



Programming Robots with ROS: A Practical Introduction to the Robot Operating System

By Morgan Quigley, Brian Gerkey, William D. Smart

Download now

Read Online ➔

Programming Robots with ROS: A Practical Introduction to the Robot Operating System By Morgan Quigley, Brian Gerkey, William D. Smart

Want to develop novel robot applications, but don't know how to write a mapping or object-recognition system? You're not alone, but you're certainly not without help. By combining real-world examples with valuable knowledge from the Robot Operating System (ROS) community, this practical book provides a set of motivating recipes for solving specific robotics use cases.

Ideal for enthusiasts, from students in robotics clubs to professional robotics scientists and engineers, each recipe describes a complete solution using ROS open source libraries and tools. You'll learn how to complete tasks described in the recipes, as well as how to configure and recombine components for other tasks. If you're familiar with Python, you're ready to go.

- Learn fundamentals, including key ROS concepts, tools, and patterns
- Program robots that perform an increasingly complex set of behaviors, using the powerful packages in ROS
- See how to easily add perception and navigation abilities to your robots
- Integrate your own sensors, actuators, software libraries, and even a whole robot into the ROS ecosystem
- Learn tips and tricks for using ROS tools and community resources, debugging robot behavior, and using C++ in ROS

↓ [Download Programming Robots with ROS: A Practical Introduct ...pdf](#)

📄 [Read Online Programming Robots with ROS: A Practical Introdu ...pdf](#)

Programming Robots with ROS: A Practical Introduction to the Robot Operating System

By Morgan Quigley, Brian Gerkey, William D. Smart

Programming Robots with ROS: A Practical Introduction to the Robot Operating System By Morgan Quigley, Brian Gerkey, William D. Smart

Want to develop novel robot applications, but don't know how to write a mapping or object-recognition system? You're not alone, but you're certainly not without help. By combining real-world examples with valuable knowledge from the Robot Operating System (ROS) community, this practical book provides a set of motivating recipes for solving specific robotics use cases.

Ideal for enthusiasts, from students in robotics clubs to professional robotics scientists and engineers, each recipe describes a complete solution using ROS open source libraries and tools. You'll learn how to complete tasks described in the recipes, as well as how to configure and recombine components for other tasks. If you're familiar with Python, you're ready to go.

- Learn fundamentals, including key ROS concepts, tools, and patterns
- Program robots that perform an increasingly complex set of behaviors, using the powerful packages in ROS
- See how to easily add perception and navigation abilities to your robots
- Integrate your own sensors, actuators, software libraries, and even a whole robot into the ROS ecosystem
- Learn tips and tricks for using ROS tools and community resources, debugging robot behavior, and using C++ in ROS

Programming Robots with ROS: A Practical Introduction to the Robot Operating System By Morgan Quigley, Brian Gerkey, William D. Smart **Bibliography**

- Rank: #163908 in eBooks
- Published on: 2015-11-16
- Released on: 2015-11-18
- Format: Kindle eBook

 [Download Programming Robots with ROS: A Practical Introduct ...pdf](#)

 [Read Online Programming Robots with ROS: A Practical Introdu ...pdf](#)

Download and Read Free Online Programming Robots with ROS: A Practical Introduction to the Robot Operating System By Morgan Quigley, Brian Gerkey, William D. Smart

Editorial Review

About the Author

Morgan Quigley is a cofounder of the Open Source Robotics Foundation (OSRF), which develops and maintains the Robot Operating System (ROS). He came to OSRF after receiving a PhD in computer science at Stanford University, where he created one of the ancestors of ROS as part of the Stanford AI Robot (STAIR) project in 2006 and 2007. As it became clear that the future of robotics software was in collaborative development, this effort led him to cofound the ROS project with many other engineers. His research interests include robot software systems, open source software and firmware, embedded systems design, mechatronics, and sensor design.

Brian Gerkey is cofounder and CEO of OSRF. Prior to joining OSRF, he was Director of Open Source Development at Willow Garage. Previously, Brian was a Computer Scientist in the Artificial Intelligence Center at SRI, and before that, a postdoctoral research fellow in the Artificial Intelligence Lab at Stanford University. Brian received his PhD in computer science from the University of Southern California (USC) in 2003, his MS in computer science from USC in 2000, and his BSE in computer engineering, with a secondary major in mathematics and a minor in robotics and automation, from Tulane University in 1998. Since 2008, he has worked on the ROS Project, which develops and releases one of the most widely used robot software platforms in robotics research and education (and soon industry). He is founding and former lead developer on the open source Player Project, which continues to maintain widely used robot simulation and development tools.

Bill Smart is an associate professor at Oregon State University, where he codirects the Robotics program. His research interests span the areas of mobile robotics, machine learning, human–robot interaction, and the interaction between robotics and the law. Bill has been writing software for robots for over two decades, and doing active research and development of robot software architectures for over 15 years. At Oregon State University, he codirects the Robotics program and teaches classes in robotics and computer programming at both the undergraduate and graduate levels. He has been a ROS user since the beginning and was involved in some of the early planning workshops for the system. In 2010–11, he spent a 15-month sabbatical at Willow Garage, developing software for PR2 robots and enjoying the weather in California.

Users Review

From reader reviews:

George Carter:

The experience that you get from Programming Robots with ROS: A Practical Introduction to the Robot Operating System could be the more deep you rooting the information that hide inside the words the more you get serious about reading it. It does not mean that this book is hard to know but Programming Robots with ROS: A Practical Introduction to the Robot Operating System giving you excitement feeling of reading. The writer conveys their point in specific way that can be understood by simply anyone who read the item

because the author of this publication is well-known enough. This particular book also makes your own vocabulary increase well. It is therefore easy to understand then can go with you, both in printed or e-book style are available. We recommend you for having this Programming Robots with ROS: A Practical Introduction to the Robot Operating System instantly.

Patsy Phan:

Reading a e-book tends to be new life style in this particular era globalization. With studying you can get a lot of information that may give you benefit in your life. Together with book everyone in this world can easily share their idea. Textbooks can also inspire a lot of people. Plenty of author can inspire their very own reader with their story or perhaps their experience. Not only the storyplot that share in the textbooks. But also they write about advantage about something that you need example. How to get the good score toefl, or how to teach your young ones, there are many kinds of book that exist now. The authors these days always try to improve their expertise in writing, they also doing some analysis before they write for their book. One of them is this Programming Robots with ROS: A Practical Introduction to the Robot Operating System.

Michele Fernandez:

Often the book Programming Robots with ROS: A Practical Introduction to the Robot Operating System has a lot details on it. So when you make sure to read this book you can get a lot of help. The book was compiled by the very famous author. The author makes some research previous to write this book. This kind of book very easy to read you will get the point easily after looking over this book.

Judith Ellis:

The book untitled Programming Robots with ROS: A Practical Introduction to the Robot Operating System contain a lot of information on the idea. The writer explains your girlfriend idea with easy means. The language is very clear and understandable all the people, so do not really worry, you can easy to read it. The book was compiled by famous author. The author gives you in the new era of literary works. You can actually read this book because you can read on your smart phone, or gadget, so you can read the book throughout anywhere and anytime. In a situation you wish to purchase the e-book, you can open their official web-site along with order it. Have a nice study.

Download and Read Online Programming Robots with ROS: A Practical Introduction to the Robot Operating System By Morgan Quigley, Brian Gerkey, William D. Smart #LIN30XEUYZ9

Read Programming Robots with ROS: A Practical Introduction to the Robot Operating System By Morgan Quigley, Brian Gerkey, William D. Smart for online ebook

Programming Robots with ROS: A Practical Introduction to the Robot Operating System By Morgan Quigley, Brian Gerkey, William D. Smart 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 Programming Robots with ROS: A Practical Introduction to the Robot Operating System By Morgan Quigley, Brian Gerkey, William D. Smart books to read online.

Online Programming Robots with ROS: A Practical Introduction to the Robot Operating System By Morgan Quigley, Brian Gerkey, William D. Smart ebook PDF download

Programming Robots with ROS: A Practical Introduction to the Robot Operating System By Morgan Quigley, Brian Gerkey, William D. Smart Doc

Programming Robots with ROS: A Practical Introduction to the Robot Operating System By Morgan Quigley, Brian Gerkey, William D. Smart Mobipocket

Programming Robots with ROS: A Practical Introduction to the Robot Operating System By Morgan Quigley, Brian Gerkey, William D. Smart EPub

LIN30XEUYZ9: Programming Robots with ROS: A Practical Introduction to the Robot Operating System By Morgan Quigley, Brian Gerkey, William D. Smart