

## Coding and Robotics Grants 2016

### PURPOSE:

Increase the skills of library staff and the community to experiment with and learn to use new technology; Enhance community awareness of libraries' roles, skills and services; Support the development of innovative public programs; Develop new relationships in the community (e.g. schools, youth groups) by using new technologies to engage with more diverse community members.

**GRANTS AWARDED:** Grants totalling \$300,000 have been awarded to 33 councils under the Vision 2017 Coding and Robotics Grant program as follows:

Council	Council Type	Amount	Project Description
Balonne Shire Council	RLQ	\$9,622.30	This project aims to promote the library as a fun space, to learn about coding and robotics and to further develop library staff and community skills in digital literacy. Ongoing professional training for library staff will enable them to perform workshops catering for beginners through to advanced users of coding and robotics. A variety of coding and robotic platforms will be purchased, enabling interested community members to develop their skills in coding and robotics. Local schools will have access to robotics from the program, giving local teachers the opportunity to link robotics to the curriculum. The project will include a Balonne Shire Digital Literacy Roadshow which will travel throughout the region providing an opportunity for community members to experience coding and robotics platforms and matrixes.
Brisbane City Council	IND	\$10,000	This project provides the community with access to a NAO robot. This enables Brisbane Libraries to continue generating interest in STEAM learning, as well as building enthusiasm and skills in robotics and programming. Programming the NAO robot teaches a range of programming languages including Python, C++, Java, JavaScript – coding skills which are not currently developed through programs for Brisbane Libraries staff or customers. Adding access to the NAO robot at CoderDojo sessions would provide unique coding and robotics opportunities for CoderDojo participants.
Burdekin Shire Council	IND	\$9,500.50	The project involves establishing a code club and regular club meetings for kids using the ideas@108 Creative Innovation space. It also involves, working with schools -Robotic resources will be available for loan to local schools. A "Community Coding Day" will be organised for participants of all ages who have attended coding programmes to showcase their creations and promote the program.
Cairns Regional Council	IND	\$8,880	This project will allow staff to attend interactive workshops in house taking a practical look at a variety of coding and gaming software. They will learn how to incorporate digital technology into fun programs for children and youth. In addition, staff and the community will learn how coding and gaming workshops contribute to Science, Technology, Engineering, Arts and Mathematics (STEAM) learning outcomes. Staff training and play time will encourage exploration of apps to develop their knowledge, skills and confidence to run programs for the

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			community.
Cassowary Coast Regional Council	IND	\$5,404	Coding workshops will be offered to a wide range of residents, including young children and seniors. One of the goals of the project is to increase awareness in the community of libraries as learning venues. It is hoped that the novelty of coding will draw a different range of attendees than normally attend library events.
Central Highlands Regional Council	IND	\$9,969	This project aims to develop programs for 13 local communities. Programs include, holiday activities, robotics competitions between communities and a robotics club - the robotics would be available after school and on weekends for children to use and then showcase. Programs would be wide reaching and include programs aimed to engage with parents and children to build on family unity and programs for people with a disability. In addition, the library aims to align with existing community groups such as the Central Highlands Science Centre for the cross promotion of activities and services.
Charters Towers Regional Council	RLQ	\$9,896.69	This project aims to develop robotics programs that promote social inclusion and build on social capital for all ages and cultures living in the region. Proposed programs include those which engage parents and children and encourage fathers to participate as well as programs for residents with ASP. The project will utilise current strong partnerships in the region such as Disability Services and will also work to develop new partnerships with the local multi-cultural community and numerous schools in the region.
City of Gold Coast	IND	\$9,857.35	This project will develop programs to be held across the wider city of Gold Coast, particularly the southern end of the region. Programs would be held in branch libraries and in the wider community via outreach. The target audience for the programs includes children, adults and seniors. By holding more programs across the Gold Coast, a large number of staff will have the opportunity to engaging more staff in robotics, coding and STEM activities enabling them to continue running such programs when the grant period ends. We would use the funding to support their skill development and deliver more focused training sessions.
Cloncurry Shire Council	RLQ	\$6,627.13	The aims of this project are to increase the digital literacy skills of library staff, and teach them how to effectively pass on their knowledge to the community through organised community sessions. Technology sessions will be tailored to meet the needs of non-typical users, like seniors. The project will encourage linkages to local schools which will provide rural and remote students the resources needed to understand and potentially develop a passion for robotics, without the need to be located in a city location.
Cook Shire Council	RLQ	\$9,486.30	This project aims to increase the skills of both library staff and the community, especially Cook Shire youth, who will have an opportunity to learn about and experiment with new robotics and coding technology.
Croydon Shire Council	RLQ	\$3,247.80	The aim of this project is to position the library service as both a technology and communications hub for the community and a central facet in the foundational and continuing education of our local population. Robotics programs will run as 12 week terms throughout the library. The programs will encourage an appreciation of the variety of real world applications for mathematics and logic, and introduce them to foundational concepts through play and exploration. All grade levels will be catered for.

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Fraser Coast Regional Council	RLQ	\$9,997	This project will provide opportunities for staff to gain exposure and hands on experience with coding and robotics. Ozobots and other technology based classes will be targeted to numerous groups including youth, adults, parents, children and people with a disability. This project aims to connect the community with technology and coding and robotics resources that would not otherwise been available to them. Many schools in the area do not have iPads or tablets and have no knowledge of coding. This program strives to counterbalance this shortcoming.
Gladstone Regional Council	IND	\$9,966	This project will involve the development of programs for today and the future in a rapidly changing information environment. A diverse range of platforms will be provided for the community to explore science, technology and the creative skills required to navigate the changes in the work and home environment. The project will allow staff to provide flexible alternatives to the traditional library services.
Gympie Regional Council	IND	\$9,980	This project aims to provide skills development for library staff and community members with an opportunity to engage with emerging coding and advanced technology elements of local Science, Technology, Engineering and Maths (STEM) programming. Ozobot Bits will be used as a demonstrative tool for chemistry (movement of atoms), as a motivational tool to engage students in maths (concepts of triangular and square numbers) as well as an introduction to coding at many levels.
Ipswich City Council	IND	\$9,999	This program will provide intensive training for staff directly involved in the delivery of workshops to further develop knowledge and skills in Robotics and Coding. The project will increase coding skills across the community by targeting individuals and groups across a diverse range of ages and abilities including early years, primary and secondary schools and seniors. A Fun Palace will be used to launch and showcase the Robotics program. The culminating event will be Robot Olympics.
Isaac Regional Council	IND	\$9828	This project will involve the purchase of 2 Mindstorm kits, the training of library staff, and the development of three First LEGO League teams. Library staff and the teams would be supported by Library Informatics Officer and community mentors who have knowledge and experience in programming and robotics. These teams will be brought together at an Isaac regional challenge. These demonstrations will be held in libraries, as well as at community or school events. This project will provide libraries with the equipment (LEGO Mindstorm kits), support and training (Library Informatics Officer and mentors) for approximately 30 youth aged between 9 and 16. It will also promote knowledge of coding and robotics in the community.
Logan City Council	IND	\$9,973.81	This project will involve the purchase a range of robotics platforms to be used in a Robotics Roadshow across the city for a variety of audiences. A range of training will be presented for staff and community. Training opportunities through outreach events and programs will be offered, aimed at from the very young to older members of the community. Teachers and students will also be trained to become robotic champions at schools.
Longreach Regional Council	RLQ	\$2,316.20	This project involves the purchase of self-contained technology kits, which will enable the delivery of coding and robotics sessions in the region. Kits and programs will be tailored to suit upper primary, younger children and other interested clients. The kits would be made available for loan to remote libraries. As part of the project, a

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			new student/facilitator relationship and collaboration with Longreach State High School (Education Queensland) and the Longreach Library will be developed.
Mackay Regional Council	RLQ	\$10,000	This project involves the recruitment of an expert to present training sessions in robotics and coding. The aim is to establish the library as a focus area for these technologies in the community and to develop the robotics and coding skills of the library staff e.g. Scratch and EV3. Initially, training sessions will be for library staff however, they will be extended to include educational institutions, relevant community and business groups.
Mareeba Shire Council	IND	\$10,000	This project provides a robotics and coding workshop for library staff, social workers from the local HACC groups and Ngoonbi (Kuranda Indigenous Health Organisation) and Mulungu (Mareeba Indigenous Health Organisation). In addition the science and technology Head of Department from the three local high schools will also be invited to attend. It is hoped that the libraries, community groups and high schools will then be in a position to support the formation of a young adult robotics and coding group - providing tools from the schools, a meeting space at the libraries and promotions through the local community groups.
Moreton Bay Regional Council	IND	\$9,950	This project will use robots to engage and educate young and teenage customers. One of the long term goals of the project is to incorporate coding and robotics into an adult program. An EZ-Robot will also complement existing plans to purchase several 3D printers. Another aim of the project is to have 1 printer that provides a printing service, while others will be used in programming. 3D printers will also be used to print extra body parts for robots.
Mount Isa City Council	IND	\$10,000	This project will incorporate Coding and Robotics into a program that is currently running at the library. The program is in partnership with Disability Services Mount Isa, and aimed at high functioning teens with Autism and Aspergers. The addition of Coding and Robotics would be a tremendous way to increase the participant's skills development. The aim would be to then expand the program, creating partnerships with additional organisations as well as younger patrons.
Noosa Shire Council	IND	\$6,500.90	This program will introduce a new range of robotics technology to the community through a series of learning and social programs, centred on Little Bits, mBot Robots and Makey Makey kits. The creation of a 'makerspace' type coding lab would be a new stage in the evolution of the library computer lab, where people can meet physically and online to explore, participate in and celebrate STEM.
Paroo Shire Council	RLQ	\$10,000	The aim of this project is to create a digital hub at the library in which to engage students who currently have no other exposure to robotic training. Training would be provided to upskill staff to deliver robotic workshops at the library. The purchase of a NAO robot would be a creative way to engage local youth in coding and robotics and in attending the library.
Redland City Council	IND	\$9,936	This project provides staff with the opportunity to further extend their skills in technology by having access to a wider range of coding and robotics resources. These skills will be utilized to provide additional options for code club activities and for school holiday activities at the library. In addition, the project aims to introduce adult

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			members of the community to coding and robotics via expos, displays and presentations.
Rockhampton Regional Council	IND	\$9,973.40	The project will involve getting staff trained and confident to ensure they can deliver fun and interactive robotic based sessions to the community. 12 Ozobots, 12 Spheros, 12 mBots and 2 EZ-Robots will be purchased and will be used for in house training for staff to gain confident in using simple robots and encouraging them all to be STEM Champions. At this stage, STEM Champions will deliver STEM programming events to the community encouraging everyone to "Have a go at something new"
Scenic Rim Regional Council	IND	\$9,750	This project involves 2 groups of participants from each high school (5 in the region) plus a group sponsored by the library to include home-schooled children (11 groups altogether). Each groups will build a robot or robots using the Lego Mindstorm EV3 kits. The robots will require programming to complete a series of challenges. The final challenge will take place at the Fun Palace held in Beaudesert at the beginning of October. An additional outcome could be the introduction of a FIRST Lego League competition in the Scenic Rim in future years, sponsored and facilitated by the facilitators of this project.
Sunshine Coast Council	IND	\$10,000	This project involves a series of workshop sessions which will inform people about ways to approach learning coding and robotics. It will give people hands on experience and encourage them to begin experimenting with coding and robotics at home. The program will showcase technology and get people started on robotics and coding concepts with the knowledge that support is available and at the local library. Arduino workshops will also be delivered to help demystify coding and show that coding and certain technologies can be learned and used by anyone.
Tablelands Regional Council	IND	\$10,000	This project involves library staff partnering with IT staff and a high school teacher to develop and deliver LegoMindstorm EV3 activities. The high school teacher, has previously delivered LegoMindstorm programs, and will train staff and assist with the development of time and skill level appropriate activities. Program participants will learn to analyse and find technical solutions as well as how to work in a team and develop collaborative and social skills. Staff will be trained across various library branches to ensure skills are spread across the library service.
Toowoomba Region Council	IND	\$10,000	This project aims to increase, and champion digital literacies in not only Toowoomba City, but also the rural communities that make up the region. Workshops and activities that help develop essential skills for life in the 21st century by teaching people to learn to think creatively, reason systematically, and work collaboratively will be delivered. The project will be relevant for children, young people, families and seniors from the Toowoomba Regional Council area.
Torres Shire Council	RLQ	\$9,444	This program will focus on delivering robotics lessons for beginners including children, young people and their parents. The aim of the program is to help the entire community including the Elders to understand more about robotics. The program will help build upon existing partnerships e.g. Ozobots will be available for loan to local schools, and aims to create new partnerships such as links with Childcare centres. In addition tutors from the

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			Thursday Island reading group are very interested in expanding the scope of their sessions to include maths and science. They are keen to incorporate coding and robotics sessions in their lessons.
Western Downs Regional Council	IND	\$10,000	This project will deliver professional development workshops regionally. The aim is to increase the confidence and competence of library and school staff. The ongoing benefits will be substantial, and the implementation of a regional "Makerspace" and robotics and coding clubs will offer opportunities for staff and volunteers to share and develop skills concurrently.
Wujal Wujal Aboriginal Shire Council	IKC	\$9,982.10	This project aims to provide a unique opportunity for the community to interact with robotics and to explore and develop skills that are essential to STEM employment opportunities. Robotic programs will be offered to all age groups including children, young adults and Elders.