

The Official Robosapien Hackers Guide

After two years, MAKE has become one of most celebrated new magazines to hit the newsstands, and certainly one of the hottest reads. If you're just catching on to the MAKE phenomenon and wonder what you've missed, this book contains the best DIY projects from the magazine's first ten volumes -- a surefire collection of fun and challenging activities going back to MAKE's launch in early 2005. Find out why MAKE has attracted a passionate following of tech and DIY enthusiasts worldwide with one million web site visitors and a quarter of a million magazine readers. And why our podcasts consistently rank in the top-25 for computers and technology. With the Best of MAKE, you'll share the curiosity, zeal, and energy of Makers -- the citizen scientists, circuit benders, homemakers, students, automotive enthusiasts, robotists, software developers, musicians, hackers, hobbyists, and crafters -- through this unique and inspiring assortment of DIY projects chosen by the magazine's editors. Learn to: Hack your gadgets and toys Program microcontrollers to sense and react to things Take flight with rockets, planes, and other projectiles Make music from the most surprising of things Find new ways to take photos and make video Outfit yourself with the coolest tools Put together by popular demand, the Best of MAKE is the perfect gift for any maker, including current subscribers who missed early volumes of the magazine. Do you or someone you know have a passion for the magic of tinkering, hacking, and creation? Do you enjoy finding imaginative and unexpected uses for the technology and materials in your life? Then get on board with the Best of MAKE!

Secure Your Wireless Networks the Hacking Exposed Way Defend against the latest pervasive and devastating wireless attacks using the tactical security information contained in this comprehensive volume. Hacking Exposed Wireless reveals how hackers zero in on susceptible networks and peripherals, gain access, and execute debilitating attacks. Find out how to plug security holes in Wi-Fi/802.11 and Bluetooth systems and devices. You'll also learn how to launch wireless exploits from Metasploit, employ bulletproof authentication and encryption, and sidestep insecure wireless hotspots. The book includes vital details on new, previously unpublished attacks alongside real-world countermeasures. Understand the concepts behind RF electronics, Wi-Fi/802.11, and Bluetooth Find out how hackers use NetStumbler, WISPY, Kismet, KisMAC, and AiroPeek to target vulnerable wireless networks Defend against WEP key brute-force, aircrack, and traffic injection hacks Crack WEP at new speeds using Field Programmable Gate Arrays or your spare P3 CPU cycles Prevent rogue AP and certificate authentication attacks Perform packet injection from Linux Launch DoS attacks using device driver-independent tools Exploit wireless device drivers using the Metasploit 3.0 Framework Identify and avoid malicious hotspots Deploy WPA/802.11i authentication and encryption using PEAP, FreeRADIUS, and WPA pre-shared keys

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

Provides both a detailed explanation of underlying theory, plus 15 different projects, including programmers, erasers, and EPROM-based circuits to give home electronics, robotics, and computer experimenters hands-on understanding of how these versatile devices work.

PSP Hacks, Mods, and Expansions

Tell Me True

Exploring Business

Arduino Robotics

Take this Stuff and Hack It!

Smart Homes For Dummies

Fiction. California Interest. Science Fiction. Young Adult. What if your one chance to change the world means you have to leave everything you love behind? In the not-too-distant future, math genius Doro Campbell is introduced to the Seneca Society: a secretive, technologically-advanced subterranean utopia dedicated to inventing and perfecting the most effective ways to benefit our planet. But there's a hitch. Like all that have come before her, Doro is given the ultimatum: Stay in Seneca forever, or leave now with no memory of the place, its goals, and its inhabitants. She stays. Her ideals are shattered when, together with biotechnology whiz, Dominic Ambrosia, Doro uncovers profound deceptions beneath the surface of this all-too- perfect community. Will one teenage girl have what it takes to go up against swarms of drones, psychological manipulation and biological attacks, to uncover the truth and change the trajectory of the world?

"Having been born a freeman, and for more than thirty years enjoying the blessings of liberty in a free State—and having at the end of that time been kidnapped and sold into Slavery, where I remained, until happily rescued in the month of January, 1853, after a bondage of twelve years—it has been suggested that an account of my life and fortunes would not be uninteresting to the public." -an excerpt

Computer technology has caught up with home automation, and it's now easy and inexpensive to automate everything in a house—including lighting, security, appliances, entertainment, and environmental conditions—and here's how to do it! This well-illustrated resource offers 25 complete home automation projects that require only basic household tools and the instructions found within its pages. - Publisher.

Build and Program Over 20 Challenging Design Projects in Just 30 Minutes Each with the New Generation of LEGO® MINDSTORMS® More powerful and intuitive than ever, LEGO® MINDSTORMS® NXT is a new robotics toolset that enables robot enthusiasts and hobbyists to build and program all kinds of projects. The LEGO® MINDSTORMS® NXT Hacker's Guide explores this new generation of LEGO MINDSTORMS, providing a collection of projects, how-to expertise, insider tips, and over 500 illustrations to help readers become expert NXT hackers. This cutting-edge guide describes new advances that make LEGO MINDSTORMS NXT such a great robotics resource. The book explains the all-new NXT intelligent brick...the interactive servo motors with rotation sensors that align speed for precise control...the ultrasonic sensor that allows robots to "see" by responding to movement...the improved light and touch sensors that let robots detect color and feel...and much more. The LEGO® MINDSTORMS® NXT Hacker's Guide features: Expert, insightful commentary by a member of the LEGO MINDSTORMS Developer Program A hands-on account of the new technologies and expanded sensor capabilities of LEGO MINDSTORMS NXT A collection of 10 hacking projects with step-by-step instructions for creating things ranging from solar power to ZigBee® technology to tank tread feet ["projects" appears twice.] A portfolio of 12 exciting design projects featuring R. Buckminster Fuller's Geodesic Dome, Rem Koolhaas' Seattle Central Library, and the world's first NXT wristwatch Complete disclosure about a "secret" game that is hidden inside every LEGO MINDSTORMS NXT kit An in-depth guide to the NXT programming language A special LEGO factory kit offer available only for readers of this book inside This Groundbreaking NXT Reference • Your First Robot • Stupid RCX Tricks • Save Your RIS • As Smart as a Brick • MOVE IT! With Servo Motors •

Hmm, I Sense Something • Yes, But I Don't Know How to Program • Testing, Testing; Oh, Trouble Shoot • Katherine's Best Hacking Projects • Katherine's Design Fun House • NXT Programming Language Guide • NXT Elements • NXT Resources

Detecting and Mitigating Robotic Cyber Security Risks

Upstream

The Robot Builder's Bonanza

Kickin' Bot

CNET Do-It-Yourself Home Networking Projects

Popular Science

* Dr. Mark Tilden, the inventor of Robosapien, has provided the author with exclusive access to the 20-plus "Easter eggs" (the hidden secrets) programmed into Robosapien. * Over 2 million Robosapiens have sold since 2004.

Do you long to listen to your favorite CD from anywhere in your house? To set up a wireless network so you can access the Internet in any room? To install an iron-clad security system? To fire up the coffee pot while you're still asleep and wake up with automated lighting? Smart home technology can help you do just that! *Smart Homes For Dummies, Third Edition, shows you how easy it can be to create and live in a cutting-edge, fully connected home—without breaking your bank account. With this user-friendly guide, you'll discover all the latest trends and gadgets in home networking, automation, and control that will help you make life more enjoyable and comfortable for your entire family. We help you plan for things such as flat-screen TVs, intercom systems, whole-home audio systems, gaming consoles, and satellite systems. We talk about your wiring (and wireless) options and introduce you to the latest technologies, such as VoIP and Bluetooth. You'll see how to: Build your home network on a budget Turn your home into an entertainment center Access the Internet from any room Get VoIP on your phone network Boost in-home wireless and cell phone signals Connect your computer to your TV Secure your home and property Increase your home's resale value Avoid common networking pitfalls And much, much more Complete with a resource list for more information and neat toys of the future, *Smart Homes For Dummies* is your plain-English, twenty-first century guide to a fully wired home!*

Covers all the possible design additions, programming possibilities, and hacks not found anywhere else. A gun and inexpensive insider's guide to one of the most popular toys of this past holiday season.

View movies and pictures Listen to music Browse the web Increase memory Customize their favorite games Upgrade PSP hardware and software Integrate the iPod into the PSP world Use any memory stick with the PSP Listen to MP3s and watch music videos from the PSP

The Best of Make

Practical Electronics

25 Home Automation Projects for the Evil Genius

Chip Talk

Transform Everyday Electronics Into Modern Techno-wonders

The Robosapien Companion

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.

Fourteen accomplished writers investigate the tantalizing gray area where memory and history intersect.

A guide to getting the most out of a Roomba vacuum cleaner covers such topics as setting up a Bluetooth interface, building a serial interface tether, connecting the Roomba to the Internet, and replacing Roomba's brain.

BLAST OFF TO THE FINAL FRONTIER WITH 101 OUT-OF-THIS-WORLD PROJECTS YOU CAN EASILY BUILD YOURSELF! The sky is not the limit! If you yearn to touch the stars, 101 Outer Space Projects for the Evil Genius has everything you need to explore the universe from the comfort of your own home. Whether you're a beginner stargazer or a more experienced astronomer, you'll find an outstanding project to satisfy you, from model rockets and celestial maps to space robots, GPS systems, and much, much more. Full of easy-to-follow plans and clear schematics for each project, as well as lists of materials and tools so you know exactly what's involved before you begin, 101 Outer Space Projects for the Evil Genius 400 dazzling illustrations that let you build each of the 101 amazing how-to projects visually First-hand experiences and case studies to help you make the most of each project Frustration-factor removal-needed parts are listed, along with sources 101 Outer Space Projects for the Evil Genius provides you with all the plans, instructions, parts lists, and sources you need to: Use GPS systems Experiment with model rockets Navigate your way through the universe using your computer Build your own telescope, radio telescope, and planetarium Read celestial maps of heavenly bodies Create a Mars rover to explore your home Design your own International Space Station

Seneca Rebel

American Book Publishing Record

Fundamentals of Business (Black and White)

Expectations and Fear about Emerging Intelligent, Humanlike Machines

Hacking Exposed Wireless

An Illustrated Guide to Building Combat Robots

This robot kit lets hobbyists take their robot-building skills to the next level and, if they wish, be part of the hottest new craze in amateur robotics. It comes with a Parallax Basic Stamp 2 chip, preassembled PCB, a multifunction remote control, and robot hardware including collision-sensing infrared LED and receivers, plus much more.

Transform common household items into really cool stuff you don't need to be an electronics genius to get started turning everyday items into high-performing wonders. With how-to guru Dave Prochnow's step-by-step directions and fully illustrated plans, even beginners can hack their way to a high-tech home, cooler toys, and less yard work. Includes more than 30 projects, such as: Transform a vacuum cleaner into a home security system-or a toy. Hack an electric line trimmer that will mow your lawn for you. Computerize colored lights for seasonal decorations that make your neighbors' jaws drop.

Enter the arena of the metal gladiators Do you have what it takes to build a battle-ready robot? You do now. Here are the plans, step-by-step directions, and expert advice that will put you in competition-while you have a heck of a lot of fun getting there. Grant Imahara, the creator of the popular BattleBot Deadblow, shares everything he's learned about robot design, tools and techniques for metal working, the parts you need and where to get them, and plenty of tips to keep you off the ropes. When you're finished, you'll be ready to rumble. Just a few of the topics you'll learn: Robot design 101 Chemicals and power tools Popular materials compared Cutting your armor Things to know about screws Top ten drive motors Bearings, casters, couplers, and U-joints Roller chains and sprockets Better traction through chemistry Choosing speeding controls Batteries and wiring The driving test Rammers, hammers and crushers

The popular Sony PlayStation Portable (PSP) is the most advanced handheld video game system on the market today—capable of doing much more than most owners realize. This book is required reading for those who want to discover the full capabilities and hidden features and functions of PSP. A companion Web site contains sample PSPcasts and movies as well as the entire book in special PSP-compatible format so that it can be viewed from the device.

Components and Techniques

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

Version 3.0

Biomimetics

Tips, Tricks, and Hacks

The Official Robosapien Hacker's GuideTAB/Electronics

Build a high-speed home network Network the computers and peripheral devices in your home or small office with the fun and practical projects packed inside this hands-on guide. Produced in conjunction with CNET.com, the place you go for the latest in tech and consumer electronics, this book shows you how to create a wired or wireless network so you can share files, printers, and other resources. You'll also learn to set up a server and secure and expand your network. Inside, you'll find 24 self-contained projects, step-by-step instructions, a list of tools needed at the beginning of each project, and hundreds of clear photos and screenshots. CNET Do-It-Yourself Home Networking Projects takes you from beginning through advanced tasks with ease! Control other PCs remotely Share network storage without a server Set up a webcam server Enable and share a cellular data connection Watch live TV from anywhere via a Sling Media bridge Integrate IM and VoIP applications into your network Run your own PC weather station Connect Tivo to your home network

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 organizations 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

If you knew that creating singularity between your mind and machine would open Pandora's Box would you do it?Not even teen math-genius, Doro Campbell, could have known what she was getting herself into when she made the choice to get an implant connecting her brain to her computer. But when she finds her own existence at the center of a fight for power that runs deep inside the near-future, secret society that is Seneca, Doro realizes her mind may no longer be under her own jurisdiction.In this breakneck race to find her dad and save the planet, Doro must choose between trusting her inner self or technology. Amidst the perils of a brutal technological warfare,

and navigating the ups and downs of her first love, can Doro find the way to save herself? and the fate of the world?

75 Projects from the Pages of Make

Autonomous Military Robotics

The Coming Robot Revolution

Sumo Bot

Biologically Inspired Technologies

Build Your Own Programmable Remote-Controlled Sumo Bot

Nature is the world's foremost designer. With billions of years of experience and boasting the most extensive laboratory available, it conducts research in every branch of engineering and science. Nature's designs and capabilities have always inspired technology, from the use of tongs and tweezers to genetic algorithms and autonomous legged robots. Taking a systems perspective rather than focusing narrowly on materials or chemistry aspects, Biomimetics: Biologically Inspired Technologies examines the field from every angle. The book contains pioneering approaches to biomimetics including a new perspective on the mechanization of cognition and intelligence, as well as defense and attack strategies in nature, their applications, and potential. It surveys the field from modeling to applications and from nano- to macro-scales, beginning with an introduction to principles of using biology to inspire designs as well as biological mechanisms as models for technology. This innovative guide discusses evolutionary robotics; genetic algorithms; molecular machines; multifunctional, biological-, and nano- materials; nastic structures inspired by plants; and functional surfaces in biology. Looking inward at biological systems, the book covers the topics of biomimetic materials, structures, control, cognition, artificial muscles, biosensors that mimic senses, artificial organs, and interfaces between engineered and biological systems. The final chapter contemplates the future of the field and outlines the challenges ahead. Featuring extensive illustrations, including a 32-page full-color insert, Biomimetics: Biologically Inspired Technologies provides unmatched breadth of scope as well as lucid illumination of this promising field.

(Black & White version) Fundamentals of Business was created for Virginia Tech's MGT 1104 Foundations of Business through a collaboration between the Pamplin College of Business and Virginia Tech Libraries. This book is freely available at:

http://hdl.handle.net/10919/70961 It is licensed with a Creative Commons-NonCommercial ShareAlike 3.0 license.

Get started with the smallest, cheapest, and highest-utility Pi ever—Raspberry Pi Zero About This Book Get started with Raspberry Pi Zero and put all of its exciting features to use Create fun games and programs with little or no programming experience Learn to use this super-tiny PC to control hardware and software for work, play, and everything else Who This Book Is For This book is for hobbyists and programmers who are taking their first steps toward using Raspberry Pi Zero. No programming experience is required, although some Python programming experience might be useful. What You Will Learn Understand how to initially download the operating system and set up Raspberry Pi Zero Find out how to control the GPIO pins of Raspberry Pi Zero to control LED circuits Get to grips with adding hardware to the GPIO to control more complex hardware such as motors Add USB control hardware to control a complex robot with 12 servos Include speech recognition so that projects can receive commands Enable the robot to communicate with the world around it by adding speech output Control the robot from a distance and see what the robot is seeing by adding wireless communication Discover how to build a Robotic hand and a Quadcopter In Detail Raspberry Pi Zero is half the size of Raspberry Pi A, only with twice the utility. At just three centimeters wide, it packs in every utility required for full-fledged computing tasks. This practical tutorial will help you quickly get up and running with Raspberry Pi Zero to control hardware and software and write simple programs and games. You will learn to build creative programs and exciting games with little or no programming experience. We cover all the features of Raspberry Pi Zero as you discover how to configure software and hardware, and control external devices. You will find out how to navigate your way in Raspbian, write simple Python scripts, and create simple DIY programs. Style and approach This is a practical and fun ?getting started? tutorial that will guide you through everything new that the Raspberry Pi has to offer.

"How much do you need to know about electronics to create something interesting, or creatively modify something that already exists? If you're in a technical field such as software development, and don't have much experience with electronics components, this hands-on reference helps you find answers to technical questions quickly. Filling the gap between a beginner's primer and a formal textbook, Practical Electronics: Components and Techniques explores aspects of electronic components and techniques that you would typically learn on the job and from years of experience. Even if you've worked with electronics, or have a background in electronics theory, you're bound to find important information that you may not have encountered before. Among the book's many topics, you'll discover how to: Read the data sheet for an electronic component ; Use a variety of tools involved with electronics work ; Assemble various types of connectors ; Minimize noise and interference on a signal interface circuit. Explore topics not usually covered in theoretical books, and go deeper

into practical aspects than a step-by-step, project-oriented approach, with Practical Electronics: Components and Techniques." --

Experiments with EPROMS

A Burglar's Guide to the City

Memoir, History, and Writing a Life

Getting Started with Raspberry Pi Zero

Twelve Years a Slave

LEGO MINDSTORMS NXT Hacker's Guide

Popular Science gives our readers the information and tools to improve their technology and their world. The core belief that Popular Science and our readers share: The future is going to be better, and science and technology are the driving forces that will help make it better.

Supply Chain Management (SCM) was once a "pie in the sky" concept that could not be fully achieved. A key barrier was the cost of communicating with and coordinating among the many independent suppliers in each supply chain. SCM is possible because of three changes: technology has developed that simplifies communication, new management paradigms ha

This SpringerBrief reveals the latest techniques in computer vision and machine learning on robots that are designed as accurate and efficient military snipers. Militaries around the world are investigating this technology to simplify the time, cost and safety measures necessary for training human snipers. These robots are developed by combining crucial aspects of computer science research areas including image processing, robotic kinematics and learning algorithms. The authors explain how a new humanoid robot, the ICub, uses high-speed cameras and computer vision algorithms to track the object that has been classified as a target. The robot adjusts its arm and the gun muzzle for maximum accuracy, due to a neural model that includes the parameters of its joint angles, the velocity of the bullet and the approximate distance of the target. A thorough literature review provides helpful context for the experiments. Of practical interest to military forces around the world, this brief is designed for professionals and researchers working in military robotics. It will also be useful for advanced level computer science students focused on computer vision, AI and machine learning issues.

Encapsulating nearly 2,000 years of heists and tunnel jobs, break-ins and escapes, A Burglar's Guide to the City offers an unexpected blueprint to the criminal possibilities in the world all around us. You'll never see the city the same way again. At the core of A Burglar's Guide to the City is an unexpected and thrilling insight: how any building transforms when seen through the eyes of someone hoping to break into it. Studying architecture the way a burglar would, Geoff Manuagh takes readers through walls, down elevator shafts, into panic rooms, up to the buried vaults of banks, and out across the rooftops of an unsuspecting city. With the help of FBI Special Agents, reformed bank robbers, private security consultants, the L.A.P.D. Air Support Division, and architects past and present, the book dissects the built environment from both sides of the law. Whether picking padlocks or climbing the walls of high-rise apartments, finding gaps in a museum's surveillance lineup or discussing home invasions in ancient Rome, A Burglar's Guide to the City has the tools, the tales, and the x-ray vision you need to see architecture as nothing more than an obstacle that can be outwitted and undercut. Full of real-life heists-both spectacular and absurd-A Burglar's Guide to the City ensures readers will never enter a bank again without imagining how to loot the vault or walk down the street without planning the perfect getaway.

ExtremeTech

The Seneca Society

The Official Robosapien Hacker's Guide

Basics of Supply Chain Management

Nuts & Volts

elementary workbook: student's book

Making a robot that looks and behaves like a human being has been the subject of many popular science fiction movies and books. Although the development of such a robot faces many challenges, the making of a virtual human has long been potentially possible. With recent advances in various key technologies related to hardware and software, the making of humanlike robots is increasingly becoming an engineering reality. Development of the required hardware that can perform humanlike functions in a lifelike manner has benefitted greatly from development in such technologies as biologically inspired materials, artificial intelligence, artificial vision, and many others. Producing a humanlike robot that makes body and facial expressions, communicates verbally using extensive vocabulary, and interprets speech with high accuracy is extremely complicated to engineer. Advances in voice recognition and speech synthesis are increasingly improving communication capabilities. In our daily life we encounter such innovations when we call the telephone operators of most companies today. As robotics technology continues to improve we are approaching the point where, on seeing such a robot, we will respond with "Wow, this robot looks unbelievably real!" just like the reaction to an artificial flower. The accelerating pace of advances in related fields suggests that the emergence of humanlike robots that become part of our daily life seems to be imminent. These robots are expected to raise ethical concerns and may also raise many complex questions related to their interaction with humans.

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 Robotic-based Robots, Lego Technic-based Robots, Functionoids with Lego Insectems, 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.

Seneca Element

Projects in Speech Synthesis

Hacking Roomba

Robot Builder's Bonanza, Third Edition

101 Outer Space Projects for the Evil Genius