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 breadboard 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 USBS-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.

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.

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.

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.
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 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 Presents instructions for creating and enhancing a variety of household electronic equipment, including a networked thermostat, LED lanterns, and a yakitori grill. 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, and even a minimalist website. 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: LED blinker MP3 player Camera controller 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.

Teach Yourself
die Welt hören, sehen, fühlen
21 Build-It-Yourself Projects, Second Edition
Recycling Projects for the Evil Genius

Ubiquitous Music Ecologies
15 Dangerously Mad Projects for the Evil Genius
WJEC Eduqas GCSE (9-1) Design and Technology
Primary Computing and ICT: Knowledge, Understanding and Practice
Electronic Gadgets for the Evil Genius
PICAXE Microcontroller Projects for the Evil GeniusMcGraw Hill Professional

Ubiquitous music is an interdisciplinary area of research that lies at the intersection of music and computer science. Initially evolving from the related concept of ubiquitous computing, today ubiquitous music offers a paradigm for understanding how the everyday presence of computers has led to highly diverse music practices. As we move from desktop computers to mobile and internet-based multi-platform systems, new ways to participate in creative musical activities have radically changed the cultural and social landscape of music composition and performance. This volume explores how these new systems interact and how they may transform our musical experiences. Emerging out of the work of the Ubiquitous Music Group, an international research network established in 2007, this volume provides a snapshot of the ecologically grounded perspectives on ubiquitous music that share the concept of ecosystem as a central theme. Covering theory, software and hardware design, and applications in educational and artistic settings, each chapter features in-depth descriptions of exploratory and cutting-edge creative practices that expand our understanding of music making by means of digital and analogue technologies.

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, PICA XE, 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-books, 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. 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. Steve Anderson. The first magazine devoted entirely to do-it-yourself technology projects presents its 25th quarterly edition for people who like to tweak, disassemble, recreate, and invent cool new uses for technology. MAKE Volume 25 is all about the Arduino Revolution! Give your gadgets a brain! Previously out of reach for the do-it-yourselfer, the tiny computers called microcontrollers are now so cheap and easy to use that anyone can make their stuff smart. With a microcontroller, your gadget can sense the environment, talk to the internet or other hardware, and make things happen in the real world by controlling motors, lights, or any electronic device. The Arduino is an easy-to-use microcontroller board -- it’s like an R&D lab on your kitchen table for prototyping any gadget. We show you how to make one, and how to use Arduinos and other microcontrollers to make an automatic yogurt maker, a vintage Skype telephone, a gumball machine that recognizes your secret knock, and more. Plus, make a Helicopter Rocket, gourmet Sous Vide food cooker, Reverse Geocache treasure box, and many more fun DIY projects. 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 interfacing with the PICAXE microcontroller, 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 display controller 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

Exam board: WJEC Level: GCSE Subject: Design and Technology First teaching: September 2017 First exams: Summer 2019 Reinforce classroom learning and boost students' understanding of their chosen area of design and technology with this textbook written for the WJEC GCSE Design & Technology specification for Wales. Written by leading D&T experts, this textbook will build your students' knowledge of the core principles, help to develop their designing and making skills and provide them with the opportunity to make sure they are ready to tackle both parts of the assessment. - Helps students clearly understand the core knowledge, understanding and skills and general concepts of designing and making, as well as build their knowledge, understanding and skills of either Engineering Design, Fashion and Textiles or Product Design in more depth - Helps students' mathematical and scientific ability so they don't miss out on the easy marks - Features practice questions in the style of the written exam to make sure students are confident to tackle the written element of the assessment - Inspires and motivates students with stretch and challenge: activities designed to challenge the more able learners and to ensure progression to A-level

Fuel your “Eureka!” moments and become a successful inventor! Envision breakthrough new products using the proven methods and applied reasoning techniques of today’s successful inventors. The Eureka Method: How to Think Like an Inventor lays out a systematic approach to innovation. Discover how to look at social
Online Library Picaxe Microcontroller Projects For The Evil Genius development and trends to find new ways of combining and improving existing technologies and systems: Plain-language examples of real-world patents, products, and inventors illuminate each point along the way. Find out how to: Gain regular flashes of inspiration based on your understanding of the inventive process Improve and expand existing products in ways that fill social needs Fuse elements from different products into new and useful combinations Discover new opportunities by side-stepping rules and gaming the system "Futurize" your inventions and prevent them from becoming obsolete Identify emerging regulations and use them to your creative advantage Learn about comprehensive patent applications that protect your rights.

Electrical Circuits for the Evil Genius 2/E
30 Projects using PIC BASIC and PIC BASIC PRO
Arduino + Android Projects for the Evil Genius: Control Arduino with Your Smartphone or Tablet
PIC Basic Projects
Journal of Technology Education
Make: Technology on Your Time
Raspberry Pi Projects for the Evil Genius
Programming PIC Microcontrollers with XC8
Make: Elektronik
From USB to RTOS with the PIC 18F Series

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.

The model size is 1,0 m x 0,350 m x 0,4 m. The model has many sustainable features and functions. Some are controlled via a remote control (model aircraft system). Ideal for teaching sustainable architecture in Primary and Secondary school. Also useful for Tertiary Education. This book starts with a simple model created in a secondary school by the Design and Visual Communication (DVC) teacher. The objective is to use a model to illustrate and teach the basic concepts and principles of sustainable architecture in High School. A Fellowship was awarded to the author (DVC teacher) for 6 months exploring, investigating and researching sustainable architecture. During this time, the teacher learned much about this subject area, and the concept of creating a model to illustrate and explain sustainable architectural design and practice was born. During the six months of study leave -- away from work -- a model was created which could be used in the classroom. The teacher is a model aircraft enthusiast who flies several models, including a jet, fixed-wing planes and gliders. As expected, the teacher included the remote control (RC) components into the sustainable architecture model design to provide remote control capabilities for the model. The louvers could move up and down, and the top roof (clerestory) could open. These features were included to illustrate the screening of the sun (passive solar design) and passive ventilation. The sun heats up a ceramic tile, installed on the floor, (winter). A probe from a thermometer (inserted into the tile) monitors the rise and fall in temperature as the sun heats up the floor tile (efficient heating of the building). Many more sustainable architectural features and functions are discussed in this book. For parents of young children and teachers of primary school students this resource will provide additional insight into sustainable practice. The principles are simple, and these concepts can easily be taught to young children. Consider teaching simple electrical diagrams and circuits. Once these simple electrical diagrams are mastered, the student can move on to building a simple model or mock-up of a sustainable building. Links to YouTube videos created by the author of the model are included to highlight the functions.

The book contains many images of the model by the author. The images are annotated with in-depth comments on the parts and functions of the different sustainability aspects of the building.


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 devices: Flickering LED candle Random color and music generator Mood lamp VU meter with 20 LEDs Fahrenheit thermometer RGB dice Tengu on graphics display Spinning LED top with message display Contactless tachometer Electronic birthday blowout candles Fridge alarm Musical toy Batterless 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 workshop-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. Exam board: WJEC Eduqas Level: GCSE Subject: Design & Technology First teaching: September 2017 First exams: Summer 2019 Reinforce classroom learning and boost students' understanding of all materials with this textbook written for the WJEC Eduqas GCSE (9-1) Design & Technology specification. Written by leading D&T experts, this textbook will build your students' knowledge of the core principles, help to develop their designing and making skills and provide them with the opportunity to make sure they are ready to tackle both parts of the assessment. - Helps students clearly understand the core principles of all materials and general concepts of designing and making, as well as build their
knowledge, understanding and skills for one material or system in more depth - Hones students' mathematical and scientific ability so they don't miss out on the easy marks - Features practice questions in the style of the written exam to make sure students are confident to tackle the written element of the assessment - Inspires and motivates students with stretch and challenge: activities designed to challenge the more able learners and to ensure progression to A-level

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 electrokineti...
Programming and Customizing the PICAXE Microcontroller 2/E

The TAB Battery Book: An In-Depth Guide to Construction, Design, and Use

Advanced PIC Microcontroller Projects in C

101 Spy Gadgets for the Evil Genius 2/E

überarbeiteten Projekten  " Weniger und preiswertere Elektronikkomponenten  " Jetzt auch mit Arduino-Experimenten

Erklärungen über das, was du tust, und warum du es so machst. Neu in der 2. Auflage:  " Komplett neuer Text, mit vielen neuen und
Lichterketten, Elektronik-Schmuck, Audioprozessoren, ein Reflextestgerät und ein Kombinationsschloss  " Erhalte klare, leicht verständliche
wirklich brauchst  " Erwirb Wissen über elektronische Bauelemente und ihre Bedeutung für Schaltkreise  " Bau eine Alarmanlage,
Schaltkreis (IC), vom simplen Alarmsignal zum programmierbaren Mikrocontroller. Schritt-für-Schritt-Anleitungen und über 500 farbige
mit einfachen Anwendungen und gehst dann zügig über zu immer komplexeren Projekten: vom einfachen Stromkreis zum Integrierten