

'Zero the machine at machine 0,0  
'Insert Grounded Tool Holder in Tool Bay #1  
'Insert a 1/4" metal shaft into Tool Holder  
'Manually load the Tool Holder into the Tool Changer  
'Position the 1/4" shaft 1/4" above the center of the Tool Holder.  
'Hit Space Bar When Ready

&CLEARANCE=.65

PAUSE

MS,.500,.25

JS,2.0,1.0

ON INPUT(2,1)GOSUB SETZERO

MZ,-1

&TEMP=1

JZ,0.25

&TEMP=1

'TOOL HOLDER1

J2,&TH1X,&TH1Y-&CLEARANCE

JZ,-0.5

ON INPUT(2,1)GOSUB SETTH1P1

M2,&TH1X,&TH1Y

&TEMP=1

JZ,.25

&TEMP=1

J2,&TH1X,&TH1Y+&CLEARANCE

JZ,-0.5

ON INPUT(2,1)GOSUB SETTH1P2

M2,&TH1X,&TH1Y

&TEMP=1

JZ,.25

&TEMP=1

J2,&TH1X-&CLEARANCE,&TH1Y

JZ,-0.5

ON INPUT(2,1)GOSUB SETTH1P3

M2,&TH1X,&TH1Y

&TEMP=1

JZ,.25

&TEMP=1

J2,&TH1X+&CLEARANCE,&TH1Y

JZ,-0.5

ON INPUT(2,1)GOSUB SETTH1P4

M2,&TH1X,&TH1Y

&TEMP=1

JZ,.25

&TH1X=&XCENTERTH1

&TH1Y=&YCENTERTH1

&TH2X=&TH1X

&TH2Y=&TH1Y+2.75

&TH3X=&TH1X

&TH3Y=&TH1Y+5.5

&TH4X=&TH1X

&TH4Y=&TH1Y+8.25

&TH5X=&TH1X

```
&TH5Y=&TH1Y+11.00
&TH6X=&TH1X
&TH6Y=&TH1Y+13.75
```

```
&TH7X=&TH1X
&TH7Y=&TH1Y+16.5
&TH8X=&TH1X
&TH8Y=&TH1Y+19.25
```

```
'MOVE GROUND TO NEXT TOOL POSITION
PAUSE
```

```
'TOOL HOLDER2
JX,&TH2X
JY,&TH2Y-&CLEARANCE
JZ,-0.5
ON INPUT(2,1)GOSUB SETTH2P1
M2,&TH2X,&TH2Y
&TEMP=1
JZ,.25
&TEMP=1
J2,&TH2X,&TH2Y+&CLEARANCE
JZ,-0.5
ON INPUT(2,1)GOSUB SETTH2P2
M2,&TH2X,&TH2Y
&TEMP=1
JZ,.25
&TEMP=1
J2,&TH2X-&CLEARANCE,&TH2Y
JZ,-0.5
ON INPUT(2,1)GOSUB SETTH2P3
M2,&TH2X,&TH2Y
&TEMP=1
JZ,.25
&TEMP=1
J2,&TH2X+&CLEARANCE,&TH2Y
JZ,-0.5
ON INPUT(2,1)GOSUB SETTH2P4
M2,&TH2X,&TH2Y
&TEMP=1
JZ,.25
'MOVE GROUND TO NEXT TOOL POSITION
PAUSE
```

```
'TOOL HOLDER3
JX,&TH3X
JY,&TH3Y-&CLEARANCE
JZ,-0.5
ON INPUT(2,1)GOSUB SETTH3P1
M2,&TH3X,&TH3Y
&TEMP=1
JZ,.25
&TEMP=1
J2,&TH3X,&TH3Y+&CLEARANCE
JZ,-0.5
ON INPUT(2,1)GOSUB SETTH3P2
```

```
M2, &TH3X, &TH3Y
&TEMP=1
JZ, .25
&TEMP=1
J2, &TH3X-&CLEARANCE, &TH3Y
JZ, -0.5
ON INPUT(2,1)GOSUB SETTH3P3
M2, &TH3X, &TH3Y
&TEMP=1
JZ, .25
&TEMP=1
J2, &TH3X+&CLEARANCE, &TH3Y
JZ, -0.5
ON INPUT(2,1)GOSUB SETTH3P4
M2, &TH3X, &TH3Y
&TEMP=1
JZ, .25
'MOVE GROUND TO NEXT TOOL POSITION
PAUSE
```

```
'TOOL HOLDER4
JX, &TH4X
JY, &TH4Y-&CLEARANCE
JZ, -0.5
ON INPUT(2,1)GOSUB SETTH4P1
M2, &TH4X, &TH4Y
&TEMP=1
JZ, .25
&TEMP=1
J2, &TH4X, &TH4Y+&CLEARANCE
JZ, -0.5
ON INPUT(2,1)GOSUB SETTH4P2
M2, &TH4X, &TH4Y
&TEMP=1
```

```
JZ, .25
&TEMP=1
J2, &TH4X-&CLEARANCE, &TH4Y
JZ, -0.5
ON INPUT(2,1)GOSUB SETTH4P3
M2, &TH4X, &TH4Y
&TEMP=1
JZ, .25
&TEMP=1
J2, &TH4X+&CLEARANCE, &TH4Y
JZ, -0.5
ON INPUT(2,1)GOSUB SETTH4P4
M2, &TH4X, &TH4Y
&TEMP=1
JZ, .25
'MOVE GROUND TO NEXT TOOL POSITION
PAUSE
```

```
'TOOL HOLDER5
JX, &TH5X
```

```
JY, &TH5Y-&CLEARANCE
JZ, -0.5
ON INPUT(2,1)GOSUB SETTH5P1
M2, &TH5X, &TH5Y
&TEMP=1
JZ, .25
&TEMP=1
J2, &TH5X, &TH5Y+&CLEARANCE
JZ, -0.5
ON INPUT(2,1)GOSUB SETTH5P2
M2, &TH5X, &TH5Y
&TEMP=1
JZ, .25
&TEMP=1
J2, &TH5X-&CLEARANCE, &TH5Y
JZ, -0.5
ON INPUT(2,1)GOSUB SETTH5P3
M2, &TH5X, &TH5Y
&TEMP=1
JZ, .25
&TEMP=1
J2, &TH5X+&CLEARANCE, &TH5Y
JZ, -0.5
ON INPUT(2,1)GOSUB SETTH5P4
M2, &TH5X, &TH5Y
&TEMP=1
JZ, .25
'MOVE GROUND TO NEXT TOOL POSITION
PAUSE
```

```
'TOOL HOLDER6
JX, &TH6X
JY, &TH6Y-&CLEARANCE
JZ, -0.5
ON INPUT(2,1)GOSUB SETTH6P1
M2, &TH6X, &TH6Y
&TEMP=1
JZ, .25
&TEMP=1
J2, &TH6X, &TH6Y+&CLEARANCE
JZ, -0.5
ON INPUT(2,1)GOSUB SETTH6P2
M2, &TH6X, &TH6Y
&TEMP=1
JZ, .25
&TEMP=1
J2, &TH6X-&CLEARANCE, &TH6Y
JZ, -0.5
ON INPUT(2,1)GOSUB SETTH6P3
M2, &TH6X, &TH6Y
&TEMP=1
JZ, .25
&TEMP=1
J2, &TH6X+&CLEARANCE, &TH6Y
JZ, -0.5
ON INPUT(2,1)GOSUB SETTH6P4
```

```
M2,&TH6X,&TH6Y
&TEMP=1
JZ,.25
'MOVE GROUND TO NEXT TOOL POSITION
PAUSE
```

```
'TOOL HOLDER7
JX,&TH7X
JY,&TH7Y-&CLEARANCE
JZ,-0.5
ON INPUT(2,1)GOSUB SETTH7P1
M2,&TH7X,&TH7Y
&TEMP=1
JZ,.25
&TEMP=1
J2,&TH7X,&TH7Y+&CLEARANCE
JZ,-0.5
ON INPUT(2,1)GOSUB SETTH7P2
M2,&TH7X,&TH7Y
&TEMP=1
JZ,.25
&TEMP=1
J2,&TH7X-&CLEARANCE,&TH7Y
JZ,-0.5
ON INPUT(2,1)GOSUB SETTH7P3
M2,&TH7X,&TH7Y
&TEMP=1
JZ,.25
&TEMP=1
J2,&TH7X+&CLEARANCE,&TH7Y
JZ,-0.5
ON INPUT(2,1)GOSUB SETTH7P4
M2,&TH7X,&TH7Y
&TEMP=1
JZ,.25
'MOVE GROUND TO NEXT TOOL POSITION
PAUSE
```

```
'TOOL HOLDER8
JX,&TH8X
JY,&TH8Y-&CLEARANCE
JZ,-0.5
ON INPUT(2,1)GOSUB SETTH8P1
M2,&TH8X,&TH8Y
&TEMP=1
JZ,.25
&TEMP=1
J2,&TH8X,&TH8Y+&CLEARANCE
JZ,-0.5
ON INPUT(2,1)GOSUB SETTH8P2
M2,&TH8X,&TH8Y
&TEMP=1
JZ,.25
&TEMP=1
J2,&TH8X-&CLEARANCE,&TH8Y
```

```

JZ, -0.5
ON INPUT(2,1)GOSUB SETTH8P3
M2, &TH8X, &TH8Y
&TEMP=1
JZ, .25
&TEMP=1
J2, &TH8X+&CLEARANCE, &TH8Y
JZ, -0.5
ON INPUT(2,1)GOSUB SETTH8P4
M2, &TH8X, &TH8Y
&TEMP=1
JZ, .25

```

```

OPEN TLPOSTN.SBP FOR OUTPUT AS #1
WRITE #1; "&XCENTERTH1=";&XCENTERTH1
WRITE #1; "&YCENTERTH1=";&YCENTERTH1
WRITE #1; "&XCENTERTH2=";&XCENTERTH2
WRITE #1; "&YCENTERTH2=";&YCENTERTH2
WRITE #1; "&XCENTERTH3=";&XCENTERTH3
WRITE #1; "&YCENTERTH3=";&YCENTERTH3
WRITE #1; "&XCENTERTH4=";&XCENTERTH4
WRITE #1; "&YCENTERTH4=";&YCENTERTH4
WRITE #1; "&XCENTERTH5=";&XCENTERTH5
WRITE #1; "&YCENTERTH5=";&YCENTERTH5
WRITE #1; "&XCENTERTH6=";&XCENTERTH6
WRITE #1; "&YCENTERTH6=";&YCENTERTH6
WRITE #1; "&XCENTERTH7=";&XCENTERTH7
WRITE #1; "&YCENTERTH7=";&YCENTERTH7
WRITE #1; "&XCENTERTH8=";&XCENTERTH8
WRITE #1; "&YCENTERTH8=";&YCENTERTH8

```

```

END
'XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
SETZERO:
ON INPUT(2,1)
&TH1X=%(1)
&TH1Y=%(2)
&TEMP=1
VA,,,0
JZ, .25
RETURN
'XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

```

```

SETTH1P1:
ON INPUT(2,1)
&TH1P1Y=%(2)
&TEMP=1
JZ, 0.25
RETURN

```

```

SETTH1P2:
ON INPUT(2,1)
&TH1P2Y=%(2)
&TEMP=1
&YCENTERTH1=(&TH1P2Y+&TH1P1Y)/2
JZ, 0.25
RETURN

```

```
SETTH1P3:
ON INPUT(2,1)
&TH1P1X=%(1)
&TEMP=1
JZ,0.25
RETURN
```

```
SETTH1P4:
ON INPUT(2,1)
&TH1P2X=%(1)
&TEMP=1
&XCENTERTH1=(&TH1P2X+&TH1P1X)/2
JZ,0.25
RETURN
'XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX'
```

```
SETTH2P1:
ON INPUT(2,1)
&TH2P1Y=%(2)
&TEMP=1
JZ,0.25
RETURN
```

```
SETTH2P2:
ON INPUT(2,1)
&TH2P2Y=%(2)

&TEMP=1
&YCENTERTH2=(&TH2P2Y+&TH2P1Y)/2
JZ,0.25
RETURN
```

```
SETTH2P3:
ON INPUT(2,1)
&TH2P1X=%(1)
&TEMP=1
JZ,0.25
RETURN
```

```
SETTH2P4:
ON INPUT(2,1)
&TH2P2X=%(1)
&TEMP=1
&XCENTERTH2=(&TH2P2X+&TH2P1X)/2
JZ,0.25
RETURN
'XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX'
```

```
SETTH3P1:
ON INPUT(2,1)
&TH3P1Y=%(2)
&TEMP=1
JZ,0.25
RETURN
```

```
SETTH3P2:
```

```
ON INPUT(2,1)
&TH3P2Y=%(2)
&TEMP=1
&YCENTERTH3=(&TH3P2Y+&TH3P1Y)/2
JZ,0.25
RETURN
```

```
SETTH3P3:
ON INPUT(2,1)
&TH3P1X=%(1)
&TEMP=1
JZ,0.25
RETURN
```

```
SETTH3P4:
ON INPUT(2,1)
&TH3P2X=%(1)
&TEMP=1
&XCENTERTH3=(&TH3P2X+&TH3P1X)/2
JZ,0.25
RETURN
'XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX'
```

```
SETTH4P1:
ON INPUT(2,1)
&TH4P1Y=%(2)
&TEMP=1
JZ,0.25
RETURN
```

```
SETTH4P2:
ON INPUT(2,1)
&TH4P2Y=%(2)
&TEMP=1
&YCENTERTH4=(&TH4P2Y+&TH4P1Y)/2
JZ,0.25
RETURN
```

```
SETTH4P3:
ON INPUT(2,1)
&TH4P1X=%(1)
&TEMP=1
JZ,0.25
RETURN
```

```
SETTH4P4:
ON INPUT(2,1)
&TH4P2X=%(1)
&TEMP=1
&XCENTERTH4=(&TH4P2X+&TH4P1X)/2
JZ,0.25
RETURN
'XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX'
```

```
SETTH5P1:
ON INPUT(2,1)
&TH5P1Y=%(2)
```



```
&TEMP=1
JZ,0.25
RETURN
```

```
SETTH5P2:
ON INPUT(2,1)
&TH5P2Y=%(2)
&TEMP=1
&YCENTERTH5=(&TH5P2Y+&TH5P1Y)/2
JZ,0.25
RETURN
```

```
SETTH5P3:
ON INPUT(2,1)
&TH5P1X=%(1)
&TEMP=1
JZ,0.25
RETURN
```

```
SETTH5P4:
ON INPUT(2,1)
&TH5P2X=%(1)
&TEMP=1
&XCENTERTH5=(&TH5P2X+&TH5P1X)/2
JZ,0.25
RETURN
'XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

```
SETTH6P1:
ON INPUT(2,1)
&TH6P1Y=%(2)
&TEMP=1
JZ,0.25
RETURN
```

```
SETTH6P2:
ON INPUT(2,1)
&TH6P2Y=%(2)
&TEMP=1
&YCENTERTH6=(&TH6P2Y+&TH6P1Y)/2
JZ,0.25
RETURN
```

```
SETTH6P3:
ON INPUT(2,1)
&TH6P1X=%(1)
&TEMP=1
JZ,0.25
RETURN
```

```
SETTH6P4:
ON INPUT(2,1)
&TH6P2X=%(1)
&TEMP=1
&XCENTERTH6=(&TH6P2X+&TH6P1X)/2
JZ,0.25
RETURN
```



```
&TH8P2X=%(1)
&TEMP=1
&XCENTERTH8=(&TH8P2X+&TH8P1X)/2
JZ,0.25
RETURN
'XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX'
```