Prototype To Product: A Practical Guide For Getting To Market
Synopsis

Product development is the magic that turns circuitry, software, and materials into a product, but moving efficiently from concept to manufactured product is a complex process with many potential pitfalls. This practical guide pulls back the curtain to reveal what happens “or should happen” when you take a product from prototype to production. For makers looking to go pro or product development team members keen to understand the process, author Alan Cohen tracks the development of an intelligent electronic device to explain the strategies and tactics necessary to transform an abstract idea into a successful product that people want to use.

Learn 11 deadly sins that kill product development projects
Get an overview of how electronic products are manufactured
Determine whether your idea has a good chance of being profitable
Narrow down the product’s functionality and associated costs
Generate requirements that describe the final product’s details
Select your processor, operating system, and power sources
Learn how to comply with safety regulations and standards
Dive into development—from rapid prototyping to manufacturing

Alan Cohen, a veteran systems and software engineering manager and lifelong technophile, specializes in leading the development of medical devices and other high-reliability products. His passion is to work with engineers and other stakeholders to forge innovative technologies into successful products.

Book Information

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Customer Reviews

Prototype to Product is an enjoyable and informative read. The balance of technology and financial
best practice for product development transitions from theory to real world practical advice. It is clear that this guidance provided will reduce program risk resulting in decreased cost and schedule and a better product. Some of the guidance aligns with concepts espoused by lean and agile industry leaders. Specifics are provided on iterative, agile approaches for both hardware and software with guidance and examples sprinkled throughout. For example, Test-driven development is presented as a software best practice which reigns in superfluous code development and ensures the development of automated test which are fundamental factors for program success. Key benefits of this book are the web, book and video reference materials, the surveys of OSs, tools, power sources and other required resources. As a Systems and Software engineer, this book will definitely help me to success with my future product developments!

Prototype to Product is an excellent overview of the key elements of a new product development that includes software, mechanical and electrical design. While it is not an encyclopedic treatise on every element of planning, designing, developing, verifying, validating, marketing, pricing, and maintaining a new product, it does a great job highlighting almost all the areas an inventor might not have thought about until they decide to try and develop a product themselves. The author does a good job of providing examples of potential pitfalls for each part of the process, and some examples of how to avoid those pitfalls. This book is a fairly good roadmap for making a successful product, and anyone planning to develop a product themselves should be able to answer how they plan to accomplish all the steps described. I imagine this would be a helpful introduction for inventors, product, program or team managers branching out from one engineering discipline (EE, ME, SW) into systems development, scrum masters trying to do sprint planning for systems development, and founder/executive types that did not come from the engineering path who need to know enough about systems development and sales in order to fund and plan a successful device development.

Great Read! Provides some rough thought processes for making crucial design decisions in a way that’s clear and practical for commercially viable embedded devices. Includes descriptions of pitfalls that a newbie might not anticipate, like unforeseen costs and regulatory issues. All in all, a must-have for a hardware startup founder.

good read covering details and aspects of product launch and support

Very good book with lots of examples and relevant references.