Build Your Own Teams of Robots with LEGO® Mindstorms® NXT and Bluetooth® (Electronics)

By Cameron Hughes, Tracey Hughes, Trevor Watkins, Bob Kramer

Build Your Own Teams of Robots with LEGO® Mindstorms® NXT and Bluetooth® (Electronics) By Cameron Hughes, Tracey Hughes, Trevor Watkins, Bob Kramer

CREATE YOUR OWN SYNCHRONIZED ROBOT ARMY!

PLAN, DESIGN, ASSEMBLE, AND PROGRAM ROBOT SQUADS THAT COMMUNICATE and cooperate with each other to accomplish together what they can't do individually. *Build Your Own Teams of Robots with LEGO MINDSTORMS NXT and Bluetooth* shows you how to construct a team capability matrix (TCM) and use the Bluetooth Robotic-Oriented Network (BRON) so your robot teams can share sensors, actuators, end effectors, motor power, and programs.

Find out how the Bluetooth communications protocol works and how to program Bluetooth in NXT-G, NXC, LabVIEW, and Java. Learn how to send and receive Bluetooth messages, data, and commands among robots, between a robot and a computer, and between an Android smart phone and a robot. Through teamwork, your robots will be able to accomplish amazing feats!

THE STEP-BY-STEP ROBOT TEAM PROJECTS IN THE BOOK INCLUDE:
* Crime Scene Investigation Robot Team * Robot Convoy * Rubik's Cube Solver

LEARN HOW TO:

- Coordinate multiple robots to work together as a team to perform tasks
- Combine two or more microcontrollers to make a single, multicontroller/multi-agent robot
- Take advantage of sensor and actuator capabilities in a team environment
- Establish goals and teamwork strategies for your robots
- Control your robot teams with NXT-G Bluetooth bricks and LabVIEW for NXT Bluetooth VI
- Activate your team using a smart phone
- Give your team of robots Java power with leJOS
- Use Java on the Linux and Darwin operating systems

Watch video demonstrations of the projects and download code and examples in multiple languages (NXT-G, Java, LabVIEW, and NXC) from the book's companion website at www.robotteams.org.

Downloads are also available at mhprofessional.com/robotteams.

⬇ **Download** Build Your Own Teams of Robots with LEGO® Mindsto ...pdf

🗎 **Read Online** Build Your Own Teams of Robots with LEGO® Minds ...pdf

Build Your Own Teams of Robots with LEGO® Mindstorms® NXT and Bluetooth® (Electronics)

By Cameron Hughes, Tracey Hughes, Trevor Watkins, Bob Kramer

Build Your Own Teams of Robots with LEGO® Mindstorms® NXT and Bluetooth® (Electronics) By Cameron Hughes, Tracey Hughes, Trevor Watkins, Bob Kramer

CREATE YOUR OWN SYNCHRONIZED ROBOT ARMY!

PLAN, DESIGN, ASSEMBLE, AND PROGRAM ROBOT SQUADS THAT COMMUNICATE and cooperate with each other to accomplish together what they can't do individually. *Build Your Own Teams of Robots with LEGO MINDSTORMS NXT and Bluetooth* shows you how to construct a team capability matrix (TCM) and use the Bluetooth Robotic-Oriented Network (BRON) so your robot teams can share sensors, actuators, end effectors, motor power, and programs.

Find out how the Bluetooth communications protocol works and how to program Bluetooth in NXT-G, NXC, LabVIEW, and Java. Learn how to send and receive Bluetooth messages, data, and commands among robots, between a robot and a computer, and between an Android smart phone and a robot. Through teamwork, your robots will be able to accomplish amazing feats!

THE STEP-BY-STEP ROBOT TEAM PROJECTS IN THE BOOK INCLUDE:
* Crime Scene Investigation Robot Team * Robot Convoy * Rubik's Cube Solver

LEARN HOW TO:

• Coordinate multiple robots to work together as a team to perform tasks
• Combine two or more microcontrollers to make a single, multicontroller/multi-agent robot
• Take advantage of sensor and actuator capabilities in a team environment
• Establish goals and teamwork strategies for your robots
• Control your robot teams with NXT-G Bluetooth bricks and LabVIEW for NXT Bluetooth VI
• Activate your team using a smart phone
• Give your team of robots Java power with leJOS
• Use Java on the Linux and Darwin operating systems

Watch video demonstrations of the projects and download code and examples in multiple languages (NXT-G, Java, LabVIEW, and NXC) from the book's companion website at www.robotteams.org.

Downloads are also available at mhprofessional.com/robotteams.

Build Your Own Teams of Robots with LEGO® Mindstorms® NXT and Bluetooth® (Electronics) By Cameron Hughes, Tracey Hughes, Trevor Watkins, Bob Kramer Bibliography

• Sales Rank: #1858465 in Books
• Brand: Brand: McGraw-Hill/TAB Electronics

- Published on: 2013-02-19
- Released on: 2013-02-19
- Original language: English
- Number of items: 1
- Dimensions: 11.00" h x 8.50" w x .41" l, 1.30 pounds
- Binding: Paperback
- 384 pages

⬇ **Download** Build Your Own Teams of Robots with LEGO® Mindsto ...pdf

📄 **Read Online** Build Your Own Teams of Robots with LEGO® Minds ...pdf

Download and Read Free Online Build Your Own Teams of Robots with LEGO® Mindstorms® NXT and Bluetooth® (Electronics) By Cameron Hughes, Tracey Hughes, Trevor Watkins, Bob Kramer

Editorial Review

About the Author

Cameron Hughes is a professional software developer with over fifteen years of experience. He is a staff programmer/analyst at Youngstown State University and a software epistemologist for Ctest Laboratories. **Tracey Hughes** is a senior software and graphics programmer at Ctest Laboratories where she develops information and epistemic visualization software. Both Cameron and Tracey Hughes are long time robot enthusiasts with a collection of over 100 robots. They have sponsored and participated in local robot competitions and robot programming workshops for the Lego NXT and RS Media platforms through their local ACM chapter. Cameron and Tracey are the authors of seven books on software development, multithreaded programming, and parallel programming in C++.

Bob Kramer has been a full-time Computer Science Professor at Youngstown State University. Bob's research interests include using Lego robotics as a tool to teach computer science concepts, as well as the development and extension of programming tools for Lego robots. He has helped extend the nxtOSEK environment to enable C++ programs to execute on the NXT platform, and has developed an interface for a third-party sensor in the LeJOS environment. Bob Kramer has used Lego robotics to teach basic programming concepts in summer enrichment programs for high school students. He has spoken at numerous workshops about robot design and pedagogical uses of robots.

Trevor Watkins is a network communications and system integrations specialist. He is currently the Technology Manager at the Wadsworth Public Library, where he designs, integrates, and administers all aspects of the library's network and information systems. Trevor is an adjunct professor in the Computer Science and Information Systems Department at Youngstown State University, where he teaches high level programing languages and computer networks. He has been a robot hobbyist for over 20 years with the past 5 years dedicated to NXT-Mindstorms, Vex and Arduino-based robot kits, and consults with local high school robotics teams.

Users Review

From reader reviews:

Jack Evans:

Within other case, little men and women like to read book Build Your Own Teams of Robots with LEGO® Mindstorms® NXT and Bluetooth® (Electronics). You can choose the best book if you'd prefer reading a book. Providing we know about how is important some sort of book Build Your Own Teams of Robots with LEGO® Mindstorms® NXT and Bluetooth® (Electronics). You can add knowledge and of course you can around the world by just a book. Absolutely right, because from book you can know everything! From your country until foreign or abroad you can be known. About simple thing until wonderful thing you may know that. In this era, we are able to open a book or searching by internet gadget. It is called e-book. You can utilize it when you feel uninterested to go to the library. Let's read.

Christopher Kennedy:

Reading a guide can be one of a lot of task that everyone in the world really likes. Do you like reading book so. There are a lot of reasons why people enjoyed. First reading a publication will give you a lot of new facts. When you read a guide you will get new information due to the fact book is one of many ways to share the information or even their idea. Second, reading a book will make you more imaginative. When you looking at a book especially fiction book the author will bring that you imagine the story how the characters do it anything. Third, you may share your knowledge to other individuals. When you read this Build Your Own Teams of Robots with LEGO® Mindstorms® NXT and Bluetooth® (Electronics), it is possible to tells your family, friends as well as soon about yours reserve. Your knowledge can inspire different ones, make them reading a reserve.

Katherine Sorenson:

Do you like reading a guide? Confuse to looking for your selected book? Or your book ended up being rare? Why so many concern for the book? But just about any people feel that they enjoy for reading. Some people likes reading, not only science book but in addition novel and Build Your Own Teams of Robots with LEGO® Mindstorms® NXT and Bluetooth® (Electronics) or others sources were given expertise for you. After you know how the good a book, you feel want to read more and more. Science reserve was created for teacher or maybe students especially. Those textbooks are helping them to put their knowledge. In additional case, beside science book, any other book likes Build Your Own Teams of Robots with LEGO® Mindstorms® NXT and Bluetooth® (Electronics) to make your spare time much more colorful. Many types of book like here.

Steve Domingo:

A lot of guide has printed but it differs from the others. You can get it by world wide web on social media. You can choose the top book for you, science, comedy, novel, or whatever by simply searching from it. It is identified as of book Build Your Own Teams of Robots with LEGO® Mindstorms® NXT and Bluetooth® (Electronics). You'll be able to your knowledge by it. Without leaving behind the printed book, it could possibly add your knowledge and make anyone happier to read. It is most significant that, you must aware about e-book. It can bring you from one destination for a other place.

Download and Read Online Build Your Own Teams of Robots with LEGO® Mindstorms® NXT and Bluetooth® (Electronics) By Cameron Hughes, Tracey Hughes, Trevor Watkins, Bob Kramer #H0P72OJ3XT1

Read Build Your Own Teams of Robots with LEGO® Mindstorms® NXT and Bluetooth® (Electronics) By Cameron Hughes, Tracey Hughes, Trevor Watkins, Bob Kramer for online ebook

Build Your Own Teams of Robots with LEGO® Mindstorms® NXT and Bluetooth® (Electronics) By Cameron Hughes, Tracey Hughes, Trevor Watkins, Bob Kramer 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 Build Your Own Teams of Robots with LEGO® Mindstorms® NXT and Bluetooth® (Electronics) By Cameron Hughes, Tracey Hughes, Trevor Watkins, Bob Kramer books to read online.

Online Build Your Own Teams of Robots with LEGO® Mindstorms® NXT and Bluetooth® (Electronics) By Cameron Hughes, Tracey Hughes, Trevor Watkins, Bob Kramer ebook PDF download

Build Your Own Teams of Robots with LEGO® Mindstorms® NXT and Bluetooth® (Electronics) By Cameron Hughes, Tracey Hughes, Trevor Watkins, Bob Kramer Doc

Build Your Own Teams of Robots with LEGO® Mindstorms® NXT and Bluetooth® (Electronics) By Cameron Hughes, Tracey Hughes, Trevor Watkins, Bob Kramer Mobipocket

Build Your Own Teams of Robots with LEGO® Mindstorms® NXT and Bluetooth® (Electronics) By Cameron Hughes, Tracey Hughes, Trevor Watkins, Bob Kramer EPub

H0P72OJ3XT1: Build Your Own Teams of Robots with LEGO® Mindstorms® NXT and Bluetooth® (Electronics) By Cameron Hughes, Tracey Hughes, Trevor Watkins, Bob Kramer