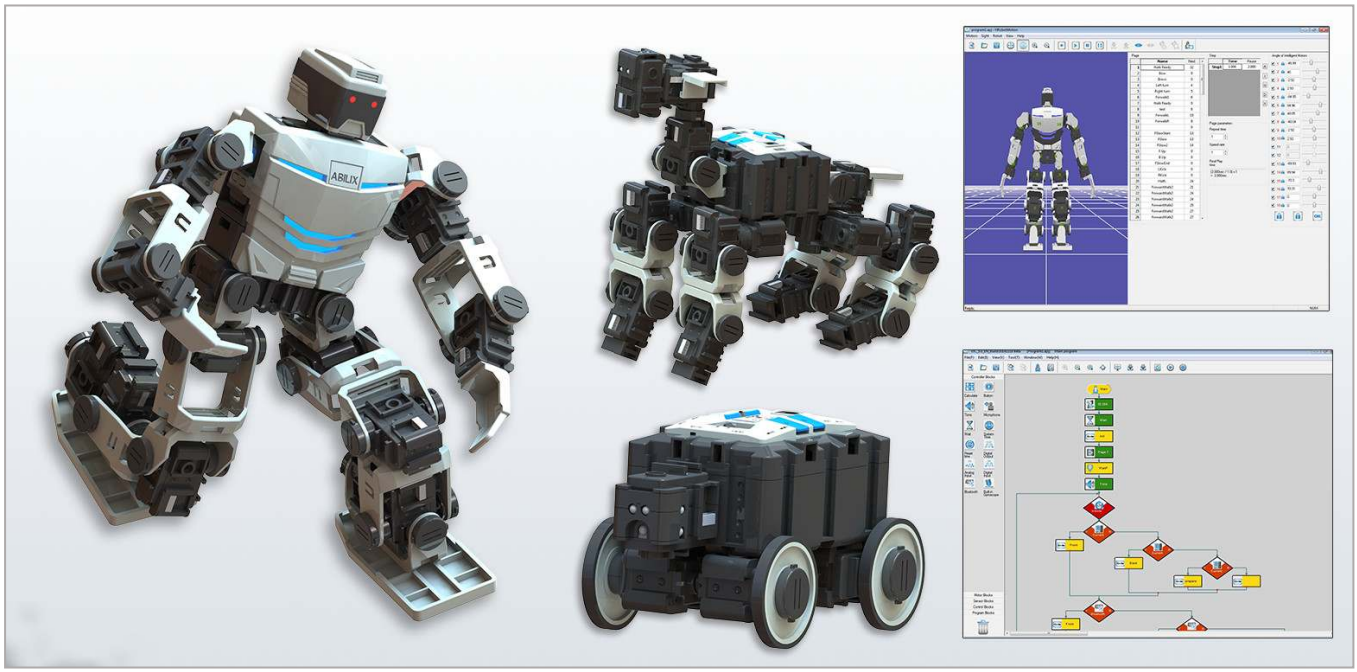
Product Information Sheet – Programming & Robotics

Educational Robotics Invention Kit (ERIK)



The Eductaionl Robotics Invention Kit and associated curriculum has been developed to help teach computer science using a problem solving approach.

The Educational Robotics Invention Kit provides students with an environment that motivates them to learn abstract computer science concepts through the development of solutions to practical problems. The combination of engineering and programming creates a dynamic environment that helps students develop problem-solving and programming skills that involve mathematics, engineering, science and logic.

The Robotic Hardware consists of intelligent servo motors, sensors, a programmable controller and a range of construction parts allowing students to design, build and program a wide range of robotic systems. The modular hardware has been designed for ease of use, no tools are required for construction.

With a wide range of example models including walking humanoid and multi-limbed robots, as well as autonomous wheeled vehicles, students quickly develop the skills needed to build and program their own models.

The Project Based Curriculum includes:

- Computer system fundementals
- Algorithms and problem solving
- Inputs and Outputs
- Data, Variables and Constants
- Operators and Control Structures
- Testing and Documentation
- A series of open ended design projects to allow students to get creative

Features:

- Unique quick-fit construction kit
- A sophisticated programmable control unit with Bluetooth communications and an internal gyroscope, capable of storing 2 programs and controlling 253 Intelligent Motors
- Intelligent Motors either operate as servos moving ±150º degrees in 0.29º increments, or as standard motors with 1023 speed steps in both directions
- Bus based wiring
- Sensor module able to detect light, sound, distance and IR.
- Flowchart and C code Programming software
- 3D Modelling, Simulation and Scripting
- Computer Science Curriculum-based learning content

Items Included:

- Construction Kit
- 1×Sensor block and 18×Motors
- Programmable Controller
- Programming Software
- Curriculum-Based Learning Content

Other Items Required:

- Windows XP or later based Computer

General Information:

Power Requirements: 110 – 240V 50-60Hz
Kit Dimensions: 450 × 300 × 220 mm (W×H×D) per kit
Packed Volume: Approx. 0.03 m^3 per kit
Packed Weight: Approx. 5 kg per kit

Order Code: 250-01

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For more information visit www.ljcreate.com

FOR MORE INFORMATION CONTACT US!

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