

# Tech Projects Book Collection



Mid-Valley  
STEM-CTE HUB



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# Tech Projects Book Collection

The Coding, Robotics, and Future Tech Book Collection introduces students to the exciting worlds of programming, robotics, and emerging technologies through hands-on, creative projects. Whether they're coding with Star Wars characters, sewing electronic circuits, or building robots from everyday materials, students will gain practical STEM skills while unleashing their imaginations.

The books in this kit empower students to tinker, explore, and build confidence as creators of technology, not just users. Along the way, they'll also investigate the real-world impacts of cutting-edge innovations like artificial intelligence, driverless cars, and smart clothing. Perfect for makerspaces and tech-forward classrooms, this kit invites students to actively shape the technology of tomorrow.

**Grade Level**

3<sup>rd</sup> - 6<sup>th</sup>

**Reading Level**

Beginner - Intermediate



## Contents of Kit

- **Star Wars Coding Projects by DK** - A step-by-step visual guide to designing and coding in Scratch. The setting is as big as your imagination. Your favorite Star Wars characters will guide you through fun projects, animations, and games as you learn how to create and code. Draw your own Star Wars-inspired sprites to use in the projects. You're the director as you navigate the spaceship you've designed through the asteroid belt you imagined, as you go on the jetpack adventures you brought to life.
- **Make: Making Simple Robots by Kathy Ceceri** - This book is based on one idea: Anybody can build a robot! That includes kids, school teachers, parents, and non-engineers. If you can knit, sew, or fold a flat piece of paper into a box, you can build a no-tech robotic part. If you can use a hot glue gun, you can learn to solder basic electronics into a low-tech robot that reacts to its environment. And if you can figure out how to use the apps on your smartphone, you can learn enough programming to communicate with a simple robot.
- **Make: Tech DIY by Ji Sun Lee & Jaymes Dec** - This book introduces younger children to the magic of electronics through the softer side of circuits! Young explorers will learn about electronics through sewing and craft projects aimed at maker parents and their children, elementary school teachers, and kids' activity leaders. Each project introduces new skills and new components in a progressive series of projects that take learners from the very basics to understanding how to use components such as sensors, transistors, and timers. The book is breezy, highly illustrated, and fun for everyone!
- **The Book of Terrifying Awesome Technology by Sean Connolly** - These 27 terrific experiments use basic stuff from around the house and will help you understand the fascinating and potentially scary world of driverless cars, artificial intelligence, robots and androids, 3-D printing, test-tube meat, smart clothing, and more. Through cool illustrations, photos, and Sean Connolly's clear and always-lively writing, you'll learn what each breakthrough means, how it can improve our lives, and what its downside might be.



# Learning Extensions

## STEAM Connections: Engineering - Math - Science

### Learning Objectives:

- Students will develop introductory coding skills using block-based programming tools like Scratch.
- Students will build simple robots and electronic projects using craft, sewing, and basic circuitry.
- Students will explore emerging technologies and consider both their benefits and ethical implications.
- Students will practice iterative design and hands-on problem solving to complete open-ended projects.

### Career Connections:

- **Software Developer/Game Designer** – Introduced through Star Wars Coding Projects, where students learn coding and animation basics.
- **Robotics Engineer** – Central to Making Simple Robots, where students explore physical computing and build functional robots.
- **Wearable Tech Designer/Electronics Maker** – Highlighted in Make: Tech DIY, where students combine electronics with sewing and craft.
- **Technology Journalist/Futurist** – Explored in The Book of Terrifying Awesome Technology, which encourages critical thinking about emerging tech.

### Essential Employability Skills:

- Problem Solving and Critical Thinking
- Creativity and Innovation
- Technical Literacy
- Adaptability and Resilience
- Ethical Reasoning and Awareness



# Resources and Accessibility

## Safety Guidelines

- **Avoid Food and Drinks Near Books** - Encourage clean, dry reading areas to prevent spills, stains, or water damage.
- **Handle Books Gently** - Model how to turn pages carefully, avoid bending spines, and store books upright or flat.
- **Use Clean Hands** - Have students wash or sanitize hands before handling shared books to keep materials in good condition.
- **Designate a Safe Storage Spot** - Store books in a sturdy, dry, and clearly labeled bin or tote to protect them from wear and tear between uses.

## Accessibility

- **Use Book Stands or Holders** - Provide angled book holders or clipboards to support independent reading for students with mobility or motor challenges.
- **Pair Audio with Print** - Use audiobooks or teacher-read recordings when available to support students with reading disabilities or visual impairments.
- **Incorporate Read-Alouds and Peer Reading** - Offer opportunities for shared or buddy reading to help students who benefit from auditory learning or support with decoding.
- **Offer Visual Aids and Discussion Prompts** - Supplement books with images, models, or key vocabulary cards to reinforce understanding and engagement.

## Library Catalog



## Library Resources



## Feedback

QR to feedback survey

