



Roboroos Newsletter

**** NEW MEMBERS WELCOME**

www.roboroos.org.au

SEPTEMBER 2017

CLUB DATES / UPCOMING EVENTS

Sun Oct 9th
LAN party

Wed Oct 11th
Thurs Oct 12th
On Shape CAD
2 day training course

Tues Oct 17th
Systems Engineering
Dr Stephen Grainger
TBC

Tues Oct 24 th
Electrical Training /
Training Robot Analysis
and design

Tues Oct 31st
Ingenuity Adelaide Uni

Tues Oct 31st
Applidyne : Analysis and
Design TBC

Tues Nov 7th
FLL Research Project
Presentation

www.roboroos.org.au

INSIDE THIS ISSUE:

Chairmans chat 1
Captain and Vice

Science Alive 2

Open Day 3
Oliphant Science

Training 4

Sponsors 5

Chairman's Chat

RoboRoos continues to grow and develop.

This pre build season is the best organised we have had, with thanks to all those involved.

Students, make sure you log in to your RoboRoos emails and keep track of all the training opportunities- they are there for you.

Our new "Pod" structure is taking shape. We still need adult volunteers in a lot of areas to share the load so please do let us know where and how you can contribute.

Our build facility for this season remains in flux. We are pursuing a number of alternatives which are at various stages, but nothing is firm at this stage. Again, if you can contribute here that would be welcome and appreciated.

Go Roos,

Peter Ryan-Kane, Chairman

After a rigorous process of nominations, written applications and interviews the student leadership has been finalised. Congratulations to the successful candidates.

Thankyou to all contributors to the newsletter. Tracy

Captain's Corner



Hi Team,
I would like to introduce myself as your new student team captain for the 2017-18 season. This is my 5th year in the team and I am very excited to have the opportunity to lead in this role and help guide new and old members with everything I have learnt in my time here. I am looking forward to working with you all and doing new and exciting things during the build season and off season in only 14 weeks!
-Bryce

Vice Captain



Hi all, I'm Jess Shannon the new student Vice-Captain!

I joined our team in 2015,

after a presentation that Bryce held at our school. Being part of this beautiful club has impacted my life positively, giving me friends from all walks of life who likeminded and love science and STEM as much as myself.

My aim as a student captain of the RoboRoos is to inspire other students to love science and grow our social aspects and connections building friendships with all

our new students to prepare for a great build season this January where we can work together fast and WIN!

Go Roos!

Jess



**“Constant,
intense and
engaging”**

Science Alive



Constant, intense and engaging – we were never quiet. A great opportunity to engage with the community with the chance to share STEM in a meaningful way with people aged from 5 to 85!

A colleague's five year old son went home and pulled out all his Lego to build robots that night 'Look Dad – my robot can do...'. Time well spent...

Michele Bardy

Thankyou to all those students, mentors and parents who volunteered over the three days—it is great to

see so many of you showing what the RoboRoos are all about and encouraging others to get excited about STEM.
Tracy



Bright Sparks



**The
RoboRoos:
Out and
About all
over
Adelaide**



On the 23rd of July we had a visit from a group of 12 students from Brightsparks.

These students have a keen interest in science and technology and in particular robotics.

Under the guidance of our mentors: Geoff M, Rob and Adam, the students were given the opportunity of a hands on experience building a drive base.

They were divided into 3 groups with 3 drive bases to work on meaning that there was ample opportunity for each student to be

involved which they did with enthusiasm.

They were assisted by current RoboRoos students: Jess, James, Bryce and Ryan and alumni Bailey.

It was a hive of activity at the workshop with the students enjoying the challenge.



Thankyou also to Jeff J and Jeff R who are a constant support.

Thankyou also to Rona Sakko for her ongoing support of the RoboRoos.



Robo Roos Open Day 13th August 2017

Our 2017 Open day was a roaring success!

With over 200 people through the gates, it was all members on deck to ensure our biggest recruiting day of the year went smoothly.

At the beginning of the day, the set-up crew made the shed look pretty with masses of photos, dazzling trophies and posters, we sent out troops to place balloons and banners in the streets to guide guests through the unknown tangle of Wingfield streets, and our scru-fe team frantically soldered motors and set up the building stations for our main activity.

Throughout the day, the team continually taught a stream of excited students (and their parents) how to make scru-fes, small robots with

ultrasonic sensors that allowed it to dodge obstacles.

They turned out with mixed success rates, but every student looked supremely excited with their individual robot that they could take home and tinker with.

We filled out many expression of interest forms and talked to others about our amazing experience with the RoboRoo club.

Overall it was an incredible day with a bustling vibe to match so thank you to all volunteers, mentors and students who helped out.

A special thanks goes to National Science Week for providing us the grant to run the day, and to Adam for coming up with the idea.

-Emily Mansfield



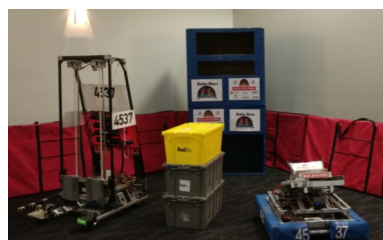
Oliphant Science Awards



The RoboRoos were again asked to demonstrate at the Oliphant Science Awards in August.

This involved a 20 minute stage performance explaining who the RoboRoos were and the achievements of the club. Followed by a demonstration of this years competition robot. KJ did a fantastic job as spokesperson and was well assisted by a terrific student and mentor support crew.

A big thankyou to all those who helped on the day. After the presentation it was over to the masses to gain their robot drivers license with the Frisbee thrower being a great draw card. Tracy





Training—Arduinos

On Tuesday 12th of September the season's first training session kicked off. Held at UniSA in Adelaide, the turnout of students and adults was great to see.

This training session saw students learn the basics of sensors like what each sensor does and what we primarily use them for when building a robot before practicing the programming of Arduino's.

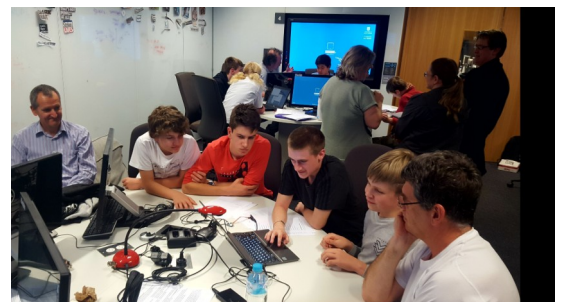
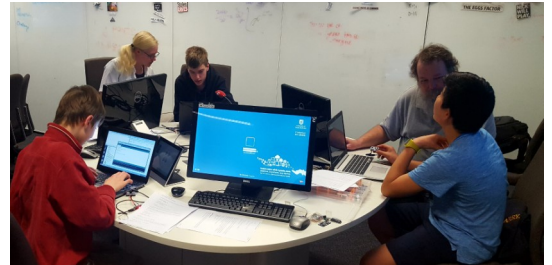
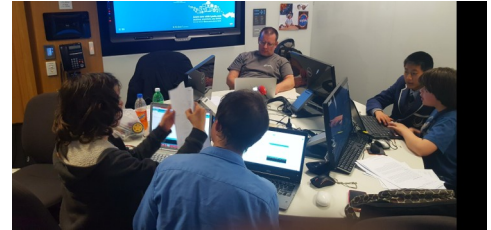
Everyone will be happy to know they learnt the two most important rules. Number 1, **flashing lights are critical** to a RoboRoos built robot and Number 0, **robots should not explode** (some would say more important than the first rule!). At the end of the night we saw students able to program an LED and gauge distance using an ultrasonic.

Becoming an Alumni this season, it was important to step back and share my experience.

Helping to support the students was challenging but really interesting given there were a number of new faces who, I hope, enjoyed the training and took something away from it.

A very big thankyou to Adam Jenkins for running the session and providing assistance when needed.

Bailey



Training—Scru-fe

On the 19th of September, 7 mentors from RoboRoos and 6 students got together and built kit robots (Scru-fe). After a brief explanation but no formal instructions the students started building.

With only a half built robot to use as an example, the students worked well, helping each other and learning from their mistakes, when people finished their models these became the examples for the other students. As the night continued the students loaded programs onto the robots, making them come alive. Both mentors and students alike were amazed by the event. "I was positively shocked when my robot started to move and looked around its surroundings, I would definitely do this again!". Overall this event was not only fun but also gave the students new experiences and knowledge.

So please if you are interested in joining FRC, these sessions are the best place to start. Thank you Adam, Jeff, Geoff, Jack and Jess for all you help during the session.

Jack H





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

www.roboroos.org.au

Sponsors—THANKYOU!

BAE SYSTEMS

