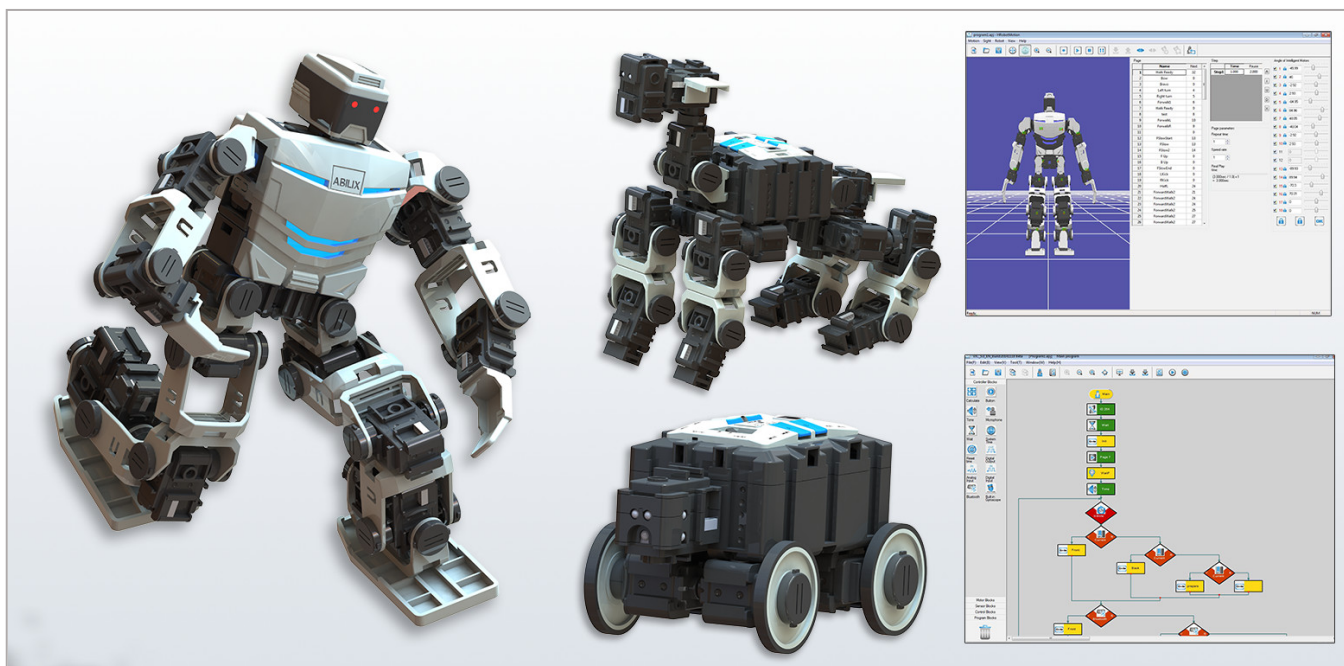


## Product Information Sheet – Programming & Robotics

### Educational Robotics Invention Kit (ERIK)



The Educational Robotics Invention Kit or ERIK provides students with an environment that motivates them to learn abstract computer science concepts in a bid to solve practical problems with physical outcomes. The combination of engineering and programming creates a dynamic environment that helps students develop problem-solving 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.

#### Typical Project Activities Include:

- Languages, machines, and computation
- Algorithms and abstraction
- Inputs and Outputs
- Data, Variables and Constants
- Control Structures
- Testing and debugging
- 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  $\pm 150^\circ$  degrees in  $0.29^\circ$  increments, or as standard motors with 1023 speed steps in both directions
- Bus based wiring
- Sensor module able to measure light, sound, distance and IR
- Flowchart, C code and 3D based programming software
- Curriculum-based learning content

#### Items Included:

- Construction Kit
- 1 x Sensor block and 18 x 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 x 300 x 220 mm (W x H x D) per kit  
Packed Volume: Approx. 0.03 m<sup>3</sup> per kit  
Packed Weight: Approx. 5 kg per kit

Order Code: 250-01

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For more information visit [www.ljcreate.com](http://www.ljcreate.com)