GATEIN TECHNOLOGY
جيت ان تكنولوجي

PRODUCT PRESENTATION · K-12 AI EDUCATION

uKit Education Solution

Tailored for K-12 Students

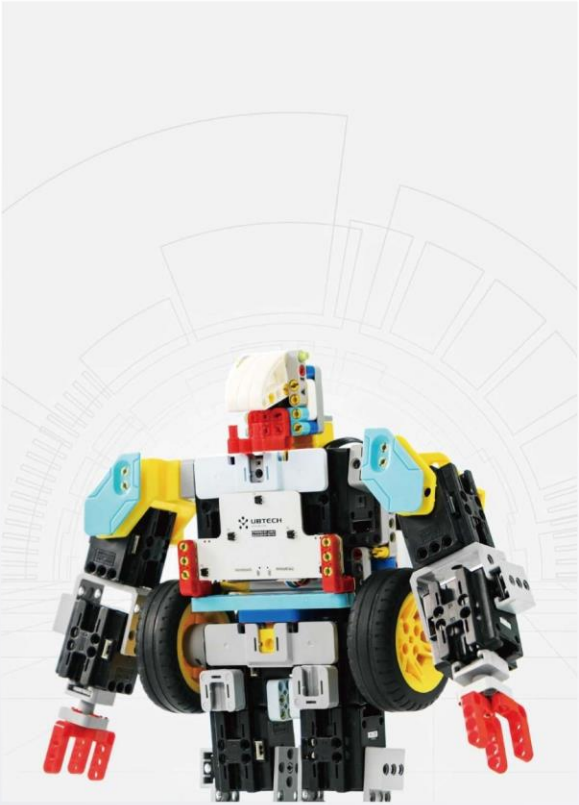
AI knowledge, engineering literacy and computer literacy in one comprehensive learning system that builds 21st-century skills.

Presented by GateIn Technology · Exclusive UBTECH partner in Egypt



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uKit one complete system



Buildable programming robot

High-performance controllers, smart sensors, expandable electric accessories, 220+ building block types; graphical and Python programming.

Curriculum system

Regular courses, club courses and competition courses.

Comprehensive services

Consultation, training, teaching support and academic research support.

Learning goals

Inspire creativity, learn by doing, explore AI algorithms, foster computational thinking.

uKit AI Main Controller for primary school

32-bit MCU

With intelligent speech, IoT, Wi-Fi and Bluetooth.

0.8 TOPS

Arithmetic power with graphical programming.

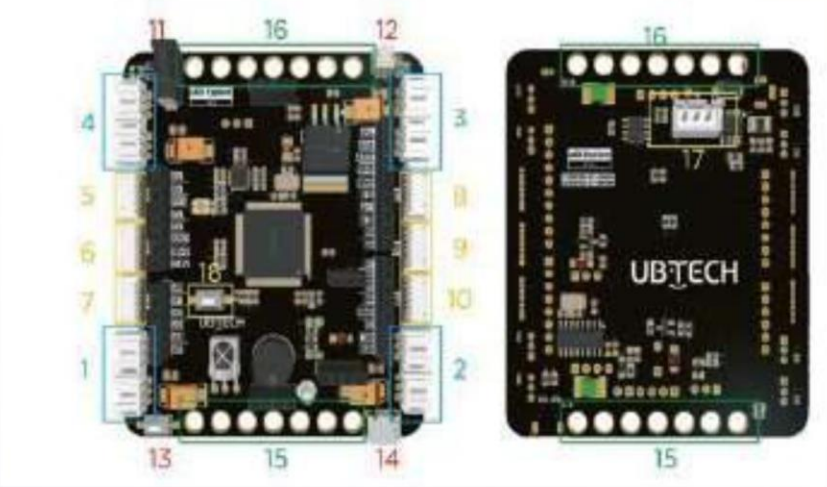
Intelligent vision camera

Locally running, self-training vision model applications.

Multi-class vision algorithms

Trash sorting, handwriting, traffic signs, faces, licence plates, emotion, colour, QR codes, masks, ball tracking.

uKit Explore development board



Open source, based on Arduino

For the higher grades of primary school up to high school.

Bluetooth and USB

Both connections, plus ICSP.

Python and text coding

Grow from blocks to real code.

Rich interfaces

uKit, analog, digital/I2C, grey/I2C, serial, USB and a self-defined button.

Servos, sensors and building blocks



Servo

360° rotation · 4 kg·cm torque · 1/238 deceleration · 0.1 s/60°.

DC motor

360° rotation · 2.2 kg·cm torque · 140 ± 10% RPM no-load speed.

Sensors

Touch, infrared, sound, light, temperature & humidity, eye lamp, 2.4-inch LCD, LED strip, hub, Bluetooth controller (optional).

220+ building blocks

7 types of gears, 20+ connectors and 200+ decorative parts.

Curriculum system

International standards

Built on CSTA, AI4K12 and UBTECH Artificial Intelligence Knowledge Mapping.

5E model

Large units and PBL projects: Engage, Explore, Explain, Elaborate, Evaluate.

Designed for beginners

Fits students from lower primary grades to high school.

Connecting AI to real life

Perception, reasoning, machine learning, natural interaction and social responsibility.

Courses by grade

Course	Grades	Length	Tool	Focus
AI Fantasy Zoo	Grades 1–2	18 topics · 30 h	uKit EDU App	Build animal models that sense, move and make sound
AI Smart Life	Grades 2–3	16 topics · 30 h	uKit EDU App	Sensors, angles, decisions and loops
AI Amusement Park	Grades 3–4	15 topics · 30 h	uCode	Voice, image recognition, gear drives
AI Future Community	Grades 4–5	15 topics · 30 h	uCode	Face recognition, speech synthesis, machine learning
AI Transformer Workshop	Grades 5–6	17 topics · 30 h	uKit Explore	Programming logic and intelligent manufacturing
AI Magic World	Grades 6–7	14 topics · 30 h	uCode	Animations, games and smart hardware
AI Super Engineer	Grades 7–8	14 topics · 30 h	uKit Explore (Python)	Transforming robots and smart devices

Course kits



AI Fantasy Zoo Kit

1 main controller, 9 sensors & servos, 600+ blocks



AI Amusement Park Kit

Camera, LCD, LED module, 2 DC motors, 600+ blocks



AI Super Engineer Kit

23 sensors & servos, DC motor, 1100+ blocks

Programming tools



uKit EDU App

For beginners: graphical programming, pose-record-play (PRP), remote control and 3D building guidance.

uCode

For ages 8–14: block programming for games, cartoons and UBTECH hardware, with an upload mode for advanced programming.

uKit Explore

Arduino-based C/C++ and graphical programming, compatible with many open-source sensor modules.

Curriculum resources

Student textbook, evaluation book, teacher's book, lesson slides, outline and knowledge graph.

GateIn One accountable partner

We don’t just ship the uKit. GateIn designs, supplies, installs, integrates and supports UBTECH solutions for universities, schools, government and industry, from the first plan to long-term support.

+120
ROBOTS SUPPLIED IN EGYPT
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91
LABORATORIES
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