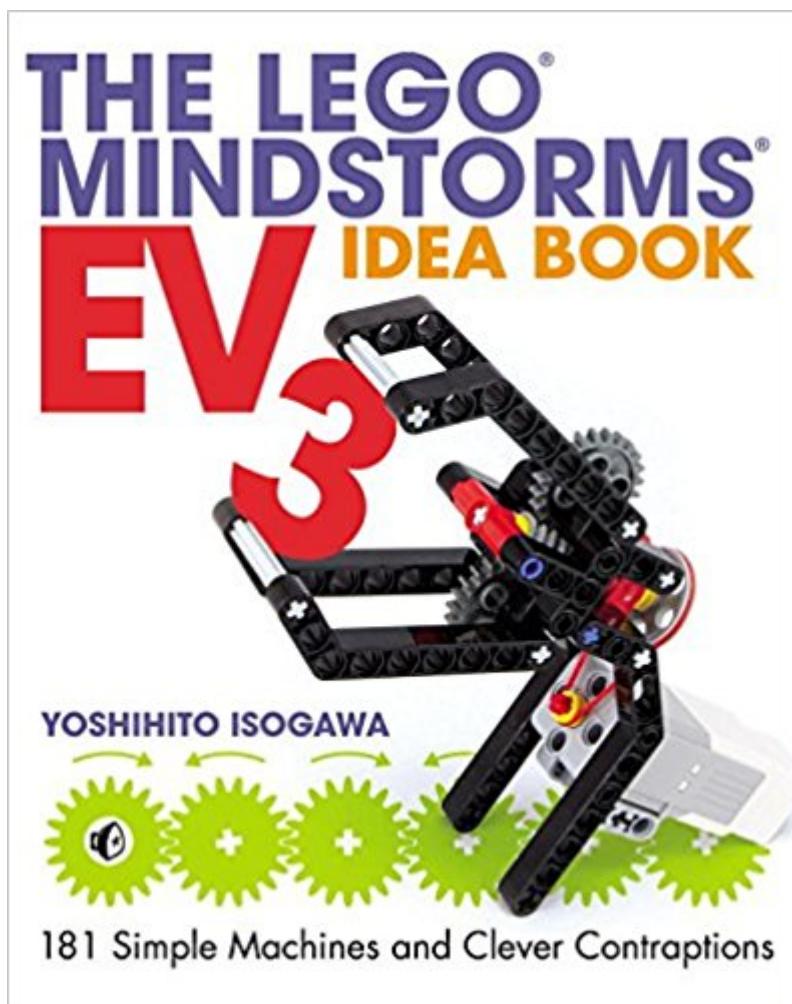


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# The LEGO MINDSTORMS EV3 Idea Book: 181 Simple Machines And Clever Contraptions



## Synopsis

The LEGO® MINDSTORMS® EV3 Idea Book explores dozens of creative ways to build amazing mechanisms with the LEGO MINDSTORMS EV3 set. Each model includes a list of the required parts, minimal text, and colorful photographs from multiple angles so you can re-create it without the need for step-by-step instructions. You'll learn to build cars with real suspension, steerable crawlers, ball-shooters, grasping robotic arms, and other creative marvels. Each model demonstrates simple mechanical principles that you can use as building blocks for your own creations. Best of all, every part you need to build these machines comes in one LEGO set (#31313)!

## Book Information

Hardcover: 232 pages

Publisher: No Starch Press; 1 edition (November 7, 2014)

Language: English

ISBN-10: 1593276001

ISBN-13: 978-1593276003

Product Dimensions: 8.2 x 0.7 x 10.2 inches

Shipping Weight: 1.7 pounds (View shipping rates and policies)

Average Customer Review: 4.6 out of 5 stars 98 customer reviews

Best Sellers Rank: #16,973 in Books (See Top 100 in Books) #3 in Books > Crafts, Hobbies & Home > Crafts & Hobbies > Toys & Models > Models #5 in Books > Children's Books > Activities, Crafts & Games > Crafts & Hobbies > Models #11 in Books > Crafts, Hobbies & Home > Crafts & Hobbies > Crafts for Children

Age Range: 10 and up

Grade Level: 5 and up

## Customer Reviews

A Note From the Author The LEGO MINDSTORMS EV3 set is designed to allow builders of any age to create robots, vehicles, and other contraptions with moving parts. Each model in this book is only a small mechanism, but you can make an infinite variety of larger models by combining these ideas. LEGO bricks aren't designed to fit in just one specific place or in one particular way. Your imagination is your guide when building with LEGO, and I hope that you will create your own wonderful masterpieces using this book as inspiration. To build the models in this book, all you need is the LEGO MINDSTORMS EV3 set (home edition #31313).

Grasping arm    Tank ÅfÅçÅ â ¬Å Æøbot    Moving with vibration

Raking it in!    Steerable wheels    Only minimal programs are needed for the mechanisms in the book.

Where Are the Words? Other than this brief introduction and the table of contents, this book has almost no words. Instead, youÅfÅçÅ â ¬Å â„¢ll find a series of photographs of increasingly complex models, each designed to demonstrate a mechanical principle or building technique. While the book lists the pieces needed for each model, it does not include step-by-step building instructions. Look at the photographs taken from various angles and try to reproduce the model. Building in this way is something like putting together a puzzle. YouÅfÅçÅ â ¬Å â„¢ll get the hang of it after a little practice. This is an idea book; itÅfÅçÅ â ¬Å â„¢s about imagination. Rather than tell you what to see or think when you study the models, I encourage you to interpret them in your own way. Your interpretations will lead you to invent your very own models or use my mechanisms in entirely new ways!

"Minimalistic but highly informative...encouraging young engineers to apply problem solving and creativity to the endless combinations of mechanics."Åçâ ¬â •Booklist

Yoshihito Isogawa is a LEGO luminary with 46 years of building experience. In addition to running Isogawa Studio, Inc., he regularly holds LEGO workshops, lectures at schools and science museums, and creates LEGO models for events and exhibitions. He is the author of the popular LEGO Technic Idea Book series (No Starch Press), as well as other Japanese-language LEGO titles.

This book is just amazing! Students are introduced to many types of simple machines that can be built and used with the EV3 set. I have the educational Core and Expansion sets, but this could easily be used with the retail version. The full color format is fabulous! Every simple machine is displayed with all the steps and a graphic part list. Awesome! For FLL teams that need inspiration and practice on building attachments, this will be invaluable. There is also information on using the sensors. Of note, this book is entirely simple machines (attachments) for your EV3. If your students need direction on attaching these assemblies and creating an entire bot, I'd recommend The Art of

Lego Mindstorms EV3 Programming by Terry Griffin and The Lego Mindstorms EV3 Discovery Book by Laurens Valk.

Pretty cool book. Minimal text, great pictures. Perfect for the budding engineer. If you've got the programming, but need guidance on Lego mechanics, this book is for you. Good pictorial representations of gear ratio's, and Lego geometry. Lots of great mechanisms to inspire your creativity. No text though, so you need to be comfortable with deciphering ideas from pictures. It is not focused on the programming side of Lego Mindstorms, but the mechanism side. It provides many examples of the mechanical subassemblies that are possible with the Lego Mindstorms kit. The EV3 idea book gives you mechanical building blocks, and some important mechanical principals that enable your robotic ideas to successfully come to life.

It was a great book lots of great suggestions the only problem is that there are no instructions you have to go by pictures it was a little frustrating but not to frustrating. Overall a great book I do recommend buying it if you know how to build by pictures.

The book is what it says it is, an idea book, and a very good one. I coach several LEGO robotics teams and the kids grew up building LEGO kits based on instructions with little creativity. When it comes to creating robots on their own, they are sorely lacking the knowledge of how to engineer their robots and actuators. This book helps fill that gap by giving them ideas to serve as a starting point. It provides virtually no text, and the building instructions are minimal. This is actually perfect for us! The kids use the ideas as a beginning, then expand on the ideas.

So many interesting gears and mechanisms I would have never thought of on my own. Must have for lego ev3 or mindstorm part iusers.

My son has an EV3 and loves using this book for simple projects. He is in the 4th grade and has been doing robotics for about a year and a half. It seems like the majority of these projects are simple but then again, that is the title of the book. So it is a fair statement. I would recommend this book to any kiddos who are starting out in robotics. It's also helpful for my son to gain other ideas for building, especially for first lego league competitions and what not.

I recommend this book to ALL FLL (FIRST Lego League) Coaches. What are you waiting for? Order

the book already. Ok, a few reasons why I like it so much. First rate photos all parts can be made out of the kit Lots of useful mechanisms Well built strong ideas

must have for ev3 users

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(Electronics) Rubank Advanced Method: Saxophone, Vol. 2 (Rubank Educational Library, No. 181)

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