Digital control methods for a line following robot



Filesize: 9.6 MB

Reviews

A must buy book if you need to adding benefit. Better then never, though i am quite late in start reading this one. I am very happy to inform you that this is basically the very best book we have study during my own life and could be he finest ebook for possibly. (Rodger Hane)

DIGITAL CONTROL METHODS FOR A LINE FOLLOWING ROBOT



Diplom.De Dez 2003, 2003. Taschenbuch. Book Condition: Neu. 210x148x9 mm. This item is printed on demand -Print on Demand Titel. Neuware - Bachelor Thesis from the year 2003 in the subject Electrotechnology, grade: 1,0, University of Applied Sciences Giessen (unbekannt), language: English, abstract: Inhaltsangabe:Abstract: The project aim was to a built a robot, controlled by a PIC microcontroller to follow a line completely autonomously and as quickly as possible. The robot meets the requirements from the RoboRama Contest, followed a T-shape course, and obtained more (safety) features. Different kinds of design features and digital algorithms were developed and tested, in order to achieve the best results. Applied project management techniques and used key skills, guaranteed the successful completion of the project, in the design and construction of hardware and software technologies. The hardware was based on a block structure with infrared sensors at the front of the vehicle. Their analogue signals were transferred to digital logic with a comparator. This information used a PIC 16F84A microcontroller to control the movement and direction of the robot with pulse width modulation (PWM). All parts were mounted on a chassis, implemented with a mechanical construction set. Batteries of 9V provided the necessary power supply. Adjustments were done through iterative steps, to come to the final result of the robot system. The main adapted design feature was the motor and steering system. First of all a separate servomotor for the steering and a single DC motor for the forward movement was fixed. Through implemented and first testing steps, this resolution lacked the required performance. Hence, the design changed to two DC motors, which offered a satisfactory solution. The electronic circuit was designed with the computer aided design tool Proteus and executed as a strip line board. The software algorithm development started with...



Read Digital control methods for a line following robot Online Download PDF Digital control methods for a line following robot

Relevant eBooks



Johnny Goes to First Grade: Bedtime Stories Book for Children's Age 3-10. (Good Night Bedtime Children's Story Book Collection)

Createspace, United States, 2013. Paperback. Book Condition: New. Malgorzata Gudziuk (illustrator). Large Print. 229 x 152 mm. Language: English . Brand New Book ***** Print on Demand *****. Do you want to ease tension preschoolers have...

Read Book »



Phonics Fun Stick Kids Workbook, Grade 1 Stick Kids Workbooks

Creative Teaching Press. Paperback. Book Condition: New. Paperback. 56 pages. Dimensions: 8.8in. x 6.4in. x 0.3in.Learning to read is a fun and exciting time in a childs life, and being able to decode words is...

Read Book »



Dont Line Their Pockets With Gold Line Your Own A Small How To Book on Living Large

Madelyn D R Books. Paperback. Book Condition: New. Paperback. 106 pages. Dimensions: 9.0in. \times 6.0in. \times 0.3in.This book is about my cousin, Billy a guy who taught me a lot over the years and who...

Read Book »



Talking Digital: A Parent's Guide for Teaching Kids to Share Smart and Stay Safe Online

Createspace, United States, 2014. Paperback. Book Condition: New. 229 x 152 mm. Language: English . Brand New Book. It is time for the digital talk. Today, kids are growing up in a wired world. Their...

Read Book »



Unplug Your Kids: A Parent's Guide to Raising Happy, Active and Well-Adjusted Children in the Digital Age

Adams Media Corporation. Paperback. Book Condition: new. BRAND NEW, Unplug Your Kids: A Parent's Guide to Raising Happy, Active and Well-Adjusted Children in the Digital Age, David Dutwin, TV. Web Surfing. IMing. Text Messaging. Video...

Read Book »