

GEELONG TECH SCHOOL



Newsletter | Number: 1

Project Development Teams (PDT)

Throughout terms 2 and 3 this year the project development team made up of 25 teachers from partner schools have been working on the extended projects brought to the table by local industries with input from industry representatives and content experts. Please find a list below of the PDT and associated briefs.

These projects will form the basis of the extended programs to be offered to schools through the Geelong Tech School. The PDT have done a fabulous job to adopt the mindset and envisage the environment of the Geelong Tech School to develop and progress the programs. The work to date has been presented to high level stakeholders to gain feedback including the Geelong Tech School committees, Tech Schools Division, school staff and at a Community forum. The response to the programs and the way they are being developed has been overwhelmingly positive.

The PDT will convene this term to consult with experts in curriculum and specific technologies to further develop the projects ready for trialing.

Trials

Initially trials were scheduled take place in term 4, 2017 however with Tech School staff commencing in early 2018, term 1, 2018 was considered a better option to ensure effective support for project trials.

This term we are planning a series of events where we will gather feedback from teachers and students.

- **Women in STEM and Marita Cheng morning on Thursday the 16th November**
- **Geelong Tech School STEM taster morning on Tuesday the 5th December**
- **Geelong Tech School STEM taster morning on Wednesday the 6th December**

Information regarding these events will be distributed to schools in the very near future.

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Program Offerings

While the majority of development at this stage has been on the extended programs to be facilitated over a series of events both in schools and in the Tech School. The Geelong Tech School will investigate a variety of options to support partner schools.

These will include:

- STEM taster days
- STEM careers investigation days
- Teacher Professional Development opportunities
- STEM Competitions
- Maker Space
- School holiday programs
- Guest speakers for teachers
- Provision of a venue and support for teacher networks

The Building

The Geelong Tech School is currently under construction on The Gordon City campus at the corner of Latrobe Terrace and Lt Myers St. It will accommodate The Gordon's new Resource Centre on the ground floor, with the Tech School on levels 1 and 2 and is scheduled to open in mid-2018

At full capacity the Geelong Tech School will accommodate 150 students in a range of flexible learning spaces including project maker spaces, design studios and collaborative learning areas



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The Geelong Tech School Steering Committee

Currently the Steering committee is creating the Geelong Tech School strategic plan and contributing to:

- The business plan
- The schools engagement strategy
- The communications plan
- The program development strategy
- The industry/business strategy

The steering committee is made up of representative from schools, industry and the general community

Tech School Committee Members

| Name | Organisation | Position |
|-----------------------|--|---|
| Anne-Maree Ryan | GRLLEN | CEO |
| Bernadette Uzelac | Geelong Chamber of Commerce | CEO |
| Bob Tilbury | Ford Motor Company | Engineer, Vehicle Evaluation & Verification |
| Brett Luxford | City of Greater Geelong Economic Devt Unit | Director, Investment & Attraction |
| Catriona Salt | DET – Barwon | Barwon Area Executive Director |
| Darren Gray | The Gordon | Deputy CEO/Director Skills First |
| Glenn Davey | Geelong High School | Principal |
| Graeme Dent | Christian College Geelong | Head of Campus |
| Graeme Robertson | DET | Tech Schools Division |
| Joe Ormeno | The Gordon | Chief Operating Officer |
| Leanne Collins | Tech School | Director Tech School |
| Lisa Line | The Gordon | CEO |
| Michael Exton | St Ignatius College | Principal |
| Ross George | Austeng | Corporate Manager |
| Scott Diamond | Surf Coast Secondary College | Principal |
| Tim McMahon | Oberon High School | Principal |
| Micheal Thomas | Barwon Water | Partnerships and Innovation |
| Lachlan Vivian-Taylor | TAC | Manager Performance and Innovation Independence |

Our vision is to inspire the thinkers of today to create the future of tomorrow.

Our mission is to provide a vibrant, technology-rich teaching and learning hub where our students discover and develop skills and talents for an exciting pathway to the future.

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Project Development Teams

Current Projects in Development

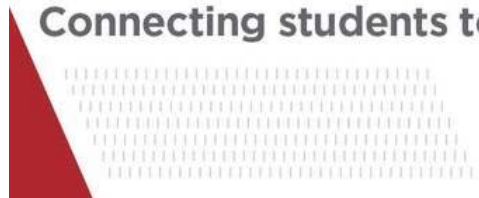
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| 1 | Robotics Barwon Water | Industry: Michael Thomas Barwon Water Expert: Lachlan Patrick Deakin |
| <ul style="list-style-type: none">▶ Katrina Lynch Western Heights College▶ Mark O'Meara Bellarine Secondary College▶ Michael Monahan Geelong Lutheran College▶ Ruwani Keyburn Western Heights College | | |
| Students will be required to develop a smart solution to unblock a pipe. This could involve assembling/adapting/programming a small robot to take CCTV footage and/or remove and retrieve objects. | | |

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| 2 | Water Reality Check Barwon Water | Industry: Michael Thomas Barwon Water Experts: Joel Zika Deakin & Steve Wilson WITC |
| <ul style="list-style-type: none">▶ Amy King North Geelong Secondary College▶ Michael Simondson Geelong High School▶ Rowena Goldsmith Newcomb Secondary College | | |
| Develop a 5 to 10min, 360° movie for use on a smart phone or VR device that tells the 'story' of the region's water. The aim would be to raise the level of awareness amongst students in regards to water quality and then draw implications for humans and other species that are reliant. May include water quality testing with students collecting and analysing the water quality from various locations. | | |

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| 3 | Last Mile Ford | Industry: Bob Tilbury & David Erjavic Ford Expert: TBC Joe Metcalfe REA |
| <ul style="list-style-type: none">▶ Andrew Brown Surf Coast Secondary College▶ Erin Norman St Joseph's College▶ Julia Brain Grovedale College▶ Leanne Harris The Gordon VCE | | |
| "Last mile" refers to the initial and final steps in a journey – such as from car park to office, from airport to hotel or from train to final destination. These typically take place on city sidewalks, or through a building, where conventional vehicles like cars and buses can't tread. What would students like? Could it fit in a back pack? Students to design and mock up last mile system to take a person on the last leg of their journey. | | |

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| 4 | Gamification Ford | Industry: Bob Tilbury & David Erjavic Ford Expert: Aamir Qutub Enterprise Monkey |
| <ul style="list-style-type: none">▶ Anthony Benson Christian College Geelong▶ James Curtis Northern Bay College▶ Stan Koullas North Geelong Secondary College | | |
| Take live data (front camera, rear camera, radar) from a car and place it into a game. Make it interactive. Could be augmented reality. Games such as: lock onto numbers on plates, Pokémon on a screen in rear of vehicle Students to design and mock up a game. | | |

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| 5 | Future Bricks Austeng | Industry: Ross George Austeng Experts: Sally Hutchinson & Scott Barnes CSIRO |
| <ul style="list-style-type: none"> ▶ Caroline den Drijver Grovedale College ▶ David Rusden Geelong Baptist College | | <ul style="list-style-type: none"> ▶ Michael Brown St Ignatius College |
| <p><i>Key Question – What is the best brick for our future?</i></p> <p>Students make a brick from dry plant material, lime and water. Variables to be considered include particle size, distribution, binder type, mixing levels and compression. Students will consider testing measures and incorporate sensors and electronics. Bricks may be tested on heat transfer, sound transfer, strength, cost and sustainability.</p> | | |

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| 6 | Disaster Relief Shelterbox | Industry: Shelterbox & Junior Nomani Deakin Experts: Aaron McKay The Gordon |
| <ul style="list-style-type: none"> ▶ Marita Nicholas Belmont High School | | <ul style="list-style-type: none"> ▶ Sharon Hogan / Jo Toone / Matthew Flinders Girls Secondary College |
| <p>Design a Sustainable Shelter Box kit to be deployed in a disaster stricken region. Case Scenario's include Nepal Earthquake 2015, Vanuatu cyclone 2015, Japan earthquake and tsunami 2011. The Shelter Box kit / housing must meet humanitarian needs, accommodate for cultural needs and withstand environmental conditions. Students will detail box inventory, design the housing incorporating sustainable design features and generate a CAD drawing of the housing to be viewed in VR.</p> | | |

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| 7 | Pedestrian Safety TAC | Industry: TAC Expert: Sue & Paul Cartwright Barwon Copiers |
| <ul style="list-style-type: none"> ▶ Adam Cole Sacred Heart College ▶ Gavin Wake The Gordon | | <ul style="list-style-type: none"> ▶ Leanne Collins Geelong Tech School |
| <p>An investigation into safety at busy intersections that pose a significant risk to pedestrians, especially at school finishing time (peak period). GoPro mounts will be 3D printed so that data can be collected using the cameras. The data will be collated and statistical analyses will be performed using excel software and support from the ABS. Students will consider their results with respect to council parameters and identify safety recommendations.</p> | | |

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| 8 | Bot Rescue Brainary | Industry: Jonathan Kingsley Brainary Expert: Kevin Leach The Gordon |
| <ul style="list-style-type: none"> ▶ Danielle Nyikos Clonard College ▶ Fiona Fitzgerald Geelong Grammar School | | <ul style="list-style-type: none"> ▶ Jason D'Offay Geelong High School |
| <p>Students will be presented with disaster scenarios including bush fire, flood, violent storm, individuals lost at sea or lost on land. Using EZYbots students will design, create and program robots to help with rescue operations. This may include gathering Intel, clearing debris or bringing people or animals to safety. Using the EZYBots platform, students can create, program and test in VR prior to building and testing their robots.</p> | | |

TBA: Seven Vinton | Oberon

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