



# The Clubhouse

WHERE TECHNOLOGY MEETS IMAGINATION

DECEMBER 2016

## YWCA Clubhouse Newsletter

A high-tech digital studio where Tuggeranong youth collaborate with industry mentors to design, create, and pursue their passions.

### CLUBHOUSE SNAPSHOT

The last three months at Clubhouse have seen some big changes, with two new Youth Engagement staff members joining the team, bringing new skills and providing additional support for the Clubhouse members each afternoon.

The Clubhouse now has Tim in the space every Monday, bringing with him a background in art, clothing design, skateboarding and an interest in Photoshop.

Aoife also joins us on Tuesdays, our high school day, incorporating her interests in gaming and technological exploration.

Ciara is in the Clubhouse on Wednesdays and Fridays, bringing a strong knowledge of engaging art and design projects, such as t-shirt design, sculpting, drawing and painting.

Every Thursday you'll find Annie-Lea at the Clubhouse, who is particularly keen to do Christmas craft at the moment!

Having more staff on board has opened up more possibilities for some really exciting activities for our members each afternoon. You'll be able to learn more about our new team members in the next Clubhouse Newsletter.

This term, Annie-Lea and I ran drumming circle sessions using 8 djembes. It was fantastic to see the members, especially some of the young women in the Clubhouse, really taking an interest in the drumming and engaging with the other members to make rhythms that contrasted and complimented each other's.

There has also been a heap of keyboard playing, singing and rapping lately, which has been great to hear each afternoon!

Arts and crafts have been some of the most popular activities over the last three months, including drawing, painting, paper craft, stencil art and t-shirt design.

As always, Minecraft and the recording studio are super popular, with members getting stuck into their various projects each afternoon.

Members have been building machines, sculptures, houses, castles and more in Minecraft and coming up with some really innovative designs to make their constructions more impressive.

We've also been collaborating with the Galilee school every week this term, giving students the opportunity to visit during school hours, and explore the technologies and materials available.

There have been lots of shirts designed and created, lots of music recorded, lots of photos taken, and lots of fun! It has been really enjoyable learning more about the hobbies and talents of the young people participating in the program and being constantly surprised and inspired by the work that they are able to produce.

The past few months have been a blast for the Clubhouse and its members and I can't wait to continue that in to the school holiday program, which is running from the 3rd of January until the 27th, from 1pm - 5pm each day (except for the 26th!), and on in to 2017.



**LACH HOWARTH**  
**CLUBHOUSE**  
**COORDINATOR**



*"Robogals is a global initiative whose mission is to inspire, engage and empower young women into engineering and other related fields; the perfect group to be involved with the Tech Time Workshops."*



# THE TECH TIME WORKSHOPS

During term three, the Tech Time Workshops provided a great opportunity for eight young women to participate in an introductory course in robotics, using Lego Mindstorms EV3. The workshops were made possible through an ACT National Science Week Seed Grant.

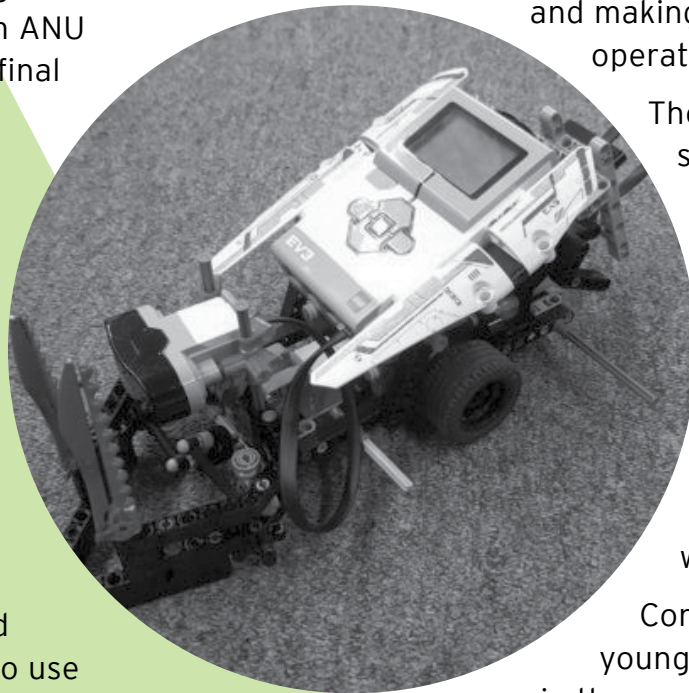
Over six sessions, participants were split into two teams, and designed, built and programmed their own robots, culminating in a final showcase comprising a series of challenges against the other team at the Tuggeranong Hyperdome.

We were fortunate enough to have three fantastic volunteers from ANU Robogals join us for the final workshop, as well as the showcase. Robogals is a global initiative whose mission is to inspire, engage and empower young women into engineering and other related fields; the perfect group to be involved with the Tech Time Workshops. They helped the participants optimise their robots and strategise the best way to use the tools on their robots to complete the assigned tasks.

Team one named themselves "Team Savage Cuttlefish", and built the R3PTAR; a snake inspired robot that slithers along and can sense objects and pounce on them with its fangs. Because of its infrared sensing eyes, they named their robot 'Wall-T the Tankclaw', a portmanteau of popular sci-fi characters Wall-E and ET. Team Savage Cuttlefish managed to program their R3PTAR to slither along the ground, hiss and strike out with its fangs at anything close enough to its infrared-sensing eyes.

Team two (who didn't assign themselves a name) opted to build the SPIK3R design, a scorpion inspired build that features nippers on the front and a tail, which was named 'Turbo'. This team programmed their robot to shoot plastic marbles from its tail. The mechanism for shooting the marbles can be seen in this short, slow-motion video.

The robots were finished ahead of schedule and ready to go in time for the showcase at the Tuggeranong Hyperdome. Participants arrived at midday to commence final preparations with their robots, which included putting batteries in, checking the remotes and making sure all functions were operational.



The four challenges of the showcase were:

- To move a marble from one designated area to another
- To navigate a maze in the fastest time.
- To win a race
- To win a sumo wrestling style battle.

Congratulations to all the young women who participated in the program; their initiative, willingness to learn, team spirit, and most importantly support for each other no matter which team you were on was truly amazing.

Seeing the young women cheering on the opposition at the final showcase was one of the biggest highlights. The participants proved they have the skills to design, build and program amazing and unique robots. We hope they learnt as much as our Clubhouse team did, and a heap of fun throughout the program.

Thank you to the ACT National Science Week Coordinating Committee for the grant that

made it possible to run these workshops, to the staff at Caroline Chisholm for their eagerness to participate, and their ongoing support throughout the sessions, to the Tuggeranong Hyperdome for their kind donations of a space to hold the showcase, as well as some amazing prizes for the participants, to the volunteers from Robogals, to the staff at the YWCA Canberra Mura

Lanyon Youth and Community Centre who helped out with bus transport as well as the final session, and to the young women who participated in the program. None of it would have been possible without all of your support.

We definitely want to run these workshops again, so keep your eye out for more in the future!

*"This year's Science in ACTION was truly fantastic, and it was great to see so many people, especially young people, taking an active interest in STEAM fields and exploring what there is out there."*



## SCIENCE IN ACTION - NATIONAL SCIENCE WEEK

On August 12-13, our Clubhouse members attended Science in ACTION, celebrating National Science Week. Science in ACTION is a free event consisting of stalls from local, national, and international STEAM organisations showcasing their work, as well as demonstrations, hands-on activities, food and the occasional Dalek!

The Clubhouse brought along the Oculus Rift DK1, the MaKey MaKey, Lego Mindstorms EV3s from the Tech Time Workshops, as well as lots of photographs, 3D prints, hands-on creations and marketing material.

Schools Day saw 1,200 students from across the ACT, plus their teachers, parents and carers attend, which made for a busy day full of demonstrating some of the fun things that you can do at the Clubhouse.

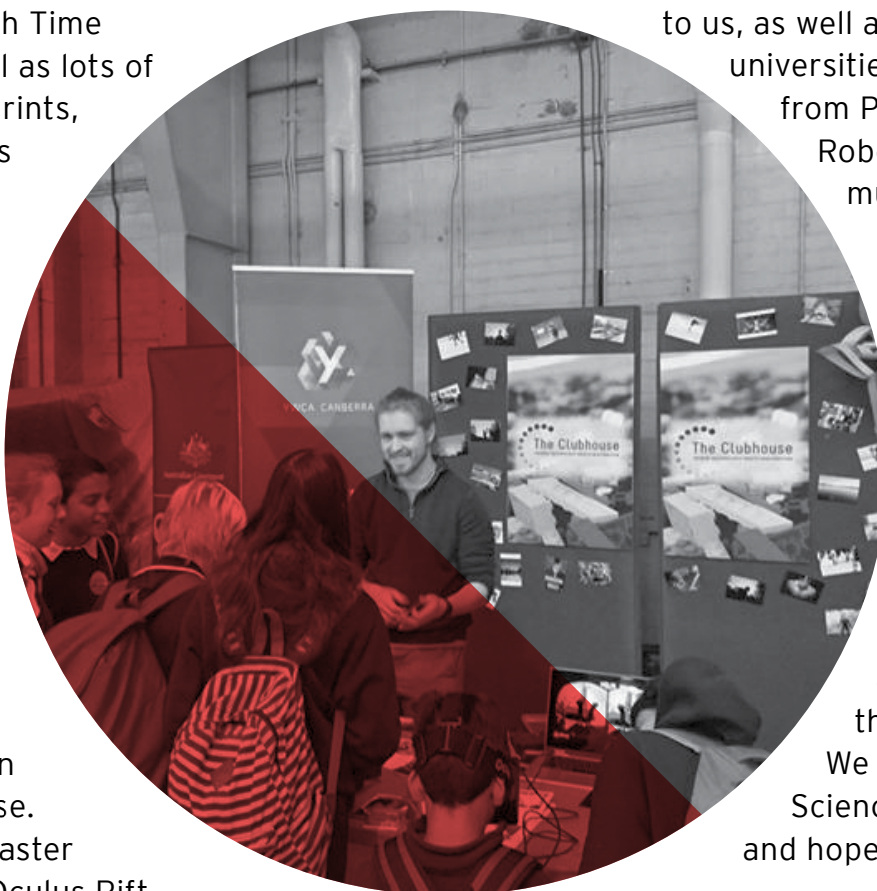
The Helix Rollercoaster Simulator on the Oculus Rift

was very popular, with hundreds of people using it across both days!

Saturday was another busy day with over 6,000 people passing through the gates. The Clubhouse was just one of many stalls at Science in ACTION, with some others including some military robots, a virtual hang gliding simulator (complete with hang glider to sit in while you did it), ANSTO and the National Youth Science Forum were set up next to us, as well as all the local universities, our friends from Poppin' Code and RoboGals and much, much more.

This year's Science in ACTION was truly fantastic, and it was great to see so many people, especially young people, taking an active interest in STEAM fields and exploring what there is out there.

We can't wait for Science in ACTION 2017 and hope to see you there!



*"This was one of the most engaging activities we've ever had in the Clubhouse, with members confidently working together across all stages of the process."*



## SEWING MACHINE SCULPTURES

Recently, a popular group project among Clubhouse members has been making sculptures from sewing machines that no longer work. The Tuggeranong Hyperdome kindly donated eight broken sewing machines varying from older mechanical ones, to the newer, computer controlled ones.

The project spanned over a few days and started with the members grabbing some screwdrivers, pliers, and other tools to strip the machines back to parts which were all collected in together. This was one of the most engaging activities we've ever had in the Clubhouse, with members confidently working together across all stages of the process.

One of the highlights of pulling the sewing machines apart was seeing the members play with the half deconstructed machines and figuring out how they actually work. Once the sewing machines were stripped of all their components, the sculpture building began.

We also added a box of old computer parts into the mix, and members began designing, planning, making, gluing, and building. There was a big range of sculptures made, from robots, to abstract stacks of varies components, to moving parts. The final results were fantastic, and many members were very proud of their work.

# LIGHTHOUSE BUSINESS INNOVATION CENTRE PARTNERSHIP

The Clubhouse and the Lighthouse Business Innovation Centre have developed a great partnership over the course of this year.

We have worked together on multiple events including Teen Start-Ups and Festivals of Innovation. Teen Start-Up aims to encourage entrepreneurial thinking and is open to anyone over the age of 12 years who is interested in innovation, creativity and problem solving. The Clubhouse has provided a tech showcase at three Teen Start-Ups, giving the participants the opportunity to explore and try out new technologies and develop skills around virtual reality, electronics, music and digital recording. We have had fantastic feedback from participants and parents that the Clubhouse showcase has developed some strong interests in young people, particularly the music session. The Clubhouse will be running another music session, and

bringing along some of the Lego Mindstorms Robots at the next Teen Start-Up, which will be held in January 2017.

We've also attended numerous Festivals of Ambitious Ideas and participated in one. The Festival is based on the Ignite format, where 12 speakers get five minutes to tell their story and 'ignite' the audience. This has fast become the 'go to' event to meet and hear about innovative projects from a diverse range of well-known and emerging entrepreneurs.

The Festival has a theme each year and speakers are sourced from a range of different industries. Our involvement has been a great opportunity to network and engage with existing and potential Clubhouse partners, and to hear some fantastic business and innovation stories from local entrepreneurs.



*Frances Crimmins, our Executive Director, speaks at the Festival of Ambitious Ideas event*

*“The Clubhouse has provided a tech showcase at three Teen Start-Ups, giving the participants the opportunity to explore and try out new technologies and develop skills around virtual reality, electronics, music and digital recording.”*



## HELP US ESTABLISH A WORLD-CLASS CLUBHOUSE

We need your help to ensure our Clubhouse continues to thrive and provide industry standard technology and life-changing development opportunities for our members. Our critical area of need for funding is to maintain our operational capacity with the employment of a qualified, full-time Clubhouse coordinator. Ongoing donations are also critical to ensure the Clubhouse offers the best in hardware, software and experiences.

## YWCA CLUBHOUSE COORDINATOR

YWCA Canberra employs a full-time Clubhouse Coordinator to manage the program, and its member, mentor and community networks. This role is critical to the viability and ongoing success of the program.



- Funding required: \$75,000 per annum

## WHAT ELSE CAN YOUR DONATIONS ACHIEVE?

- \$300 will buy heaps of great craft supplies, like felt, LED lights, cardboard and paints, which are critical to fostering a 'maker' culture at the Clubhouse.
- \$1,000 will help us purchase new graphics cards for our members to use to enhance their video game designs and programming.
- \$5000 can send our Clubhouse Coordinator to the Global Annual Conference. This event brings together Clubhouse staff, executive directors, sponsors and collaborators from organisations across the world. It's an opportunity for our Coordinator to develop new ideas, skills and perspectives that they can take home and implement to better serve our Clubhouse members.
- \$75,000 will fund the employment of our Clubhouse Coordinator for a year, enabling us to support our members with mentoring and engagement, perform outreach into the Tuggeranong community, and grow the Clubhouse community more broadly!

## WORK WITH US!

To find out how you or your business can contribute to the YWCA Clubhouse, contact Joanna Le, Director of Communication, Advocacy and Fundraising, via [joanna.le@ywca-canberra.org.au](mailto:joanna.le@ywca-canberra.org.au) or 02 6175 9900

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