

S.T.E.M. BOOKS

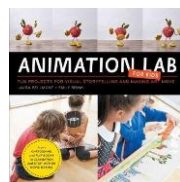
Use these super cool books to explore topics in
science, technology, engineering, and math!



[3D Modeling](#) by Theo Zizka.

Learn how to create computer-generated 3D models like the ones used in video games and animated films. Readers will blend their art and technology skills as they learn how to use the program SketchUp. Photos, sidebars, and callouts help readers draw connections between new concepts in this book and other makers-related concepts they may already know.

(J629.892 MAK)



[Animation Lab for Kids: Fun Projects for Visual Storytelling and Making Art Move](#) by Laura Belmont and Emily Brink.

In Animation Lab for Kids, artists, teachers, and authors Laura Belmont and Emily Brink present exciting, fun, hands-on projects that teach kids a range of animation techniques.

(J777.7 BEL)



[Arduino](#) by Terence O'Neill and Josh Williams.

Explains how the Arduino microcontroller can be used to make a robot and perform other functions, and describes the device's different components and features.

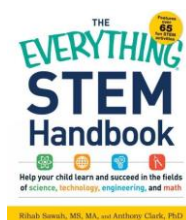
(J629.892 MAK)



[FIRST Robotics](#) by Nancy Benovich Gilby.

Makers of all ages are using LEGO bricks to create robots. In this book, students learn more about this recent innovation through detailed explanations built to foster creativity and critical thinking.

(J629.892 MAK)



[The Everything STEM Handbook: Help Your Child Learn and Succeed in the Fields of Science, Technology, Engineering, and Math](#) by Rihab Sawah and Anthony Clark.

The STEM fields (science, technology, engineering, and math) are top education priorities in the United States--and they are growing fields with a high demand for jobs. If you want to make sure your children are prepared for the future in these fields, here's how you can help: make it fun!
(J372.35 SWA)



[Hello Ruby: Adventures in Coding](#) by Linda Liukas.

A little girl with a huge imagination teams up with her animal friends to solve a computer puzzle in a story that introduces young children to basic coding and programming concepts through a series of activities.
(J005.13 LIU)



[High-Tech DIY Projects with 3D Printing](#) by Maggie Murphy.

Provides information about 3-D printers while offering step-by-step instructions for three-dimensional printer projects, including a key chain and a jumping frog.
(J621.988 MUR)



[High-tech DIY Projects with Electronics, Sensors, and LEDs](#) by Maggie Murphy.

Discusses the history of electronic devices and shares a selection of electronics projects that use LEDs and sensors.
(J621.318 MUR)



[High-Tech DIY Projects with Flying Objects](#) by Maggie Murphy.

Provides information about the maker movement while teaching readers how to build flying objects with step-by-step instructions.

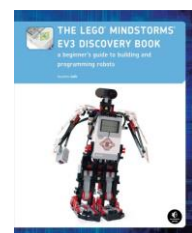
(J629.46 MUR)



[High-Tech DIY Projects with Microcontrollers](#) by Maggie Murphy.

Discusses the history of microcontrollers and shares a selection of projects that use littleBits and Arduino to demonstrate their inner workings and capabilities.

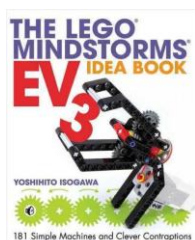
(J629.89 MUR)



[The LEGO Mindstorms EV3 Discovery Book: A Beginner's Guide to Building and Programming Robots](#) by Laurens Valk.

Offer beginners information and instructions on how to build and a program a simple robot using LEGO Mindstorms.

(J629.892 VAL)



[The LEGO Mindstorms EV3 Idea Book: 181 Simple Machines and Clever Contraptions](#) by Yoshihito Isogawa.

Explores creative ways to build mechanisms with the LEGO Mindstorms EV3 set, with step-by-step photographs and a list of the required parts for a variety of models, including cars, steerable crawlers, ball-shooters, and grasping robotic arms.

(J629.982 ISO)



[Leo, the Maker Prince: Journeys in 3D Printing](#) by Carla Diana.

LEO the Maker Prince teaches children (both young and old) about 3D printing by following Carla and LEO's journey through Brooklyn. LEO is a walking, talking robot who has the magical ability to print (in plastic) any object that Carla draws. Readers can come along for the journey, too: all of the objects in the book are printable one way or another.

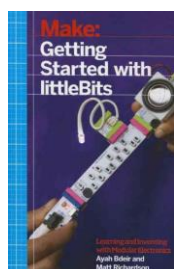
(J621.988 DIA)



[Littlebits](#) by Amber Lovett.

With LittleBits, you can build your own electronic devices using modules that snap together easily with magnets. With this book, students learn the art of innovation through detailed explanations and hands-on activities built to foster creativity and problem solving. Fun, engaging text introduces readers to new ideas and builds on maker-related concepts they may already know.

(J621.381 LOV)



[Make: Getting Started with littleBits](#) by Ayah Bdeir.

littleBits are electronic building blocks with over 60 modules and trillions of combinations. With littleBits, anyone can harness the power of electronics, microcontrollers, and the cloud. You can combine these simple, snap-together, magnetic bricks to make simple electronic circuits, or build robots and devices that combine sensors, microcontrollers, and cloud connectivity.

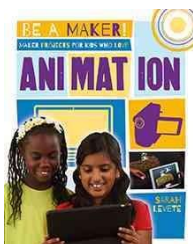
(J005.133 BDE)



[Maker Lab: 28 Super Cool Projects](#) by Jack Challoner.

Presents over two dozen simple science activities using food, common household items, water, and the outdoors.

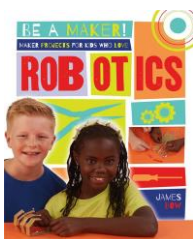
(J507.8 CHA)



[Maker Projects for Kids who Love Animation](#) by Sarah LeVete.

Presents the history of animation while readers also discover what inspired the world's greatest animators and their works.

(J791.433 LEV)



[Maker Projects for Kids who Love Robotics](#) by James Bow.

In this exciting title, readers will learn about basic robot components and how they are used to build various robots for different purposes. Step-by-step Maker projects let readers put their skills to use as they build amazing robotic creations.

(J629.892 BOW)



[Makey Makey](#) by Sandy Ng

Makey Makey is a kit that helps you turn everyday objects into touchpads that control your computer's keyboard. With this book, students learn the art of innovation through detailed explanations and hands-on activities built to foster creativity and problem solving.

(J629.892 MAK)



[Mindstorms: Level 1](#) by Rena Hixon.

Learn the basics of Mindstorms, from building your first robot to programming its first movements.

(J629.892 HIX)



[Prototyping](#) by Eric Cook.

Learn how to improve your projects by building and revising prototypes. Readers will learn how to start making a new idea a reality without putting their effort or resources to waste.

(J629.892 MAK)



[Soldering](#) by David Erik Nelson.

Teaches readers how to solder electronic components together and build electronic devices. Readers will learn basic soldering skills, which will be useful in pursuing a variety of engineering projects.

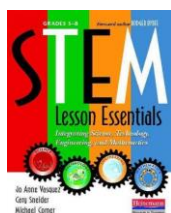
(J629.892 MAK)



[Squishy Circuits](#) by Kristin Fontichiaro and AnnMarie P. Thomas.

Learn how to safely create electronic circuits using conductive and insulating doughs. Readers will learn basic circuitry skills, which will be useful in pursuing a variety of engineering projects.

(J621.38 FON)



[STEM Lesson Essentials, Grades 3-8: Integrating Science, Technology, Engineering, and Mathematics](#) by Jo Anne Vasquez, Cary Sneider and Michael Comer.

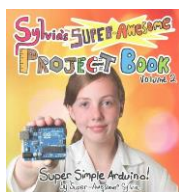
Want to know how to implement authentic STEM teaching and learning into your classroom? STEM Lesson Essentials provides all the tools and strategies you'll need to design integrated, interdisciplinary STEM lessons and units that are relevant and exciting to your students.

(J372.35 VAS)



[Super Simple Aircraft Projects](#) by Alex Kuskowski

Readers learn about the science and history of flight, including a science-based aircraft project.
(J745.5 KUS)



[Sylvia's Super Awesome Project Book Volume 2](#) by Sylvia Todd.

In this super fun book, Sylvia teaches you to understand Arduino microcontroller programming by inventing an adjustable strobe and two digital musical instruments you can play! Along the way, you'll learn a lot about electronics, coding, science, and engineering.
(J629.892 TOD)