The 8th

World Innovative Technology Challenge (WIT2023), Friday 27 – Saturday 28, October 2023

Organisers:

Griffith University and
Australian Robotics Association

Sponsors:

Australian Computer Sciety (ACS),
Unity, Archio, Ubitech Australia

https://ausrobotics.org/wit2023-the-8th-world-innovative-technology-challenge/

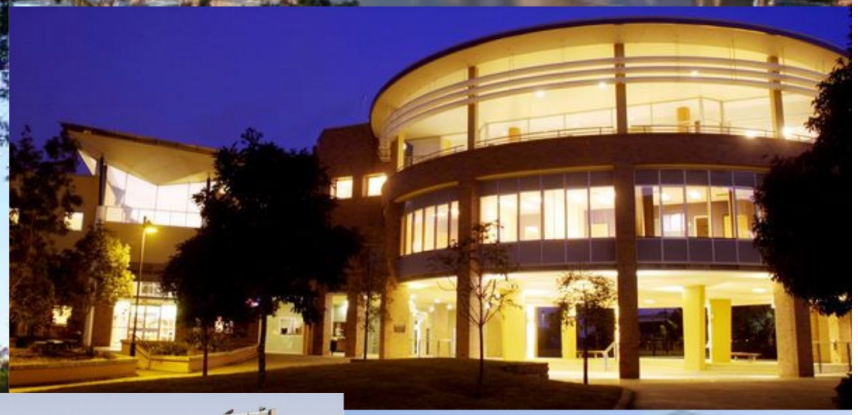
History of WIT

- The WIT challenge started as the name of the '**Griffith Robotics Competition**' for the 'G20 Summit 2014' event.

- The 2nd Creative Technology Challenge, 2015

- The 5th World Innovative Technology Challenge, 2018

Griffith University – 5 campuses



Campus information

- Gold Coast
- Logan
- Nathan
- Mt Gravatt
- South Bank
- Online

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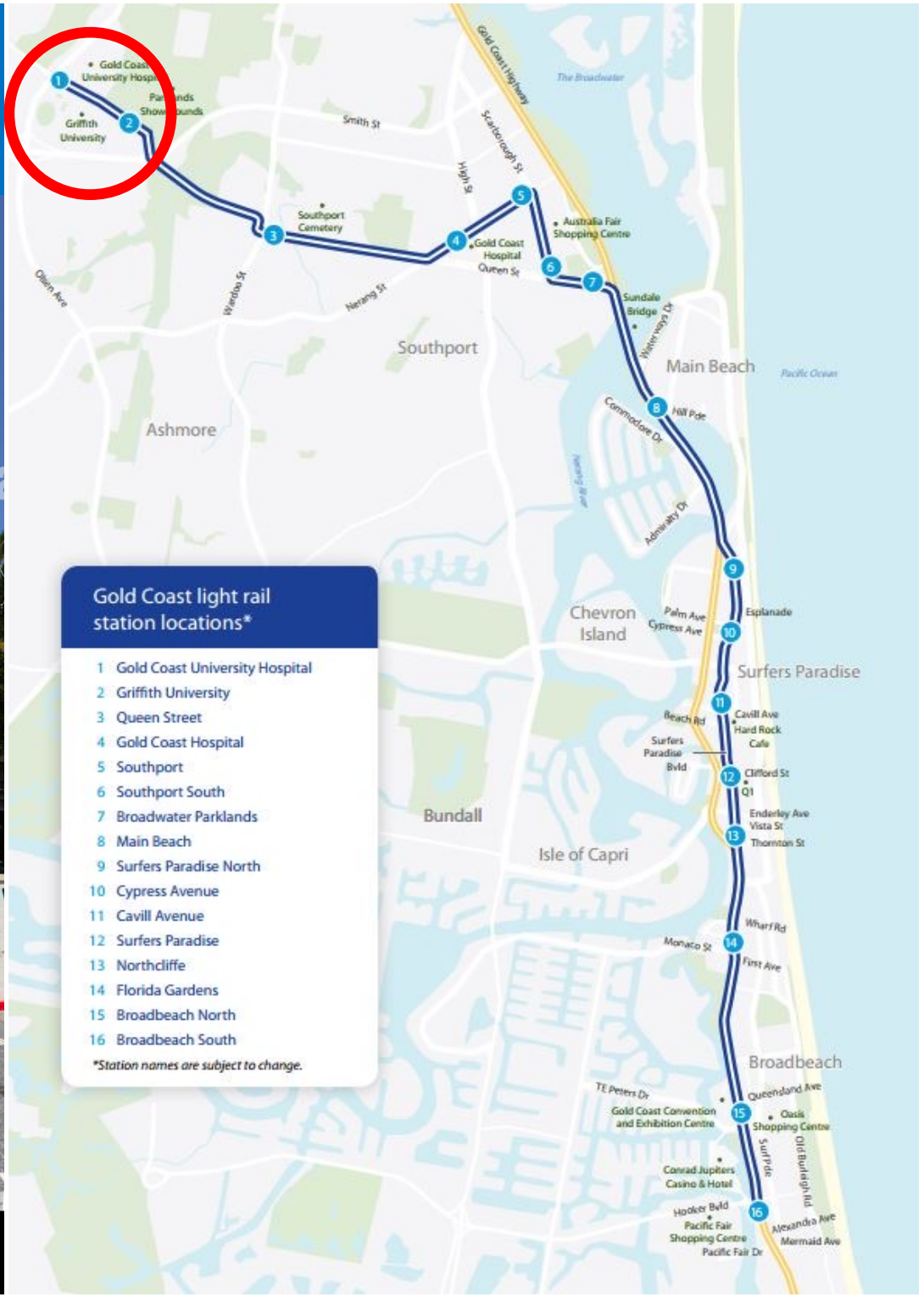
Queensland, Australia

Griffith University, Gold Coast Campus



Competition Categories

- Presentation Categories (max 4)
  - » Innovative Technology Challenge
  - » Student Symposium
  - » Immersive Experience Challenge
- Software Programming (Coding) Category (individual)
- Robot Race Categories (max 2)
  - » Line Tracing
  - » Obstacle Avoidance
  - » Sumo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Follow @GriffithInnovate on FB and Instagram for live updates!

Innovative Technology Challenge

- Chair: Daniel Ricardo, Peichen Sun
- build a technological solution (robot, UAV, smart house etc.) for a problem related to Covid19 or one of the 17 UN sustainable development goals.
- make and upload a (max 2min) Youtube video.
- During the WIT2023 event, you will have to build your invention and answer questions from referees.
- Assessment Criteria:
  - Creativity of the Concept (30%), Significance of the Technology (30%), Completeness (20%), and Presentation (20%)

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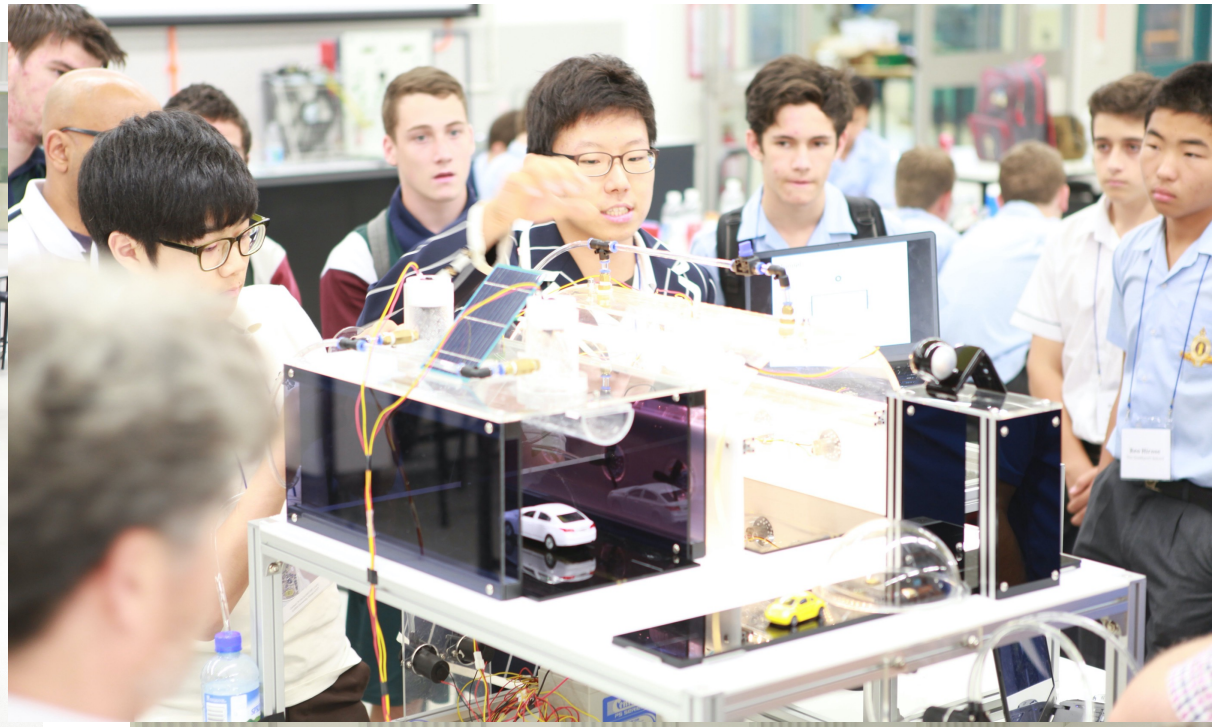
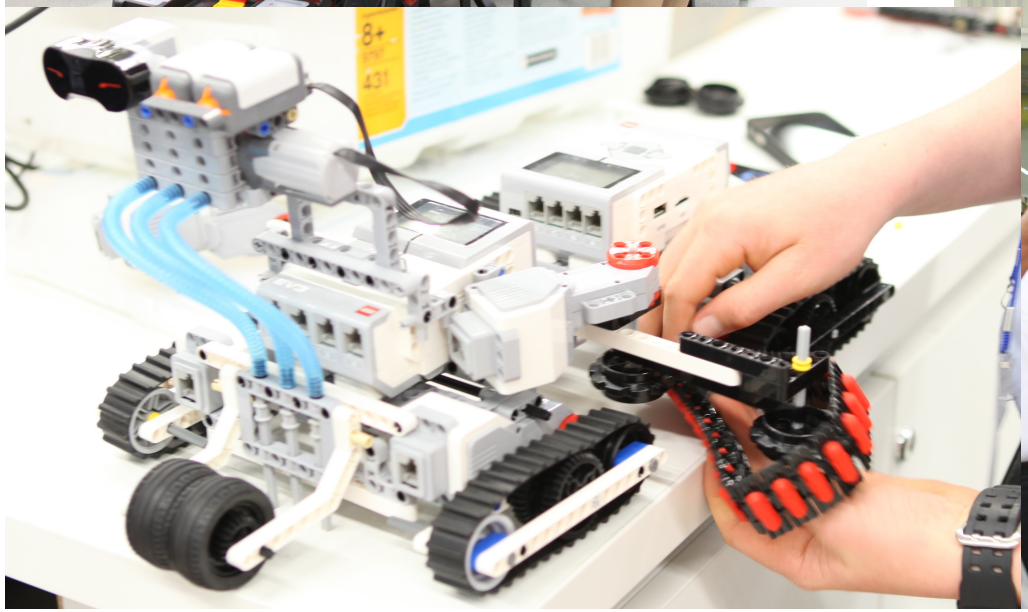
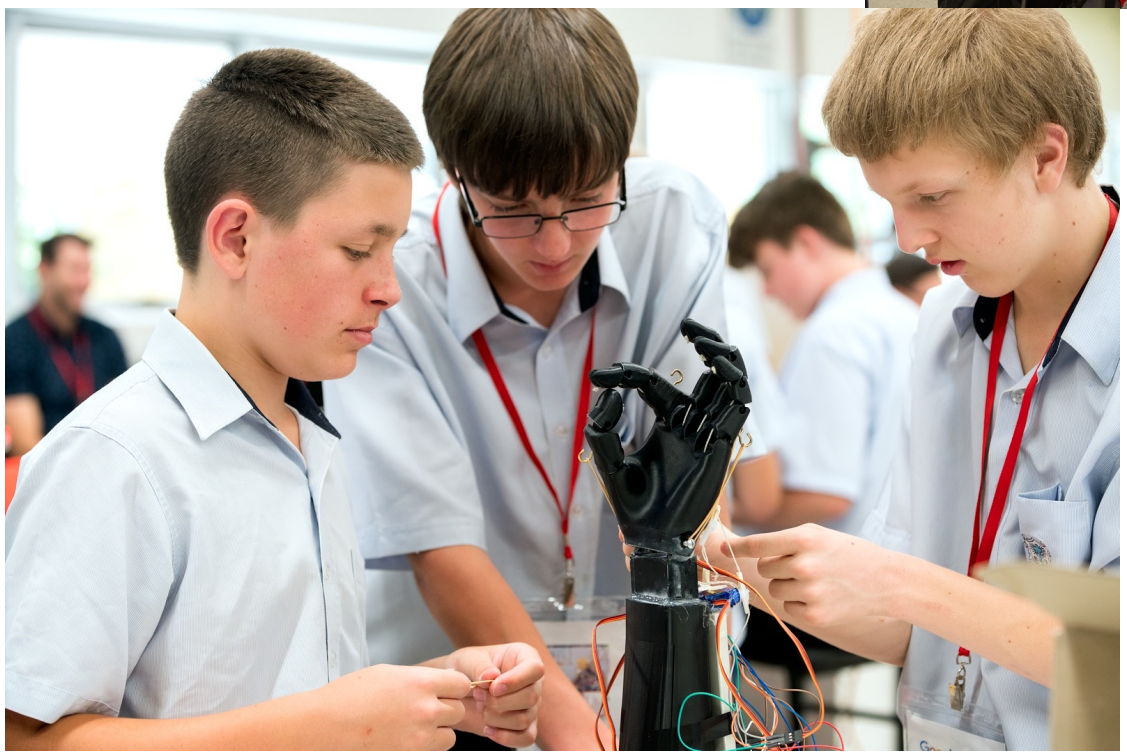
SUSTAINABLE DEVELOPMENT GOALS

Creative Technology Challenge (2014)







Student Symposium

- Chair: Chang Gyoon Lim, Bek Duyckers
- Research and develop a technological solution that solves a problem related to Covid19 or one of the 17 UN sustainable development goals.
- make and upload a (max 7min) Youtube video of verbal presentation
- submit a research paper for publication.
- may or may not have to demonstrate a physical model.
- During the WIT2023 event, you will have to answer questions about your invention from referees.
- **Assessment Criteria:**
  - Research Issues (10%), Literature Study (30%), Experiment and Analysis (40%), Presentation (20%)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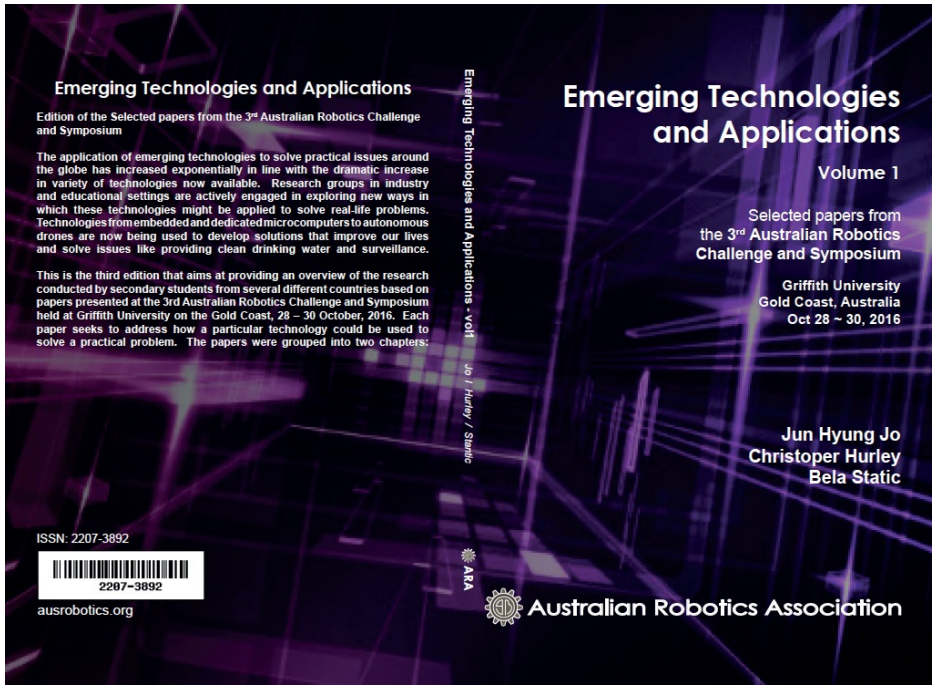
Emerging Technologies and Applications
Edition of the Selected papers from the 3rd Australian Robotics Challenge and Symposium
The application of emerging technologies to solve practical issues around the globe has increased exponentially in line with the dramatic increase in variety of technologies now available. Research groups in industry and educational settings are actively engaged in exploring new ways in which these technologies might be applied to solve real-life problems. Technologies from embedded and dedicated microcomputers to autonomous drones are now being used to develop solutions that improve our lives and solve issues like providing clean drinking water and surveillance.
This is the third edition that aims at providing an overview of the research conducted by secondary students from several different countries based on papers presented at the 3rd Australian Robotics Challenge and Symposium held at Griffith University on the Gold Coast, 28 – 30 October, 2016. Each paper seeks to address how a particular technology could be used to solve a practical problem. The papers were grouped into two chapters:
Emerging Technologies and Applications - vol1 Jo J. Hurley / Static
ISSN: 2207-3892
2207-3892
ausrobotics.org
ARA
Australian Robotics Association
Emerging Technologies and Applications
Volume 1
Selected papers from the 3rd Australian Robotics Challenge and Symposium
Griffith University
Gold Coast, Australia
Oct 28 ~ 30, 2016
Jun Hyung Jo
Christoper Hurley
Bela Static


An important step.
Identifies individuals who are possibly keeping their difficulties to themselves and are not already in treatment.
French researchers from the University of Montpellier developed a method which identified suicidal individuals based on their tweets.
Classification analysis using a list of words and phrases that correlated with suicidal ideation. People in this classification where then advised clinical help.
An improvement would be the inclusion of a cluster analysis of search queries and internet subscriptions of people who have committed suicide and then including that in the classification analysis.
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Immersive Experience Challenge

- Chair: Ann Stevens, Miguel Besas
- Augmented Reality or Virtual Reality.
- This challenge is sponsored by Unity and Arkio.
- create awareness or demonstrate technological solutions related to Covid19 or one of the 17 UN sustainable development goals.
- make and upload a maximum of 2-minute Youtube video.
- During the WIT2023 event, you will have to answer questions about your submission from referees.
- **Assessment Criteria:**
  - Creativity of Concept (30%) Significance of Technological Solution (30%), Immersive Experience (20%) and Presentation (20%)
- Workshop on this category next Saturday.
  - » For more information, please visit the WIT website.

Software Programming (Coding) Categories

- Chair: Chang Gyoon Lim
- This is a quiz-like coding test at the venue.
- Students can use any programming languages (Scratch for Junior group, Python for Senior group)
  - **Assessment:** score-based
  - individual competition.

Line Tracing

- Chair: Dimitri Joukoff, Debbie Suh
- build an autonomous robot in order to achieve the maximum speed on the given track to reach the destination in minimum time.
- The maximum size of a line tracing robot is 25cm x 25cm.
- Students have to bring disassembled robots and assemble it at the venue before the game begins.
- Assessment: speed-based

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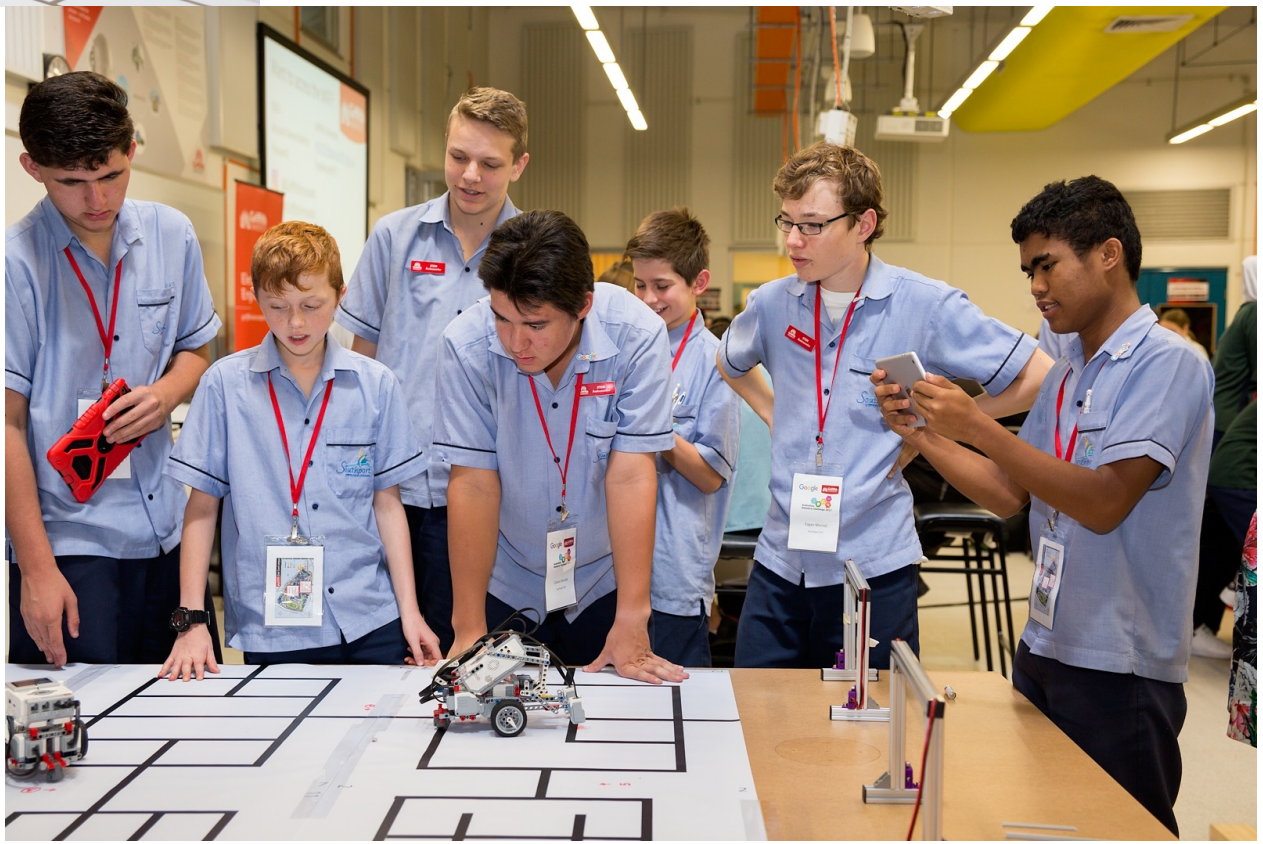
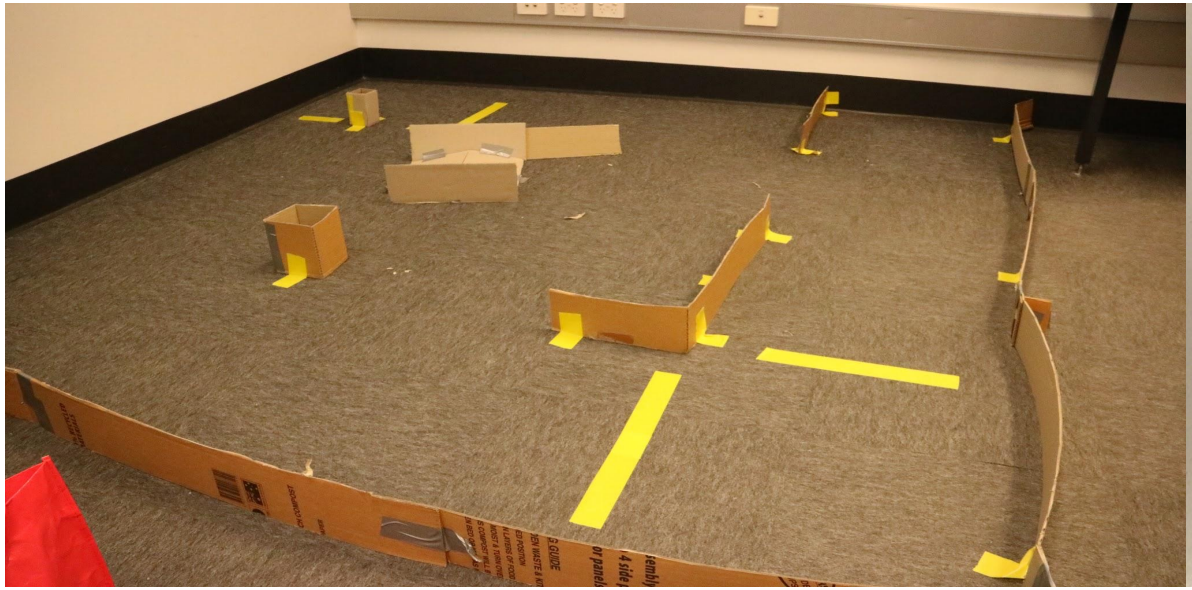
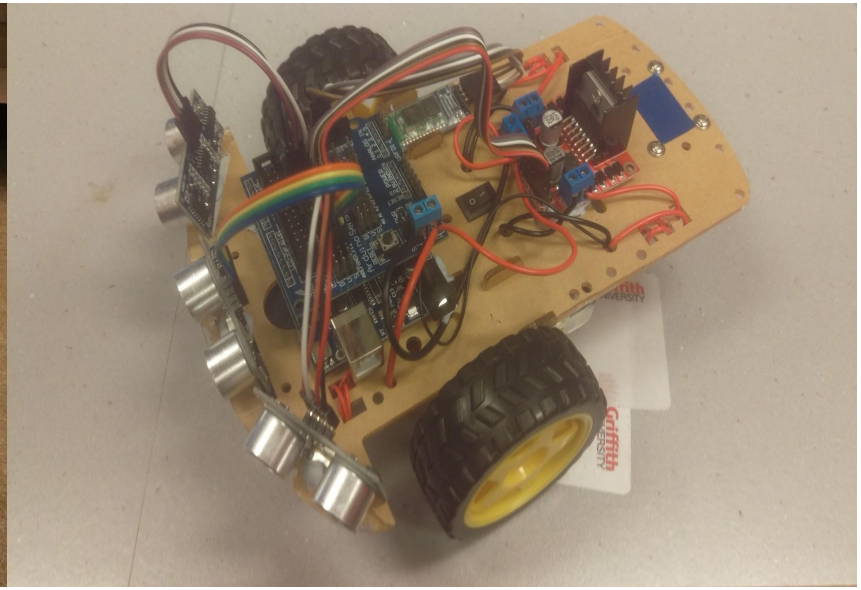


Obstacle Avoidance Driving

- Chair: Peter Darcy, Santoso Gondowidjojo
- Students make and program a robot that avoids collision with obstacles in a small 2m x 2m arena.
- The maximum size of a obstacle avoidance driving robot is 25cm x 25cm.





National Coordinators

Philippines:

- Melvin Matulac*, Pinoyrobotgames
- Miguel Besas, Imagine Realities

Taiwan:

- Peichen Sun*, National Kaohsiung Normal University

Korea:

- Chang Gyoon Lim*, Chonnam National University,
- Debbie Suh, Ewha University

Australia:

- Jun Jo*, Griffith University,
- Ann Stevens, TAFE Queensland

Indonesia:

- Santoso Gondowidjojo*, Robot Olympiad Committee
- Yanti Surjaningsih, Wikati Education

China:

- Handson Lee*, Chinese Robot Olympic Association