



REACHEDU

ADMINISTRATOR GUIDE

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INTRODUCTION

IMAGINE YOU WERE NEVER TAUGHT TO USE A COMPUTER



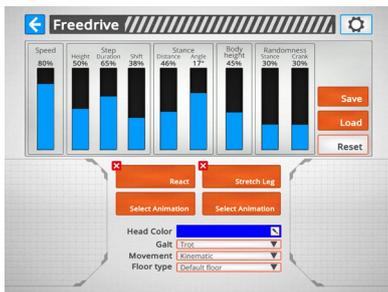
The Fourth Industrial Revolution will run on machines that use intelligent, cyber-physical systems to automate work processes and exchange communications. It's the people that ensure these smart factories run. By introducing students to STEAM education using physical robots, coding education is placed in the direct context of its use in the future. With ReachEDU and the MekaMon robot we offer just that, a coding education tool designed to challenge students' creative curiosity and equip them with the skills required for a digital robotic future.

**OF CHILDREN ENTERING
PRIMARY SCHOOL TODAY
WILL HOLD FUTURE JOBS
THAT DON'T YET EXIST.***

*World Economic Forum

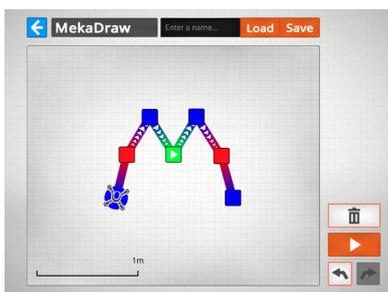
USING REACHEDU

Four Learning Tools



DRIVE

Learn how to control MekaMon and experiment with its movement and style with FreeDrive. From manoeuvring around obstacle courses to testing MekaMon on different terrain, FreeDrive offers unparalleled flexibility in cross-curricular application.



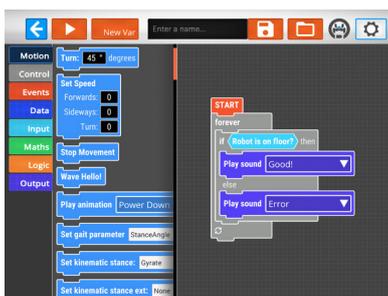
DRAW

Trace a line across the screen and MekaMon will follow. Add animations and head colour changes at different points on its journey. A visual introduction to basic coding concepts, MekaDraw is our most accessible point of entry.



ANIMATE

Learners can design their own animations with MekaMon using MekaMotion, our stop motion animation studio. Each MekaMon limb can be moved independently into position to build a series of movement commands.



CODE

Scratch-based block coding allows students to engage with higher level coding concepts through an accessible programming suite. Access a range of input and output commands, taking advantage of MekaMon's sensors and movements with MekaCode.

Unprecedented Flexibility In The Classroom

ReachEdu learning tools have been designed to cross-pollinate understanding across one another, allowing for unprecedented flexibility in cross-curricular use. Teach the effects of gravity and robotic movement using MekaMotion in a Physics lesson, or use angles and measurements in MekaDraw for a Maths lesson, there's a wealth of opportunity for using MekaMon to increase your students' retention and engagement across a breadth of subjects.

USING REACHEDU

Easy To Use Robotics

One of the biggest challenges facing coding education today is the lack of specialist skillset in its educators. ReachEDU offers in-app guided learning Missions built on a solid foundation of clear instructional resources, ensuring teachers can use MekaMon and ReachEDU with confidence in the classroom.

Each ReachEDU Mission comes with a break down of all code and processes required, alongside a lesson plan guiding teachers through their use of MekaMon. Educators can use these resources to efficiently build up their own understanding of the coding concepts required by the UK Computer Science curriculum before putting their knowledge into action in streamlined class activities.

Even a teacher with no specialist knowledge of coding can therefore run a ReachEDU lesson with ease and confidence.



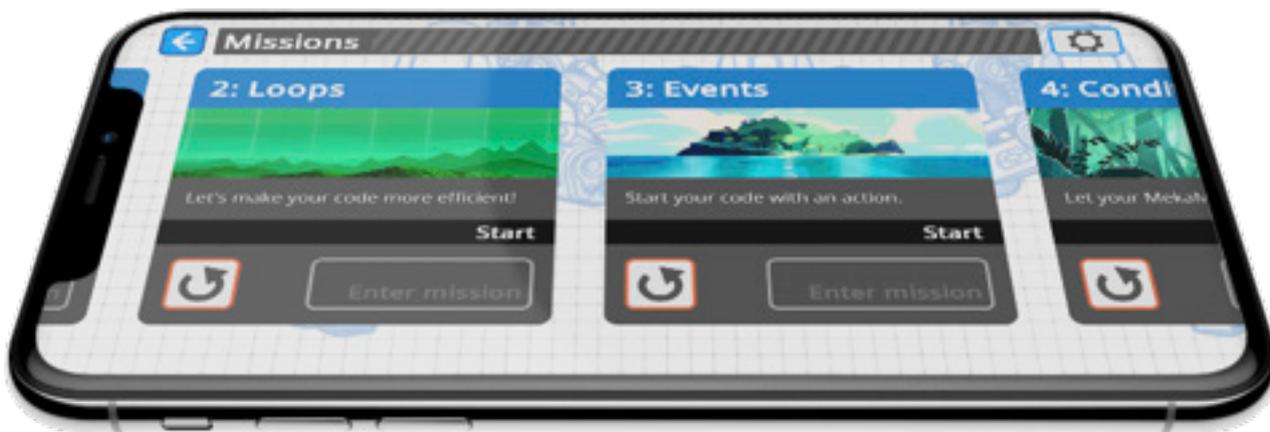
“As part of the survey we asked teachers to rate their confidence at each stage of the curriculum on a 10-point scale, with 1 being the least confident and 10 being the most confident. 48% of the surveyed teachers gave a score below 7 and were asked to provide explanations for the low confidence scores. A common response from these teachers was that they were lacking sufficient theoretical and technical knowledge of computing that included aspects of programming and coding.

This was further demonstrated when we asked teachers for their confidence in delivering specific aspects of computing education. Many indicated that they were most confident with the elements of the curriculum that were inherited from the previous ICT courses, for example using technology safely, responsibly and securely, and creating digital content for a given audience.”

Royal Society, *After the Reboot: Computing Education In UK Schools*

USING REACHEDU

Curriculum Aligned Coding



Each ReachEDU Mission takes students through a new aspect of coding, guided by Ivy Tarkova, a MekaMon engineer! Tutorials and challenges encourage students to approach problems with creativity and computational reasoning while adhering to Key Stage 1 and Key Stage 2 Computer Science curriculums.

Structured around play and discovery, ReachEDU Missions bring fun and experimentation to coding education. Increase your students' retention, engagement and motivation through game-like learning structures and rewards.

Key Stage 1 National Computer Science Curriculum	Covered in ReachEDU:		
	Missions	Learning Tools	Resources
Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions.	✓	✓	✓
Create and debug simple programs.	✓	✓	✓
Use logical reasoning to predict the behaviour of simple programs.	✓	✓	✓
Use technology purposefully to create, organise, store, manipulate, and retrieve digital content.	✓	✓	✓
Recognise common uses of information technology beyond school.	✓		✓
Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.			✓

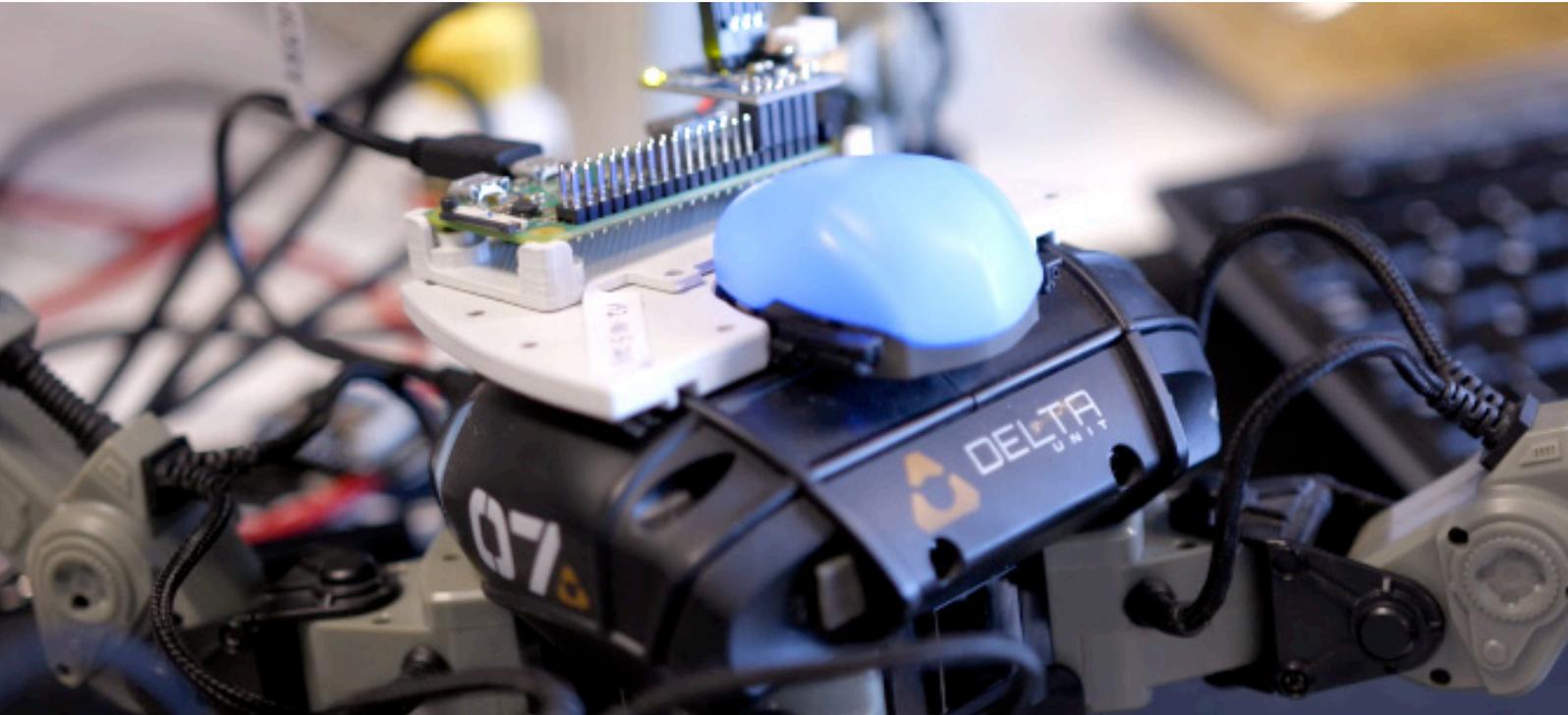
USING REACHEDU

Curriculum Aligned Coding

Key Stage 2	Covered in ReachEDU:		
National Computer Science Curriculum	Missions	Learning Tools	Resources
Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.	✓	✓	✓
Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.	✓	✓	✓
Use logical reasoning to explain how some simple algorithms work and detect and correct errors in algorithms and programs.	✓	✓	✓
Understand computer networks, including the internet; how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for communication and collaboration.			✓
Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.			✓
Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.		✓	✓
Use technology safely, respectfully and responsibly; recognise acceptable / unacceptable behaviour, identify a range of ways to report concerns about content and contact.			✓

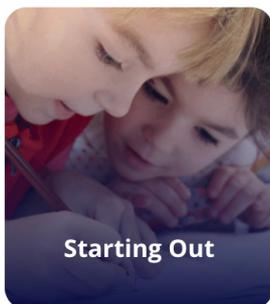
USING REACHEDU

Coding Education For All Ages



MEKAMON GROWS WITH YOUR STUDENTS

A single MekaMon robot can be used from Year 1 to University level education. As students become more confident in one area of ReachEDU, they can cross-pollinate their understanding to reach new heights in another. Swift Playgrounds guides the transition between block based coding and written programming in Secondary Education and the future Raspberry Pi module will open MekaMon up to different programming languages in Higher and Further Education.



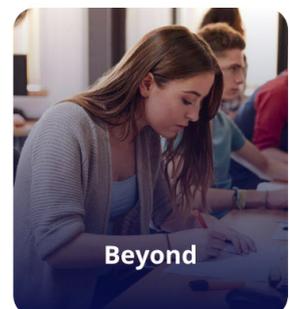
Starting Out

Students learning to code for the first time can begin with simple visual programming concepts in MekaDraw before moving on to Scratch-based block coding in MekaCode.



Next Steps

Learners comfortable with coding concepts can expand their skills with advanced features in MekaCode and learn the Apple Swift programming language.

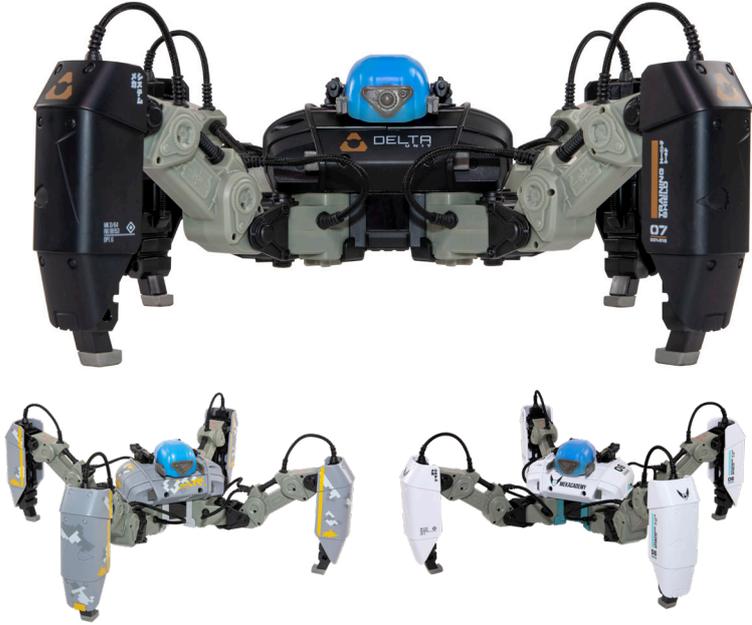


Beyond

The upcoming custom Raspberry Pi module opens the inner workings of MekaMon up to other programming languages, giving students free reign over MekaMon's functions.

WHAT YOU NEED

ReachEDU Products and Services

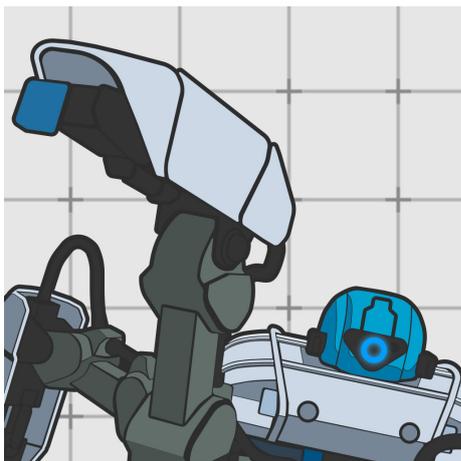


MekaMon Berserker V2

The MekaMon Berserker V2 is the latest MekaMon robot. A highly durable quadrupedal robot with a personality all of its own, MekaMon excels in its unparalleled fluidity of movement. Fully modular legs and batteries ensures your robot is ready for action at all times, with detachable accessories for easy storage.

The MekaMon Berserker V2 is available in white, black and grey colour variants.

- 1.5 hours per 60 minute battery charge
- Fully modular for easy storage
- Dynamic and responsive touch interaction
- 4 removeable shields
- Bluetooth LE connectivity
- Compatible with the MekaMon App



ReachEDU App

The home of each ReachEDU learning tool and the central hub of your Missions, the ReachEDU App opens your robot up to experimentation and curiosity.

- Available free on iOS and Android
- Access to all four ReachEDU learning tools
- Inbuilt guided learning Missions with MekaMon engineer Ivy Tarkova
- Creative, game-like challenges that engage students through play
- Track student Mission progress and save programs and animations.

WHAT YOU NEED

ReachEDU Products and Services

Contact sales@reachrobotics.com or visit edu.reachrobotics.com for more information on purchasing MekaMon for your school.



ABOUT US



**ENTERTAIN,
INSPIRE,
EDUCATE**

Reach Robotics started life as a venture by CEO and Co-Founder Silas Adekunle to bring robotics and gamification techniques into schools to raise engagement levels. The world's first gaming robot, MekaMon offers unprecedented access to cutting edge entertainment technology. Today, we have harnessed our learnings from the entertainment market to create a unified tool for STEAM education, offering opportunities for all ages and levels of ability.

reachrobotics.com
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