Synopsis
A Step-by-Step Guide to Electricity, Electronics and Simple Circuits

Introducing ARRL s Understanding Basic Electronics, second edition your gateway into the exciting world of electricity and electronics. This book is written in a friendly, easy-to-understand style that beginners and nontechnical readers will enjoy. Even if you already have a foundation in basic electronics, you will enjoy the small module format of each chapter allowing readers to digest (or skim) bite-sized chunks of learning material. Real-world examples and clear illustrations make the study of electronics interesting and fun! A handful of small kitchen table projects are included to help bring abstract concepts to life. Now including digital electronics!

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Customer Reviews
This book is targeting readers who are new to electronics. The content is very basic and the language is kept simple - about on the same level with what is taught in some high schools. Math is simple and also very well explained. Any concepts discussed in the book are explained from ground up. You are not just presented with how something works but the author helps you discover it yourself from the very foundation throughout the book why things work as they do. The book starts to explain conductors and insulators and what current and voltage really means. Next resistors are discussed with Kirchoff’s and Ohm’s laws. Once this foundation is built, the book moves on to explore the difference between DC and AC and how to calculate impedances with capacitors and
inductors before the book starts to dive into semiconductors. The common semiconductors such as diodes, bipolar transistors, and different FETs are explained. The last chapters talk about linear (analog) and digital integrated circuits. The appendix has some valuable information about thermionic (vacuum) tubes which are still found today in high powered radio transmitters. The book is an easy read and helps the newbie to understand the basics of electronics. The book teaches more than you need for the Technician or General exam but less than what is required for the Extra.

"Understanding Basic Electronics" provides a simplified vehicle for learning electronics theory. While this is published by the ARRL and aimed at the amateur radio audience, it provides the fundamentals of electronic theory to work with micro controllers or audio equipment. The math required has been simplified with the use of calculators. Even a reference is provided on using the calculator. While an introductory text, the material includes information on digital devices and circuits and even some theory on vacuum tube operation. In all an excellent text that would benefit from more examples and sample problems to work out.

This book does a good job of introducing one to the fundamentals of electronics. It covers a wide range of topics and appears to be aimed at one interested in learning more about how ham radio equipment functions. It is also a good text/reference for the electronics technician.

I have read several introductions to electronics over the years, and this is the best I've found. True, there are no experiments, but it gives you a solid foundation of knowledge for moving on to more advanced books. Highly recommended.

As a former electronics teacher, I find that this book adequately covers electronic fundamentals but introduces concepts in an awkward sequence. Early chapters often introduce topics that require knowledge of material from later chapters for full understanding. My intent was to use it as a textbook but because of its poor organization it is only marginally useful for that purpose. I would not recommend it as a self-study guide.

If you’re just getting started with electronics as a hobby, I recommend this book as your introduction. This book was very well thought out in it’s presentation, unlike other books I’ve purchased, or free courses I sought out online to supplement the books that left me feeling like I’m missing something. This book is very easy to read, has many diagrams, explains things very thoroughly, and
provides points that help you integrate what you’re learning with real world examples. At times it seems a bit repetitive, but I very much appreciate the fact that the repetition of some points confirms that I understood the point when it was mentioned earlier, and helps me avoid having to go back and reference the previous point. Each section in each chapter builds upon the points previously provided. I’ve only had this book for 2-3 days and I’m almost practically half way through the book, and excited that I’m finally integrating these concepts together, instead of having floating concepts that I learned from previous books that are missing some understanding that I’ve needed to move forward and continue learning.

I liked the book but one should understand that it is truly written for the future/current ham radio fan. This doesn’t mean that the contents are not useful; in fact, the basic electronics used in the ham radio area and every other electronics area is pretty much the same. I mention this because as a reader I needed some of the specific information in this book. On the other side, if I didn’t have much of an interest in ham radio that I would probably select a different book to learn basic electronics. More specifically, I would choose a book that fit more into electronics for computers, home entertainment or any other specificities. I gave the book 4 stars because there were times when the writing just didn’t explain the topic clear enough for me. The information was there but the author seeing the struggle slightly with his methods to get it to the reader. Still, the overall quality is good, the contents very good especially for a particular area, and the writing well above average.

It is a good basic electronic self study but it has one flaw: the sections or chapters of the book need better organization. It will be a much better book if the author presents new material upon each previous chapter in a coherent manner.

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