

# Escena\_ST

```
1|      10|      20|      30|      40|      50|      60|      70|      80|      90|     100|     110|
1  (*configurar Emitter-----*)
2  F_TRIG_12 (CLK := stop);
3  R_TRIG_5  (CLK := run);
4  F_TRIG_13 (CLK := SensorFinAzul);
5  F_TRIG_14 (CLK := SensorFinVerde);
6  F_TRIG_15 (CLK := SensorFinGris);
7  F_TRIG_16 (CLK := SensorFinCajaG);
8  F_TRIG_17 (CLK := Sensorcajapeque);
9  F_TRIG_42 (CLK := Sensorcajapeque);
10
11  if (F_TRIG_12.Q) or (R_TRIG_5.Q and not cinta1 and not cinta2 and not cinta3 and not cinta4 and not rodillos a
11>>nd not trans_neg and not trans_pos) or ( F_TRIG_13.Q) or (F_TRIG_14.Q) or (F_TRIG_15.Q) or (F_TRIG_16.Q) or (F
11>>_TRIG_17.Q) or (F_TRIG_42.Q) then
12      emitter:=1;
13      start_light:=1;
14  end_if;
15
16  if R_TRIG_5.Q then
17      stop_light:=0;
18      %M50:=0;
19      reset_light:=0;
20      %M51:=0;
21  end_if;
22
23  if (( F_TRIG_13.Q) or (F_TRIG_14.Q) or (F_TRIG_15.Q) or (F_TRIG_16.Q) or (F_TRIG_17.Q) or (F_TRIG_42.Q)) and %
23>>M50 then
24      start_light:=0;
25  end_if;
26  if not stop then
27      aux_stop:=1;
28  end_if;
29  R_TRIG_6  (CLK := run);
30
31  if R_TRIG_6.Q then
32      aux_stop:=0;
33  end_if;
34  R_TRIG_7  (CLK := sensoremitter);
35
36  if aux_stop or R_TRIG_7.Q then
37      emitter:=0;
38  end_if;
39
40  (*MoverCinta1-----*)
41
42  F_TRIG_18 (CLK := sensoremitter);
43  if F_TRIG_18.Q then
44      cinta1:=1;
45  end_if;
46
47  F_TRIG_19 (CLK := sensorcinta2);
48  TP_16 (IN := F_TRIG_19.Q,
49      PT := t#2s);
50  F_TRIG_20 (CLK := TP_16.Q);
51  if F_TRIG_20.Q then
52      cinta1:=0;
53  end_if;
54  (*Guarda memoria caja azul-----*)
55  F_TRIG_21 (CLK := sensorEmitter);
56
57  if sensorAzul then
58      %M80:=1;
59  end_if;
60  if F_TRIG_21.Q then
61      %M80:=0;
62  end_if;
63  (*Guarda memoria caja verde-----*)
64  F_TRIG_22 (CLK := sensorEmitter);
65
66  if sensorverde then
67      %M81:=1;
68  end_if;
69  if F_TRIG_22.Q then
70      %M81:=0;
71  end_if;
72
73  (*Mover cinta2-----*)
74
75  F_TRIG_23 (CLK := sensorbackLimit);
76  if not sensorcinta2 then
77      cinta2:=1;
78  end_if;
79  if F_TRIG_23.Q then
80      cinta2:=0;
81  end_if;
82
83  (*Almacenar caja Verde y girar mesa-----*)
84  TP_17 (IN := sensor90limit,
85      PT := t#2s);
86  aux_almacen := AND (IN1 := TP_17.Q,
87      IN2 := %M81);
88  aux_cinta := OR (IN1 := aux_almacen,
89      IN2 := not sensorfincinta2);
90
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1|      10|      20|      30|      40|      50|      60|      70|      80|      90|     100|     110|
91  memorias := OR (IN1 := not %M80,
92                IN2 := not %M81);
93
94  activar_trans_pos := AND (IN1 := aux_cinta,
95                          IN2 := memorias);
96  if activar_trans_pos then
97      trans_pos:=1;
98  end_if;
99
100 (*Mover la cinta cuando la pieza es gris o de cartón-----*)
101
102 F_TRIG_24 (CLK := sensorbackLimit);
103 aux_senosrback := AND (IN1 := %M81,
104                      IN2 := F_TRIG_24.Q);
105
106 F_TRIG_40 (CLK := sensorbackLimit);
107 aux_senosrback_80 := AND (IN1 := %M80,
108                          IN2 := F_TRIG_40.Q);
109 aux_giro := OR (IN1 := aux_senosrback,
110               IN2 := aux_senosrback_80);
111 if aux_giro then
112     giro:=1;
113 end_if;
114
115 TON_5 (IN := sensor90limit,
116       PT := t#4s);
117
118 TON_6 (IN := not sensorfinazul,
119       PT := t#4s);
120 reset_giro := OR (IN1 := TON_5.Q,
121                 IN2 := TON_6.Q);
122 if reset_giro then
123     giro:=0;
124 end_if;
125
126 F_TRIG_26 (CLK := sensorcinta3);
127 TP_18 (IN := f_trig_26.Q,
128       PT := t#2s);
129 F_TRIG_27 (CLK := TP_18.Q);
130
131 R_TRIG_8 (CLK := SensorFinverde);
132 F_TRIG_28 (CLK := r_trig_8.Q);
133
134 RESET_TRANS_POS := OR (IN1 := aux_senosrback,
135                      IN2 := aux_senosrback_80,
136                      IN3 := F_TRIG_27.Q,
137                      IN4 := F_TRIG_28.Q);
138
139 R_TRIG_9 (CLK := RESET_TRANS_POS);
140
141 if R_TRIG_9.Q then
142     trans_pos:=0;
143 end_if;
144 (*Almacenar caja Azul-----*)
145 TP_19 (IN := sensor90limit,
146       PT := t#4s);
147 activar_trans_neg := AND (IN1 := TP_19.Q,
148                          IN2 := %M80);
149 if activar_trans_neg then
150     trans_neg:=1;
151 end_if;
152
153
154 TON_7 (IN := sensor90limit,
155       PT := t#4s);
156 if TON_7.Q then
157     trans_neg:=0;
158 end_if;
159
160
161 (*Mover cinta3-----*)
162
163
164 F_TRIG_29 (CLK := sensorcinta3);
165 if F_TRIG_29.Q then
166     cinta3:=1;
167 end_if;
168 F_TRIG_30 (CLK := sensorcinta3);
169 TP_20 (IN := F_TRIG_30.Q,
170       PT := t#6s);
171
172 F_TRIG_31 (CLK := TP_20.Q);
173
174 if F_TRIG_31.Q then
175     cinta3:=0;
176 end_if;
177
178 (*Guarda memoria caja gris-----*)
179
180 if sensorgris then
181     %M82:=1;
182 end_if;
183
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1|      10|      20|      30|      40|      50|      60|      70|      80|      90|     100|     110|
184 F_TRIG_32 (CLK := sensoremitter);
185
186 if F_TRIG_32.Q then
187     %M82:=0;
188 end_if;
189
190 (*Orientar rodillos a la izquierda-----*)
191
192 F_TRIG_33 (CLK := SensorFingris);
193
194 TP_21 (IN := F_TRIG_33.Q,
195       PT := t#2s);
196
197 F_TRIG_34 (CLK := TP_21.Q);
198
199 if %M82 then
200     rodillos_izq:=1;
201 end_if;
202
203 if F_TRIG_34.Q then
204     rodillos_izq:=0;
205 end_if;
206
207 F_TRIG_35 (CLK := SensorRodillos);
208 if F_TRIG_35.Q then
209     rodillos:=1;
210 end_if;
211
212 F_TRIG_36 (CLK := sensorcinta4);
213 reset_rodillos := OR (IN1 := F_TRIG_33.Q,
214                      IN2 := F_TRIG_36.Q);
215 if reset_rodillos then
216     rodillos:=0;
217 end_if;
218 (*Mover cinta4-----*)
219 if F_TRIG_36.Q then
220     cinta4:=1;
221 end_if;
222
223 TP_22 (IN := F_TRIG_36.Q,
224       PT := t#2.15s);
225 F_TRIG_37 (CLK := TP_22.Q);
226 R_TRIG_10 (CLK := Difusse_sensor1);
227 if R_TRIG_10.Q then
228     aux_caja_grande:=1;
229 end_IF;
230
231 if F_TRIG_37.Q and aux_caja_grande then
232     rodillo_stop:=1;
233     empuje:=1;
234     cinta4:=0;
235 end_if;
236
237 F_TRIG_38 (CLK := SensorFinCajaG);
238 TP_23 (IN := F_TRIG_38.Q,
239       PT := t#0.5s);
240
241 F_TRIG_39 (CLK := TP_23.Q);
242
243 if F_TRIG_39.Q then
244     rodillo_stop:=0;
245     empuje:=0;
246     aux_caja_grande:=0;
247 end_if;
248
249 if F_TRIG_37.Q and not aux_caja_grande then
250     cinta4:=1;
251 end_if;
252 F_TRIG_41 (CLK := Sensorcajapeque);
253 if F_TRIG_41.Q then
254     cinta4:=0;
255 end_if;
256
257
258
259 R_TRIG_11 (CLK := reseteo);
260 if R_TRIG_11.Q then
261     %M51:=0;
262 end_if;
263 if (R_TRIG_11.Q and not start_light) or not em_stop then
264     reset_light:=0;
265     start_light:=0;
266     stop_light:=0;
267     cinta1:=0;
268     cinta2:=0;
269     cinta3:=0;
270     cinta4:=0;
271     trans_pos:=0;
272     giro:=0;
273     rodillos:=0;
274     rodillos_izq:=0;
275     empuje:=0;
276     rodillo_stop:=0;
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1|      10|      20|      30|      40|      50|      60|      70|      80|      90|     100|     110|
277          trans_neg:=0;
278  end_if;
279  if %M51 and %S6 then
280      reset_light:=1;
281  end_if;
282  if %M51 and not %S6 then
283      reset_light:=0;
284  end_if;
285
286  F_TRIG_5 (CLK := stop);
287  if F_TRIG_5.Q then
288      stop_light:=1;
289      %M50:=1;
290  end_if;
291
292  F_TRIG_6 (CLK := em_stop);
293  if F_TRIG_6.Q then
294      %M51:=1;
295  end_if;
296

```