science, Technology, Engineering and Math (STEM) at a tertiary level. The mentoring programme also provides High School students with the opportunity to network with students studying at The University of Auckland.

We are currently mentoring the following High School VEX Robotics teams:

- Baradene College
- Home-school
- Kristin School
- Long Bay College
- Lynfield College
- Mount Albert Grammar School
- St. Curthbert's College



Volunteering

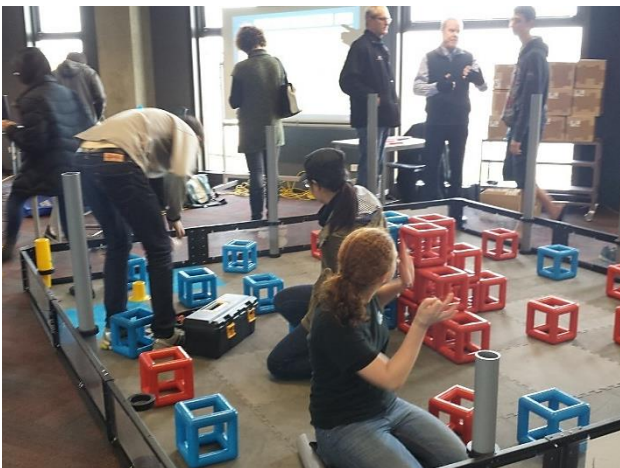
Not only does AURA compete in the VEX Robotics Competition, but we also work alongside Kiwibots (the New Zealand Robotics Charitable Trust) and Massey University to organise and coordinate regular robotics scrimmages for High School VEX teams.

AURA members volunteer their time on weekends, running inspection, scoring matches, resetting the fields, commentating and resolving any technical issues that may arise.

An integral part of New Zealand's success at the VEX Robotics World Championships over the years is the regular scrimmages. New Zealand has confirmed itself as a real threat in the international robotics community, winning a World title every year for the past 8 years, despite making up less than 2% of all teams at the World Championships.

Holding scrimmages throughout the season allows High School teams to test, practice and compete with one another on a regular basis. It is this practice which prepares the New Zealand VEX teams for the tough competition at the VEX Robotics World Championships.

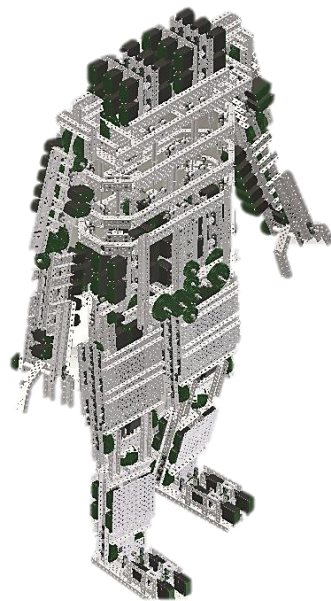
Volunteering at scrimmages is an important part of AURA as we are helping provide the High School teams with the opportunity to practice and improve, as well as be on-hand to support and help teams with any robot-related problems.



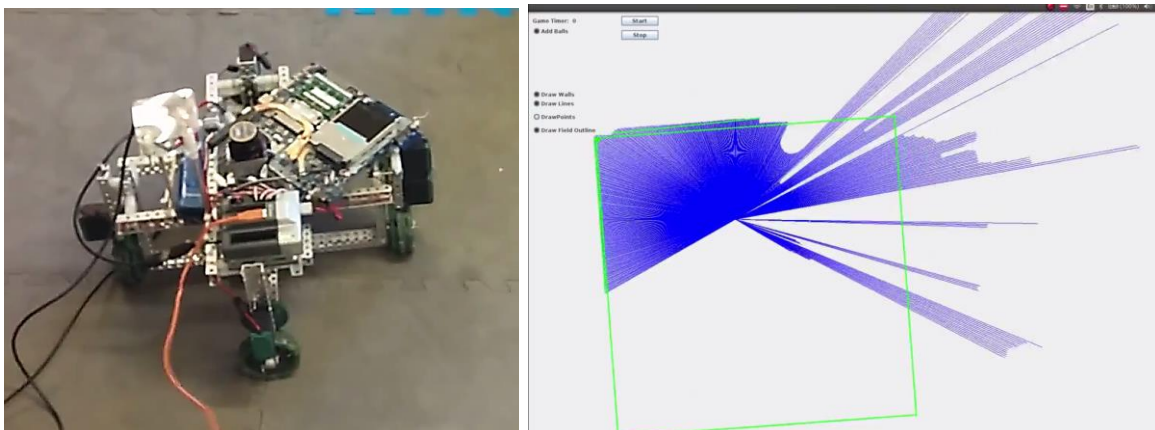
Robotics Research

AURA has made inroads into conducting research in robotics-related areas. Projects have included the development of sensors, electronics and software for competitive robots, developing a deeper understanding of low-level systems that can be used in robotics (as opposed to the high-level approach used in VEX), and the design of a humanoid robot for university research purposes.

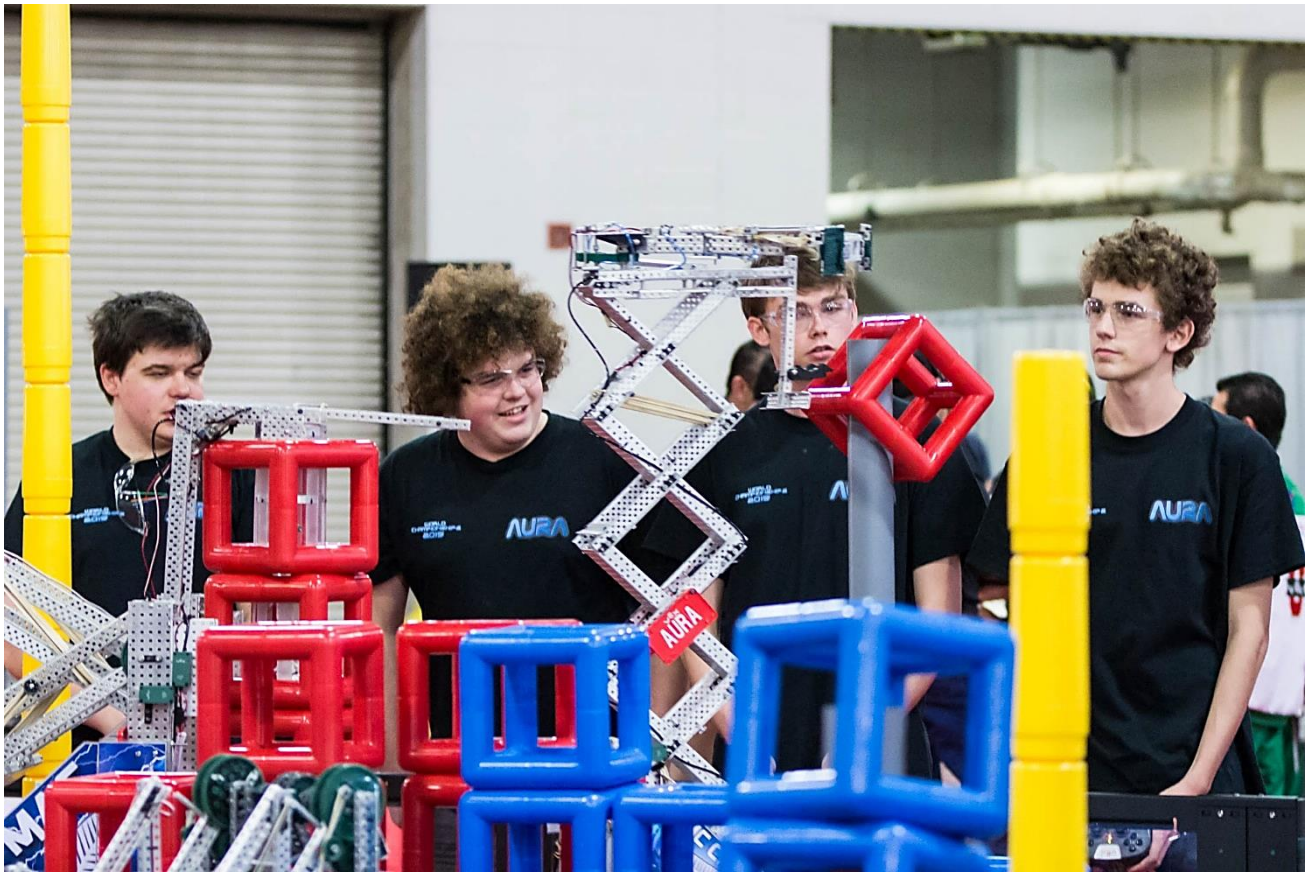
With a project-based team structure, we encourage participants to develop good documentation practices, and work independently to meet deadlines. The ultimate goal is for AURA to become an incubator for undergraduate research in robotics, feeding into postgraduate studies in robotics-related fields.



Project Zeta – Humanoid Robot, which won an Online CAD Challenge



Proof of Concept for using LiDAR to detect and recognise objects for competition



Thank you for supporting the Auckland University Robotics Association. We appreciate you taking the time to review our sponsors information package.

If you have any questions, please do not hesitate to contact us at info@aura.org.nz, or our Sponsorship Officer, Max Gruebner, at max.gruebner@aura.org.nz.

More information is available on our website, at www.aura.org.nz.

We look forward to hearing from you soon!