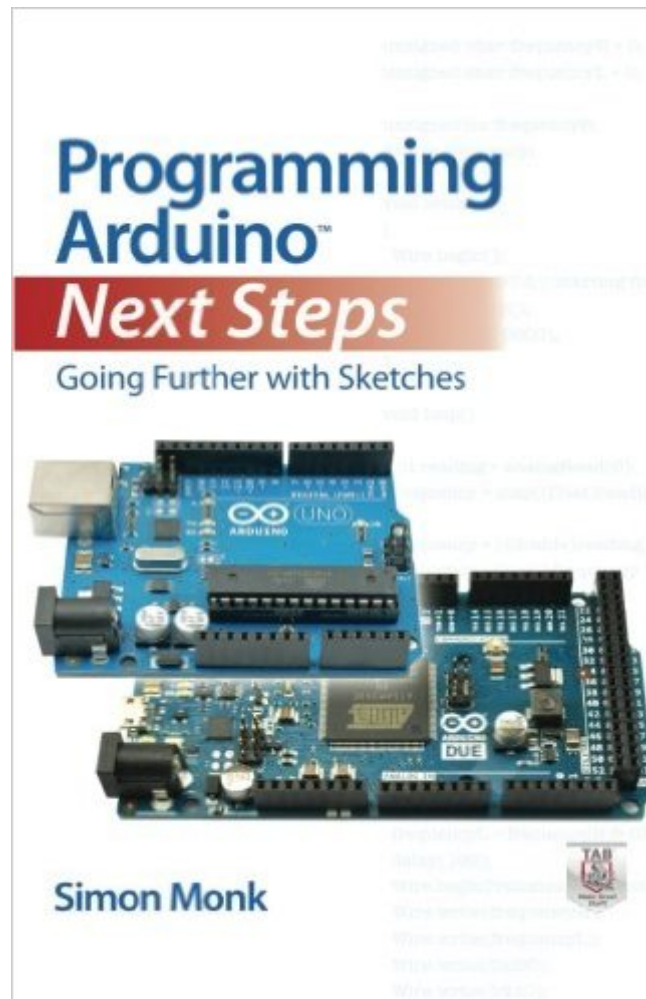The book was found

Programming Arduino Next Steps: Going Further With Sketches

Synopsis

Take your Arduino skills to the next level! In this practical guide, electronics guru Simon Monk takes you under the hood of Arduino and reveals professional programming secrets. Featuring coverage of the Arduino Uno, Leonardo, and Due boards, Programming Arduino Next Steps: Going Further with Sketches shows you how to use interrupts, manage memory, program for the Internet, maximize serial communications, perform digital signal processing, and much more. All of the 75+ example sketches featured in the book are available for download. Learn advanced Arduino programming techniques, including how to: Use hardware and timer interrupts Boost performance and speed by writing time-efficient sketches Minimize power consumption and memory usage Interface with different types of serial busses, including I2C, 1-Wire, SPI, and TTL Serial Use Arduino with USB, including the keyboard and mouse emulation features of the Leonardo and Due boards Program Arduino for the Internet Perform digital signal processing Accomplish more than one task at a timeâ •without multi-threading Create and release your own code library

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Customer Reviews

This book came along at just the right time for me! I had pretty much exhausted my ideas for Arduino projects, and had spent a lot of time online lately, looking for some new project ideas. This book has way more new ideas than what I found on the Internet in recent weeks. As an amateur radio operator, I was really interested in the digital signal processing chapter. My other great love is GIS, GPS, and maps. So, I was thrilled to see ideas for GPS interfacing. Adding to the fun was the

Memory chapter. I'm already collecting the parts to assemble my own GPS system with data logging on micros SD Card. The USB chapter has a load of new ideas I have to experiment with. There are so many other good, fresh, new ideas in this book that I will be busy with it for a long time. Since most of the program code is downloadable, the book is not filled up with pages of code listings that you're going to download anyway. Instead, it's full of the descriptions, ideas, graphics, and other solid information that I needed. So, in a way, it probably has more useful data than a book twice its size. If you're an Arduino fan, beginner or expert, this book is over 250 pages packed full of information that you don't want to miss out on.

This book is the missing link between the basic Arduino guides and more advanced reading, like Practical Arduino, Arduino Cookbook and Making Things Talk - all of which present useful and quite complex projects but without the sort of background details that many Arduino fans require. In this book Simon delves into those areas of the Arduino that sooner or later you WILL need to know if you are planning any sort of embedded Arduino project. It came at the right time for me since I have been planning a project that requires PWM dimming of LEDs to accurate preset frequencies and uses the DS18B20 one-wire chip as both a temperature sensor and a place to store lamp type data. I also want to add SPI to my project. The areas around interrupts and the one-wire interface have long been a mystery to me and Simon goes a long way to explain the basics of both in his usual easy-to-read style.Other chapters cover application speed, power considerations, EEPROM, SPI, USB, UART, Networking and I2C. Sooner or later you will want to be using these more advanced techniques in your projects. This book will provide all you need to know to get you going and will remain on my desktop as a handy reference guide.

This and Simon Monk's first book are essential to someone wanting to develop solutions using Arduino processors. I have programed in many languages, but not in C or C++. These books made it easy to understand. Anyone can jump right in and work with these systems with these books.

This is a good follow-on to Simon Monks first book "Programming Arduino Getting Started with Sketches". However, there is a little too much review in the first part of the book. Having just completed the first book, I found the first few chapters of this book to be just a rehash of the first. That being said, once you get past that there is a lot of good information about optimizing code and creating libraries and much more. That is why I did not mark it down in my rating. I think that this book presents enough new material to be well worth the price that I paid for it.

Once you've learned to write a simple Arduino program and load it on to your Arduino, the book "Programming Arduino Next Steps, Going Further with Sketches" is likely the only Arduino book you need to own.The author covers useful topics for enhancing the usability of the Arduino and its clones with just the right amount of detail. For me, he answered most of the questions I've had about the Arduino, but in one authoritative book instead of having to research innumerable answers of questionable authority on the internet. The amount of code he uses to illustrate a topic is sufficient so that you can see how to adapt it to your use easily without getting lost in the weeds. The topics he covers should appeal to a wide range of Arduino users. He covers using hardware and software interrupts and timers, reading and writing directly to hardware registers (with a huge performance increase) and how to improve memory usage efficiency. He also covers interfacing the Arduino to all sorts of hardware using common electronic interface standards such as I2C and SPI. There's also information about how to write software libraries, and how to write your programs directly to the microcontroller without the overhead of the Arduino bootloader. Buy the book. You won't be sorry.

I have half a dozen or so Arduino-related books and I find that this has discussions on some topics not covered elsewhere (at least as far as I've seen.) Some theory as well as schematics and sketches for are discussed for DSP and FFT, for instance. I also found the discussions on I2C and SPI to be better and more detailed than what is found in most other books. Very useful.

You can pay more for this book, and some say you can find the same information via youtube. I am one to like to read, and keep what I read as a reference, or to pass it on to a friend. The book has very good examples and example code can be downloaded from the authors web page. It starts off very simple, where it gets more complicated depends on your level of understanding, The book covers almost all aspects of programming, including memory management, all types of communication, Interrupts, timers, and much more.

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