

MODULE MainModule

```
CONST jointtarget jpos10:=[[6.81954,14.1088,-12.1243,24.9211,11.4493,-37.6717],[9E
+09,9E+09,9E+09,9E+09,9E+09,9E+09]];
CONST robtarget p10:=[[176.81,-191.57,521.21],
[0.278921,-0.372832,-0.862871,-0.196606],[-1,0,-1,0],[9E+09,9E+09,9E+09,9E+09,9E+09,9E
+09]];
CONST robtarget p20:=[[36.45,-363.29,434.61],[0.151188,-0.68875,-0.66446,-0.247506],
[-1,0,-1,1],[9E+09,9E+09,9E+09,9E+09,9E+09,9E+09]];
CONST robtarget p30:=[[362.93,-190.78,527.78],
[0.208623,-0.296741,-0.924245,-0.119128],[-1,0,-1,1],[9E+09,9E+09,9E+09,9E+09,9E+09,9E
+09]];
CONST robtarget p40:=[[403.50,-186.18,39.16],[0.220229,-0.193089,-0.950068,-0.107642],
[-1,-1,0,1],[9E+09,9E+09,9E+09,9E+09,9E+09,9E+09]];
CONST robtarget p50:=[[405.19,32.89,41.83],[0.208965,-0.192578,-0.952954,-0.105477],
[0,0,0,1],[9E+09,9E+09,9E+09,9E+09,9E+09,9E+09]];
CONST robtarget p60:=[[405.02,28.65,286.65],[0.210569,-0.192705,-0.952533,-0.105863],
[0,0,-1,1],[9E+09,9E+09,9E+09,9E+09,9E+09,9E+09]];
CONST robtarget p70:=[[408.73,-186.25,320.05],[0.21057,-0.192707,-0.952533,-0.105858],
[-1,-1,0,1],[9E+09,9E+09,9E+09,9E+09,9E+09,9E+09]];
CONST robtarget p80:=[[182.80,243.44,681.59],[0.239987,0.420452,-0.872058,0.0716986],
[0,0,-1,0],[9E+09,9E+09,9E+09,9E+09,9E+09,9E+09]];
CONST robtarget p90:=[[368.87,430.69,441.60],[0.26668,0.358729,-0.89307,0.0511997],
[0,0,-1,1],[9E+09,9E+09,9E+09,9E+09,9E+09,9E+09]];
CONST robtarget p100:=[[368.87,430.69,461.60],[0.26668,0.358729,-0.89307,0.0511997],
[0,0,-1,1],[9E+09,9E+09,9E+09,9E+09,9E+09,9E+09]];
CONST robtarget p110:=[[368.76,498.78,442.48],
[0.292218,0.277507,-0.91517,-0.00789908],[0,-2,1,0],[9E+09,9E+09,9E+09,9E+09,9E+09,9E
+09]];
CONST robtarget p120:=[[349.63,498.54,515.95],[0.262768,0.480674,-0.835673,0.0394526],
[0,0,-1,0],[9E+09,9E+09,9E+09,9E+09,9E+09,9E+09]];
CONST robtarget p130:=[[449.31,236.18,510.99],[0.369937,0.152754,-0.914397,0.0607572],
[0,-1,0,0],[9E+09,9E+09,9E+09,9E+09,9E+09,9E+09]];
CONST robtarget p140:=[[36.47,-365.92,423.85],[0.138204,-0.694353,-0.66549,-0.236425],
[-1,0,-1,1],[9E+09,9E+09,9E+09,9E+09,9E+09,9E+09]];
CONST robtarget p150:=[[36.44,-365.93,533.78],
[0.138198,-0.694384,-0.665464,-0.236409],[-1,0,-1,1],[9E+09,9E+09,9E+09,9E+09,9E+09,9E
+09]];
CONST robtarget p160:=[[368.06,437.14,466.02],
[0.259765,0.287212,-0.921438,-0.0313713],[0,-2,1,0],[9E+09,9E+09,9E+09,9E+09,9E+09,9E
+09]];
LOCAL VAR num Fila_COM1:=0;
LOCAL VAR num Columna_COM1:=0;
LOCAL VAR num Fila_COM2:=0;
LOCAL VAR num Columna_COM2:=0;
LOCAL VAR bool COM:=False;
```

```
PROC COMANDA(num Columna,num Fila,bool COM)
```

```
FOR Files FROM 0 TO Fila DO
```

```
FOR Columnes FROM 0 TO Columna DO
```

```

        IF COM=TRUE THEN

            MoveJ Offs(p50,(Fila*37.5),(Columna*37.5),0),v1000,fine,tool_ventosa;

        ELSEIF COM=FALSE THEN

            MoveJ Offs(p40,(Fila*37.5),(Columna*37.5),0),v1000,fine,tool_ventosa;
        ENDIF

    ENDFOR
ENDFOR

ENDPROC

PROC main()

    !Reset D010_3;
    SetDO D010_1,1;
    !Activar el compressor
    SetDO D010_4,1;
    !Robot Operatiu Cadena de Rearmament
    !POSICIO DE INICI

    MoveAbsJ jpos10\NoEOffs,v1000,z50,tool_ventosa;

    IF Emer=TRUE AND Peça=TRUE THEN

        MoveJ p30,v500,z0,tool_ventosa;
        MoveJ p70,v500,z0,tool_ventosa;
        MoveJ p50,v500,z0,tool_ventosa;
        Emer:=FALSE;
    ENDIF

    !Espera ordre de final de
cicle-----

    WaitDI DI10_1,1;

    IF DI10_4=1 THEN
        Fila_COM1:=0;
        Columna_COM1:=0;
        Fila_COM2:=0;
        Columna_COM2:=0;
    ENDIF
    !POSICIO DE LA CINTA 1 ON ESTA LA PEÇA
    MoveJ p10,v500,z0,tool_ventosa;
    MoveJ p20,v500,z0,tool_ventosa;
    WaitRob \ZeroSpeed;
    SetDO D010_2,1;

```

```
Reset D010_3;  
MoveJ p140,v500,z0,tool_ventosa;  
MoveJ p150,v500,fine,tool_ventosa;  
Peça:=TRUE;
```

!Ordre al robot enviar peça a la Comanda

1-----

```
IF DI10_2=0 AND DI10_3=0 AND Peça THEN  
  !00  
  
  COM:=False;  
  
  IF Columna_COM1>4 THEN  
    Add Fila_COM1,1;  
    Columna_COM1:=0;  
  ENDIF  
  
  IF Fila_COM1>4 THEN  
    Fila_COM1:=0;  
  ENDIF  
  
  MoveJ p30,v500,z0,tool_ventosa;  
  MoveJ p70,v500,z0,tool_ventosa;  
  !POSICIO DE LA COMANDA 1  
  COMANDA Columna_COM1,Fila_COM1,COM;  
  Add Columna_COM1,1;  
  Reset D010_2;  
  SetDO D010_3,1;  
  Peça:=False;  
  
ENDIF
```

!Ordre al robot enviar peça a la Comanda

2-----

```
IF DI10_2=0 AND DI10_3=1 AND Peça THEN  
  !01  
  
  COM:=True;  
  
  IF Columna_COM2>4 THEN  
    Add Fila_COM2,1;  
    Columna_COM2:=0;  
  ENDIF  
  
  IF Fila_COM2>4 THEN  
    Fila_COM2:=0;  
  ENDIF  
  
  MoveJ p30,v500,z0,tool_ventosa;  
  MoveJ p60,v500,z0,tool_ventosa;  
  !POSICIO DE LA COMANDA 2  
  COMANDA Columna_COM2,Fila_COM2,COM;  
  Add Columna_COM2,1;
```

```
Reset D010_2;  
SetDO D010_3,1;  
Peça:=False;
```

```
ENDIF
```

```
!Ordre al robot enviar peça a la cinta 2 a la primera  
posició-----  
-
```

```
IF DI10_2=1 AND DI10_3=0 AND Peça THEN  
!10  
!POSICIO DEL MAGATZEM 1-2  
MoveJ p10,v500,z0,tool_ventosa;  
MoveAbsJ jpos10\NoEOffs,v1000,z50,tool_ventosa;  
MoveJ p100,v500,z0,tool_ventosa;  
MoveL p90,v500,z0,tool_ventosa;  
WaitRob \ZeroSpeed;  
Reset D010_2;  
MoveL p100,v500,z0,tool_ventosa;  
MoveAbsJ jpos10\NoEOffs,v1000,z50,tool_ventosa;  
SetDO D010_3,1;  
Peça:=False;
```

```
ENDIF
```

```
!Ordre al robot enviar peça a la cinta 2 a la segona  
posició-----  
-
```

```
IF DI10_2=1 AND DI10_3=1 AND Peça THEN  
!11  
!POSICIO DEL MAGATZEM 3-4  
MoveJ p10,v500,z0,tool_ventosa;  
MoveJ p130,v500,z0,tool_ventosa;  
MoveJ p120,v500,z0,tool_ventosa;  
MoveJ p110,v500,z0,tool_ventosa;  
WaitRob \ZeroSpeed;  
Reset D010_2;  
SetDO D010_3,1;  
Peça:=False;
```

```
ENDIF
```

```
ENDPROC  
ENDMODULE
```