



# AARAS

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Australian Academy of **ROBOTICS AND STEM**

Wel♥veSTEM.com.au

[Register Here](#)

## 2023 Prospectus

For Parents and Educators

<https://www.welovestem.com.au>

[hello@welovestem.com.au](mailto:hello@welovestem.com.au)

**SMS REGISTER to 0480022633**

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We believe that our next generation will be humanitarian engineers who will use their STEM skills to solve social and humanitarian problems

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**AARAS** EDUCATION  
 Australian Academy of **ROBOTICS AND STEM**  
 WeloveSTEM.com.au

## STEM is an approach to learning and development that integrates the areas of science, technology, engineering and mathematics

### Why STEM?

- *The world is changing around us. Digital technology has become a core part of our everyday lives. Advances in technology impact everything, especially the world of work. Entire job sectors are emerging or disappearing, and workforces are rushing to keep up with change.*
- *Automation and globalisation are changing the way we think about, and define, careers. Employment is becoming fluid, and people will go from having one profession to several in their working life. These may be entirely different roles, across entirely different sectors.*
- *As the world of work changes, we will need to change our skills to match. The gap between the knowledge generated in the education system and the skills demanded by employers and individuals is widening. Overcoming these limitations requires a priority focus on science, technology, engineering and mathematics (STEM), including the development of workplace skills in STEM. Future careers will also rely heavily on '21st century skills' — for example, critical thinking, creativity, cultural awareness, collaboration and problem-solving.*
- *STEM learning is also important for students in their everyday life in our contemporary world, with the rise of new technologies in biomedicine, microfabrication, robotics and artificial intelligence. The ability to understand and apply data, and develop solutions to complex problems, will be important life skills.*

Source: Australian Government – Department of Education, Skills and Employment

### Why Learn Coding and Robotics?

- Coding empowers today's digital world. It is how we interact with apps, devices, and everything digital around us. Digital technologies have disrupted almost every industry and we can only imagine what the world may look like when our kids grow up.
- Students are taught subjects such as Maths and Science to understand the physical world. Similarly, every child must learn to code to comprehend and contribute to the digital future.
- Coding and Robotics are the new age tools. Imagine a carpenter without a screw driver or a plumber without a spanner!



## About Us

Our team is one of the most experienced team in the industry with more than 25 years of combined STEM teaching experience

- Australian Academy of Robotics And STEM (AARAS) Education is a leading provider of Coding, Robotics, and STEM Education nationally.
- AARAS Education was established more than 5 years ago with the mission to make STEM education available to local students. Over this time, we have inspired thousands of students from around Australia through our after-school, school holiday, and incursion programs.
- We are one of the first organisations to offer global STEM programs to the masses such as Google CS First Coding Club, First® LEGO® League programs and more recently TED-Ed programs.
- We work with Public, Private, and Catholic schools to provide our after-school programs, as well as incursions and professional development workshops.
- We are a registered NSW government Creative Kids voucher provider. All our classroom, online, and school holiday programs are eligible for redeeming the Voucher.
- We are proud to have partnered with Macquarie University to host FIRST® LEGO® League regional competition every year since 2019.
- We have developed our own proprietary Coding and Robotics learning framework, and we offer certification assessments to students to formally recognise their skills.

8000+



Students

15



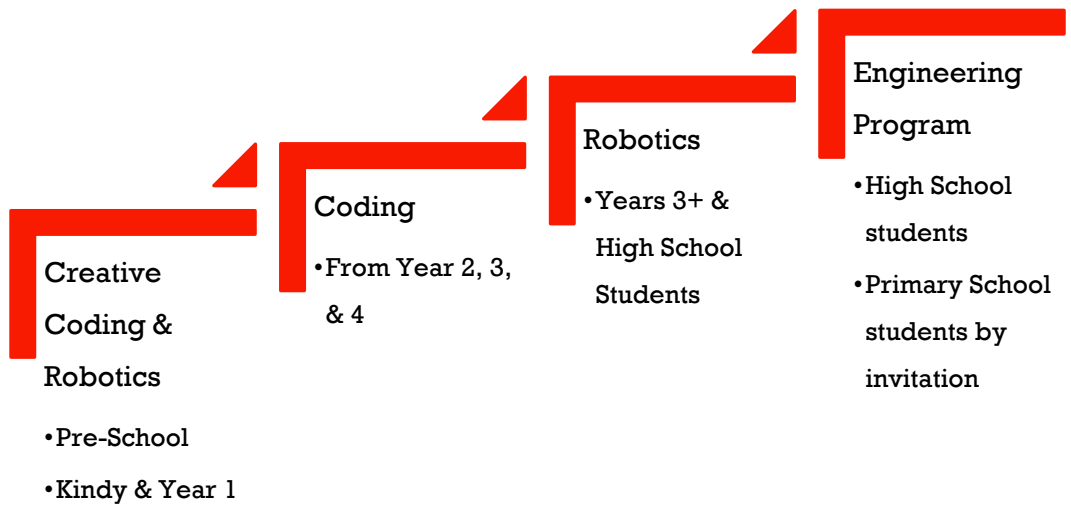
Locations  
+ Online

25 years +



Combined  
STEM Exp

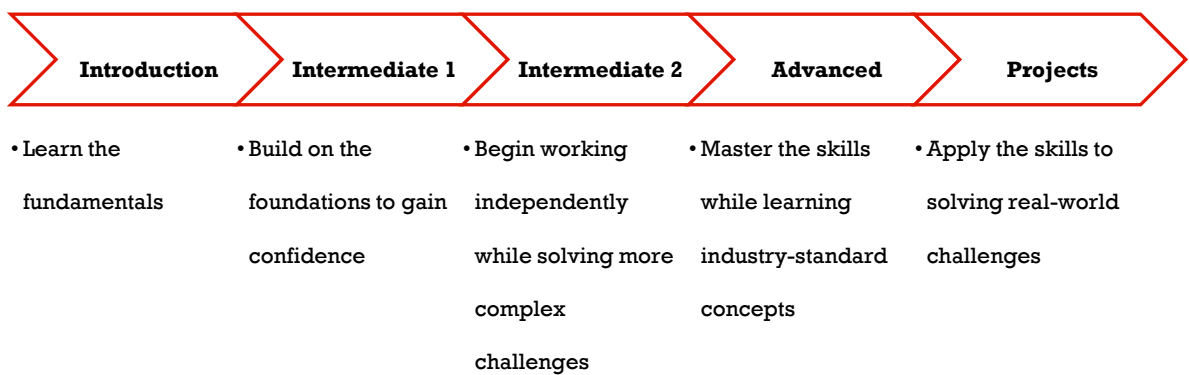
## Structured Programs with Progression from Kindy to High School



Program Name	Description	Recommended For
Creative Coding & Robotics	<ul style="list-style-type: none"> <li>• Specially developed program for young learners.</li> <li>• Uses age appropriate &amp; screen free resource</li> <li>• Introduces students to the fundamentals of Coding and Robotics in a fun and nurturing environment.</li> </ul>	<ul style="list-style-type: none"> <li>• Pre-School</li> <li>• Kindy</li> <li>• Year 1</li> </ul>
Coding	<ul style="list-style-type: none"> <li>• Using the curriculum and resources developed by Google and MIT, students are introduced the wonderful world of Scratch Coding.</li> <li>• Students create short stories and animations each week while learning new Coding concepts each week.</li> <li>• Complexity and depth of their projects increase over time</li> </ul>	<ul style="list-style-type: none"> <li>• Years 2, 3, and 4</li> </ul>
Robotics	<ul style="list-style-type: none"> <li>• Students learn to code different types of motors and sensors to complete real-life based challenges each week</li> <li>• The program focuses on learning complex programming as students advance through different levels</li> <li>• Experienced students apply their skills and knowledge by participating in external events and competitions</li> </ul>	<ul style="list-style-type: none"> <li>• Years 3+</li> <li>• High School</li> </ul>
High School Engineering Program	<ul style="list-style-type: none"> <li>• Students will work with “industry-standard” and “real” mechanical, electronics, and software components to design, build, and program their robot.</li> <li>• Students will learn and work with metal chassis, drive trains, timing-belts, sensors, and real tools such as screw-drivers, allen keys, spanners, wrench, pliers, etc. to construct their own robot.</li> </ul>	<ul style="list-style-type: none"> <li>• High School</li> <li>• Primary School students by invitation</li> </ul>

## Skills-based Coding & Robotics Framework underpinning progression through different competency levels

AARAS Education programs are skills and ability based. Our programs start with the basics of Coding and Robotics and we build on the fundamentals as the time progresses. We have developed our own proprietary Coding and Robotics framework that underpins our programs.



Whilst we have recommended age groups for each program, progression through our Framework is based on attainment and demonstration of the required skills and knowledge.

Our programs cater for students from Pre-School to High School. We use age appropriate resources and have developed fun, interesting, and challenging programs for all age groups.



# Global STEM Programs We Offer

© AARAS Education

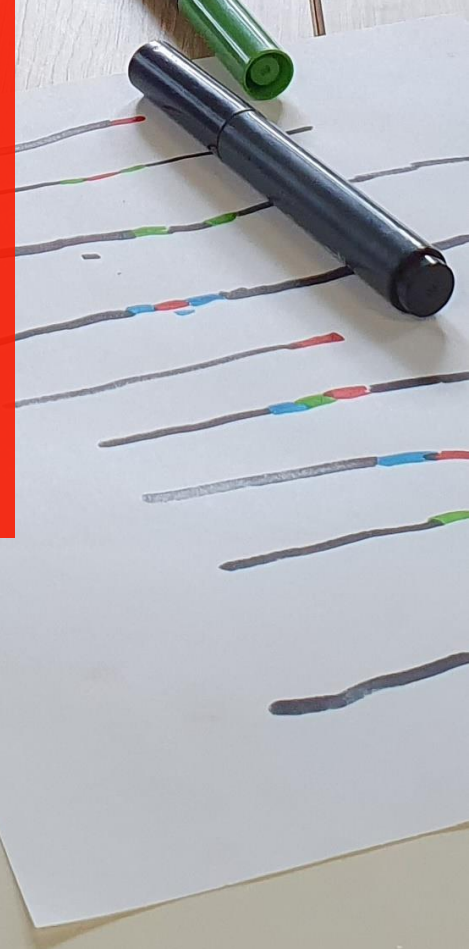
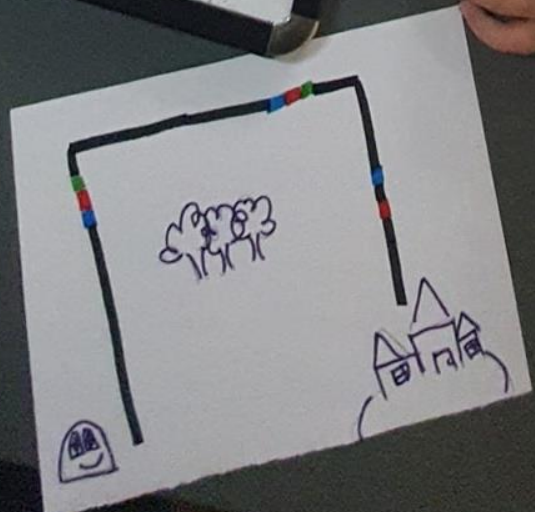
Disclaimer: AARAS Education is not associated with any of these programs and the images and logos are the copyright of their respective owners.



# Creative Coding & Robotics

For Pre-School, Kindy and Year 1 Students

...Robotics...  
Today we  
created a  
story using  
direction  
colour codes.





## Why Creative Coding / Robotics?

Just like kids are taught alphabets and numbers in their early years of learning, it is also important to learn the fundamentals of 21st-century skills such as problem-solving, critical thinking, collaboration and innovation. Our Creative Coding / Robotics program introduces Pre-School, Kindy and Year 1 students to the fundamentals of coding and robotics in a fun and nurturing environment. Students will be using coding and robotics as tools to solve challenges, work with others, and have fun at the same time.

The Coding and Robotics resources we use are specially developed for young students and most of these resources are screen-free.

### What will my child learn?

- Coding concepts such as sequencing, repeat loops, conditionals, troubleshooting, and working with sensors.
- Critical thinking and problem-solving skills by learning to break down complex tasks into smaller chunks and developing logic by completing the weekly challenges.
- Creatively reinforce school curriculum topics – our activities are aligned with the topics covered at school.
- A structured program that introduces students to the basics of Coding and Robotics without screens and gradually introduce them to block-based coding.

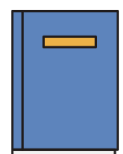
### Recommended For:

Students in Pre-School\*, Kindy and Year 1



### Age Appropriate Resources

### Curriculum aligned activities



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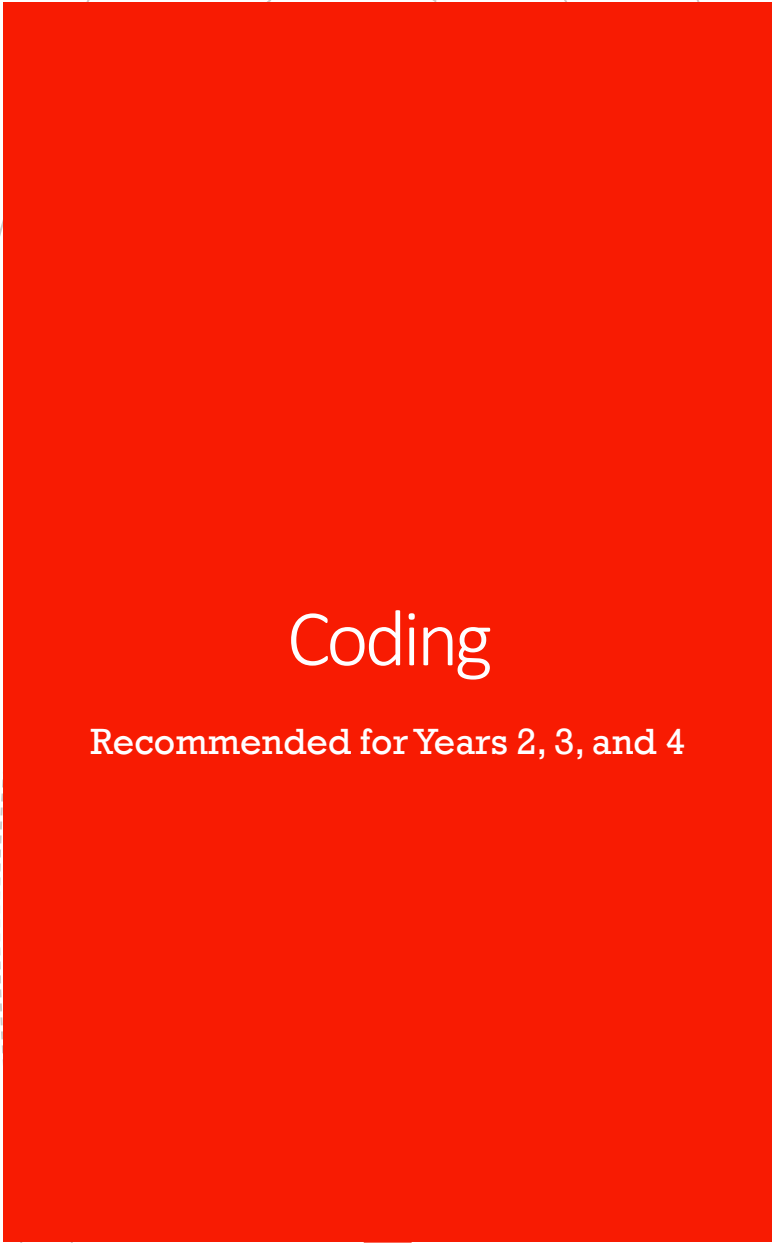
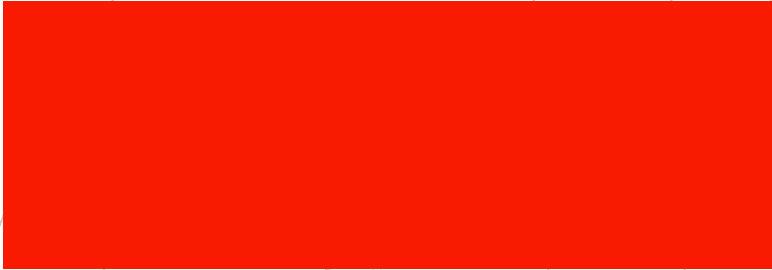
### Screen-Free Introduction to Coding / Robotics

Screen-free  
introduction to  
the world of  
Coding and  
Robotics with  
activities aligned  
with School  
Curriculum

\$249.99  
per term

[Click to  
read  
more](#)

\* If our program is offered at your child's pre-school



# Coding

Recommended for Years 2, 3, and 4



## Coding Program

- We use the curriculum and resources developed by Google and MIT to introduce students to Coding.

## Why Scratch?

- Scratch is designed especially for ages 8 to 16, but is used by people of all ages. Millions of students are learning to Code using Scratch around the world.

## What will my child learn?

- Students will learn coding concepts such as algorithms, sequencing, loops, events, and conditionals. See levels and key concepts covered at each level below.
- Students will create short stories and animations each week using Scratch Programming. The depth and complexity of the stories and animations will increase as the time progresses.
- Students learn and demonstrate competency prior to progressing to the next level.

## Coding Curriculum

### Introduction – Learn the fundamentals

- Students are introduced to the fundamentals of Coding using Scratch.
- Students create short stories and animations while learning one to two coding concepts and associated Scratch blocks each week.
- Some of the concepts students learn in this stage is Algorithm, Sequencing, and Repeat Loops.

### Intermediate 1 - Build on the foundations

- Students continue to practice and learn additional Coding concepts.
- Students develop deeper and more complex stories and animations in Scratch.
- Some of the more advanced Coding concepts they will learn include Conditions, Events, and how to troubleshoot errors in their code.

### Intermediate 2 - Begin working independently

- Students become more confident using Scratch and begin to work independently.
- Students are provided with more complex and challenging projects where they will apply their knowledge from the previous stages.
- Students may be promoted to the Robotics program depending on their progress and interest.

### Advanced - Master the skills

- Students are challenged with complex projects such as game design.
- Students may begin work on external projects and competitions.
- Students may be promoted to the Robotics program depending on their progress and interest.

### Project Opportunities – Apply the skills

- FIRST® LEGO® League Explore, AARAS Education Annual Event, Others

**Recommended For:** Students in Year 2, 3, and 4

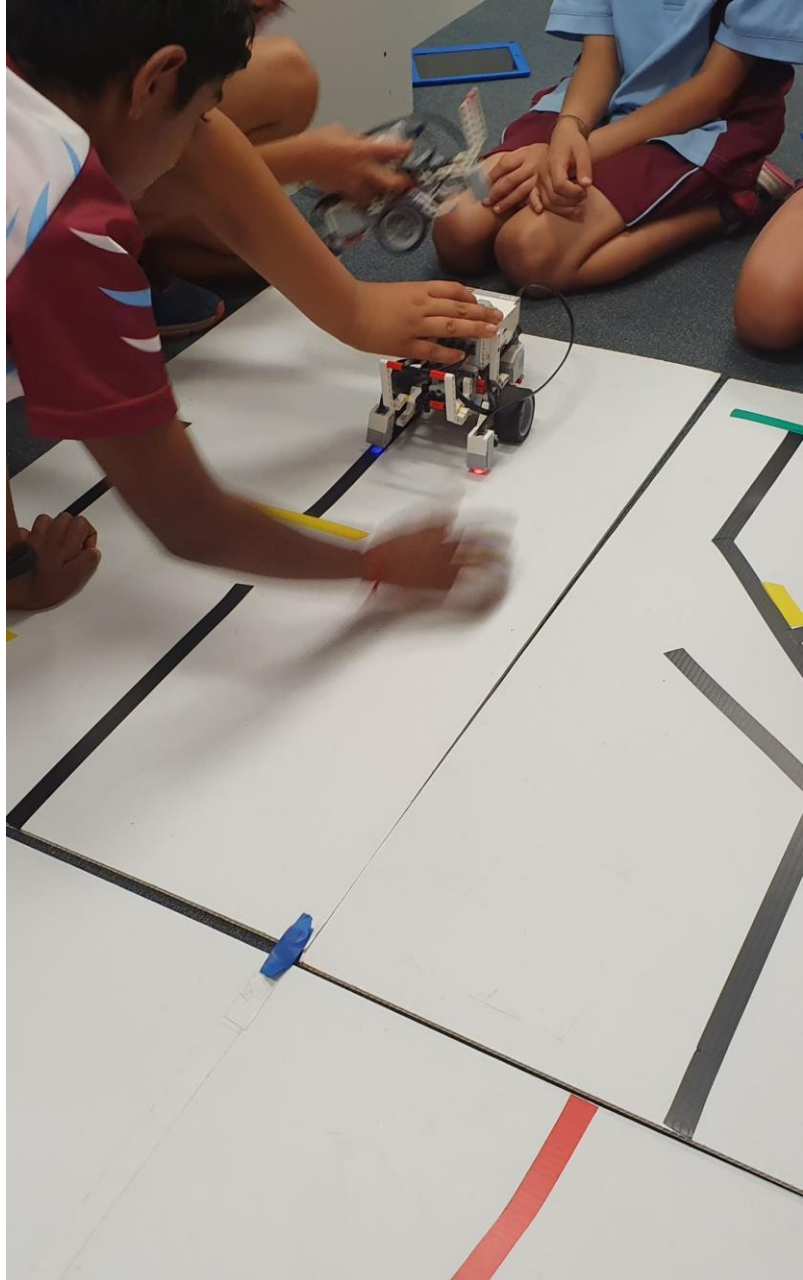
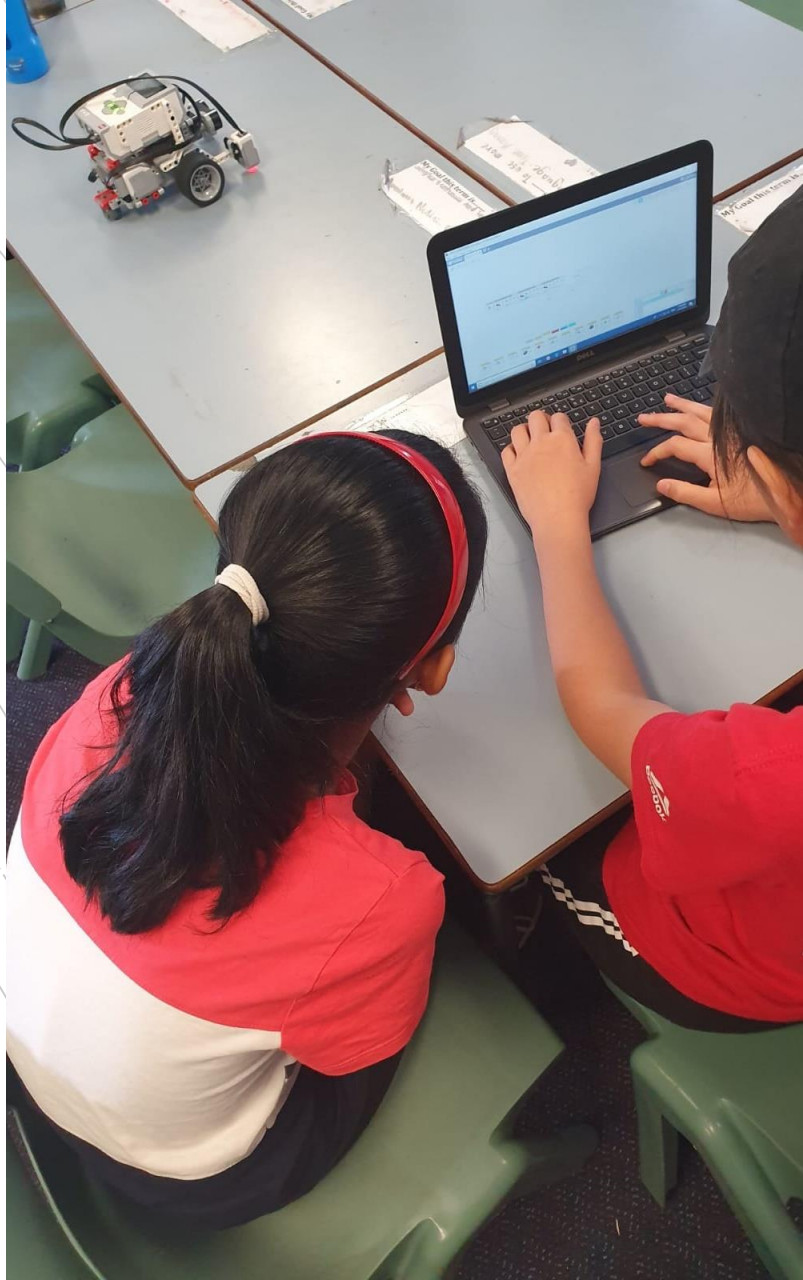
**A structured  
program using a  
world-class Google  
Computer-Science  
(CS) First  
Curriculum**

**Click to  
read  
more**

**\$249.99 –  
classroom or  
online per term**

# Robotics

Recommended for  
Students in Years 3+  
and High School



## ▪ **Robotics Program**

- Students learn Coding as well as Robotics using the LEGO® Mindstorms® EV3 or the latest Spike™ Prime robotics kit. This is the most advanced robotics kit from LEGO® and it is widely used at STEM or Robotics events and competitions around the world.

## ▪ **What will my child learn?**

- Students will be introduced to the fundamentals of Coding and Robotics – the robots don't work on their own unless they are programmed!
- Students will learn to code different types of motors and sensors to solve different challenges each week.
- A structured program with opportunity to learn advanced coding concepts, a range of different sensors, engineering principles, as well as lots of cross-curriculum content covering Maths and Science concepts. See Coding and Robotics curriculum and levels below.

### **Coding and Robotics Curriculum**

#### **Introduction – Learn the fundamentals**

- Students are introduced to Coding and Robotics fundamentals.
- Students learn to code motors and different types of sensors including Touch, Ultrasonic, and Color Sensors. Activities and challenges are based on real-life robot applications.
- Some of the concepts students learn in this stage is Algorithm, Sequencing, and Repeat Loops.

#### **Intermediate 1 – Build on the foundations**

- Students learn to code the use multiple sensors in the same program.
- Students also learn arm control to pick and drop objects.
- Students learn more advanced coding concepts such as working with variables, constants, and functions.

#### **Intermediate 2 – Begin working independently**

- Students become more confident and are challenged with learning more advanced Coding and Robotics concepts such as Proportional Control, Logical Algebra, and Functions.
- Students may be provided with opportunities to work on Projects or competitions.

#### **Advanced – Master the skills**

- Students learn very advanced coding concepts at this stage that involves working with Gyro sensor, sensor calibrations, using complex Maths and mechanical concepts.
- Students may begin work on external projects or competitions.

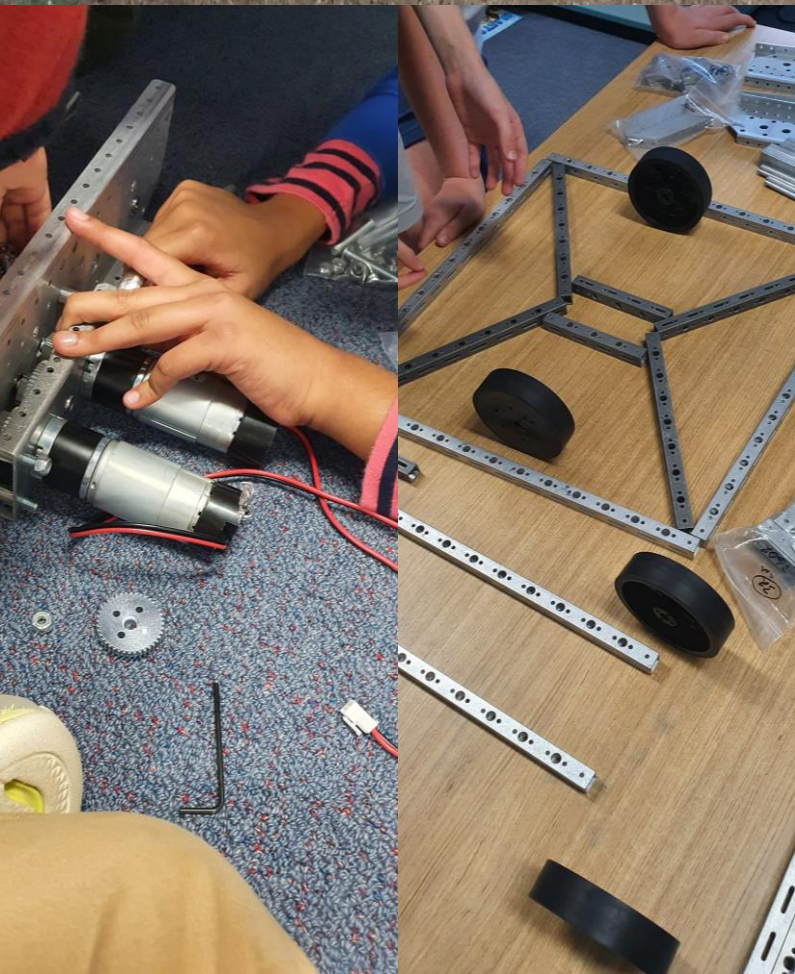
#### **Project Opportunities – Apply the skills**

- FIRST® LEGO® League Challenge, AARAS Education Annual Event, Others

**Our experienced students regularly participate in STEM and Robotics events and Competitions showcasing their skills and confidence**

**Click to read more**

**\$329.99 – classroom or online per term**



# Engineering Program

Recommended for students in High School

## ▪ High School Engineering Program

- This program will see students working with “industry-standard” and “real” mechanical, electronics, and software components to design, build, and program their robot. Students will learn and work with metal chassis, drive trains, timing-belts, sensors, and real tools such as screw-drivers, allen keys, spanners, wrench, pliers, etc. to construct their own robot.
- In addition, students will also learn electronic control systems to power their mechanical robot as well as coding to make it all work. It goes without saying that students will also learn soft-skills such as leadership, collaboration, problem solving, project/time management, strategy, etc.
- While all students will learn the basics of mechanical, electronics, and software programming to begin with, students will have the option to specialise in one of these areas depending on their interest.

## ▪ What will my child learn?

<p><b>Mechanical</b></p> <ul style="list-style-type: none"> <li>• Drive Trains / Motors</li> <li>• Chassis</li> <li>• Mechanisms / Gear boxes</li> <li>• Sensors</li> <li>• Working safely with tools</li> </ul>
<p><b>Software</b></p> <ul style="list-style-type: none"> <li>• Coding Fundamentals</li> <li>• Coding the Drive Train</li> <li>• Opportunity to learn intermediate and advanced level coding</li> </ul>
<p><b>Electronics</b></p> <ul style="list-style-type: none"> <li>• Control Systems</li> <li>• Strip wires / clips</li> </ul>
<p><b>Design</b></p> <ul style="list-style-type: none"> <li>• Design Thinking</li> <li>• Opportunity to learn 3D modelling using CAD</li> </ul>
<p><b>Soft Skills</b></p> <ul style="list-style-type: none"> <li>• Leadership</li> <li>• Team work</li> <li>• Problem solving</li> <li>• Strategy</li> <li>• Critical Thinking</li> </ul>

- This program provides a pathway for interested students to participate in the [FIRST® Tech Challenge](#) (FTC) program.
- In addition to learning the technical and soft skills, students will participate in a range of entrepreneurial activities to promote their FTC team activities including documenting, marketing, fundraising, multimedia production/editing, etc.
- **Recommended For:** Students High School and Primary Students by invitation

**Our experienced students regularly participate in STEM and Robotics events and Competitions showcasing their skills and confidence**

**Click to read more**

**\$329.99 per term – classroom only**

## We provide hands-on opportunities to apply the learnings through Global STEM Programs

### **FIRST® LEGO® League (FLL) Explore**

Focused on building an interest in science and engineering in children ages 6-10, FIRST® LEGO® League (FLL) Explore is a hands-on program designed to capture young children's curiosity and direct it toward discovering how science and technology impact the world around them. This program features a real-world challenge, to be explored through research, critical thinking and imagination.

**AARAS Education offers this program usually in term 3 and term 4. Check our website for details.**

### **FIRST® LEGO® League (FLL) Challenge**

FIRST® LEGO® League Challenge is a competition catering for upper-primary and lower-secondary school students. Every year, teams of up to 10 students build, program and compete with a robot, while also learning about a modern problem in science and engineering and developing solutions for it. The entire competition for the year is based around one of these themes: Past themes include natural disasters, senior citizens, food health & safety, climate change, medical science, and nanotechnology.

### **FIRST® Tech Challenge**

FIRST Tech Challenge students learn to think like engineers. Teams design, build, and code robots to compete in an alliance format against other teams.





## Value Added Services

### ▪ Student Services

- Personalised Learning & Support
  - Regardless of when a new student commences our program, we start with the basics and choose a learning pathway appropriate for that student.
  - Students are formally assessed at the end of the term and a personalised learning plan created for the following term focusing on the areas of improvement.\*
  - Participation certificate is provided at the end of the year.
- Opportunity to participate in a Certification Exam.\*

### ▪ Parent Services

- Virtual Open Day – Online session where we share our program information and opportunity for parents to ask questions.
- Automated SMS – To inform you that we have signed in your child in our after-school programs for added peace of mind.
- Electronic No touch QR code based sign out process
- Regular updates from the workshops via Seesaw App and our Facebook page.
- Parent Consultation – Parents are able to request a private one-on-one online consultation with us to discuss their child's progress.
- Term Reports – A school style report outlining your child's progress highlighting any areas of improvement.

We believe the value of keeping the parents engaged as much as the students

**These services are offered in addition to our standard program and may be withdrawn at any time without notice.**

\* Only applies to our Coding and Robotics program. Does not apply to Creative Coding and Robotics, Engineering, and other programs such as FLL programs.

## After - School – Locations and Programs

Location	Day	Time	Programs			
			Creative Coding & Robotics	Coding	Robotics	Eng Program
Beresford Road Public School	Mon	3.15 pm to 4.45 pm	X	X	X	
Blacktown South Public School	Tue	3.15 pm to 4.45 pm	X	X	X	
Carlingford Public School	Fri	3.30 pm to 5 pm	X	X	X	
Darcy Road Public School	FRI	3.15 pm to 4.45 pm	X	X	X	
Epping Heights Public School	FRI	3.20PM to 4.50PM	X	X	X	
Girraween High School	Tue	3.30pm to 5pm			X	X
Girraween Public School	Wed	3.15 pm to 4.45 pm	X	X	X	
Greystanes Public School	Mon	3.15 pm to 4.45 pm		X	X	
Metella Road Public School	Tue	3.15 pm to 4.45 pm		X	X	
Parramatta East Public School	Mon	3.30 pm to 5 pm		X	X	
Pendle Hill High School	Wed	3.30 pm to 5 pm			X	x
St Bernadette's	Thu	3 pm to 4.30 pm	X	X	X	
St Mary's Rydalmere	Thu	3.15pm to 4.45 pm		X	X	
Toongabbie Public School	Wed	3.15 pm to 4.45 pm		X	X	
Westmead Public School	Thu	3.15 pm to 4.45 pm	X	X	X	

## Online / Weekend – Locations and Programs

Location	Day	Time	Programs			
			Creative Coding & Robotics	Coding	Robotics	Eng Prog
ONLINE						
	Mon	5.30 pm to 7 pm		X	X	
	Wed	5.30 pm to 7 pm		X	X	
WEEKEND						
Bella Vista (Lexington Drive)	Sat	3 pm to 4.30 pm	X	X	X	
Parramatta East Public School	Sun	10 am to 11.30 am	X	X	X	
Girraween Public School	Sat	2 pm to 3.30 pm				X

## FEES

Program Name	Classroom	Online
Creative Coding & Robotics	\$249.99 per term	Not Offered
Coding	\$249.99 per term	\$249.99 per term
Robotics	\$329.99 per term	\$329.99 per term
High School Engineering Program	\$329.99 per term	Not Offered
FIRST® LEGO® League Programs	Published closer to the program commencement, please check the website.	
School Holiday Programs	Published closer to the program commencement, please check the website.	

## 2023 Dates

Day / Location	Dates
<b>Monday</b> <ul style="list-style-type: none"> <li>• Beresford Rd PS</li> <li>• Greystanes PS</li> <li>• Parramatta East PS</li> <li>• Online</li> </ul>	Term 1 - 13-Feb - 03-Apr Term 2 - 01-May - 26-Jun Term 3 - 24-Jul - 11-Sep Term 4 - 16-Oct - 04-Dec
<b>Tuesday</b> <ul style="list-style-type: none"> <li>• Blacktown South PS</li> <li>• Metella Road PS</li> <li>• Girraween High School</li> </ul>	Term 1 - 14-Feb - 04-Apr Term 2 - 02-May - 20-Jun Term 3 - 25-Jul - 12-Sep Term 4 - 17-Oct - 05-Dec
<b>Wednesday</b> <ul style="list-style-type: none"> <li>• Darcy Road PS</li> <li>• Girraween PS</li> <li>• Pendle Hill HS</li> <li>• Toongabbie PS</li> </ul>	Term 1 - 15 Feb - 05 Apr Term 2 - 3 May - 21 Jun Term 3 - 26 Jul - 13 Sep Term 4 - 18 Oct - 06 Dec
<b>Thursday</b> <ul style="list-style-type: none"> <li>• St Bernadette's</li> <li>• St Mary's, Rydalmere</li> <li>• Westmead PS</li> </ul>	Term 1 - 09 Feb - 30 Mar Term 2 - 04 May - 22 Jun Term 3 - 27 Jul - 14 Sep Term 4 - 19 Oct - 07 Dec
<b>Friday</b> <ul style="list-style-type: none"> <li>• Carlingford PS</li> <li>• Darcy Rd PS</li> <li>• Epping Heights PS</li> </ul>	Term 1 - 10 Feb - 31 Mar Term 2 - 5 May - 23 Jun Term 3 - 28 Jul - 15 Sep Term 4 - 20 Oct - 8 Dec
<b>Saturday</b> <ul style="list-style-type: none"> <li>• Bella Vista</li> <li>• Girraween PS</li> </ul>	Term 1 - 11 Feb - 01 Apr Term 2 - 06 May - 24 Jun Term 3 - 29 Jul - 16 Sep Term 4 - 21 Oct - 09 Dec
<b>Sunday</b> <ul style="list-style-type: none"> <li>• Parramatta East PS</li> </ul>	Term 1 - 12 Feb - 02 Apr Term 2 - 7 May - 25 Jun Term 3 - 30 Jul - 17 Sep Term 4 - 22 Oct - 10 Dec

- Registration and payment can be done online through our website – <https://www.welovestem.com.au/pre-registration>
- You can pay by Credit Card, Bank Transfer and \$100 Creative Kids Voucher
- You can also SMS 'Register' to 0480022633
- Alternatively, you can email us at [hello@welovestem.com.au](mailto:hello@welovestem.com.au) with the following:

#### Parent/Guardian Details:

1. Full Name:
2. Phone No:
3. Email Address:
4. Secondary Contact & Phone Number:

#### Student Details:

1. Full Name:
2. School:
3. Class:
4. Birth Date:
5. Program / Location:
6. Any Allergies or Conditions?
7. Creative Kids Voucher Number:

- FAQ – Please visit our website for the most up to date FAQs.
- The enrolment is subject to the review and acceptance of our [terms and conditions and risks](#).

Registration

FAQs

Ts & Cs

Risks

For  
Schools /  
Educators

Professional  
Development  
Through Our  
Unique “Team  
Teaching”  
Approach



# Why STEM?



**Our next general will live in a digital economy**

Whether it is the Drones, Internet of Things, Space Tourism, Wearable Devices, 3D printing, Self-driving Cars or Virtual Reality, our next generation will be living in an economy that will be driven by technology and STEM skills are at the heart of next generation jobs, some of which are yet to be created.



**Employers require STEM skills**

International research shows that building STEM capacity across the population is critical in helping to support innovation and productivity regardless of occupation or industry. Consistent with this research, industry surveys show that STEM literacy is increasingly becoming part of the core capabilities that Australian employers need.



**STEM education is a national priority**

In December 2015, Education Council of Australia released 'National STEM School Education Strategy'. It recognises the importance of a focus on STEM in the early years and maintaining this focus throughout schooling.

# Your Challenges



**Staff**

- Capability and Capacity gaps
- Turnover / casual staff
- Willingness and ability to learn, adopt and deliver programs based on new technologies



**Resources**

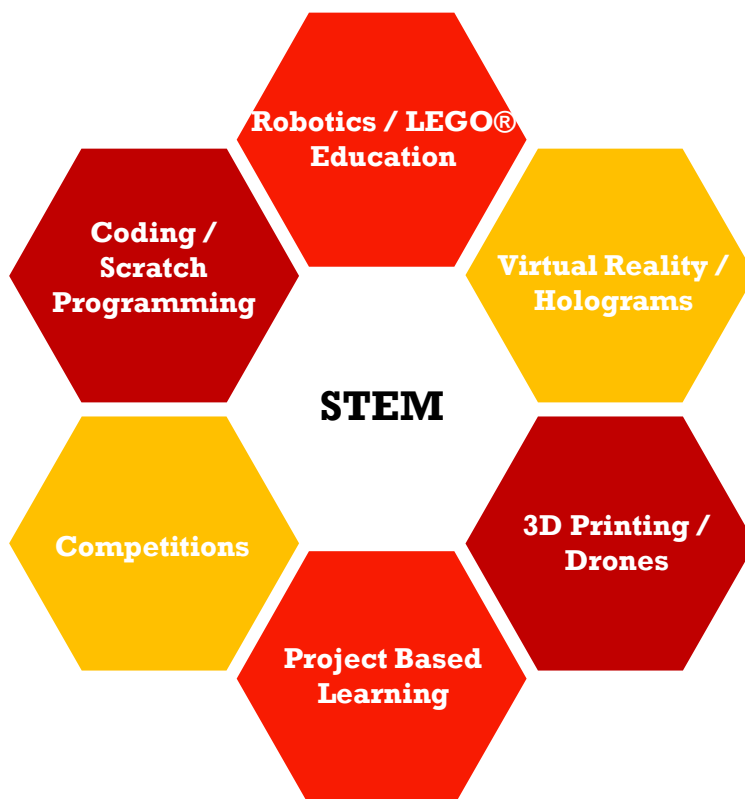
- Increasing student numbers
- Significant investment required for age and subject appropriate resources
- One set of resources may not be appropriate for all grades or topics



**Sustainability**

- Consistent adoption and ongoing delivery across the school
- ICT committee or similar may need to hand-hold other teachers
- Risk of program not being followed through 'wasting' the investment in new technology

# Our Value Proposition



**Hands-on learning using contemporary teaching aids and programs**



## **Experience**

We have more than 25 years of combined STEM teaching experience. We have developed our own proprietary Coding and Robotics learning framework, and we offer certification assessments to students to formally recognise their skills.



## **Team-Teaching**

We combine our professional development with 'team-teaching' approach to upskill your staff to enable them to deliver the content independently and confidently.



## **Multi-technology**

We bring all the latest technology to you. Whether it is Robotics, Virtual Reality, or Drones, we provide the best and most appropriate learning aid to your students.



## **Incursions**

Incursions aligned with the curriculum from Kindy to High School students starting at \$5 per student per session.



## **Logistics**

We take care of all the logistics including charging, storing, replacing lost resources and so your staff can focus on teaching.



## School Incursions

- Bespoke incursions designed and delivered to align to the curriculum topics
- Weekly or Fortnightly
- One Off, One Term or One Year
- One Class, One Stage, or Entire School
- Age appropriate programs/resources
- Parent-funded, Or School-funded, Use Creative Kids vouchers or mix & match all of the above!
- We provide all equipment – ‘Try before you buy’
- Develop your school’s own robotics team that can represent your school in events and competitions
- **From \$5 per student per session**

## Professional Development

- Hands-On in Class with the students OR
- During PD sessions
- Bespoke professional development
- We provide all the equipment – ‘Try before you buy’
- Contact us today to discuss your requirements

# Case Studies

## Year 9 IST Incursion / Competition

AARAS Education was invited to work with Year 9 students to introduce them to Coding and Robotics. We worked with the school to develop a custom program that included conducting a practical and theoretical assessment towards the end of the term. Over time, students developed keen interest in the subject and participated in a STEM competition winning an award.

## TED-ED Program

AARAS Education delivered world renowned TED-ED program to a select group of students without any cost to the school or the students.



**BLACKTOWN GIRLS  
HIGH SCHOOL**  
*A Partially Selective Girls High School*



## Robotics Incursion

<sup>26</sup> Bella Vista Public School invited AARAS Education to introduce Coding and Robotics to year 5 and 6 students. Students used the latest LEGO® Spike™ Prime robots to learn the basics of algorithm, sequencing, repeat loops, etc. and coded different types of motors and sensors to complete different challenges.



## STEM Resource Augmentation

Following successful Robotics incursions with years 3 to 6 in terms 3 and 4 in 2022, Minarah College has partnered with AARAS Education to augment AARAS Education resources to teach Coding and Robotics to students from years 2 to 6 as well as develop a STEM competition team through weekly timetabled program delivered throughout 2023.



## Year 9 IST Incursion

Irfan College invited AARAS Education to develop and deliver a custom program to meet the year 9 IST curriculum. Students learned the fundamentals of Coding and Robotics and programmed their robot to complete real life inspired use cases. The term concluded with a formal test comprising of a practical and theoretical assessment.



## Year 7/8 IST Incursion

Year 7 and 8 students were taught Coding and Robotics over a 4 week period through weekly incursions as part of their IST curriculum.



**Metella Road**

## STEM Project

Innovative enquiry based STEM program run in partnership with two Stage 3 teachers where AARAS Education incorporated Virtual Reality, Drones, 360\* Camera, Robotics and pulley systems with the curriculum. Highlight of the program was partnership with external field experts who provided real world problem for students to solve and they returning to critique the ideas and prototypes.

# Case Studies



**Girraween**

## Team Teaching

AARAS Education used 'team-teaching' approach with four teachers to introduce coding to stage 2 and stage 3 students over two terms. Teachers are now delivering coding independently. We are also offering a range of robotics, coding and international STEM programs as enrichment programs.



**Darcy Road**

## Coding / Robotics Incursions

Darcy Road Public Schools engaged AARAS Education for coding and robotics incursions for the entire school over three terms. Activities were aligned with Curriculum topics.



**Toongabbie**

Toongabbie and Darcy Road Public Schools engaged AARAS Education for coding and robotics incursions for the entire school over multiple terms.



**Oatlands**

Oatlands Public School engaged AARAS Education to introduce robotics and coding in the class room in the form of incursions.



Scan the QR code on the right for Video Highlights.

## Other Schools We Partner With



Beresford Rd



Blacktown South



Carlingford



Darcy Road



Girraween



Greystanes



Metella Rd



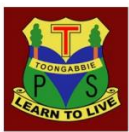
Oatlands



Parramatta East



St Mary's



Toongabbie



Westmead

Bella Vista

Online



Pendle Hill High School  
Responsibilities Respect Rights Learning



St Bernadette's Castle Hill  
Strength Through Certainty



MINARAH  
RABBI ZIYONI ISMA

## Schools/Locations