



Unified Behavior Framework in an Embedded Robot Controller (Paperback)

By Stephen S Lin

Biblioscholar, United States, 2012. Paperback. Condition: New. Language: English . This book usually ship within 10-15 business days and we will endeavor to dispatch orders quicker than this where possible. Brand New Book. Recent technological advances produce small, inexpensive, embedded hardware platforms that are powerful enough to match robots from just a few years ago. The Unified Behavior Framework is a flexible, responsive control architecture that has not been applied on embedded systems in robots. This thesis presents a development of the Unified Behavior Framework on the Mini-WHEGSTM, a biologically inspired, embedded robotic platform, which is a small robot that utilize wheel-legs to emulate cockroach walking patterns. Wheel-legs combine wheels and legs for high mobility without the complex control system required for legs. Also included is a color camera and a rotary encoder, enabling the Mini-WHEGSTM to identify color objects and track its position. A hardware abstraction layer designed for the robot in this configuration decouples the control system from the hardware and provide the interface between the software and the hardware. The result is a highly mobile embedded robot system capable of exchanging behavior modules with much larger robots while requiring little or no change to the modules.



READ ONLINE
[8.94 MB]

Reviews

This is the finest ebook i have got read through till now. It really is full of wisdom and knowledge You wont sense monotony at anytime of the time (that's what catalogs are for relating to in the event you ask me).

-- **Mr. Edison Roberts IV**

A top quality ebook and the font employed was exciting to read. Of course, it can be enjoy, nonetheless an interesting and amazing literature. Your life span will likely be transform once you full reading this book.

-- **Phyllis Welch**