

Picaxe Microcontroller Projects For The Evil Genius

Explains how to leverage the revolutionary Raspberry Pi computer in order to learn the versatile Python programming language. Original.

WHIP UP SOME FIENDISHLY FUN PICAXE MICROCONTROLLER DEVICES Ron has worked hard to explain how the PICAXE system operates through simple examples, and I'm sure his easy-to-read style will help many people progress with their PICAXE projects." --From the Foreword by Clive Seager, Revolution Education Ltd. This wickedly inventive guide shows you how to program, build, and debug a variety of PICAXE microcontroller projects. PICAXE Microcontroller Projects for the Evil Genius gets you started with programming and I/O interfacing right away, and then shows you how to develop a master processor circuit. From "Hello, World!" to "Hail, Octavius!" All the projects in Part I can be accomplished using either an M or M2 class PICAXE processor, and Part II adds 20X2-based master processor projects to the mix. Part III culminates in the creation of Octavius--a sophisticated robotics experimentation platform featuring a 40X2 master processor and eight interboard stations which allow you to develop intelligent peripherals to augment Octavius' functioning. The only limit is your imagination! PICAXE Microcontroller Projects for the Evil Genius: Features step-by-step instructions and helpful photos and illustrations Allows you to customize each project for your purposes Offers all the programs in the book free for download Removes the frustration factor--all required parts are listed, along with sources Build these and other devious devices: Simple mini-stereo jack adapter USB5-PA3 PICAXE programming adapter Power supply Three-state digital logic probe 20X2 master processor circuit TV-R input module 8-bit parallel 16X2 LCD board Serialized 16X2 LCD Serialized 4X4 matrix keypad SPI 4-digit LED display Countdown timer Programmable, multi-function peripheral device and operating system Octavius--advanced robotics experimentation platform L298 dual DC motor controller board Each fun, inexpensive Evil Genius project includes a detailed list of materials, sources for parts, schematics, and lots of clear, well-illustrated instructions for easy assembly. The larger workbook-style layout and convenient two-column format make following the step-by-step instructions a breeze. 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 step-by-step instructions for over one hundred and twenty projects from the do-it-yourself website, exploring such things as home and garden, transportation, food, and electronics..

PICAXE Microcontroller Projects for the Evil GeniusMcGraw-Hill Education TAB

Arduino + Android Projects for the Evil Genius: Control Arduino with Your Smartphone or Tablet

30 Arduino Projects for the Evil Genius, Second Edition

Radio Science for the Radio Amateur

Learning Python with Raspberri Pi

Programming and Customizing the PICAXE Microcontroller 2/E

Four billion, and counting. That's the number of microcontrollers already shipped in products from toys to satellites. This much-needed reference is the first guide to cover all the most common types of microcontrollers. With its from-the-bottom-up approach, this book/CD-ROM package gives you all the information you need to simplify the job of selecting the right microcontroller and writing an application for it. From the basics to hands-on applications, projects, and experiments, this book gives both professionals and high-level hobbyists real tools for choosing the right microcontroller and getting the most out of it. With a wealth of comparison charts, software tools, and state-of-the-art information, this reference is one that you'll turn to again and again.

In just three years, Instructables.com has become one of the hottest destinations for makers and DIY enthusiasts of all stripes. Known as "the world's biggest show & tell," makers from around the globe post how-to articles on a staggering variety of topics -- from collecting rainwater for lawn care to hacking toy robots to extracting squid ink. Now, with more than 10,000 articles, the Instructables staff and editors of MAKE: magazine -- with help from the Instructables community -- have put together a collection of solid, time- and user-tested technology and craft projects from the site. The Best of Instructables Volume 1 includes plenty of clear, full-color photographs, complete step-by-step instructions, as well as tips, tricks, and new build techniques you won't find anywhere else -- even material never seen before on Instructables. Some of the more popular how-to articles include: The LED Throwie -- magnetized electronic graffiti that's become a phenomenon How to craft beautiful Japanese bento box lunches Innovative gaming hacks, such as how to add LED lights and custom-molded buttons to a video game controller New twists on personal items, such as the Keyboard Wallet, the Electric Umbrella, and stuffed animal headphones While the book focuses on technology, it also includes such projects as creating cool furniture from cheap components, ways of making your own toys, and killer sci-fi and fantasy costumes and props. Anything but a reference book, The Best of Instructables Volume I embodies the inspirational fun, creativity, and sense of community that has attracted more than 200,000 registered members in just three years. Many of the articles include sidebars that show how other builders have realized or improved upon the same project. Making things is cool again: everyone wants to be a creator, not just a consumer. This is the spirit of the "new handy heyday", fostered by Instructables.com, MAKE: magazine, and others, and celebrated by this incredible book -- The Best of Instructables Volume 1.

Have you ever wondered how electronic gadgets are created? Do you have an idea for a new proof-of-concept tech device or electronic toy but have no way of testing the feasibility of the device? Have you accumulated a junk box of electronic parts and are now wondering what to build? Learn Electronics with Arduino will answer these questions to discovering cool and innovative applications for new tech products using modification, reuse, and experimentation techniques. You'll learn electronics concepts while building cool and practical devices and gadgets based on the Arduino, an inexpensive and easy-to-program microcontroller board that is changing the way people think about home-brew tech innovation. Learn Electronics with Arduino uses the discovery method. Instead of starting with terminology and abstract concepts, You'll start by building prototypes with solderless breadboards, basic components, and scavenged electronic parts. Have some old blinky toys and gadgets lying around? Put them to work! You'll discover that there is no mystery behind how to design and build your own circuits, practical devices, cool gadgets, and electronic toys. As you're on the road to becoming an electronics guru, you'll build practical devices like a servo motor controller, and a robotic arm. You'll also learn how to make fun gadgets like a sound effects generator, a music box, and an electronic singing bird.

This do-it-yourself guide shows you how to program and build projects with the Arduino Uno and Leonardo boards and the Arduino 1.0 development environment. It gets you started right away with the simplified C programming you need to know and demonstrateshow to take advantage of the latest Arduino capabilities. You'll learn how to attach an Arduino board to your computer, program it, and connect electronics to it to create your own devices. A bonus chapter uses the special USB keyboard/mouse-impersonation feature exclusive to the Arduino Leonardo--

Arduino Projects For Amateur Radio

Learn Electronics with Arduino

Programming and Customizing PICmicro (R) Microcontrollers

Learning Through Discovery

tinyAVR Microcontroller Projects for the Evil Genius

So Many Fiendishly Fun Ways to Use the Latest Arduino Boards! Fully updated throughout, this do-it-yourself guide shows you how to program and build fascinating projects with the Arduino Uno and Leonardo boards and the Arduino 1.0 development environment. 30 Arduino Projects for the Evil Genius, Second Edition, gets you started right away with the simplified C programming you need to know and demonstrates how to take advantage of the latest Arduino capabilities. You'll learn how to attach an Arduino board to your computer, program it, and connect electronics to it to create your own devious devices. A bonus chapter uses the special USB keyboard/mouse-impersonation feature exclusive to the Arduino Leonardo. 30 Arduino Projects for the Evil Genius, Second Edition: Features step-by-step instructions and helpful illustrations Provides full schematic and construction details for every project Covers the scientific principles behind the projects Removes the frustration factor--all required parts are listed along with sources Build these and other clever creations: High-brightness Morse code translator Seasonal affective disorder light Keypad security code Pulse rate monitor Seven-segment LED double dice USB message board Oscilloscope Tune player VU meter LCD thermostat Computer-controlled fan Hypnotizer Servo-controlled laser Lie detector Magnetic door lock Infrared remote Lilypad clock Evil Genius countdown timer Keyboard prank Automatic password typer Accelerometer mouse

BUILD ALL-NEW FIENDISHLY FUN ELECTRONICS PROJECTS! Spark your creativity with this wickedly inventive guide. Electronic Gadgets for the Evil Genius, Second Edition, is filled with completely new, amped-up projects that will shock and amaze, such as super-big Tesla coils, lasers, plasma devices, and electrokinetics contraptions. Using affordable, easy-to-find components and equipment, each do-it-yourself project begins with information on safety, the difficulty level, practical uses for the gadget, and the tools needed to complete the project. You'll gain valuable skills while enjoying hours of rewarding--and slightly twisted--fun! Electronic Gadgets for the Evil Genius, Second Edition: Features step-by-step instructions and helpful illustrations Provides full schematic and construction details for every project Covers the scientific principles behind the projects Removes the frustration factor--all required parts are listed along with sources Build these and other devious devices: Automatic programmable charger Full-feature plasma driver Capacitor-discharge drilling machine and dielectric tester Capacitor exploder Field detector High-power therapeutic magnetic pulser Singing arc Solid-state Tesla coil Six-foot Jacob's ladder Free high-voltage experimental energy device HHO reactor cell Hydrogen howitzer Faraday cage

Supercharge your understanding of battery technology Ideal for hobbyists and engineers alike, The TAB Battery Book: An In-Depth Guide to Construction Design and Use offers comprehensive coverage of these portable energy powerhouses. This practical guide discusses battery chemistry and engineering, how batteries are used, and the history of batteries. You'll find out how different types of batteries work and how to select the right battery for any application. The book also examines the technological advances being used to develop batteries as robust energy sources for a wide variety of devices. Tap into the power of all kinds of batteries with help from this detailed resource. Coverage includes: Portable energy and long-term energy storage Batteries for portable consumer demands, medical devices, electric vehicles, large-scale electrical energy storage, and space and military applications Basic physics and chemistry The science of batteries--cells, electrochemistry, thermodynamics, kinetics, and capacity Battery engineering designs, including electrode, seal, and vent design Battery performance, reliability, and safety Primary battery technologies--aqueous and non-aqueous electrolytes, including alkaline and lithium Rechargeable batteries, including nickel-metal hydride and lithium ion Selecting the right battery for any application Future technologies, such as thin-film, large-energy storage, and high-energy density batteries Make Great Stuff! TAB, an imprint of McGraw-Hill Professional, is a leading publisher of DIY technology books for makers, hackers, and electronics hobbyists.

The Fiendishly Fun Way to Master Electronic Circuits! Fully updated throughout, this wickedly inventive guide introduces electronic circuits and circuit design, both analog and digital, through a series of projects you'll complete one simple lesson at a time. The separate lessons build on each other and add up to projects you can put to practical use. You don't need to know anything about electronics to get started. A pre-assembled kit, which includes all the components and PC boards to complete the book projects, is available separately from ABRA electronics on Amazon. Using easy-to-find components and equipment, Electronic Circuits for the Evil Genius, Second Edition, provides hours of rewarding--and slightly twisted--fun. You'll gain valuable experience in circuit construction and design as you test, modify, and observe your results--skills you can put to work in other exciting circuit-building projects. Electronic Circuits for the Evil Genius: Features step-by-step instructions and helpful illustrations Provides tips for customizing the projects Covers the underlying electronics principles behind the projects Removes the frustration factor--all required parts are listed, along with sources Build these and other devious devices: Automatic night light Light-sensitive switch Along-to-digital converter Voltage-controlled oscillator Op amp-controlled power amplifier Burglar alarm Logic gate-based toy Two-way intercom using transistors and op amps Each fun, inexpensive Genius project includes a detailed list of materials, sources for parts, schematics, and lots of clear, well-illustrated instructions for easy assembly. The larger workbook-style layout and convenient two-column format make following the step-by-step instructions a breeze. Make Great Stuff! TAB, an imprint of McGraw-Hill Professional, is a leading publisher of DIY technology books for makers, hackers, and electronics hobbyists.

Programming and Customizing the PICAXE Microcontroller

Programming Video Games for the Evil Genius

101 Spy Gadgets for the Evil Genius 2/E

Primary Computing and Digital Technologies: Knowledge, Understanding and Practice

Beginning Arduino Programming allows you to quickly and intuitively develop your programming skills through sketching in code. This clear introduction provides you with an understanding of the basic framework for developing Arduino code, including the structure, syntax, functions, and libraries needed to create future projects. You will also learn how to program your Arduino interface board to sense the physical world, to control light, movement, and sound, and to create objects with interesting behavior. With Beginning Arduino Programming, you'll get the knowledge you need to master the fundamental aspects of writing code on the Arduino platform, even if you have never before written code. It will have you ready to take the next step: to explore new project ideas, new kinds of hardware, contribute back to the open source community, and even take on more programming languages.

Learn how to use microcontrollers without all the frills and math. This book uses a practical approach to show you how to develop embedded systems with 8 bit PIC microcontrollers using the XC8 compiler. It's your complete guide to understanding modern PIC microcontrollers. Are you tired of copying and pasting code into your embedded projects? Do you want to write your own code from scratch for microcontrollers and understand what your code is doing? Do you want to move beyond the Arduino? Then Programming PIC Microcontrollers with XC8 is for you! Written for those who want more than an Arduino, but less than the more complex microcontrollers on the market, PIC microcontrollers are the next logical step in your journey. You'll also see the advantage that MPLAB X offers by running on Windows, MAC and Linux environments. You don't need to be a command line expert to work with PIC microcontrollers, so you can focus less on setting up your environment and more on your application. What You'll Learn Set up the MPLAB X and XC8 compilers for microcontroller development Use GPIO and PPS Review EUSART and Software UART communications Use the eXtreme Low Power (XLP) options of PIC microcontrollers Explore wireless communications with WiFi and Bluetooth Who This Book Is For Those with some basic electronic device and some electronic equipment and knowledge. This book assumes knowledge of the C programming language and basic knowledge of digital electronics though a basic overview is given for both. A complete newcomer can follow along, but this book is heavy on code, schematics and images and focuses less on the theoretical aspects of using microcontrollers. This book is also targeted to students wanting a practical overview of microcontrollers outside of the classroom.

The PICAXE microcontroller is an inexpensive tiny computer sitting in a microchip. It can be programmed by you to control gadgets, your inventions or your creations and the list of these are endless. Your ideas and imagination are your only limiting factor. Alarm systems, keypad entry systems, electronic dice, games and colour sensors are but a few. These are easily achievable within the PICAXE environment.You, the PICAXE microcontroller, and the software that allows you to program it can create or develop interactive projects with it's outside world. It can respond to sensors, lights, motors, switches, solenoids and all manner of input and output mechanisms and all sorts of contraptions.This book is volume 1 part 2. The first 19 are in book 1, a further 12 are in this book. The projects are illustrated with pictures, electronic schematics and photographs of the working project. There is sufficient explanation alongside each project where appropriate. This is volume 1 part 2 and continues immediately from volume 1 part 1. If you are just starting out with PICAXE microcontrollers I urge you to obtain part 1 as it contains a lot of starting information about the microcontrollers.A website :http://storm.xyz/picaxeis there to assist in the projects and all code is available for free download using the code from within the book.I hope that the reader of this book is inspired to create their own projects after reading this book.Ken Anderson

This popular text for primary trainees in teaching primary ICT has been updated in line with the new computing curriculum. What do you need to know to teach ICT and computing in primary schools? How do you teach it? This book provides practical guidance on how to teach ICT and the computing curriculum in primary schools alongside the necessary subject knowledge. It explores teaching and learning with applications and technologies, addressing the role of the professional teacher with regards to important issues such as e-safety. This Sixth Edition is updated in line with the new curriculum for computing. It includes new material on how to integrate programming and computational thinking and explores how to harness new tools such as blogging and social media to enrich learning and teaching. Written in an accessible way, it will help trainees to develop confidence in their own approach to teaching. ICT and computing is both a subject and a powerful teaching and learning tool throughout the school curriculum and beyond, into many areas of children's learning lives. This text highlights the importance of supporting children to become discerning and creative users of technology as opposed to passive consumers.

Games, Gadgets, and Home Automation with the Microcontroller Used in the Arduino

Ham Radio for Arduino and Picaxe

30 Projects using PIC BASIC and PIC BASIC PRO

Handbook of Microcontrollers

Electronic Circuits for the Evil Genius 2/E

BOOST YOUR HAM RADIO'S CAPABILITIES USING LOW-COST ARDUINO MICROCONTROLLER BOARDS! Do you want to increase the functionality and value of your ham radio without spending a lot of money? This book will show you how! Arduino Projects for Amateur Radio is filled with step-by-step microcontroller projects you can accomplish on your own--no programming experience necessary. After getting you set up on an Arduino board, veteran ham radio operators Jack Purdum (W8TEE) and Dennis Kidder (W6DQ) start with a simple LCD display and move up to projects that can add hundreds of dollars' worth of upgrades to existing equipment. This practical guide provides detailed instructions, helpful diagrams, lists of low-cost parts and suppliers, and hardware and software tips that make building your own equipment even more enjoyable. Downloadable code for all of the projects in the book is also available. Do-it-yourself projects include: LCD shield Station timer General purpose panel meter Dummy load and watt meter CW automatic keyer Morse code decoder PS2 keyboard CW encoder Universal relay shield Flexible sequencer Rotator controller Directional watt and SWR meter Simple frequency counter DDS VFO Portable solar power source

This book is a fully updated and revised compendium of PIC programming information. Comprehensive coverage of the PICMicros' hardware architecture and software schemes will complement the host of experiments and projects making this a true, "Learn as you go" tutorial. New sections on basic electronics and basic programming have been added for less sophisticated users along with 10 new projects and 20 new experiments. New pedagogical features have also been added such as "Programmers Tips" and "Hardware Fast FAQs". Key Features: * Printed Circuit Board for a PICMicro programmer included with the book! This programmer will have the capability to program all the PICMicros used by the application. * Twice as many projects including a PICMicro based Webserver * Twenty new "Experiments" to help the user better understand how the PICMicro works. * An introduction to Electronics and Programming in the Appendices along with engineering formulas and PICMicro web references.

"This is teaching at its best!" --Hans Camenzind, inventor of the 555 timer (the world's most successful integrated circuit), and author of Much Ado About Almost Nothing: Man's Encounter with the Electron (Booklocker.com) "A fabulous book: well written, well paced, fun, and informative. I also love the sense of humor. It's very good at disarming the fear. And it's gorgeous. I'll be recommending this book highly." --Tom Igoe, author of Physical Computing and Making Things Talk Want to learn the fundamentals of electronics in a fun, hands-on way? With Make: Electronics, you'll start working on real projects as soon as you crack open the book. Explore all of the key components and essential principles through a series of fascinating experiments. You'll build the circuits first, then learn the theory behind them! Build working devices, from simple to complex You'll start with the basics and then move on to more complicated projects. Go from switching circuits to integrated circuits, and from simple alarms to programmable microcontrollers. Step-by-step instructions and more than 500 full-color photographs and illustrations will help you use -- and understand -- electronics concepts and

techniques. Discover by breaking things: experiment with components and learn from failure Set up a tricked-out project space: make a work area at home, equipped with the tools and parts you'll need Learn about key electronic components and their functions within a circuit Create an intrusion alarm, holiday lights, wearable electronic jewelry, audio processors, a reflex tester, and a combination lock Build an autonomous robot cart that can sense its environment and avoid obstacles Get clear, easy-to-understand explanations of what you're doing and why UNLEASH YOUR INNER MAD SCIENTIST! "Wonderful. I learned a lot reading the detailed but easy to understand instructions."--BoingBoing This wickedly inventive guide explains how to design and build 15 fiendishly fun electronics projects. Filled with photos and illustrations, 15 Dangerously Mad Projects for the Evil Genius includes step-by-step directions, as well as a construction primer for those who are new to electronics projects. Using easy-to-find components and equipment, this do-it-yourself book shows you how to create a variety of mischievous gadgets, such as a remote-controlled laser, motorized multicolored LEDs that write in the air, and a surveillance robot. You'll also learn to use the highly popular Arduino microcontroller board with three of the projects. 15 Dangerously Mad Projects for the Evil Genius: Features step-by-step instructions and helpful illustrations Covers essential safety measures Reveals the scientific principles behind the projects Removes the frustration factor--all required parts are listed, along with sources Build these devious devices to amaze your friends and confound your enemies! Coil gun Trebuchet Ping pong ball minigun Mini laser turret Balloon-popping laser gun Touch-activated laser sight Laser-grid intruder alarm Persistence-of-vision display Covert radio bug Laser voice transmitter Flash bomb High-brightness LED strobe Levitation machine Snailbot Surveillance robot Each fun, inexpensive Evil Genius project includes a detailed list of materials, sources for parts, schematics, and lots of clear, well-illustrated instructions for easy assembly. The larger workbook-style layout and convenient two-column format make following the step-by-step instructions a breeze. VIDEOS, PHOTOS, AND SOURCE CODE ARE AVAILABLE AT WWW.DANGEROUSLYMAD.COM Make Great Stuff! TAB, an imprint of McGraw-Hill Professional, is a leading publisher of DIY technology books for makers, hackers, and electronics hobbyists.

The Robot Builder's Bonanza
 PICAXE Microcontroller Projects for the Evil Genius
 Distributed Network Data
 Arduino for Ham Radio
 The TAB Battery Book: An In-Depth Guide to Construction, Design, and Use

A dozen fiendishly fun projects for the Raspberry Pi! This wickedly inventive guide shows you how to create all kinds of entertaining and practical projects with Raspberry Pi operating system and programming environment. In Raspberry Pi Projects for the Evil Genius, you'll learn how to build a Bluetooth-controlled robot, a weather station, home automation and security controllers, a universal remote control, and more. You'll also find out how to establish communication between Android devices and the RasPi. Each fun, inexpensive Evil Genius project includes a detailed list of materials, sources for parts, schematics, and lots of clear, well-illustrated instructions for easy assembly. The larger workbook-style layout makes following the step-by-step instructions a breeze. Build these and other devious devices: Bluetooth robot Earthquake detector Home automation controller Weather station Home security controller RFID door latch Remote power controller Radon detector Make Great Stuff! TAB, an imprint of McGraw-Hill Professional, is a leading publisher of DIY technology books for makers, hackers, and electronics hobbyists. 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. 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 communicate with the Internet 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.arduinoobook.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.

The PICAXE microcontroller is an inexpensive tiny computer sitting in a microchip. It can be programmed by you to control gadgets, your inventions or your creations and the list of these are endless. Your ideas and imagination are your only limiting factor. Alarm systems, keypad entry systems, electronic dice, games and colour sensors are but a few. These are easily achievable within the PICAXE microcontroller and the software that allows you to program it can create or develop interactive projects with it's outside world. It can respond to sensors, lights, motors, solenoids and all manner of input and output mechanisms and all sorts of contraptions.This book is volume 1 part 1 and is a starting point for PICAXE microcontrollers. It has the first 19 projects of 31 altogether. The book includes a detailed list of materials, sources for parts, schematics, and lots of clear, well-illustrated instructions for easy assembly. The larger workbook-style layout and convenient two-column format make following the step-by-step instructions a breeze. VIDEOS, PHOTOS, AND SOURCE CODE ARE AVAILABLE AT WWW.DANGEROUSLYMAD.COM Make Great Stuff! TAB, an imprint of McGraw-Hill Professional, is a leading publisher of DIY technology books for makers, hackers, and electronics hobbyists. electronic schematics and photographs of the working project. There is also sufficient explanation alongside the projects where appropriate. Part 2 can also be obtained to complete the total of 31 projects.A website :http://storm.xyz/picaxeis there to assist in the projects and all code is available for free download using the code from within the book.I hope that the reader of this book is inspired to read this book.Ken Anderson.

IF EVIL'S YOUR NAME, THEN THESE ARE YOUR GAMES! Always wanted to be a genius game creator? This Evil Genius guide goes far beyond a typical programming class or text to reveal insider tips for breaking the rules and constructing wickedly fun games that you can tweak and customize to suit your needs! In Programming Video Games for the Evil Genius, programming wunderkind Ian Cinnamon shows you how to create and control 57 gaming projects. You'll find easy-to-follow plans featuring Java, the most universal programming language, that run on any PC, Mac, or Linux computer. Illustrated instructions and plans for an awesome mix of racing, board, shoot 'em up, strategy, retro, and puzzle games Gaming projects that vary in difficulty-starting with simple programs and progressing to sophisticated ones with advanced skills An interactive companion website featuring a free Java compiler, where you can share your projects with Evil Geniuses around the globe Removes the frustration-factor-all the parts you need are listed, along with sources Regardless of your skill level, Programming Video Games for the Evil Genius provides you with all the strategies, code, and insider programming advice you need to succeed. Includes a detailed list of materials, sources for parts, schematics, and lots of clear, well-illustrated instructions for easy assembly. The larger workbook-style layout and convenient two-column format make following the step-by-step instructions a breeze. VIDEOS, PHOTOS, AND SOURCE CODE ARE AVAILABLE AT WWW.DANGEROUSLYMAD.COM Make Great Stuff! TAB, an imprint of McGraw-Hill Professional, is a leading publisher of DIY technology books for makers, hackers, and electronics hobbyists. with ease, such as: Radical Racing Screen Skier Whack an Evil Genius Tic-Tac-Toe Boxing Snake Pit Space Destroyers Bomb Diffuser Trapper Oiram Java Man Memory Ian Says

Programming Arduino Getting Started with Sketches
 Do-It-Yourself Projects from the World's Biggest Show & Tell
 21 Build-It-Yourself Projects, Second Edition
 15 Dangerously Mad Projects for the Evil Genius
 Electronic Gadgets for the Evil Genius

Have some thoroughly green evil fun! This wickedly inventive guide explains how to create a variety of practical, environmentally friendly items you can use for yourself or resell for profit. Recycling Projects for the Evil Genius is filled with detailed directions on how to successfully complete each green project and discusses important safety issues. Using easy-to-find components and tools, this do-it-yourself book shows you how to brew up green cleaners, transform all types of paper into building materials, safely rid your home and yard of pests, and much more--all on the cheap! Recycling Projects for the Evil Genius: Features step-by-step instructions and helpful illustrations Covers essential safety measures Reveals the scientific principles behind the projects Removes the frustration factor--all required parts are listed, along with sources Make your own green: Household cleaners Laundry soap Citrus oil extract Pest and weed control solutions Recycled plastic lumber and landscape blocks Recycled asphalt shingle paver bricks and road patch compound Concrete paper mache blocks, garden walls, stepping stones, and structures Solar-powered composter Garden-friendly charcoal And more Each fun, inexpensive, and slightly wicked Evil Genius project includes a detailed list of materials, sources for parts, schematics, and lots of clear, well-illustrated instructions for easy assembly. The larger workbook-style layout and convenient two-column format make following the step-by-step instructions a breeze.

Build your own distributed sensor network to collect, analyze, and visualize real-time data about our human environment—including noise level, temperature, and people flow. With this hands-on book, you'll learn how to turn your project idea into working hardware, using the easy-to-learn Arduino microcontroller and off-the-shelf sensors. Authors Alasdair Allan and Kipp Bradford walk you through the entire process, from prototyping a simple sensor node to performing real-time analysis on data captured by a deployed multi-sensor network. Demonstrated at recent O'Reilly Strata Conferences, the future of distributed data is already here. If you have programming experience, you can get started immediately. Wire up a circuit on a breadboard, and use the Arduino to read values from a sensor Add a microphone and infrared motion detector to your circuit Move from breadboard to prototype with Fritzing, a program that converts your circuit design into a graphical representation Simplify your design: learn use cases and limitations for using Arduino pins for power and grounding Build wireless networks with XBee radios and request data from multiple sensor platforms Visualize data from your sensor network with Processing or LabVIEW

Covering the PIC BASIC and PIC BASIC PRO compilers, PIC Basic Projects provides an easy-to-use toolkit for developing applications with PIC BASIC. Numerous simple projects give clear and concrete examples of how PIC BASIC can be used to develop electronics applications, while larger and more advanced projects describe program operation in detail and give useful insights into developing more involved microcontroller applications. Including new and dynamic models of the PIC microcontroller, such as the PIC16F627, PIC16F628, PIC16F629 and PIC12F627, PIC Basic Projects is a thoroughly practical, hands-on introduction to PIC BASIC for the hobbyist, student and electronics design engineer. Packed with simple and advanced projects which show how to program a variety of interesting electronic applications using PIC BASIC Covers the new and powerful PIC16F627, 16F628, PIC16F629 and the PIC12F627 models

What do you need to know to teach computing in primary schools? How do you teach it? This book offers practical guidance on how to teach the computing curriculum in primary schools, coupled with the subject knowledge needed to teach it. This Seventh Edition is a guide to teaching the computing content of the new Primary National Curriculum. It includes many more case studies and practical examples to help you see what good practice in teaching computing looks like. It also explores the use of ICT in the primary classroom for teaching all curriculum subjects and for supporting learning in every day teaching. New chapters have been added on physical computing and coding and the importance of web literacy, bringing the text up-to-date. Computing is both a subject and a powerful tool for learning and teaching throughout the school curriculum and beyond into many areas of children's learning lives. This book highlights the importance of supporting children to become discerning and creative users of digital technologies as opposed to passive consumers.

A Guide to Using PICAXE Microcontrollers V1
 Primary Computing and ICT: Knowledge, Understanding and Practice
 Picaxe Project Handbook
 The Best of Instructables Volume I
 Make: Electronics

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.

CREATE FIENDISHLY FUN tinyAVR MICROCONTROLLER PROJECTS This wickedly inventive guide shows you how to conceptualize, build, and program 34 tinyAVR microcontroller devices that you can use for either entertainment or practical purposes. After covering the development process, tools, and power supply sources, tinyAVR Microcontroller Projects for the Evil Genius gets you working on exciting LED, graphics LCD, sensor, audio, and alternate energy projects. Using easy-to-find components and equipment, this hands-on guide helps you build a solid foundation in electronics and embedded programming while accomplishing useful--and slightly twisted--projects. Most of the projects have fascinating visual appeal in the form of large LED-based displays, and others feature a voice playback mechanism. Full source code and circuit files for each project are available for download. tinyAVR Microcontroller Projects for the Evil Genius: Features step-by-step instructions and helpful illustrations Allows you to customize each project for your own requirements Offers full source code for all projects for download Build these and other devious devices: Flickering LED candle Random color and music generator Mood lamp VU meter with 20 LEDs Celsius and Fahrenheit thermometer RGB dice Tengu on graphics display Spinning LED top with message display Contactless tachometer Electronic birthday blowout candles Fridge alarm Musical toy Batteryless infrared remote Batteryless persistence-of-vision toy Each fun, inexpensive Evil Genius project includes a detailed list of materials, sources for parts, schematics, and lots of clear, well-illustrated instructions for easy assembly. The larger workbook-style layout and convenient two-column format make following the step-by-step instructions a breeze. Make Great Stuff! TAB, an imprint of McGraw-Hill Professional, is a leading publisher of DIY technology books for makers, hackers, and electronics hobbyists.

Regardless of your experience and resources, as a ham radio operator you have what it takes to make a meaningful contribution to science and technology. Nichols explores and explains the often profound differences between science and technology, and dispels the notion that we know all there is to know about radio. Using a fresh, playful approach, he guides you through some of the most fascinating "nooks and crannies" of the radio universe.

In Practical AVR Microcontrollers, you'll learn how to use the AVR microcontroller to make your own nifty projects and gadgets. You'll start off with the basics in part one: setting up your development environment and learning how the "naked" AVR differs from the Arduino. Then you'll gain experience by building a few simple gizmos and learning how everything can be interconnected. In part two, we really get into the goodies: projects! Each project will show you exactly what software and hardware you need, and will provide enough detail that you can adapt it to your own needs and parts availability. Some of the projects you'll make: An illuminated secret panel A hallway lighting system with a waterfall effect A crazy lightshow Visual effects gizmos like a Moire wheel and shadow puppets In addition, you'll design and implement some home automation projects, including working with wired and wireless setups. Along the way, you'll design a useable home automation protocol and look at a variety of hardware setups. Whether you're new to electronics, or you just want to see what you can do with an AVR outside of an Arduino, Practical AVR Microcontrollers is the book for you.

Programming PIC Microcontrollers with XC8
 Recycling Projects for the Evil Genius
 Beginning Arduino Programming
 Raspberry Pi Projects for the Evil Genius
 A Project-based Approach

TEAM ARDUINO UP WITH ANDROID FOR SOME MISCHIEVOUS FUN! Filled with practical, do-it-yourself gadgets, Arduino + Android Projects for the Evil Genius shows you how to create Arduino devices and control them with Android smartphones and tablets. Easy-to-find equipment and components are used for all the projects in the book. This wickedly inventive guide covers the Android Open Application Development Kit (ADK) and USB interface and explains how to use them with the basic Arduino platform. Methods of communication between Android and Arduino that don't require the ADK—including sound, Bluetooth, and WiFi/Ethernet are also discussed. An Arduino ADK programming tutorial helps you get started right away. Arduino + Android Projects for the Evil Genius: 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 Provides all source code on the book's website Build these and other devious devices: Bluetooth robot Android Geiger counter Android-controlled light show TV remote Temperature logger Ultrasonic range finder Home automation controller Remote power and lighting control Smart thermostat RFID door lock Signaling flags Delay timer

PIC in Practice is a graded course based around the practical use of the PIC microcontroller through project work. Principles are introduced gradually, through hands-on experience, enabling students to develop their understanding at their own pace. Dave Smith has based the book on his popular short courses on the PIC for professionals, students and teachers at Manchester Metropolitan University. The result is a graded text, formulated around practical exercises, which truly guides the reader from square one. The book can be used at a variety of levels and the carefully graded projects make it ideal for colleges, schools and universities. Newcomers to the PIC will find it a painless introduction, whilst electronics hobbyists will enjoy the practical nature of this first course in microcontrollers. PIC in Practice introduces applications using the popular 16F84 device as well as the 16F627, 16F877, 12C508, 12C629 and 12C675. In this new edition excellent coverage is given to the 16F818, with additional information on writing and documenting software. Gentle introduction to using PICs for electronic applications Principles and programming introduced through graded projects Thoroughly up-to-date with new chapters on the 16F818 and writing and documenting programs

UNLEASH THE POWER OF THE PICAXE! The PICAXE is a powerful and easy-to-use processor, capable of highly sophisticated projects, without the complexities and high costs of alternative chips. Beginners can produce tangible results within minutes, and experienced users can achieve truly professional results. Programming and Customizing the PICAXE Microcontroller, Second Edition, has been fully updated for the latest hardware and software upgrades, and shows you, step by step, how to take full advantage of all the capabilities of the PICAXE and build your own control projects. This practical guide is packed with helpful illustrations, detailed examples, and do-it-yourself experiments. Perfect for beginners and students, the book also contains advanced information for more experienced programmers, hobbyists, manufacturers, and research institutions. Programming and Customizing the PICAXE Microcontroller, Second Edition, covers: PICAXE architecture The latest chips, including M2, M, X, XI, and X2 series Windows, Mac, and UNIX platforms Interfacing and input/output techniques BASIC programming and compilers PICAXE arithmetic and data conversion Dozens of ready-to-run projects Useful routines to plug into your own designs Hands-on projects include: LED and LCO display control Motor control Water detector Bipolar transistor output driver Interfacing MOSFETs to a PICAXE Radio-control servo motor Infrared wireless links Telephone intercom Dual-temperature display Radio frequency identification (RFID) reader display Memory and I/O expansion Real-time clock/calendar Data logger Robotic components Many more Discover all the amazing things you can do with Arduino Arduino is a programmable circuit board that is being used by everyone from scientists, programmers, and hardware hackers to artists, designers, hobbyists, and engineers in order to add interactivity to objects and projects and experiment with programming and electronics. This easy-to-understand book is an ideal place to start if you are interested in learning more about Arduino's vast capabilities. Featuring an array of cool projects, this Arduino beginner guide walks you through every step of each of the featured projects so that you can acquire a clear understanding of the different aspects of the Arduino board. Introduces Arduino basics to provide you with a solid foundation of understanding before you tackle your first project Features a variety of fun projects that show you how to do everything from automating your garden's watering system to constructing a keypad entry system, installing a tweeting cat flap, building a robot car, and much more Provides an easy, hands-on approach to learning more about electronics, programming, and interaction design for Makers of all ages Arduino Projects For Dummies is your guide to turning everyday electronics and plain old projects into incredible innovations. Get Connected! To find out more about Brock Craft and his recent Arduino creations, visit www.facebook.com/ArduinoProjectsForDummies

Arduino Projects For Dummies
 From Hardware to Data to Visualization
 PIC in Practice
 PIC Basic Projects
 Practical AVR Microcontrollers

The PICAXE chip is inexpensive and versatile, and can be used to build almost any application other microcontrollers have been used for -- at a lower cost. This first-to-market book on the subject, officially endorsed by the manufacturer of the PICAXE, shows hobbyists how to get the most out of the PICAXE and includes dozens of innovative projects. Includes a programming guide and application notes consolidation for the PICAXE Covers all PICAXE "flavors" and new releases of the Program Editor software Accompanying website includes the Programming Editor software and documentation

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-activated cameras Camera zoom extender

A Guide to Using Picaxe Microcontrollers V1
 A Radio Amateur's Guide to Open Source Electronics and Microcontroller Projects