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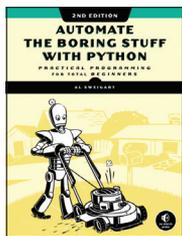
**SPRING 2021**

**STEM**

**CATALOG**

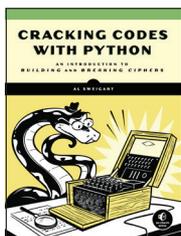
# PYTHON

Python is a simple but powerful programming language used by millions of first-time learners, college students, and professional programmers at organizations like Google, NASA, and IBM.



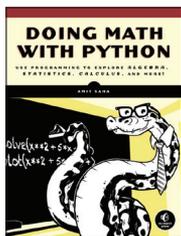
**AUTOMATE THE BORING STUFF WITH PYTHON, 2ND EDITION:** Practical Programming for Total Beginners

by Al Sweigart  
Nov '19, 592 pp.,  
\$39.95, 9781593279929  
Ages 13+



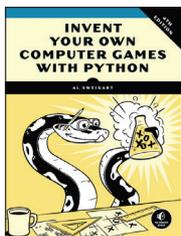
**CRACKING CODES WITH PYTHON:** An Introduction to Building and Breaking Ciphers

by Al Sweigart  
Jan '18, 416 pp.,  
\$29.95, 9781593278229  
Ages 14+, 1150L



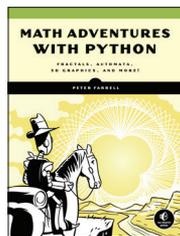
**DOING MATH WITH PYTHON:** Use Programming to Explore Algebra, Statistics, Calculus, and More!

by Amit Saha  
Aug '15, 264 pp.,  
\$29.95, 9781593276409  
Ages 14+, 1130L



**INVENT YOUR OWN COMPUTER GAMES WITH PYTHON, 4TH EDITION**

by Al Sweigart  
Dec '16, 376 pp.,  
\$29.95, 9781593277956  
Ages 12+, 1030L



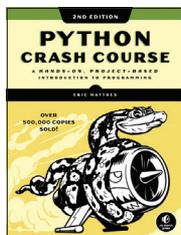
**MATH ADVENTURES WITH PYTHON:** An Illustrated Guide to Exploring Math with Code

by Peter Farrell  
Jan '19, 304 pp.,  
\$29.95, 9781593278670  
Ages 13+, 1080L



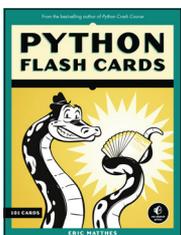
**MISSION PYTHON:** Code a Space Adventure Game!

by Sean McManus  
Oct '18, 280 pp.,  
\$29.95, 9781593278571  
Full color, Ages 12+,  
1020L



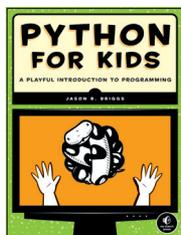
**PYTHON CRASH COURSE, 2ND EDITION:** A Hands-On, Project-Based Introduction to Programming

by Eric Matthes  
May '19, 544 pp.,  
\$39.95, 9781593279288  
Ages 13+, 1050L



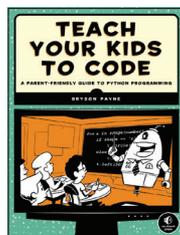
**PYTHON FLASH CARDS:** Syntax, Concepts, and Examples

by Eric Matthes  
Jan '19, 101 cards,  
\$27.95, 9781593278960  
Full color, Ages 13+



**PYTHON FOR KIDS:** A Playful Introduction To Programming

by Jason R. Briggs  
Dec '12, 344 pp.,  
\$34.95, 9781593274078  
Full color, Ages 12+,  
1070L



**TEACH YOUR KIDS TO CODE:** A Parent-Friendly Guide to Python Programming

by Bryson Payne  
Apr '15, 336 pp.,  
\$29.95, 9781593276140  
Full color, Ages 14+,  
1150L

*"Vibrant and visually engaging with chuckle-worthy asides, these introductory guides are instructive and kid-friendly."*

—School Library Journal

*"A straightforward, crystal-clear guide to programming in Python."*

—Kirkus Reviews on *Teach Your Kids to Code*

# SCRATCH

Developed by the Massachusetts Institute of Technology (MIT), Scratch is a free programming environment in which kids connect colorful blocks of code to build programs. ScratchJr is a simplified version of Scratch designed for 5- to 7-year-olds.



**25 SCRATCH 3 GAMES FOR KIDS: A Playful Guide to Coding**  
by Max Wainwright  
Oct '19, 128 pp.,  
\$19.95, 9781593279905  
Full color, Ages 8+, 670L



**LEARN TO PROGRAM WITH SCRATCH: A Visual Introduction to Programming with Games, Art, Science, and Math**  
by Majed Marji  
Feb '14, 288 pp., \$34.95  
9781593275433  
Full color, Ages 13+



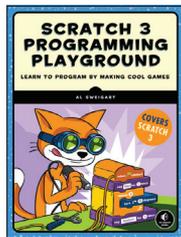
**MAKE YOUR OWN SCRATCH GAMES**  
by Anna Anthropy  
Jul '19, 192 pp.,  
\$17.95, 9781593279363  
Full color, Ages 10+, 940L



**THE OFFICIAL SCRATCH CODING CARDS: Creative Coding Activities for Kids**  
by Natalie Rusk  
May '19, 76 cards,  
\$24.95, 9781593279769  
Full color, Ages 8+, 530L



**THE OFFICIAL SCRATCHJr BOOK: Help Your Kids Learn to Code**  
by Marina Umaschi Bers and Mitchel Resnick  
Oct '15, 160 pp.,  
\$19.95, 9781593276713  
Full color, Ages 10+, 950L



**SCRATCH 3 PROGRAMMING PLAYGROUND: Learn to Program by Making Cool Games**  
by Al Sweigart  
Jan '21, 288 pp.,  
\$24.95, 9781718500211  
Full color, Ages 10+, 1020L

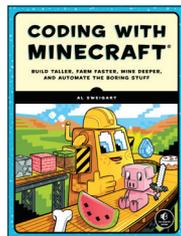


**SCRATCHJr CODING CARDS: Creative Coding Activities**  
by Marina Umaschi Bers and Amanda Sullivan  
Jul '18, 75 activity cards,  
\$24.95, 9781593278991  
Full color, Ages 8+, 720L

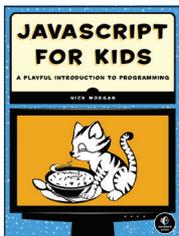


**SUPER SCRATCH PROGRAMMING ADVENTURE!**  
by The LEAD Project  
Aug '19, 160 pp.,  
\$19.95, 9781718500129  
Full color, Ages 8+, 1020L

## MORE CODING FOR KIDS!



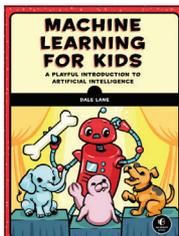
**CODING WITH MINECRAFT®: Build Taller, Farm Faster, Mine Deeper, and Automate the Boring Stuff**  
by Al Sweigart  
May '18, 256 pp.,  
\$29.95, 9781593278533  
Full color, Ages 13+, 100L



**JAVASCRIPT FOR KIDS: A Playful Introduction to Programming**  
by Nick Morgan  
Dec '14, 336 pp.,  
\$34.95, 9781593274085  
Full color, Ages 12+, 1040L



**LEARN TO PROGRAM WITH APP INVENTOR: A Visual Introduction to Building Apps**  
by Lyra Logan  
Nov '19, 200 pp.,  
\$24.95, 9781593279684  
Full color, Ages 8+, 1240L



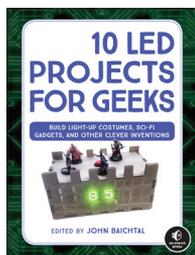
**MACHINE LEARNING FOR KIDS: A Project-Based Introduction to Artificial Intelligence**  
by Dale Lane  
Feb '21, 392 pp.,  
\$34.95, 9781718500563  
Full color, Ages 12+



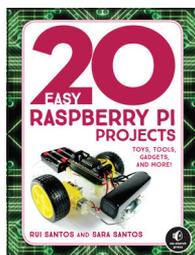
**MAKE YOUR OWN TWINE GAMES**  
by Anna Anthropy  
Mar '19, 104 pp.,  
\$17.95, 9781593279387  
Full color, Ages 10+, 940L

# MAKERSPACE

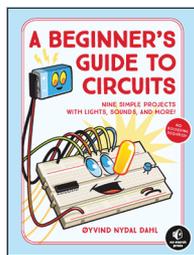
Tinkering stimulates creativity, sharpens problem-solving skills, and introduces scientific and engineering concepts in a tactile and engaging way. These books use hands-on projects to teach readers how circuits and electronics work.



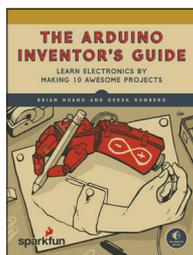
**10 LED PROJECTS FOR GEEKS:** Build Light-Up Costumes, Sci-Fi Gadgets, and Other Clever Inventions  
edited by John Baichtal  
Jul '18, 240 pp.,  
\$24.95, 9781593278250  
Full color, Ages 13+



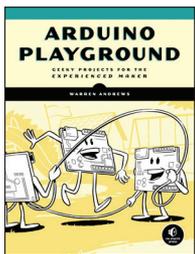
**20 EASY RASPBERRY PI PROJECTS:** Toys, Tools, Gadgets, and More!  
by Rui Santos and Sara Santos  
Apr '18, 288 pp.,  
\$24.95, 9781593278434  
Full color, Ages 13+, 1100L



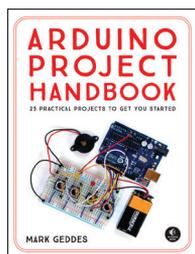
**A BEGINNER'S GUIDE TO CIRCUITS:** Nine Simple Projects with Lights, Sounds, and More!  
by Øyvind Nydal Dahl  
Oct '18, 80 pp.,  
\$17.95, 9781593279042  
Ages 13+, 1130L



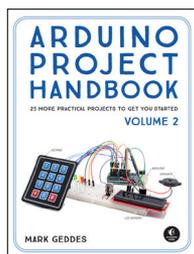
**THE ARDUINO INVENTOR'S GUIDE:** Learn Electronics by Making 10 Awesome Projects  
by Brian Huang and Derek Runberg  
May '17, 336 pp.,  
\$29.95, 9781593276522  
Full color, Ages 10+



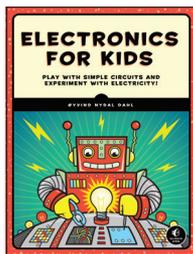
**ARDUINO PLAYGROUND:** Geeky Projects for the Experienced Maker  
by Warren Andrews  
Mar '17, 344 pp.,  
\$29.95, 9781593277444  
Ages 15+



**ARDUINO PROJECT HANDBOOK, VOL. 1:** 25 Practical Projects to Get You Started  
by Mark Geddes  
Jun '16, 272 pp.,  
\$24.95, 9781593276904  
Full color, Ages 14+, 1170L



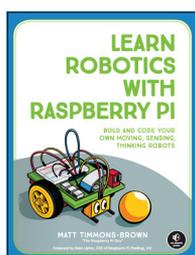
**ARDUINO PROJECT HANDBOOK, VOL. 2:** 25 Simple Electronics Projects for Beginners  
by Mark Geddes  
Aug '17, 272 pp.,  
\$24.95, 9781593278182  
Full color, Ages 14+, 1170L



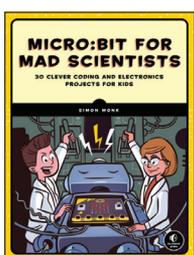
**ELECTRONICS FOR KIDS:** Play with Simple Circuits and Experiment with Electricity!  
by Øyvind Nydal Dahl  
Jul '16, 328 pp.,  
\$24.95, 9781593277253  
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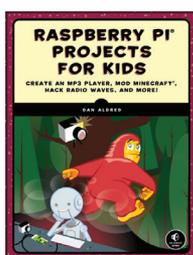
**HOMEMADE ROBOTS:** 10 Simple Bots to Build with Stuff Around the House  
by Randy Sarafan  
Aug '21, 192 pp.,  
\$17.99, 9781718500235  
Full color, Ages 10+



**LEARN ROBOTICS WITH RASPBERRY PI:** Build and Code Your Own Moving, Sensing, Thinking Robots  
by Matt Timmons-Brown  
Jan '19, 240 pp.,  
\$24.95, 9781593279202  
Full color, Ages 10+



**MICRO:BIT FOR MAD SCIENTISTS:** 30 Clever Coding and Electronics Projects for Kids  
by Simon Monk  
Sept '19, 280 pp.,  
\$24.95, 9781593279745  
Full color, Ages 10+, 1010L

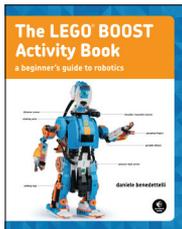


**RASPBERRY PI PROJECTS FOR KIDS:** Create an MP3 Player, Mod Minecraft, Hack Radio Waves, and More!  
by Dan Aldred  
Dec '19, 288 pp.,  
\$24.95, 9781593279462  
Full color, Ages 10+, 1040L

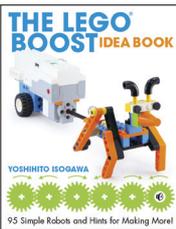
# LEGO® ROBOTICS

The world's most popular robotics platform, LEGO® MINDSTORMS® EV3 is remarkably approachable for first-timers, but also surprisingly deep. Add LEGO Technic and Power Functions motors for a deeper understanding of fundamental mechanical concepts and basic engineering principles.

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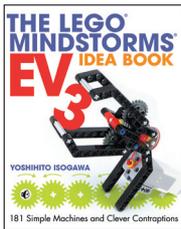


**THE LEGO BOOST IDEA BOOK: 95 Simple Robots and Hints for Making More!**  
by Yoshihito Isogawa  
Sep '18, 264 pp.,  
\$24.95, 9781593279844  
**Full color, Ages 8+, 730L**



**THE LEGO MINDSTORMS EV3 DISCOVERY BOOK: A Beginner's Guide to Building and Programming Robots**  
by Laurens Valk  
Jun '14, 396 pp.,  
\$34.95, 9781593275327  
**Full color, Ages 14+, 1140L**

## LEGO® MINDSTORMS



**THE LEGO MINDSTORMS EV3 IDEA BOOK: 181 Simple Machines and Clever Contraptions**  
by Yoshihito Isogawa  
Nov '14, 232 pp.,  
\$24.95, 9781593276003  
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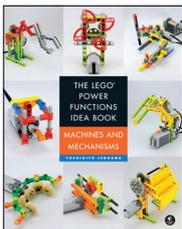


**THE LEGO MINDSTORMS ROBOT INVENTOR ACTIVITY BOOK: An Inventor's Guide to Building LEGO Robots**  
by Daniele Benedettelli  
Aug '21, 200 pp.,  
\$34.99, 9781718501812  
**Full color, Ages 10+**

## LEGO® POWERED

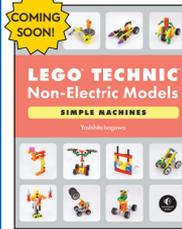


**HIGH-TECH LEGO PROJECTS: 16 Rule-Breaking Inventions**  
by Grady Koch  
Nov '20, 208 pp.,  
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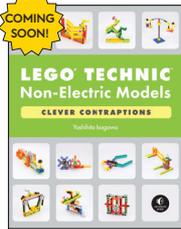


**THE LEGO POWER FUNCTIONS IDEA BOOK, VOL. 1: Machines and Mechanisms**  
by Yoshihito Isogawa  
Oct '15, 324 pp.,  
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**Full color, Ages 10+**  
Volume 2 also available

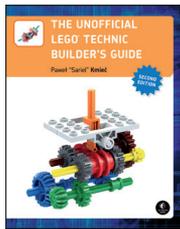
## LEGO® TECHNIC



**LEGO TECHNIC NON-ELECTRIC MODELS, VOL 1: Simple Machines**  
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Jul '21, 180 pp.,  
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**THE UNOFFICIAL LEGO TECHNIC BUILDER'S GUIDE, 2ND EDITION**  
by Pawel "Sariel" Kmiec  
Oct '16, 424 pp.,  
\$34.95, 9781593277604  
**Full color, Ages 14+, 1190L**

*"Helps budding enthusiasts navigate EV3 kits with clear language and step-by-step directions."*

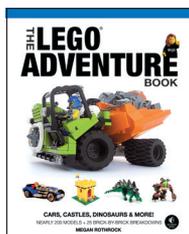
—School Library Journal on *The LEGO MINDSTORMS EV3 Discovery Book*

*"Encouraging young engineers to apply problem solving and creativity to the endless combinations of mechanics."*

—Booklist on *The LEGO MINDSTORMS EV3 Idea Book*

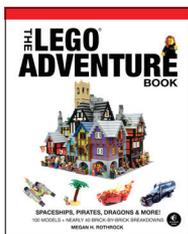
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Playing with LEGO lets kids develop their creativity while building spatial and motor skills. Complex play with construction toys during childhood is linked with future academic achievement.



## THE LEGO ADVENTURE BOOK, VOL. 1: Cars, Castles, Dinosaurs and More!

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Full color, hardcover, Ages 5+



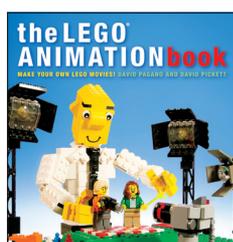
## THE LEGO ADVENTURE BOOK, VOL. 2: Spaceships, Pirates, Dragons and More!

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\$24.95, 9781593275129  
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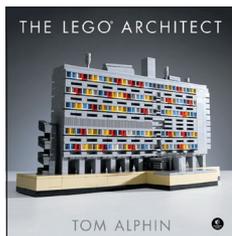
## THE LEGO ADVENTURE BOOK, VOL. 3: Robots, Planes, Cities and More!

by Megan H. Rothrock  
Sep '15, 192 pp.,  
\$24.95, 9781593276102  
Full color, hardcover, Ages 5+



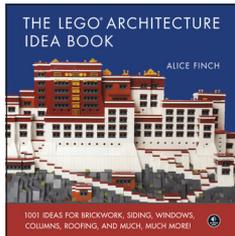
## THE LEGO ANIMATION BOOK: Make Your Own LEGO Movies!

by David Pagano and David Pickett  
Oct '16, 216 pp.,  
\$19.95, 9781593277413  
Full Color, Ages 12+, 1030L



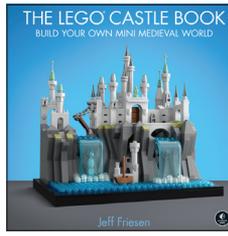
## THE LEGO ARCHITECT

by Tom Alphin  
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\$24.95, 9781593276133  
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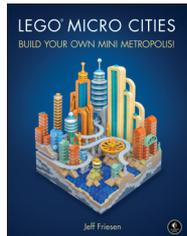
## THE LEGO ARCHITECTURE IDEA BOOK: 1001 Ideas for Brickwork, Siding, Windows, Columns, Roofing, and Much, Much More

by Alice Finch  
Sep '18, 232 pp.,  
\$24.95, 9781593278212  
Full color, hardcover, Ages 10+



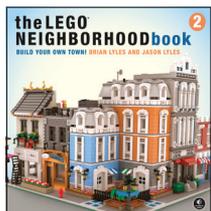
## THE LEGO CASTLE BOOK: Build Your Own Mini Medieval World

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## LEGO MICRO CITIES: Build Your Own Mini Metropolis!

by Jeff Friesen  
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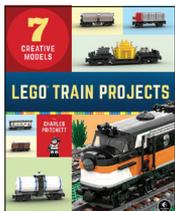
## THE LEGO NEIGHBORHOOD BOOK 2: Build Your Own City!

by Brian Lyles and Jason Lyles  
Nov '18, 192 pp.,  
\$19.95, 9781593279301  
Full color, Ages 10+



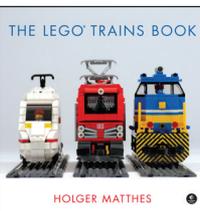
## LEGO SPACE PROJECTS: 52 Creative Models

by Jeff Friesen  
Aug '21, 224 pp.,  
\$19.99, 9781718501164  
Full color, Ages 6+



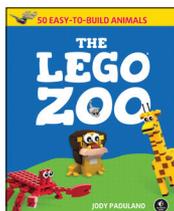
## LEGO TRAIN PROJECTS: 7 Creative Models

by Charles Pritchett  
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\$24.95, 9781718500488  
Full color, Ages 9+



## THE LEGO TRAINS BOOK

by Holger Matthes  
Oct '17, 248 pp.,  
\$24.95, 9781593278199  
Full color, hardcover, Ages 10+

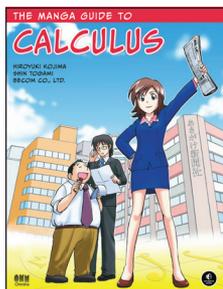


## THE LEGO ZOO: 50 Easy-to-Build Animals

by Jody Padulano  
Nov '18, 208 pp.,  
\$19.95, 9781593279226  
Full color, Ages 7+

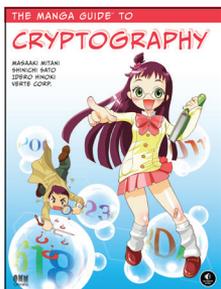
# MATH AND SCIENCE COMICS

These illustrated guides combine comics and an engaging storyline to make high school– and college-level topics fun and accessible.



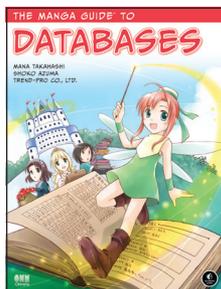
## THE MANGA GUIDE TO CALCULUS

by Hiroyuki Kojima et al.  
Aug '09, 256 pp.,  
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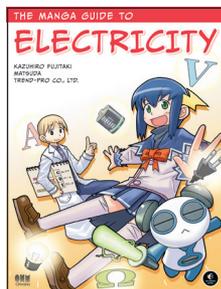
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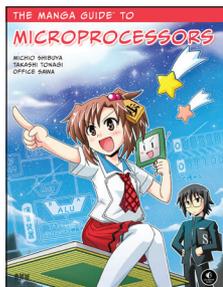
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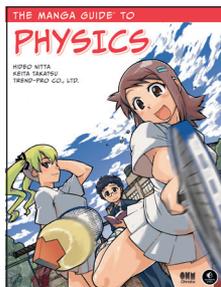
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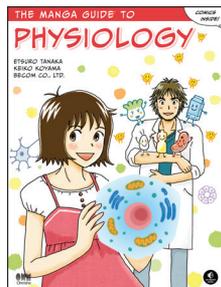
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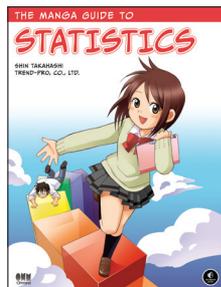
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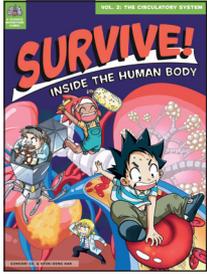
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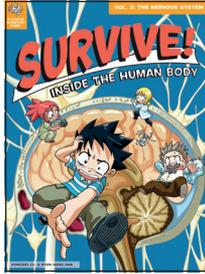
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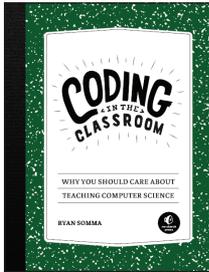
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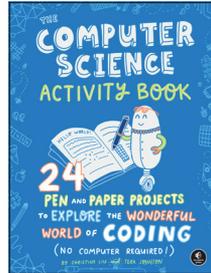
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