

MODULE Module2

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TASK PERS wobjdata WO_MesaGiratoria_1:=[FALSE,TRUE,"",[600,-250,0],[0,0,0,1]],[[0,0,0],
[1,0,0,0]]];
TASK PERS wobjdata WO_MesaGiratoria_2:=[FALSE,TRUE,"",[600,250,0],[0,0,0,1]],[[0,0,0],
[1,0,0,0]]];
TASK PERS tooldata Ventosa_JR:=[TRUE,[0.00576115,0,140.007],[1,0,-0.000000561,0]],[1,[0,0,1],
[1,0,0,0],0,0,0]];

CONST robtarget INICIO:=[49.985,-250,578],[0,0.999999999,0,-0.000043633],[0,0,0,0],[9E+09,9E
+09,9E+09,9E+09,9E+09,9E+09]];
CONST robtarget P_P:=[0.000178541,100.000147974,260],[0,0.951056516,0.309016994,0],[0,0,0,0],
[9E+09,9E+09,9E+09,9E+09,9E+09,9E+09]];
CONST robtarget P_R:=[99.999999873,-49.999905211,260],[0,0.866025404,0.499999999,0],
[0,-1,-1,0],[9E+09,9E+09,9E+09,9E+09,9E+09,9E+09]];
CONST robtarget P_T:=[-80.000000009,-50.001270184,260],[0,0.866025404,0.5,0],[0,-1,-1,0],[9E
+09,9E+09,9E+09,9E+09,9E+09,9E+09]];

LOCAL VAR intnum Idi1;

LOCAL PERS num C_X:=0;
LOCAL PERS num C_Y:=0;
LOCAL PERS num C_Z:=0;

LOCAL PERS num Q_1:=0;
LOCAL PERS num Q_2:=0;
LOCAL PERS num Q_3:=0;
LOCAL PERS num Q_4:=0;

LOCAL PERS string Opcion_Figura:="";
LOCAL PERS num Inicio_CogerPieza:=0;
LOCAL PERS num Fin_CogerPieza:=0;

LOCAL PERS num Cont_Piezas_C2:=0;

PROC main()

    Primero;

    WHILE Cont_Piezas_C2 < 3 DO

        WHILE Fin_CogerPieza = 0 DO

            IF Inicio_CogerPieza = 1 THEN

                TEST Opcion_Figura

                CASE "Rectangulo":
                    CogerRectangulo;

                CASE "Triangulo":
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        CogeriTriangulo;

        CASE "Pentagono":
            CogeriPentagono;

        ENDTEST

        Inicio_CogeriPieza:= 0;
        Fin_CogeriPieza:=1;

    else
        Fin_CogeriPieza:=0;
    ENDIF

ENDWHILE

Fin_CogeriPieza:=0;
Cont_Piezas_C2:=Cont_Piezas_C2+1;

ENDWHILE

ENDPROC

LOCAL PROC Primero()

    !Cancelamos las interrupciones
    IDelete Idi1;

    !Conectamos las variables con las interrupciones
    CONNECT Idi1 WITH Trap_di1;

    !Interrupciones
    ISignalDI di1, 1, Idi1;

ENDPROC

LOCAL PROC CogeriRectangulo()

    VAR robtarget punto;

    MoveL INICIO,v200,fine,Ventosa_JR\WObj:=WO_MesaGiratoria_1;
    punto:=CrearRobtarget();
    MoveL Offs (punto,0,0,15),v200,fine,Ventosa_JR\WObj:=WO_MesaGiratoria_1;
    MoveL Offs (punto,0,0,0),v50,fine,Ventosa_JR\WObj:=WO_MesaGiratoria_1;
    Ventosa_ON;
    MoveL INICIO,v200,fine,Ventosa_JR\WObj:=WO_MesaGiratoria_1;
    MoveL Offs (P_R,0,0,15),v200,fine,Ventosa_JR\WObj:=WO_MesaGiratoria_2;
    MoveL Offs (P_R,0,0,0),v50,fine,Ventosa_JR\WObj:=WO_MesaGiratoria_2;

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Ventosa_OFF;
MoveL Offs (P_R,0,0,15),v200,fine,Ventosa_JR\WObj:=WO_MesaGiratoria_2;
MoveL INICIO,v200,fine,Ventosa_JR\WObj:=WO_MesaGiratoria_1;

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ENDPROC

LOCAL PROC CogerTriangulo()

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VAR robtarget punto;

MoveL INICIO,v200,fine,Ventosa_JR\WObj:=WO_MesaGiratoria_1;
punto:=CrearRobtarget();
MoveL Offs (punto,0,0,15),v200,fine,Ventosa_JR\WObj:=WO_MesaGiratoria_1;
MoveL Offs (punto,0,0,0),v50,fine,Ventosa_JR\WObj:=WO_MesaGiratoria_1;
Ventosa_ON;
MoveL INICIO,v200,fine,Ventosa_JR\WObj:=WO_MesaGiratoria_1;
MoveL Offs (P_T,0,0,15),v200,fine,Ventosa_JR\WObj:=WO_MesaGiratoria_2;
MoveL Offs (P_T,0,0,0),v50,fine,Ventosa_JR\WObj:=WO_MesaGiratoria_2;
Ventosa_OFF;
MoveL Offs (P_T,0,0,15),v200,fine,Ventosa_JR\WObj:=WO_MesaGiratoria_2;
MoveL INICIO,v200,fine,Ventosa_JR\WObj:=WO_MesaGiratoria_1;

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ENDPROC

LOCAL PROC CogerPentagono()

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VAR robtarget punto;

MoveL INICIO,v200,fine,Ventosa_JR\WObj:=WO_MesaGiratoria_1;
punto:=CrearRobtarget();
MoveL Offs (punto,0,0,15),v200,fine,Ventosa_JR\WObj:=WO_MesaGiratoria_1;
MoveL Offs (punto,0,0,0),v50,fine,Ventosa_JR\WObj:=WO_MesaGiratoria_1;
Ventosa_ON;
MoveL INICIO,v200,fine,Ventosa_JR\WObj:=WO_MesaGiratoria_1;
MoveL Offs (P_P,0,0,15),v200,fine,Ventosa_JR\WObj:=WO_MesaGiratoria_2;
MoveL Offs (P_P,0,0,0),v50,fine,Ventosa_JR\WObj:=WO_MesaGiratoria_2;
Ventosa_OFF;
MoveL Offs (P_P,0,0,15),v200,fine,Ventosa_JR\WObj:=WO_MesaGiratoria_2;
MoveL INICIO,v200,fine,Ventosa_JR\WObj:=WO_MesaGiratoria_1;

```

ENDPROC

LOCAL FUNC robtarget CrearRobtarget()

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VAR robtarget ROBT;

ROBT:=[[0,0,260],[Q_1,Q_2,Q_3,Q_4],[0,0,0,0],[9E+09,9E+09,9E+09,9E+09,9E+09,9E+09]];

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RETURN ROBT;
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ENDFUNC
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LOCAL PROC Ventosa_ON()
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SetDO do1,1;
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```
Reset do2;
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```
ENDPROC
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```
LOCAL PROC Ventosa_OFF()
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```
SetDO do2,1;
```

```
Reset do1;
```

```
ENDPROC
```

```
LOCAL TRAP Trap_di1
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Inicio_CogerPieza:= 1;
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ENDTRAP
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ENDMODULE
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