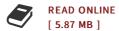


## A Monocular Vision Based Approach to Flocking

## By Brian P. Kirchner

BiblioScholar. Paperback. Condition: New. 84 pages. Dimensions: 9.7in. x 7.4in. x 0.2in.Flocking is seen in nature as a means for self protection, more efficient foraging, and other search behaviors. Although much research has been done regarding the application of this principle to autonomous vehicles, the majority of the research has relied on GPS information, broadcast communication, an omniscient central controller, or some other form of global knowledge. This approach, while effective, has serious drawbacks, especially regarding stealth, reliability, and biological grounding. This research effort uses three Pioneer P2-AT8 robots to achieve flocking behavior without the use of global knowledge. The sensory inputs are limited to two cameras, offset such that the area of stereo vision is minimal, thus making stereo image analysis techniques effectively impossible, but allowing a much larger effective field of vision. The flocking algorithm analyzes these images and updates each robots velocity vector according to the relative position, heading, and speed of its nearest neighbor. The result of this velocity update is an eventual stabilization of speed and heading, resulting in a coherent, stable flock, demonstrated in both software simulation and in hardware. This item ships from multiple locations. Your book may arrive from Roseburg, OR, La Vergne, TN....



## Reviews

A really amazing ebook with lucid and perfect answers. It is really simplistic but excitement in the 50 % in the publication. I am just happy to explain how this is actually the best pdf i actually have study during my individual daily life and may be he greatest ebook for possibly. -- Toney Bogan

This book might be worth a read, and superior to other. Of course, it really is engage in, still an interesting and amazing literature. It is extremely difficult to leave it before concluding, once you begin to read the book. -- Prof. Valentin Hane MD

## See Also

Index to the Classified Subject Catalogue of the Buffalo Library; The Whole System Being Adopted from the Classification and Subject Index of Mr. Melvil Dewey, with Some Modifications .

Rarebooksclub.com, United States, 2013. Paperback. Book Condition: New. 246 x 189 mm. Language: English. Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*. This historic book may have numerous typos and missing text. Purchasers can usually download a free scanned copy of the...

_

My Life as an Experiment: One Man s Humble Quest to Improve Himself by Living as a Woman, Becoming George Washington, Telling No Lies, and Other Radical Tests

SIMON SCHUSTER, United States, 2010. Paperback. Book Condition: New. Reprint. 212 x 138 mm. Language: English. Brand New Book. One man. Ten extraordinary quests. Bestselling author and human guinea pig A. J. Jacobs puts his life to the test and reports...

-

Some of My Best Friends Are Books : Guiding Gifted Readers from Preschool to High School Book Condition: Brand New. Book Condition: Brand New.

₽

Fun to Learn Bible Lessons Preschool 20 Easy to Use Programs Vol 1 by Nancy Paulson 1993 Paperback Book Condition: Brand New. Book Condition: Brand New.

Games with Books : 28 of the Best Childrens Books and How to Use Them to Help Your Child Learn - From Preschool to Third Grade

Book Condition: Brand New. Book Condition: Brand New.

Games with Books : Twenty-Eight of the Best Childrens Books and How to Use Them to Help Your Child Learn - from Preschool to Third Grade Book Condition: Brand New. Book Condition: Brand New.