

The Robot Builder S Bonanza 99 Inexpensive Robotic

“ I wrote this book because I love building robots. I want you to love building robots, too. It took me a while to learn about many of the tools and parts in amateur robotics. Perhaps by writing about my experiences, I can give you a head start. ” —David Cook Robot Building for Beginners, Second Edition is an update of David Cook ’ s best-selling Robot Building for Beginners. This book continues its aim at teenagers and adults who have an avid interest in science and dream of building household explorers. No formal engineering education is assumed. The robot described and built in this book is battery powered and about the size of a lunchbox. It is autonomous. That is, it isn ’ t remote controlled. You ’ ll begin with some tools of the trade, and then work your way through prototyping, robot bodybuilding, and eventually soldering your own circuit boards. By the book ’ s end, you will have a solid amateur base of understanding so that you can begin creating your own robots to vacuum your house or maybe even rule the world!

For hundreds of years, humans have been fascinated by machines that help with everyday tasks, and Build the Robot gives readers an overview of the history of robotics. Have fun while learning about the development of various robots--from the first slow-moving robots of the 1930s to the futuristic nanobots that could one day be used to fight diseases inside the human body. Everything you need to build three moving robot models is included. *This unique set includes a 32-page book full of colorful illustrations and intriguing facts about robots, plus 62 slotted model pieces and three wind-up motors to build three different types of moving robots. *Discover the fantastic world of robotics and learn everything you need to know about these remarkable machines. Build the Robot offers a unique building and learning experience as you assemble three types of moving robot models.

This book will show you how to use your Arduino to control a variety of different robots, while providing step-by-step instructions on the entire robot building process. You'll learn Arduino basics as well as the characteristics of different types of motors used in robotics. You also discover controller methods and failsafe methods, and learn how to apply them to your project. The book starts with basic robots and moves into more complex projects, including a GPS-enabled robot, a robotic lawn mower, a fighting bot, and even a DIY Segway-clone. Introduction to the Arduino and other components needed for robotics Learn how to build motor controllers Build bots from simple line-following and bump-sensor bots to more complex robots that can mow your lawn, do battle, or even take you for a ride Please note: the print version of this title is black & white; the eBook is full color.

Create high-tech walking, talking, and thinking robots "McComb hasn ’ t missed a beat. It ’ s an absolute winner!" -GeekDad, Wired.com Breathe life into the robots of your dreams—without advanced electronics or programming skills. Arduino Robot Bonanza shows you how to build autonomous robots using ordinary tools and common parts. Learn how to wire things up, program your robot's brain, and add your own unique flair. This easy-to-follow, fully illustrated guide starts with the Teachbot and moves to more complex projects, including the musical TuneBot, the remote-controlled TeleBot, a slithering snakelike 'bot, and a robotic arm with 16 inches of reach! Get started on the Arduino board and software Build a microcontroller-based brain Hook up high-tech sensors and controllers Write and debug powerful Arduino apps Navigate by walking, rolling, or slithering Program your 'bot to react and explore on its own Add remote control and wireless video Generate sound effects and synthesized speech Develop functional robot arms and grippers Extend plans and add exciting features

Programming Arduino Getting Started with Sketches

Arduino Robotics

The LEGO BOOST Idea Book

Fusion 360 for Makers

book one

JunkBots, Bugbots, and Bots on Wheels: Building Simple Robots With BEAM Technology

Provides instructions for building a wide variety of simple and complex high-tech gadgets, from a Jacob's Ladder to voice control for robots

Encourage kids to find their inner strength with this companion to the New York Times bestsellers I Am Human and I Am Love! I move ahead one breath at a time. I act with bravery. I am courage. When we picture someone brave, we might think they're fearless but real courage comes from feeling scared and facing what challenges us anyway. When our minds tell us "I can't," we can look inside ourselves and find the strength to say, "Yes, I CAN!" From the New York Times bestselling team behind the I Am series comes a triumphant celebration of everyday courage: believing in ourselves, speaking out, trying new things, asking for help, and getting back up no matter how many times we may fall. Grounded in mindfulness and awareness, I Am Courage is an empowering reminder that we can conquer anything. Inside, you'll also find exercises to inspire confidence.

Instant New York Times Bestseller As the fiftieth anniversary of the first lunar landing approaches, the award winning historian and perennial New York Times bestselling author takes a fresh look at the space program, President John F. Kennedy's inspiring challenge, and America's race to the moon. "We choose to go to the Moon in this decade and do the other things, not because they are easy, but because they are hard; because that goal will serve to organize and measure the best of our energies and skills, because that challenge is one that we are willing to accept, one we are unwilling to postpone, and one we intend to win."—President John F. Kennedy On May 25, 1961, JFK made an astonishing announcement: his goal of putting a man on the moon by the end of the decade. In this engrossing, fast-paced epic, Douglas Brinkley returns to the 1960s to recreate one of the most exciting and

ambitious achievements in the history of humankind. American Moonshot brings together the extraordinary political, cultural, and scientific factors that fueled the birth and development of NASA and the Mercury, Gemini and Apollo projects, which shot the United States to victory in the space race against the Soviet Union at the height of the Cold War. Drawing on new primary source material and major interviews with many of the surviving figures who were key to America's success, Brinkley brings this fascinating history to life as never before. American Moonshot is a portrait of the brilliant men and women who made this giant leap possible, the technology that enabled us to propel men beyond earth's orbit to the moon and return them safely, and the geopolitical tensions that spurred Kennedy to commit himself fully to this audacious dream. Brinkley's ensemble cast of New Frontier characters include rocketeer Wernher von Braun, astronaut John Glenn and space booster Lyndon Johnson. A vivid and enthralling chronicle of one of the most thrilling, hopeful, and turbulent eras in the nation's history, American Moonshot is an homage to scientific ingenuity, human curiosity, and the boundless American spirit.

Build a robot that responds to electrical activity in your brain—it's easy and fun. If you're familiar with Arduino and have basic mechanical building skills, this book will show you how to construct a robot that plays sounds, blinks lights, and reacts to signals from an affordable electroencephalography (EEG) headband. Concentrate and the robot will move. Focus more and it will go faster. Let your mind wander and the robot will slow down. You'll find complete instructions for building a simple robot chassis with servos, wheels, sensors, LEDs, and a speaker. You also get the code to program the Arduino microcontroller to receive wireless signals from the EEG. Your robot will astound anyone who wears the EEG headband. This book will help you: Connect an inexpensive EEG device to Arduino Build a robot platform on wheels Calculate a percentage value from a potentiometer reading Mix colors with an RGB LED Play tones with a piezo speaker Write a program that makes the robot avoid boundaries Create simple movement routines

Robot Builder's Bonanza, 4th Edition, 4th Edition

The Ultimate Guide to Do-It-Yourself Animatronics

A Memoir of Madness and Recovery

A Novel

Build and Code Your Own Moving, Sensing, Thinking Robots

A Brief History of Tomorrow

****THE MILLION COPY BESTSELLER**** Sapiens showed us where we came from. In uncertain times, Homo Deus shows us where we're going. 'Homo Deus will shock you. It will entertain you. It will make you think in ways you had not thought before' Daniel Kahneman, bestselling author of Thinking, Fast and Slow Yuval Noah Harari envisions a near future in which we face a new set of challenges. Homo Deus explores the projects, dreams and nightmares that will shape the twenty-first century and beyond - from overcoming death to creating artificial life. It asks the fundamental questions: how can we protect this fragile world from our own destructive power? And what does our future hold?

A guide to the LEGO Mindstorms Robotics Invention System explains how to build and program mobile robots using LEGO blocks and third party software, and includes plans for hands-on robot projects

How to Build Robots instructs readers on how to make useable robots, including one that will scrub a table! Featuring easy-to-follow instructions, vivid photographs, easily accessible materials, and a handy template, readers will delight in watching their creations come to life!

Introducing the Sherlock Sam series by A.J. Low—a fresh, cross-cultural twist on the classic Sherlock Holmes stories, tailored for middle-grade readers. Set in iconic Singapore locations, the series follows the mystery-solving exploits of smart, observant, food-loving 10-year-old Samuel Tan Cher Lock (a.k.a. Sherlock Sam), Watson, his reluctant robot sidekick, and the rest of the Supper Club (a “Scooby Doo gang,” of sorts) as they prove that mysteries are best solved through teamwork. In Sherlock Sam and the Missing Heirloom in Katong, Auntie Kim Lian's precious Peranakan cookbook disappears, and Sherlock Sam cannot eat her delicious ayam buah keluak anymore! Will Sherlock Sam be able to use his super detective powers to find this lost treasure? Praise: “A promising adventure series with Super Sleuth Sherlock Sam! His insatiable appetite to sample Singapore's popular foods and never-give-up attitude to solving mysteries will keep readers glued till the last page.” —Adeline Foo, author of the bestselling series The Diary of Amos Lee “A thrilling kid's detective romp in the grand tradition of Famous Five, with a lovable robot and delicious Peranakan food!” —Otto Fong, author of Sir Fong's Adventures In Science “Sherlock Sam and Watson are set to become one of Singapore's favourite detective duos! Sam's preoccupation with food struck a familiar chord with the Singaporean in me and Watson's deadpan one-liners had me laughing out loud. What a fun-filled, food-filled adventure story! This is a delicious read that will certainly warm your heart like a good serving of ayam buah keluak!” —Emily Lim, award-winning author of Tibby, the Tiger Bunny and Prince Bear & Pauper Bear “Watson is a delightful creation. He follows a rich line of great robot companions from Star War's R2D2 to Star Trek's Data; no detective should leave home without one!” —Sonny Liew, Eisner-nominated author of Malinky Robot “A genius kid detective would be good. A genius kid detective with a wise-acre robot sidekick is even better. Add a wicked sense of humor and you've one of the sharpest, funniest books you'll read all year.” —Hal Johnson, author of Immortal Lycanthropes “This book will definitely draw you in with its twists and turns that will leave you guessing with each turn of the page who the culprits

are. There are also many funny lines from Watson that will cause you to burst out in laughter.” —Seow Kai Lun, ?Singapore's Child “A clever, entertaining and funny children's novel...a promising start to a new book series [with] bold and whimsical illustrations by drewscape” —Tina Gan, Red Dot Diva “This debut local novel is rich (in local references) and satisfying (as a mystery story).” —Stephani Yeo, Young Parents “BOTH boys were clamouring to read the book first, so I was left with no choice but to read the book TOGETHER with the both of them...I found it to be utterly captivating enough to make me want to complete the book in one sitting...the localized dialogue is hilariously tongue-in-cheek and the book's subtle appeal to a child's instinct for the mysterious proved to be just what kept both Ash and Ayd deeply intrigued.” —Kelvin Ang, Cheekiemonkies “A.J. Low have created an intriguing tale which would keep young readers eager to find out what happens next, while subtly documenting old-school landmarks such as Chin Mee Chin Confectionery and Katong Antique House. Looks set to be a betseller.” —Clara Chow, My Paper “I like this book because it leaves you with questions in your mind which make you want to keep reading.” —Greta Roberts, 9, in Expat Living Singapore

The Unofficial Guide to Lego Mindstorms Robots

The Robot Builder's Bonanza

Build Your Own Robot!

Robot Building for Beginners

Robot Builder's Bonanza, 4th Edition

It Ends with Us

Learn how to use Autodesk Fusion 360 to digitally model your own original projects for a 3D printer or a CNC device. Fusion 360 software lets you design, analyze, and print your ideas. Free to students and small businesses alike, it offers solid, surface, organic, direct, and parametric modeling capabilities. Fusion 360 for Makers is written for beginners to 3D modeling software by an experienced teacher. It will get you up and running quickly with the goal of creating models for 3D printing and CNC fabrication. Inside Fusion 360 for Makers, you'll find: Eight easy-to-understand tutorials that provide a solid foundation in Fusion 360 fundamentals DIY projects that are explained with step-by-step instructions and color photos Projects that have been real-world tested, covering the most common problems and solutions Stand-alone projects, allowing you to skip to ones of interest without having to work through all the preceding projects first Design from scratch or edit downloaded designs. Fusion 360 is an appropriate tool for beginners and experienced makers. Explains how compact disc players work, offers advice on maintenance, troubleshooting, and repairs, and discusses tools, supplies, and common malfunctions

Publisher's Note: Products purchased from Third Party sellers are not guaranteed by the publisher for quality, authenticity, or access to any online entitlements included with the product. ATOMIC ZOMBIE'S BICYCLE BUILDER'S BONANZA SUPERBIKES (FOR STINGY BUDGETS) For bicycle lovers, tinkerers, and inventors, this dream resource offers hours of fun, creativity, and adventure. If you have standard workshop tools, Atomic Zombie's Bicycle Builder's Bonanza provides everything else you need to create cool custom bicycles on a shoestring budget. You'll find exciting plans for choppers, low racers, tall bikes, recumbents, tandems, and others that defy description. You'll learn how easy -- and cheap -- it can be to build machines with names like Marauder, Sky Cycle, and Hammerhead -- to construct bicycles whose profiles will make you gasp -- and to make your own recumbent bike that can speed along at 80 kph on the flats. This book shows you how to build them all, complete with photos and detailed instructions! Written by long-time bike hobbyist and inventor Brad Graham, founder and host of the atomiczombie.com bicycle builder's Web site, and creator of the world's tallest bike, this value-packed, heavily illustrated manual offers an exciting range of resources from complete custom bike plans to details on working with tools and customizing bikes you already own.

Absolutely no experience needed! Learn robot building from the ground up, hands-on, in full color! Love robots? Start building them. It's way easier than you ever imagined! John Baichtal has helped thousands of people get started with robotics. He knows what beginners need to know. He knows your questions. He knows where you might need extra help. Now, he's brought together this practical knowledge in one incredibly easy tutorial. Hundreds of full-color photos guide you through every step, every skill. You'll start simple, as you build a working robot in the very first chapter. Then, you'll grow your skills to expert-level: powering motors, configuring sensors, constructing a chassis, even programming low-cost Arduino microcontrollers. You'll learn hands-on, through real step-by-step projects...and go straight to the cutting-edge with in-depth sidebars. Wondering just how much you can really do? Baichtal shows you 30 incredible robots built by people just like you! John Baichtal's books about toys, tools, robots, and hobby electronics include Hack This: 24 Incredible Hackerspace Projects from the DIY Movement; Basic Robot Building With Lego Mindstorms NXT 2.0; Arduino for Beginners; MAKE: Lego and Arduino Projects for MAKE (as coauthor); and the forthcoming Building Your Own Drones: The Beginner's Guide to UAVs and ROVs. A founding member of the pioneering Twin Cities Maker hackerspace, he got his start writing for Wired's legendary GeekDad blog, and for DIYer bible MAKE Magazine. Make your robots move with motors and wheels Build solar-powered robots that work without batteries Control robots via Wi-Fi, radio, or even across the Internet Program robots to respond to sensor inputs Use your standard TV remote to control your robots Create robots that detect intruders and shoot them with Nerf® darts Grab and carry objects using claws and grippers Build water-borne robots that float, submerge, and “swim” Create “artbots” that paint or draw original artworks Enable your robots to send text messages when they take specific actions Discover today's new generation of hobbyist-friendly robotics kits Organize your ultimate robot-builder's toolbox Master simple safety routines that protect you whatever you're building

The Beginner's Guide to Building Robots

Learn Robotics with Raspberry Pi

Learn Robotics Programming

Build and control AI-enabled autonomous robots using the Raspberry Pi and Python

Learning Web App Development

Robot Builder

For readers of Robot Building for Beginner (Apress, 2002 and 2009), welcome to the next level. Intermediate Robot Building, Second Edition offers you the kind of real-world knowledge that only renowned author David Cook can offer. In this book, you'll learn the value of a robot heartbeat and the purpose of the wavy lines in photocells. You'll find out what electronic part you should sand. You'll discover how a well-placed switch can help a robot avoid obstacles better than a pair of feelers. And you'll avoid mistakes that can cause a capacitor to explode. Want a robot that can explore rooms, follow lines, or battle opponents in mini-sumo? This book presents step-by-step instructions and circuit and part descriptions so that you can build the robot featured in the book or apply the modules to your own robot designs. Finally, you'll find the complete schematics for Roundabout, a room explorer that requires no programming and uses

only off-the-shelf electronics. With Roundabout, you'll use many of the same techniques used by professional robotics engineers, and you'll experience many of the same challenges and joys they feel when a robot "comes to life."

The amateur robotics market is maturing every year. There are even several companies that cater specifically to the hobbyist and educational market. With the advent of such organisations as FIRST and KISS robotics, it is the perfect time to release a new and clearly improved version of our powerhouse RBB. Key features: Covers LEGO to legged robot construction plans to provide a scope from the raw beginner to the intermediate/advanced reader. ALL projects are being revamped to be more usable, more customisable, and more visual -- with illustrations of the final product right at the beginning of the chapter. Eliminates the outdated or "out of tune" chapters that don't appeal to current robot audiences. UNPRECEDENTED author duo -- literally the two grand masters of the robotic world.

In Learn Robotics with Raspberry Pi, you'll learn how to build and code your own robot projects with just the Raspberry Pi microcomputer and a few easy-to-get components - no prior experience necessary! Learn Robotics with Raspberry Pi will take you from inexperienced maker to robot builder. You'll start off building a two-wheeled robot powered by a Raspberry Pi minicomputer and then program it using Python, the world's most popular programming language. Gradually, you'll improve your robot by adding increasingly advanced functionality until it can follow lines, avoid obstacles, and even recognize objects of a certain size and color using computer vision. Learn how to: - Control your robot remotely using only a Wii remote - Teach your robot to use sensors to avoid obstacles - Program your robot to follow a line autonomously - Customize your robot with LEDs and speakers to make it light up and play sounds - See what your robot sees with a Pi Camera. As you work through the book, you'll learn fundamental electronics skills like how to wire up parts, use resistors and regulators, and determine how much power your robot needs. By the end, you'll have learned the basics of coding in Python and know enough about working with hardware like LEDs, motors, and sensors to expand your creations beyond simple robots.

CREATE FIENDISHLY FUN SPY TOOLS AND COUNTERMEASURES Fully updated throughout, this wickedly inventive guide is packed with a wide variety of stealthy sleuthing contraptions you can build yourself. 101 Spy Gadgets for the Evil Genius, Second Edition also shows you how to reclaim your privacy by targeting the very mechanisms that invade your space. Find out how to disable several spy devices by hacking easily available appliances into cool tools of your own, and even turn the tables on the snoopers by using gadgetry to collect information on them. Featuring easy-to-find, inexpensive parts, this hands-on guide helps you build your skills in working with electronics components and tools while you create an impressive arsenal of spy gear and countermeasures. The only limit is your imagination! 101 Spy Gadgets for the Evil Genius, Second Edition: Contains step-by-step instructions and helpful illustrations. Provides tips for customizing the projects. Covers the underlying principles behind the projects. Removes the frustration factor--all required parts are listed. Build these and other devious devices: Spy camera, Infrared light converter, Night vision viewer, Phone number decoder, Phone spammer jammer, Telephone voice changer, GPS tracking device, Laser spy device, Remote control hijacker, Camera flash taser, Portable alarm system, Camera trigger hack, Repeating camera timer, Sound- and motion-activated cameras, Camera zoom extender.

Robot Builder's Bonanza, 5th Edition

Robot Building for Beginners, Third Edition

The Journal of Christopher Columbus (during His First Voyage, 1492-93) and Documents Relating the Voyages of John Cabot and Gaspar Corte Real

I Am Courage

Industrial Robot Safety

John F. Kennedy and the Great Space Race

"I wrote this book because I love building robots. I want you to love building robots, too. It took me a while to learn about many of the tools and parts in amateur robotics. Perhaps by writing about my experiences, I can give you a head start."--David Cook. Robot Building for Beginners, Third Edition provides basic, practical knowledge on getting started in amateur robotics. There is a mix of content: from serious reference tables and descriptions to personal stories and humorous bits. The robot described and built in this book is battery powered and about the size of a lunch box. It is autonomous; that is, it isn't remote controlled. The book is broken up into small chapters, suitable for bedtime (or bathroom) reading. The characteristics and purposes of each major component (resistor, transistor, wire, and motor) are described, followed by a hands-on experiment to demonstrate. Not only does this help the reader to understand a particular piece, but it also prepares them with processes to learn new parts on their own. An appendix offers an introduction to 3D printing and parts of the robot can, as an alternative, be "printed" using a 3D printer. The master project of the book is a simple, entertaining, line-following robot.

The LEGO® BOOST® Idea Book contains dozens of ideas for building simple robots with the LEGO BOOST set. The LEGO® BOOST® Idea Book explores 95 creative ways to build simple robots with the LEGO BOOST set. Each model includes a parts list, minimal text, screenshots of programs, and colorful photographs from multiple angles so you can re-create it without step-by-step instructions. You'll learn to build robots that can walk and crawl, shoot and grab objects, and even draw using a pen! Each model demonstrates handy mechanical principles that you can use to come up with your own creations. Models come with building hints and ideas for putting your own spin on things. Best of all, every part you need to build these models comes in the LEGO BOOST Creative Toolbox (set

#17101).

* A much-needed clearinghouse for information on amateur and educational robotics, containing over 2,500 listings of robot suppliers, including mail order and local area businesses * Contains resources for both common and hard-to-find parts and supplies * Features dozens of "sidebars" to clarify essential robotics technologies * Provides original articles on various robot-building topics

Provides guidance and recommendations for safeguarding industrial robots. The recommendations for safe working methods are relevant to all users of industrial robot systems but are particularly aimed at designers, manufacturers and suppliers. Contents: Safeguarding robot systems; Safety in design; Safety during installation and commissioning; Safety during use, programming and maintenance; Training; Identification of hazards and assessment of risk; Safeguarding methods; Interfacing with the robot controller.

American Moonshot

Build the Robot

Atomic Zombie's Bicycle Builder's Bonanza

Gordon McComb's Gadgeteer's Goldmine!

A Book of Resilience

Design and Build Your First Robot!

The bestselling guide to hobby robotics—fully updated for the latest technologies! Learn to build your own robots using the hands-on information contained in this thoroughly revised TAB guide. Written by the “godfather of hobby robotics,” the book clearly explains the essential hardware, circuits, and brains and contains easy-to-follow, step-by-step plans for low-cost, cool robotics projects. Robot Builder’s Bonanza, Fifth Edition contains more than two dozen new projects for hobbyists of all ages and skill levels. The projects are modular and can be combined to create a variety of highly intelligent and workable custom robots. Discover how to:

- Wire up robotics circuits from common electronic components
- Get up and running building your own robots
- Attach motors, wheels, legs, arms, and grippers
- Make your robots walk, talk, and obey commands
- Build brains from Arduino, BBC Micro:bit, Raspberry Pi, and other microcontrollers
- Incorporate touch, proximity, navigation, and environmental sensors
- Operate your ‘bot via remote control
- Generate sound and interpret visual feedback
- Construct advanced robots that can see light and follow pre-drawn paths!

The Bestselling Robotics Book--Now with New Projects and Online Tools! "Amazing ... should be required reading for any budding robot builder!"--GeekDad, Wired.com Have fun while learning how to design, construct, and use small robots! This richly illustrated guide offers everything you need to know to construct sophisticated, fully autonomous robots that can be programmed from your computer. Fully updated with the latest technologies and techniques, Robot Builder's Bonanza, Fourth Edition includes step-by-step plans that take you from building basic motorized platforms to giving the machine a brain--and teaching it to walk, talk, and obey commands. This robot builder's paradise is packed with more than 100 affordable projects, including 10 completely new robot designs. The projects are modular and can be combined to create a variety of highly intelligent and workable robots of all shapes and sizes. Mix and match the projects to develop your own unique creations. The only limit is your imagination! Robot Builder's Bonanza, Fourth Edition covers:

- Parts, materials, and tools
- Building motorized wooden, plastic, and metal platforms
- Rapid prototyping methods
- Drafting bots with computer-aided design
- Constructing high-tech robots from toys
- Building bots from found parts
- Power, motors, and locomotion
- Robots with wheels, tracks, and legs
- Constructing robotic arms and grippers
- Robot electronics and circuit making
- Computers and electronic control
- Microcontrollers--Arduino, PICAXE, and the BASIC stamp
- Remote control systems
- Sensors, navigation, and visual feedback
- Robot vision via proximity, light, and distance

New! FREE online content at: www.robotoid.com

My First Robot tutorial lessons

Project parts finder

Animated, interactive learning tools

How-to videos, robot e-plans, bonus articles, links, and more

Plus, go to: www.mhprofessional.com/rbb4 for: Downloadable programs RBB app notes Bonus chapters Make Great Stuff! TAB, an imprint of McGraw-Hill Professional, is a leading publisher of DIY technology books for makers, hackers, and electronics hobbyists.

This book, a compilation of articles from Karl Lunt's long-running column for Nuts & Volts magazine, is a must-read for all beginner and intermediate-level robotics enthusiasts. Written in a friendly, straightforward manner, it contains entertaining anecdotes as well as practical advice and instruction. The author's stories about his various robotics projects will inspire you to try them yourself; and he shares his tips and code to help you. Possible projects range from transforming a TV remote control into a robot controller to building a robot from a drink cooler. You'll want to build them all; the author's enthusiasm for robotics is contagious!

Fun robotics projects that teach kids to make, hack, and learn! There's no better way for kids to learn about the world around them than to test how things work. Building Your Own Robots presents fun robotics projects that children aged 7 – 11 can complete with common household items and old toys. The projects introduce core robotics concepts while keeping tasks simple and easy to follow, and the vivid, full-color graphics keep your kid's eyes on the page as they work through the projects. Brought to you by the trusted For Dummies brand, this kid-focused book offers your child a fun and easy way to start learning big topics! They'll gain confidence as they design and build a self-propelled vehicle, hack an old remote control car to create a motorized robot, and use simple commands to build and program a virtual robot—all while working

on their own and enjoying a sense of accomplishment! Offers a kid-friendly design that is heavy on eye-popping graphics Focuses on basic projects that set your child on the road to further exploration Boasts a small, full-color, accessible package that instills confidence in the reader Introduces basic robotics concepts to kids in a language they can understand If your youngster loves to tinker, they'll have a whole lot of fun while developing their creative play with the help of Building Your Own Robots.

Over 2,500 Sources for Robot Parts

Intermediate Robot Building

Build Quickly with Proven JavaScript Techniques

55 Space-age Projects

Design Your Own Digital Models for 3D Printing and CNC Fabrication

Arduino Robot Bonanza

The Bestselling Robotics Book--Now with New Projects and Online Tools! "Amazing...should be required reading for any budding robot builder!" -GeekDad, Wired.com Have fun while learning how to design, construct, and use small robots! This richly illustrated guide offers everything you need to know to construct sophisticated, fully autonomous robots that can be programmed from your computer. Fully updated with the latest technologies and techniques, Robot Builder's Bonanza, Fourth Edition includes step-by-step plans that take you from building basic motorized platforms to giving the machine a brain--and teaching it to walk, talk, and obey commands. This robot builder's paradise is packed with more than 100 affordable projects, including 10 completely new robot designs. The projects are modular and can be combined to create a variety of highly intelligent and workable robots of all shapes and sizes. Mix and match the projects to develop your own unique creations. The only limit is your imagination! Robot Builder's Bonanza, Fourth Edition covers: Parts, materials, and tools Building motorized wooden, plastic, and metal platforms Rapid prototyping methods Drafting bots with computer-aided design Constructing high-tech robots from toys Building bots from found parts Power, motors, and locomotion Robots with wheels, tracks, and legs Constructing robotic arms and grippers Robot electronics and circuit making Computers and electronic control Microcontrollers--Arduino, PICAXE, and the BASIC stamp Remote control systems Sensors, navigation, and visual feedback Robot vision via proximity, light, and distance New! FREE online content at: www.robotoid.com My First Robot tutorial lessons Project parts finder Animated, interactive learning tools How-to videos, robot e-plans, bonus articles, links, and more Plus, go to: www.mhprofessional.com/rbb4 for: Downloadable programs RBB app notes Bonus chapters Make Great Stuff! TAB, an imprint of McGraw-Hill Professional, is a leading publisher of DIY technology books for makers, hackers, and electronics hobbyists.

Offers ideas for building several types of simple, autonomous robots using BEAM technology, which incorporates concepts of biology, electronics, aesthetics, and mechanics.

Program Arduino with ease! Using clear, easy-to-follow examples, Programming Arduino: Getting Started with Sketches reveals the software side of Arduino and explains how to write well-crafted sketches using the modified C language of Arduino. No prior programming experience is required! The downloadable sample programs featured in the book can be used as-is or modified to suit your purposes. Understand Arduino hardware fundamentals Install the software, power it up, and upload your first sketch Learn C language basics Write functions in Arduino sketches Structure data using arrays and strings Use Arduino's digital and analog inputs and outputs in your programs Work with the Standard Arduino Library Write sketches that can store data Program LCD displays Use an Ethernet shield to enable Arduino to function as a web server Write your own Arduino libraries In December 2011, Arduino 1.0 was released. This changed a few things that have caused two of the sketches in this book to break. The change that has caused trouble is that the classes 'Server' and 'Client' have been renamed to 'EthernetServer' and 'EthernetClient' respectively. To fix this: Edit sketches 10-01 and 10-02 to replace all occurrences of the word 'Server' with 'EthernetServer' and all occurrences of 'Client' with 'EthernetClient'. Alternatively, you can download the modified sketches for 10-01 and 10-02 from here: <http://www.arduinobook.com/arduino-1-0> Make Great Stuff! TAB, an imprint of McGraw-Hill Professional, is a leading publisher of DIY technology books for makers, hackers, and electronics hobbyists.

Grasp the fundamentals of web application development by building a simple database-backed app from scratch, using HTML, JavaScript, and other open source tools. Through hands-on tutorials, this practical guide shows inexperienced web app developers how to create a user interface, write a server, build client-server communication, and use a cloud-based service to deploy the application. Each chapter includes practice problems, full examples, and mental models of the development workflow. Ideal for a college-level course, this book helps you get started with web app development by providing you with a solid grounding in the process. Set up a basic workflow with a text editor, version control system, and web browser Structure a user interface with HTML, and include styles with CSS Use JQuery and JavaScript to add interactivity to your application Link the client to the server with AJAX, JavaScript objects, and JSON Learn the basics of server-side programming with Node.js Store data outside your application with Redis and MongoDB Share your application by uploading it to the cloud with CloudFoundry Get basic tips for writing maintainable code on both client and server

Sherlock Sam and the Missing Heirloom in Katong

The Neuroscientist Who Lost Her Mind

Robot Builder's Sourcebook

Use Your Brain as a Remote

Compact Disc Player Maintenance and Repair

Homo Deus

'Completely compelling and powerful, and hard to put down.' Sarah-Jayne Blakemore, prize-winning author of *Inventing Ourselves: The Secret Life of the Teenage Brain* - Who are we if our brain fails? - How do we think? - How do we feel? - How do we move, if we move at all? - What happens when we lose our mind? When renowned neuroscientist Barbara Lipska's melanoma spread to her brain it started to play tricks on her. The expert on mental illness - a specialist in how the brain operates - experienced what it is like to go mad. Analyzing the science of the mind and the biology of the brain alongside Dr Lipska's own extraordinary story, this is a fascinating account of what happens when the brain goes awry. 'Oliver Sacks-meets-When Breath Becomes Air ... Barbara Lipska's remarkable story illuminates the many mysteries of our fragile yet resilient brains.' Lisa Genova, bestselling author of *Still Alice* and *Every Note Played*

Develop an extendable smart robot capable of performing a complex series of actions with Python and Raspberry Pi Key Features Get up to speed with the fundamentals of robotic programming and build intelligent robots Learn how to program a voice agent to control and interact with your robot's behavior Enable your robot to see its environment and avoid barriers using sensors Book Description We live in an age where the most complex or repetitive tasks are automated. Smart robots have the potential to revolutionize how we perform all kinds of tasks with high accuracy and efficiency. With this second edition of *Learn Robotics Programming*, you'll see how a combination of the Raspberry Pi and Python can be a great starting point for robot programming. The book starts by introducing you to the basic structure of a robot and shows you how to design, build, and program it. As you make your way through the book, you'll add different outputs and sensors, learn robot building skills, and write code to add autonomous behavior using sensors and a camera. You'll also be able to upgrade your robot with Wi-Fi connectivity to control it using a smartphone.

Finally, you'll understand how you can apply the skills that you've learned to visualize, lay out, build, and code your future robot building projects. By the end of this book, you'll have built an interesting robot that can perform basic artificial intelligence operations and be well versed in programming robots and creating complex robotics projects using what you've learned. What you will learn Leverage the features of the Raspberry Pi OS Discover how to configure a Raspberry Pi to build an AI-enabled robot Interface motors and sensors with a Raspberry Pi Code your robot to develop engaging and intelligent robot behavior Explore AI behavior such as speech recognition and visual processing Find out how you can control AI robots with a mobile phone over Wi-Fi Understand how to choose the right parts and assemble your robot Who this book is for This second edition of Learn Robotics Programming is for programmers, developers, and robotics enthusiasts who want to develop a fully functional robot and leverage AI to build interactive robots. Basic knowledge of the Python programming language will help you understand the concepts covered in this robot programming book more effectively.

In this “ brave and heartbreaking novel that digs its claws into you and doesn ’ t let go, long after you ’ ve finished it ” (Anna Todd, New York Times bestselling author) from the #1 New York Times bestselling author of All Your Perfects, a workaholic with a too-good-to-be-true romance can ’ t stop thinking about her first love. Lily hasn ’ t always had it easy, but that ’ s never stopped her from working hard for the life she wants. She ’ s come a long way from the small town where she grew up—she graduated from college, moved to Boston, and started her own business. And when she feels a spark with a gorgeous neurosurgeon named Ryle Kincaid, everything in Lily ’ s life seems too good to be true. Ryle is assertive, stubborn, maybe even a little arrogant. He ’ s also sensitive, brilliant, and has a total soft spot for Lily. And the way he looks in scrubs certainly doesn ’ t hurt. Lily can ’ t get him out of her head. But Ryle ’ s complete aversion to relationships is disturbing. Even as Lily finds herself becoming the exception to his “ no dating ” rule, she can ’ t help but wonder what made him that way in the first place. As questions about her new relationship overwhelm her, so do thoughts of Atlas Corrigan—her first love and a link to the past she left behind. He was her kindred spirit, her protector. When Atlas suddenly reappears, everything Lily has built with Ryle is threatened. An honest, evocative, and tender novel, It Ends with Us is “ a glorious and touching read, a forever keeper. The kind of book that gets handed down ” (USA TODAY).

A major revision of the bestselling "bible" of amateur robotics building--packed with the latest in servo motor technology, microcontrolled robots, remote control, Lego Mindstorms Kits, and other commercial kits. Gives electronics hobbyists fully illustrated plans for 11 complete Robots, as well as all-new coverage of Robotix-based Robots, Lego Technic-based Robots, Functionoids with Lego Mindstorms, and Location and Motorized Systems with Servo Motors. Features a pictures and parts list that accompany all projects, and material on using the BASIC Stamp and other microcontrollers.

Build Your Own Humanoid Robots

Robot Builder's Bonanza, Third Edition

How to Make a Robot

6 Amazing and Affordable Projects

Make a Mind-Controlled Arduino Robot

Building Your Own Robots

Learn the basics of modern robotics while building your own intelligent robot from scratch! You'll use inexpensive household materials to make the base for your robot, then add motors, power, wheels, and electronics. But wait, it gets better: your creation is actually five robots in one! -- build your bot in stages, and add the features you want. Vary the functions to create a robot that's uniquely yours. Mix and match features to make your own custom robot: Flexible Motorized Base -- a playpen for all kinds of programming experiments Obstacle Detector -- whiskers detect when your robot has bumped into things Object Avoider -- ultrasonic sound lets your robot see what's in front of it Infrared Remote Control -- command your robot from your easy chair Line Follower -- use optics to navigate your bot; have races with other robot builders! You will learn how switches, ultrasonics, infrared detectors, and optical sensors work. Install an Arduino microcontroller board and program your robot to avoid obstacles, provide feedback with lights and sound, and follow a tracking line. In this book you will combine multiple disciplines -- electronics, programming, and engineering -- to successfully build a multifunctional robot. You'll discover how to: construct a motorized base set up an Arduino to function as the brain use "whisker" switches to detect physical contact avoid obstacles with ultrasonic sensors teach your robot to judge distances use a universal remote to control your robot install and program a servo motor respond to input with LEDs, buzzers, and tones mount line-following sensors under your robot And more. Everything is explained with lots and lots of full-color line drawings. No prior experience is necessary. You'll have fun while you learn a ton!

101 Spy Gadgets for the Evil Genius 2/E

95 Simple Robots and Hints for Making More!

How to Build Robots