

Contents

Preface	vii
1 An Introduction to Robotics and Stiquito <i>James M. Conrad</i>	1
2 Engineering Skills and the Design Process <i>James M. Conrad and Allan R. Baker</i>	12
3 Electricity Basics <i>James M. Conrad</i>	33
4 Nitinol Basics <i>James M. Conrad and Wayne Brown</i>	50
5 Stiquito: A Small, Simple, Inexpensive Hexapod Robot <i>Jonathan W. Mills</i>	65
6 A Manual Controller for the Stiquito Robot <i>Jonathan W. Mills</i>	101
7 A PC-Based Controller for the Stiquito Robot <i>James M. Conrad</i>	114
8 A Simple Circuit to Make Stiquito Walk on Its Own <i>James M. Conrad</i>	134
9 The Future of Stiquito and Walking Robots <i>Jonathan W. Mills and James M. Conrad</i>	151
Appendixes	
A Author Biographies	160
B Sources of Materials for Stiquito	165
C Using Screws Instead of Crimps in Stiquito	169
Index	171