

ES EDUCATION



Preparing Our Children for the Era of AI



ES EDUCATION

ES Education by ESVISION Technology, leveraging its world-leading AI technologies and experiences across multiple industries, ES Esvision is committed to developing AI education programs for K1-K12, vocational and professionals to nurture new talents for the future.

Easy to use and affordable hardware.
Customized Solutions for Schools.
Modular and industrial electronics
Learning platform for AI, Python, C/C++, IOT

A One-stop Solution for Education
Hardware
Software
Storage Solutions
Curriculum System
Training
Competitions



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ES Education Overview

LEARNING CONTINUUM

At ES Education, we understand that every educational level requires different skill sets that need to be nurtured, continually contributing to take a student to the next level of their growth path. Our solutions are interconnected, creating a continuum path of learning which takes them from their very first steps into the world of 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 soft and hardware, which are also complemented by training and workshops, delivered by our expert educational partners around the world.

PRIMARY

EARLY CHILDHOOD

SOFTWARE

ESBlock

Tangible

Scratch/
Python

ES Discover

ES Codey



DIY PARTS

Mechanical
parts

Neuron
platform

ES Discover

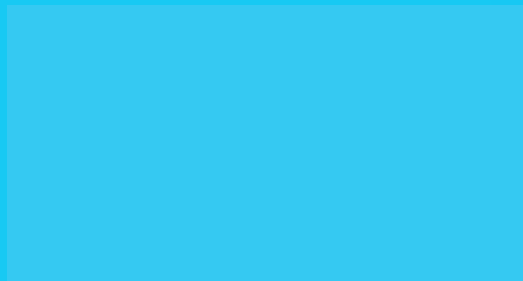
Early Literacy,
Mathematics, Logic,
Music & Art

Screen-free coding

ES Codey

Coding, Logic, AI,
IoT, Data Science,
Music & Art

Scratch, Python



SECONDARY

ALL LEVELS

Scratch/microPython, Python 3/
Arduino C, AI, IoT, Data Science

Laserbox
software

ES Create
plugin

Scratch/
Python

Scratch/
Arduino C

Smart
laser cutter

Smart
3D printer &
laser engraver

ES Cyber

ESBot series



Structural parts
Motors/servos
Movement parts

Laserbox Pro

ES Create 2.0

ES Build
platform

RJ25 Arduino
platform



Overview

ES Cyber

Coding, AI, IoT,
Data Science,
Engineering

Scratch, Python

ES Bot series

Coding, AI,
Engineering,
Robotics

Scratch, Arduino C

Laserbox Pro

Art,
Crafting,
Engineering

Laserbox software

ES Create 2.0

Art,
Crafting,
Engineering
ES Create plugin for
Cura

ES Education

ES Tech Innovation Space



INNOVATION SPACE

WHAT IS THE ES EDUCATION TECH INNOVATION SPACE?

The ES Education Tech Innovation Space (ESTIS) 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. ESTIS is where the teacher becomes the facilitator and student led enquiry based learning-to-learn can thrive.



ES Innovation Space

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

Innovation Space



**HELP
SCHOOLS
MAKE AN
IMPACT**

To prepare students for a still unknown future and to enable them to thrive in tomorrow's society, Makeblock Education is establishing Innovation Spaces for schools all over the world.

The ES Education Tech Innovation Space (ESTIS) is a concept-facilitating innovation, fostering inquiry-based learning and motivating students to create their own projects. It creates an environment where teachers and students can practice 21st century skills, taking education to the next level.

HOW TO FACILITATE INNOVATIVE LEARNING



- Gaining skills**
- Hands-on skills
 - Logical reasoning
 - Analytical thinking
 - Problem solving
 - Creativity



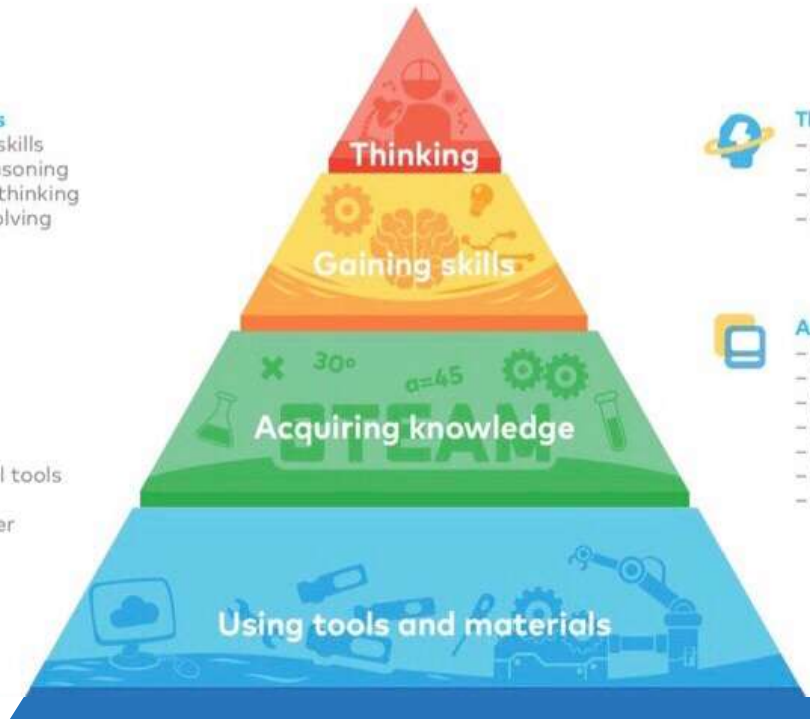
- Use tools**
- Digital**
- Software
 - Internet
- Physical**
- Mechanical tools
 - 3D printer
 - Laser cutter



- Thinking**
- Growth mindset
 - Global vision
 - World citizen
 - Social responsibility



- Acquiring knowledge**
- Coding
 - Mathematics
 - Physics
 - Biology
 - Chemistry
 - Engineering
 - AI & IoT



Bespoke concept for the needs of schools

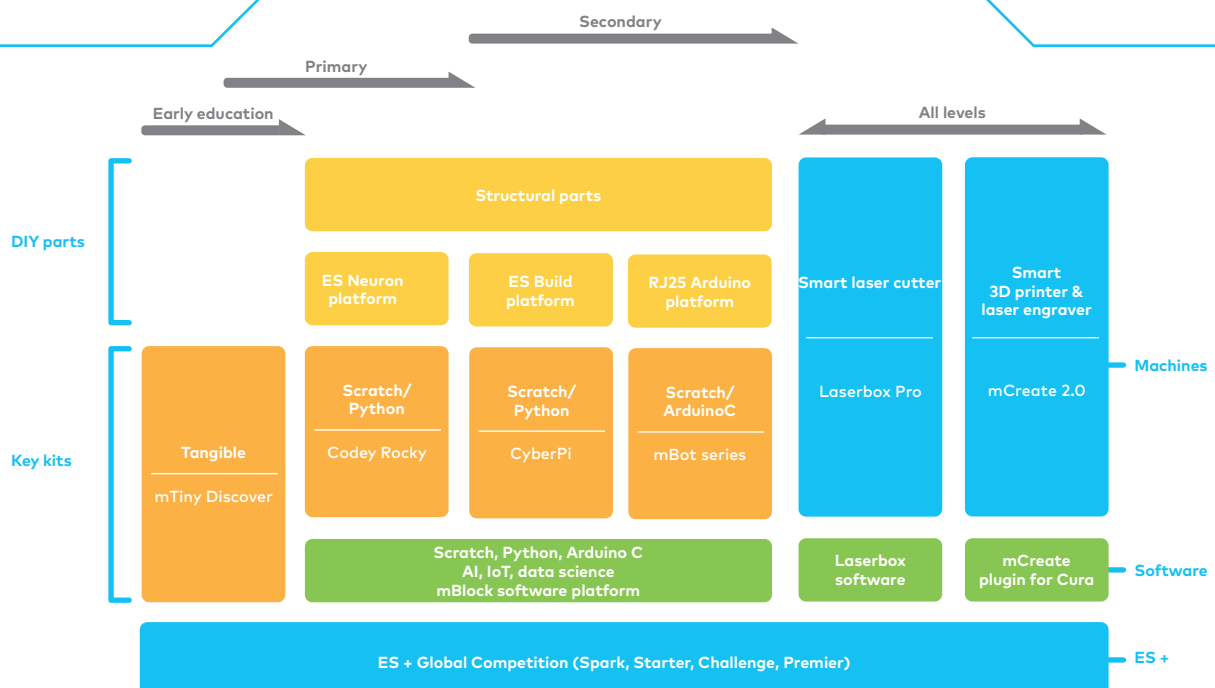
- Promotes modern teaching methods and student-led, hands-on learning
- Raises pupil/pupil, pupil/teacher and teacher/teacher unity
- Application of 21st century learning

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

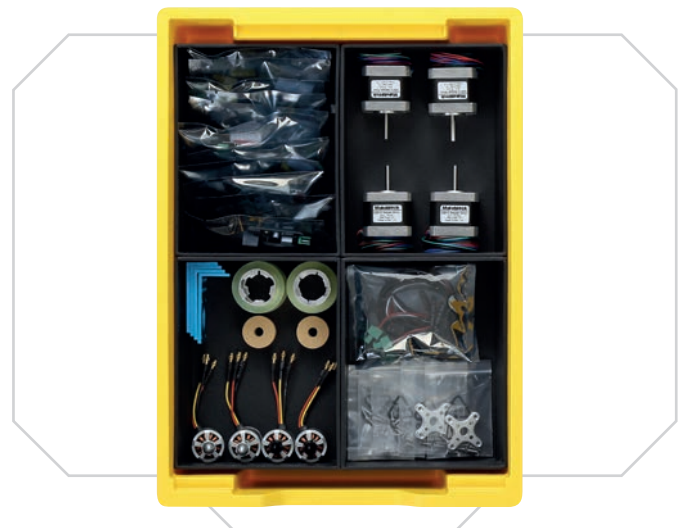
- Connects with community
- Connects to other schools
- Expands extracurricula activities
- Adult learning workshops in STEAM and coding



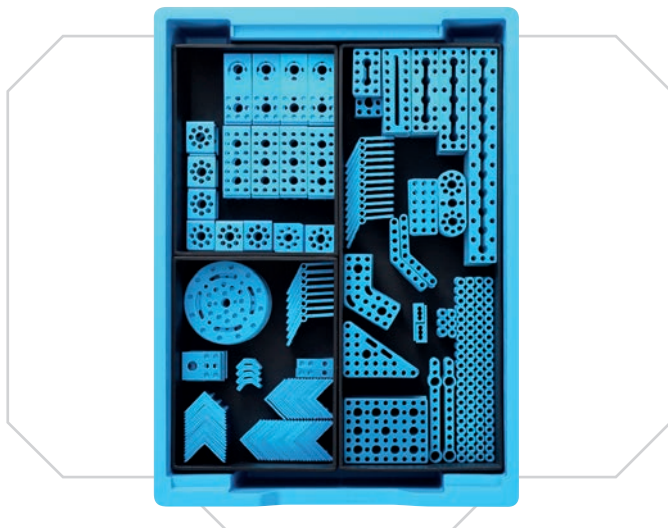
Tech space kits



Green
Electronics modules



Yellow
Motors & servos



Blue
Structural parts



Red
Movement parts

170 types of modules
including:

40 sensors

26 connecting fittings

23 shafts

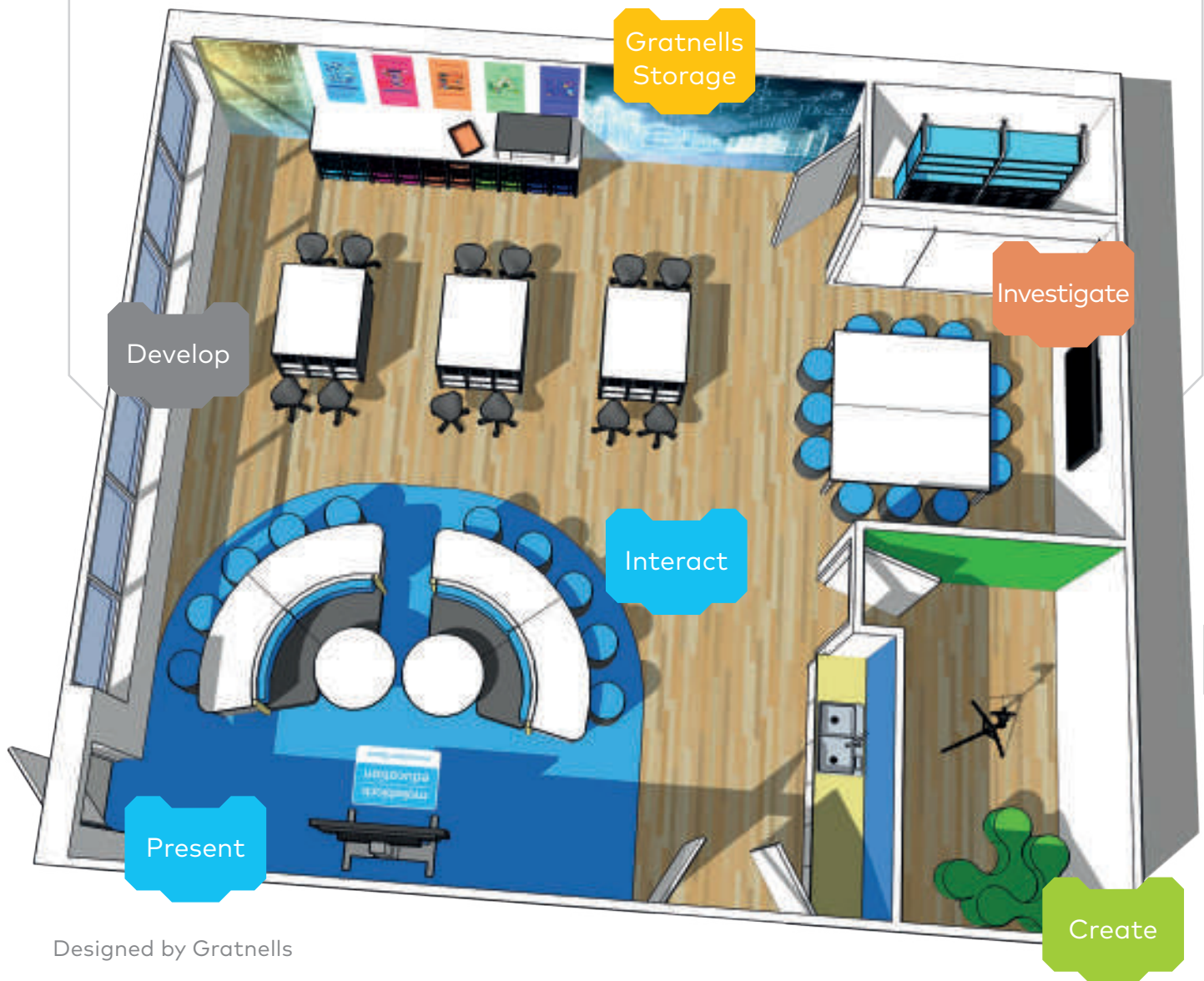
28 transmission parts

20 motors & servos

19 types of motion parts



CONCEPTUAL INNOVATION SPACE



Designed by Gratnells

Customise your space

Innovative learning spaces cannot be off-the-shelf products — they have to be adapted to the requirements and wishes of the respective educational institution.

We will be happy to develop your Makeblock Innovation Space!



Digital machines

Laserbox Pro

SMART DESKTOP LASER CUTTER

Laserbox Pro is specially designed for education, supporting creativity in an educational setting – for example a ES Tech space. Its user-friendly design and powerful software enables educators to improve teaching efficiency and enrich projects and lessons with easily designed solutions. Laserbox makes being creative easy, fun and safe for students.

- Built-in high-resolution camera and AI auto focus
- Trouble-free setup
- Easy connection with Ethernet, WiFi and USB
- Bring sketches to life without the use of design software
- Real-time preview while designing
- Automatic material detection
- Fast and accurate engraving and cutting
- Enhanced safety design
- Smart filter lifetime indication



Teaching Resources

- User manual
- Professional development
- Get started activities

Localised services with Makeblock partners

Our partners offer you tailor-made solutions, from installation and instruction to service and consumables.





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Working platform

- Specially processed
- No colour change

5 MP ultra-wide-angle camera

- AI visual algorithm
- Visual operation

Tray

- Chippings collection
- Easy to clean

Annular light button

- No complicated panel
- Create at the push of a button

Smart smoke purifier

- Environment-friendly
- Auto-tuning volume



PRODUCT SPECS	Laserbox Pro
Laser tube type and power	CO ₂ laser 40W
Dimensions	958x528x268mm
Weight	40kg
Working area	500mmx300mm
Z-axis height	25mm
Max cutting speeds	600mm/sec
Precision	0.05mm
Visual working area	490mmx290mm
Max cutting thickness	15mm
Autofocus	Material recognition/material set-up/visual autofocus
Connection	WiFi, USB, Internet
Design software	PS, AI, CorelDRAW, AutoCAD, Solidworks, AutoDraw, etc.
File formats	JPG, PNG, TIF, BMP, DXF, SVG, CR2, etc.
Operating systems	Windows, macOS
Material capability	Paper, corrugated paper, wood, acrylic, cloth, leather, base plate, ABS-based colour board, PET, rubber, glass fibre, plastic, corian and dozens of other materials



Laserbox Pro

Digital machines

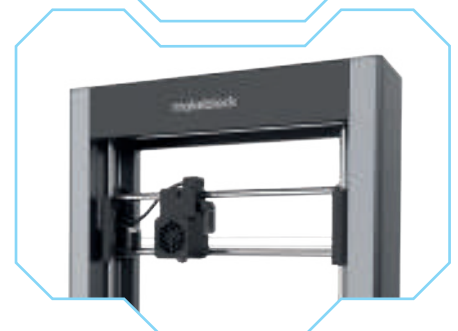


ES Create 2.0

VERSATILE 3D PRINTER WITH SMART ASSIST TECHNOLOGY

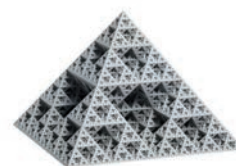
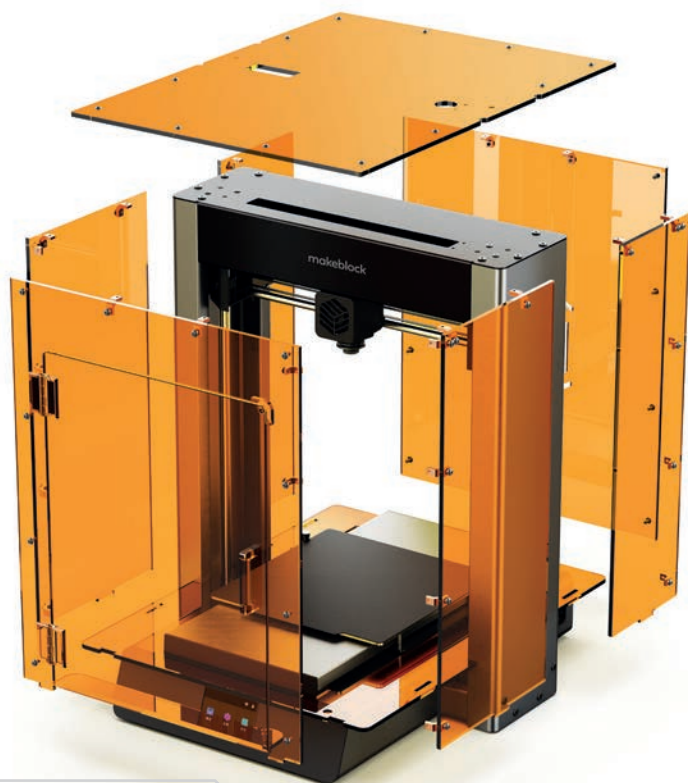
ES Create is the versatile desktop 3D printer you need in your school's innovation space. With its innovative smart levelling technology and other powerful capabilities, ES Create delivers remarkable print success rates and quality, enabling students to make their creative ideas tangible. It supports an easy switch between 3D printing and laser engraving modes and meets the needs of a broad range of applications in STEAM education.

- AI-driven bed levelling system for trouble-free setup
- Magnetic flexible printing platform with heating bed
- Automatic resumption after interruption
- High-precision nozzle system
- One-click interchange between 3D printing and laser engraving
- Aircraft-grade aluminium frame
- Automatic resuming after interruption
- Large building volume
- Enhanced safety design
- High-quality protective casing





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PRODUCT SPECS	3D PRINTING
Additive manufacturing process	Fused deposition modelling
Build volume [LxWxD]	220x220x295mm
Filament	1.75mm
Layer resolution	50-300µm
Slicing software	Cura
Supported file type[s]	stl, obj, x3d, 3mf, png, jpg, gif, bmp, etc.
File extension	GCODE
Supported materials	PLA and derivatives, TPU, PP, etc.
Nozzle temperature	260°C [Max]
Heated bed	80°C [Max]

PRODUCT SPECS	LASER ENGRAVING
Work area	225x225mm
Laser power	500mW
Software	Laserbox for mCreate
Supported file type[s]	svg, dxf, jpg, jpeg, png, bmp, pdf, tif, cr2, etc.
Material capability	cardboard, woodboard, bamboo, rubber, leather, fabric, acrylic, anodised metal, metal with lacquer finish, plastic, etc.



Esvision Technology Co.,ltd

For more information please visit our website: www.esvision.tech