

4.3	Subsumption Architecture	113
4.3.1	Example	115
4.3.2	Subsumption summary	121
4.4	Potential Fields Methodologies	122
4.4.1	Visualizing potential fields	123
4.4.2	Magnitude profiles	126
4.4.3	Potential fields and perception	128
4.4.4	Programming a single potential field	129
4.4.5	Combination of fields and behaviors	130
4.4.6	Example using one behavior per sensor	134
4.4.7	Pfields compared with subsumption	136
4.4.8	Advantages and disadvantages	145
4.5	Evaluation of Reactive Architectures	147
4.6	Summary	148
4.7	Exercises	149
4.8	End Notes	152
5	<i>Designing a Reactive Implementation</i>	155
5.1	Overview	155
5.2	Behaviors as Objects in OOP	157
5.2.1	Example. A primitive move-to-goal behavior	158
5.2.2	Example. An abstract follow-corridor behavior	160
5.2.3	Where do releasers go in OOP?	162
5.3	Steps in Designing a Reactive Behavioral System	163
5.4	Case Study: Unmanned Ground Robotics Competition	165
5.5	Assemblages of Behaviors	173
5.5.1	Finite state automata	174
5.5.2	A Pick Up the Trash FSA	178
5.5.3	Implementation examples	182
5.5.4	Abstract behaviors	184
5.5.5	Scripts	184
5.6	Summary	187
5.7	Exercises	188
5.8	End Notes	191
6	<i>Common Sensing Techniques for Reactive Robots</i>	195
6.1	Overview	196
6.1.1	Logical sensors	197
6.2	Behavioral Sensor Fusion	198

