PRODUCT GUIDE FOR
ROBOTICS
IN THE CLASSROOM

IGNITE

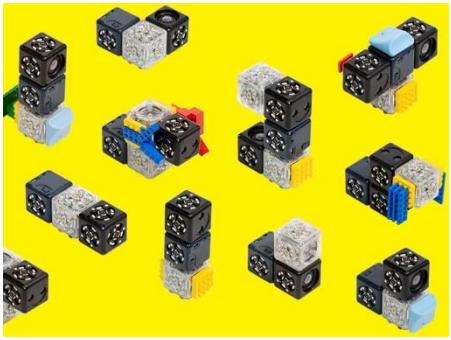
STEM

Product Guide to Robotics in the Classroom

By IgniteSTEM Content

Cubelets

Cubelets are magnetic blocks that you can snap together to make an endless variety of robots with no programming and no wires. Cubelet-based robots can drive around on a tabletop, respond to light, sound, and temperature, and have surprisingly lifelike behavior.



Features

Modular design with magnetic faces for easy building. Each Cubelet is pre-programmed for a specific function that enables sensing, thinking, or acting. Powered by a single rechargeable Cubelet battery. Programming via Blockly or C. Features free educator resources online. Discovery Kit includes a Bluetooth Hat, which pairs robot creations with mobile devices.

Cost: $140 For the Discovery Set

Website: www.modrobotics.com

Dash and Dot

Dash is a small mobile robot that is full of character and drives around making noises and shining lights. Dot is its sidekick, and it, too, is full of character. The robots help kids learn the basics of robotics and coding at home or in classroom settings.

Features

For ages 6 and up. Bluetooth Smart 4/LE; charging via micro USB; compatible with a wide range of apps, including Go, Wonder, Blockly, Path, and Xylo. Dash only: Detects voice commands and other robots, has front and rear object detection.

Cost: $150 (Dash), $50 (Dot) Also available as a classroom pack

Website: www.makewonder.com

Koov

KOOV is a hands-on educational kit for coding, robotics, and design. It includes colorful blocks, sensors, actuators, and a microcontroller. Easy to follow instructions and visual programming let kids start building and coding quickly.

Features:

KOOV Educator Kit: 322 building blocks, plus light sensor, push sensor, accelerometer, DC motors, servo motors, LED modules. Arduino-based microcontroller. Drag and drop visual programming. Lesson plans and educator guides.

Cost: $520 (Educator Kit)

Website: www.sony.com/koov

LEGO Boost

Lego Boost is a building and coding set that lets you create robots and other models out of Lego bricks. Simple programming helps you add sound, movement, and personality to your creations.

Features

Includes 840 parts, with building instructions for five models (robot, rover, guitar, pet, and production line). Comes with a Graphical programming environment and app.

Cost: $159.99

Website: www.shop.lego.com/en-US/

Edison

The Edison robot is a powerful, engaging tool for teaching kids STEM, computational thinking and computer programming in a hands-on way. Edison is a programmable robot designed to be a complete STEM teaching resource for coding and robotics education for students from 4 to 16 years of age.

Features:
Edison Can respond to light and sound, follow lines and avoid obstacles, communicate with other Edison robots, and connect to other Edison robots and LEGO bricks. Works with barcodes and remote control (ages 4+), graphic coding (ages 7+), Scratch programming (ages 10+) and Python (ages 13+)

Cost: $53.90 (EdPack 1)
Website: www.meetedison.com

Ozobot Evo

The Ozobot Evo allows your students to play while learning coding and logic skills. Ozobot can be programmed to move around the classroom as well as to do more complex activities! Interact as Evo shows off a series of tricks—all built with code. Connect to the Evo app (iOS/Android) to earn points and level up for all the ways you code, create, and play with games and tricks.

Features
Teach yourself to code Evo two ways: online with OzoBlockly and screen-free with Color Codes. OzoBlockly, powered by Google's Blockly, has five skill levels for beginner to master coding. Color Codes, made with markers on paper, teach basic STEAM skills, critical thinking, and debugging. Includes: 1 Evo robot, Educator Bot Camp, 1 charging cable, 4 Color Code markers, access to 150+ free STEAM lessons.

Cost: $99 (Evo Educator Entry Kit)
Website: www.ozobot.com

MakeBlock mBot

mBot is a STEAM education robot for beginners, that makes teaching and learning robot programming simple and fun. With just a screwdriver, the step by step instructions, and a study schedule, children can build a robot from scratch. As they go, they will learn about a variety of robotic machinery and electronic parts, acquire the fundamentals of block-based programming, and develop their logical thinking and design skills.

Features

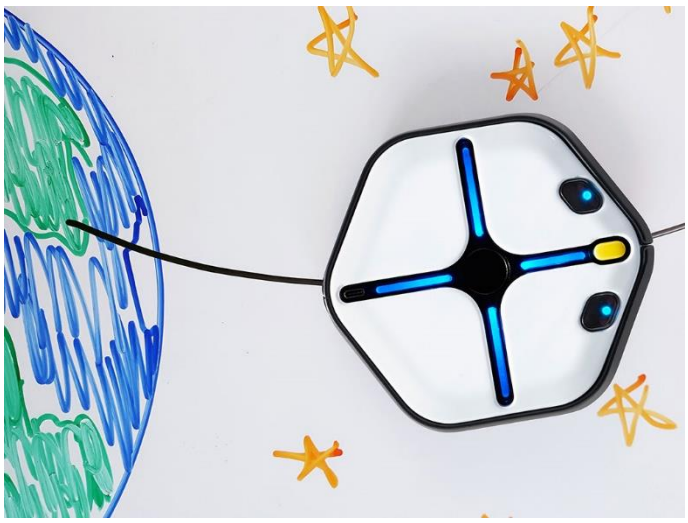
Two programming tools: Arduino IDE and mBlock, a drag-and-drop programming tool based on Scratch 2.0. The mBot has an aluminum chassis, strong and compatible with Makeblock & Lego parts. Free lessons are provided and increasing continually. Projects like wall avoidance, line following, games with other mBots, using sensors to play games in Scratch.

Cost: $79.99 (Robot Kit)

Website: www.makeblock.com

Root

Root is a little mobile robot designed to teach kids logic and coding skills. It draws, plays music, lights up, and can drive on metal-backed whiteboards with the help of magnets in its belly. Root won Best Toy at 2018 CES.



Features

Root is capable of climbing and navigating on classroom metal-backed whiteboards. Progressively challenging programming levels, beginning with graphical interface. Works with dry-erase markers, and can also erase.

Cost: $199

Website: www.rootrobotics.com