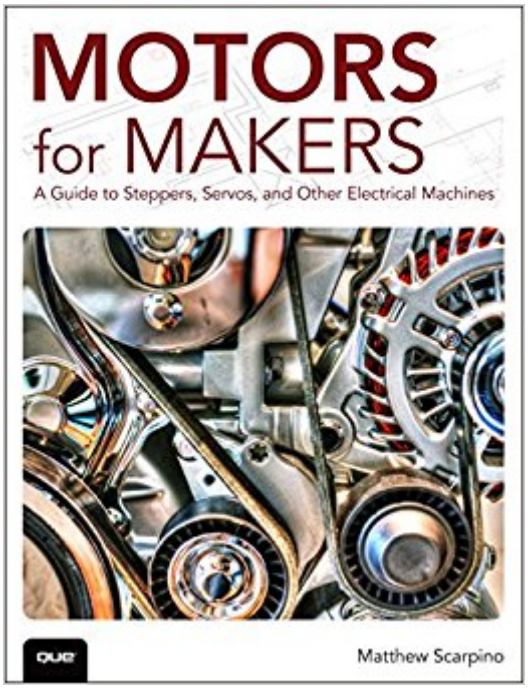
Motors For Makers: A Guide To Steppers, Servos, And Other Electrical Machines



Synopsis

The First Maker-Friendly Guide to Electric Motors! Makers can do amazing things with motors. Yes, theyâ ™re more complicated than some other circuit elements, but with this book, you can completely master them. Once you do, incredible new projects become possible. Unlike other books, Motors for Makers is 100% focused on what you can do. Not theory. Making. First, Matthew Scarpino explains how electric motors work and what you need to know about each major type: stepper, servo, induction, and linear motors. Next, he presents detailed instructions and working code for interfacing with and controlling servomotors with Arduino Mega, Raspberry Pi, and BeagleBone Black. All source code and design files are available for you to download from motorsformakers.com. From start to finish, youâ ™ll learn through practical examples, crystal-clear explanations, and photos. If youâ ™ve ever dreamed of what you could do with electric motors, stop dreaming...and start making! Understand why electric motors are so versatile and how they work Choose the right motor for any project Build the circuits needed to control each type of motor Program motor control with Arduino Mega, Raspberry Pi, or BeagleBone Black Use gearmotors to get the right amount of torque Use linear motors to improve speed and precision Design a fully functional electronic speed control (ESC) circuit Design your own quadcopter Discover how electric motors work in modern electric vehicles--with a fascinating inside look at Teslaâ ™s patents for motor design and control!

Book Information

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Customer Reviews

Matthew Scarpino is an engineer with more than 12 years of experience designing hardware and software. He has a masterâ ™s degree in electrical engineering and is an Advanced Certified Interconnect Designer (CID+). He is the author of Designing Circuit Boards with EAGLE: Make High-Quality PCBS at Low Cost.

Great book, net i had very low spectations after reading many but this one is quite simple to take the knowledge and make it work. Just be clear this is for makers so, i can tell as engineer you wont get the usual theoretical approach we get form our text books....

Little more than quick but patchy sketches. Unfocused. Not for newbies (nor professionals either).Much basics omitted. Occasional unexplained irrelevant dead-ends; e.g., "Laplace Transforms"?Say, whaaaa ...?Look elsewhere amongst the many available.For instance: ELECTRONIC TROUBLE SHOOTING, Tomal & Widmer, 3rd Ed. McGrawHill

Excellent overview, containing all of the core concepts you need to know in order to design and build with motors. Should be a basic reference on the self of anyone playing with robotics, drones or motion control. Well written with lots of illustrations. Covers the math around calculating characteristics and applications as well.

This is great book for learning about different small motors. Ideal for hobbyist or novice looking to learn more info on motors before attempting to make their gizmo, RC car, or whatever else it may be. Keep in mind there is minimal math or calculations discussed in this book so it is not a reference for determining how much torque or the correct size of motor you need for your project

If you’re looking for a clear explanation of the issues you’re going to encounter while building an electric motorized device , this book is what you need . It covers most of the motors and control circuitry you’re going to need to understand . It left a bit to be desired as far as the ordinary universal motors (the kind found in electric drills, for example) were concerned , which is why it didn’t earn 5 stars from me.

Helps you to stop over thinking and make. You may have to redo a project or two but only due to bad planing input.

Well written and divided into logical chapters with plenty of detailed technical references

Great overview with enough detail about various motors. Simple explanations and good examples. Good references and easy to read and understand.

Motors for Makers: A Guide to Steppers, Servos, and Other Electrical Machines What Do Pulleys and Gears Do? (What Do Simple Machines Do?) (What Do Simple Machines Do?) (What Do Simple Machines Do?) Design of Brushless Permanent-Magnet Motors (Monographs in Electrical and Electronic Engineering) Troubleshooting Three-Phase Electrical Motors Vintage Coca-cola Machines a Price and Identification Guide to Collectible Coolers and Machines The Big Book of Blaze and the Monster Machines (Blaze and the Monster Machines) Illustrated Guide to the National Electrical Code (Illustrated Guide to the National Electrical Code (Nec)) A New System of Alternating Current Motors and Transformers and Other Essays Mighty Monster Machines (Blaze and the Monster Machines) Mighty Monster Machines (Blaze and the Monster Machines) (Little Golden Book) Machines on a Construction Site (Machines At Work) Cranes (Machines at Work; Big Machines) AC-130H/U Gunships (Torque Books: Military Machines) (Torque: Military Machines (Library)) Strykers (Torque Books: Military Machines) (Torque: Military Machines (Library)) Electrical Insulation for Rotating Machines: Design, Evaluation, Aging, Testing, and Repair (IEEE Press Series on Power Engineering) Electrical Machines, Drives and Power Systems Electrical Machines, Drives and Power Systems (6th Edition) Electrical Transformers and Rotating Machines Electrical Control for Machines Electrical Control for Machines, 6E