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FRC Build Season



KICK OFF AND SO IT BEGINS!!

KICK OFF is the start of the hectic 6 week build season.

A great turn out of students, mentors and parents. With terrific discussions about the season's challenge. After a general discussion of the game and the rules, students were divided into groups to discuss initial thoughts on design and strategy.

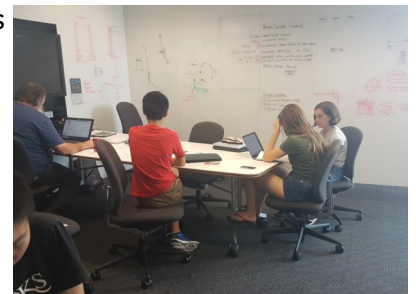


WEEK 1 and 2

CAD : basic concept designs, working on a grabber/lifter and drive base, with the help of Adam Marshall and Jeff Jenkins to guide us we had a design by the end of week one and began prototyping on the weekend.

Week two was the big one for CAD after the prototype weekend we sat down Monday and began discussing pros and cons of the mechanisms we built. Once we had decided on a singular design we delegated people to specific tasks. Some worked on the lifter, some worked

on the grabber and the others worked on the drive base. We worked steadily with Rob Zibell helping us, and by the end of week 2 had a fully finished robot in CAD with the lifter/drive base and grabber assembled as well as drawings ready to machine and assemble on the weekend.



Building the field elements is a great way to get familiar with the tools—hand and power.

FIELD ELEMENTS

The build not only involves the design and building of the robot but all the field elements need to be built also so that the robot can be tested to ensure it can do what it needs to do in the competition situation. Thankyou again to the Mansfields for the use of their home / driveway /backyard / frontyard. It is a great opportunity for team members to get hands on with tools—hand and power.



FRC Build Season—ASC Robot Rumble



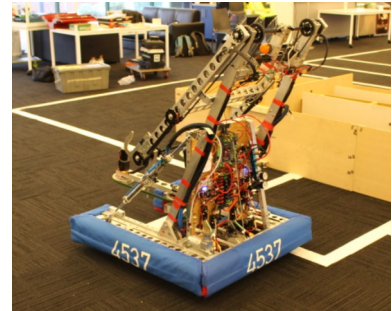
At the end of the build season, the RoboRoos had the opportunity to visit ASC, the Australian Submarine Corporation at Osborne.

It gave us the opportunity for a day of drive practice and also to have the opportunity for a site tour.

Members who attended had the opportunity to observe and learn about the facilities used by ASC and get up close to a Collins-class submarine.

We would like to thank Martin Edwards for allowing us to use some of their space for drive team practice and programming.

We look forward to strengthening this new formed relationship with ASC in the future.



FRC Sydney Regional Competition



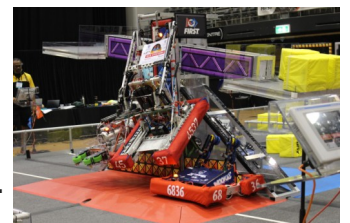
From March 11th to March 13th 2018 the RoboRoos attended the FIRST Robotics Competition in Sydney to compete in the Southern Cross Regional. With a team consisting of mostly new members the competition was always going to be a challenge. The RoboRoos competed against 30 other teams including teams from India, Taiwan, China and Singapore.

Day one was eventful with our drive team competing in a practice match for the first time together and final preparations being made for the Chairman's presentation. The team also heard from numerous inspiring speakers who have found their way in the industry in STEM and had a chance to explore possible pathways and careers for the future.

Day two saw the girls on the team headed off to the FIRST Ladies Breakfast. There, they heard from leading female pioneers in STEM fields and got a chance to socialise with other teams, judges and referees. The RoboRoos were also thrown into the first day of qualification matches where the pit team was presented with numerous technical challenges which arose from the high intensity competition.

The final day of competition was stressful with alliance selections coming up. The team managed to maintain their cool even if the gearboxes didn't and we finally saw the results of the scouting teams hard work. In the end, the RoboRoos were selected for alliance number 5 with alliance captain; Team 5983 (Blast Furnace Bots, Lithgow, NSW) and partner; Team 7278 (Toormina High School, Toormina, NSW). Unfortunately, the team was eliminated during the Playoff matches and did not receive an award.

The 2018 FRC challenge was a success. With a team consisting almost completely of new members we have formed a strong basis for next year's competition. A big thank you to this year's mentors, alumni and most importantly, our team captain and vice-captain, Bryce Simmons and Jess Shannon.





FIRST LEGO LEAGUE

Winning Nationals

This year the RoboRoos East FIRST Lego League team achieved what the RoboRoos have been dreaming of for 8 years – we finally won the FLL Australian National Competition! Coming first against all of Australia's best teams was an absolutely incredible experience, and here is what the team had to say about the competition:

Isabella: "I had a lot of fun at regionals and nationals because I haven't been in the team before and it was a really great experience to show everyone what we had achieved in the season"

Sam: "Everyone in our team is really social and friendly and we love to bond over food and jumping on the trampoline"

Itay: "I really enjoy the atmosphere at competition – it's competitive but in a friendly way and everyone is willing to help each other out. You know that the other teams have your back"

Chaya: "We work so well together as a team, and we have a lot of strategies for problem solving that are both fun and educational. It's great that we have this shared space to learn about other people as well as all the skills that come with building a robot and developing an innovative project."



FIRST LEGO LEAGUE



GOODLUCK

TO THE

ROBOROOS

LEGO

LEAGUE

TEAM IN

HOUSTON!!

GO ROOS



Alan: "I learnt how to program a robot to using XY coordinates to move the robot, and I really enjoyed watching how we got the robot to move around so much more accurately towards the end of the season"

Jack: "Through RoboRoos I have learnt how to develop new concepts in the form of different designs for robot attachments and think outside the box, which is an incredible skill that I can apply to many aspects of my life in the future"

Derek: "I find it really interesting to see everyone's different personalities and skillsets and interests. Despite our differences we come together so strongly as a team"

Zuhayr "I learnt to work with everybody in my team and I really developed my communication skills. I am now able to talk more easily in a group of people, and smile!"

Charlie: "With the help of everyone in the team this year my 6 year dream of building a box robot has finally been achieved – in fact we have made 3 separate box robots for each competition this season!"



The team is soon heading off to Houston, America to compete once again at the FLL World Festival. We wish them the best of luck in representing Australia at this event!



Hopping into engineering!



Who are the RoboRoos?

We're a community group, FIRST® Robotics Team and so much more—including South Australia's first FRC team.

The team's purpose is to excite young minds about STEM (science, technology, engineering and mathematics), by using a common interest: Robots.

As part of this, students get real industry experience, with help and guidance from dedicated industry professionals as mentors. It circumvents the age-old circle of being unable to get a job due to lack of experience.

Part of our ethos is to maintain a gender balance, which we continue to strive for and achieve.

Contact us at: roboroos@roboroos.org.au

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