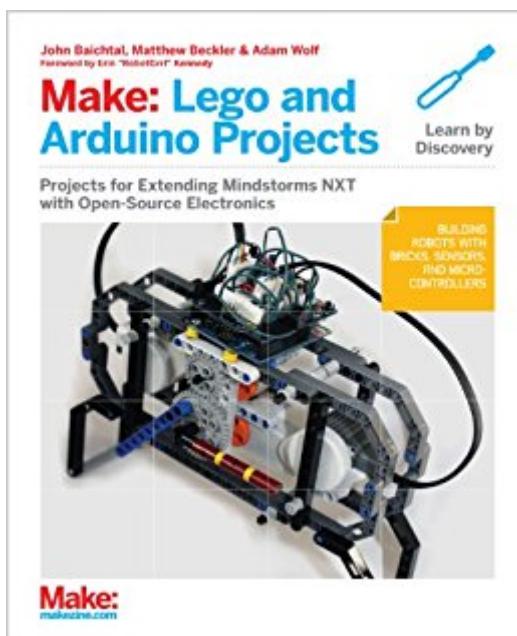The book was found

Make: Lego And Arduino Projects: Projects For Extending MINDSTORMS NXT With Open-source Electronics

Synopsis

Make amazing robots and gadgets with two of today¢â ¬â„¢s hottest DIY technologies. With this easy-to-follow guide, you¢â ¬â„¢ll learn how to build devices with Lego Mindstorms NXT 2.0, the Arduino prototyping platform, and some add-on components to bridge the two. Mindstorms alone lets you create incredible gadgets. Bring in Arduino for some jaw-dropping functionality¢â ¬â •and open a whole new world of possibilities.Build a drink dispenser, music synthesizer, wireless lamp, and moreEach fun and fascinating project includes step-by-step instructions and clear illustrations to guide you through the process. Learn how to set up an Arduino programming environment, download the sketches and libraries you need, and work with Arduino¢â ¬â„¢s language for non-programmers. It¢â ¬â„¢s a perfect book for students, teachers, hobbyists, makers, hackers, and kids of all ages.Build a Drawbot that roams around and traces its path with a marker penConstruct an analog Mindstorms clock with hands that display the correct timeCreate a machine that mixes a glass of chocolate milk at the touch of a buttonMake a Gripperbot rolling robotic arm that you control wirelessly with Arduinos mounted on your armsExplore electronic music by building a guitar-shaped Lego synthesizerBuild a Lego lamp with on/off and dimmer switches that you control with a smartphone applicationJump feet first into the world of electronics, from learning Ohm¢â ¬â„¢s Law to working with basic componentsYou'll need the Bricktronics shield created for this book by Open Source Hardware kit maker Wayne and Layne, or you can build a breadboarded equivalent (see Chapter 10) for about $25 in parts.

Book Information

File Size: 25831 KB

Print Length: 328 pages

Simultaneous Device Usage: Unlimited

Publisher: Maker Media, Inc; 1 edition (November 27, 2012)

Publication Date: November 27, 2012

Sold by:Ã Â Digital Services LLC

Language: English

ASIN: B00DBIF4YK

Text-to-Speech: Enabled

X-Ray: Not Enabled

Word Wise: Enabled

Lending: Not Enabled

Enhanced Typesetting: Enabled

Customer Reviews

I have very mixed feelings about this book. I think this book is a good attempt, but for the following reasons does not leave you feeling like you bought an educational book, but rather a manual for how to incorporate an Arduino Shield (sold by two of the authors) into your project. There is nothing, in my view, that is too wrong about selling a book and selling a product you use in the book's projects, but since it is not EXPLICITLY mentioned, especially to the online sales on , it leaves you feeling a bit ripped off. That written what follows are a few of oddities the book contains:Beyond the buy book, still need to buy or make shield issue is that the authors try to introduce and present too many things i.e. an introduction to LEGO construction (via super glossy step by step instructions for their projects... this could have been done in a better layout --not one step one page. Also, some of this could have been put on a website and then the cost and content for the book could have been more refined in its information and more focussed in its incremental introduction of new concepts and projects --often the chapters are rather loosely related... not as tightly linked as some MAKE books that I own, that is for sure!Moreover, during the intro to Arduino... and when I say introduction, I mean a near historical chronicalling, the book even includes glossy color photos... I guess it is nice to know what the guys who created the Arduino project, but why is this in the book?Other oddities in the book come when you find yourself reading pages of external resources... they are scattered throughout the book (don't think this is like a Appendix format) and the affect of the smattering of external shout-outs resonates to me as almost an in book advertisement for more MAKE and cf. Chpt. 3 pgs 49-68! Again, exclude this and thus reduces the page count of fluff and add more tech and LEGO ARDUINO PROJECTS!!!Yet another quirk comes when you get to a chapter that introduces electronics basics eg the enormous photo of a multimeter (pg. 140) and a classic resistor color code image (pg. 141)... not sure why this pertains at chapter 8, it makes one wonder if the object is not to get people who don't know about electronics NOT to buy the shield associated with the book, then they should have put this as Chapt. 1 and then Chapt. 2 how to build the shield NOT Chapt. 8 and Chapt. 10 respectively. I don't get this!The BIGGEST issue that causes me

consternation is that the first project you are going to build requires the shield that two of the author's sell through their own site. So the second item on the second page of the book is something that you most likely DO NOT HAVE and will either have to build (more power to you if you have them handy... I didn't) and if you don't want to build, well then you have to buy their shield.I don't fault the authors' all that much and have been in correspondence with them --they are just engineers trying to write a cool book and give life to LEGO and Arduino.. I just wish the shield issue had been better handled i.e. MENTIONED UPFRONT or in a product description.Sure, I knew I would need to buy parts for any project book, but after spending over $100 for the shields and break-out boards, and that doesn't even include the motor driver that is used in projects in the book I have to be honest I feel a bit mishandled by the content and projects.Anyway, I like the projects, I don't like the book's chapter order, I don't like the shield being unmentioned in an product description, but I like the author's goal and don't believe IN ANY WAY they are trying to rip you off by selling you a book and then walking you through projects you have to spend more money for so you can build... Though not their intent it is hard not to feel that this is what ends up happening. Solution: sell a bundle for the book with the shields.... this isn't novel and has been done before with other Arduino books and shields it's a shame it wasn't done in this case.Buy this book, but buy it knowing what else it requires from you to even build the first project --a unique shield! Again, it's worth the money for the book.. but it's a big let down with the need for the shield to actually utilize the book!

I expected this book to contain projects that I could build with my existing NXT kit along with an Arduino board and whatever hardware I would need to interfact the two. Instead there is one project that I could have built, albeit in a slightly different way, with the existing NXT pieces and brick without using Arduino at all (drawbot) and several other projects that require the purchase of other lego pieces including Lego Power Function motors, wii nunchucks and translucent bricks. The book gives a simple schematic for one of the interface shields it uses but doesn't go into detail on how you might build it since it assumes you will just buy one from the authors' website.I also expected the book to discuss in some detail the programming needed to run the NXT motors and sensors with an Arduino board but it did not - you are just instructed to download the code for each project. It looked like a good cookbook for the projects included and I'm sure I would have learned about the programming if I built them, but none of them interested me enough to build them. I was looking more for general tips and instructions for Arduino/NXT interfacing (including pros and cons of Arduino vs. brick) rather than a cookbook with 4 or 5 recipes so I was disappointed. I ended up

returning it.One other thing to note: I had assumed that the Arduino board was actually more powerful than the NXT brick but it turns out (according to the book) that the brick actually has more power. That was another reason I returned it. (Granted, the Arduino family of products has shields that can do things the NXT brick can't, but none that I need right now.)

This is an interesting book; I've played with an Arduino and the Mindstorms 2.0 kit.....BUT...My biggest complaint by far with this book is the Lego parts lists. Of course, you can't just simply buy a kit with all the parts included. What were these dolts thinking, do they have a direct line to LEGO so they can easily get ANY part they want? I'm in the midst of an increasingly annoying search trying to track down all the pieces required for these projects. I may have to end up ordering way more of what I need because these "parts websites" usually have a 5$ minimum, even when you only need one of a 15 cent part, and of course, no one website has all the parts needed for any one of the projects in this book. ARRRRGH!! Be ready to do this kind of scavenging if you buy this book, you won't be building any of the projects for at least a few weeks!

I have a 4 Y.O. grandson and we play with Legos (Mindstorms) when we're stuck inside the house. He loves it when his "robots" come to life and he can press buttons to make our projects move. The book took us from the basics through some more advanced projects. The book is also a great reference and I am constantly refering back to it.Be warned: You can wrap up hundreds of dollars building some of the projects and extending the functioning of more basic projects. I think it's worth it, I can't put a price tag on quality time with my grandson.

This was a gift to my grandkids, so I'm not sure how they are using it. Thanks.

A very conceive book to get into LEGO's Mindstorm NXT Robot techniques with Arduino ... easy to read and to follow the instructions

This is a great book, even for someone like me, who is not very techy. It even provides suggestions on where to find parts.

Enjoy the lessons contained within this book. Very informative and enlighting book. Would recommend to anyone to use this book.

Make: Lego and Arduino Projects: Projects for extending MINDSTORMS NXT with open-source electronics Getting Started with Arduino: The Open Source Electronics Prototyping Platform (Make) Make: Arduino Bots and Gadgets: Six Embedded Projects with Open Source Hardware and Software (Learning by Discovery) Open (Source) for Business: A Practical Guide to Open Source Software Licensing -- Second Edition Hacking Electronics: Learning Electronics with Arduino and Raspberry Pi, Second Edition Building with Virtual LEGO: Getting Started with LEGO Digital Designer, LDraw, and Mecabricks (Electronics) The LEGO MINDSTORMS EV3 Idea Book: 181 Simple Machines and Clever Contraptions The LEGO MINDSTORMS EV3 Laboratory: Build, Program, and Experiment with Five Wicked Cool Robots The LEGO MINDSTORMS EV3 Discovery Book: A Beginner's Guide to Building and Programming Robots The Art of LEGO MINDSTORMS EV3 Programming (Full Color) Understanding Coding with Lego Mindstorms (Kids Can Code) Minecraft for Makers: Minecraft in the Real World with LEGO, 3D Printing, Arduino, and More! (Make:) Basic Arduino Projects: 26 Experiments with Microcontrollers and Electronics The LEGO Animation Book: Make Your Own LEGO Movies! write source 2000 Skills Book (Great Source Write Source) Arduino Projects for Amateur Radio (Electronics) The Arduino Inventor's Guide: Learn Electronics by Making 10 Awesome Projects Little Box of Cool Lego Projects: Lego Tips for Kids: Space Beginning C for Arduino, Second Edition: Learn C Programming for the Arduino Development Hell: The NXT Story