```
1    'VARIABLES FOR AUTOTOOL CHANGER WITH FIXED TOOL PALLET
2
3    FP,C:\MRTPROG\OFFSETT1.SBP
4    FP,C:\MRTPROG\OFFSETT2.SBP
5    FP,C:\MRTPROG\OFFSETT3.SBP
6    FP,C:\MRTPROG\OFFSETT4.SBP
7    FP,C:\MRTPROG\OFFSETT5.SBP
8    FP,C:\MRTPROG\OFFSETT6.SBP
9    FP,C:\MRTPROG\OFFSETT7.SBP
10   FP,C:\MRTPROG\OFFSETT8.SBP
11
12   &DELTAZEROPLATES=3.316
13        'This is the difference in the distance between the
14         'zero plate on the table
15        'top surface and the zero plate on the Fixed Tool Pallet.
16         'Used in the SETUP.SBP routine to determine how far to
17         'lift the Z axis.
18
19   &ZEROPLATETHICK=0.063
20
21        'Copy and paste the contents of the TLPOSTN.SBP file here
22         'and replace the values below
23
24   &XCENTERTH1=-.2485
25   &YCENTERTH1=9.056
26   &XCENTERTH2=-.281
27   &YCENTERTH2=11.8215
28   &XCENTERTH3=-.2465
29   &YCENTERTH3=14.639
30   &XCENTERTH4=-.254
31   &YCENTERTH4=17.371
32   &XCENTERTH5=-.255
33   &YCENTERTH5=20.1035
34   &XCENTERTH6=-.2935
35   &YCENTERTH6=22.8465
36   &XCENTERTH7=-.334
37   &YCENTERTH7=25.6225
38   &XCENTERTH8=-.3445
39   &YCENTERTH8=28.3855
40
41   &XZEROLOCATION=-2.001
42       'X location of the zero plate on the Tool  Pallet
43
44   &YZEROLOCATION=6.600
45       'Y location of the zero plate on the Tool Pallet
46
47   &PLATFORMHEIGHT=&ZEROPLATE+.712-&ZEROPLATETHICK
48        '&ZEROPLATE obtained from SETUP.SBP
49        'This is the top of the platform with no Tool Holder in
50         'the chuck.
51
52   &DWELLSTART=1
53   &DWELLPUTOOL=1
54
55        'Dwell times - the 1st variable, &DWELLSTART, determines
56         'how long the dwell is before the router is turned on
57         'and the tool starts cutting.
```

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58        '&PUTOOL determines how long the tool dwells at the
59           'prestage area before moving to replace a tool.
60           'This dwell MUST be long enough to allow the
61           'router to stop spinning before putting the tool back
62           'into the bay.
63
64     &XADD=0.015
65         'Additional movement in -X direction when replacing tools
66            'to make sure tool is seated
67     &ZADD=0.120
68         'Additional movement in +Z direction after tool has been
69            'grabbed, used below.
70     &PUTOOLHEIGHT=&PLATFORMHEIGHT -.100
71     &GETOOLHEIGHT=&PLATFORMHEIGHT +0.045
72     &ABOVEHEIGHT=&PLATFORMHEIGHT+ 1.250
73
74        'The x,y positions of the Tool Holders with respect
75           'to machine 0,0:
76     &TOOL1X=&XCENTERTH1-&XOFFSET
77     &TOOL1Y=&YCENTERTH1-&YOFFSET
78     &TOOL2X=&XCENTERTH2-&XOFFSET
79     &TOOL2Y=&YCENTERTH2-&YOFFSET
80     &TOOL3X=&XCENTERTH3-&XOFFSET
81     &TOOL3Y=&YCENTERTH3-&YOFFSET
82     &TOOL4X=&XCENTERTH4-&XOFFSET
83     &TOOL4Y=&YCENTERTH4-&YOFFSET
84     &TOOL5X=&XCENTERTH5-&XOFFSET
85     &TOOL5Y=&YCENTERTH5-&YOFFSET
86     &TOOL6X=&XCENTERTH6-&XOFFSET
87     &TOOL6Y=&YCENTERTH6-&YOFFSET
88     &TOOL7X=&XCENTERTH7-&XOFFSET
89     &TOOL7Y=&YCENTERTH7-&YOFFSET
90     &TOOL8X=&XCENTERTH8-&XOFFSET
91     &TOOL8Y=&YCENTERTH8-&YOFFSET
92
93        'Location to where Router moves both before and after
94           'Tool Holder pickup and release is the PRESTAGE
95           'variable.
96
97     &PRESTAGEX=&TOOL1X+3
98     &PRESTAGE1Y=&TOOL1Y
99     &PRESTAGE2Y=&TOOL2Y
100    &PRESTAGE3Y=&TOOL3Y
101    &PRESTAGE4Y=&TOOL4Y
102    &PRESTAGE5Y=&TOOL5Y
103    &PRESTAGE6Y=&TOOL6Y
104    &PRESTAGE7Y=&TOOL7Y
105    &PRESTAGE8Y=&TOOL8Y
```