

STEM Learning - Introductory

ID	1
Name/Producer	Aelos Edu - steam-sys.com/en/product
Skill Level	Beginning, Intermediate
Content Type	Computer Science, Engineering
Description	Humanoid designed robot
Technology Applied	Robot has built-in sensors and a highly precise motor. Software has a graphic programming design with simplified and advanced versions.
Notable Benefits	Has a curriculum system with 3 tier (low/middle/high) design. Is matched closely with humanoid robots.

ID	2
Name/Producer	BinaryBots - binarybots.tech
Skill Level	Beginning
Content Type	Computer Science, Engineering
Description	Smart toy robots to build and code
Technology Applied	Build the robot from totem structure components. Has a power board with breakout pins for 2x motors. Also has a sensor board with speaker, light sensor, 4x programmable RGB LEDs, and 2 touch sensors
Notable Benefits	Each product is a different robotic animal from the recently discovered 'Planet Totem' and has unique characteristics.

ID	3
Name/Producer	BirdBrain Technologies - birdbraintechnologies.com
Skill Level	Beginning, Intermediate
Content Type	Engineering, Computer Science
Description	Robots, electronic components, and learning materials
Technology Applied	Finch Robot Kits, Hummingbird Robotics Kits, programming tutorials, and lesson plans
Notable Benefits	Absolute beginners can program a robot in minutes, and then continue learning advanced engineering; integrate robotics and computer science into subjects from ELA to ecology, math, music, and beyond.

ID	4
Name/Producer	Bitsbox - bitsbox.com
Skill Level	Beginning
Content Type	Computer Science
Description	Project-based system for learning computer science
Technology Applied	Coding project books, workbooks, and journals for typed app coding anywhere
Notable Benefits	Lots of resources and box kits for one-time projects; contains enough project ideas to keep learners creating apps.

ID	5
Name/Producer	Code REV Kids - coderevkids.com
Skill Level	Beginning
Content Type	Computer Science, Engineering, Math
Description	Comprehensive STEM learning
Technology Applied	Provides a curriculum designed for after-school and weekend; also provides curriculum through the Minecraft server and tech camps
Notable Benefits	Excites learners while they are exploring STEM in a way they never knew existed; allows for learning math and engineering through the learning of coding and robotics.

ID	6
Name/Producer	Code Spark Academy - codespark.com
Skill Level	Beginning
Content Type	Computer Science, English Language Learning, Free Resource
Description	Intro to coding curriculum
Technology Applied	Learn the ABC's of coding through research-based curriculum; available on all tablets, mobile devices, and computers
Notable Benefits	Has a word-free interface for ELL; has game mechanics that increase engagement in girls, and is free for use in public schools, libraries, and non-profits.

ID	7
Name/Producer	CodeMonkey - codemonkey.com
Skill Level	Beginning
Content Type	Computer Science, Math
Description	Coding for kids and beginners
Technology Applied	Courses include: Coding adventure, Game builder, Banana tales, Coding chatbots, Challenge builder, Dodo does math, and Codemonkey Jr.
Notable Benefits	A fun and educational game-based environment where learners can code without any prior experience.

ID	8
Name/Producer	Cubelets - modrobotics.com
Skill Level	Beginning, Intermediate
Content Type	Computer Science, Engineering
Description	Modular robotics
Technology Applied	Uses tactile coding to help builders of nearly any age explore robotics, coding, and more.
Notable Benefits	Uniquely designed to contain little bundles of software inside little bundles of hardware; as you build a robot, you learn to build a program.

ID	
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Name/Producer	
IQ Key - crayon.com/global-site/	
Skill Level	
Beginning, Intermediate	
Content Type	
Computer Science, Engineering, Science	
Description	
Robotics and science projects for use in land or water	
Technology Applied	
Inexpensive with potentially dozens of variations; projects have modular assemblies and are powered by electric motors.	
Notable Benefits	
Brilliant features to this scientific toy system; toys are manufactured from the same stable and strong polycarbonate used in space helmets and airplane windows.	

ID	10
Name/Producer	iRobot -irobot.com
Skill Level	Beginning
Content Type	Computer Science
Description	Robots that teach logic and coding
Technology Applied	Robots draw, play music, light up, and can drive on a metal-backed whiteboard with help of magnets in belly
Notable Benefits	Use in any learning setting; promises to teach coding skills to anyone, starting as young as 4 years old.

ID	11
Name/Producer	Kai's Clan - kaisclan.ai/
Skill Level	Beginning, Intermediate
Content Type	Computer Science
Description	Products to inspire minds to collaborate and code
Technology Applied	Has Kai's Clan Packs and Adventure Maps to promote multiplayer collaborative coding, augmented and virtual reality, and Internet of Things (IoT)
Notable Benefits	Get inspired with projects and lessons; has personal development, training, and brand ambassadors; envisions a future where there is universal and equitable access to coding.

ID	12
Name/Producer	Kano - Kano.me/us
Skill Level	Beginning
Content Type	Computer Science
Description	Harry Potter coding kits
Technology Applied	Build a wand with pieces, buttons, and boards; learn to code with simple steps for Python, Javascript, and terminal commands.
Notable Benefits	Mae and play to create new exiting experiences with creatures, spells, wizarding artifacts, and 200+ sounds.

ID	13
Name/Producer	KinderLab Robotics, Inc - kinderlabrobotics.com
Skill Level	Beginning
Content Type	Computer Science
Description	Research-based robot kits to introduce early STEM concepts
Technology Applied	KIBO robot kits with extensions and more; also has teacher materials
Notable Benefits	Learn the 6 key benefits of using robotics; introduce coding and robotics for beginning learners in a fun and playful way.

ID	14
Name/Producer	Koov - koov@sony.com
Skill Level	Beginning, Intermediate
Content Type	Computer Science, Engineering
Description	Robotics & coding kits
Technology Applied	Learn core concepts of coding focusing on algorithms, abstraction, decomposition, pattern recognition, and evaluation. Put coding skills to use by applying them to sensors, motors, and buzzers.
Notable Benefits	Has 43 pre-designed, pre-coded robots for beginning learners; also has 50+ hours of educational content to provide a great starting point for understanding robotics.

ID	15
Name/Producer	Learning.com - learning.com
Skill Level	Beginning
Content Type	Computer Science, Typing, Social and Emotional Learning
Description	Web-based curriculum for teaching critical digital literacy skills
Technology Applied	Curriculum in keyboarding, online safety, applied productivity tools, computational thinking, coding, and more
Notable Benefits	Everyone needs to have a foundation in digital literacy skills to ensure they are equipped for the demands of a tech-driven society.

ID	16
Name/Producer	LEGO Education - legoeducation.us
Skill Level	Beginning
Content Type	Computer Science
Description	Lego products and hands-on lessons
Technology Applied	Instructor-ready solutions including Mindstorms EV3 (for secondary level), WeDo 2.0 (for primary level), Machines & Mechanisms (for primary and secondary levels), and early learner
Notable Benefits	Provides powerful STEM learning solutions; builds 21st-century skills, ignites learning, and encourages collaboration and communication.

ID	17
Name/Producer	Littlebits - littlebits.cc
Skill Level	Beginning, Intermediate
Content Type	Computer Science, Engineering
Description	Electronic tools to help learners understand basic circuitry concepts
Technology Applied	Hands-on learning system kits, standards-aligned lessons, and a community of experts to share ideas, get tips, and collaborate
Notable Benefits	Snap-together bits are easy to use and simple to understand. No prior experience is needed; solutions are gender neutral and scalable across ages.

ID	18
Name/Producer	Makeblock - makeblock.com
Skill Level	Beginning, Intermediate
Content Type	Computer Science, Engineering
Description	Robotics kits and curriculum
Technology Applied	Early learning kits focus on learning through play; primary education kits provide first step to numeracy and communication; secondary kits focus on higher order thinking and coding.
Notable Benefits	Find curriculum and kits for any scenario and age group. Has a certification program for secondary education kits.

ID	19
Name/Producer	Minecraft Education - education.minecraft.net
Skill Level	Beginning, Intermediate
Content Type	Computer Science, Math, Art
Description	Education edition is an open-world game that promotes creativity, collaboration, and problem-solving
Technology Applied	Uses pixel art to introduce learners to mathematics and visual arts objectives; site provides endless lesson plans on pixel art to create on blank canvases.
Notable Benefits	Collaborate on projects with others in a fun Mindcraft environment.

ID	20
Name/Producer	Mand Labs - mandlabs.com
Skill Level	Beginning, Intermediate
Content Type	Engineering
Description	Step-by-step electronics kits
Technology Applied	Kit opens up into personal workstation; contains quality hardware and pre-tested parts. Can build projects in less than 30 minutes, and has step-by step-instructions, learning videos & guide books.
Notable Benefits	Build projects, gain skills, understand technology, and have fun.

ID	21
Name/Producer	Ozobot - ozobot.com
Skill Level	Beginning
Content Type	Engineering, Computer Science
Description	Award-winning robots for next generation creators
Technology Applied	Robotics kits (with 12 bots or 18 bots); has color-coded stickers for every kit, washable color-code markers, washable line-following markers, DIY pack, and experience pack
Notable Benefits	Bots can be coded in two ways: online with OzoBlockly software or screen-free with Color Codes. Inspires curious minds to go from consuming technology to creating it.

ID	22
Name/Producer	Project Lead the Way - pltw.org
Skill Level	Beginning, Intermediate
Content Type	Computer Science, Engineering, Science
Description	Tiered supplemental learning courses
Technology Applied	Provides instructors with training, resources, and support in real-world STEM activities
Notable Benefits	Learners not only acquire technical skills, but also learn to solve problems, think critically, and use creativity, all while communicating and collaborating.

ID	23
Name/Producer	Scratch - scratch.mit.edu
Skill Level	Beginning
Content Type	Computer Science, Free Resouce
Description	Programming language and online community
Technology Applied	Block-based visual programming language and website for beginning programmers
Notable Benefits	Developed by the MIT Media Lab and has been translated into 70+ languages. Users of site can create online projects using a block-like interface.

ID	24
Name/Producer	SoftBank Robotics - softbankrobotics.com
Skill Level	Beginning, Intermediate
Content Type	Computer Science, Social and Emotional Learning
Description	Robots for creating, inventing, and programming
Technology Applied	Humanoid robot which is made of sensors, motors, and software
Notable Benefits	Designed to be personalized by adding content, capabilities, enriching personality, and skills; can create everyday robots that assist people, making their lives easier, safer, and more connected.

ID	25
Name/Producer	Sphero - spero.com
Skill Level	Beginning, Intermediate
Content Type	Computer Science, Engineering
Description	Robot kits to inspire the creators of tomorrow
Technology Applied	Sphero Edu app is backbone of learning program; beginners draw paths for robots to follow, intermediate coders can drag and drop blocks, and pros can write text programs using JavaScript
Notable Benefits	Learn to code; program a robot, or create STEM activities; also share work with the community.

ID	26
Name/Producer	Squishy Circuits Store LLC - squishycircuits.com
Skill Level	Beginning
Content Type	Engineering, Science
Description	Conductive and insulating play dough
Technology Applied	Teaches basics of electrical circuits; contains dough kits, projects and recipes to teach engineering concepts.
Notable Benefits	Inspires creativity and independent thinking; brings ideas to life with fun, hands-on, and playful learning.

ID	
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Name/Producer	STEMfinity - stemfinity.com
Skill Level	Beginning, Intermediate
Content Type	Engineering, Science
Description	Largest selection of hands-on STEM enrichment activities
Technology Applied	Has the most trusted STEM brands; also has STEM grants, STEM questions (Ask Owlbert), and free STEM resources.
Notable Benefits	Whether you're a beginner or an expert, there are custom solutions that will fit any budget and learning environment.

ID	28
Name/Producer	Teach Terra - teachterraeducation.com
Skill Level	Beginning
Content Type	Engineering, Science
Description	STEM hands-on curriculum, labs, and tools
Technology Applied	Includes 36 hours of lessons introducing the best STEM-learning tools available.
Notable Benefits	Recommended for extracurricular, after school, charter school, exploratory electives, homeschool environments, genius hour, and club day.

ID	29
Name/Producer	Terrapin Software - terrapinlogo.com
Skill Level	Beginning
Content Type	Computer Science
Description	Robotic family of products
Technology Applied	Enhance teaching and learning with robots, curriculum, accessories, and mats
Notable Benefits	Directional keys are used for 40 commands of forward, back, left, right. Connect to PC, tablet or Tactile Reader with Bluetooth.

ID	30
Name/Producer	TinkerBots - tickerbots.com
Skill Level	Beginning
Content Type	Computer Science, Engineering
Description	Robot construction kits
Technology Applied	Robots with a coding app that teaches learners how to program, all the while enjoying the fun of hands-on play.
Notable Benefits	Is a playing experience for the whole family and friends; hooks you, and makes you want to play.

ID	31
Name/Producer	Tynker - tynker.com
Skill Level	Beginning, Intermediate
Content Type	Computer Science
Description	Coding courses
Technology Applied	Self-paced learning for all levels; includes intro to coding, game design, hardware, Minecraft modeling, and advanced languages
Notable Benefits	In today's digital world, coding is a fundamental skill alongside math and reading, but too few have the opportunity to learn to program. Has a fun and engaging platform.

ID	32
Name/Producer	Wonder Workshop - makewonder.com
Skill Level	Beginning, Intermediate
Content Type	Computer Science, Engineering
Description	Robotic kits to make coding meaningful and fun
Technology Applied	Dash robot kit for ages 6 +, Cue robot kits for ages 11 +, and Dot creativity kit for ages 6 +. Also has accessories and curriculum that contain lessons and activities
Notable Benefits	Helps ensure that students acquire technical skills and the ability to code; kids learn anything when they are having fun at the same time.