



Learning. Sharing. Teaching.

45 Brindabella Dr
Horsley 2530
NSW Australia

Dear Sponsors, Supporters and Friends,

2024 is upon us, and we wanted to share a summary of what the Project Bucephalus students got up to in the last 12 months.

2023 ended with a blast for the Project Bucephalus FIRST LEGO League team, named **2nd Place Champions** of the Eastern National Championships! This was the culmination of months of hard work by the students and a tremendous accomplishment at an event that featured 44 of the best teams in the country – including 6 other teams trained by Project Bucephalus. As a result, the team will once again progress to International-level competition, representing Australia at the Asia-Pacific Championships in 2024.

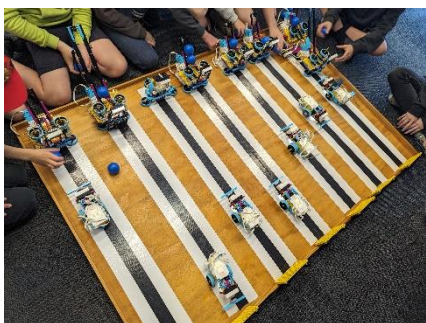


The end of the year has also seen excitement and achievement for 5985, the Project Bucephalus team competing in the *FIRST* Robotics Competition. The “Charged Up” season kicked off in January 2023, with the team competing in the Southern Cross Regional in March – Project Bucephalus again playing a significant role in bringing this major event to Wollongong. “Charged Up” was unique for 5985: as recipients of the Engineering Inspiration Award at the 2022 World Championships, they went into the season pre-qualified to return to the USA to compete at the 2023 event.

Having time to plan the trip, the team elected to stop off at the Silicon Valley Regional in California – an event attended by the top teams in the world. To the delight of the students, here they were named winners of the **Impact Award** (the highest award in *FIRST*). They went one further at the World Championships, where against 700 other FRC teams, they were named **Impact Award Finalists** – in front of 30,000 spectators, recognised as one of the top 6 teams in the world for STEM education and outreach. This earns the team another return trip to the Championships in 2024!



Buoyed by the team's outstanding results, 2023 saw Project Bucephalus reach new heights of both achievement and service. In just the last 12 months Project Bucephalus has:



- Directly mentored over 20 *FIRST* teams across the country and overseas.
- Partnered with Special Olympics Australia and Washington to introduce the **Unified Robotics** program to Australia. 5985 wrote the game used by teams around the world and hosted Australia's first Unified Championship at Wollongong TAFE.
- Expanded **Unified Robotics** to include *FIRST* Tech Challenge teams in Special Education Units in Illawarra High Schools, funded by grants organised by the team.
- Run the **Wollongong *FIRST* LEGO League Regional** and the **North Wollongong *FIRST* Tech Challenge Qualifier** as back-to-back events at the Wollongong TAFE campus, attracting over 60 teams from across NSW and ACT
- Continued the **Teaching Program**, running multiple LEGO Robotics classes every day of the school week (plus school holiday workshops) – each one staffed by team volunteers.
- Grown ***FIRST* Scouts**, reaching 30+ South Coast Scouts in the *FIRST* LEGO League, plus additional teams from ACT and Sydney.
- Continued **Unstoppable**, a program to run an FRC Team at the Flametree school (for students from backgrounds of trauma, abuse and neglect). This program was a spectacular success, with the Flametree students competing in the 2023 Southern Cross FRC Regional alongside Project Bucephalus!
- Expanding **Unstoppable** to include the creation of a *FIRST* LEGO League program at Flametree, and a new FRC team for students at Keira High School.
- Twice-weekly LEGO robotics classes as Vocational Training for adults and youth with disabilities at The Flagstaff Group
- Continuing **Unlimited**, running robotics programs in Special Education Units and Schools across the Illawarra, Shoalhaven, and Southern Highlands.
- Sorted and shipped **LEGO packages to Turkey** after the earthquakes, for use in childcare in tent cities.
- Competed in multiple off-season FRC events, even hosting a **Scrimmage** event at Wollongong TAFE.
- Partnered with NVIDIA and University of Wollongong Academics to designed and built a LEGO robot to operate in Antarctica
- Continued **Rocketing Girls Into Robotics**, a weekly all-girl STEM program.



- Ran A National Science week program that saw demonstrations at Cedars Christian College and a LEGO robotics event at the University of Wollongong Shoalhaven Campus.
- Started **My Maker's Space** in Australia – a free LEGO robotics program targeted at K-1 students from refugee, indigenous or low-SES backgrounds.
- Volunteered at community events including Cuboree (for over 2,000 Cubs), Colour Run, Sussex Viking Festival, and MindQuest.

2024 Preview

“Crescendo”, the 2024 FRC season, will kick-off on January 7th. Project Bucephalus has been hard at work recruiting (the team will reach 44 students this year), training, and making the most of the lessons learned from the 2023 season. The 2024 FRC Team includes:

- 44 Students (aged 12-18) from 19 High Schools from Ulladulla to Southern Highlands.
- 52% non-male membership holding over 50% of leadership positions.
- 64% of students face a diagnosed mental health challenge.
- Diverse cross-section of the community, with varied socio-economic, cultural, and religious backgrounds.

Thank You

Every day, Project Bucephalus has the privilege of inspiring children of all ages and abilities, teaching the fun that can be had through STEM and participation in *FIRST*. We are inspired ourselves by what these children can achieve and are grateful to all those whose paths we have crossed.

The *FIRST* program is built on “Gracious Professionalism” – the concept that fierce competition and mutual gain can both exist in *FIRST* teams of all ages. Winning is secondary to learning in *FIRST*, and Project Bucephalus has adopted this attitude. Ironically, this has enabled the team to reach ever-higher levels of success. We look forward to what the next part of our journey will bring.

None of this would be possible without our Sponsors and Supporters. Your encouragement has made a difference to so many children, and Project Bucephalus hopes to continue sharing our story with you.



Regards,

Andrew Clark

Lead Mentor

Team #5985 (Project Bucephalus)

coach@projectb.net.au

www.projectb.net.au