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1  'BASIC converted from Logicator for PICAXE flowsheet:
2  'C:\Users\Rex\Documents\SONAR-IR-4.plf
3  'Converted on 23/9/2012 at 8:56:36
4
5  symbol varA = b0
6  symbol varB = b1
7  symbol varC = b2
8  symbol varD = b3
9  symbol varE = b4
10 symbol varF = b5
11 symbol varG = b6
12 symbol varH = b7
13 symbol varI = b14
14 symbol varJ = b15
15 symbol varK = b16
16 symbol varL = b17
17 symbol varM = b18
18 symbol varN = b19
19 symbol varO = b20
20 symbol varP = b21
21 symbol varQ = b22
22 symbol varR = b23
23 symbol varS = b24
24 symbol varT = b25
25 symbol timer = time
26
27
28 let dirsC = %00010101
29
30
31 main:
32     let varA = 0      'Expression command
33     let varB = 0      'Expression command
34     let varC = 0      'Expression command
35     let varD = 0      'Expression command
36     let varE = 0      'Expression command
37     let varF = 0      'Expression command
38     gosub prc_NETURAL 'Do Procedure
39     irin [250], C.3, varF
40     inc varF          'Adjust value for TV remote
41     if varF = 5 then label_147 'Compare command
42 label_19:
43     if varA = 0 then label_30    'Compare command
44     if varA = 1 then label_60    'Compare command
45     if varA = 3 then label_75    'Compare command
46     let varA = 0                'Expression command
47     goto label_19
48
49 label_75:  gosub prc_NETURAL 'Do Procedure
50           let varD = varB    'Expression command
51           gosub prc_SONAR    'Do Procedure
52           if varB > 20 then label_82 'Compare command
53           random w6          'store random number in w6 (b13:b12)
54           let varE = b13     'Expression command
55 label_131:
56           if varE >= 126 then label_132 'Compare command
57           for varF = 1 to 3 'Do procedure 3 times
58           gosub prc_RIGHT    'Do Procedure
59           next varF
60 label_137: gosub prc_SONAR    'Do Procedure
61           if varB > 20 then label_139 'Compare command

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62         goto label_131
63
64 label_139:
65     let varA = 0         'Expression command
66     goto label_19
67
68 prc_SONAR:
69     pulsout C.1, 2     'Start of Ultra command.
70     pulsin C.1, 1, w6
71     pause 10
72     w6 = w6 * 10 / 58
73     let varB = b12
74     if b13 = 0 then label_u14
75     let varB = 255     'End of Ultra command.
76 label_u14:
77     return             'Return
78
79 prc_RIGHT:
80     let varC = varC + 1     'Inc command
81     if varC = 1 then label_115     'Compare command
82     if varC = 2 then label_117     'Compare command
83     if varC = 3 then label_122     'Compare command
84     let varC = 0         'Expression command
85     servo 2,135
86     servo 4,195
87 label_126:     pause 100     'Wait command
88                 pause 500     'Wait command
89                 return         'Return
90
91 label_122:     servo 0,150
92                 pause 100     'Wait command
93                 goto label_126
94
95 label_117:     servo 2,195
96                 servo 4,135
97                 pause 100     'Wait command
98                 pause 500     'Wait command
99                 goto label_126
100
101 label_115:     servo 0,180
102                 pause 100     'Wait command
103                 goto label_126
104
105 label_132:     for varF = 1 to 3 'Do procedure 3 times
106                 gosub prc_LEFT     'Do Procedure
107                 next varF
108                 goto label_137
109
110 prc_LEFT:
111     let varC = varC + 1     'Inc command
112     if varC = 1 then label_94     'Compare command
113     if varC = 2 then label_96     'Compare command
114     if varC = 3 then label_101     'Compare command
115     let varC = 0         'Expression command
116     servo 2,195
117     servo 4,135
118     pause 100     'Wait command
119     pause 500     'Wait command
120 label_93:     return         'Return
121
122 label_101:     servo 0,150

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123         pause 100    'Wait command
124         goto label_93
125
126 label_96:  servo 2,135
127           servo 4,195
128           pause 100    'Wait command
129           pause 500    'Wait command
130           goto label_93
131
132 label_94:  servo 0,180
133           pause 100    'Wait command
134           goto label_93
135
136 label_82:
137         let varA = 0      'Expression command
138         goto label_19
139
140 prc_NETURAL:
141         servo 0,165
142         servo 2,165
143         servo 4,165
144         let varC = 0      'Expression command
145         return           'Return
146
147 label_60:  gosub prc_FOWARD 'Do Procedure
148           gosub prc_SONAR 'Do Procedure
149           if varB > 20 then label_19 'Compare command
150           let varA = 3      'Expression command
151           goto label_19
152
153 prc_FOWARD:
154         let varC = varC + 1 'Inc command
155         if varC = 1 then label_45 'Compare command
156         if varC = 2 then label_47 'Compare command
157         if varC = 3 then label_52 'Compare command
158         let varC = 0      'Expression command
159         servo 2,195
160         servo 4,195
161         pause 100    'Wait command
162         servo 0,165
163         pause 500    'Wait command
164 label_66:  return           'Return
165
166 label_52:  servo 0,150
167           pause 100    'Wait command
168           goto label_66
169
170 label_47:  servo 2,135
171           servo 4,135
172           pause 100    'Wait command
173           servo 0,165
174           pause 500    'Wait command
175           goto label_66
176
177 label_45:  servo 0,180
178           pause 100    'Wait command
179           goto label_66
180
181 label_30:  gosub prc_NETURAL 'Do Procedure
182           pause 500    'Wait command
183           gosub prc_SONAR 'Do Procedure

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184         if varB > 20 then label_34      'Compare command
185         let varA = 3                    'Expression command
186         goto label_19
187
188 label_34:
189         let varA = 1                    'Expression command
190         goto label_19
191
192 label_147:
193         let varD = varF                 'Expression command
194 label_148:
195         if varD = varF then label_151 'Compare command
196         gosub prc_NETURAL              'Do Procedure
197         let varD = varF                 'Expression command
198 label_151:
199         if varF = 2 then label_155      'Compare command
200         if varF = 4 then label_156      'Compare command
201         if varF = 6 then label_157      'Compare command
202 label_162: irin [20], C.3, varF
203         inc varF                        'Adjust value for TV remote
204         goto label_148
205
206 label_157: for varE = 1 to 4 'Do procedure 4 times
207         gosub prc_RIGHT                 'Do Procedure
208         next varE
209         goto label_162
210
211 label_156: for varE = 1 to 4 'Do procedure 4 times
212         gosub prc_LEFT                  'Do Procedure
213         next varE
214         goto label_162
215
216 label_155: for varE = 1 to 4 'Do procedure 4 times
217         gosub prc_FOWARD                'Do Procedure
218         next varE
219         goto label_162
220
221
222
223

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