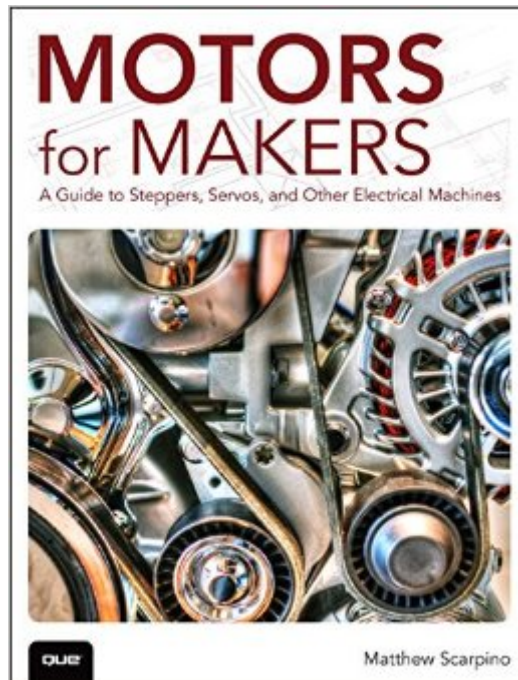


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# Motors For Makers: A Guide To Steppers, Servos, And Other Electrical Machines



## Synopsis

The First Maker-Friendly Guide to Electric Motors! Makers can do amazing things with motors. Yes, they'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](http://motorsformakers.com). From start to finish, you'll learn through practical examples, crystal-clear explanations, and photos. If you'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 Tesla's patents for motor design and control!

## Book Information

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## Customer Reviews

I'm a sophomore Mechanical Engineering student who was assigned a project which required a solid basic understanding of electric motors and their control. This book has been a Godsend! All the desired practicality, without the clutter of theory so you can implement projects quickly and safely! Chapter 5 may be scary for those who are squeamish when it comes to math (laplace transforms) but those without an engineering background can skip that chapter without serious detriments. Scarpino did an excellent job with this text!

This is the best book on electric motors that I have ever seen (I am an Electrical Engineer). If ever you want to use an electric motor for anything please purchase this book, you will not be disappointed. I wish this book had been written decades ago. It is sure to be a best seller.

From the description I was expecting a more thorough reference, but it's probably my own fault for expecting something that the book was not really. However, this little book contains a lot of very useful and practical information about motors and how to interface and control them from your projects. Because the book refers to some current-day equipment like Raspberry Pi, Arduino, etc some chapters may get obsolete in a few years, so I hope the author and editors will continue to make updates. Basically, I didn't know a lot about motors and found the book very clear, without undue theory, and very pragmatic. Recommended!

Very informative - No wasted words - just facts and lots of them and organized in a manner to more than adequately cover the subject of each type of motor, type of magnet used, advantages and disadvantages with basic math all superbly covered!

Great book, net i had very low expectations 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....

The book has a nice mix of material at the high level and some details to help get one started at a more low-level if desired. Some of the math would require dusting off some very rusty skills for myself but it does help convey the complexity of some solutions. I've not seen other books which included such diverse content - including info related to propellers. I think this makes a great resource to help evaluate trade-offs between possible solutions in the hobby CNC type area.

This is a very informative book on using different kinds of electric motors. If you want to learn how they work and how to use them, this is the book to get. You won't be wasting time having to hear the details of how they are designed. Leave the design details to the experts who make the motors.

Good reading and helpful. I wish there were more example sketches which would have included an example feedback loop with Hall effect sensor inputs. I am interested in using a BLDC motor to drive a telescope mount.

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