

Contents at a Glance

■ Contents at a Glance	iv
■ Contents	vi
■ About the Authors	xxx
■ About the Technical Reviewers	xxxi
■ Acknowledgments	xxxii
■ Introduction	xxxiii
■ Chapter 1: Welcome Robot Inventor!	1
■ Chapter 2: Where to Obtain Tools and Parts	15
■ Chapter 3: Safety	21
■ Chapter 4: Digital Multimeter	33
■ Chapter 5: Numbers and Units	53
■ Chapter 6: Robot Line-Following	63
■ Chapter 7: Nine-Volt Batteries	79
■ Chapter 8: Clips and Test Leads	93
■ Chapter 9: Resistors	101
■ Chapter 10: LEDs	111
■ Chapter 11: Power on!	127
■ Chapter 12: Solderless Prototyping	143
■ Chapter 13: Solderless Breadboard Setup	161
■ Chapter 14: Variable Resistors	173
■ Chapter 15: Comparators	193

■ Chapter 16: Transistor Switches	207
■ Chapter 17: DC Motors	223
■ Chapter 18: Adding Gearhead Motors	255
■ Chapter 19: Wheels	265
■ Chapter 20: Coupler	283
■ Chapter 21: Soldering Equipment	303
■ Chapter 22: Soldering and Connecting	313
■ Chapter 23: The Motherboard	339
■ Chapter 24: Body Building	359
■ Chapter 25: Launching the Line-Follower	385
■ Chapter 26: Encore	405
■ Chapter 27: Appendix	431
■ Index	439