Mikrokontroler

Arduino Programming in 24 Hours, Sams Teach YourselfMicrocontrollers Fundamentals for Engineers and ScientistsArduino in ActionThe 8051 Microcontroller (Book Only)PIC Microcontrollers: Know It AllProgramming with STM32: Getting Started with the Nucleo Board and C/C++The 8051 MicroprocessorThe 8051 Microcontroller and Embedded SystemsSams Teach Yourself Arduino Programming in 24 HoursJavaScript on ThingsMicrocontrollers in PracticeAVR Microcontroller and Embedded Systems: Using Assembly and CThe 8051 MicrocontrollerThe 8051 Microcontroller And Embedded Systems: Using Assembly And C 2Nd Ed.The 8051 Microcontroller and Embedded SystemsTinyML CookbookMicrocontroller and Embedded SystemPIC MicrocontrollersMicrocontroller Handbook8051 Microcontroller Richard Blum Steven F. Barrett Jordan Hochenbaum Kenneth Ayala Lucio Di Jasio Donald Norris Muhammad Ali Mazidi Muhammad Ali Mazidi Richard Blum Lyza Gardner Ioan Susnea Muhammad Ali Mazidi Kenneth J. Ayala Muhammad Ali Mazidi Muhammad Ali Mazidi Gian Marco Iodice Vikrant Vij Bert Van Dam Intel Corporation Ayala

in just 24 sessions of one hour or less sams teach yourself arduino programming in 24 hours teaches you c programmingon arduino so you can start creating inspired diy hardwareprojects of your own using this book s straightforward step by stepapproach you ll walk through everything from setting up yourprogramming environment to mastering c syntax and features interfacing your arduino to performing full fledged prototyping every hands on lesson and example builds on what you ve alreadylearned giving you a rock solid foundation for real world success step by step instructions carefully walk you through the most common arduino programming tasks quizzes at the end of each chapter help you test your knowledge by the way notes present interesting information related to the

discussion did you know tips offer advice or show you easier ways to perform tasks watch out cautions alert you to possible problems and give you advice on how to avoid them learn how to get the right arduino hardware and accessories for your needs download the arduino ide install it and link it to your arduino quickly create compile upload and run your first arduino program master c syntax decision control strings data structures and functions use pointers to work with memory and avoid common mistakes store data on your arduino s eeprom or an external sd card use existing hardware libraries or create your own send output and read input from analog devices or digital interfaces create and handle interrupts in software and hardware communicate with devices via the spi interface and i2c protocol work with analog and digital sensors write arduino c programs that control motors connect an lcd to your arduino and code the output install an ethernet shield configure an ethernet connection and write networking programs create prototyping environments use prototyping shields and interface electronics to your arduino

this book provides practicing scientists and engineers a tutorial on the fundamental concepts and use of microcontrollers today microcontrollers or single integrated circuit chip computers play critical roles in almost all instrumentation and control systems most existing books arewritten for undergraduate and graduate students taking an electrical and or computer engineering course furthermore these texts have beenwritten with a particular model of microcontroller as the target discussion these textbooks also require a requisite knowledge of digital design fundamentals this textbook presents the fundamental concepts common to all microcontrollers our goals are to present the over arching theory of microcontroller operation and to provide a detailed discussion on constituent subsystems available in most microcontrollers with such goals we envision that the theory discussed in this book can be readily applied to a wide variety of microcontroller technologies allowing practicing scientists and engineers to become acquainted with basic concepts prior to beginning a design involving a specific microcontroller we have found that the fundamental principles of a given microcontroller are easily transferred to other controllers although this is a relatively small book it is packed with useful information for quickly coming up to speed on microcontroller concepts

summary arduino in action is a hands on guide to prototyping and building electronics using the arduino platform suitable for both beginners and advanced users this easy to follow book begins with the basics and then systematically guides you through projects ranging from your first blinking led through connecting arduino to devices like game controllers or your iphone about the technology arduino is an open source do it yourself electronics platform that supports a mind boggling collection of sensors and actuators you can use to build anything you can imagine even if you ve never attempted a hardware project this easy to follow book will guide you from your first blinking led through connecting arduino to your iphone about this book arduino in action is a hands on guide to prototyping and building diy electronics you ll start with the basics unpacking your board and using a simple program to make something happen then you l attempt progressively more complex projects as you connect arduino to motors lcd displays wi fi gps and bluetooth you ll explore input output sensors including ultrasound infrared and light and then use them for tasks like robotic obstacle avoidance

arduino programs look a lot like c or c so some programming skill is helpful what s inside getting started with arduino no experience required writing programs for arduino sensing and responding to events robots flying vehicles twitter machines lcd displays and more purchase of the print book includes a free ebook in pdf kindle and epub formats from manning publications about the authors martin evans is a professional developer a lifelong electronics enthusiast and the creator of an arduino based underwater rov joshua noble is an author and creative technologist who works with smart spaces jordan hochenbaum uses arduino to explore musical expression and creative interaction table of contents part 1 getting started chapter 1 hello arduino chapter 2 digital input and output chapter 3 simple projects input and output part 2 putting arduino to work chapter 4 extending arduino chapter 5 arduino in motion chapter 6 object detection chapter 7 lcd displays chapter 8 communications chapter 9 game on chapter 10 integrating the arduino with ios chapter 11 making wearables chapter 12 adding shields chapter 13 software integration

the newnes know it all series takes the best of what our authors have written over the past few years and creates a one stop reference for engineers involved in markets from communications to embedded systems and everywhere in between pic design and development a natural fit for this reference series as it is one of the most popular microcontrollers in the world and we have several superbly authored books on the subject this material ranges from the basics to more advanced topics there is also a very strong project basis to this learning the average embedded engineer working with this microcontroller will be able to have any question answered by this compilation he she will also be able to work through real life problems via the projects contained in the book the newnes know it all series presentation of theory hard fact and project based direction will be a continual aid in helping the engineer to innovate in the workplace section i an introduction to pic microcontrollerschapter 1 the pic microcontroller familychapter 2 introducing the pic 16 series and the 16f84achapter 3 parallel ports power supply and the clock oscillatorsection ii programming pic microcontrollers using assembly languagechapter 4 starting to program an introduction to assemblerchapter 5 building assembler programschapter 6 further programming techniqueschapter 7 prototype hardwarechapter 8 more pic applications and deviceschapter 9 the pic 1250x series 8 pin pic microcontrollers chapter 10 intermediate operations using the pic 12f675chapter 11 using inputschapter 12 keypad scanningchapter 13 program examplessection iii programming pic microcontrollers using picbasicchapter 14 picbasic and picbasic pro programming chapter 15 simple pic projectschapter 16 moving on with the 16f876chapter 17 communicationsection iv programming pic microcontrollers using mbasicchapter 18 mbasic compiler and development boardschapter 19 the basics outputchapter 20 the basics digital inputchapter 21 introductory stepper motorschapter 22 digital temperature sensors and real time clockschapter 23 infrared remote controlssection v programming pic microcontrollers using cchapter 24 getting startedchapter 25 programming loopschapter 26 more loopschapter 27 numb3rschapter 28 interruptschapter 29 taking a look under the hood over 900 pages of practical hands on content in one book huge market as of november 2006 microchip technology inc a leading provider of microcontroller and analog semiconductors produced its 5 billionth pic microcontroller several points of view giving the reader a complete 360 of this microcontroller

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the 8051 microprocessor a systems approach emphasizes the programming and interfacing of the 8051 using a systematic step by step approach the text covers various aspects of 8051 including c and assembly language programming and interfacing throughout each chapter a wealth of examples and sample programs clarify the concepts offering an opportunity to learn by doing review questions at the end of each section help reinforce the main points covered in the chapter

in just 24 sessions of one hour or less sams teach yourself arduino programming in 24 hours teaches you c programmingon arduino so you can start creating inspired diy hardwareprojects of your own using this book s straightforward step by stepapproach you ll walk through everything from setting up yourprogramming environment to mastering c syntax and features interfacing your arduino to performing full fledged prototyping every hands on lesson and example builds on what you ve alreadylearned giving you a rock solid foundation for real world success step by step instructions carefully walk you through the most common arduino programming tasks quizzes at the end of each chapter help you test your knowledge by the way notes present interesting information related to the discussion did you know tips offer advice or show you easier ways to perform tasks watch out cautions alert you to possible problems and give you advice on how to avoid them learn how to get the right arduino hardware and accessories for your needs download the arduino ide install it and link it to your arduino quickly create compile upload and run your first arduino program master c syntax decision control strings data structures and functions use pointers to work with memory and avoid common mistakes store data on your arduino s eeprom or an external sd card use existing hardware libraries or create your own send output and read input from analog devices or digital interfaces create and handle interrupts in software and hardware communicate with devices via the spi interface and i2c protocol work with analog and digital sensors write arduino c programs that control motors connect an lcd to your arduino and code the output install an ethernet shield configure an ethernet connection and write

networking programs create prototyping environments use prototyping shields and interface electronics to your arduino

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stressing common characteristics and real applications of the most used microcontrollers this practical guide provides readers with hands on knowledge of how to implement three families of microcontrollers hc11 avr and 8051 unlike the rest of the ocean of literature on individual chips microcontrollers in practice supplies side by side comparisons and an overview that treats the systems as resources available for implementation packed with hundreds of practical examples and exercises to foster mastery of concepts and details the guide also includes several extended projects by treating the less expensive 8 bit and risc microcontrollers this information dense manual equips students and home experimenters with the know how to put these devices into operation

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gain valuable assembly code programming knowledge with the help of this newly revised book readers will be trained on programming the intel 8051 microcontroller one of the most common microprocessors used in controls or instrumentation applications that use assembly code the third edition teaches current principles of computer architecture including simulation and programming with new state of the art integrated development software that is included at the back of the book the writing style engages readers and renders even complex topics easy to absorb practical examples of assembly code instructions illustrate how these instructions function complex hardware and software application examples are also provided

this textbook covers the hardware and software features of the 8051 in a systematic and step by step way back cover

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this hands on book covers a series of exciting and fun projects with pic microcontrollers for example a silent alarm a people sensor a radar a night buzzer a vu meter a rgb fader a serial network a poetry box and a sound super compression you can build over 50 projects for your own use the clear explanations schematics and pictures of each project on a breadboard make this a fun activity you can also use this book as a study guide the technical background information in each project explains why the project is set up the way it is including the use of datasheets this way youll learn a lot about the project and the microcontroller being used and you can expand the project to suit your own need making it ideal for use in schools and colleges this book can also be used as a reference guide the explanation of the jal programming language and all of the expansion libraries used is unique and found nowhere else using the index you can easily locate projects that serve as examples for the main commands but even after you have built all the projects it will still be a valuable reference guide to keep next to your pc four microcontrollers are discussed the 12f675 16f628 16f876a and 16f877 as well as how to migrate programs from one microcontroller to another all software used in this book can be downloaded for free including all of the source code a program editor and the jal open source programming language this powerful and yet easy to learn language is used by hobbyists and professionals world wide a hardware kit is also available for purchase separately that contains all the parts to get you started including a few microcontrollers there is even a free support website with additional information faq and links

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