Escena14_ST

```
   1|       10|       20|       30|       40|       50|       60|       70|       80|       90|      100|      110|
```

```
R_TRIG_0 (CLK := start);
if em_stop and stop and not reseteo and R_TRIG_0.Q then
        start_light:=1;
        stop_light:=0;
        reset_light:=0;
        %M50:=0;
end_if;
if not stop and not auto then
        entry_conveyor:=0;
        exit_conveyor:=0;
        start_light:=0;
        stop_light:=1;
end_if;
(*--------------------------------------modo automático*)
if  start_light and em_stop and auto then
        if R_TRIG_0.Q and (vision <> 0 or vision =0) then
                reset_light:=0;
                entry_conveyor:=1;
                exit_conveyor:=0;
        end_if;
        if cont1<3 or cont2<3 or cont3<3 then
                reseteo:=0;
(*--------------------------------------primera cinta*)
                if (vision = 2 or vision = 5)  then
                        aux1:= 1;
                        exit_conveyor:=1;
                end_if;

                if aux1 and (not aux2 and not aux3) and entry_conveyor then
                        sorter1_turn := 1;
                        sorter1_belt:=1;
                        aux2:=0;
                        aux3:=0;
                end_if;
(*--------------------------------------segunda cinta*)
                if (vision = 3 or vision = 6)  then
                        aux2:= 1;
                        exit_conveyor:=1;
                end_if;
                if aux2 and (not aux1 and not aux3) and entry_conveyor then
                        sorter2_turn := 1;
                        sorter2_belt:=1;
                        aux1:=0;
                        aux3:=0;
                end_if;
(*--------------------------------------tercera cinta*)
                if (vision = 1 or vision = 4) then
                        aux3:= 1;
                        exit_conveyor:=1;
                end_if;
                if aux3 and (not aux1 and not aux2) and entry_conveyor then
                        sorter3_turn := 1;
                        sorter3_belt:=1;
                        aux2:=0;
                        aux1:=0;
                end_if;
        else            sorter1_turn := 0;
                        sorter1_belt:=0;
                        sorter2_turn := 0;
                        sorter2_belt:=0;
                        sorter3_turn := 0;
                        sorter3_belt:=0;
                        exit_conveyor:=0;
                        entry_conveyor:=0;
                        temp:=0;
                        start_light:=0;
                        reset_light:=1;

        end_if;


        TON_3 (IN := exit_conveyor,
               PT := t#1.5s);
                if TON_3.Q then
                        entry_conveyor:=0;
                end_if;

        r_trig_1(clk := not at_exit);
                if r_trig_1.q then
                        temp:=1;
                end_if;

        TON_1 (IN := temp,
               PT := t#0.5s);
               if TON_1.Q then
                        sorter1_turn := 0;
                        sorter1_belt:=0;
                        sorter2_turn := 0;
                        sorter2_belt:=0;
                        sorter3_turn := 0;
                        sorter3_belt:=0;
                        exit_conveyor:=0;
                        aux1:= 0;
```

Escena14_ST

```
    1|       10|       20|       30|       40|       50|       60|       70|       80|       90|      100|      110|
```

```
 94                          aux2:= 0;
 95                          aux3:= 0;
 96                          entry_conveyor:=1;
 97                          temp:=0;
 98                  end_if;
 99
100
101
102  end_if;
103
104
105  CTU_0 (CU := aux1,
106         R := reseteo,
107         CV => cont1);
108  CTU_1 (CU := aux2,
109         R := reseteo,
110         CV => cont2);
111  CTU_2 (CU := aux3,
112          R := reseteo,
113         CV => cont3);
114
115  (*Reseteo---------------------------------*)
116
117  R_TRIG_3 (CLK := reseteo);
118  if r_trig_3.q then
119          %M51:=0;
120  end_if;
121  if (R_TRIG_3.Q and not start_light) or not em_stop then
122          sorter1_turn := 0;
123          sorter1_belt:=0;
124          sorter2_turn := 0;
125          sorter2_belt:=0;
126          sorter3_turn := 0;
127          sorter3_belt:=0;
128          exit_conveyor:=0;
129          entry_conveyor:=0;
130          temp:=0;
131          start_light:=0;
132          reset_light:=1;
133  end_if;
134
135  if %M51 and %s6 then
136          reset_light:=1;
137  end_if;
138  if %M51 and not %s6 then
139          reset_light:=0;
140  end_if;
141
142  F_TRIG_3 (CLK := stop);
143  if F_TRIG_3.Q then
144          stop_light:=1;
145          %M50:=1;
146  end_if;
147  F_TRIG_4 (CLK := em_stop);
148  if F_TRIG_4.Q then
149          %M51:=1;
150  end_if;
151
152
153
154  (*---------------------------------------modo manual*)
155  R_TRIG_12 (CLK := start);
156  if R_TRIG_12.Q then
157          start_light:=1;
158  end_if;
159  if  start_light and em_stop and manual then
160  R_TRIG_4 (CLK := start);
161          if R_TRIG_4.Q  then
162                  reset_light:=0;
163                  entry_conveyor:=1;
164                  exit_conveyor:=0;
165          end_if;
166
167  (*---------------------------------------primera cinta*)
168                  if (vision = 2 or vision = 5)  then
169                          aux1:= 1;
170                          exit_conveyor:=1;
171                  end_if;
172          R_TRIG_9 (CLK := exit_conveyor);
173                  if aux1 and (not aux2 and not aux3) and r_trig_9.Q then
174                          sorter1_turn := 1;
175                          sorter1_belt:=1;
176                          aux2:=0;
177                          aux3:=0;
178                          entry_conveyor:=1;
179                  end_if;
180
181                  R_TRIG_6 (CLK := at_exit);
182                  if R_TRIG_6.Q then
183                          start_light:=0;
184                          sorter1_turn := 0;
185                          sorter1_belt:=0;
186                          aux2:=0;
```

Escena14_ST

```
    1|       10|       20|       30|       40|       50|       60|       70|       80|       90|      100|      110|

187                         aux3:=0;
188                         aux1:=0;
189                         exit_conveyor:=0;
190                 end_if;
191  (*--------------------------------------segunda cinta*)
192                 if (vision = 3 or vision = 6)  then
193                         aux2:= 1;
194                         exit_conveyor:=1;
195                 end_if;
196
197         R_TRIG_10 (CLK := exit_conveyor);
198                 if aux2 and (not aux1 and not aux3) and r_trig_10.Q then
199                         sorter2_turn := 1;
200                         sorter2_belt:=1;
201                         aux1:=0;
202                         aux3:=0;
203                 end_if;
204
205
206                 R_TRIG_7 (CLK := at_exit);
207                 if R_TRIG_7.Q then
208                         start_light:=0;
209                         sorter2_turn := 0;
210                         sorter2_belt:=0;
211                         aux2:=0;
212                         aux3:=0;
213                         aux1:=0;
214                         exit_conveyor:=0;
215                 end_if;
216  (*--------------------------------------tercera cinta*)
217                 if (vision = 1 or vision = 4) then
218                         aux3:= 1;
219                         exit_conveyor:=1;
220                 end_if;
221         R_TRIG_11 (CLK := exit_conveyor);
222                 if aux3 and (not aux1 and not aux2) and r_trig_11.Q then
223                         sorter3_turn := 1;
224                         sorter3_belt:=1;
225                         aux2:=0;
226                         aux1:=0;
227                 end_if;
228
229
230
231                 R_TRIG_8 (CLK := at_exit);
232                 if R_TRIG_8.Q then
233                         start_light:=0;
234                         sorter3_turn := 0;
235                         sorter3_belt:=0;
236                         aux2:=0;
237                         aux3:=0;
238                         aux1:=0;
239                         exit_conveyor:=0;
240                 end_if;
241
242
243
244         TON_9 (IN := exit_conveyor,
245                PT := t#0.8s);
246                 if TON_9.Q then
247                         entry_conveyor:=0;
248                 end_if;
249
250
251
252
253  end_if;
```