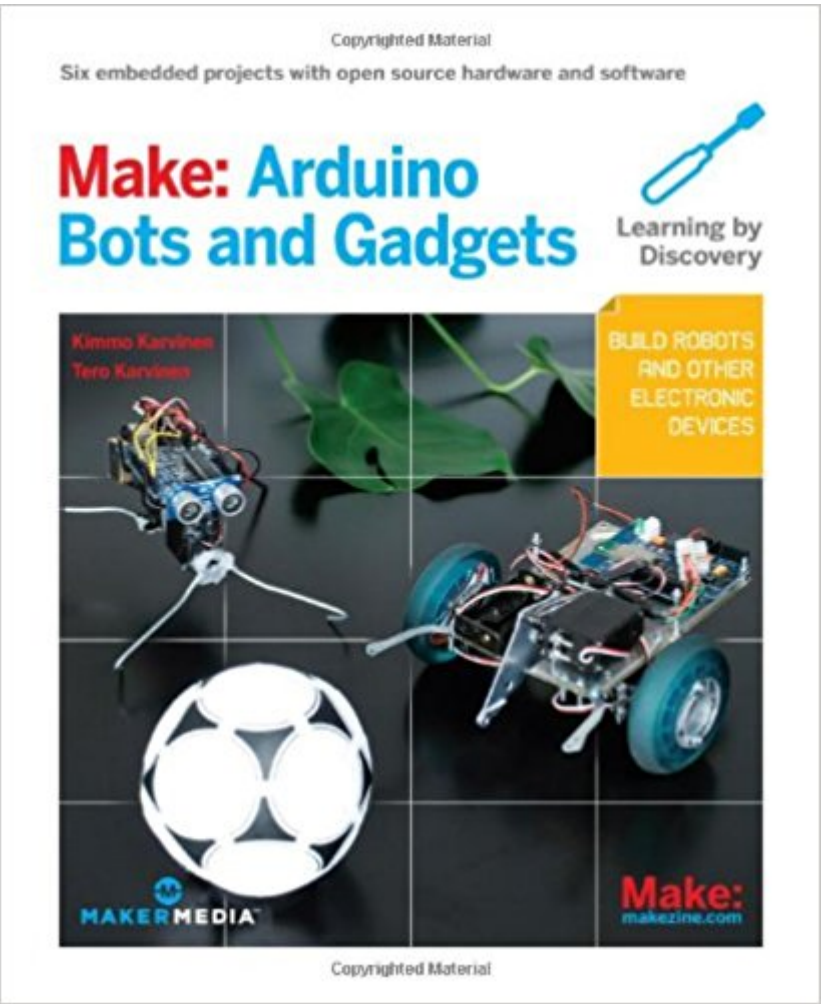
Make: Arduino Bots And Gadgets: Six Embedded Projects With Open Source Hardware And Software (Learning By Discovery)



Synopsis

Want to build your own robots, turn your ideas into prototypes, control devices with a computer, or make your own cell phone applications? It's a snap with this book and the Arduino open source electronic prototyping platform. Get started with six fun projects and achieve impressive results quickly. Gain the know-how and experience to invent your own cool gadgets. With Arduino, building your own embedded gadgets is easy, even for beginners. Embedded systems are everywhere--inside cars, children's toys, and mobile phones. This book will teach you the basics of embedded systems and help you build your first gadget in just a few days. Each learn-as-you-build project that follows will add to your knowledge and skills. Experiment with Arduino, the popular microcontroller board Build robots and electronic projects with easy-to-follow instructions Turn your ideas into working physical prototypes Use Android phones as remote controls in your projects Work with an uncomplicated programming language created for artists, designers, and hobbyists Get everyone involved, with projects that even beginners can build.

Book Information

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Customer Reviews

Tero Karvinen teaches Linux and embedded systems in Haaga-Helia University of Applied Sciences, where his work has also included curriculum development and research in wireless networking. He previously worked as a CEO of a small advertisement agency. Tero's education

includes a Masters of Science in Economics.Kimmo Karvinen works as a CTO in hardware manufacturer that specializes in smart building technology. Before that he worked as a marketing communications project leader and as a creative director and partner in advertisement agency. Kimmo’s education includes a Masters of Art.

This primer bridges both worlds of Arduino and Raspberry Pi with excellent attention to details for the uninitiated. If you need proven solutions AND willing to fork some $$$ for the sensors you will achieve a sense of satisfaction in quickly reproducing the abundant examples in the book.The more I use the book to evaluate the exercises, the more I am impressed by the attention to detail by the authors. Of course, there will always be opportunities to explain things in more detail for diverse audiences but I have to confess that most of the discrepancies I am capturing below may be due to "operator error!" :)I will append editorial oversights below as I dutifully step through each chapter [be warned: this is not my day job :)]Figure 1-7 does not match Table 1-1Example 3-5 assumes that the on-board LED (pin #13) is used in Figure 3-10Example 3-4 invokes "botbook_gpio.py" which failed compilation in my IDLE 3 environment (I corrected the print statements) at line 25, column 20 for the "wa" dual attribute. Apparently one attribute is allowed in my configuration. Not knowing enough about the low level details, I changed the setting to a single attribute but ran into "timeout" problems with the pulseInHigh(echoPin) method. Perhaps an example of the "operator error" I alluded to earlier.

This is a very useful book, covering the fundamentals. I’ve read the whole thing, it got me going on a much more elaborate project than covered in the book, but almost all the necessary information (save a few bells-and-whistles) was there. My son likes it too, and he’s getting his feet wet now. It was a real good purchase.

I’m a fan of Ardunio, and interested in robots, so what’s not to like about this book? If you haven’t heard of Ardunio, it’s an open source hardware/software embedded platform, basically. Since the hardware isn’t patented, and teh software is free, anyone can afford to play with it. I’ve been an embedded programmer for most of my career, and this is the first time I could afford to play with an embedded system at home. So, with Ardunio you can buy a $50 embedded system, get the software free, and use this book to see how to take advantage of them to do some really neat things.

Covers many common sensors and provides easy to follow demonstrations for both ardunio and raspberry pi. Provides wiring and source code with explanations.

Time for an update. The book is well laid out, covering both arduino and pi, but the information on gpio is outdated and some of the sensors don’t seem to be available or at least not readily available as when the book was first published.

Great teaching tool for introducing DIY with Arduino or Raspberry Pi. It gives you a good intro to building these systems to interact with the physical world around us. If you like hands-on you will use this book.

This is a good book which every Arduino owner should have and work through. The sensors are primarily KEYES sensors and can be found in the 37 sensor collection which I bought.

Great book. Excellent customer service and prompt shipping. Thanks!

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