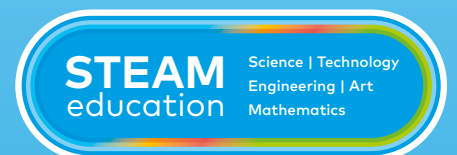


SPRING 2025

makeblock
education

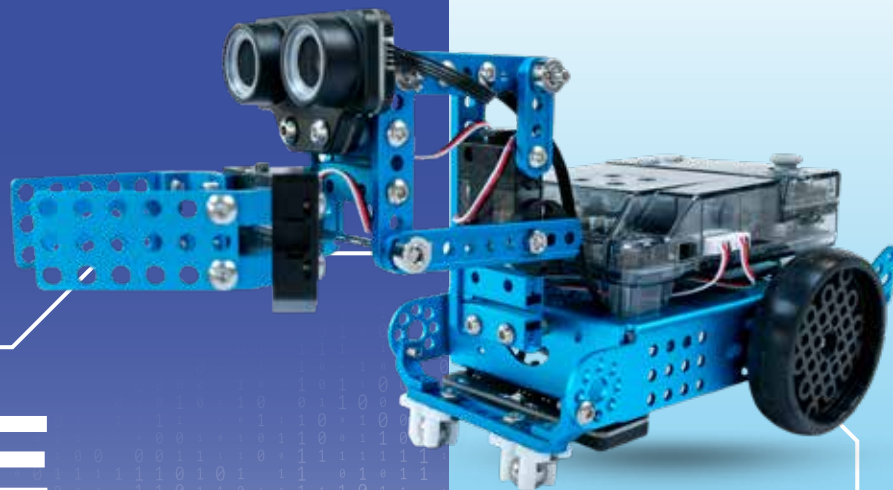


Inspire Innovators
Enable Educators



www.makeblock.com

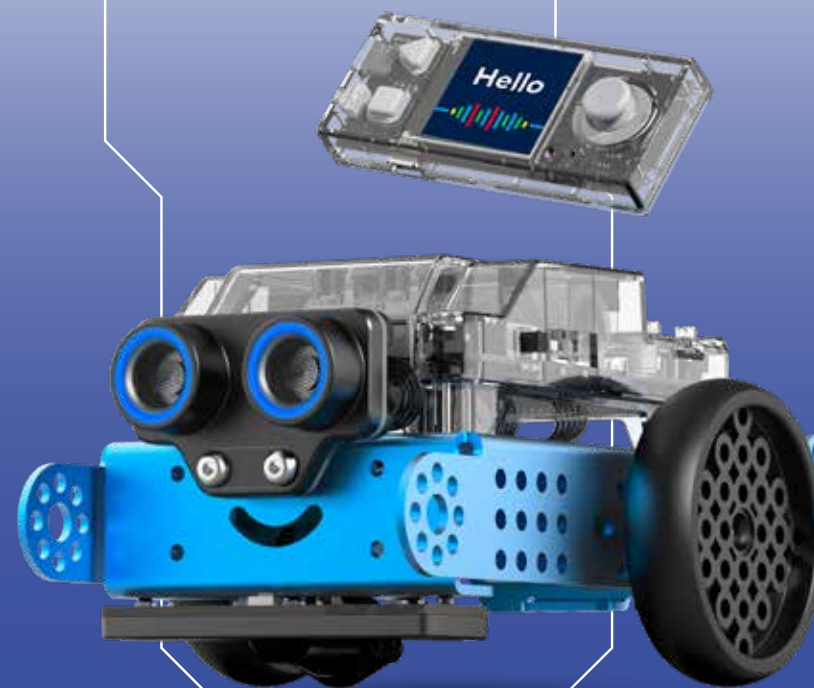
Bring real-life applications to the classroom



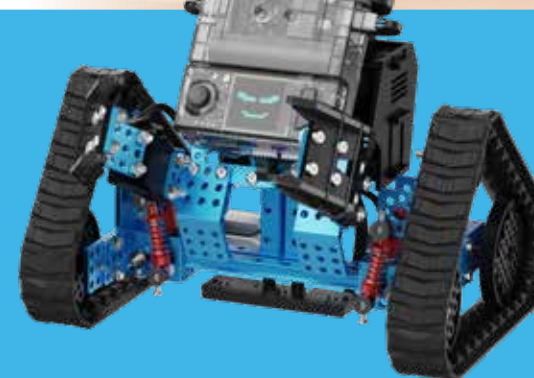
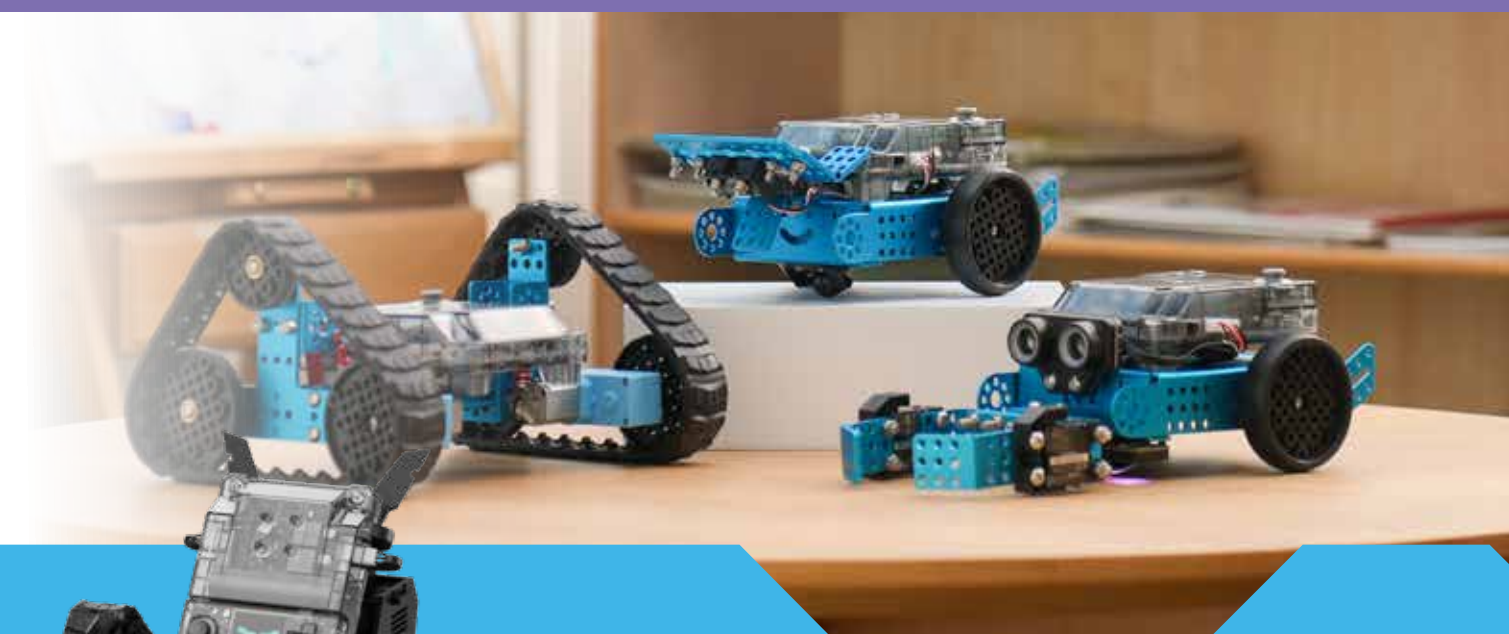
INSPIRE INNOVATORS



makeblock
education



ENABLE EDUCATORS



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**makeblock
education**

Makeblock Education started with the aim of helping people turn their ideas into reality. Through the power of innovation and technology, Makeblock helps more pupils and students enjoy creating while having fun. Each component is carefully designed to provide teachers with the tools they need to enable students to be creators, inventors, and entrepreneurs.

Makeblock Education strives to deliver solutions that foster a growth mindset in the next generation of problem-solvers by developing 21st-century skills in students around the world.

VISION

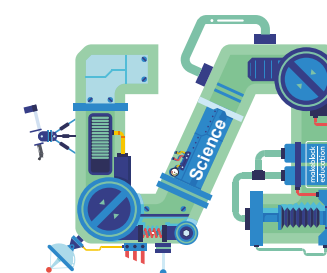
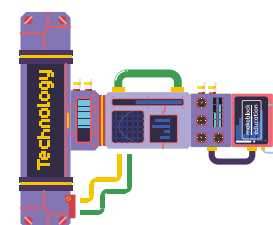
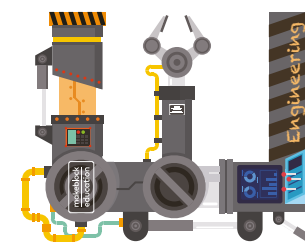
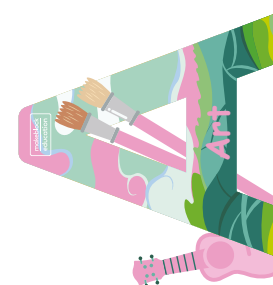
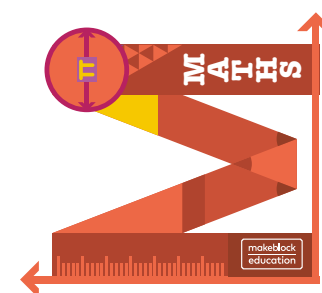
Our mission is to empower teachers with a continuum of solutions to make STEAM education engaging and accessible to all.

MISSION



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About us



makeblock
education

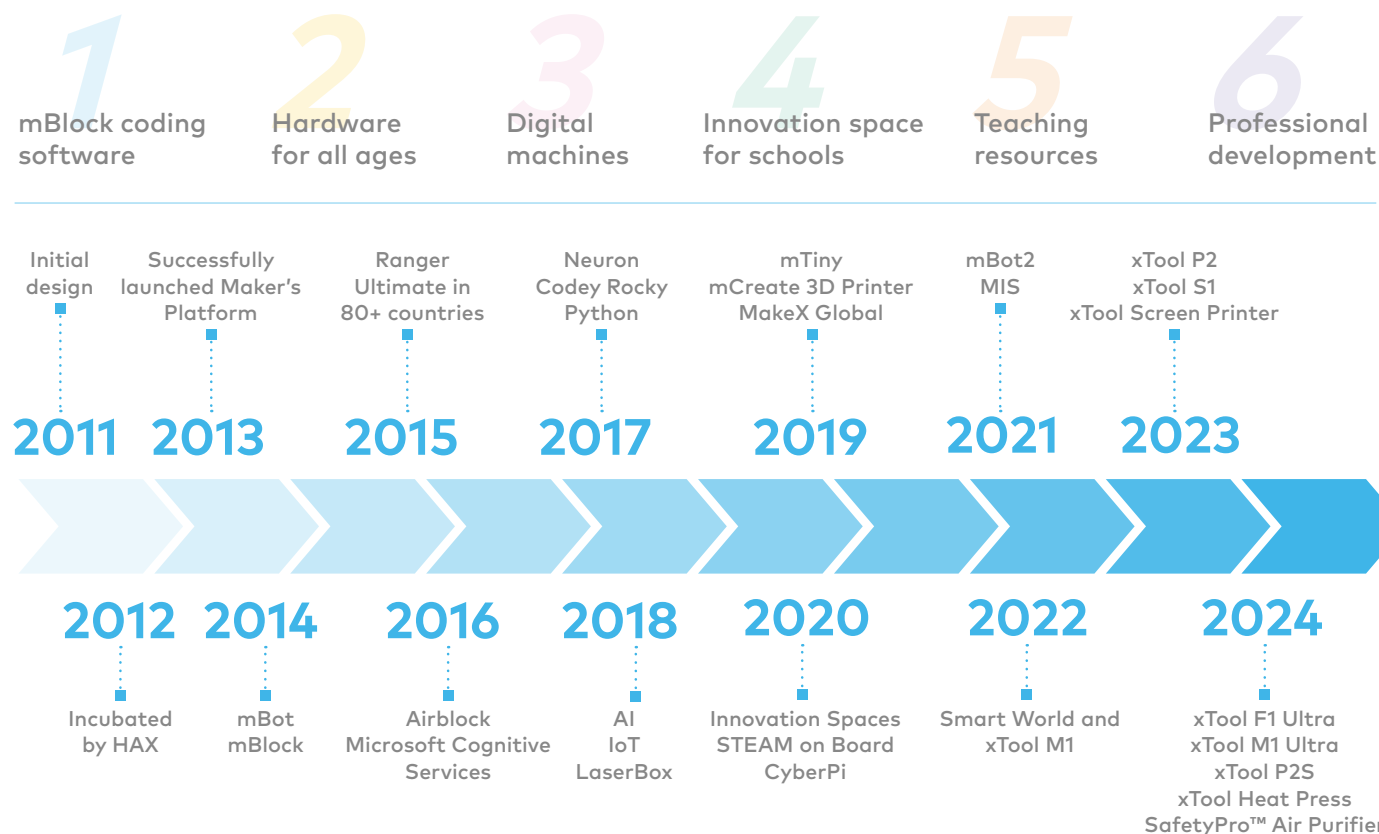
USED IN
200,000+
SCHOOLS

MAKEBLOCK EDUCATION PROVIDES
TEACHERS WITH THE TOOLS THEY
NEED TO ENABLE STUDENTS TO BE
**CREATORS, INVENTORS
AND ENTREPRENEURS**

“We are helping to stimulate students' imagination and creativity by teaching them how to control technology, rather than being controlled by it. Everyone is born with an ability to innovate, and at Makeblock Education, we aim to bring that out in every child.”

Jasen Wang
Founder and
CEO of Makeblock

WHAT WE OFFER



5Es

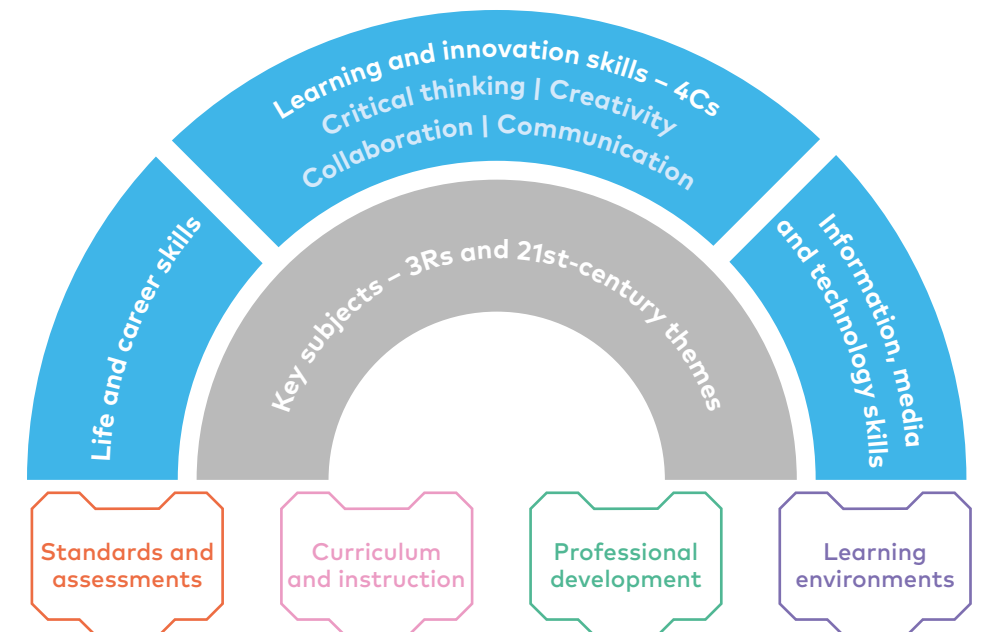
ENGAGE

EXPLORE

EXPLAIN

ELABORATE

EVALUATE



“To nurture a growth mindset in students, we need equipment that is safe, visually and haptically appealing, and stimulates creativity. Makeblock provides that from the start, and opens pathways into the most challenging domains of Science, Technology, Engineering and Maths.”

Prof. Dr. André Bresges
Director of the Institute of Physics Education
University of Cologne, Germany

OVER
30 MILLION
USERS
WORLDWIDE



10+
Years of
Innovation
Pioneer in
Innovation and
Technology for
10+ Years

210+
Countries
People from
210+ Countries
Use our
Products

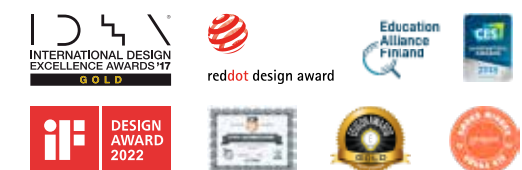
200,000
Schools
200,000+
Schools Adopts
Our Education
Solution

International Educational Accreditation

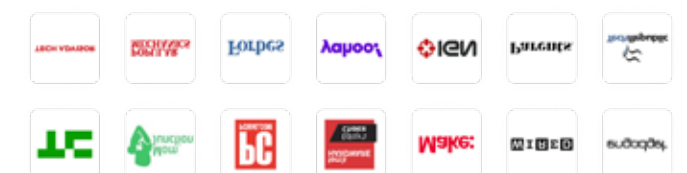
Top 10 most innovative companies in robotics

The companies on this year's list not only have great technology, but they're applying it in ways that make a difference. **FAST COMPANY 2021**

Awards and mentions



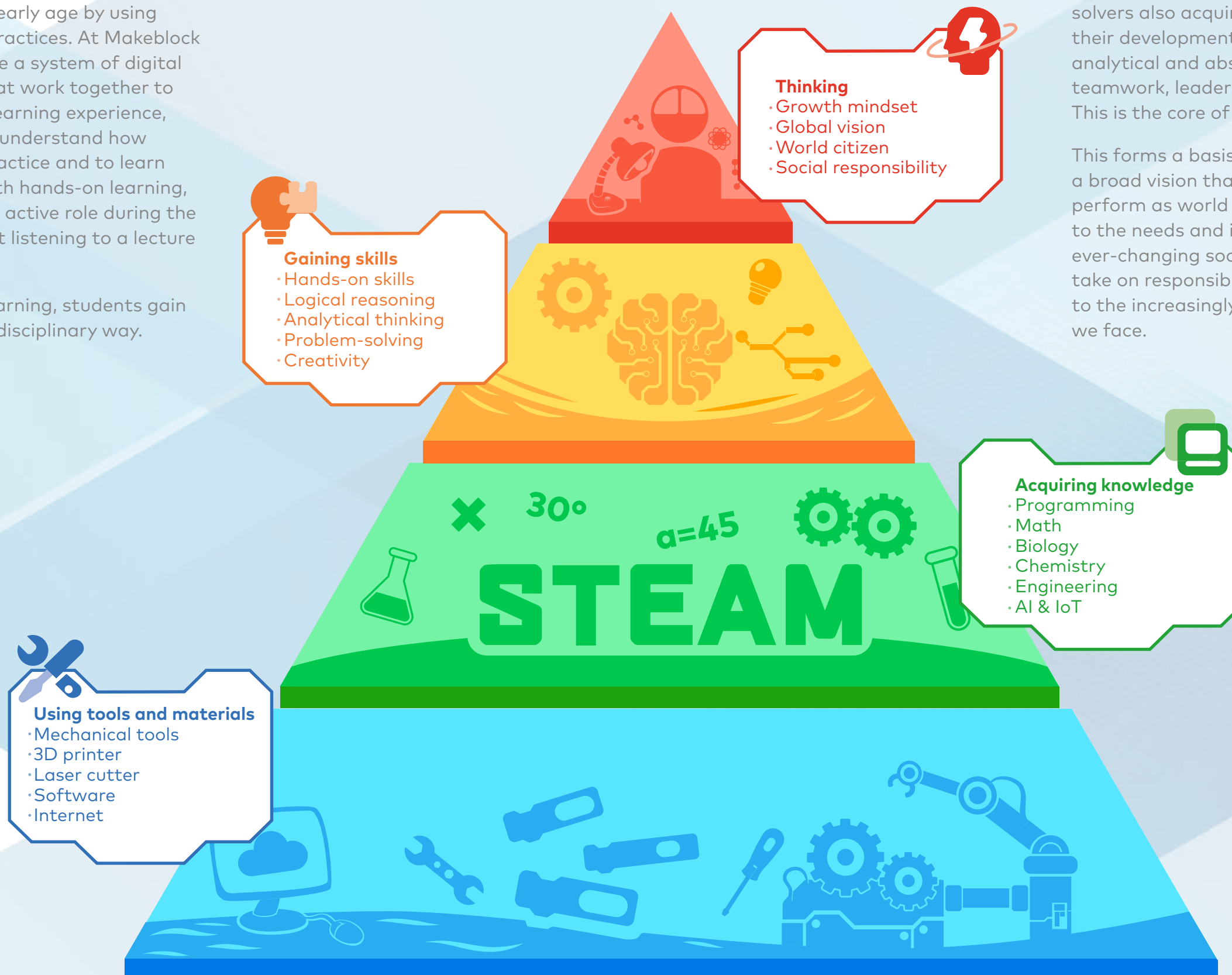
Recognition by Professionals



Our educational goal A growth mindset

A growth mindset can be introduced to students from an early age by using innovative learning practices. At Makeblock Education, we provide a system of digital and physical tools that work together to provide a hands-on learning experience, allowing students to understand how theory comes into practice and to learn by trial and error. With hands-on learning, students play a more active role during the class, rather than just listening to a lecture from the educator.

Through hands-on learning, students gain knowledge in a multidisciplinary way.



As well as knowledge, future problem-solvers also acquire skills which are crucial to their development, such as logical reasoning, analytical and abstract thinking, creativity, teamwork, leadership and communication. This is the core of STEAM education.

This forms a basis to help students acquire a broad vision that will allow them to perform as world citizens, to be sensitive to the needs and interconnections of our ever-changing society, and to be able to take on responsibility and provide solutions to the increasingly complex challenges that we face.

LEARNING CONTINUUM

At Makeblock Education, we understand that every educational level step requires different skill sets, which need to be nurtured, continually building on those steps, to taking a student to the next level of their growth path. Our solutions are interconnected, creating a continuum of learning which takes them from their very first steps into the world of STEAM, and all the way to becoming master creators of their own ideas.

Our solutions are not limited to the role of the learner, but also include the necessary support for the educator to guide the learning process. Activities and lesson plans accompany our software and hardware, which are also complemented by training and workshops, delivered by our expert educational partners around the world.

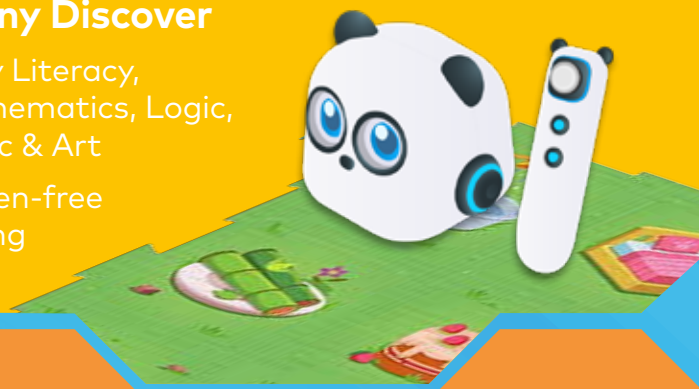
EARLY EDUCATION

Tangible

mTiny Discover

Early Literacy,
Mathematics, Logic,
Music & Art

Screen-free
coding



PRIMARY

Block-based/
microPython/Python 3

mBot2

Robotics, Coding, AI,
IoT, Data Science,
Engineering

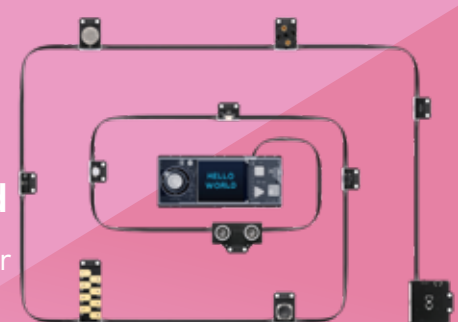


SECONDARY

Block-based /
micro python /
Python 3

CyberPi / mBuild

Electronics, Computer
Science, AI, DIY, PBL



PAIR WITH YOUR CHOSEN TECHNOLOGY:

ARDUINO PLATFORM

Coding, Engineering, Robotics Scratch, Arduino C
Compatible with: mBot/Ranger/Ultimate 2.0/Arduino
Uno/Mega



MBUILD ELECTRONICS PLATFORM

Block-based / micro python / Python 3
Electronics, Computer Science, AI, DIY, PBL



DIGITAL FABRICATION LASER CUTTERS AND ENGRAVERS

Transform the hands-on learning adventure by
equipping schools with a laser cutter & engraver to
allow everyone become creators.



Early Education Pedagogy

The Makeblock Education early learning solution utilises the basic application of coding through play, to develop curiosity, imagination, computational thinking, problem solving and cognitive abilities, as well as promoting social and emotional development. Lessons allow for the exploration of the topic in a collaborative and communicative environment.

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education



Early Education

Early education builds the foundation for lifelong learning and wellbeing, in preparation for primary education. It focuses on the social, emotional, cognitive and physical development needs of young students.



mTiny

Early Education mTiny Discover

Key features

Learning through play
Interactive
Tangible

Teaching resources

User manual
Professional development
Getting-started activities



V

mTiny is an early education robot, with a tap pen controller, which brings computer programming into children's lives. Coding cards and various interactive-themed maps guide the child through exploration, spatial perception and creativity using highly interactive, stimulating and fun group games.

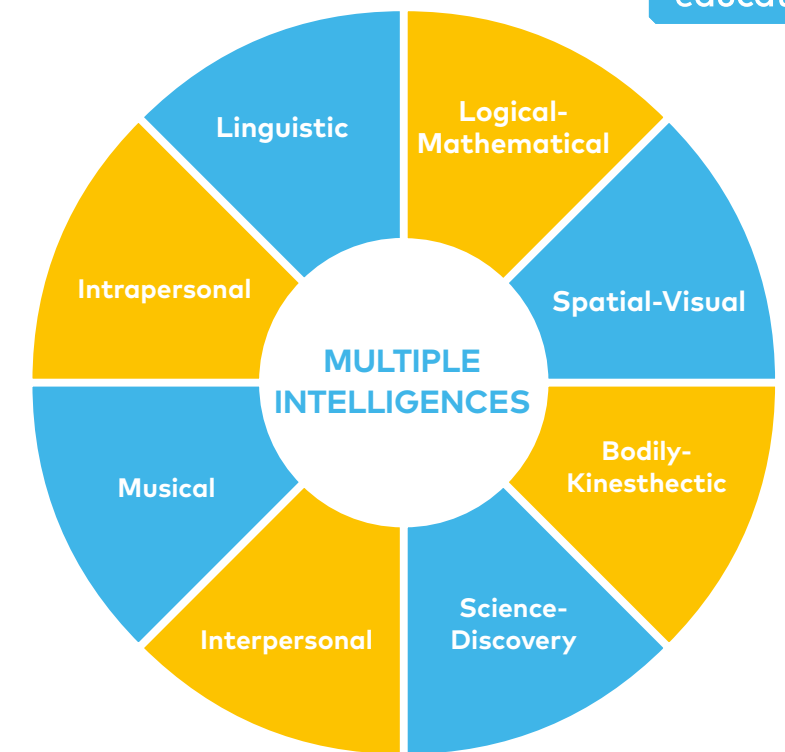
Social emotional development is one of the key development points for early years. Positive experiences in children's interactions play a big role in healthy social and emotional development.

MULTIPLE INTELLIGENCES

by Prof. Dr. Howard Gardner
Harvard University

mTiny was designed with the Theory of Multiple Intelligences in mind.

Logical thinking and problem-solving skills can be developed through interactive games that truly engage young children at the level and pace they are capable of.



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Tangible programming

Screen-free, tangible programming introduces the youngest of students to the world of programming through device-free coding cards and themed maps. Students immerse themselves in programming, creating algorithms in a step-by-step process while developing their problem-solving and computational thinking skills to solve the task and reach their goal.

Social emotional skills

mTiny is an extremely interactive educational tool for the development of social and emotional skills, which uses its diverse personality to engage with the student through sound, motion, light and very expressive eyes.

Early Education mTiny Discover

mTiny Discover Kit

Coding cards and markers included!



mTiny Discover Kit
SKU: P1030157



Markers

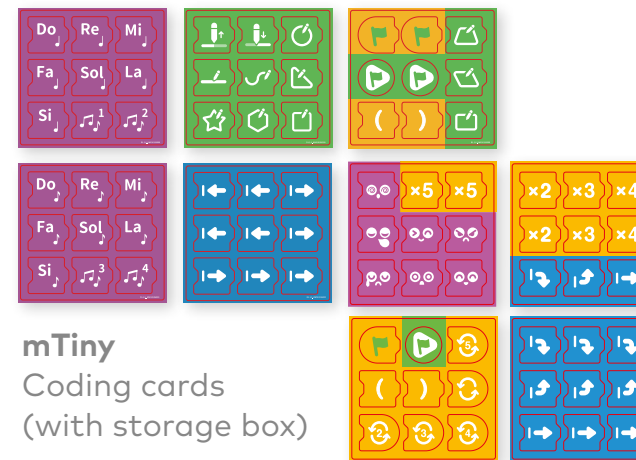


mTiny Markers
SKU: P5010086

HOW IT WORKS



Coding cards



mTiny Coding cards
(with storage box)
SKU: P1040053



Easy-peasy!

Map packs



mTiny Town & Grassland extension pack
SKU: P5010085



mTiny World & Treasure extension pack
SKU: P5010084

Makeblock Education primary school solutions are designed to build students' interest in STEAM topics, cultivating their skills through project-based learning and collaboration, enhancing their analytical problem-solving skills. Computational thinking continues to be a key element for the development of the four key skills: decomposition, pattern recognition, abstraction and algorithms.



Primary education is the first formal step in preparing students for their educational future. Students acquire key skills including literacy, numeracy and basic science, while digital, social and civic skills are also now deemed essential.



Codey Rocky

Primary Education Codey Rocky



Key features

Learning through play
Interactive
Built-in WiFi module

Teaching resources

User manual
Professional development
Getting-started activities

THE CODING COMPANION

Codey Rocky is the robot that makes learning computer science, technology and 21st-century skills easy.

Start programming right out of the box – no building required. Codey Rocky supports block-based and Python programming as well as cutting-edge technologies such as Artificial Intelligence and the Internet of Things.

Computational thinking continues to be a key element, with integration of the four key skills: decomposition, pattern recognition, abstraction and algorithms.

Codey Rocky Single Pack

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education

Codey Rocky
SKU: P1030243



Learn coding

Ideal beginners' robot with a strong focus on programming and computer science.

Powerful and smart

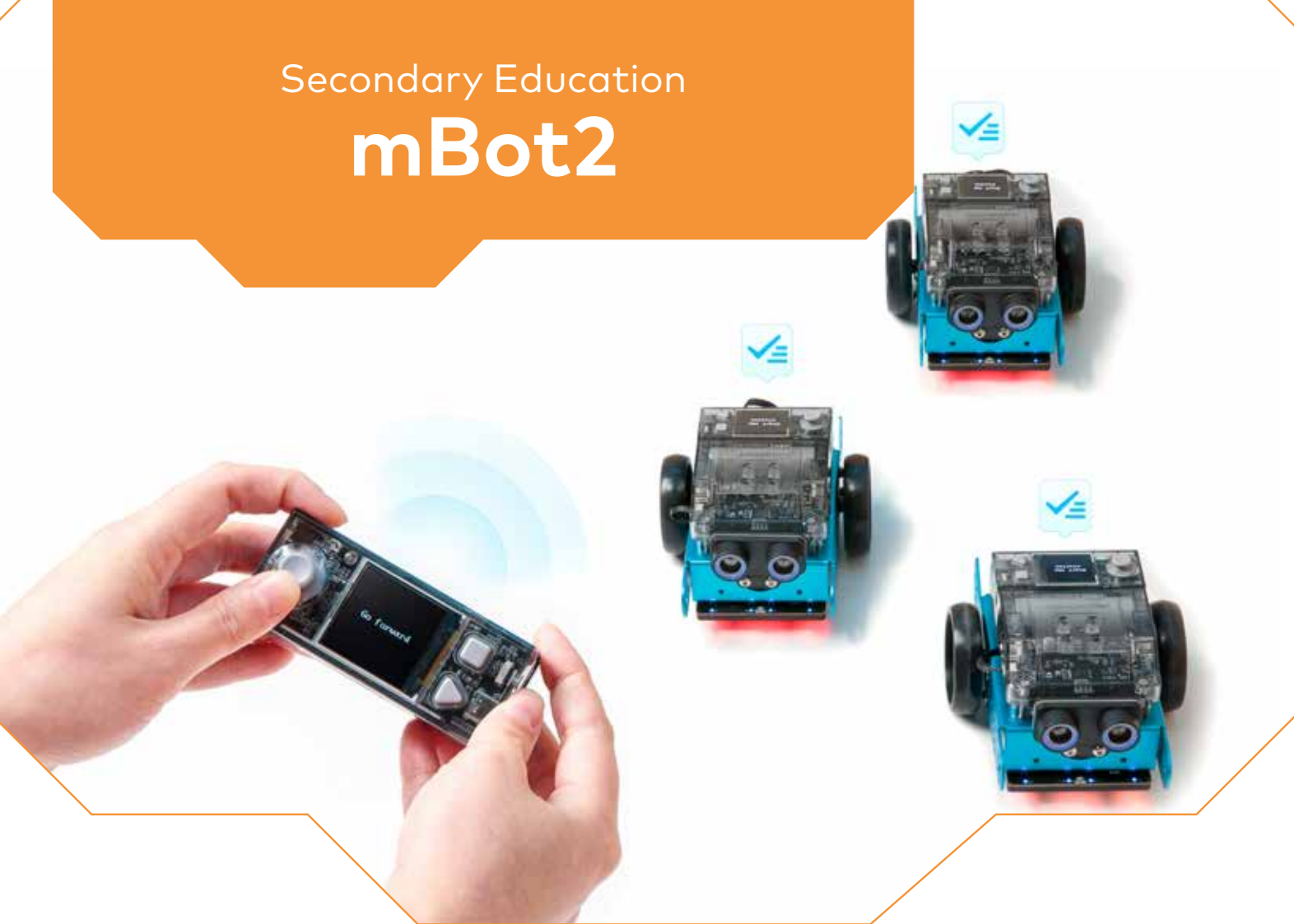
Small robot with an array of built-in sensors and hardware, including infrared, Bluetooth and WiFi connectivity.

First exploration into AI technology

Practice and teach with cutting-edge technology, such as Artificial Intelligence, Internet of Things and Data science.



Secondary Education mBot2



Teaching resources

User manual
Professional development
Getting-started activities



NETWORKABLE EDUCATIONAL ROBOT FOR COMPUTER SCIENCE AND STEAM EDUCATION

mBot2 is a next-generation educational robot designed for secondary education, offering a low entry level but extending to a higher educational ceiling.

It is powered by CyberPi, an educational microcontroller with enhancements such as networking capabilities, precise control and much more.

mBot2 is designed for students to carry out interactive and smart lessons that are engaging, fun and reflect real-world applications with cutting-edge technologies, including robotics, AI, IoT and Data Science.

With mBlock's enhanced coding learning experience, mBot2 allows students and educators to begin with the block-based coding approach, then seamlessly transition into object-oriented coding with Python, all in the same environment.

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mBot2 shield with battery

CyberPi

Aluminium chassis

Ultrasonic
Sensor 2

Encoder motors

Quad colour sensor

Powered by CyberPi

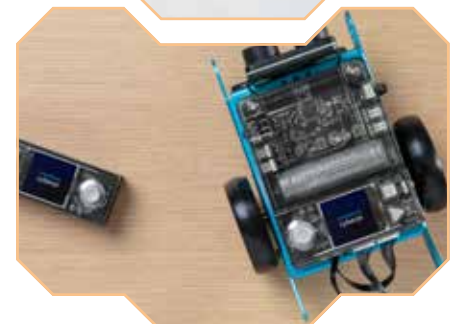
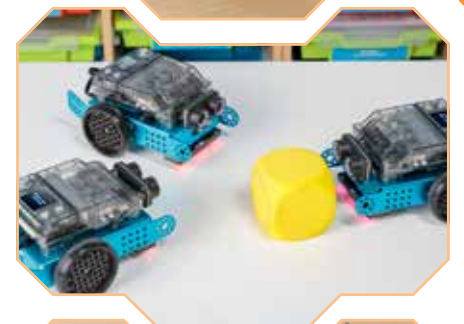
CyberPi is a powerful and versatile microcontroller for education. Its integrated sensors, full-colour display and Wi-Fi communication capability create a broad coverage of curriculum topics in Computer Science, Robotics, Data Science and Artificial Intelligence, as well as other areas of the curriculum – Mathematics, Physics, etc.

Precision control

The encoder motors on mBot2 can be precisely controlled by their rotation, speed and position, making possible the integration of conceptual Mathematics, Physics and Engineering.

Enhanced modules

mBot2 comes with next-generation Ultrasonic, with illumination, and Quad RGB sensors to detect colours while following lines on four spots at the same time, offering extremely accurate performance and consistency. It can be further expanded with Makeblock Education's wide variety of mBuild smart electronic modules and structural parts.



mBot2

Secondary Education mBot2

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mBot2 networkable robot



mBot2
SKU: P1010132



Go Wireless Ideal for computers



Wireless Dongle
SKU: P5010002



Smart Camera
SKU: P1100022

makeblock
education

mBot2 Educational Kit



Pack and Go

mBot2 Educational Kit
SKU: P1050027

What's included

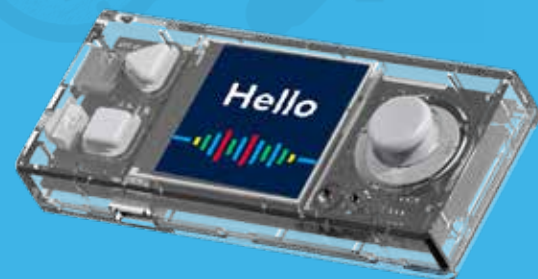


mBot2

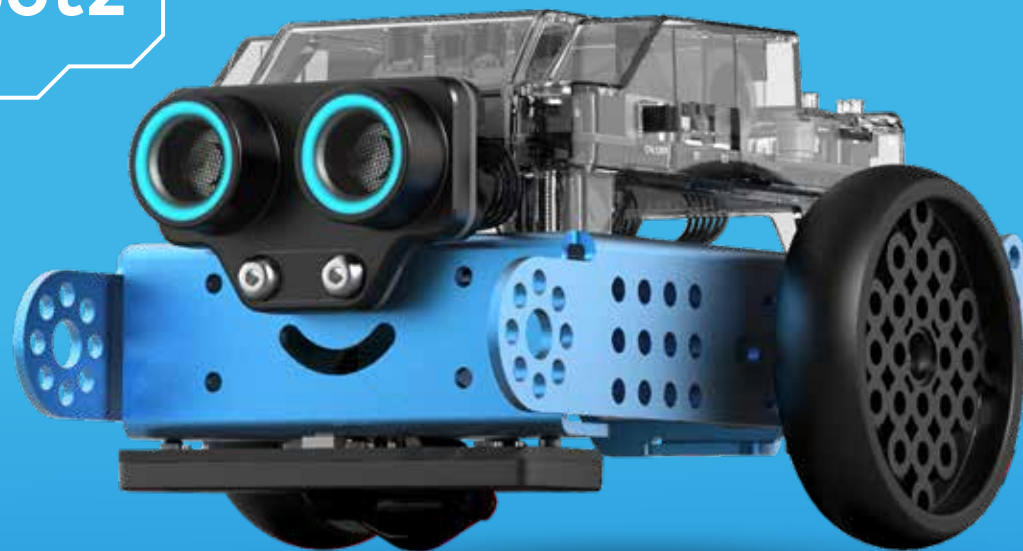
Loved by
1,500,000
users



mBot
is ready for
a new journey...



Meet
mBot2



The networkable robot for Computer Science
and STEAM Education

mBot2 is a next-generation educational robot designed with extended capabilities, starting as an entry-level solution in lower secondary education and going all the way to upper secondary and beyond.

Comparison between mBot and mBot2

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education

Product		
Product specifications	mBot v1.1	mBot2
Main control	mCore	CyberPi
Processor	ATmega328/P	ESP32-WROVER-B
Clock speed	20MHz	240MHz
ROM	1KB	448KB
Wireless communication	Bluetooth or 2.4G IR broadcast	Bluetooth + Wi-Fi, Wi-Fi LAN
Input	Button, reset button	5-way joystick, button × 2, reset button
On-board sensors	Light sensor	Light sensor, microphone, gyroscope, accelerometer
Output	Buzzer, RGB LED × 2	1.44" full colour display, speaker, RGB LED × 5
Support multithreading	No	Yes
Number of programmes stored	1	8+
Coding	block-based, Arduino C	block-based, microPython + Python3
Encoder motor interface	0	2
DC motor interface	2	2
Digital servo interface	0	4
Battery	Excluded	Included LiPo rechargeable
Rotating speed	47~118RPM±10%	1~207RPM
Precision of rotation	/	≤5°
Sensitivity	/	1°
Output shaft material	Plastic	Metal
Turn corners	/	Accurate turning
Move straight forward	Only the command "move forward for xx secs" is available	≤2% deviation, the command "move forward xx mm" is available

mBlock 5 editor Block-based



BLOCK-BASED PROGRAMMING

Designed explicitly to help students understand the key concepts of programming, mBlock allows learners to drag and drop code blocks, making programming as intuitive and straightforward as playing with building blocks.



mBlock 5

All-in-one coding platform tailored to education

Our resourceful coding platform based on Scratch 3.0 is specially designed for learning coding, robotics, and STEAM. By supporting block-based and Python programming languages, mBlock 5 allows users, for instance, to create games and animations freely, and to program Makeblock's electronics and robots and other open-source hardware. This software features cutting-edge technologies such as AI and IoT, making it the perfect coding software for students, educators, and makers.

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mBlock 5 Highlights



Block-based programming

Scratch is a programming tool MIT developed and credited as the most globally influential programming language for children. Based on Scratch 3.0, mBlock 5 is designed as versatile and user-friendly as Scratch 3.0. Besides, mBlock 5 offers more possibilities with features like Python coding, AI, and IoT.



One-click switch to Python

Text-based coding is a natural progression for users already versed in block-based coding. With mBlock 5, users can easily switch to Python coding with only one click-no need to change or switch between different software. The transition of different coding languages is seamless.

Gamified Coding

Transform complex coding concepts into captivating adventures, where every step is a rewarding discovery.



Introduce AI into coding learning

mBlock 5 integrates Microsoft cognitive services and Google deep learning into one tool. These functions can help children to learn more, such as guessing or playing rock-paper-scissors games. Learners will master cutting-edge technology and knowledge in a fast and easy way.



mBlock

Secondary Education Pedagogy

Makeblock Education secondary school solutions are designed to develop students' higher-order thinking and coding skills. They include well-equipped teaching resources and elaborate programming projects, as well as fostering the development of critical thinking and problem solving. Students are encouraged to assume the role of innovators and entrepreneurs. The range of products is ideal for hands-on-project and inquiry-based learning with a natural progression into complex science and technology topics.

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Secondary education is responsible for further developing students' interests and personal traits, such as good learning habits, their cognitive abilities and healthy social-emotional competences. It prepares students to be independent in their future careers and helps them plan accordingly.



CyberPi

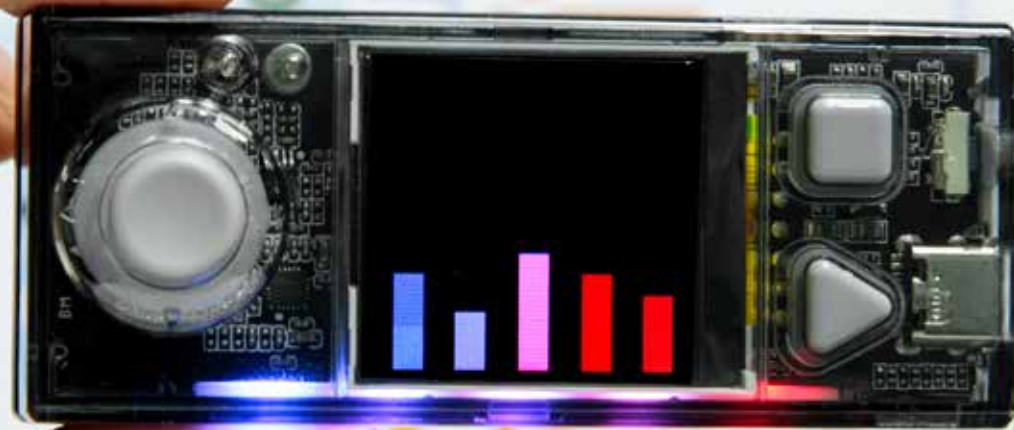


mBot2



mBuild

Secondary Education CyberPi



Teaching resources

User manual
Professional development
Getting-started activities

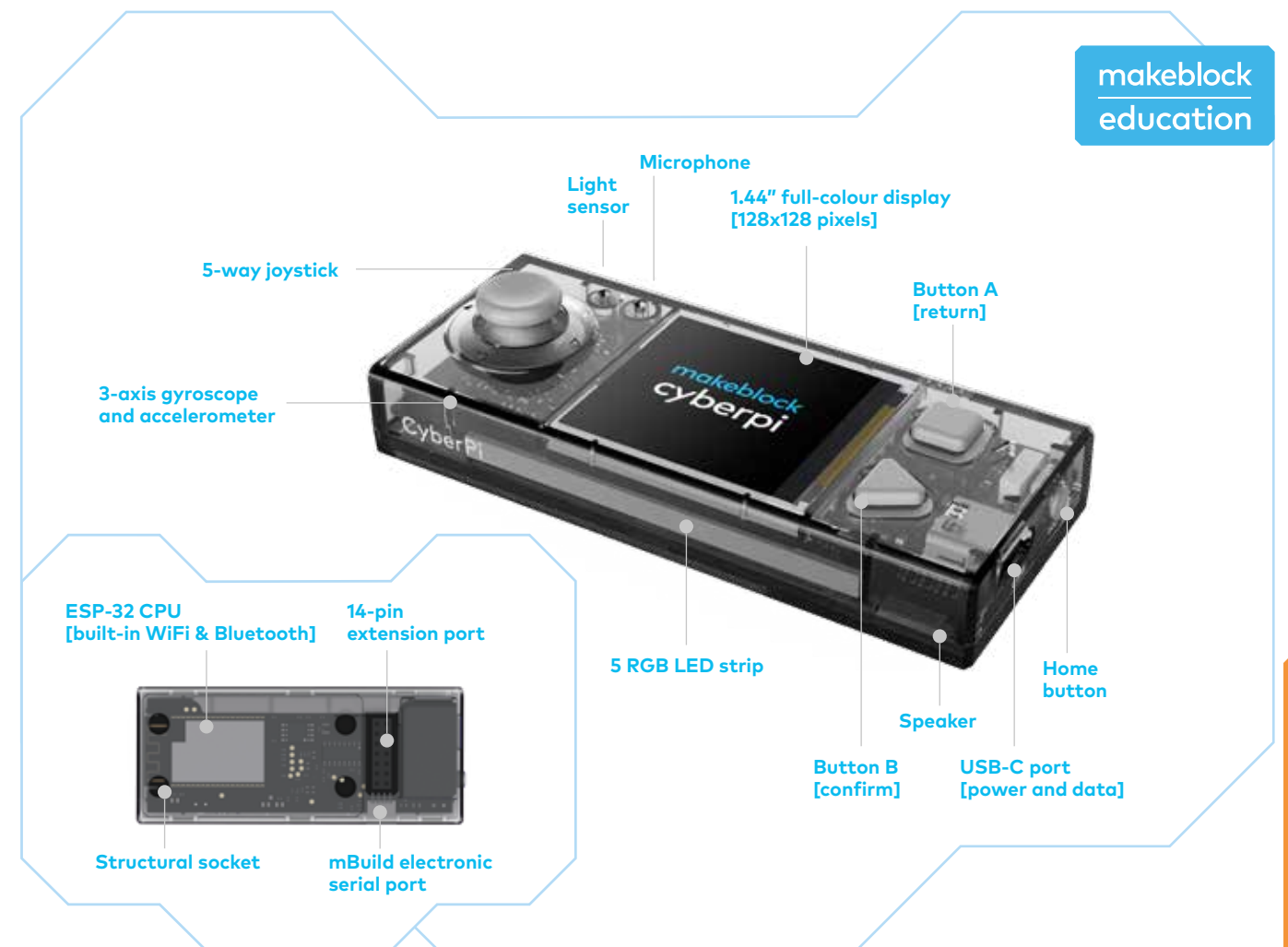


NETWORKABLE MICROCONTROLLER for COMPUTER SCIENCE and AI EDUCATION

Designed for every student to learn about computer science and STEAM Education, CyberPi is a single-board computer fully packed with advanced electronic sensors, actuators and communication modules.

- High-performance dual-core CPU
- Built-in WiFi module for both local and Internet use
- Full-colour LCD display for illustration
- High-precision 3-axis motion sensor
- Open-source
- Extendable with mBuild platform, Arduino and others

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Learn coding

Combined with mBlock 5, CyberPi provides an integrated solution for teaching with both hardware and software. It also allows educators to teach multiple coding languages, from block-based programming to microPython and Python 3.

Powerful and compact

As a powerful single board computer, CyberPi can be used to teach a variety of subjects, including AI, data science, networks and IoT. Motion sensors, joystick, full-colour display and many more modules are combined together with WiFi connectivity in a compact design.

Flexible

CyberPi, together with its Pocket Shield, is compatible with mBuild modules and many third-party electronic components (Arduino sensors, servos, DC motors, etc.), making it suitable for various classroom settings and teaching scenarios.



CyberPi

Secondary Education mBuild platform

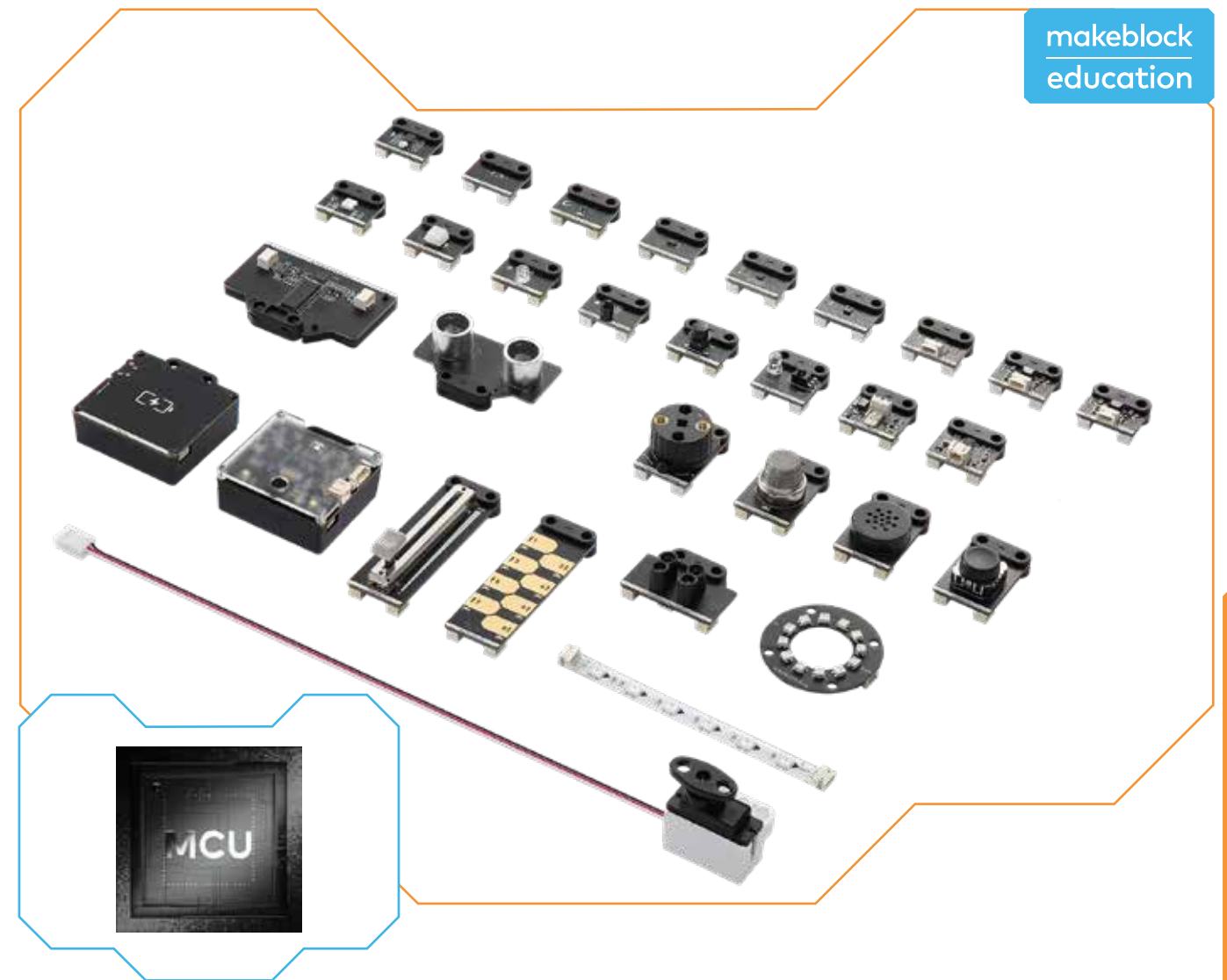


NEXT-GENERATION SMART ELECTRONIC MODULE PLATFORM

mBuild is a next-generation platform of electronic modules for computer science and technology education and creation.

- 60+ electronic modules
- Compatible with CyberPi and Halocode
- High-quality smart sensors
- Programmable modules with preset functions
- Easy-to-connect and chain modules
- Easy-to-mount sockets

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Smart and powerful

A built-in microcontroller unit (MCU) in every module allows it to connect easily and without the need of complex circuitry. It can even perform simple operations in an offline mode.

Easy to use

Up to 10 different modules can be connected in series without affecting the performance of the system.

Their structural design makes it easy to mount them.



mBuild platform

mBlock 5 editor Block-based



BLOCK-BASED PROGRAMMING

Designed specifically to help students understand the key concepts of programming, mBlock allows learners to drag and drop code blocks, making programming as intuitive and straightforward as playing with building blocks.



Scan the QR code to visit the mBlock website



mblock.makeblock.com



BLOCK-BASED CODING with CyberPi

Seamless transition from block-based programming to microPython encourages students to learn high-level, object-oriented languages.

After grasping block-based programming, mBlock offers the ability to convert to microPython with just one click. Learners can see the relationship between the two languages, view changes in real time and enable a smooth transition from blocks to microPython programming.

When using CyberPi and its Pocket Shield, it can be connected and programmed with various components, including mBuild platform, Arduino sensors, DC motors, servos and LED strips.

mBlock 5 editor Python

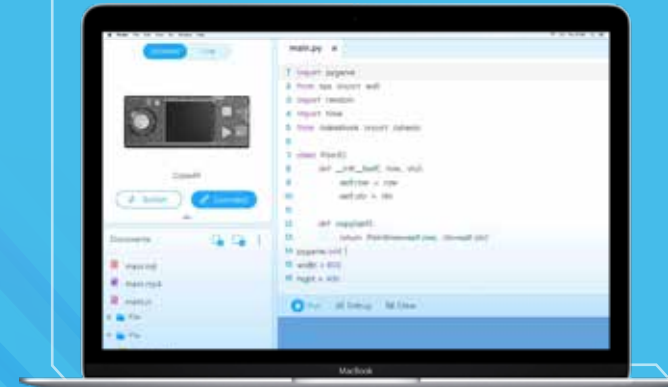
makeblock
education

PYTHON 3 PROGRAMMING



Explore the powerful Python 3 programming language in AI, IoT and Data Science, becoming a true problem-solver and independent thinker.

When ready to programme solely using a text-based language, the mBlock Python editor offers a feature-rich environment for students to gain familiarity with programming in Python.



PYTHON 3 + CyberPi

mBlock 5 Python editor offers a great experience to enable Python programming on CyberPi. The Python editor offers full Python 3 experience and includes CyberPi as a library to be programmed with numerous other libraries offered by the Python community, including AI library TensorFlow and graphic library TurtleDraw.



mBlock SOFTWARE COMPARISON

FEATURES	Block-based (upload/live mode)	Micro-Python (upload mode)	Python3 (live mode)
Platform compatibility	Windows, OSX, Linux, Chromebook, Web	Windows, OSX, Linux, Chromebook, Web	Windows, OSX, Linux, Web
mBlock 5 – block-based editor	Yes	Yes	-
mBlock 5 – Python editor	-	Yes	Yes
mLink for web	Yes	Yes	Yes
Third-party libraries	mBlock extensions	CyberPi extensions	Python libraries
CyberPi	Upload and live modes	Yes	Yes

Smart World add-on

New robot forms allow students to work on new activities

Each of the three robot forms is accompanied by building instructions and a learning activity related to the Smart World concept.

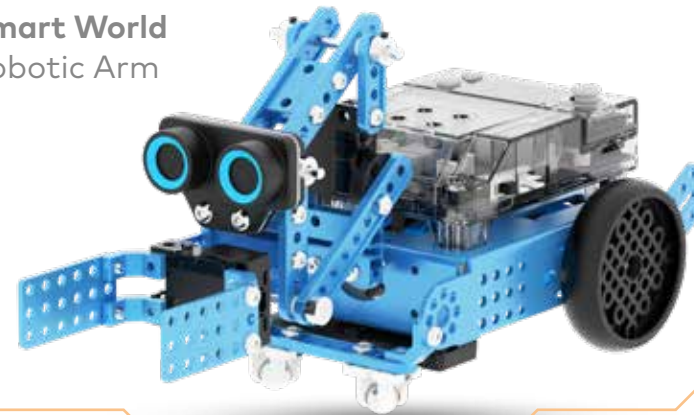
Smart World Robotic Carrier



Smart World Surveying Robot



Smart World Robotic Arm



Educator support

Classroom challenges
User manual
Professional development

CREATE INNOVATIVE DESIGNS WITH MBOT2 AND MAKE A BETTER WORLD!

The new add-on pack for mBot2 allows students to work on new activities inspired by real-world applications. We call this Smart World.

Smart World is an educational concept that brings real-life applications into the classroom by considering important areas of life where technology can become an enabler for the United Nations Sustainable Development Goals.

Students can transform mBot2 into three different forms, to tackle three different challenges of a real-world scenario in the classroom.

Rover Robotics add-on

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Smart Emoji Powered by AI



mBot2 Rover

Ture Personality and Full of Curiosity



Max. Climbing Angle 40°



Bluetooth Control



Voice Control



Rich DIY Activities



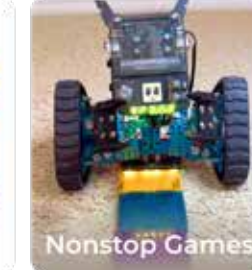
Block-based Programming



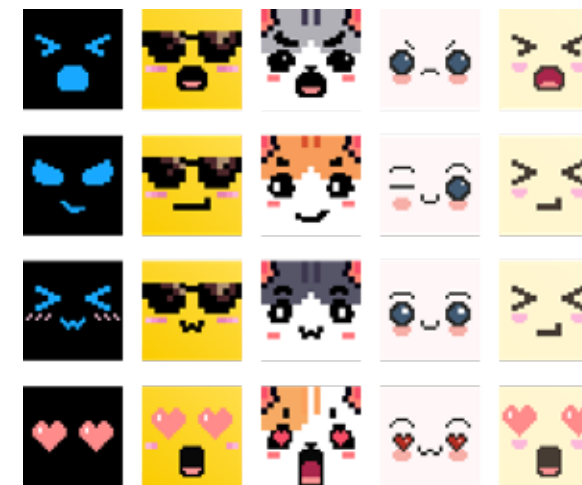
Versatile Terrains



Nonstop Games



AI-Generated Images and Customizable Emojis



Emo Robot



Indoors or Out, Rover's Fun is All About



Strong power



Precise motor



Shock absorbers

Secondary Education CyberPi

CyberPi
Go Kit
SKU: P1030156

CyberPi Go Kit



**CyberPi Project-
Based Coding Kit**
SKU: P1030478



Smart Trash Bin



Oscillating Fan



Auto-Driving Car



Secondary Education Smart World add-on

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**Smart World
add-on for mBot2**



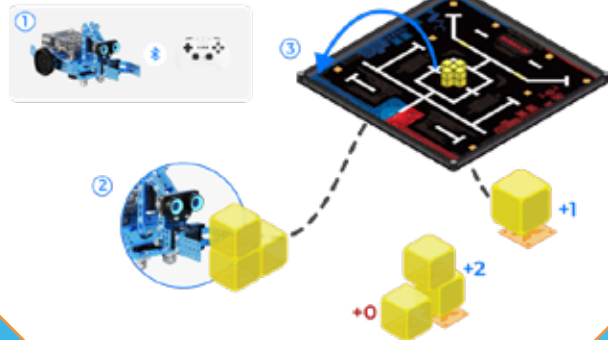
**Smart World
add-on for mBot2**
SKU: P1020008



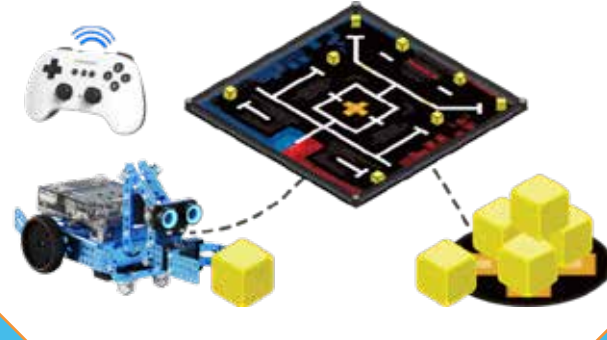
CyberPi & mBot2 add-on

mBot2 Inspire Activity Mat

mBot2 Inspire
Activity Mat
SKU: P1090047



Sorting Cubes



Gathering Cubes



Piling Up Cubes



Placing Cubes Accurately



Moving Cubes Automatically

mBot2 Rover Robotics Add-on

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education

Rover Robotics Add-on
for mBot2
SKU: P1020014



mBot2 add-ons

Secondary Education mBuild platform

Preset bundles



**AI & IoT
Creator Add-on Pack**
SKU: P1020006

**AI & IoT
Creator Add-on Pack**



**AI & IoT
Scientist Add-on Pack**
SKU: P1020005

**AI & IoT
Scientist Add-on Pack**



**AI & IoT
Education Toolkit Add-on Pack**
SKU: P1020007

**AI & IoT
Education Toolkit
Add-on Pack**

Secondary Education mBuild platform

30+ modules for customizable set

makeblock
education

**mBuild Science Sensor
(5Pcs)**
SKU: P3030039



mBuild Temperature Sensor (5Pcs)
SKU: P3030037



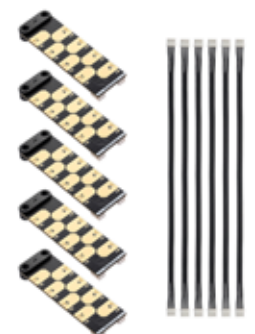
mBuild Humidity Sensor (5Pcs)
SKU: P3030029



mBuild MQ2 Gas Sensor (5Pcs)
SKU: P3030025



**mBuild Multi-touch Sensor
(5Pcs)**
SKU: P3030026



mBuild platform

xTool | Education Overview



STEAM Education



Maker Education



Art & Craft



CTE Programs



Design Thinking



Customizations

xTool | Education Why xTool

makeblock
education



Safe products as priority

Experience a safe and enjoyable classroom with xTool, providing enhanced safety measures for a worry-free learning environment.



One-stop solution for different needs

xTool offers laser engravers, curriculum, engaging projects and free software that turns sketches into tangible objects instantly and inspires your classroom.



Empowering Classrooms with Free Software

With free software and Lightburn compatibility, xTool satisfies all your teaching needs from start to advance, from phone to laptop.



Rich Education Resources

We offer educators an abundance of valuable resources through our professional lessons, diverse tutorials, and captivating projects.



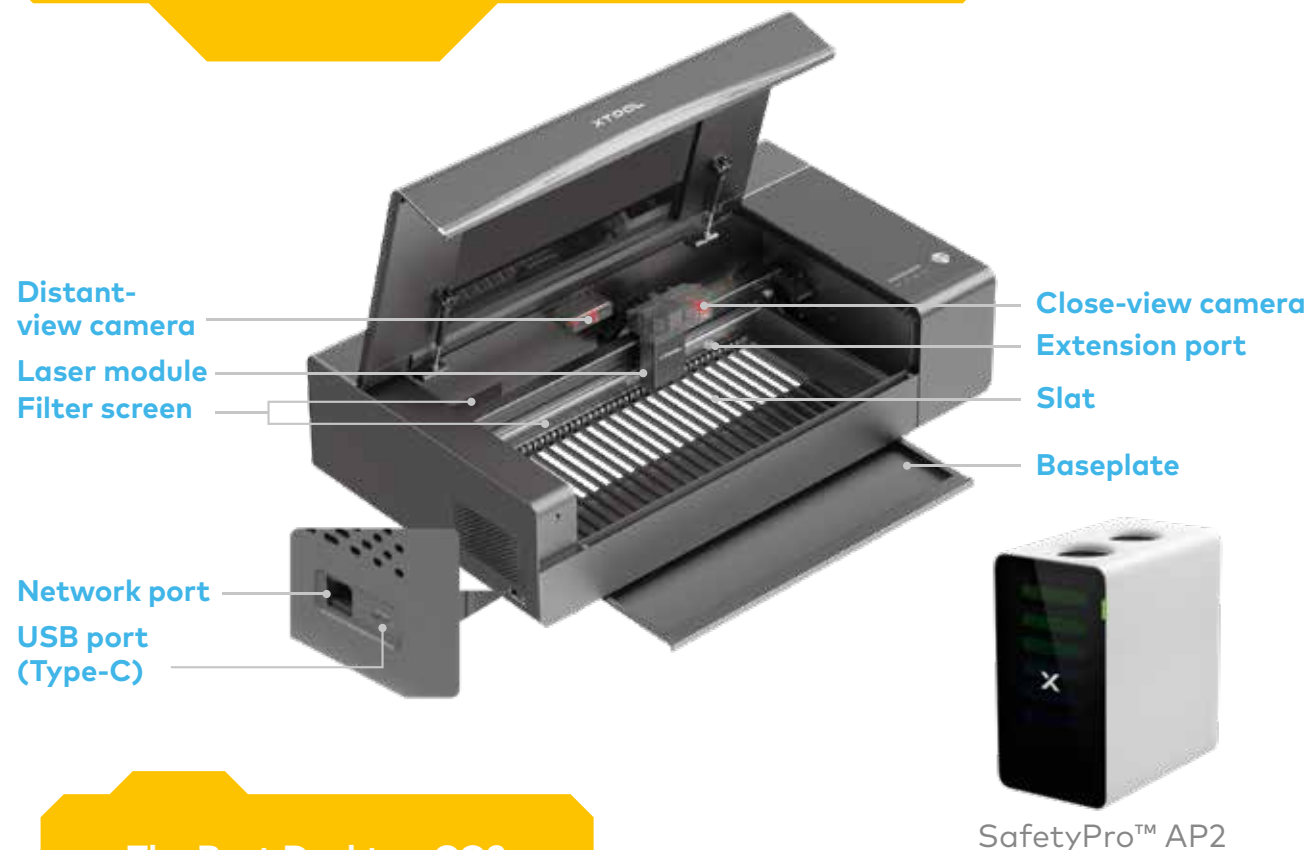
Endless Possibilities with More Materials and Tools

Discover xTool's limitless potential as it seamlessly adapts to any material like acrylic, jewelry, plywood, vinyl and more!



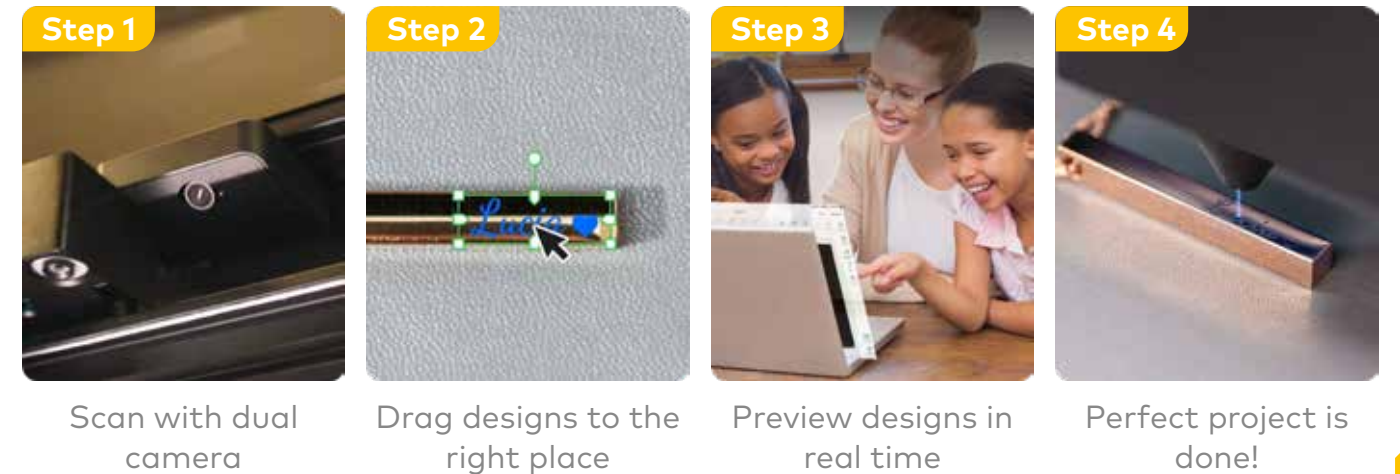
More than Laser

Experience the transformative potential of xTool and robotics kit, enabling teachers and students to master design, coding, and engineering concurrently.



The Best Desktop CO2
Laser Cutter & Engraver

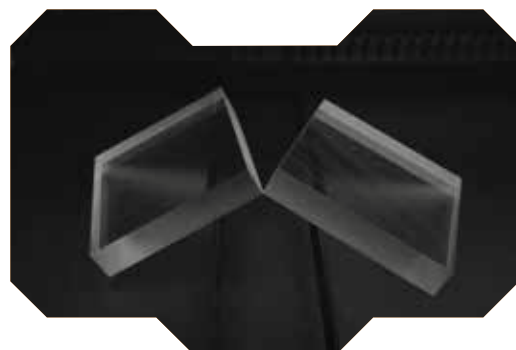
Create Masterpiece with Ease



Classroom-ready Software for Free

From editing to processing, experience a seamless, efficient workflow with xTool Creative Space (XCS) whether you and your students are using a PC, iPad, or mobile.

Efficient Classroom Cutting from Every Aspect



Superb Cutting Ability

xTool P2S can cut 18mm black walnut and 20mm acrylic in one pass. Getting students what they want at one click, and keeping them engaged has never been easier.

55 w
Laser power

20 mm
Acrylic in one pass



Higher Working Speed

xTool P2S can cut 3mm basswood at the speed of 35mm/s, which is 6 times faster than a 20W diode laser. Even with only one P2S, every student can enjoy laser cutting in the classroom.

600 mm/s
Max engraving speed

Endless Possibilities with Hundreds of Materials



Wood

Metal

Acrylic

Leather

xTool | Education F1 Ultra

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education



World's First 20W Fiber
& 20W Diode Dual Laser

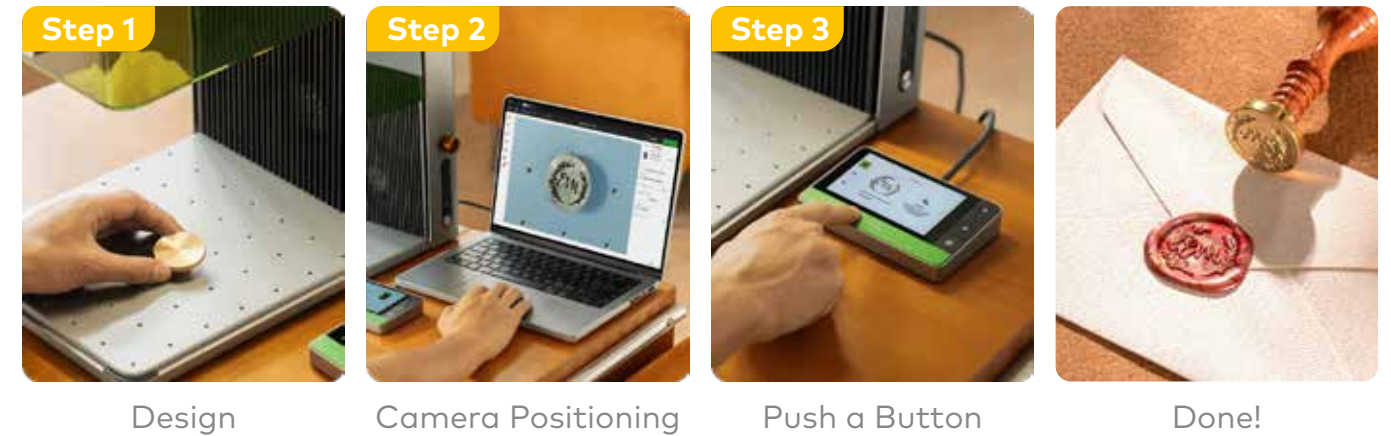


Push productivity fo factory-level
10000mm/s: Record-breaking Speed on Almost All Materials

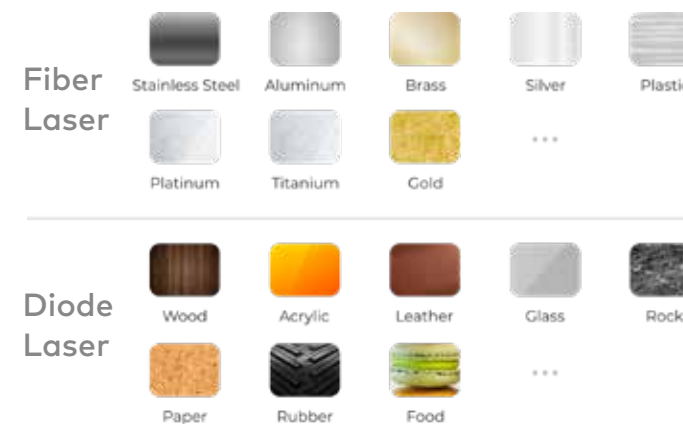


Create Smarter, Easier
Bring your vision to life with generative AI, with just a few words, AI can generate laser-ready designs, offering over 10 style options.

Create like a Pro in Just 3 Steps!

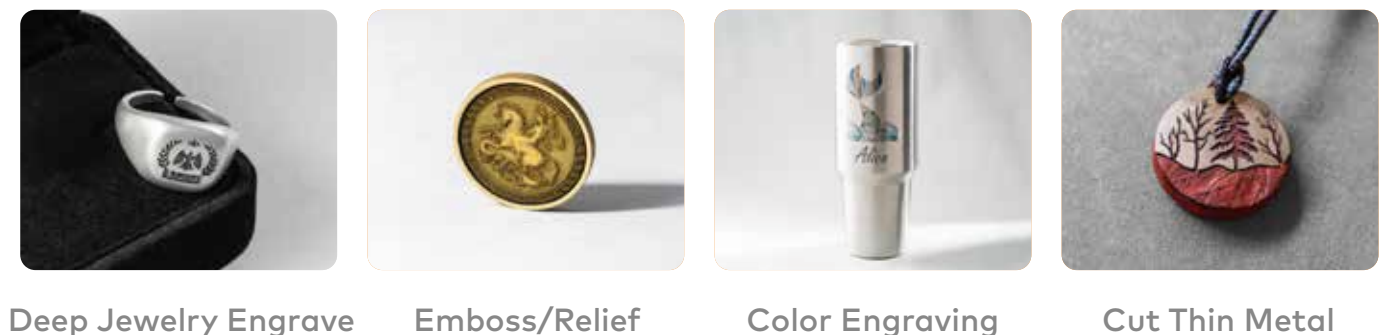


Work on Almost All Materials



xTool F1 Ultra

20W Power Beast: powerful for deep engraving, embossing, and cutting



xTool | Education S1 & Screen Printer



Reinventing a basic technique for the arts and crafts



Printmaking Course



Textile Design Course



Fashion Design



Graphic Design

Why Choose xTool S1 Laser Screen Printer?

Easier & Faster
Set Up Cut Days
to Hours



1-3 hours
Solution with Laser

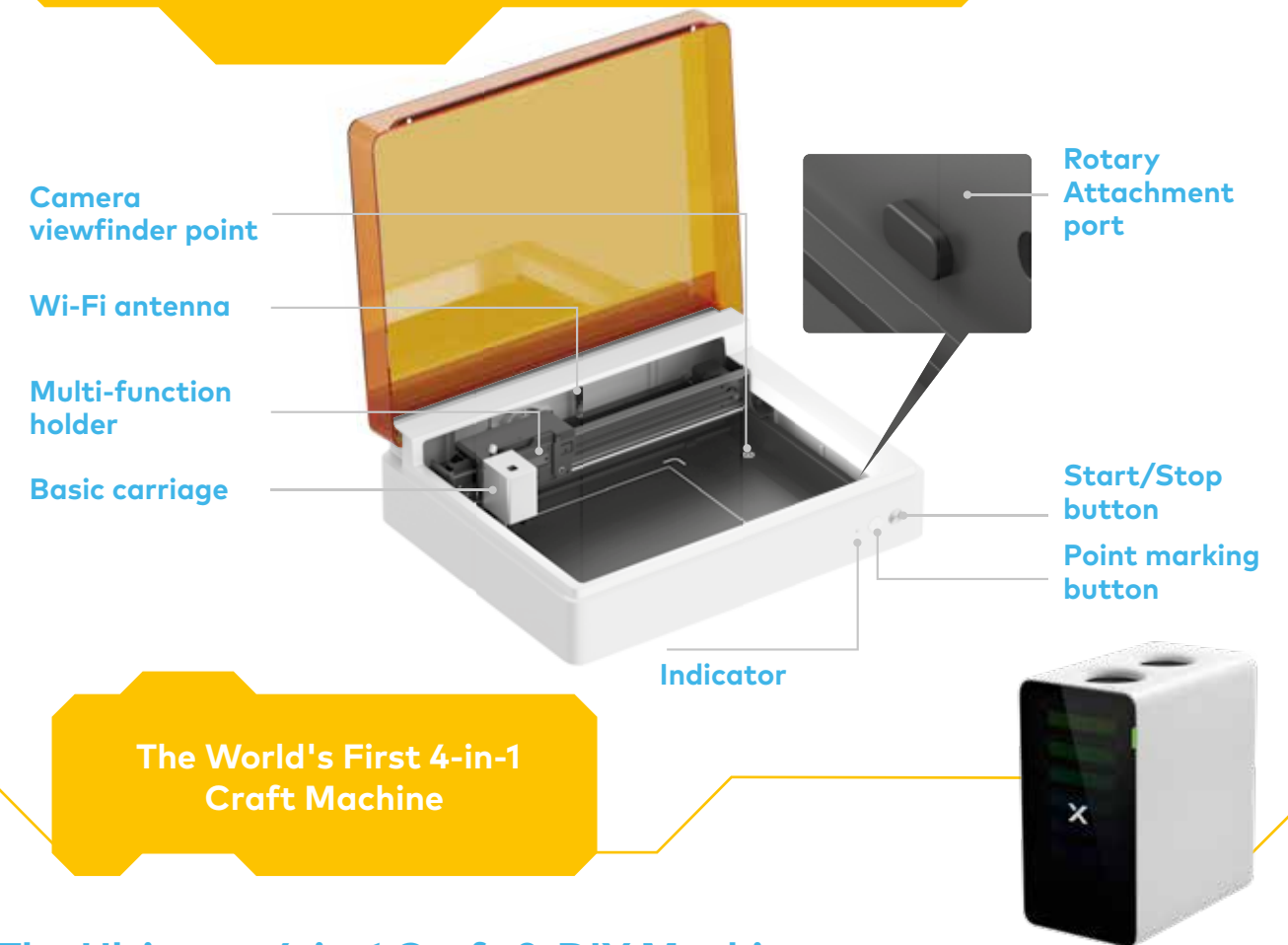
vs



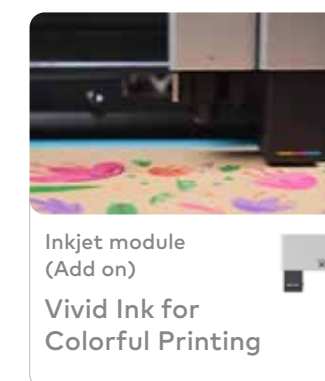
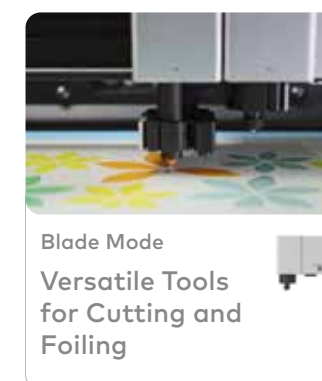
24-48 hours
Traditional Approach

xTool | Education M1 Ultra

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education



The Ultimate 4-in-1 Craft & DIY Machine



Why Choose An All-in-one Machine?

- Flexible crafting options.
- Maximize your space.
- No need to switch between devices for different tasks or software.
- The M1 Ultra delivers efficiency and precision for all your crafting needs.

xTool M1 Ultra

xTool | Education M1



The World's First 2-in-1 Crafting Making Machine



Enclosed Design for School Use

Adding safety features to its enclosed design, xTool M1 is ready for school entertainment.



Pre-assembled, Directly Use

Open the package, plug the charger and play. No more complex installations



User-friendly Software

Free project files and tutorials

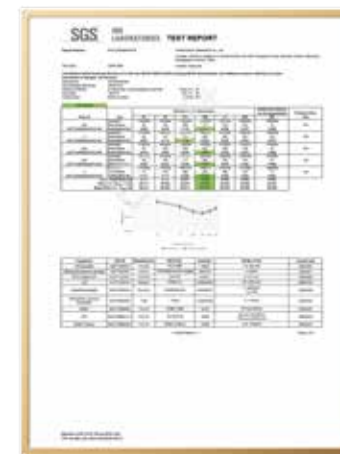
xTool | Education SafetyPro™ AP2

makeblock
education



Unrivalled dust and odor removal, engineered for all laser users

xTool SafetyPro™ AP2



Authority Tested, Pure Air Guaranteed

SGS approved, setting a new standard for laser purifiers, enjoying fresh air anytime

99.99%
PM2.5 Removal

99.97%
0.3µm Dust Removal

Odor-free%
cutting acrylic

99.99%
TVOC Removal

99.97%
Toluene Removal

xTool | Education
P2S

**xTool P2S
All-In-One Bundle**



P2S



Rotary Attachment 2 Pro



SafetyPro™ AP2



Auto Conveyor Feeder



Riser Base



Fire Safety Set



P2S Laser Material Education Package



Honeycomb Panel

xTool | Education
F1 Ultra

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**xTool F1 Ultra
Deluxe Bundle**



F1 Ultra



Rotary Attachment 2 Pro



SafetyPro™ AP2



F1 Ultra Conveyor



F1 Ultra Laser Material Kit

xTool P2S | xTool F1 Ultra

xTool | Education

S1 & Screen Printer

xTool S1 & Screen Printer
Education Bundle



S1 20W/40W Diode Laser Engraver



SafetyPro™ AP2



Screen Printer Multi-Colored Kit



Rotary Attachment 2 Pro



Fire Safety Set



Honeycomb Panel



Smart Air Assist

xTool | Education

M1 Ultra

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xTool M1 Ultra
All-In-One Bundle



M1 Ultra 20W



Smart Air Assist



SafetyPro™ AP2



Ink Module



Rotary Attachment 2 Pro



Blade Tools*4



Riser Base Kit



Fire Safety Set



Pens

xTool M1 Ultra

xTool M1
Education Bundle



M1 10W



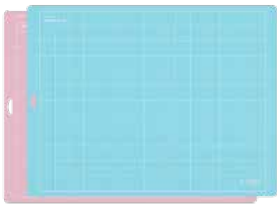
45° Replacement Blade *5



Basic Material Package *1



Exhaust Pipe Kit *1



Adhesive Cutting Mat*2

PRODUCT SPECIFICATION & COMPARISON

Product				
Product Name	P2S	S1	M1 Ultra	F1 Ultra
Key Features	• Automatic passthrough • Curved surface engraving • Powerful built-in air pump and efficient smoke exhaust fan	• Class 1 laser safety • 3D Curve™ Engraving • Autofocus	• Laser, blade, pen, and inkjet all in one • Seamless multitasking in one go • Easy-to-use software with smart AI	• Fiber & diode dual laser supports almost all materials • Smart Camera with Auto Streamline Production • 10000mm/s speed with multiple safety features
Class 1 Laser safety rating	Yes	Yes	Yes	Yes
Laser type	CO2 Laser	Diode Laser	Diode Laser	Fiber Laser + Diode Laser
Laser output power	55W CO2 Laser	20W Diode Laser	20W Diode Laser	20W Fiber Laser + 20W Diode Laser
Maximum cutting thickness in one pass(Basswood)	18mm	6mm	6mm	15mm multiple cuts
Up to Working speed	600mm/s	400mm/s	400mm/s	10000mm/s
Working area	• 600*305mm(23.6*12 inches) • Bed Size 680*360mm(26.7*14.1 inches)	• 498*330mm(19.61*13 inches) • Expandable to 470*3000mm(18.5* 118.11 inches)with Automatic Conveyor Feeder	• Laser Mode/Blade Mode/Pen Mode: 300mm*300mm (11.8*11.8 inches) • Inkjet Mode: 296mm*286mm (11.7*11.3inches)	• 220*220mm (8.6 inches*8.6 inches) • 220*500mm (with conveyor) (8.6 inches*19.6 inches)
Laser spot size (Engraving fineness)	0.15*0.2mm	0.04*0.06mm	0.04*0.06mm	0.08*0.1mm (20W Diode Laser) 0.03*0.03mm (20W Fiber Laser)
AI camera	√	—	—	√
Product Weight	45kg	20kg	12kg	14.7kg
Product Size	1000*639*268mm	765*561*183mm	620mm*498*178mm	273*373*492mm
Applications	XCS / Lightburn	XCS / Lightburn	XCS	XCS / Lightburn

*Basic materials include plywood, wood, some MDFs, cardboard, opaque acrylic, leather, fabric, ceramics (engraving), stone (engraving).

Makeblock Education

Innovation Space

makeblock
education

Innovation Space



INNOVATION
SPACE

Innovation Space

Helping schools
make an impact

Makeblock Education Innovation Space



Humboldt-Universität, Germany

As a multimedia makerspace, the 'MIS' offers just that: a space in which teachers can acquire knowledge and skills in the use of digital media in a focused and targeted manner. Our goal with the 'MIS' is to lead (prospective) teachers to a conscious, critical and reflexive examination of digital media and thus prepare them in the best possible way for the school and lesson development processes associated with increasing digitisation.

PROF. DR. KATJA EILERTS, FACULTY OF
CULTURAL, SOCIAL AND EDUCATIONAL STUDIES

CSG Reggesteyn, The Netherlands

CSG Reggesteyn chose Makeblock Education as an educational partner because of the diversity and innovative interchangeability within their learning resources. Thanks to our partnership with Makeblock Education, our Technolab has been set up with the latest techniques that allow teachers and students to get started with exciting projects in which primary and secondary school students use Makeblock's versatile STEAM resources to develop their ideas.

LINDA VAN GELDER, TECHNOLAB TEACHER &
MAARTEN SCHOLTEN, PROJECT LEADER TECHNOLOGY

WHAT IS THE MAKEBLOCK EDUCATION INNOVATION SPACE?

makeblock
education
Innovation Space

The Makeblock Education Innovation Space (MIS) is a school hub facilitating innovative learning. It's a space where teachers and students can teach, learn and, more importantly, apply 21st-century skills. MIS is where the teacher becomes the facilitator and student led enquiry based learning-to-learn can thrive.

21st-century learning

Critical thinking
Problem solving
Creativity & innovation
Communication
Collaboration

Innovative learning

Hands-on, explorative,
project-based learning
Spatial design and
didactic criteria
support each other

Bespoke concept for the needs of schools

- Promotes modern teaching methods and student-led, hands-on learning
- Raises pupil/pupil, pupil/teacher and teacher/teacher unity
- Application of 21st-century learning

Gives schools a new buzz

- Inspires tomorrow's scientists and engineers
- Becomes a creative hub, enabling cross-curricular teaching
- Brings STEAM to life

Outreach focus

- Connects with community
- Connects to other schools
- Expands extracurricular activities
- Adult learning workshops in STEAM and coding





De Anza Magnet School Empowers STEM Thinkers California, United States

ASCENSION REYES

STEM Educator in De Anza Magnet School

I've been teaching for 28 years and teaching STEM and tech electives at De Anza STEM Magnet in El Centro. There have been a variety of grade levels I have taught over the years. A lot of that has been spent doing edtech or STEM.

We are a K-8 school. My main role is to provide the STEM elective for our 7th and 8th grade students and also what we are calling innovation time for K-2 grade. We do a rotation weekly in the morning. Throughout the whole school we have STEM Friday. On STEM Friday we give teachers opportunities for kids to explore different STEM topics and activities. This year we decided to have an emphasis computer science and robotics. In my 7th and 8th grade classroom, I've always done a lot of computer science and robotics. Most recently in the last 2 years I've been using a lot of the Makeblock products.

All last year we did HaloCode and got heavy into that. We added mBots and every class in grades 3-8 added Codey Rocky. A couple months ago we got Rangers. K-2 used mTiny. We are trying to spread out computer science and robotics throughout the whole school. We incorporate storytelling and art with mBlock and Scratch. We added a lot of other products too that are more in the science realm. Anything from exploring sound, electricity, bottle rockets. Generally, that's what we are doing. School wide, my role is to guide teachers through it. We are the support for the rest of the staff.

We didn't know how the younger kids would react. With K-2, when we first introduced it was like, wow. They were amazed. They never had the opportunity. We mixed in other things, science, and art. The kids kept asking when we would do robots again. A lot of positivity came from parents saying that kids like the robotics and computer science part of it. It wasn't a surprise that would happen. I think that is what we lack, kids exploring things like that. Give them the opportunity. When students know it is their week to come to innovation time, when we do a hands-on project whether its computers and art or other design, kids are always enthusiastic. It's the same with older kids. They can create, paint, make lights flash, and move with electronics.

"Problem-solving" is the key skill I can observe during the process of teaching STEM. I didn't used to get as many calls throughout the day. It's not bad, it's good. Kids are working and coding and getting stuck. Kids are pestering teachers. They want to figure it out. I am seeing the desire to persevere to find the result and the solution to that problem. There's a lot more of that. Before, there was not the opportunity for exploration. Now we are embedding those opportunities for kids to explore. That builds perseverance.

People think STEM means everyone will go into a traditional STEM career like a doctor or astronomer. I like to emphasize that there is STEM in a lot of places. You can look at baseball or football stadium. We talk about some of the calculations that go into measuring out a baseball field or amusement park. We emphasize that STEM is everywhere. That's why it is important at least the way we do it. It doesn't have to be traditional. You can find STEM in everything. We don't pigeonhole kids into a specific career. It's good. We do it in a way that is more global. Science is part of it. Even fashion, we do wearable projects where kids will sew into jackets and shoes. STEM can be found in many diverse places. When they grow up and they think where to go in life, they can have a wider view.



Create YOUR Innovation Space



Makerspace 3.0



Green
Electronics modules



Yellow
Motors and servos



Blue
Structural parts



Red
Movement parts

1
Contact Makeblock
account team

2
Plan your Innovation
Space to your needs

3
Customize your Makerspace with Makeblock all-in-one solution






Robotics & Coding Kits Laser Cutter and Engraver Software Teaching & Learning Resources

Preset bundles

Custom solution

4
Localised, professional
service and training



FOR MORE INFORMATION, PLEASE
CONTACT THE MAKEBLOCK ACCOUNT TEAM.

Professional Development

Help Teachers Make an Impact

makeblock
education



For whom is the training?

For all teachers who wish to gain skills using tech tools in their class.



Supported by our Training Providers' network

Through our network of **Certified Training Providers**, the training workshops are delivered and tailored to the local needs of their territories.

Hardware
Robotics
& Coding Kits

Empower teachers with professional development

Makeblock offers expert-led webinars and workshops for teachers, aiming to help educators worldwide enhance their skills and discover top-tier hardware and software solutions.

Software
mBlock, XCS

With Makeblock education solutions, teachers learn to:

- Build students' knowledge and skills through a hands-on, multidisciplinary approach in the classroom.
- Foster a flexible, integrated, and well-organized STEAM education environment.
- Prepare students for future careers.

Resources
Lessons, Projects,
Help Center

Take part of the experience

Check out for event details at www.makeblock.com

Previous PD Events



Country: Romania
Product: mBot2

Teaching AI with robots in schools. Over 500 teachers attended this training



Country: Canada
Product: CyberPi

Cyber security theme as well as AI and IOT theme. Over 40 schools signed up



Country: Thailand
Product: xTool F1, xTool M1

Use xTool F1 and M1 to demonstrate how technology tools can enhance STEAM class.

Help teachers make an impact



MakeX categories

makeblock
education



MakeX Inspire

Type: friendly challenges
Age range: 4–7



MakeX Spark

Type: innovation project
Age range: 6–9, 10–13



MakeX Starter

Type: multi-task competition
Age range: 6–9, 10–13



MakeX Explorer

Type: confrontational competition
Age range: 8–13, 11–15



MakeX Challenge

Type: confrontational competition
Age range: 11–18

MakeX educational competitions

- Makeblock hosts an international robotics competition and education platform that promotes multidisciplinary learning within the fields of STEAM education; it's called MakeX.
- It aims to stimulate young people's love for creation through various activities such as Robotics Competitions, STEAM Carnivals, Tech Events and Educational Conferences, so that students can have a deeper understanding of the value of STEAM disciplines.
- At its core, MakeX Robotics Competitions aim to nurture Creativity, Teamwork, Fun and Sharing, the four principles that define the MakeX spirit, encouraging participants to learn science (S), technology (T), engineering (E), art (A) and mathematics (M) through fun challenges. MakeX is an ideal scenario for young minds to apply both their knowledge and soft skills to explore and solve practical problems.

MakeX Spirit

Creativity

Explore new ideas and new skills, use creativity and innovative thinking to overcome real-world challenges.

Teamwork

Have open communication with partners, work together towards a common goal and complete a task in the most efficient way for win-win development!

Fun

Enjoy the fun and excitement of head-to-head competition and the problem-solving process.

Sharing

Have an open mind as a 'maker', sharing the joy, insights and experience with others.



Makeblock help more pupils and students to enjoy creating while having fun. Each component is carefully designed to provide teachers with the tools they need to enable students to be creators, inventors and entrepreneurs.