



One Giant Leap Australia Foundation Newsletter - Issue 2 - May 2021

Virtual Space Mission



Young astronauts (aged 12 and over) will join a team of NASA astronauts and space professionals to adventure into the future of space exploration. The Space-Teams will be led by former NASA astronaut and Director of Texas A&M's AeroSpace Technology, Research & Operations (ASTRO), Dr. Greg Chamitoff.

Using a collaborative space system virtual reality (VR) program, the trainee astronauts will conduct a human space exploration mission. This includes building their own spacecraft, traveling across the vast expanses of space, and creating their own base.

This week-long mission will provide teams with lessons focused on the technical knowledge and theoretical understanding that is required to make decisions, plan and conduct a successful space mission.

This is a NSW Creative Kids activity.
Vouchers can be used.



<https://onegiantleapfoundation.com.au/one-giant-leap-australia-space-mission/>

Tom Nolan INSPIRE Scholarships

Tom Nolan passed away December 31st, 2020 leaving behind a wife, grown children, grandchildren and thousands of people who loved and followed his passion of STEM education. An oceanographer by trade, Tom saw the best in everyone he met. Through twists and turns in his life, Tom worked in oceanography, space exploration and a host of education related trades.

Tom swapped ocean going ships for spaceships more than 20 years ago. Amongst other things in his life, he was recognised for his STEM outreach work by being awarded the 2019 NASA JPL Bruce Murray Award.

'I choose to think I am born with obligations to serve past, present and future generations and the planet herself.' Tom spent his life in service to others. His life made a difference to thousands and thousands of people.

The Tom Nolan INSPIRE Scholarship program has been created in honour of Tom's legacy.

There are 20 Tom Nolan INSPIRE Scholarships available for Australian students who wish to register for the One Giant Leap Australia Space Mission – June / July 2021.

<https://onegiantleapfoundation.com.au/2021/05/11/tom-nolan-inspire-scholarship/>

Asian Herb in Space

So, you want to be a space farmer!

Are you living on the Moon or a quick trip to Mars? Exploring our galaxy?

A real career going places.

The growing of food in space will be essential for space workers and space travellers.



It is a simplified experiment program that is ideal for introducing beginners to the “Kibo” experiments. The design of the experiment minimises expense, resources and saves time. In the AHIS experiment, sweet basil and holy basil are grown in the International Space Station (ISS) for one month. After growing the basil plants on the ISS, the experiment will be returned to Earth and undergo detailed investigations such as morphological, scent and gene expression analysis.

Currently there are more than 300 kits in locations across Australia. It is not too late to be involved!

Email info@seedsinspace.com.au for more information.

What'll Happen to The Wattle??!



One Giant Leap Australia Foundation logo on the golden wattle seed packs onboard the Kibo module of the International Space Station!

One Giant Leap Australia Foundation sent Golden Wattle seeds to the International Space Station in December 2020 in collaboration with JAXA. The seeds will be in space for 6 months and then return to Australia in time for Science Week 2021.

Supported by the Australian Space Agency, the 'What'll happen with the wattle??!' program is being offered to schools and groups across Australia. A first for Australia.

How to apply

Complete the official application form and submit your video. <https://seedsinspace.com.au/whtw/wattle-registration/>

Once selected!

The selected schools around Australia will receive wattle seeds that have been flown to space as well as seeds that have not. The seeds are from the same seed lot. These seeds will then be germinated and grown, with data being uploaded to the 'What'll happen to the wattle??!' app.

There will be teleconferences and other education support materials provided for the duration of the program. The cost of this kit will be \$200 (ex GST) and it includes a small greenhouse, growing medium, seeds (from Earth AND space) and an education guide.

The project will take at least a year and it is envisaged that the wattle will then be planted, and a map be made of all the 'space wattle trees' around Australia.

Do you know all the groups involved have their videos on our YouTube channel! Look to see who you know!

<https://www.youtube.com/channel/UC06FenJ1C2t0ZtKNWXTGOFw>

Go to <https://seedsinspace.com.au/> for more information!

Kibo Robot Programming Challenge



The ISS air leak that occurred in 2020 was repaired by talented programmers in Asia.

Due to minimal resources being available, only an emergency measure was taken.

In the beginning days of 2021 and surprising everyone, the emergency alert activated! The air leak repair had opened.

The location of the leak has been identified.

The team challenge is now to do a complete repair of the air leak and report successful completion of the mission to the astronauts!

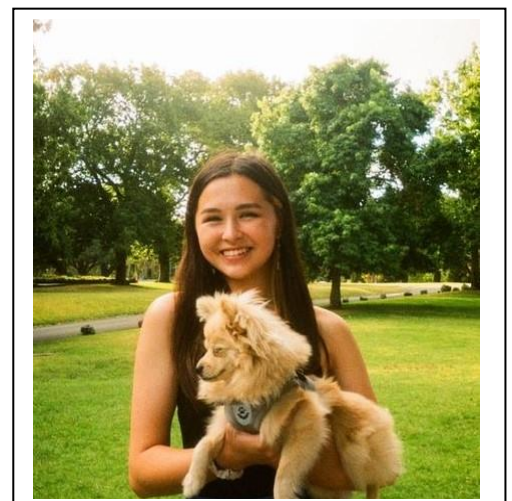
Registrations are open until 6th June!

Meet our NSW Co-ordinator!

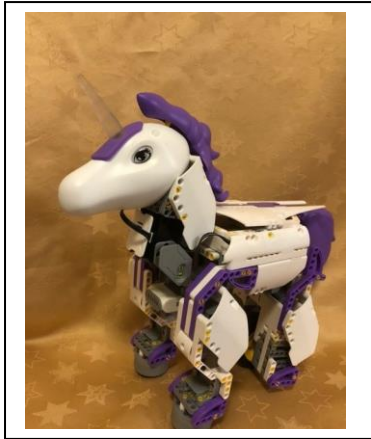
"My name is Georgia Odlin, and I am the NSW Teams Coordinator for the Kibo Robot Programming Challenge 2021. Aside from my role here, I am studying a Bachelor of Engineering and Science, majoring in Mechatronics and Space Engineering and Geography. I have been passionate about space since high school and one day hope to be an astronaut! I also have a keen interest in field robotics, satellite technology, and sustainability."

There is no time to waste! Get your friends together and sign up now!

<https://kiboaustralia.com.au/>



The Gadget Girlz Roadshow



Girls – are you in Year 5, 6 or 7?

The Gadget Girlz Roadshow is a whole day, practical workshop – robotics, STEM challenges, drone flight simulators and find your superpowers! 6 workshops in one day.

If this sounds like something you would be interested in, fill in the submission form without delay.

Led by girls for girls. Places are limited. Be quick.

Lucky door prizes include a Unicornbot, F35 Lego kit and more.

Penrith, Alstonville and Wagga! <https://gadgetgirlz.com.au/events/>

Join The Gadget Girlz Support Crew!

The Gadget Girlz Support Crew is a group that wish to support The Gadget Girlz in their quest to encourage all women to try new things and give new opportunities a go! It takes a team to do this.

Supporters can be many things. They can come on the road and help in workshops. They can collaborate to design workshops with The Gadget Girlz. They can charge drones, help fix robots, design obstacles, assist in set up and pack up. The Support Crew provide assistance whenever they can and even help deliver workshops!

There is no 'typical' character for a Gadget Girlz Support Crew person. Members are diverse, compassionate and tolerant.

<https://gadgetgirlz.com.au/support-crew/>

The Gadget Girlz Teleconference series

The Gadget Girlz have a series of teleconferences lined up.

On the 11th April, we had Bev Cook (one of our Gadget Girlz) talk to us about her amazing career!

One Giant Leap and Gadget Girlz Talk – A Woman's Career in Nuclear Engineering Beverly Cook – NASA and US Department of Energy Nuclear Engineer

Bev Cook's amazing career spans 45 years. Trained as a metallurgical engineer, Bev started working as an engineer in 1975 at the age of 21. At the time she was hired, she was one of only three women engineers at a research site of 7000 people. By 1980 she was managing a small group of all male engineers.



From performing the failure analysis of the Three Mile Island Nuclear Reactor Core, through her career at the US Department of Energy, The Idaho Nuclear Test Laboratory, and NASA, where Bev delivered the Radioisotope Thermoelectric Generators for Cassini's Mission to Saturn, Bev has successfully managed large groups of Engineers – most of them men. Bev did all of this while raising a family, too. Now retired, Bev still loves talking with students and inspiring them to reach for the stars in their careers.

Bev talked about her professional and personal successes and challenges of working as a woman in such unusual environments. She peaked our imagination with her storytelling, and she inspired us with her inspirational advice as aspiring STEM professionals, and she happily answered all the questions we asked!

Subscribe to our YouTube channel so you know when her talk is up – incase you missed it!

<https://www.youtube.com/channel/UC06FenJ1C2t0ZtKNWXTGOFw>

Our next Gadget Girlz teleconference is going to be really interesting! It is going to be about drones, jobs and women in the Australian drone industry.

Date: June 1st

Time: 6 pm (Sydney time)

Drone panel

Nicola Baker – Drone photographer

Jackie Dujmovic – CEO [Hover UAV](#)

Emily Blyth – CEO [Piper Vision](#)

Another panelist TBC



Email info@gadgetgirlz.com.au if you wish to be invited!

Greetings from Space



One Giant Leap Australia Foundation, Yuri and HyImpulse have partnered for this project.

Postcards have been purchased by a number of groups around Australia. Students designed their postcards, wrote messages to themselves and then sent the postcards back to One Giant Leap Australia Headquarters. These were then sent to Germany to Yuri.

Here are some images of the postcards and then their arrival in Germany.

Right now, we are waiting to hear when the postcards will be loaded into the rocket and hopefully get to space. The postcards will be part of a payload going

on the HyImpulse rocket. Word from Yuri and HyImpulse engineers is there has been a bit of a delay but we will know when things start to happen.



As we know - **rocket science is rocket science. Things can be very unexpected and unpredictable.**

We are looking forward to sending the postcards back to their owners!



One Giant Leap Radio

Michael Davoren and Shannon McConnell have teamed up to begin recording 'One Giant Leap Radio' podcasts. Michael is the guru behind all our media production – videos, teleconferences, social media and promotional things. Shannon used to work for NASA JPL, but she is now our very own One Giant Leap Australia United States Country Coordinator. She is representing us on many projects in the USA and is advising Greg Chamitoff and his team for the virtual Space Mission. Shannon is also our social media and a Hootsuite expert. So, our team is certainly expanding!

Keep your ears out for their first sessions. I am CERTAIN they will be interesting!

Free Teleconference Series

Our monthly free teleconference featured Mike Kimes and Sasha Samochina. If you missed it, don't worry – Mike recorded it.

Sasha Samochina – Cross Reality – NASA JPL



Sasha Samochina (sam-ocean-uh) is an award-winning creative technologist. She joined the team at NASA Jet Propulsion Laboratory after working in New York in video and web development and in Chicago, where she was a Media Producer at The Field Museum of Natural History. After dreaming up content for JPL's Communications department, she began to explore the world of 360 videos and Cross Reality (XR). Through Sasha's visualization skills, she pioneered the first-ever 360° video release on NASA's social media. Currently, she manages the Data Visualization & Infusion Group (174C) and is the Project Lead for JPL's ProtoSpace software. Sasha dedicated herself to creating software that incorporates innovative forms of visualization that aid scientists, engineers, and astronauts in transforming their workflow. She leverages that same experiential technology to

educate and inspire the public to engage in STEAM. She loves all things digital, animal, sound-emitting, cosmic, and views the world through XR-coloured glasses.

<https://www.youtube.com/watch?v=n9k9cPRfChA>

Websites



Without Martin being an absolute legend at our website upgrades, submission forms, updating everything and keeping information current we would all be lost!

[THANK YOU!](#)

This is a huge shout out to our amazing webmaster who keeps the following websites going for us:

<https://onegiantleapfoundation.com.au/>

<https://onegiantleapaustralia.com/>


<https://seedsinspace.com.au/>

<https://kiboaustralia.com.au/>

<https://diaustralia.com.au/>

Congratulations Nicola!

Mark Dyer knows first-hand the impact of our programs and he reached out to let me know about the YES! Scholarship opportunity. I put the word out and assisted some of the Student Ambassadors. Nicola was fortunate to be given a scholarship. She will use the funds to get her Remote Pilot licence for drone flying.



2021 YES! YOUTH ENCOURAGEMENT SCHOLARSHIPS AWARDED

Lismore teenager, Nicola Baker has been awarded the inaugural Yes! Youth Encouragement Scholarship by the Rotary Club of Sydney for her passion of photography and drones.

Rotary created the Awards to celebrate 100 years of Rotary in Australia in 2021. Yes! scholarships focus on youth support and growth for young people between the ages of 12 - 17 years across four categories: sports, education, the arts and environment.

There were eight scholarships awarded valued at \$3000 per participant, equally balanced between metropolitan and regional New South Wales.

Nicola Baker, who is also a long-time member of The Gadget Girlz, a group of Australian girls who have an interest in Science, Technology, Engineering, The Arts and Mathematics, was motivated to apply for the scholarship as she wants to gain her drone licence so she can move towards working in the drone sector whilst she is finishing school.

Nicola's dream is to get her Remote Pilot's Licence (RePL) and improve her flying skills.


"This scholarship is going to make such a huge difference in my life by helping me open doors to different pathways and careers that without the scholarship I probably wouldn't have," says Nicola.

Jackie Carpenter, the founder of The Gadget Girlz believe the remote operation of drones was highlighted just recently with the Ingenuity Helicopter on Mars.

"Maybe one day Nicola could be flying a drone on the Moon or Mars herself. Nicola is a positive role model, and she thoroughly deserves this scholarship."

The Rotary Club of Sydney is thrilled to be able to support Gadget Girlz member & Lismore local Nicola Baker to follow her passion for science and space exploration with an inaugural Rotary PCYC Youth Encouragement Scholarship. More information about Yes! Scholarships can be found at <https://sydneyrotary.com/>. Mark Dyer, Chair of Youth activities.

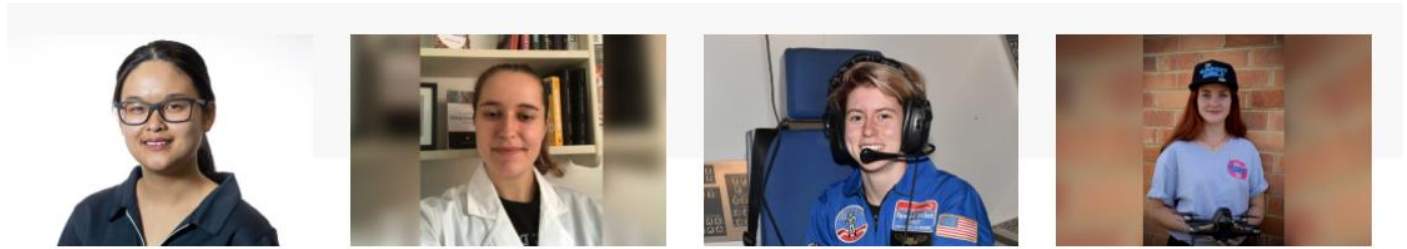
Find out more about The Gadget Girlz [here](#).



Electro Optic Systems Partnership

We partnered with EOS and created the EOS Scholarships for Future Excellence in STEM.

<https://www.eos-aus.com/eos-scholarships-for-future-excellence-in-stem/>



OLIVIA WIDJAJA

LISA RHEINBERGER

FRANCESCA DOBBIE

JESSICA KRESKAY

Lisa, Coco and Jessica are all Student Ambassadors of ours.

I have been mentoring Olivia as part of another program I was involved in.

Olivia gained an internship and costs involved in that.

Lisa, Coco and Jessica have funds and 2 years of support from EOS.

They will be visiting Canberra and meeting up with EOS executive in the not too distant future.

From the desk at HQ

As you can see – it has been a busy time. We could not achieve these things alone. There is a huge team of supporters and volunteers that make these things happen. Thanks to all family, friends and volunteers who help to inspire and support our community.

There is a team of 13 volunteers who work at Telstra who have been working for months to develop the app we need for the 'What'll Happen to The Wattle??' program. Thanks.

Anne and Karen – thanks for the Krispy Kreme donuts, aliens, the capes and badge making.

Finn – thanks for fixing the robots, charging them and creating the obstacle course.

Thanks to The Gadget Girlz for committing to the Roadshow.

Viv in Wagga – thanks for your hard work in getting The Gadget Girlz Roadshow planning and logistics done.

Danielle and Martin – thanks for all the extra work in the logistics of The Gadget Girlz Roadshow in Penrith and Alstonville.

To all the parents, supporters, sponsors and helpers. Big hug and thanks!

