She Maps Learning Solutions Guide

PROGRAMS, PRODUCTS, AND PRICES

2023

Inspiring the next generation to solve some of the world's toughest challenges with STEM.

www.shemaps.com | 1300 895 795 | hello@shemaps.com

SHE MAPS

Why Choose She Maps

We are Australia's leading drone and geospatial education company that has an exceptional track record of producing engaging and inspirational learning resources for teachers and students.

She Maps is a certified social enterprise, focused on increasing the diversity in STEM. Our program outcomes are aligned with the 'Women in STEM Decadal Plan', the Australian Government's 'Advancing Women in STEM' agenda and multiple state government STEM education and STEM industry development strategies.

Our purpose

To grow the diversity in how Science, Technology, Engineering, and Maths (STEM) is perceived and who does it

Our mission

To inspire a generation to solve some of the world's toughest challenges with STEM

Our vision

To grow teacher capability and confidence in teaching STEM

Throughout her studies and career, our co-founder and Director of Education, Dr Karen Joyce has always been in the minority of a traditionally male dominated discipline. Only 25% of the people employed in the geospatial and surveying sector are women.

After speaking about her career in schools, Karen noticed a troubling trend. Her talk on drones at primary schools was met with enthusiasm in equal parts by both girls and boys. However, when she spoke at secondary schools, the boys were there but the girls just didn't show up. After researching this issue, Karen identified a gender discrepancy that occurs in STEM subjects because girls at a young age are losing confidence in their ability to 'do' STEM.

Partners & Supporters

At She Maps we aim to promote diversity and inclusivity in the field of drone technology and geospatial science. The geospatial industry is an integral part of our modern society and offers solutions to some of our toughest challenges. We seek to challenge and break down stereotypes and societal barriers that hinder women's participation in STEM and aim to inspire and encourage women and girls to pursue their passions, overcome obstacles, and achieve their full potential in these fields.

ARDOCH
REALISING CHILDREN'S POTENTIAL THROUGH EDUCATION

Australian Government
Department of Education

Geospatial Council of Australia

THE SURVEYORS' TRUST

Supporting teachers to inspire their students' STEM journey with drones!

She Maps' mission is to inspire the next generation to solve some of the world's toughest challenges with STEM.

We do this by:

- **Developing** curriculum mapped, problem based learning resources for teachers.
- **Working collaboratively** with teachers to increase their STEM teaching capabilities.
- **Showcasing** diverse role models in our resources to support inclusive classrooms.

We do all this through the use of drones and geospatial concepts. **Drones are our hook, but the outcomes run far deeper.**

Our signature indoor microdrone program is Classroom Drone Essentials. This program has been taught face-to-face to over 7,500 students and teachers around the world, with over 1,500 teachers using our online resources currently.

Our world-class teacher resources provide teachers with Australian curriculum mapped units of work, student activities, and teacher presentations. These are linked to real world learning, with industry partners supporting the development of the resources.

This document has been developed to provide you with further information, including pricing, for our programs, professional learning, teaching resources, and recommended drone equipment. We hope this information can assist you in making an informed decision about which program best suits your students and school.

We love hearing from our teachers and schools, so please contact us by phone, email, or any of our social media channels if you have feedback or suggestions for resources you'd like us to create.

Contents

She Maps Learning Roadmap

In order to address the need for more science, technology, engineering, and mathematics (STEM) literate workers, and to help bridge the gap between school and industry, She Maps have developed a series of comprehensive K-12 drone and geospatial programs.

Our approach allows students to make real world connections and prepare for drone and geospatial pathways and careers.

Build student knowledge and capabilities with our foundational skills programs

Learn to fly and code microdrones, explore geospatial concepts, acquire mapping knowledge, build drone mapping capabilities, and immerse students in drone data analysis.

Pippa & Dronie

Classroom Drone Essentials

Drone Mapping

Drone Kits

She Maps Teaching Resources

Practice, explore, inquire and apply the foundational skills with our world-class teaching resources.

Drones to the Rescue Bushfires

Drones to the Rescue Flooding

Drones in Forestry

Healthcare in the Himalayas

Code. Fly. Deliver.

Drones in Agriculture

Drone Club Kit

BEST SELLER

Classroom Drone Essentials

Classroom Drone Essentials is our signature program. In this learning experience, students explore applications of drone technology, understand safety and drone regulations, learn how to fly and code educational microdrones and are exposed to great role models as we challenge their unconscious bias.

What's covered

MODULE 1

Drone career pathways

In this module, we cover how and where drones are used in industry, meet industry role models and look at the importance of working towards gender parity and diversity within STEM.

MODULE 2

Drone safety

In this module, we discuss the different roles and responsibilities of drone pilots, undertake pre-flight safety checks and use manual controls to fly microdrones.

MODULE 3

Manual flight

In this module, we practice manual flight and battery management. The students learn how a drone moves manually, and demonstrate competence as a drone pilot to control a microdrone.

MODULE 4

Coded flight mission

In this module, the students are given a scenario where, acting as a geospatial scientist for a day, they collect data for the local emergency services. Using block coding, the students plan and carry out their mission!

INCLUDED

Junior Drone Pilot License test

Students have the opportunity to gain their Junior Drone Pilot Licence by demonstrating they can set up a safe drone flying area, perform all safety checks, safely fly a drone manually, and safely perform coded flight using a microdrone and visual programming.

BONUS

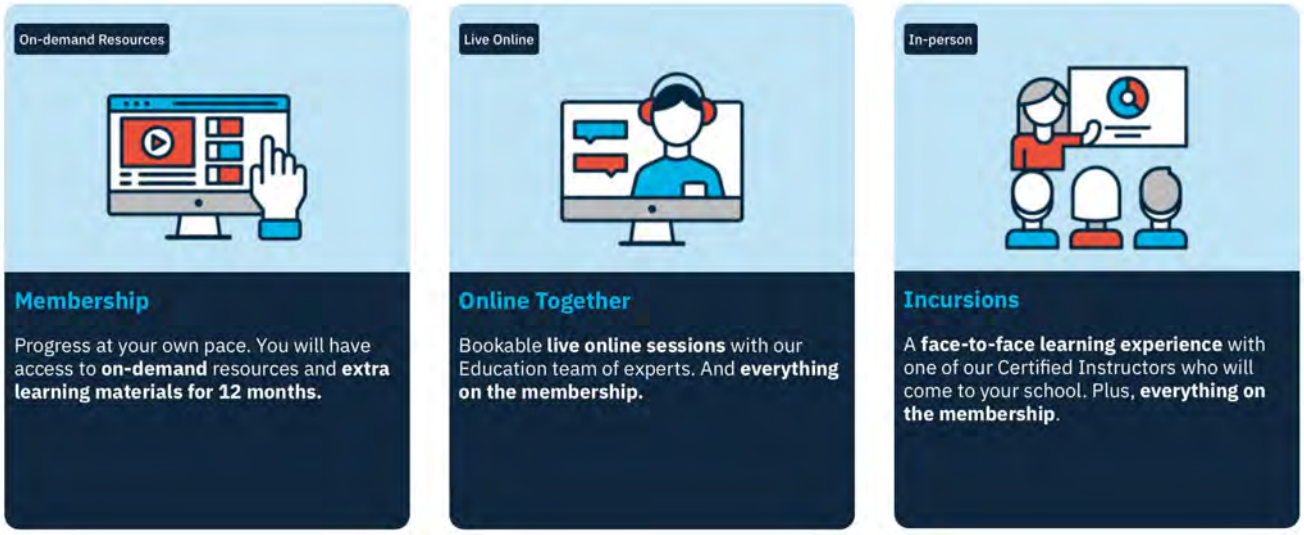
Tips and tricks

She Maps will share lots of tips and tricks, including equipment set up, synchronising the drones, classroom management, and general troubleshooting.

Learning outcomes

- Explore applications of drone technology.
- Understand and act according to relevant drone regulations.
- Evaluate and implement safety processes.
- Manually control a drone in a safe manner.
- Conceptualise a hypothetical mission based on a real life situation and propose ideas for its solution.
- Use block code to automate drone flight in accordance with the mission.
- Collaborate to iterate and improve their solution.
- Use digital storytelling and persuasive text to demonstrate understanding.
- Explore diversity in STEM and create confident STEM learners.
- Connect students with real world problems and applications.

There are three convenient ways you can access Classroom Drone Essentials



1. SCHOOL INCURSION

In-person Drone Experience

Incursions are for schools looking for an immersive drone experience where students will become geospatial scientists for a day and teachers will observe a She Maps drone instructor model the best practice for teaching with drones.

Face-2-Face Incursions include:

- Learn to fly and code microdrones
- Max. 30 students/teachers per session
- 12-month She Maps Membership for one teacher for each 2.5 hour session booked

ENQUIRE NOW

Pricing:

- 1 x 2.5 hour session: $2,255 inc. GST
  Half day program / up to 30 students
- 2 x 2.5 hour session: $3,680 inc. GST
  1 day program / up to 60 students
- 4 x 2.5 hour session: $5,170 inc. GST
  2 day program / up to 120 students
- The pricing does not include travel expenses. Where possible we always try to ensure one of our She Maps Instructors is in easy travelling distance from your school or education facility.

2. ONLINE TOGETHER

Online Teacher Professional Learning

Our Online Together program combines our She Maps Membership with live online sessions with a She Maps Certified Instructor. You will go through the components of Classroom Drone Essentials together, and gain access to our all our on-demand materials.

Online Together includes:

- 45-minute professional learning sessions for 1 teacher that can be booked to meet school needs. Topics include:
  - drone & device setup
  - classroom management
  - aligning curriculum to learning outcomes
  - tech troubleshooting
- 12-month She Maps Membership

Pricing

- $725 inc GST per year
- $95 inc GST per additional teacher

Add your colleagues to join the same 45-minute online personalised teacher professional learning sessions

SHOP NOW

3. ON DEMAND RESOURCES

Self-Paced Professional Learning

Access our Classroom Drone Essentials program and a great supply of additional online drone and geospatial resources with our 12-month She Maps Membership.

The She Maps Membership includes:

- Annual access to our Classroom Drone Essentials program.
- Easy access to lesson plans, assessment rubrics, activity sheets, posters, StoryMaps and inspirational video content.
- Over 40 hours of easy to access online professional development.

This is great for teachers who are already confident flying drones in their classrooms.

Pricing:

- Individual Licence: $240
- Department Licence: $495 for up to 5 teachers
- Department Licence: $895 for up to 10 teachers
- Department Licence: $1595 for up to 20 teachers
- For whole school or district licences contact us

SHOP NOW

Professional learning sessions – what's covered

Our Classroom Drone Essentials professional learning sessions mimic what She Maps teaches in their face-to-face programs. It provides members with all the knowledge and skills they need to run a drone program, either as an extracurricular Drone Club or as part of an in-class program.

The content is designed to help you take your students on a learning journey that corresponds to 'a day in the life of a geospatial scientist'.

We cover the following topics:

Set up

Getting to know our resources and the Classroom Drone Essentials program

- How to set up your drones and tablets (school or own device) for classroom use
- How to set up a space for safe flying

Taking flight

- How to keep your students and the drones safe when flying
- Taking that first flight with your students
- How to code with the Tellos

Curriculum

- Aligning our teacher resources to your learning outcomes
- Extension units of work and activities
- Support to develop scope and sequence for subject proposal
- Tips and tricks

Technical troubleshooting

- Classroom management tips and hacks

Choose the right support for your school

	Membership	Online Together	Incursions
Recommended drone experience	Advanced	Beginner to intermediate	Beginner
12-month online portal access	✓	✓	✓
Requires your own drone equipment	✓	✓	✗
On-demand access ⓘ	✓	✓	✓
Extra learning materials ⓘ	✓	✓	✓
Bookable live online sessions ⓘ	✗	✓	✗
Help with drone setup ⓘ	✗	✓	✓
Classroom management advice	✗	✓	✓
Personalised curriculum advice & classroom troubleshooting	✗	✓	✓
Face-to-face classroom visit	✗	✗	✓
Teacher Professional Learning Certificate	✓	✓	✓
Can be upgraded to include additional teachers	✓	✓	✓
Available worldwide	✓	✓	Australia Only

She Maps Membership

The She Maps Membership is for teachers who are building a drone program at their school and are wanting complete curriculum aligned units of work to help enable this.

A She Maps Membership provides you annual access to over 40 hours of online teacher professional learning and world-class drone and geospatial teaching resources.

Our resources are developed in collaboration with industry experts, to enable us to develop real world, practical problem-solving lessons that aim to inspire, engage and challenge students.

As part of our membership, you will be invited to attend STEMinars and receive regular emails filled with drone and geospatial content, new teaching resources, programs, competitions and more.

We welcome you to become part of a growing community of like minded teachers!

Teaching resources

Our teaching resources are mapped to the Australian curriculum and include lesson plans, assessment rubrics, activity sheets, posters, StoryMaps, presentations and inspirational video content. They are ready-to-teach!

Professional learning (self-paced)

In your own time, you can work your way through our professional learning for our signature program, Classroom Drone Essentials, to our advanced Drone Mapping course, and our competition resources.

Diverse industry role models

Today, women are vastly underrepresented in science and technology industries. She Maps have created a suite of posters to celebrate some wonderful role models and the important work they do.

Tournament of Drones kit

This Tournament of Drones teachers pack includes everything you need to run an amazing interschool or intraschool tournament of drones.

The competition is designed to test students' teamwork, problem-solving skills, creativity, technical flight skills, and analytical thinking. But most importantly, it is supposed to be FUN!

Drone Club kit

This Drone Club Kit will provide you with everything you need to run a successful drone club. It includes essential information, checklists, posters and 30 ready-to-teach activities your students will love!

Whether you are just starting out or looking for a new direction in your STEM club, this kit is a reliable planning tool for coordinators of drone clubs for a variety of situations.

Individual, department, whole school, and district licenses available.

SHOP NOW | ENQUIRE NOW

By becoming a She Maps member, you will be assisting us to:

01

Eliminate unconscious bias and grow diversity in how STEM is perceived and who does it. We need to encourage more girls to pursue a career in STEM, and your teaching can help us achieve that.

02

Provide STEM opportunities to underrepresented communities because as a certified Social Enterprise, we commit 50% of our profits to our Impact Program Projects.

World-Class Drone and Geospatial Teaching Resources

All units of work are designed and created in collaboration with industry experts. They are linked to the Australian curriculum across multiple learning areas both inside and outside the STEM-identified subjects.

Each resource includes everything you need including learning intentions, curriculum links, lesson outlines, assessment rubrics, teacher presentations, StoryMaps, videos and worksheets.

> By using these programs you help to equip your students with the necessary STEM skills and knowledge that will enable them to engage with the careers of the future.

Drones to the Rescue Bushfires

SUITABLE YEARS 5-6, 7-8

This inquiry follows a case study approach using a StoryMap, to investigate the causes and impacts of a dangerous hazard in Australia -bushfires.

$39 inc. GST

Drones to the Rescue Flooding

SUITABLE YEARS 5-9

This inquiry follows a case study approach using a StoryMap, to investigate the causes and impacts of one of the most common and costly hazards in Australia - floods

$39 inc. GST

Drones in Foresty

SUITABLE YEARS 5-9

Sustainable forests are managed using a variety of digital systems including drone and satellite technologies.

FREE

Healthcare in the Himalayas

SUITABLE YEARS 5-9

Using the real world application of drone technology, with our partner Nepal Flying Labs, students will simulate the transport of critical medical supplies to remote villages in Nepal.

$39 inc. GST

Code, Fly, Deliver

SUITABLE YEARS 5-9

Through short videos, the Swoop Aero team guides the students to follow five important steps to create their own drone delivery solution that solves a community need.

$39 inc. GST

Drones in Agriculture

SUITABLE YEARS 5-10

Students design and grow their own mobile edible garden or horticulture plot and use drones to monitor them.

$39 inc. GST

Tournament of Drones

PRIMARY & SECONDARY

This Tournament of Drone teachers pack includes everything you need to run an amazing interschool or intraschool tournament of drones.

FREE

Pippa & Dronie

SUITABLE F-4

An illustrated children's book that takes students on an adventure with scientists and drone professionals, to explore the different ways modern STEM skills are used to gather data, and solve real world challenges.

$25.95 inc. GST

Drone Club Kit

PRIMARY & SECONDARY

Our Drone Club Kit provides you with everything you need to run a successful drone club. It includes essential information, checklists, posters and 30 ready-to-teach activities your students will love!

$39 inc. GST

All our teaching resources can be purchased individually or you can access all the resources* when purchasing a She Maps Membership for $240 per annum.

*excludes Pippa & Dronie book

SHOP PRIMARY RESOURCES | SHOP SECONDARY RESOURCES

Determining curriculum requirements

What are we required to teach (curriculum) and how does this align with our school strategic plan?

All units of work designed and created by She Maps are aligned to the Australian curriculum across multiple learning areas. By using these programs you help to equip your students with the necessary STEM skills and knowledge that will enable them to engage with the careers of the future.

Working in collaboration with schools and industry we set out to achieve the five strategies of action outlined in the Australian STEM education strategy.

These include:

1. Increasing student STEM ability, engagement, participation, and aspiration
2. Increasing teacher capability and STEM teaching quality
3. Supporting STEM education opportunities within school systems
4. Facilitating effective partnerships with tertiary education providers, business and industry
5. Building a strong evidence base.

It is important when submitting a budget proposal in your school, you have a clear vision of what the purpose of the technology you are using will be. Which curriculum learning areas and subjects will lead the implementation? What content do you want to cover? How can you work smarter to address more than one learning area? We have programs to support every stage of schooling.

Learning Area	Subject focus	Recommended program
HASS	Geography	– How Cool is Your School? Map My School (F-8) – Pippa and Dronie (F-4) – Drones to the Rescue – Bushfires (5-10) – Healthcare in the Himalayas (5-10)
	Geography: Water in the world	– Drones to the Rescue - Flooding (7-8)
	Geography: Place and liveability	– Healthcare in the Himalayas (7-8) – Drones to the Rescue - Flooding (7-8)
	Geography: Landscapes and Landforms	– Drones to the Rescue – Bushfires (7-8) – Healthcare in the Himalayas (7-8)
	Geography: Changing Nations	– Drones to the Rescue – Bushfires (7-8)
	Geography: Biomes and food security	– Drones in Forestry (9-10) – Drones in Agriculture (9-10)
	Geography: Geographies of interconnections	– Healthcare in the Himalayas (9-10) – Code. Fly. Deliver. (9-10)
	Geography: Environmental change and management	– Drones in Forestry (9-10) – Drones in Agriculture (9-10)
	Geography: Geographies of human wellbeing	– Healthcare in the Himalayas (9-10)
	Economics and Business	– Code. Fly. Deliver. (F-10) – Drones in Agriculture (5-10)

Mathematics	Measurement	– How Cool is Your School? Map My School (5-8)
	Space	– Pippa and Dronie (F-4)
Science	Biological Sciences & Science Inquiry Skills	– Pippa and Dronie (F-4)
Technology	Design and Technologies - Engineering principles and systems	– Pippa and Dronie (F-4)
	Design and Technologies - Materials and technologies specialisations	– Pippa and Dronie (F-4) – Healthcare in the Himalayas (F-10) – Drones to the Rescue – Bushfires (5-10) – Code. Fly. Deliver. (9-10)
	Design and Technologies - Food and Fibre production	– Pippa and Dronie (F-4) – Drones in Forestry (5-6, 9-10) – Drones in Agriculture (5-10)
	Digital Technologies	– Pippa and Dronie (F-4) – Drones to the Rescue - Floods (7-8) – Drones in Forestry (5-10) – Code. Fly. Deliver. (5-10) – Healthcare in the Himalayas (5-10) – Drones to the Rescue – Bushfires (5-10) – Drones in Agriculture (5-10)
English	Literature and Language	– Pippa and Dronie (F-4)

DroneBlocks

Once your students master block coding, they may be up for more of a challenge. Learning a coding language such as Python or JavaScript is a valuable skill for our digital natives. But for those of us who are not digital natives or coders, teaching students this skill can be a bit daunting!

We have partnered with DroneBlocks to bring their drone coding platform to you. A Droneblocks 12 month membership is available for $695 Australian Dollars and is designed specifically for schools to provide full access to all Tello drone curriculum and software for up to 10 educators per school. DroneBlocks provides a basic block coding platform, and line based coding platforms to enable you and your students to fly your DJI Tello microdrones autonomously.

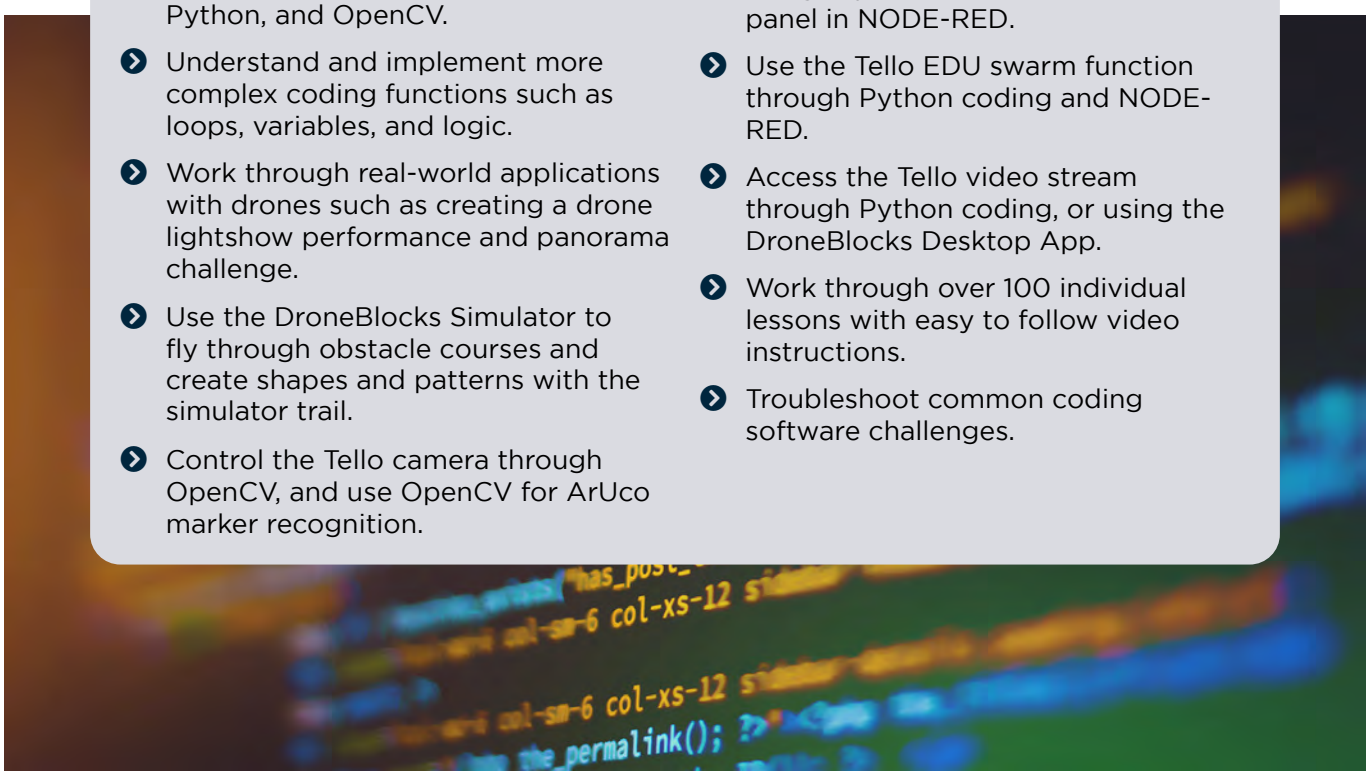
They also provide a full platform of professional development and resources to support you and your students to learn how to code with various coding languages.

The DroneBlocks curriculum can be applied with varying age ranges and is extremely conducive to students with diverse learning styles by helping them explore math, science and logic through fun and practical application.

Students will learn Block, Python, and JavaScript coding by executing their code on small indoor-friendly Tello drones.

Students will:

- Program Tello and Tello EDU using more advanced programming techniques such as JavaScript, Python, and OpenCV.
- Understand and implement more complex coding functions such as loops, variables, and logic.
- Work through real-world applications with drones such as creating a drone lightshow performance and panorama challenge.
- Use the DroneBlocks Simulator to fly through obstacle courses and create shapes and patterns with the simulator trail.
- Control the Tello camera through OpenCV, and use OpenCV for ArUco marker recognition.
- Code the Tello to be flown with keyboard shortcuts in OpenCV, or design your own custom control panel in NODE-RED.
- Use the Tello EDU swarm function through Python coding and NODE-RED.
- Access the Tello video stream through Python coding, or using the DroneBlocks Desktop App.
- Work through over 100 individual lessons with easy to follow video instructions.
- Troubleshoot common coding software challenges.



SHOP NOW

Add on DroneBlocks Virtual Professional Development

Offering up to three hours of professional learning, DroneBlocks sessions are great fun and really stretch educators' minds to see how microdrones can be used to teach many different STEM lessons. DroneBlocks Virtual Professional Development is available for $695 Australian dollars.

Python language

You will test your coding environment and demonstrate your knowledge of Python language by completing an easy to code game. This session covers some of the Python basics such as using the import function to use other modules in your Python code, getting input from the person playing your game (the user) and basic algorithm using if-then-else.

Tello and Python

This session covers installing and testing Tello Python libraries. You will import the required tools, learn about virtual environments and setup a Jupyter notebook. Once you have completed this session you will be able to successfully connect to your Tello drone from Python as well as send it commands and see the camera.

Computer vision on Tellos

In this session, you will install OpenCV and get your drones to react to ArUco markers. This is a fun and exciting process of getting your drone to perform different commands based on what markers it recognises with its camera.

COURSE 1	COURSE 2	COURSE 3	COURSE 4	COURSE 5
Simulator	**Block Code**	**JavaScript**	**Python**	**NODE-Red**
Explore Drone Blocks training from anywhere, without a drone	Go from simple to advanced block coding	A simple interface to start mastering line based coding	Coding with Python	Code with NODE-Red

Getting Started with drone mapping

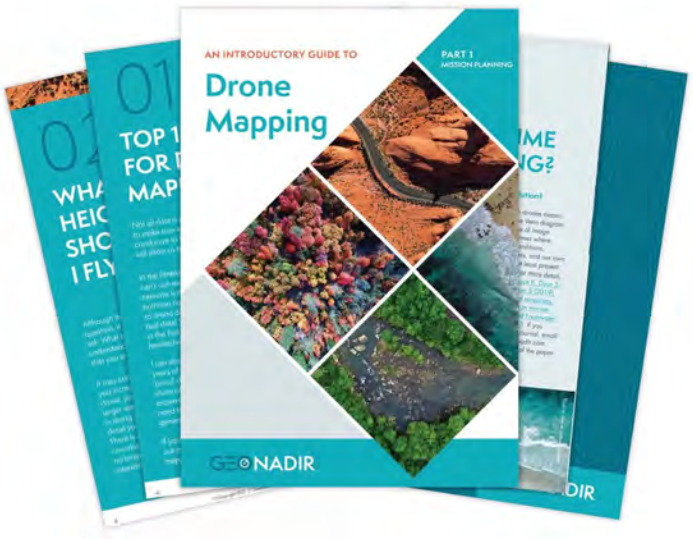
Are you wanting to get started with using sub 2kg drones with your students outdoors? One valuable way of using these drones is to conduct a drone mapping mission to collect data and analyse that data in a similar way to our Map My School competition and resources.

We have partnered with Geonadir,

our sister company, as they are the best place to manage, process, share, and analyse your drone data.

Check out their Introductory Guide to Drone Mapping.

DOWNLOAD DRONE MAPPING GUIDE



You can get started for FREE with GeoNadir and explore the amazing drone data already available there now.

CLICK HERE TO GET STARTED

Pippa & Dronie

Pippa & Dronie is an illustrated children's book that takes students on an adventure with scientists and drone professionals, to explore the different ways modern STEM skills are used to gather data, and solve real world challenges.

Dronie flies through whale snot to collect DNA samples (urgh yuck, but kinda cool), maps coral on the Great Barrier Reef, and in Kakadu National Park encounters a crocodile who tries to jump up and grab her!

Learning promise

- Create positive perceptions of STEM and Geography.
- Meet real scientists and drone professionals and explore what they do.
- Explore the interactive coding game to go beyond the book.
- Be exposed to great STEM role models and the real world applications of drones.

Learning outcomes

- All lessons are mapped to the Australian Curriculum and each lesson has its own learning intentions.
- The lessons cover Science, English, Maths, Geography, Design and Digital Technologies.
- Health and PE and incorporates cross-curriculum priorities including Aboriginal and Torres Strait Islander histories and cultures.
- Learn how technology can be used to support problem-solving.

Pippa & Dronie individual items

Book + Teacher Resources
$25.95

Big Book
$55

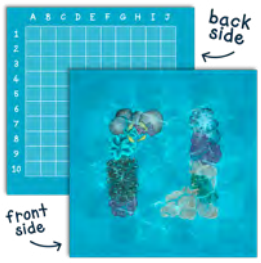


Image Mat
Single $330 / Double $462

Dronie Plushie
$35

Download Now

Download on the App Store

GET IT ON Google Play

Dronie Coding Game
(Free App)

Dronie Coding Game
(Web-based)

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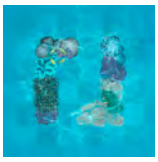
Pippa & Dronie packages

ITEM		SMALL	MEDIUM	LARGE
BOOK		x5	x10	x30
BIG BOOK		x1	x1	x2
IMAGE MAT SINGLE		✓	✓	✓
DRONIE PLUSHIE		✓	✓	✓
TEACHER RESOURCES		✓	✓	✓
DRONIE CODING GAME (APP)		✓	✓	✓
DRONIE CODING GAME		✓	✓	✓
CODING GAME PRINTABLES		✓	✓	✓
AUTHOR READING (VIDEO)		✓	✓	✓
PRICE (INCL GST)		$534.25	$634.00	$1,137.50

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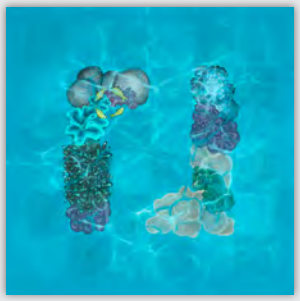
What is an image mat?

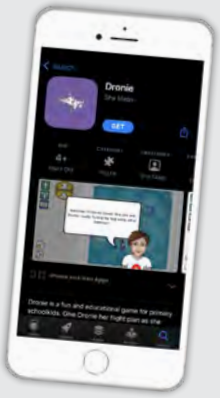
Image Mats are great for creating real-world scenarios and coded mission plans!



Our standard Image Mat is a 2mx2m fabric banner that is washable so students can touch it, walk on it and interact with it as part of their code development.

We have a range of locations to choose from around Australia with more being added internationally.

Dronie the App



Dronie is a fun and educational game for primary school kids. Give Dronie her flight plan as she travels around Australia, helping out real-world scientists, from the Great Barrier Reef to the Pilbara.

The app complements the book and allows your students to further explore the world according to Dronie, as well as learn block coding which gets increasingly more challenging the further they go!

Download on the App Store | GET IT ON Google Play | unity

Buy 1 and give 1

Buy a copy of Pippa and Dronie, and you automatically donate a copy to one of our charity partners, Ardoch and Deadly Science.

They work with under-represented communities, and provide students with opportunities to experience STEM.

THE SURVEYORS' TRUST | DEADLY SCIENCE | ARDOCH REALISING CHILDREN'S POTENTIAL THROUGH EDUCATION

Determine equipment and resource requirements

What equipment, resources and facilities do we need to succeed?

To run a microdrone program at your school we recommend the following equipment and resources as a starting point:

- DJI Tello Boost Combo Packs x 5 (suitable for 15 students)
- Image Mats x 1
- Lipo Bags x 2
- She Maps Membership - Teacher Resources - 1 Teacher License

More equipment considerations:

- Tablets - Manual flight of the Tellos is best done with an ipad/ tablet. Ideally, one dedicated tablet per drone and you may also need to factor in purchasing a protective case(s)
- Charging station (tablets and batteries)

- Markers/cones for flight zones and activities
- Storage location
- Ease of transportation between classes (e.g. large suitcase or storage trolley)
- 3D Printed Attachments - Download
- Safety glasses for each student
- Stickers for labelling each drone and dedicated tablet
- Posters - Printing of Careers Posters & Safety Posters

Teacher Training Considerations:

- Teacher Training? - Are there members of your team that could benefit from learning how to teach with microdrones indoors.

Location considerations:

- Where at the school is the best place to fly the microdrones? For example the school hall or a double classroom.
- Do you have to book the suitable room in advance?
- Will you need a booking system for the drones? Who will manage this?

Other considerations:

- Do we need a school Drone Policy? Download policy template
- Where will the equipment be housed?

LEARN MORE

Future Planning:

- Challenge activities and resources
- More drones to cater for whole classes

Why we recommend these resources and equipment

Tello Microdrone EDU by DJI

Tello EDU is an impressive and programmable drone, perfect for education. You can easily learn programming languages such as Scratch, Python, and Swift.

The Boost Combo Includes Tello EDU x 1, Spare Pair of Propellers x 1, Propeller Guards Set x 1, Battery x 3, Charging Hub x 1

She Maps recommends the DJI Tello EDU Boost Combo microdrones for schools for the following reasons:

- This kit comes with spare batteries, propellers and a three-battery charging hub so you never run out of batteries, and you can keep the batteries charging during the lesson
- Image Mats are great for creating real-world scenarios, coded mission plans and stepping out code!
- The LiPO battery bags are an important safety consideration for storing lithium polymer batteries
- The DJI Tello EDU comes with two apps (IOS and Android) that we've tried and tested.

Lipo Bags

A convenient way of safeguarding your microdrone batteries during charging, transportation, and storage.

This bag is made of super-strong flame retardant silicone fibreglass woven fabric and will tolerate very high temperatures for a reasonable period of time.

Image Mat - 2m x 2m Cloth Image Mat (1.1kg)

Great for creating real-world scenarios, coded mission plans, and stepping out code! Choose from a range of existing or customised locations

She Maps Teaching Resources and Online Teacher Professional Learning

- Annual access to all our drone and geospatial programs
- A wide range of curriculum-mapped teaching resources
- Over 40 hours of easy-to-access online professional development
- Ready-to-teach resources that include real-world challenges and the application of 21st-century skills
- Lesson plans, achievement standards, assessment tasks, rubrics, and multimedia lesson presentations mapped to the Australian Curriculum with transdisciplinary GeoSTEM application

LEARN MORE

How to fly microdrones?

The Tello EDU microdrones can work with multiple devices, including phones, tablets (iPad or Android) and laptops, but when budgets allow, we recommend that schools use tablets that are assigned to each drone, to enable manual flight. When using computers alone, the students never get to experience manual flight, which is definitely part of the fun!

When you purchase from She Maps you receive the following benefits:

Free Australian delivery on orders over $300

12 months technical support

Optional 15 minute set up call from a She Maps Instructor

Classroom kits – equipment only

SMALL	MEDIUM	LARGE
		
5 x Tello microdrones EDU Boost Combo (includes batteries, charge hub & spare propellers)	7 x Tello microdrones EDU Boost Combo (includes batteries, charge hub & spare propellers)	10 x Tello microdrones EDU Boost Combo (includes batteries, charge hub & spare propellers)
1 x Image mat (2m x 2m)	2 x Image mats (2m x 2m)	2 x Image mats (2m x 2m)
2 x Lipo battery bags	2 x Lipo battery bags	2 x Lipo battery bags
$1,869 inc. GST	**$2,797 inc. GST**	**$3,694 inc. GST**

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Single microdrones

PRODUCT		PRICE
	**Tello EDU Microdrone - Single** Includes: 1 x Tello EDU microdrone, 1 x battery An impressive and programmable drone perfect for education. You can easily learn programming languages such as Scratch, Python, and Swift. Write code to command multiple Tello EDUs to fly in a swarm, and develop amazing AI functions.	$219.00 inc. GST
	**Tello EDU Microdrone - Boost Combo** Includes: 1 x Tello EDU drone, 3 x batteries, 1 x 3 port charging hub	$299.00 inc. GST
	**Tello Talent Microdrone – Single** Includes: 1 x Tello Talent drone, 1 x battery, 1 x spare set of propellers, 1 x propeller guards set. Supports Arduino and Micro Python, a programmable dot matrix LED screen, distance measurement and obstacle avoidance, and the ability to integrate other sensors.	$389.00 inc. GST
	**Tello Talent Microdrone - Boost Combo** Includes: 1 x Tello talent drone, 3 x batteries, 1 x 3 port charging hub, 1 x spare set of propellers, 1 x propeller guards set	$469.00 inc. GST

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Sub 2kg drones

PRODUCT		PRICE
	**Autel Evo II Pro V2** 1 x Evo II Pro V2 1 x Remote Controller 1 x Intelligent Flight Battery 3 x Propeller Pairs 1 x Single Charger	$2,699.00 inc. GST
	**Autel Evo II Pro V2 - Rugged Bundle** 1 x Evo II Pro V2 1 x Remote Controller 2 x Intelligent Flight Battery 3 x Propeller Pairs 1 x Single Charger 1 x Safety Case 1 x Micro SD Holder	$3,099.00 inc. GST
	**Autel Evo II Pro V2 - Rugged Bundle PLUS** 1 x Evo II Pro V2 1 x Remote Controller 3 x Intelligent Flight Battery 3 x Propeller Pairs 1 x Charging Hub 1 x Safety Case 1 x Micro SD Holder	$3,520.00 inc. GST
	**AUTEL Fly More Bundle for EVO II** The Autel Evo II Fly More Kit includes 2x 7100mAh intelligent flight b tteries, a battery charging hub, 2 pairs of folding propellers, and a shoulder bag to store and carry it all.	$699.00 inc. GST
	**AUTEL Smart Controller** The Autel Smart Controller's built-in display at 2000nits is 4 times brighter than a conventional cell phone screen and the 7.9-inch Ultra-HD (2048×1536) touch screen provides clear visibility under direct sunlight. Integrated true tone technology dynamically adjusts the white balance of the display, delivering the best viewing experience for the pilot in any lighting environment.	$1,759.00 inc. GST

SHOP NOW

Sub 2kg drones

PRODUCT		PRICE
	**AUTEL EVO II Battery** The Autel Evo II Intelligent Flight Battery, with a rated capacity of 82 Wh, has high-energy-density polymer lithium-ion cells. Its cells, powered by laminated cell technology, which greatly reduces the internal resistance and improves the available capacity of the battery, provide an excellent battery life of 40 min.	$295.00 inc. GST
	**AUTEL EVO II Hard Case** Protect your EVO II & accessories from harsh environments with the Autel EVO II Rugged Hard Case. This EVO II rugged case (IP67-rated) features a hard exterior shell, built-in automatic pressure equalization valve, and an O-ring gasket to keep everything inside protected from water and dust.	$295.00 inc. GST
	**AUTEL EVO II Propeller (pair)** Highly intense and tough; Willow-shaped propeller ensures least resistance, highest efficie y, and smallest noise; Foldable design; Foolproof installation.	$25.00 inc. GST
	**AUTEL EVO II Propeller Guards** The Autel Evo II Propeller Guards are designed to protect the aircraft and any bystanders. The split guards are portable and easy to install. They are made for high intensity, easy to install and detach, taking up little space.	$31.00 inc. GST
	**AUTEL EVO II Shoulder Bag** The Autel EVO II Shoulder Bag can carry around the EVO II drone and essential accessories easily to and from every adventure.	$139.00 inc. GST
	**AUTEL EVO II Battery Charging Hub** It can easily charge up to 4 EVO batteries with the standard EVO II charger. Two charging modes are supported: simultaneous charging and alternate charging; Red light alarm for abnormal voltage and temperature.	$125.99 inc. GST

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Microdrone accessories

	PRODUCT	PRICE
	**LiPo Battery Bag** Convenient way of safeguarding your batteries during charging, transportation, and storage.	$22.00 inc. GST
	**Tello Propellers** 2 x Propeller pairs	$5.00 inc. GST
	**Tello Battery Charging Hub** The charging hub is designed for use with Tello LIPO batteries. It can hold up to three Tello LIPO batteries at the same time.	$26.00 inc. GST
	**Tello Propeller Guards** 2 x Guard pairs	$9.00 inc. GST
	**Single Battery – Suitable DJI Tello Microdrone**	$29.00 inc. GST
	**PGY TECH Protective Cage for TELLO**	$29.00 inc. GST
	**PGY TECH Carrying Case for TELLO**	$40.00 inc. GST
	**Ryze Tello Gamesir T1d Controller**	$49.00 inc. GST

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Image Mats

Our image mats are great for creating real-world scenarios, coded mission plans and stepping out code. We have a range of locations to choose from, or schools can request a specific location.

Cloth Image Mat (2m x 2m)

Great for creating real-world scenarios and coded mission plans!

$330 inc. GST

Cloth Image Mat (2m x 2m) – Double Sided

Great for creating real-world scenarios and coded mission plans! Twice the fun!

$462 inc. GST

SHOP NOW

3D printed attachments

We have trialled a number of 3D attachments for the Tello. You can download the print files from their creators on Thingiverse (links below) to print at school, or through our print on demand preferred supplier – TinkerSteps.

Printing the attachments in PLA (what most school 3D printers use) will be a weaker solution compared to printing in resin, which is what TinkerSteps is able to print them in, and what is pictured below.

Egg Cup for Tello

Click here

FREE

Lego Clip for Tello

Click here

FREE

Mirror Clip for Tello

Click here

FREE

Tailoring Teaching to Learning

At She Maps, we know that each school is unique. Whilst we have a range of products and programs that you can purchase directly, we can also tailor our programs to meet the individual needs of the school, teachers or students. Got something in mind? Simply ask us!

Orders and payments

There are two easy ways to place your order

- Purchase directly on the website paying by credit card (fees apply) or by bank transfer: www.shemaps.com/shop/
- Contact She Maps to either:
  - Organise a quote so you can raise a purchase order
  - Raise an invoice for Electronic Funds Transfer (EFT) or Credit Card Payments (fees apply)

Here is the information you require to raise a purchase order:

Company Name:	Kaea Pty Ltd trading as She Maps
ABN:	90 628 152 303
Address:	70 Moresby St, Trinity Beach, Cairns, QLD, 4879
Phone:	1300 895 795
Email:	orders@shemaps.com

Special Note: Orders cannot be sent until we've received a purchase order or payment in full.

Order processing

Once payment or the purchase order has been received, you will receive an order confirmation from one of our team members.

Delivery information drone equipment

Drone equipment orders are usually processed within 48 hours and dispatched thereafter. You can also pre-order and nominate a delayed delivery date (the start of a new term for example) if you wish.

Expect delivery of your drone equipment between 5-10 days.

We work to fill your order in full, first time with no back-orders. If we can't do that, we pay for the cost of shipping the back-order to you.

Delivery information image mats

If your order includes image mat(s), then the image mat(s) will be delivered seperately from the drone equipment from a different location. You can expect a separate delivery for your image mat(s) two weeks after ordering.

Once you've placed your order, we highly recommend that you let the school reception know to expect the delivery.

Shortcuts

Scan to shop

SHOP NOW

Scan to subscribe to our newsletter

SUBSCRIBE NOW

Scan to schedule a call

SCHEDULE TODAY

Dive a little deeper

Our ebook will provide you further information on how to launch a drone program at your school

Getting Started With Drones in Your Classroom

Learn the 6 steps to launching a successful drone and geospatial program in your classroom.

Find us on socials

Disclaimer: Prices in this catalogue are correct as at May 2023. Prices may change at any time without further notice.

STEM GRANTS AUSTRALIA

STEM grants open across the school year, so we've collated a list of grants that you might like to keep an eye on. Please note many close early in the year, so this is more of a reference list for you to keep track of.

Brighter Futures	Brighter Futures community funding grants are designed to support organisations that are working to develop stronger communities in three areas: health and safety, education and environment.
Engaging Science Grants	This grant aims to support organisations, schools and teachers improve STEM participation through the delivery of science engagement and communication projects, events and activities.
NSW-Supporting Young Scientists Program	This grant is offered to NSW high school students participating 'in person' or virtually in competitions, events or courses, either domestically or internationally, which offer the potential for signi cant educational advancement in an area related to science, technology, engineering or mathematics (STEM).
School Grant Program in South Australia	These are grants to help school-initiated National Science Week activities. Applications are accepted that support the running of a National Science Week activity or event in a school and teachers can apply for up to $500.
QLD-Peter Doherty Awards for Excellence in STEM Education	Schools or teachers who have implemented strategies to lift student performance in STEM subjects can apply for this award. The award should be used to undertake activities associated with the STEM course or purchase equipment to assist in the development of STEM learning.
Inspiring NSW grants	Each year, funds are given to NSW stakeholders to deliver high-pro le community STEM events.
Aboriginal *Benefits* Foundation Grants	The Foundation provides grants to support projects which advance the aims of the Foundation, with the current focus on supporting educational projects. Applications are accepted from any Aboriginal communities/individuals.
Rural and Remote Education Access Program	The RREAP program aims to assist schools in improving the educational outcomes and opportunities of students who are disadvantaged because of their geographical isolation, so that their learning outcomes match those of other students.
Indigenous Education	This funding aims to assist schools supporting indigenous students and close the attainment gap between non-indigenous and indigenous students.
BankWest Easy Grants	Every month Bank West takes the rst 40 applications that t their entry criteria and puts them up for a public vote. The 6 projects with the highest votes receive $1000 and the rest receive $200 each.
Crowdfunding through Schools Plus	The "Fundraise Yourself' platform allows schools to publish information and bene ts about a project and crowdfund through the community network. Eligibility is dependent on the Index of Community Socio-Educational Advantage (ICSEA) or whether a school is de ned as a special school.
National Science Week Grants	The Australian Science Teachers Association (ASTA) conducts an annual grant round to assist schools to hold a special event in National Science Week. Applications are usually open in Term One and the results of the selection process announced in Term Two. Schools can apply for up to $500 of assistance. The grant pool of more than $100 000 is provided by the Australian Government

SHE Maps

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