



Hall of Fame

Each year the Barker Redbacks are proud to compete as a part of the global FIRST Robotics Competition (FRC) that provides inspiration and challenge for our students.

Every year we are impressed with the creativity, ingenuity and skill our students demonstrate as they create ever more sophisticated and impressive robots. However, we are most proud of the efforts we have taken to share our knowledge and understanding with teams locally in Sydney, and around the globe to help others foster and inspire their own students.

Our aim is to lead by example, using the gifts and talents with which we have been blessed to serve others and see their success rather than just seeking it for ourselves. Over the last six years our team has received the *Chairman's Award* as recognition for our efforts, part of the ethos of 'Gracious Professionalism' and 'Coopertition' that FIRST aims to inspire in students. This year, we're thrilled to announce that the Barker Redbacks were recognised as having significant and long-lasting global impact, and won the Chairman's Award for the Houston World Championship!

The team has now been inducted into the FRC Hall of Fame as one of 28 teams in the history of FIRST who have done the most to grow robotics in our community and helped inspire others in Science and Technology. Having made it our team's mission to have significant global impact, we could not be happier! Of course, the medals and trophies sure put a smile on our team's collective faces too.

We are truly humbled by this momentous achievement, and the pages that follow honour the dedication and passion so many students, teachers, and mentors have contributed to allow this success since the team's inception. Please enjoy this very brief overview of our team's efforts to contribute to the world in which we live. Certainly, there is not enough space to fully thank every person individually with the fullness of praise they each deserve, so I hope you'll have an opportunity at some point to talk with past, present and future members of our team to find out more.

A DECADE OF SUCCESS

2010

Macquarie University founds FRC in Australia under the direction of Michael Heimlich



In 2010 Michael Heimlich founds FRC in Australia at Macquarie University with Team 3132.

2011

Barker students Matthew Buffa, Alastair Noble, Dave Muller, Lal Birch, Jamie McVicker join FRC Team 3132 at Macquarie University. Matthew Buffa and Lal Birch travel to World Championships.

2012

'Rebound Rumble' - Matthew Buffa, Alastair Noble, Lal Birch, continue with FRC Team 3132. Matthew Buffa and Lal Birch travel with 3132 to Orlando Regional, recognising their growing commitment. The FRC Off-Season event 'Duel Down Under' is held for the first time at Barker College. Science teacher Sarah Cormio and students begin conversations about starting a Barker Team.

2013

'Ultimate Ascent' - Sarah Cormio and Barker students start the Barker FRC Team with the support and funding from Head of Science, Rob Paynter. Cameron Dearn mentors the team of 10 young and enthusiastic team members to build and program their first robot drive base with a net designed to play effective defence against frisbee shooting robots.



2014

'Aerial Assist' - Team size: 10 Students

Oliver Nicholls joins FRC Team 3132 and is passionately 'hooked' on FRC. John Nicholls and Angus Griffin join the team and mentor every Thursday night with Science teacher, Cameron Dearn as part of an Industry Sponsorship from AArnet. Sarah Cormio continues to promote, grow and co-ordinate the team. The team focuses on building a repeatable, reliable robot that integrates effective mechanical design and sensors for robot control. Barker 'Red Crusade' has the most reliable shooting mechanism at 'Duel Down Under' (hosted at Barker), qualifies first and wins the off-season event.

John Nicholls invites Jeser Becker and Daiane Rodrigues to help mentor the Barker team in late 2014, and they help prepare the current Robotics Lab for use in the 2015 build season.



John Nicholls and Angus Griffin joined the team as Industry Mentors as part of a sponsorship from AArnet.



Barker hosts Dual Down Under in the MPH. Team 4613 qualifies first and wins the event. Barker hosts DDU in 2014 and 2015.

2015

'Recycle Rush' - Team size: 20 students

Captains: Alastair Noble, Matthew Buffa.

Mentors: John Nicholls, Angus Griffin, Sarah Cormio, Jeser Becker and Daiane Rodrigues-Becker.

The Barker Redbacks compete in a full FRC season for the first time, building the robot with hand tools. The team qualifies first and are Finalists in the inaugural FRC Australian Regional, qualifying to Champs on a wild card. The team are Semi finalists in their division at World Championships.

The team volunteers at FLL events, FTC events, build and distribute a gearbox for an otherwise difficult to use motor in the FRC Kit of Parts. Dr Kimberly Leslie and Daiane Rodrigues start two FLL teams at Barker as part of the GAP program in Junior School. The team also runs workshops with Blacktown Girls HS (pneumatics), Abbotsleigh (Mechanical and basics).

The team is invited to China by the Chinese Urban Youth Robotics Alliance (CUYRA) and runs introductory workshops in Shenzhen for new teams.



2016

Stronghold' – Team size: 30 students

Captains: Sean Zammit, Oliver Nicholls.

Mentors: Jeser Becker, Daiane Rodrigues Becker, John Nicholls, Angus Griffin, Emmanuel Zammit, Anthony Brian, Guy O'Hanna and Lael Grant.

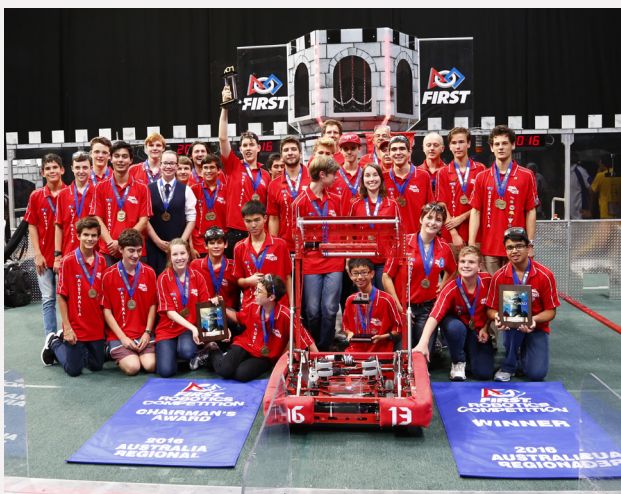
The Barker Redbacks shift manufacturing techniques to utilise CAD and CAM, and implement an advanced robot with goal Vision Tracking, a rotating turret, and sensors to calibrate and correct autonomous accuracy.

Barker hosts a Reveal Day Strategy meeting at the start of build season, and a 'Week 0' scrimmage at the end of build season to allow other teams to test their robots on our mockup of the field. Barker students assist Abbotsleigh, Sydney Uni DropBears, and Marsden High to complete their robots.

The team wins the Australian Regional, and win the teams' first Chairman's Award. Alastair Pilley wins Dean's List Finalist Award for his work developing the 'RedBox' gearbox for less privileged teams. The Redbacks are Finalists at Calgary Regional and Daiane wins the Woodie Flowers Award one week after Jeser wins the Woodie Flowers Award (Team 1772) . The Redbacks compete at World Championships, but do not qualify for play-offs. The team is invited by CUYRA to Shanghai to help run workshops for Chinese teams.

The Redbacks present FRC to assemblies at Pymble Ladies College (PLC) and run weekly workshops at PLC in Term 4 to help establish the new team.

Barker creates a Middle School robotics program with over 50 students signing up. Jeser, Daiane, Kathy Haigh and Emily Pratt mentor students in FTC with eight teams competing. A Barker alliance wins Nationals and qualifies to World Championships (2017). The Junior School program is expanded to two Robotics classes.



The team wins the 2016 Australian Regional, qualifying to World Championships.

2017



Chairman's Video— scan to play!



2017 Robot Reveal— scan to play!

'Steamworks' – Team size: 35 Students

Captains: Caelan Kippen, Saskia Ridley-Smith.

Mentors: Jeser Becker, Daiane Rodrigues Becker, Emmanuel Zammit, Anthony Brian and Lael Grant.

The team sees significant improvement in processes following the implementation of off-season training workshops in CAD, CAM and implementing a badge qualification system.

The team wins:

- Shenzhen Regional and Engineering Inspiration awards
- Southern Cross and John Nicholls wins the Woodie Flowers award
- South Pacific Regional and Excellence in Engineering award. Sean Zammit wins Dean's List Award
- New York City Regional and Chairman's Award
- Hopper division Finalist at World Championship after ranking 6th in qualifying (team best). Wins Innovation in Control Award

The Redbacks Present at EduTech – the largest educational conference in the Southern Hemisphere

The Team is invited to Zhengzhou by CUYRA to help run workshops for beginning Chinese teams. Team Captains run robotics workshops for Darkinjung Barker Campus.

A Barker FTC Team competes at World Championships in Houston.

Barker Implements the VEX Robotics Competition in Middle School.



The team wins Shenzhen, Southern Cross, South Pacific and New York City Regionals and wins the Chairman's Award at NYC. The team is a finalist in the Hopper Division at World Championships and wins Innovation in Control Award for autonomous software.



John Nicholls wins The Woodie Flowers Award for his significant contributions to Barker and so many other teams in Australia.

2018



2018 Robot Reveal – scan to play!

Power Up’ – Team size: 45 students

Captains: Matthew Brian, Matthew Sainsbury.

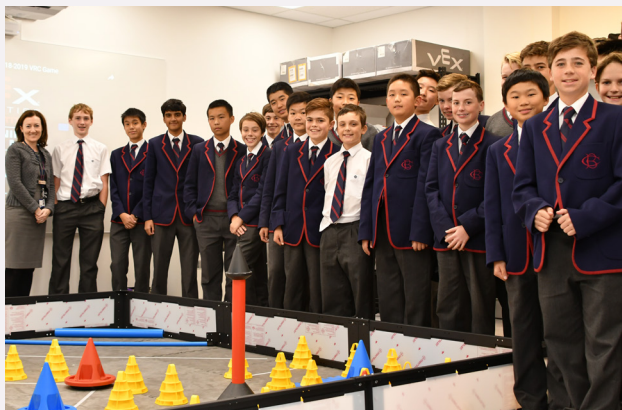
Mentors: Jeser Becker, Daiane Rodrigues Becker, Emmanuel Zammit, Anthony Brian and Lael Grant.

The team continues to grow and build skills and capacity in students, and built an innovative small robot. Barker host a Chinese team during build season, who then go on to found another four FRC Teams the following year. The team wins the Southern Cross Regional along with the Industrial Design Award, and are finalists at the South Pacific Regional. The team ranks 3rd in qualifying in the Galileo Division at World Championships and compete in the quarter finals.

Lael Grant presents to hundreds of teachers at EduTech on Robotics. The Redbacks travel to Qianjiang at CUYRA’s invitation to teach rookie teams how to design and build their first robot. The Barker Redbacks host and run the inaugural VEX Robotics Competition Tournament in Sydney with 20 teams competing. Jeser Becker and Daiane Rodrigues Becker travel to Africa and establish the first FRC team on the African Continent – Team 7523 – the Springbots.



The Barker Redbacks host and run the inaugural VEX Robotics Competition in Sydney with 20 teams competing from multiple schools.



Barker implements VEX Robotics in the Middle School.

2019



Chairman’s Video – scan to play!



2019 Robot Reveal – scan to play!

‘Destination – Deep Space’ – Team size: 40 students

Captains: Jarrod Zammit, Lucas Parker.

Mentors: Jeser Becker, Daiane Rodrigues Becker, Sean Zammit, Alastair Pilley, Emmanuel Zammit, Anthony Brian, and Lael Grant.

For Destination Deep Space the team build a highly effective robot that wins the Southern Cross Regional and the Excellence in Engineering Award. During build season the team hosts interns from Brazil to help teach advanced design and CNC manufacturing techniques. Team 7523 travel to Australia for their first FRC Regional and win Rookie All Stars. The Team travels to Quebec are Semi-Finalists, and wins the Chairman’s Award. At World Championships in Houston the team ranks 5th in the Turing Division and competes in the quarter finals.

The Junior School program is expanded to three classes with the addition of a VEX IQ class led by David Frazer. Barker students demonstrate VEX robots at EduTech. The VEX Robotics Competition, hosted by the Barker Redbacks, grows to just over 30 teams, and Barker holds the inaugural VEX IQ Challenge in Sydney. Barker helps run VEX Nationals in Adelaide and has five teams compete. Lael Grant presents to rookie Taiwanese teams at the inaugural FRC off-season competition in Taiwan.



The tea wins Chairman’s Award at Quebec Regional, Canada.



Lael Grant presents to Rookie Teams at the inaugural off-season FRC competition in Taiwan.



2020 Robot Reveal – scan to play!

2020

'Infinite Recharge' - Team size: 60 students

Captains: Ben Schwarz, Tom Abbott.

Mentors: Jeser Becker, Daiane Rodrigues Becker, Sean Zammit, Alastair Pilley, Anthony Brian and Lael Grant.

The Team designs an advanced robot with fully machined turret, swerve drive, continuous targeting algorithms with feed forward predictive shooting and the most reliable and best assisted climber system in the world. Season is cancelled due to COVID-19.

Barker partners with sponsor VEX Robotics to establish a VEX IQ robotics program at Darkinjung Barker, with Barker Robotics mentors providing weekly training sessions.

Expanded Robotics program in Junior School with addition of VEX GO in Years 3-4 and FLL Explore in Years 1 - 2.

2020 awards:

South Pacific Chairman's Award



The team wins the South Pacific Chairman's Award after competing remotely online.



Baker Robotics partners with VEX to bring robotics to Darkinjung Barker, with weekly training sessions provided by Robotics mentors.



Jack Wilson – FRC FTC Team Captain and Robotics Coach Jeser Becker appear on "FIRST Updates Now" after being voted Best FTC Robot in the World.



Chairman's Video – scan to play!



2021 Robot Reveal – scan to play!

2021

'Infinite Recharge' – Team size: 70 students

Captains: Jack Wilson, Suzanne Brian.

Mentors: Jeser Becker, Daiane Rodrigues Becker, Sean Zammit, Alastair Pilley, Anthony Brian and Lael Grant.

2021 awards:

Southern Cross winner, Excellence in Engineering Award, Remote Competition Finalist, Chairman's Award Pacific, Championship Chairman's Award and the Barker Redbacks are inducted into the Hall of Fame.

Hosted the inaugural FTC State of Origin off-season event between NSW and Queensland teams.

Barker Robotics facilitates a VEX sponsorship of robotics for Dhupuma Barker, and the provision of drones to encourage inquiry and inspiration in technology.



Barker hosts the inaugural FTC State of Origin Off-season competition between NSW and QLD FTC Teams.



The Redbacks presents for the Chairman's Award remotely over Teams creating a 'Newsroom' presentation leveraging our experience in live event video.

The team wins The Pacific Regional, and the World Championship Chairman's Award for our work fostering robotics locally and globally, and is inducted into the FIRST Robotics Hall of Fame.

Lael Grant
Robotics Coordinator &
Computer Science Teacher

