ANILAM

6000 CNC CONTROL
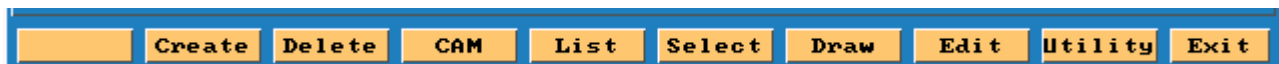## Simple Program

CREATING A PROGRAM

From Manual page press   **F2**   **PROGRAM**

The softkeys will changed as shown below.

	Create	Delete	CAM	List	Select	Draw	Edit	Utility	Exit

Press   **F2**   **CREATE**

Type the program name (Maximum 8 letters/numbers).

Press Enter put into program directory

1.

```
LAWRENCE.G      NICE2.G         SHUTTLE.G       TNC.G
LETR230.G       07_SAMPL.G      SLOTMAC.G       WINDOW-M.G
LETRCAL1.G      PAGODA2.G       SNOWMAN.1       WOMAN.G
LETSAMBL.G      PHIL.G          SNOWMAN.CAM     WY.G
LTRS230.G       POCK.G          SNOWMAN.G
MAINTEST.G      POCK.M          SNOWMAN.GEO
MATT1008.G      POCKETS.G       SNOWMAN.T1
MER-FIN.G       POCKETS.M       SNOWMAN.T2
MER-ROU.G       POCKETS1.G      SPIRAL.G
MERC-ARC.G      POCKETS1.M      SPIRAL.S
MERC-LIN.G      PROGRAM.G       STOCKVAR.G
MERC-LIN.M      REPEAT.M        T.G
MERC1.G         RICH.G          T.NC
MERC2.G         RON.G           TAPE.G
MERC3.EXE       ROUGH.G         TAPE.S
MERC3.G         ROUGH1.G        TAPE3200.G
MILL.G          ROUGH22.G       TAPE3200.M
MILL.M          SAM.G           TAPE3200.NCC
MILL1.G         SAM1.G          TAPPING.G
MODERN.G        SAM2.G          TC.G
MONARCH.G       SCHWADA1.G      TEST.G
NATHAN.G        SCHWEDA.G       TEST2.G
NATHAN.M        SCHWEDA4.G      THREAD.G
NICE.G          SHOW98HA.G      TIM.G

C:\USER                         SELECTED PROGRAM:

   | Create | Delete | CAM | List | Select | Draw | Edit | Utility | Exit
```
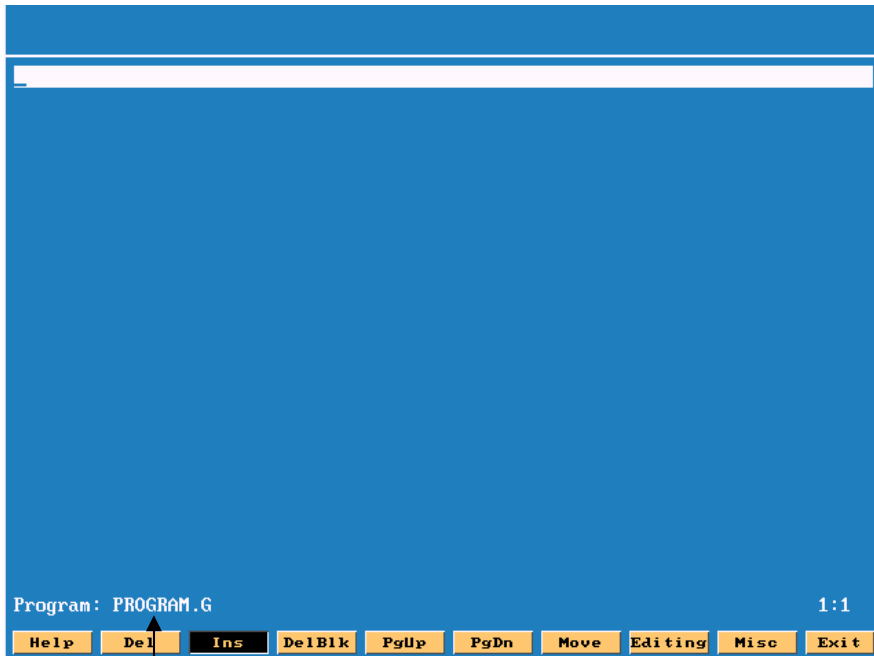
High light will be on program just created.

Press **F8**   **EDIT**

This is how screen will appear when entering **EDIT**


```
Program: PROGRAM.G                                    1:1
 Help    Del    Ins    DelBlk   PgUp    PgDn    Move   Editing   Misc   Exit
```

Program name


```
 Help      Del      Ins     DelBlk    PgUp     PgDn     Move   Editing   Misc    Exit
```

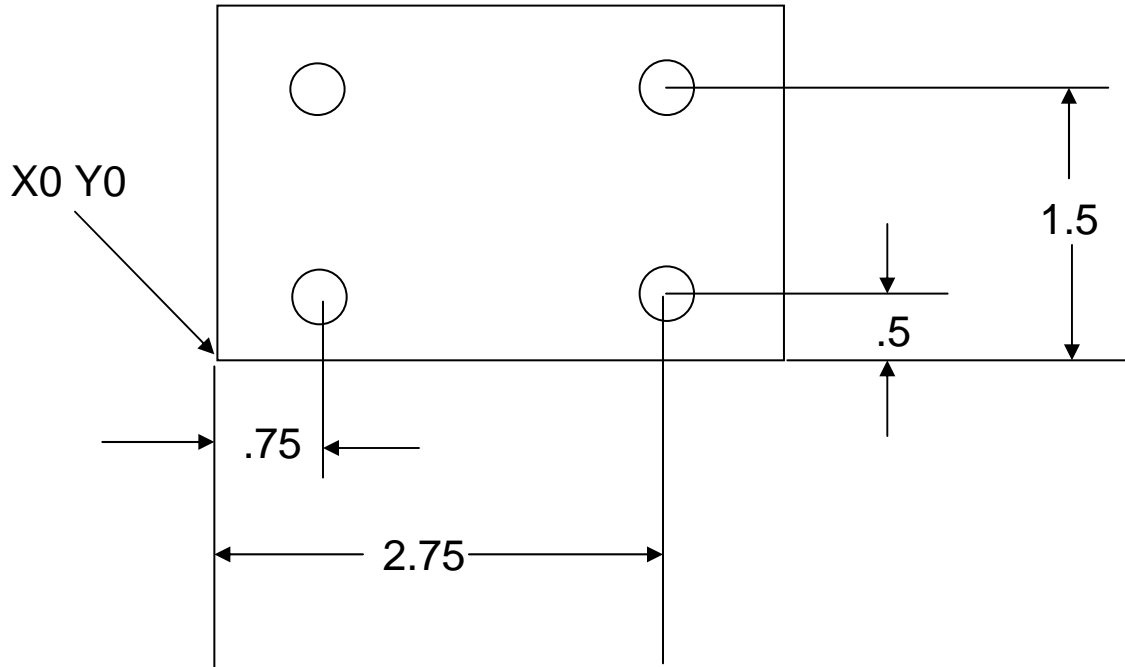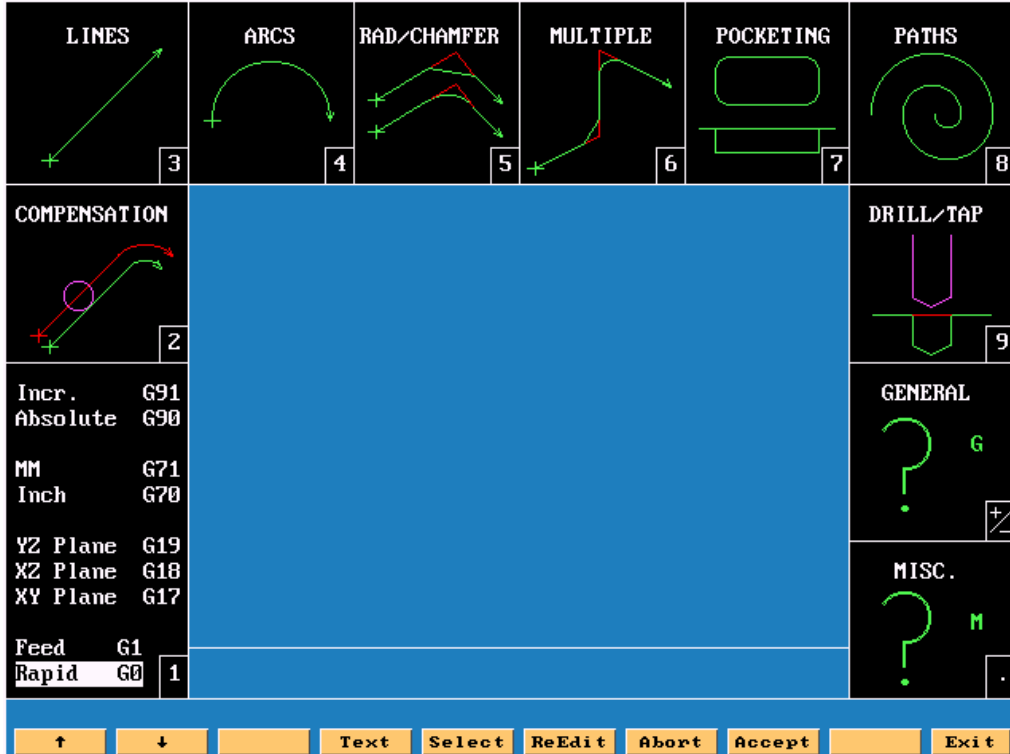**Note:**Insert is turn ON ,if not will not go past bottom of page.

Note: Softkeys have change .

This part needs to have 4 hole drilled .25 dia and .5 deep

Press **F1** **HELP**

High light will be on **G0** press enter

Move high light **G17 , G70** and **G90** press enter on each of these.

Press **M5** press

Press **F10** **Exit** it will go into program as shown below.

G00 G17 G70 G90 M5

Top line of program.

```
G00 G17 G70 G90 M5      *RAPID,XY PLANE,INCH,ABSOLUTE,POSITION,SPINDLE OFF

G00 G17 G70 G90 M5      *RAPID,XY PLANE,INCH,ABSOLUTE,POSITION,SPINDLE OFF
T1 M6                   *LOAD TOOL,M6 ONLY REQUIRED IF TOOL CHANGER INSTALLED
S2000 M3                *SET SPINDLE SPEEDAND TURN ON SPINDLE
_
```

Program: PROGRAM.G (edited)   4:1

| Help | Del | Ins | DelBlk | PgUp | PgDn | Move | Editing | Misc | Exit |

Program has been edited

Cursor position line and column

Lines 2 and 3 are typed in manually.
The * allows commence into program control will read
ignore after it.

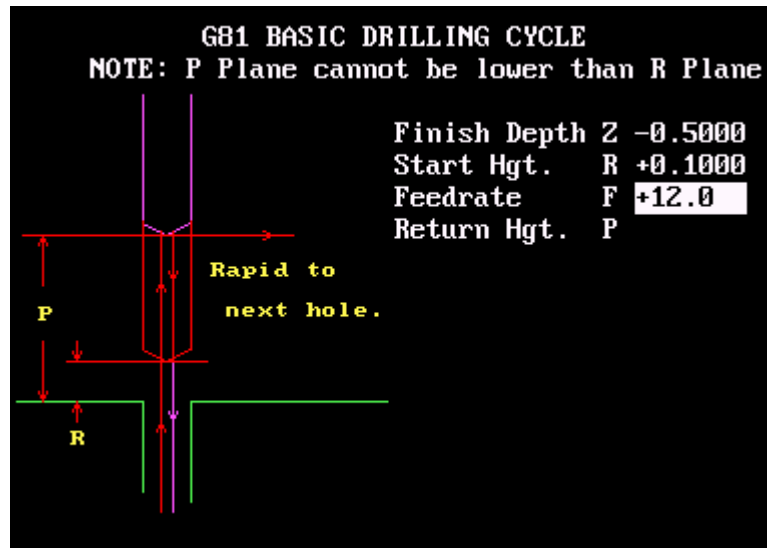Press **F1** **HELP** press #9 for **DRILL** press

Screen will appear as shown below.

Press #2 for basic drilling, press enter.

```
                G81 BASIC DRILLING CYCLE
       NOTE: P Plane cannot be lower than R Plane.

                          Finish Depth Z -0.5000
                          Start Hgt.   R +0.1000
                          Feedrate     F +12.0
                          Return Hgt.  P

            Rapid to
            next hole.
```

Enter values <u>Finish Depth</u> -.5 press down arrow, enter <u>Start Hgt</u> .1 down arrow and <u>Feedrate</u> 12

Press **F10** **Exit** exits help menu and enters line into program.

```
G00 G17 G70 G90 M5      *RAPID,XY PLANE,INCH,ABSOLUTE,POSITION,SPINDLE OFF

G00 G17 G70 G90 M5      *RAPID,XY PLANE,INCH,ABSOLUTE,POSITION,SPINDLE OFF
T1 M6                   *LOAD TOOL,M6 ONLY REQUIRED IF TOOL CHANGER INSTALLED
S2000 M3                *SET SPINDLE SPEEDAND TURN ON SPINDLE
G81 Z-0.5000 R0.1000 F12.0 *BASIC DRILLING CYCLE
```

The next enter hole positions.

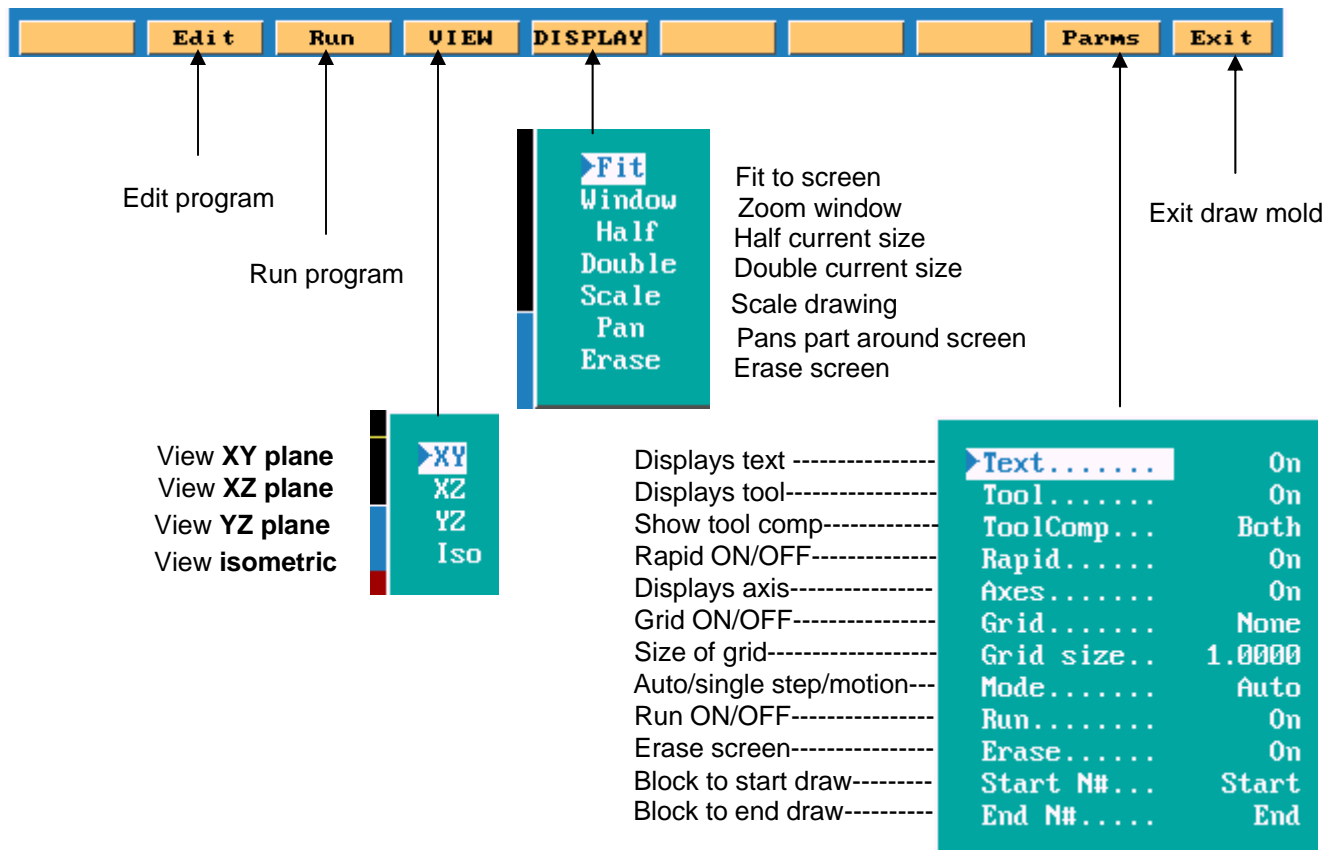Type **G0 X.75 Y.5** ➡ **X2.75** ➡ **Y1.5** ➡ **X.75** ➡

Type **G80** ➡

Cancel drill, this must always in program after last hole.

```
G00 G17 G70 G90 M5        *RAPID,XY PLANE,INCH,ABSOLUTE,POSITION,SPINDLE OFF

G00 G17 G70 G90 M5        *RAPID,XY PLANE,INCH,ABSOLUTE,POSITION,SPINDLE OFF
T1 M6                     *LOAD TOOL,M6 ONLY REQUIRED IF TOOL CHANGER INSTALLED
S2000 M3                  *SET SPINDLE SPEEDAND TURN ON SPINDLE
G81 Z-0.5000 R0.1000 F12.0
X.75 Y.5                  *FIRST HOLE LOCATION
X2.5                      *NEXT LOCATION
Y2                        *NEXT LOCATION
X.75                      *NEXT LOCATION
G80                       *CANCEL DRILL
Z5                        *RAISE Z AXIS TO ACLEARANCE POSITION
X-2 Y4                    *MOVE X AND Y TO ALLOW ACCESS TO PART
M2                        *END OF PROGRAM_
```

Type in last three lines.

Press **F10** [Exit]   press **F7** [Draw]

Soft key will change as shown below.

| | Edit | Run | VIEW | DISPLAY | | | | Parms | Exit |

Edit program

Run program

Fit — Fit to screen
Window — Zoom window
Half — Half current size
Double — Double current size
Scale — Scale drawing
Pan — Pans part around screen
Erase — Erase screen

Exit draw mold

View **XY plane**
View **XZ plane**
View **YZ plane**
View **isometric**

XY
XZ
YZ
Iso

Displays text ----------------	▶Text....... On
Displays tool-----------------	Tool....... On
Show tool comp-------------	ToolComp... Both
Rapid ON/OFF--------------	Rapid...... On
Displays axis----------------	Axes....... On
Grid ON/OFF----------------	Grid....... None
Size of grid------------------	Grid size.. 1.0000
Auto/single step/motion---	Mode....... Auto
Run ON/OFF----------------	Run........ On
Erase screen----------------	Erase...... On
Block to start draw---------	Start N#... Start
Block to end draw---------	End N#..... End

Press **F5** DISPLAY cursor will be on **FIT** press enter

This will fits drawing to screen.

```
Blk: 12
X    -2.0000
Y     4.0000
Z     5.0000
F: 200.0
T:    1
D:    0.2900
L: -10.0000
Loop:      0
Rapid
Abs    Inch
Off    XY



View: XY
Comp: Both
Mode: Auto

Start Thru
End
PROGRAM.G
X-2 Y4        *MOVE X AND Y TO ALLOW ACCESS TO PART
M2            *END OF PROGRAM
Program ended normally.
Program has no comp.

      Edit    Run    VIEW  DISPLAY              Parms  Exit
```
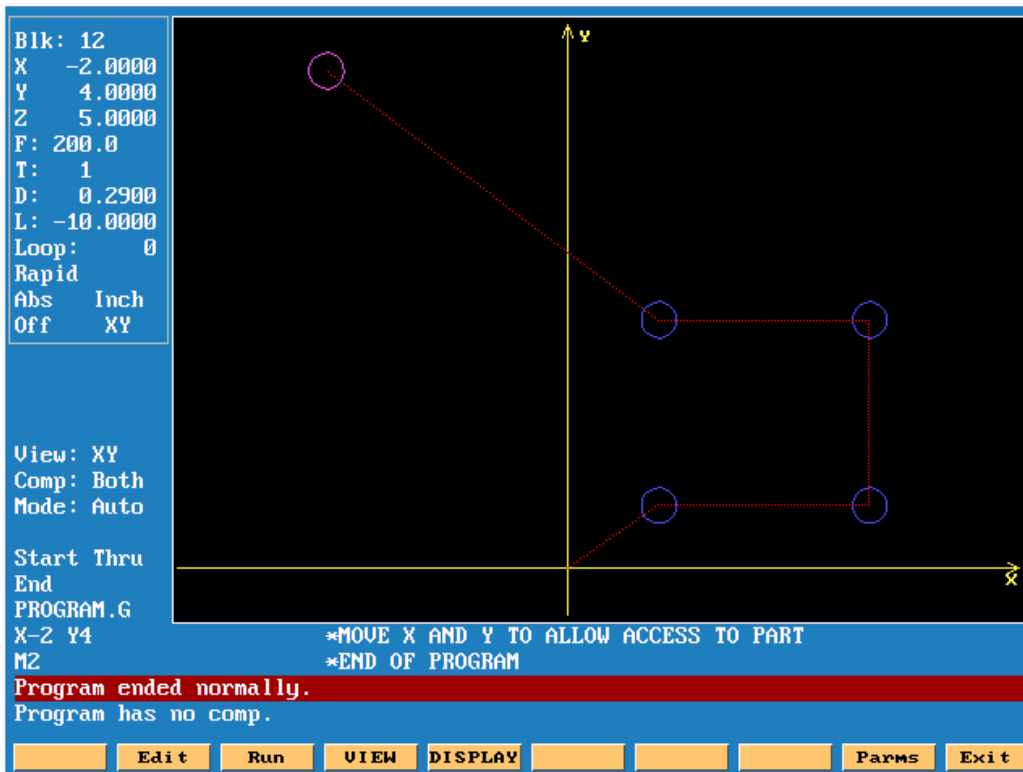
Red lines are **RAPID** moves , blue circle are the holes and purple circle is the tool.

Press **F10** Exit this brings control back to program page

Press **F6** Select to select program ,check that high light is on correct program.

Press **F10** Exit go to **Manual**

10.

SETTING PART ZERO.

If using an edge finder , touch edge of part using jog keys.

Go to tool page press **F9** **Tool** press **F1** **OFFSETS**

```
                        G53 Offset                         AT

            X           Y           Z           U           W
     1.▶ -10.0000   -10.0000     0.0000      0.0000      0.0000
     2.  -20.0000   -10.0000     0.0000      0.0000      0.0000
     3.    0.0000     0.0000     0.0000      0.0000      0.0000
     4.    0.0000     0.0000     0.0000      0.0000      0.0000
     5.    0.0000     0.0000     0.0000      0.0000      0.0000
     6.    0.0000     0.0000     0.0000      0.0000      0.0000
     7.    0.0000     0.0000     0.0000      0.0000      0.0000
     8.    0.0000     0.0000     0.0000      0.0000      0.0000
     9.    0.0000     0.0000     0.0000      0.0000      0.0000
    10.    0.0000     0.0000     0.0000      0.0000      0.0000
    11.    0.0000     0.0000     0.0000      0.0000      0.0000
    12.    0.0000     0.0000     0.0000      0.0000      0.0000
    13.    0.0000     0.0000     0.0000      0.0000      0.0000    AT

     CalibX  CalibY  CalibZ  CalibU  CalibW  Exit
```

Cursor to required **OFFSET** using arrow up and down keys.
Move X axis until part is located with edge finder.

Press **F4** **CalibX** is will enter value into table.

Because the edge find is .2 dia the position will be incorrect , press
the letter **A** key ,a box as shown below will appear.
Type in **X.1** this will adjust offset to correct position press **ENTER**.

```
▶Enter axis and adjustment value:     X.1_
```

Repeat for **Y** axis

All offset are taken from machine Home position.

SETTING TOOL LENGTH OFFSETS

Put tool in spindle , bring tool tool down to top of part.

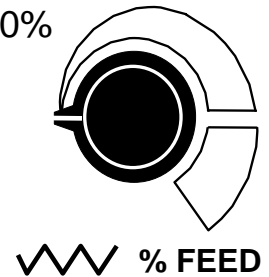Press **F9** | Tool | high light correct tool number in tool page

press **F8** | CalibZ |

If there are more move Z axis up change to next tool
and calibrate it as before,tool #0 must always be active
when setting offsets.

Press **F10** | Exit | when all tools are calibrated.

RUNNING PART.

Press **F6** | Auto | turn down feedrate override knob to 10%

% FEED

Press

If machine has a tool changer ,it will put tool #1in spindle if
not already there.
If no tool changer install it will stop and allow you to change
tool if necessary .

When program complete **Z** axis will go up to 5" above part.