



Mobile Robotic Car Design (Tab Robotics)

By Pushkin Kachroo, Patricia Mellodge

[Download now](#)

[Read Online](#) 

Mobile Robotic Car Design (Tab Robotics) By Pushkin Kachroo, Patricia Mellodge

This book enables hobbyists to build their own robotic car, about 1/10th the size of a standard vehicle, for under \$1000 -- and learn the mechanical and electrical theory and design secrets behind it.

- * Step-by-step instructions for building the vehicle, from theory and design to hardware and software implementation
- * Discussions on mathematical modeling, control design theory, sensors, servos, motors, controllers, and environmental sensing
- * Printed circuit board files for the car can be downloaded for free from accompanying website

 [Download Mobile Robotic Car Design \(Tab Robotics\) ...pdf](#)

 [Read Online Mobile Robotic Car Design \(Tab Robotics\) ...pdf](#)

Mobile Robotic Car Design (Tab Robotics)

By Pushkin Kachroo, Patricia Mellodge

Mobile Robotic Car Design (Tab Robotics) By Pushkin Kachroo, Patricia Mellodge

This book enables hobbyists to build their own robotic car, about 1/10th the size of a standard vehicle, for under \$1000 -- and learn the mechanical and electrical theory and design secrets behind it.

- * Step-by-step instructions for building the vehicle, from theory and design to hardware and software implementation
- * Discussions on mathematical modeling, control design theory, sensors, servos, motors, controllers, and environmental sensing
- * Printed circuit board files for the car can be downloaded for free from accompanying website

Mobile Robotic Car Design (Tab Robotics) By Pushkin Kachroo, Patricia Mellodge Bibliography

- Rank: #3070999 in Books
- Published on: 2004-08-12
- Ingredients: Example Ingredients
- Original language: English
- Number of items: 1
- Dimensions: 9.20" h x .80" w x 7.30" l,
- Binding: Paperback
- 278 pages

 [Download Mobile Robotic Car Design \(Tab Robotics\) ...pdf](#)

 [Read Online Mobile Robotic Car Design \(Tab Robotics\) ...pdf](#)

Download and Read Free Online Mobile Robotic Car Design (Tab Robotics) By Pushkin Kachroo, Patricia Mellodge

Editorial Review

Review

Learn the theories and principles of robot design and operation as you build this 1:10 scale car that can regulate its own speed and direction, sense and respond to its environment, and even function as a security vehicle. Kachroo and Mellodge (both electrical and computing engineering, Virginia Polytechnic Institute) give step-by step instructions for building the car for less than \$1,000, including its system structure, construction, environmental sensing, DC motors and servos, low-level and microprocessor control, mathematical modeling, control design, and simulation environments. They include photographs, schematics, parts information, and a list of hardware sources, as well as free code for the car's printed circuit board at the companion web site. Now, if you could just shrink yourself to 1:10. (*Sci-Tech Book News* 2004-12-01)

From the Back Cover

BUILD A CAR ROBOT,SAVE THOU\$AND\$
(and master some of the most sophisticated concepts in robotics)

This thoughtful guide gives you complete, illustrated plans and instructions for building a 1:10-scale car robot that would cost thousands of dollars if bought off the shelf. But beyond hours of entertainment and satisfaction spent creating and operating an impressive and fun project, **Mobile Robotic Car Design** provides serious insight into the science and art of robotics. Written by robotics experts, this book gives you a solid background in electrical and mechanical theory, and the design savvy to conceptualize, enlarge, and build robotics projects of your own.

A WORKING CAR ROBOT—AND AN UNDERSTANDING OF WHAT MAKES IT WORK In these pages, robot designers Pushkin Kachroo and Patricia Mellodge will help you --

- Build an impressive robot vehicle that can regulate its own speed and direction, for a cost of about \$1000.
- Give your robot car the ability to sense and respond to the environment
- Experiment with automatic cruise control that alters speed to meet conditions
- Learn what it takes to build a security robot that can patrol actively or passively
- Grasp the theory and principles behind robot design and operation
- Learn what makes servos, sensors, motors, and controls work
- Examine the source code for the PIC microcontroller and the DSP (digital signal processor)
- Find free code for the car's printed circuit board at the companion website
- Get a complete parts list and list of parts suppliers

About the Author

Pushkin Kachroo, Ph.D., P.E., is a noted robotics theorist and developer. The author of three books and more than 75 papers published in technical journals and conferences, he is an Associate Professor in the Bradley Department of Electrical and Computing Engineering at Virginia Polytechnic Institute, Blacksburg, Virginia. He earned his doctorate at the University of California, Berkeley; his master's degree at Rice University; and his bachelor's degree at the Indian Institute of Technology, Bombay. He obtained his Professional Engineering license from the state of Ohio in 1995.

Patricia Mellodge specializes in mobile robot control. An electrical engineering graduate of the University of Rhode Island, she designed analog control circuits for Optigain, Inc., before joining the Bradley

Department of Electrical and Computing Engineering at Virginia Polytechnic Institute. In 2002, she received her master's degree and is currently pursuing her Ph.D.

Users Review

From reader reviews:

Sonja Johnson:

Have you spare time for just a day? What do you do when you have a lot more or little spare time? Yeah, you can choose the suitable activity with regard to spend your time. Any person spent their particular spare time to take a go walking, shopping, or went to often the Mall. How about open or read a book called Mobile Robotic Car Design (Tab Robotics)? Maybe it is for being best activity for you. You know beside you can spend your time together with your favorite's book, you can smarter than before. Do you agree with its opinion or you have some other opinion?

Royce Britton:

In this 21st millennium, people become competitive in each way. By being competitive currently, people have do something to make these survives, being in the middle of often the crowded place and notice through surrounding. One thing that oftentimes many people have underestimated this for a while is reading. Yeah, by reading a publication your ability to survive raise then having chance to stand up than other is high. In your case who want to start reading some sort of book, we give you this particular Mobile Robotic Car Design (Tab Robotics) book as beginning and daily reading reserve. Why, because this book is more than just a book.

Larry Turner:

Information is provisions for individuals to get better life, information these days can get by anyone with everywhere. The information can be a know-how or any news even a problem. What people must be consider when those information which is in the former life are difficult to be find than now's taking seriously which one works to believe or which one typically the resource are convinced. If you obtain the unstable resource then you buy it as your main information you will have huge disadvantage for you. All of those possibilities will not happen inside you if you take Mobile Robotic Car Design (Tab Robotics) as the daily resource information.

Raymond Crandall:

In this particular era which is the greater man or who has ability to do something more are more valuable than other. Do you want to become one among it? It is just simple strategy to have that. What you need to do is just spending your time not much but quite enough to have a look at some books. One of many books in the top record in your reading list is usually Mobile Robotic Car Design (Tab Robotics). This book which is qualified as The Hungry Slopes can get you closer in getting precious person. By looking upward and review this book you can get many advantages.

**Download and Read Online Mobile Robotic Car Design (Tab Robotics) By Pushkin Kachroo, Patricia Mellodge
#WF354TALYVQ**

Read Mobile Robotic Car Design (Tab Robotics) By Pushkin Kachroo, Patricia Mellodge for online ebook

Mobile Robotic Car Design (Tab Robotics) By Pushkin Kachroo, Patricia Mellodge Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Mobile Robotic Car Design (Tab Robotics) By Pushkin Kachroo, Patricia Mellodge books to read online.

Online Mobile Robotic Car Design (Tab Robotics) By Pushkin Kachroo, Patricia Mellodge ebook PDF download

Mobile Robotic Car Design (Tab Robotics) By Pushkin Kachroo, Patricia Mellodge Doc

Mobile Robotic Car Design (Tab Robotics) By Pushkin Kachroo, Patricia Mellodge Mobipocket

Mobile Robotic Car Design (Tab Robotics) By Pushkin Kachroo, Patricia Mellodge EPub