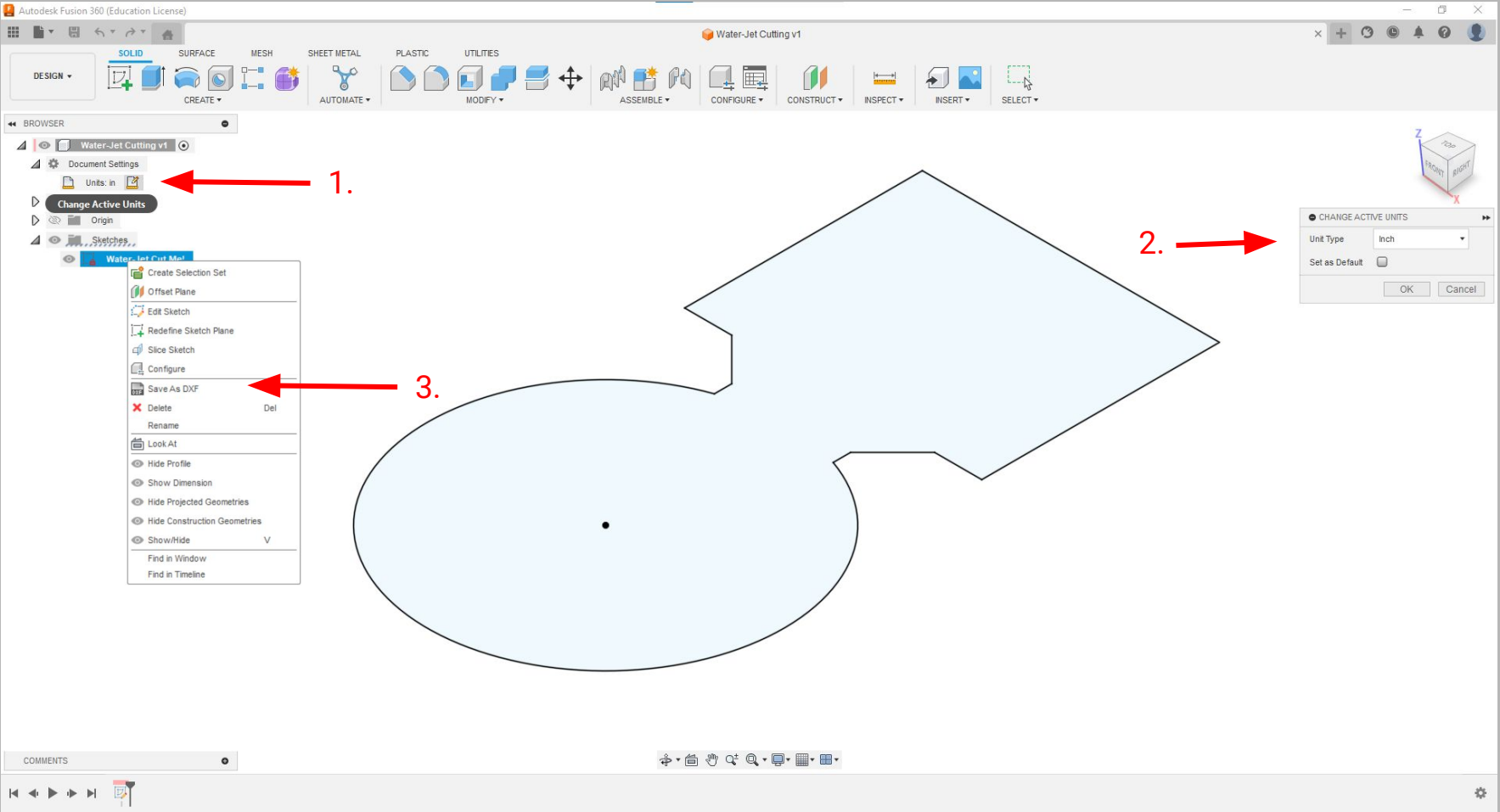


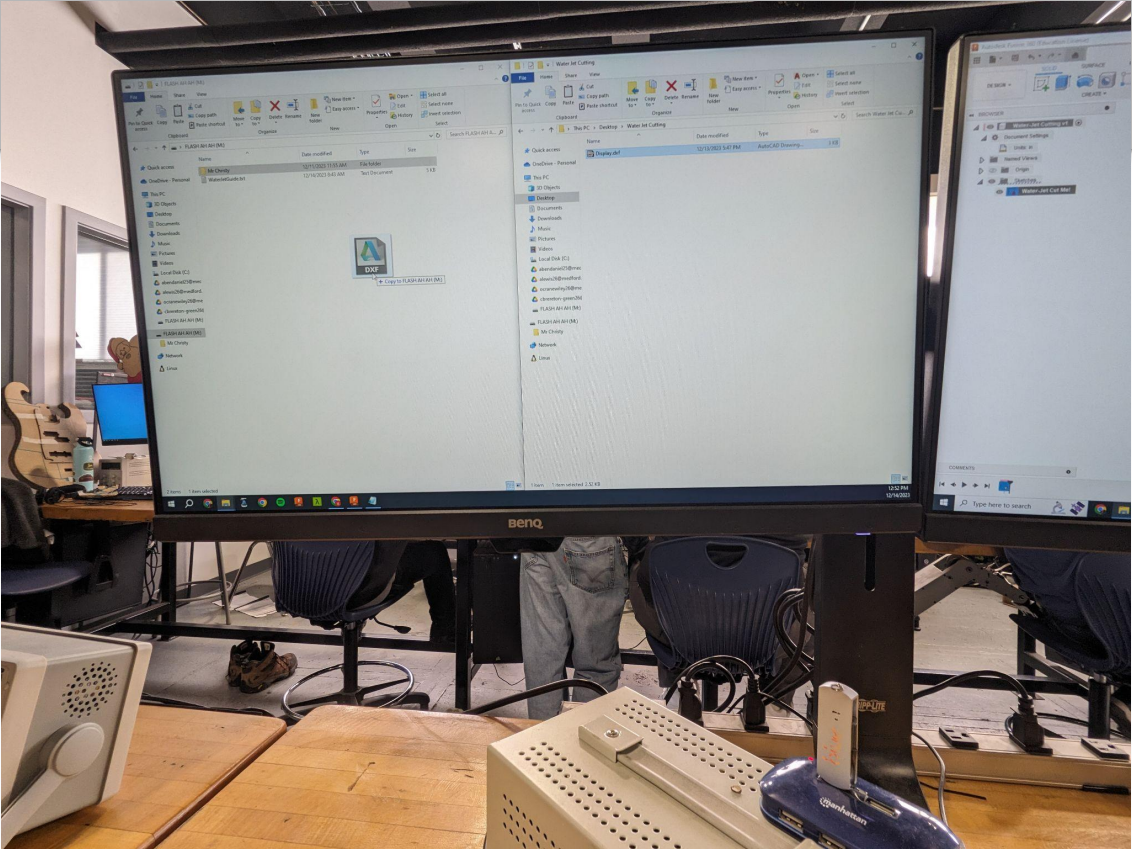
# OMAX 2626 JET MACHINING CENTER Guide



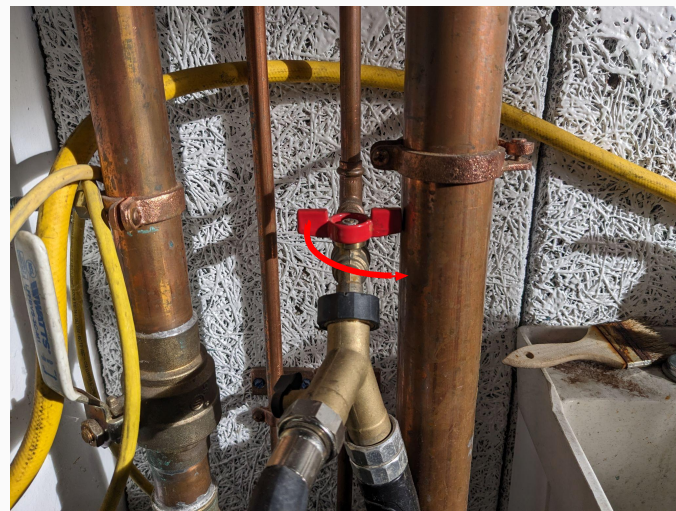
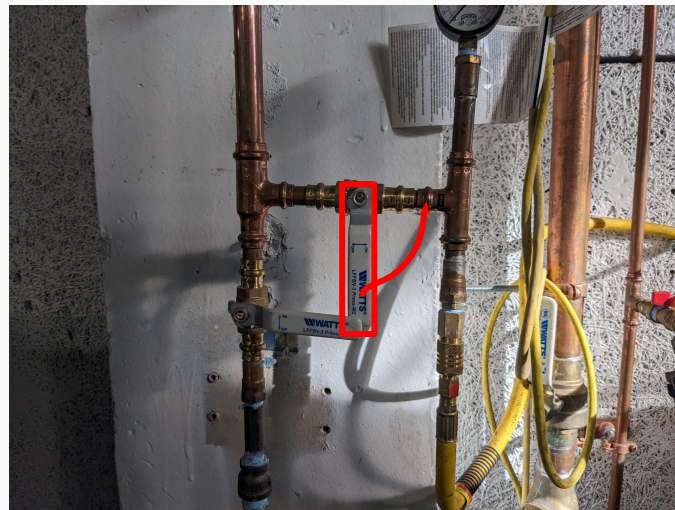
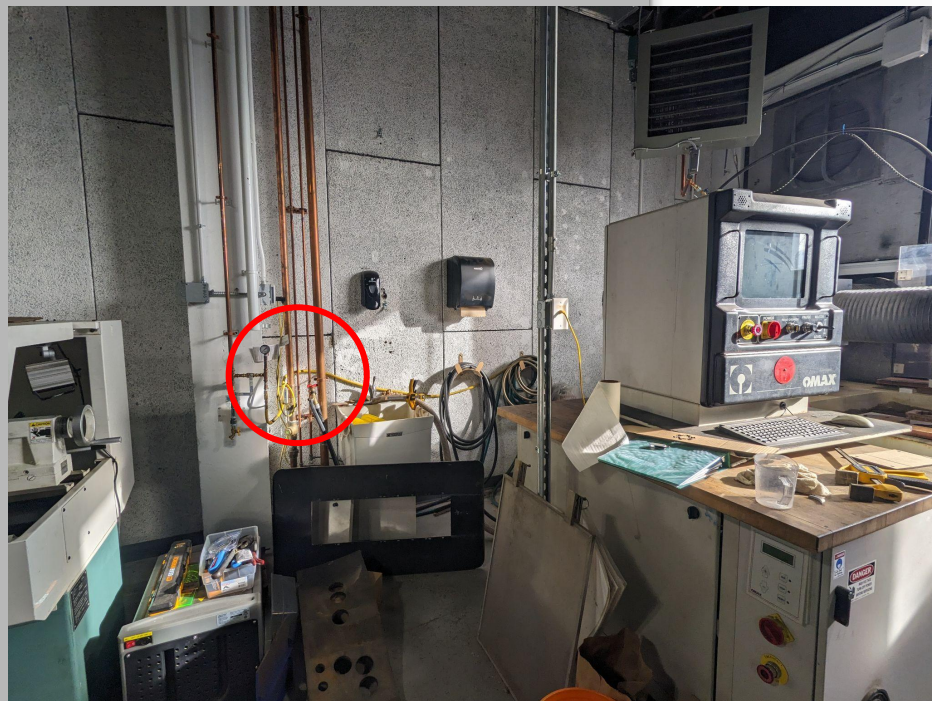
# Export your geometry from Fusion 360 in inches OR millimeters format



# Load your file onto a USB Drive



Turn on the air  
and water





Turn on power

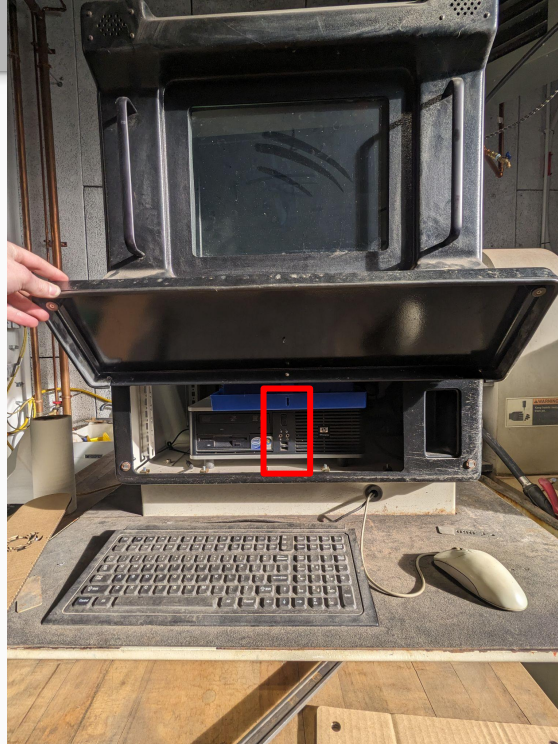


# Rotate both power switches





1. Remove all USB drives from the computer
2. Press the power switch on the computer

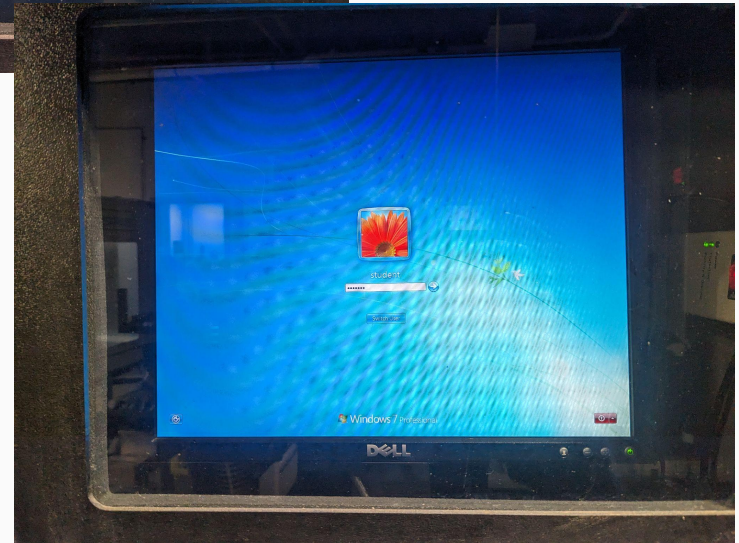
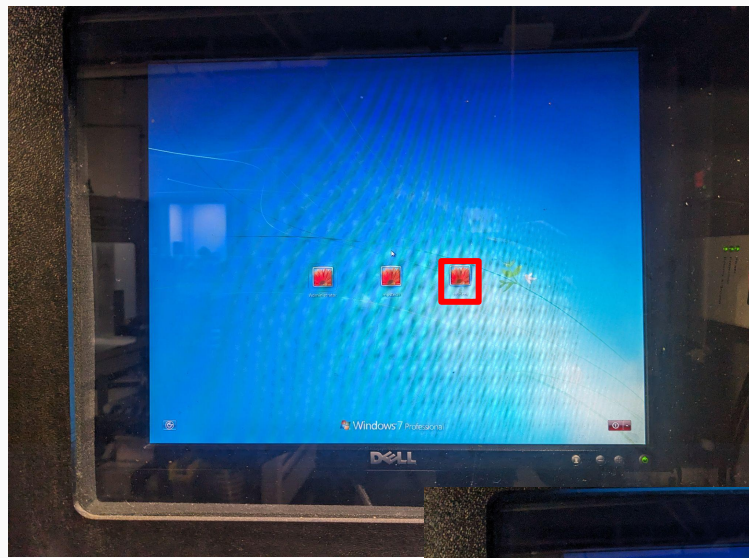


# Sign into Windows

User: Student

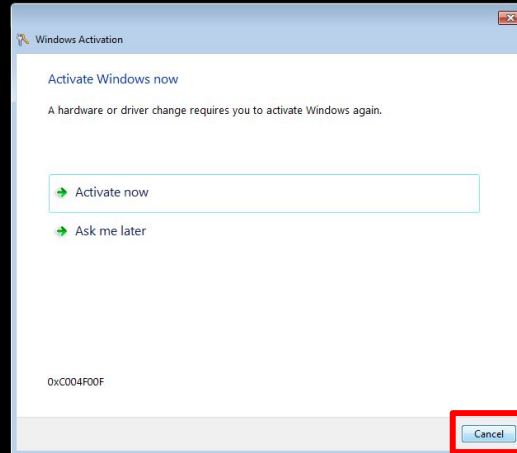
Password: student

ALL LOWERCASE \\  
CHECK CAPS LOCK

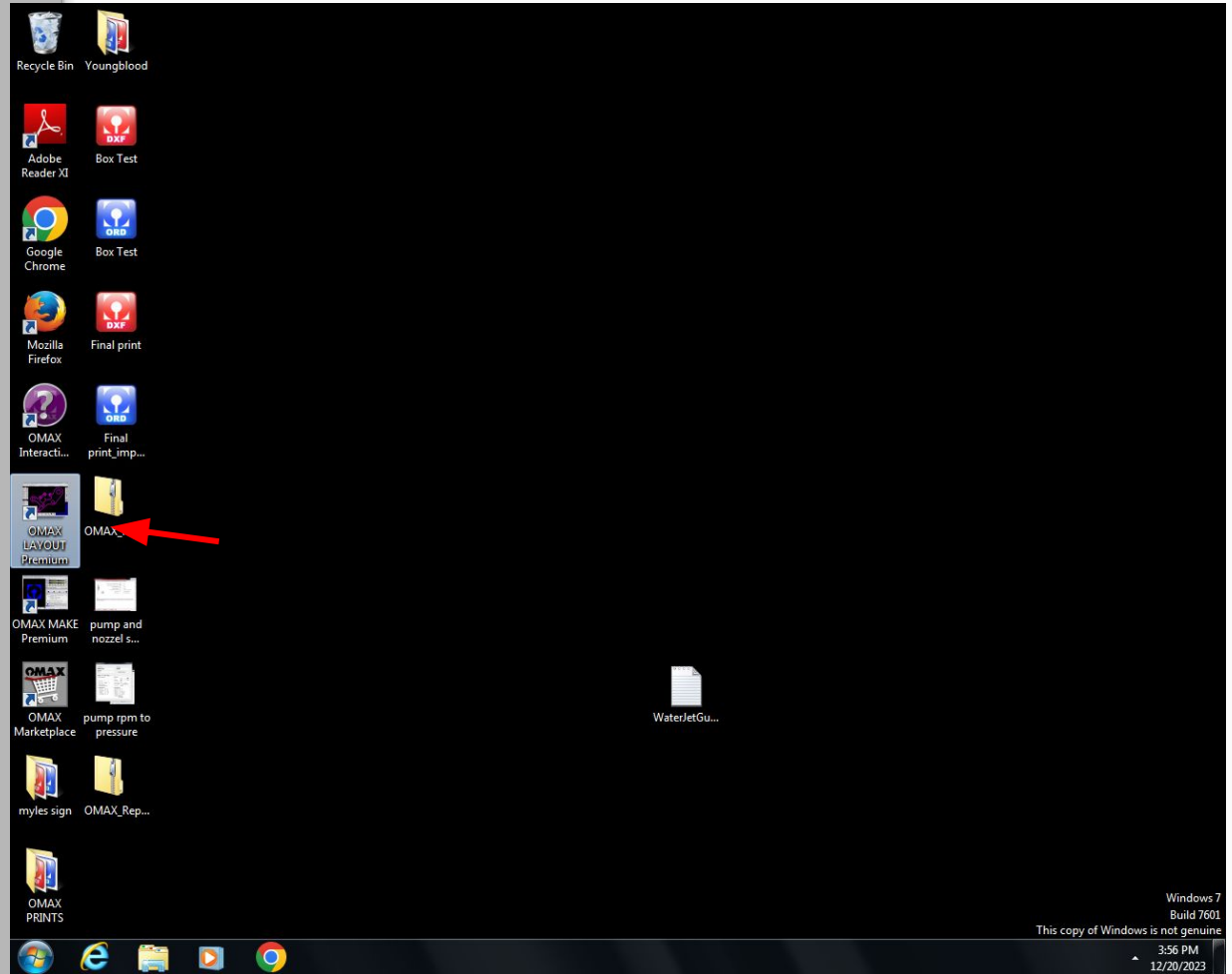




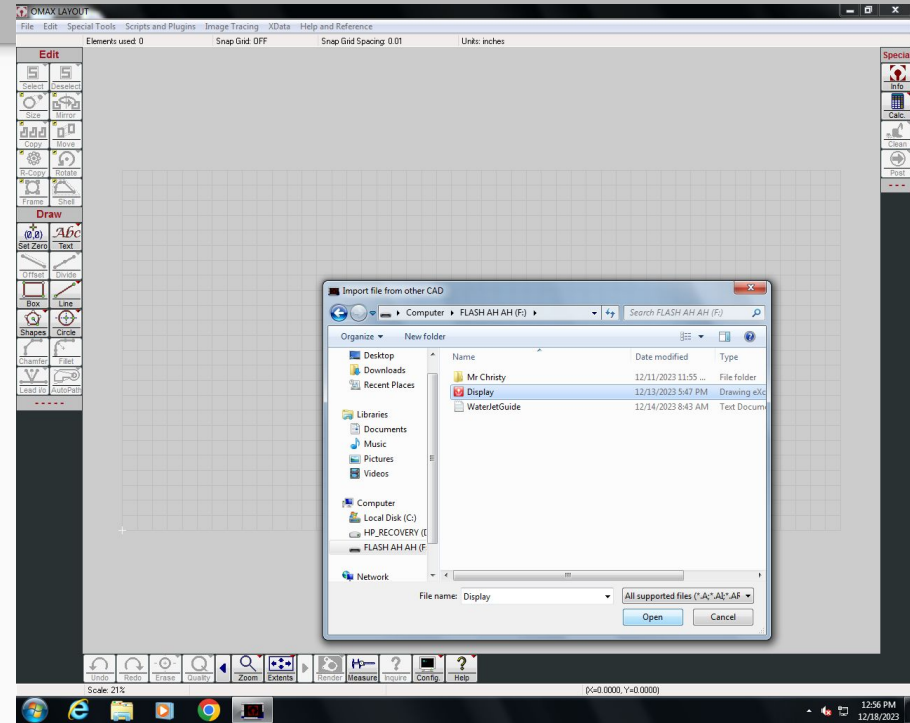
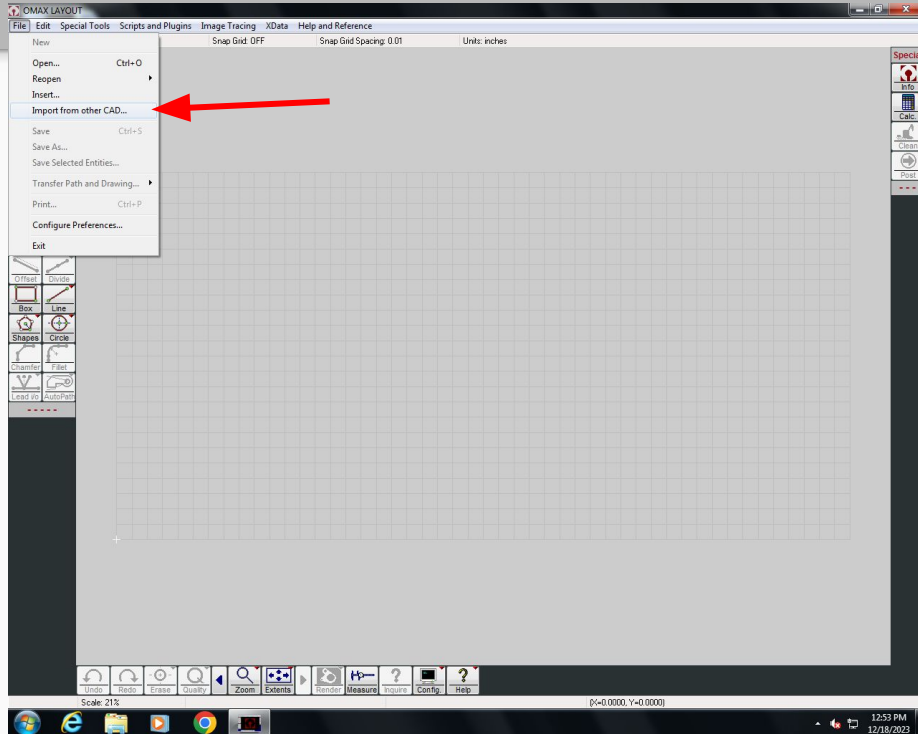
# Click “Cancel”



Plug your USB Drive in and then open the program “OMAX Layout Premium”



# Under “File” select “Import From Other CAD” and select your .dxf



# Click "OK"

OMAX LAYOUT

File Edit Special Tools Scripts and Plugins Image Tracing XData Help and Reference

Elements used: 0 Snap Grid: OFF Snap Grid Spacing: 0.01 Units: inches

### OMAX File Filter Settings for: Display.dxf

Settings:

Layout to import from (for drawings with multiple layouts):  
Model Space

- Import Hatching
- Import Text
- Import Dimensioning
- Import "invisible" layers
- Use alternate block importing method
- Flatten 3D view to 2D (use with caution)
- Ignore User Coordinate System
- Filter layers into "Qualities" using the following filter:  
C:\Users\Public\OMAX\_Corporation\AllUserData\LayerSubstitutionM...

Spline Curve Conversion Tolerance:  
High precision / many entities Low precision / few entities

Ellipse Curve Conversion Tolerance:  
High precision / many entities Low precision / few entities

Move drawing onto "grid" if not already there.

Restore to Defaults Update Preview

Preview (11 Elements used) (3.000 x 5.414 inches)

Warning: File importing is not always perfect. The drawing size may be significantly different than intended. Features of the part may be missing or incorrect. It is even possible for features that were erased or otherwise not part of the original drawing to re-surface after importing. Therefore, ALWAYS check the drawing scale against a known dimension to insure part is the correct size, and check the imported file against a printed drawing or PDF file to insure all drawing features are correct. For additional tips and information, click on the "Help" button below.

OK Help and Tips

OMAX

Scale: 21% [X=0.0000, Y=0.0000]

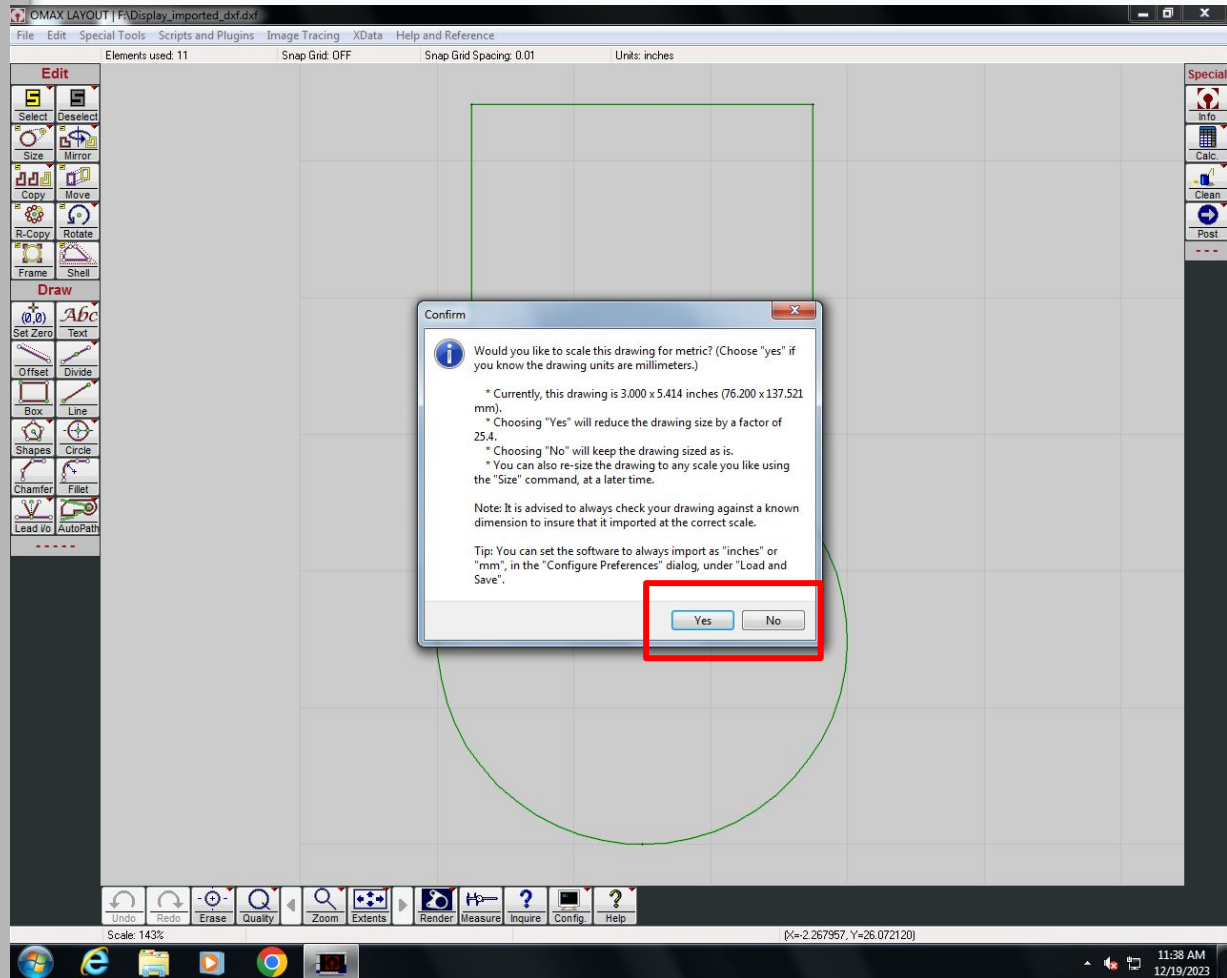
12:56 PM 12/18/2023





If you exported your .dxf in inches format, click "NO".

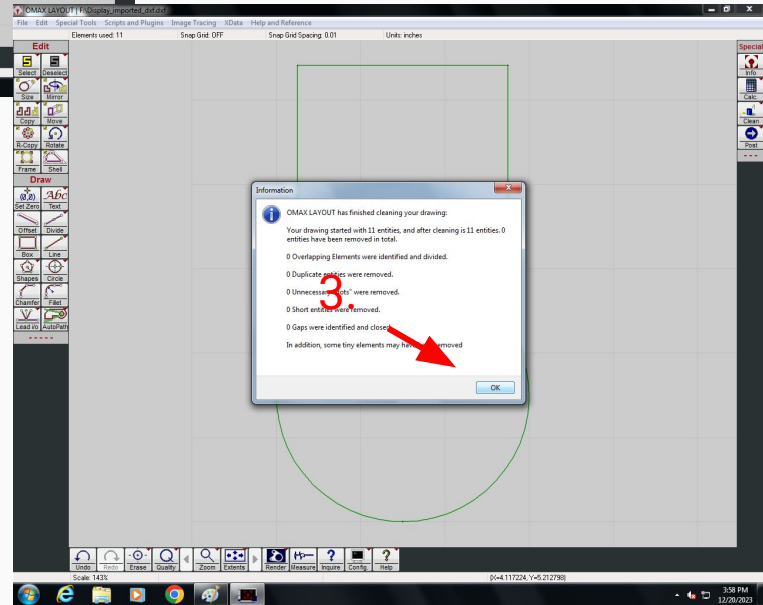
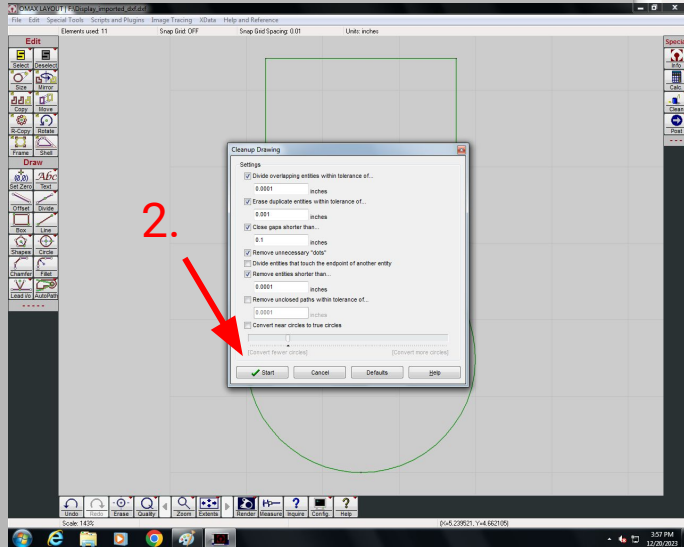
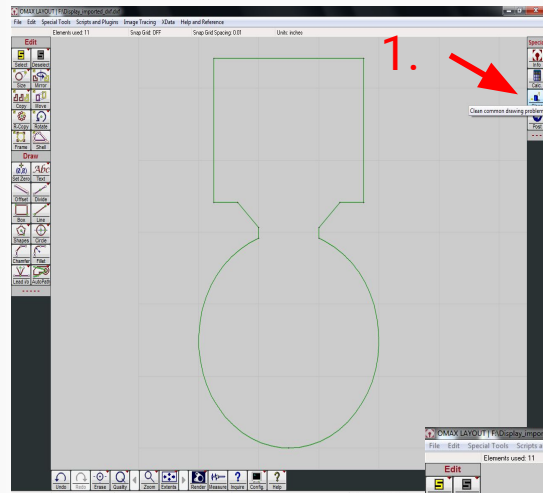
If you exported your .dxf in millimeters format, click "YES".



1. Click "Clean"

2. Click "Start"

3. Click "OK"



# Right-click "Quality" and then click "All"



The screenshot shows the AutoCAD interface with a green wireframe drawing of a mechanical part. A right-click context menu is open over the 'Quality' button in the bottom toolbar. The menu items are: Cursor (Default), All, Window, Selected, Select Quality =, Deselect Quality =, and Help... A red arrow labeled '1.' points to the 'Quality' button, and another red arrow labeled '2.' points to the 'All' option in the context menu. The software title bar reads 'OMAX LAYOUT | F3Display\_imported\_dxf.dwg'. The status bar at the bottom shows 'Scale: 143%' and coordinates '(x=0.518353, Y=0.723608)'. The Windows taskbar at the very bottom shows the time as 12:57 PM on 12/18/2023.

# Click "3"

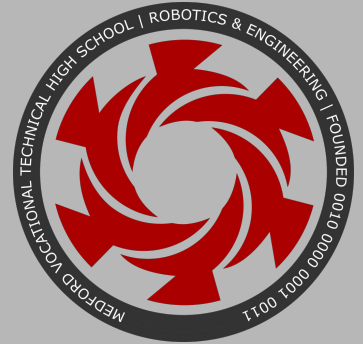


The screenshot shows a CAD application window titled "OMAX LAYOUT | F:\Display\_imported\_dxf.dxf". The interface includes a menu bar (File, Edit, Special Tools, Scripts and Plugins, Image Tracing, XData, Help and Reference), a status bar (Elements used: 11, Snap Grid: OFF, Snap Grid Spacing: 0.01, Units: inches), and two toolbars: "Edit" and "Special". The main workspace contains a green outline of a mechanical part. At the bottom, the "Available Qualities" toolbar is visible, with a red arrow pointing to the button labeled "3". The "Available Qualities" toolbar includes buttons for Traverse, H.U. Trv, 1, 2, 3, 4, 5, Min Trp, Etch, S, H2O Only, Lead In, and Close. The "3" button is highlighted with a red arrow. The bottom status bar shows "Scale: 143%", coordinates "(X=0.938543, Y=0.702696)", and the system clock "12:57 PM 12/18/2023".

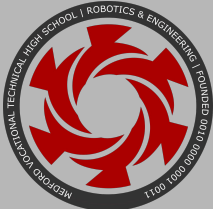


IF YOU WANT TO MANUALLY  
DRAW TOOLPATHS, JUMP TO  
[SLIDE 54.](#)

IF YOU DO NOT KNOW WHAT  
THAT IS OR DO NOT WANT TO,  
PROCEED TO THE NEXT SLIDE.



# Click "AutoPath"



The screenshot shows the AutoCAD interface with a drawing of a mechanical part. A red arrow points to the **AutoPath** tool in the left toolbar. A tooltip is visible over the **AutoPath** tool, stating: "Automatically apply a Tool Path: Right Click to configure".

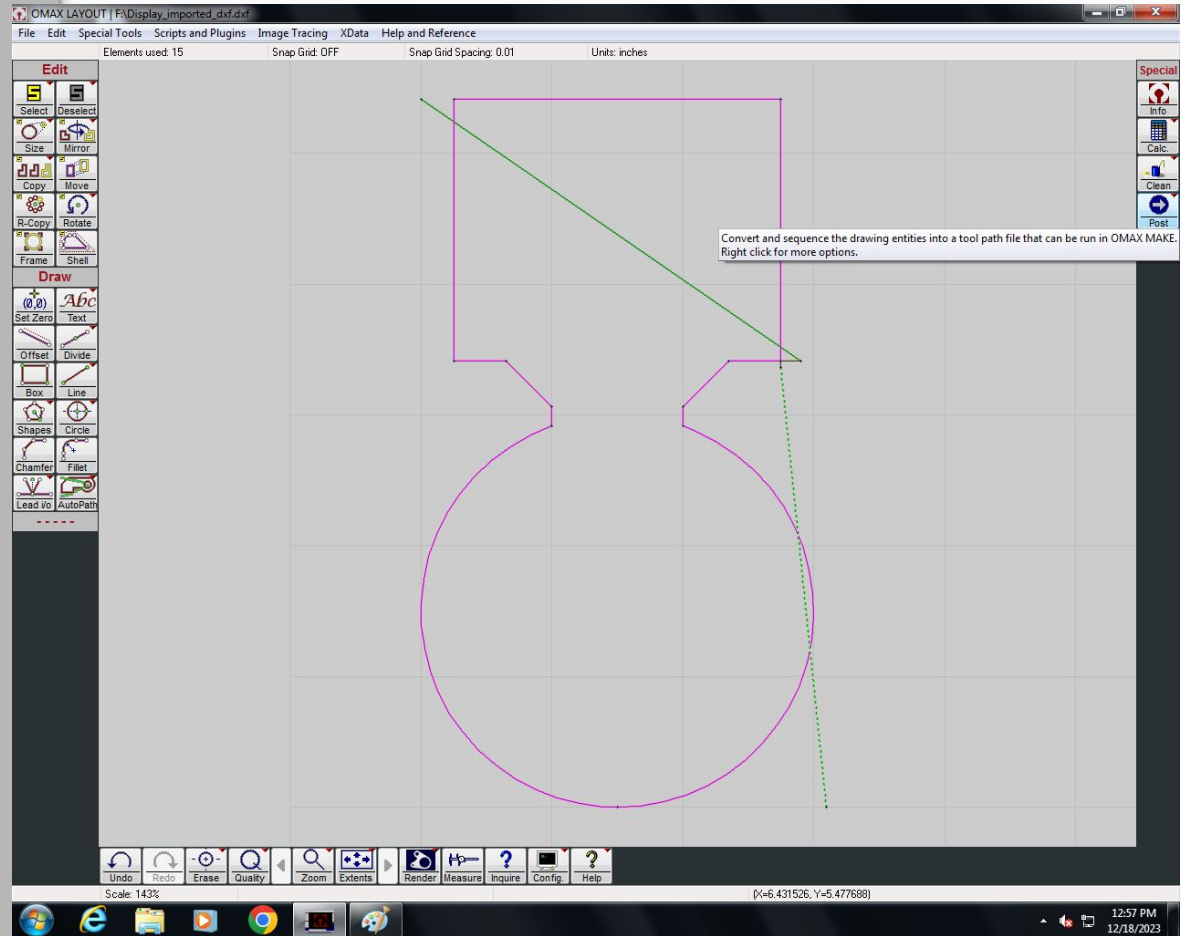
The software window title is "D:\MAX LAYOUT | P:\Display\_imported\_dxf.dxf". The menu bar includes: File, Edit, Special Tools, Scripts and Plugins, Image Tracing, XData, Help and Reference. The status bar shows: Elements used: 11, Snap Grid: OFF, Snap Grid Spacing: 0.01, Unit: inches.

The left toolbar is divided into sections: **Edit** (Select, Deselect, Size, Mirror, Copy, Move, R.Copy, Rotate, Frame, Shell), **Draw** (Set Zero, Text, Offset, Divide, Box, Line, Shapes, Circle, Chamfer, Fillet, **AutoPath**), and **Special** (Info, Calc, Clean, Post).

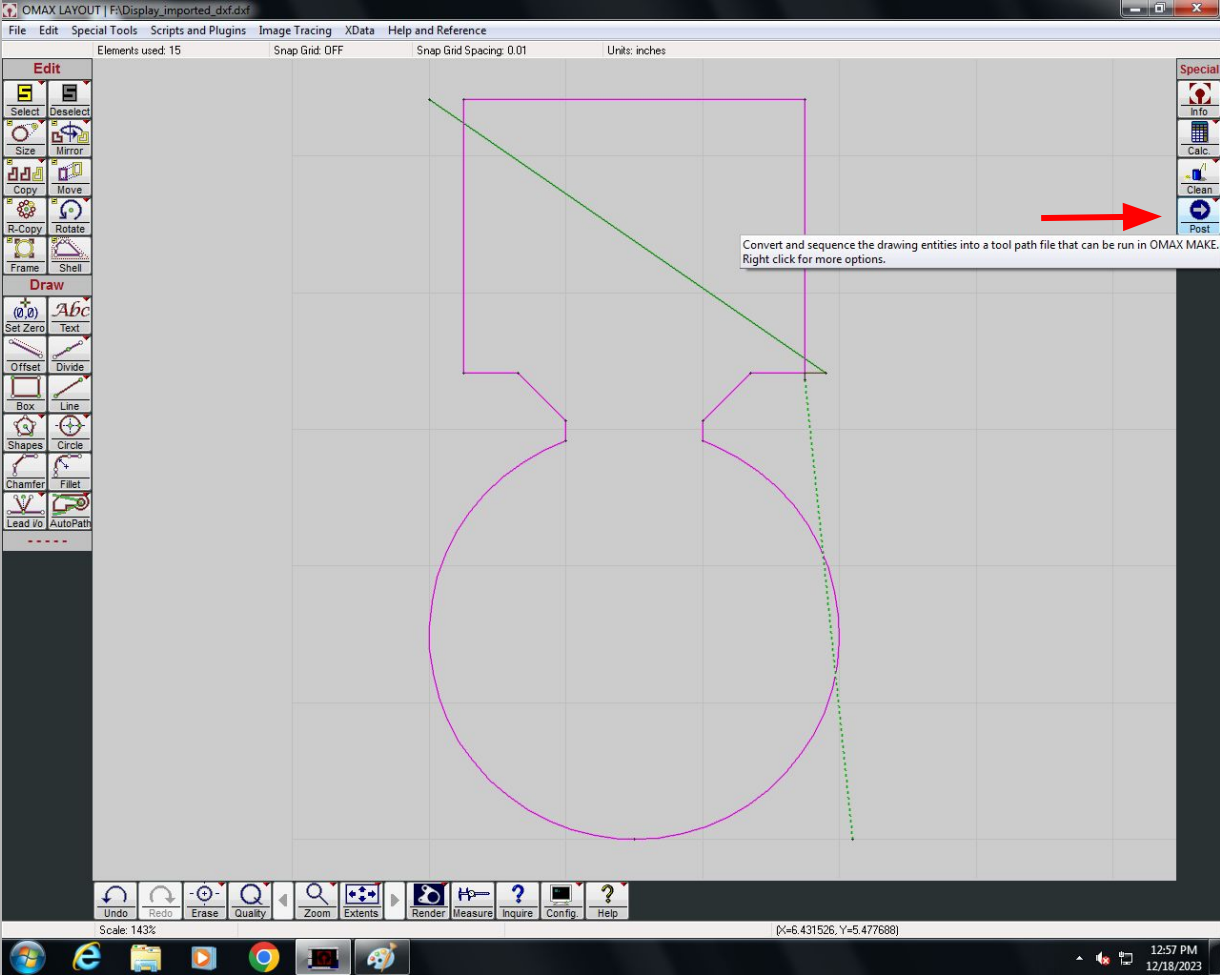
The bottom status bar shows: Scale: 143%, [K=1.438497, Y=3.226122], and the Windows taskbar at the bottom right shows the time 12:57 PM on 12/18/2023.

The autopath feature of LAYOUT is a little weird. Sometimes dashed lines may appear. You need to replace the dashed lines with solid ones.

Delete any dashed lines and draw new solid lines in their places using the "Line" tool.



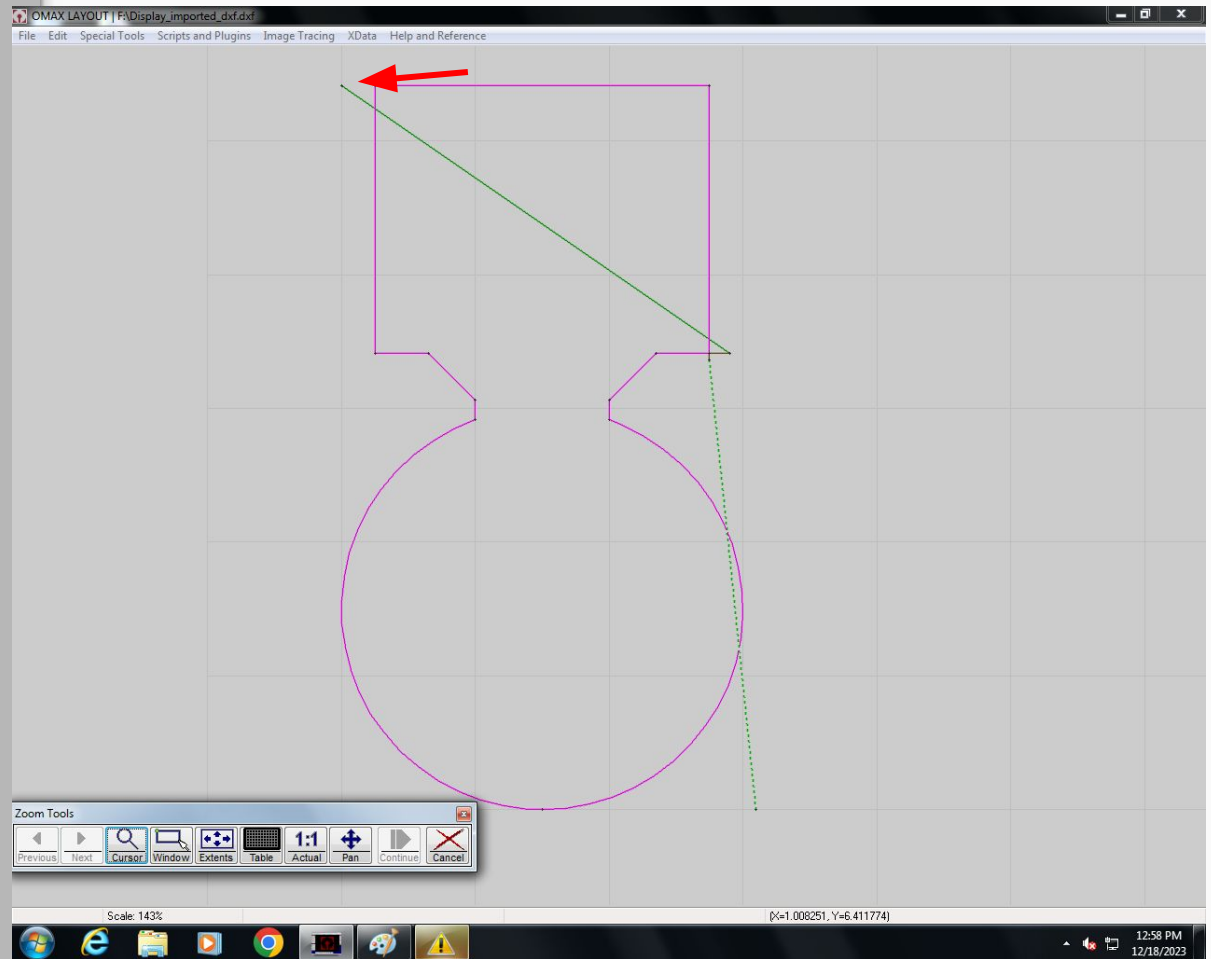
# Click "Post"



Click on the top-most left-most point.

It should be an unconnected end of a line.

This will be the start point of your toolpath





Review your toolpath.

Make sure everything looks good.

Make sure interior cuts are on the inside and exterior cuts are on the outside.

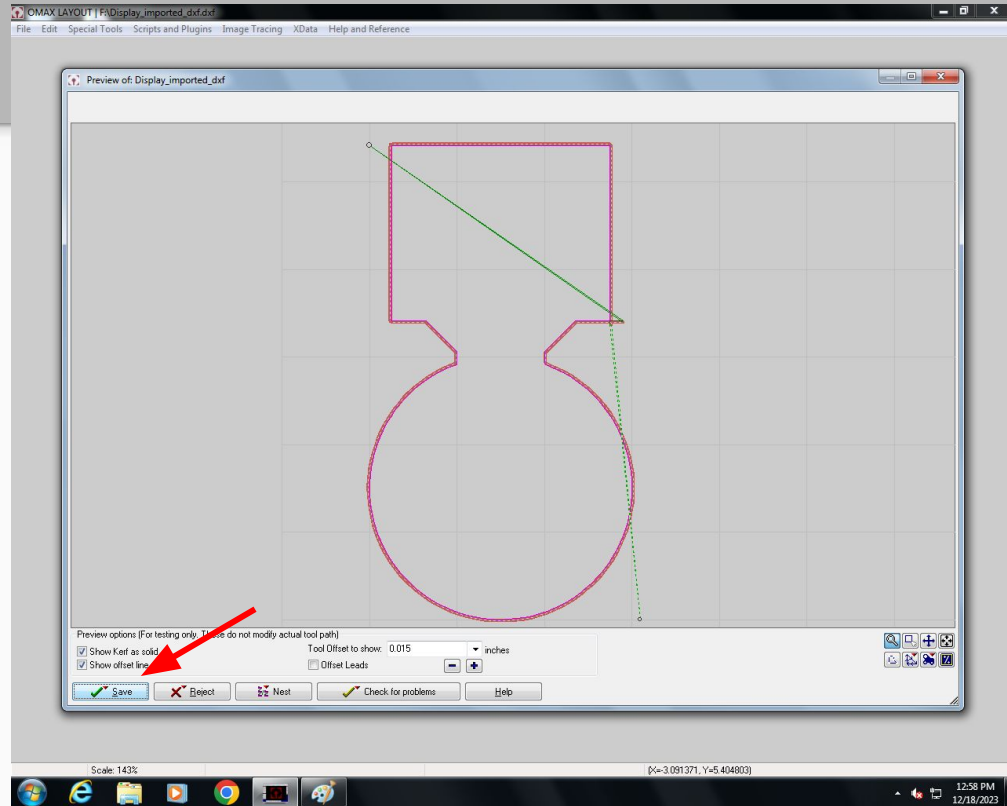


THE PINK LINE IS YOUR IMPORTED GEOMETRY.

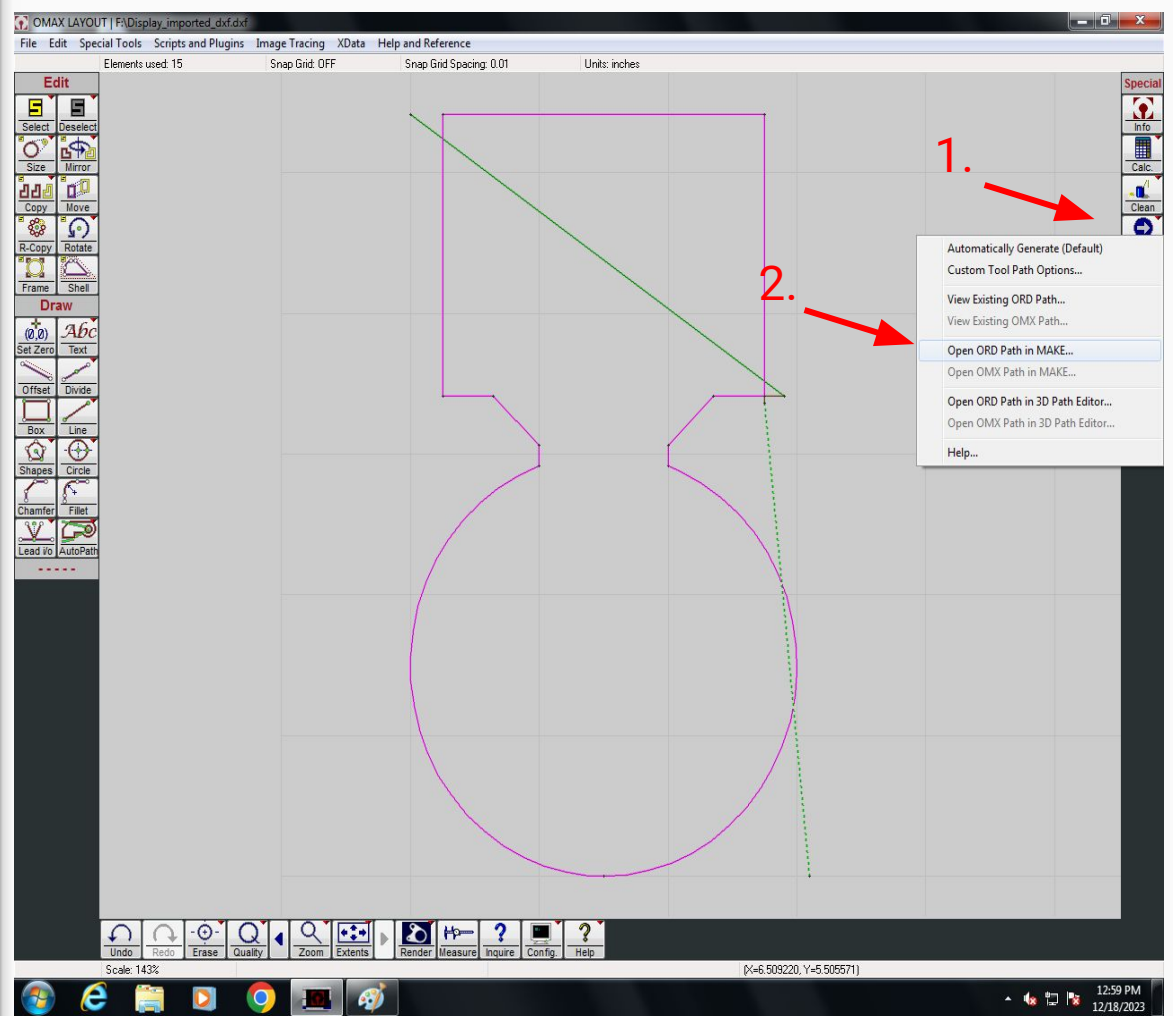
THE RED LINE IS THE AREA THAT THE MACHINE WILL CUT



# Once you are satisfied with your toolpath, click "Save"



1. Right-click  
“Post”
2. Click “Open  
ORD Path in  
MAKE”



# In the "Material" dropdown menu, select the material type you're cutting out of



The screenshot displays the OMAX MAKE software interface. A red arrow points to the "Material" dropdown menu in the "Enter your Material Setup here:" dialog box. The dropdown menu is open, showing a list of materials with their corresponding Machinability values. The "Material" column lists various materials, and the "Machinability" column shows values such as 219, 156, 100, 83.6, 81.3, 98.2, 82.5, 72.0, 1164, 108, 70.2, 188.8, and 63.5. The "Machinability" dropdown menu is currently set to 219.3. The "Cut Settings" section includes options for "Cut using Low Pressure", "Etch Speed", "Scribe Speed", "Water Only Speed", "Pierce Settings", and "Wiggles to piece". The "Pierce Settings" section includes options for "Use jet to pierce", "Use Low Pressure", "Very Brittle Material", and "Automatically set stand-off at each pierce". The "Wiggles to piece" field is set to 0. The "Machine Setup" button is visible at the bottom of the dialog box.

Material	Machinability
Aluminum 6061	219
Aluminum 6061	219
Brass 260	156
Brass 360	100
Copper 110	103
Inconel 625	83.6
Invar 36	53.3
Mild Steel A36	81.3
Nickium Grade 1 Annealed	98.2
Stainless Steel 304	80.6
Stainless Steel 316	82.5
Stainless Steel Custom 465	72.0
Stirling Silver	1164
Titanium 6Al 4V	108
Tool Steel D2 (RC 20)	70.2
Tool Steel D2 (RC 28)	188.8
Tool Steel D2 (RC 50)	63.5

OMAX MAKE: Precision Velocity Controller  
Patent(s): www.omax.com/patents  
Copyright © 1998-2019 OMAX Corporation All Rights Reserved

# Input the thickness of the material you are cutting



The screenshot displays the OMAX MAKE software interface. A central dialog box titled "F:\Display\_imported\_dxf.ORD" is open, showing a preview of a 2D part on a grid. The part is outlined in purple, and a green line indicates a cutting path. The dialog box is divided into several sections:

- Choose tool path for machining:** A file browser showing "All Supported Files (\*.ord;\*.omx)" with "Display\_imported\_dxf.ORD" selected.
- Preview:** A 2D grid showing the part outline and a cutting path. The preview dimensions are 3.0396 x 5.4142 inches.
- Enter your Material Setup here:** A section for configuring material properties. The material is set to "Aluminum 6061" with a hardness of "[219]". The thickness is set to ".0125" inches. Other settings include Tool Offset (.0125 inches), Rotation (0 degrees), and Scale (1x).
- Cut Settings:** A section for configuring cutting parameters. The "Cut using Low Pressure" checkbox is checked. The "Etch Speed" is set to 50 In/min, "Scribe Speed" is 50 In/min, and "Water Only Speed" is 100 In/min. The "Pierce Settings" section includes "Use jet to pierce" (checked), "Use Low Pressure" (unchecked), "Very Brittle Material" (unchecked), and "Automatically set stand-off at each pierce" (unchecked). The "Wiggles to pierce" is set to 0.

A red arrow points to the "Thickness" field in the "Enter your Material Setup here" section. The bottom of the screen shows the Windows taskbar with the system clock at 12:59 PM on 12/18/2023.

Click "OK"

The screenshot displays the OMAX MAKE software interface. A central dialog box titled "F:\Display\_imported\_dxf.ORD" is open, showing a file browser on the left with "Display\_imported\_dxf.ORD" selected. The main area of the dialog shows a preview of a purple outline on a black grid, with a green line indicating a tool path. Below the preview are various settings:

- Material Setup:** Material: Aluminum 6061, Machineability: [219], Thickness: .125 inches, Tool Offset: .0125 inches, Rotation: 0 degrees, Scale: 1 X.
- Cut Settings:**  Cut using Low Pressure. Etch Speed: 50 in/min,  Low pressure. Scribe Speed: 50 in/min,  Low pressure. Water Only Speed: 100 in/min,  Low pressure.
- Pierce Settings:**  Use jet to pierce.  Use Low Pressure.  Very Brittle Material.  Automatically set stand-off at each pierce. Wiggles to pierce: 0 (Enter '0' to enable Intelli-PIERCE).

At the bottom of the dialog box, there are buttons for "OK", "Cancel", "Help", and "Machine Setup...". A red arrow points to the "OK" button. The background shows the main software window with a menu bar (File, Tools, Setup, Homes, View, XData, History, Help and Reference) and a status bar (Scale: Elements: Steps: Units: inches Path within soft limits). The Windows taskbar at the bottom shows the time as 12:59 PM on 12/18/2023.



Click "OK"

The screenshot shows the OMAX MAKE software interface. The main window displays a 2D coordinate system with a red dashed rectangular path and a green line. A warning dialog box is overlaid on the screen, containing the following text:

**Warning:**  
The state of the X and Y motor positions are not known, and the machine needs to be re-homed to re-establish the Absolute Home by which all XY positions are referenced.  
Re-homing the machine is important to ensure that all positions and limit limits have not drifted while the power was out.

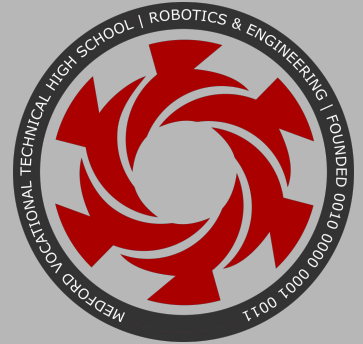
An "OK" button is visible at the bottom of the dialog box. A red arrow points from the text "Re-homing the machine is important to ensure that all positions and limit limits have not drifted while the power was out." to the "OK" button.

The right-hand side of the interface features a control panel with the following sections:

- Nozzle Position:** Shows distance from "User Home" and "Path Start" as 7.8799 and -5.4144 respectively.
- Status:** Displays "Ready to begin machining." and "Soft Limits Disabled".
- Action:** Includes buttons for "Change Path Setup", "Preview to Screen", "Begin Machining", "Test", and "Saw".
- Statistics:** Lists material (Aluminum 6061), machinesability (219.3), thickness (0.1250 inches), offset (0.0125 inches), and station (0°). It also provides time for path (0.815 min.), estimated cost for path (\$0.34), and estimated abrasive needed (0.55 Lbs.).
- Pressure and nozzle setup:** Details high pressure setting (30000.00 PSI), low pressure setting (20000.00 PSI), mixing tube diameter (0.0300 inches), jewel diameter (0.0140 inches), abrasive flow rate (0.7500 Lb/min), abrasive size (60.00 Mesh (US Std.)), and abrasive index (1.00).
- Feed rate breakdown:** (inches/min.)
- Footer:** OMAX MAKE: Precision Velocity Controller, Patent(s) www.omax.com/patents, Copyright © 1998-2019 OMAX Corporation All Rights Reserved.

The bottom status bar shows "Scale: 148%", "Elements: 15", "Commands: 45,356", "Units: inches", "Soft Limits are Disabled", and "[/Step][Stopped][Fault Triggered]". The system tray at the bottom right shows the time as 1:00 PM on 12/18/2023.

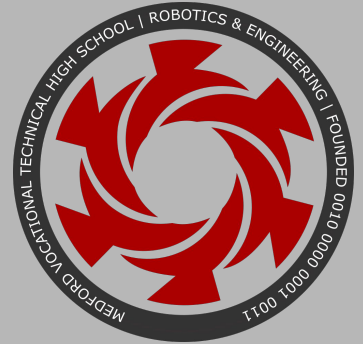
IF THE CUTTING HEAD IS  
RAISED ABOVE ANY WEIGHTS  
OR OTHER OBJECTS IN THE  
CUTTING BED PROCEED TO  
THE NEXT SLIDE.



IF THE TOOL IS NOT, JUMP TO  
[SLIDE 59.](#)

IF THE MATERIAL YOU INTEND  
TO CUT FROM IS ALREADY  
SECURED IN THE MACHINE,  
PROCEED TO THE NEXT SLIDE.

IF YOUR MATERIAL IS NOT  
ALREADY SECURED, JUMP TO  
[Slide 62.](#)



Flip the yellow splash-guard up (if it isn't already)



Jog the machine over the area of material you will cut from

The screenshot displays the OMAX MAKE software interface. The main window shows a 2D plot of a red dashed path on a black background, representing a cutting path for a part. A green line indicates the current nozzle position. The right-hand side features a control panel with 'Nozzle Position' readouts for X and Y axes, both showing 0.0000. Below these are 'Jog' buttons for X and Y axes, which are highlighted with a red box. The status bar indicates 'Ready to begin machining.' and 'Soft Limits Disabled'. The bottom status bar shows 'Scale: 148%', 'Elements: 15', 'Commands: 45,356', 'Units: inches', 'Soft Limits are Disabled', and a 'Fault detected' warning.

OMAX MAKE | F:\Display\_imported\_dxf.ORD

File Tools Setup Homes View XData History Help and Reference

Nozzle Position  
Distance from "User Home": 0.0000 0.0000  
Distance from "Path Start": 0.0000 0.0000

Vector Move X Move Y Jog -X Jog +X Jog -Y Jog +Y

Status  
**Ready to begin machining.** Soft Limits Disabled

Action  
Change Path Setup Preview to Screen Begin Machining Test Saw

Statistics  
Material: Aluminum  
Machinability: 219.3  
Thickness: 0.125 inches  
Tool offset: 0.0125 inches  
Rotation: 0°  
Time for path: 0.815 min.  
Estimated cost for path: \$0.34  
Estimated abrasive needed: 0.55 Lbs.

Piercing: High pressure | Intelli-PIERCE  
Pierces: 1 (0 are wiggle pierces)  
Cutting: High pressure  
Width of path: 3.1121 (inches)  
Height of path: 5.4476  
Length of tool path: 24.1281  
Length of cutting: 17.2089

(Values reported after tool offset applied.)

Pressure and nozzle setup:  
High pressure setting: 30000.00 PSI  
Low pressure setting: 20000.00 PSI  
Mixing tube diameter: 0.0300 inches  
Jewel diameter: 0.0140 inches  
Abrasive flow rate: 0.7500 Lb/min  
Abrasive size: 60.00 Mesh (US Std.)  
Abrasive index: 1.00

Feed rate breakdown: (inches/min.)

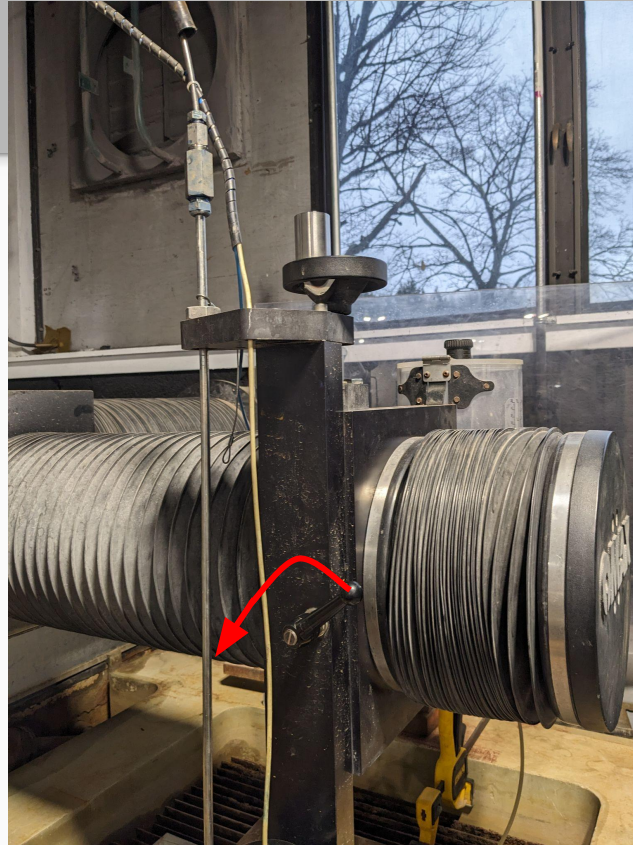
OMAX MAKE: Precision Velocity Controller  
Patent(s) www.omax.com/patents  
Copyright © 1998-2019 OMAX Corporation All Rights Reserved

Scale: 148% Elements: 15 Commands: 45,356 Units: inches Soft Limits are Disabled [S/Stop][Stopped][Fault Triggered]

1:02 PM 12/18/2023



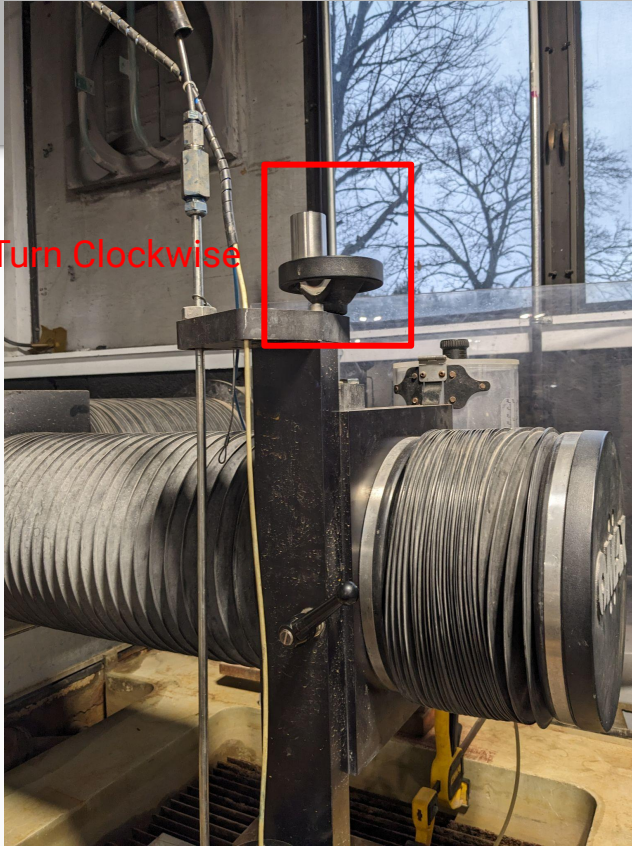
# Loosen the cutting head (if isn't already)



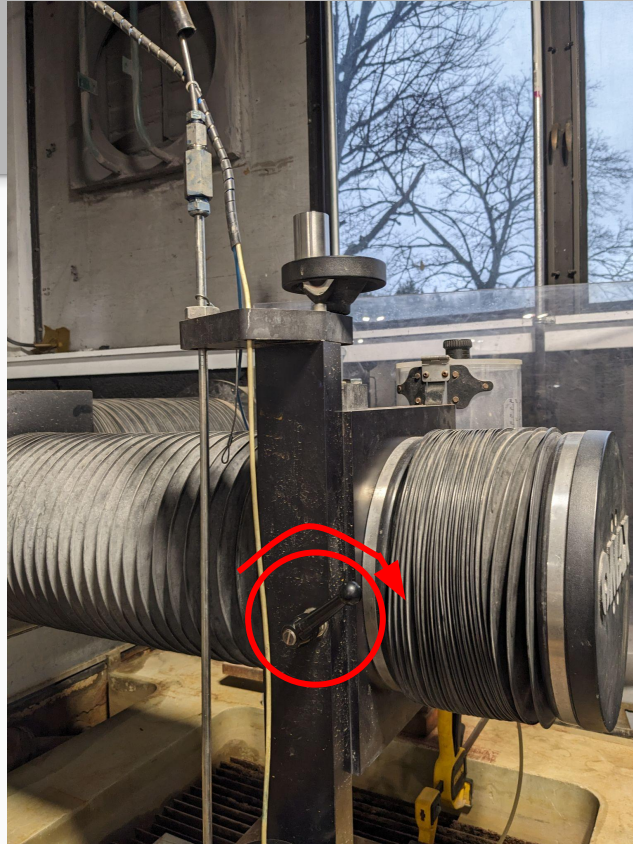
Lower the cutting head until it just barely touches the piece of metal, it should not pin it down.



Turn Clockwise



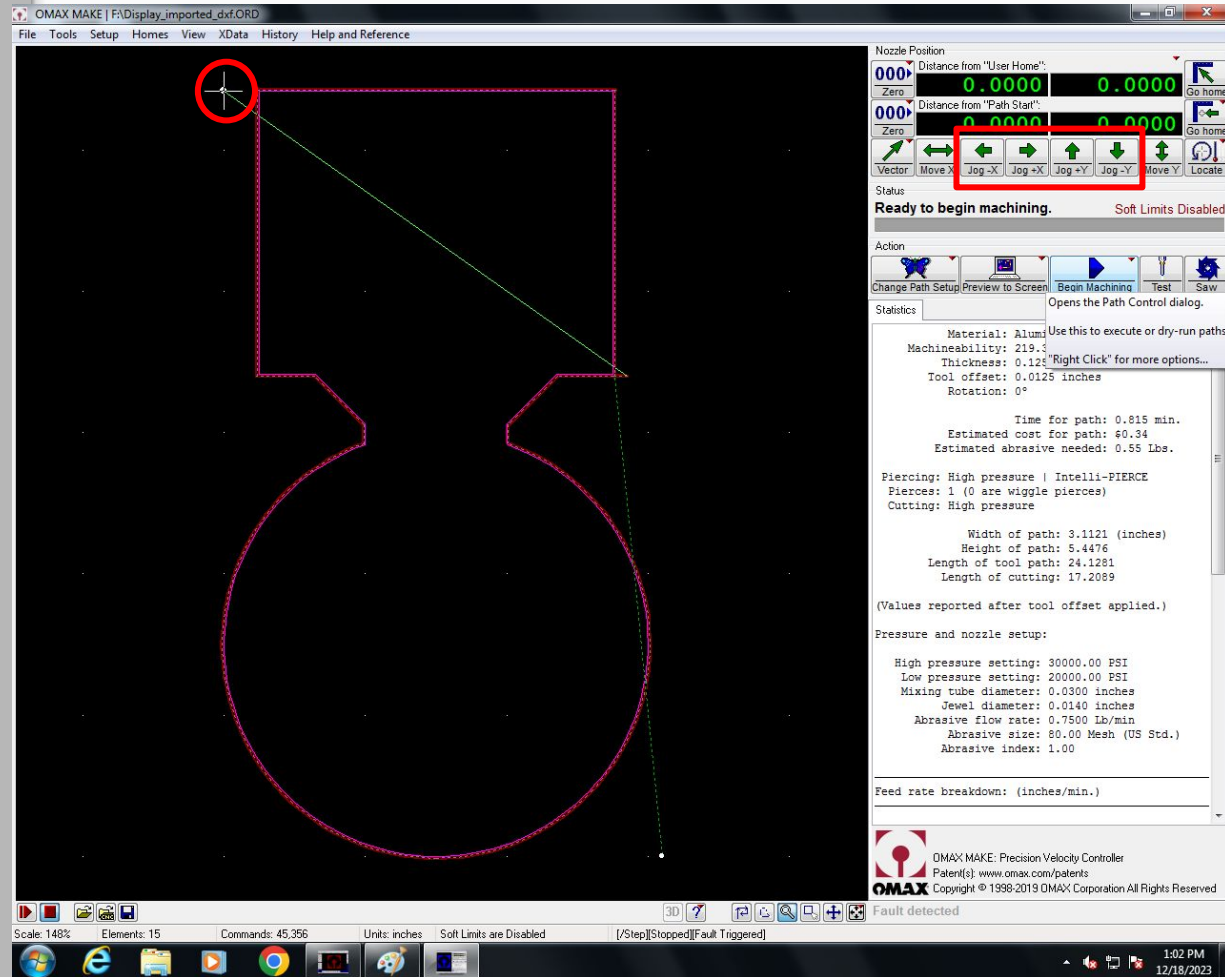
Tighten the cutting head and remove the piece of metal





Jog the machine to position where your part will be cut.

The cutting head's position is where the top-left point on the unconnected line will be.



# Click BOTH "Zero" buttons, and both "Yes" buttons



OMAX MAKE | F:\Display\_imported\_dxf.ORD

File Tools Setup Homes View XData History Help and Reference

000 Distance from "User Home" 7.8799 -5.4144  
000 Distance from "Path Start" 7.8799 -5.4144

Vector Move X Jog X Jog X Jog Y Jog Y Move Y Locate

Status  
**Ready to begin machining.** Soft Limits Disabled

Action  
Change Path Setup Preview to Screen Begin Machining Test Saw

Statistics  
Material: Aluminum 6061  
Machineability: 219.3 (Metal)  
Thickness: 0.1250 inches  
Tool offset: 0.0125 inches  
Rotation: 0°  
Time for path: 0.815 min.  
Estimated cost for path: 60.34  
Estimated abrasive needed: 0.55 Lbs.  
Fiercing: High pressure | Intelli-PIERCE  
Pieces: 1 (0 are wiggle pieces)  
Cutting: High pressure  
Width of path: 3.1121 (inches)  
Height of path: 5.4476  
Length of tool path: 24.1281  
Length of cutting: 17.2089  
(Values reported after tool offset applied.)  
Pressure and nozzle setup:  
High pressure setting: 30000.00 PSI  
Low pressure setting: 20000.00 PSI  
Mixing tube diameter: 0.0300 inches  
Jewel diameter: 0.0140 inches  
Abrasive flow rate: 0.7500 lb/min  
Abrasive size: 80.00 Mesh (US Std.)  
Abrasive index: 1.00  
Feed rate breakdown: (Inches/min.)

OMAX MAKE Precision Velocity Controller  
Patent(s) www.omax.com/patents  
Copyright © 1998-2015 OMAX Corporation All Rights Reserved

Scale: 140% Elements: 15 Commands: 45.356 Units: inches Soft Limits are Disabled [Stop] [Stopped] [Fault Triggered]

1:01 PM 12/18/2023

OMAX MAKE | F:\Display\_imported\_dxf.ORD

File Tools Setup Homes View XData History Help and Reference

000 Distance from "User Home" 7.8799 -5.4144  
000 Distance from "Path Start" 7.8799 -5.4144

Vector Move X Jog X Jog X Jog Y Jog Y Move Y Locate

Status  
**Ready to begin machining.** Soft Limits Disabled

Action  
Change Path Setup Preview to Screen Begin Machining Test Saw

Statistics  
Material: Aluminum 6061  
Machineability: 219.3 (Metal)  
Thickness: 0.1250 inches  
Tool offset: 0.0125 inches  
Rotation: 0°  
Time for path: 0.815 min.  
Estimated cost for path: 60.34  
Estimated abrasive needed: 0.55 Lbs.  
Fiercing: High pressure | Intelli-PIERCE  
Pieces: 1 (0 are wiggle pieces)  
Cutting: High pressure  
Width of path: 3.1121 (inches)  
Height of path: 5.4476  
Length of tool path: 24.1281  
Length of cutting: 17.2089  
(Values reported after tool offset applied.)  
Pressure and nozzle setup:  
High pressure setting: 30000.00 PSI  
Low pressure setting: 20000.00 PSI  
Mixing tube diameter: 0.0300 inches  
Jewel diameter: 0.0140 inches  
Abrasive flow rate: 0.7500 lb/min  
Abrasive size: 80.00 Mesh (US Std.)  
Abrasive index: 1.00  
Feed rate breakdown: (Inches/min.)

OMAX MAKE Precision Velocity Controller  
Patent(s) www.omax.com/patents  
Copyright © 1998-2015 OMAX Corporation All Rights Reserved

Scale: 140% Elements: 15 Commands: 45.356 Units: inches Soft Limits are Disabled [Stop] [Stopped] [Fault Triggered]

1:01 PM 12/18/2023

# Click "Begin Machining" DO NOT CLICK "START"



OMAX MAKE | FA\Display\_imported\_dxf.ORD

File Tools Setup Homes View XData History Help and Reference

Nozzle Position  
Distance from "User Home": 7.8799 -5.4144  
Distance from "Path Start": 7.8799 -5.4144

Vector Move X Jog -X Jog +X Jog +Y Jog -Y Move Y Locate

Status  
**Ready to begin machining.** Soft Limits Disabled

Action  
Change Path Setup Preview to Screen **Begin Machining** Test Save

Statistics  
Material: Aluminum 6061  
Machinability: 219.3 (Metal)  
Thickness: 0.1250 inches  
Tool offset: 0.0125 inches  
Rotation: 0°  
Time for path: 0.815 min.  
Estimated cost for path: \$0.34  
Estimated abrasive needed: 0.55 Lbs.  
Piercing: High pressure | Intelli-PIERCE  
Pierces: 1 (0 are wiggle pierces)  
Cutting: High pressure  
Width of path: 3.1121 (inches)  
Height of path: 5.4476  
Length of tool path: 24.1281  
Length of cutting: 17.2089  
(Values reported after tool offset applied.)  
Pressure and nozzle setup:  
High pressure setting: 30000.00 PSI  
Low pressure setting: 20000.00 PSI  
Mixing tube diameter: 0.0300 inches  
Jewel diameter: 0.0140 inches  
Abrasive flow rate: 0.7500 lb/min  
Abrasive size: 80.00 Mesh (US Std.)  
Abrasive index: 1.00  
Feed rate breakdown: (inches/min.)

OMAX MAKE: Precision Velocity Controller  
Patent(s) www.omax.com/patents  
Copyright © 1998-2019 OMAX Corporation All Rights Reserved

Scale: 148% Elements: 15 Commands: 45,356 Units: inches Soft Limits are Disabled [ /Step ] [ Stopped ] [ Fault Triggered ]

1:01 PM 12/18/2023



Click and hold  
"Ahead".

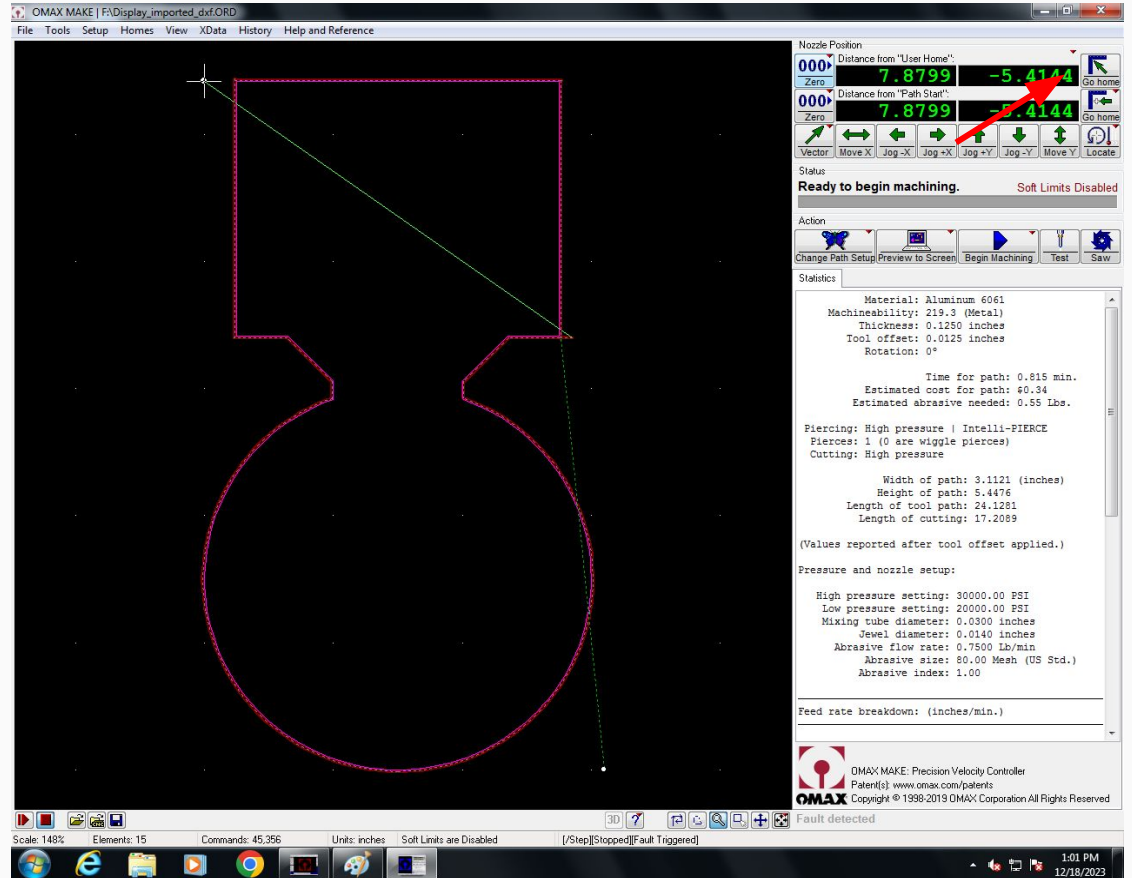
This will jog the  
machine along  
the toolpath it  
will cut. Make  
sure the cutter  
will go where you  
want to it and  
won't crash.

The screenshot displays the OMAX MAKE software interface. The main window shows a 2D toolpath simulation of a complex part, with a green line indicating the current tool position and direction. The top right corner features a status panel with "Nozzle Position" and "Distance from 'User Home'" and "Distance from 'Path Start'" both at 0.0000. Below this is the "OMAX Path Control" panel, which includes a warning icon, a timer showing "Elapsed: 00:00:00:00" and "Remaining: 00:00:00:48", and buttons for "Start", "Ahead", "Pause", and "Backstop". A red arrow points to the "Start" button. The "Start / Continue Machining" button has a tooltip that reads "(Right-Click for 'Dry Running' and other options)". Below the control panel, there is a detailed list of parameters: Machinability: 219.3 (METAL), Thickness: 0.1250 inches, Tool offset: 0.0125 inches, Rotation: 0°, Time for path: 0.815 min., Estimated cost for path: \$0.34, Estimated abrasive needed: 0.55 Lbs., Piercing: High pressure | Intelli-PIERCE, Pierces: 1 (0 are wiggle pierces), Cutting: High pressure, Width of path: 3.1121 (inches), Height of path: 5.4476, Length of tool path: 24.1281, Length of cutting: 17.2089. Below this is the "Pressure and nozzle setup" section with various settings like High pressure setting: 30000.00 PSI, Low pressure setting: 20000.00 PSI, Mixing tube diameter: 0.0300 inches, Jewel diameter: 0.0140 inches, Abrasive flow rate: 0.7500 Lb/min, Abrasive size: 60.00 Mesh (US Std.), and Abrasive index: 1.00. At the bottom, there is a "Feed rate breakdown: (inches/min.)" section and a "Fault detected" warning icon. The bottom status bar shows "Scale: 148%", "Elements: 15", "Commands: 45,356", "Units: inches", "Soft Limits are Disabled", and "[/Step][/Stopped][Fault Triggered]". The Windows taskbar at the very bottom shows the date and time as 1:02 PM 12/18/2023.

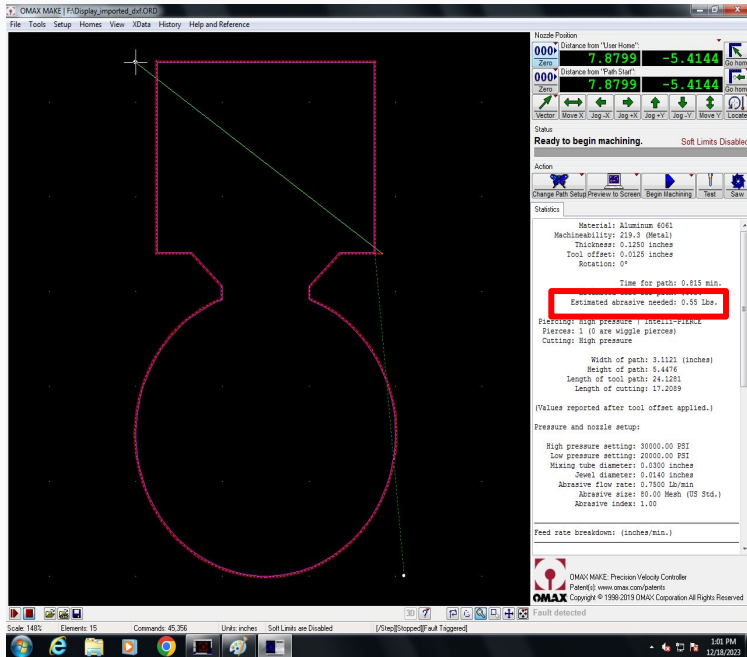
1. Click "Close"

2. Click "Go home"

3. Click "OK"



Check how much abrasive the cut will consume. See if the machine has enough stored in it. Make sure there is *plenty* extra.



If there is not enough abrasive, add more using the cup.





Flip the yellow splash guard down



Use the “Water Level” switch to raise the water until it is about halfway up the splash guard.





IF SOMETHING  
GOES WRONG  
DURING THE  
CUT,  
IMMEDIATELY  
HIT THE  
EMERGENCY  
STOP BUTTON!



# Click "Begin Machining"



The screenshot displays the OMAX MAKE software interface. The main window shows a 2D CAD model of a mechanical part with a red dashed outline. The control panel on the right includes a status bar that reads "Ready to begin machining." with a red arrow pointing to the "Begin Machining" button. Below the status bar, there are action buttons: "Change Path Setup", "Preview to Screen", "Begin Machining", "Test", and "Save". The statistics section provides detailed information about the machining process, including material, machineability, thickness, tool offset, rotation, time for path, estimated cost, and estimated abrasive needed. The pressure and nozzle setup section lists high and low pressure settings, mixing tube diameter, jewel diameter, abrasive flow rate, abrasive size, and abrasive index. The feed rate breakdown section is currently empty. The bottom status bar shows "Scale: 148%", "Elements: 15", "Commands: 45,356", "Units: inches", "Soft Limits are Disabled", and "[/Step]://Stopped]//Fault Triggered". The system tray at the bottom right shows the time as 1:01 PM on 12/18/2023.

OMAX MAKE | FA\Display\_imported\_dxf.ORD

File Tools Setup Homes View XData History Help and Reference

Nozzle Position

000	Distance from "User Home":	-5.4144	Go home
Zero	7.8799	-5.4144	Go home
000	Distance from "Path Start":	-5.4144	Go home
Zero	7.8799	-5.4144	Go home

Vector Move X Jog -X Jog +X Jog +Y Jog -Y Move Y Locate

Status

**Ready to begin machining.** Soft Limits Disabled

Action

Change Path Setup Preview to Screen **Begin Machining** Test Save

Statistics

Material: Aluminum 6061  
Machineability: 219.3 (Metal)  
Thickness: 0.1250 inches  
Tool offset: 0.0125 inches  
Rotation: 0°

Time for path: 0.815 min.  
Estimated cost for path: \$0.34  
Estimated abrasive needed: 0.55 Lbs.

Piercing: High pressure | Intelli-PIERCE  
Pierces: 1 (0 are wiggle pierces)  
Cutting: High pressure

Width of path: 3.1121 (inches)  
Height of path: 5.4476  
Length of tool path: 24.1281  
Length of cutting: 17.2089

(Values reported after tool offset applied.)

Pressure and nozzle setup:

High pressure setting: 30000.00 PSI  
Low pressure setting: 20000.00 PSI  
Mixing tube diameter: 0.0300 inches  
Jewel diameter: 0.0140 inches  
Abrasive flow rate: 0.7500 lb/min  
Abrasive size: 80.00 Mesh (US Std.)  
Abrasive index: 1.00

Feed rate breakdown: (inches/min.)

OMAX MAKE: Precision Velocity Controller  
Patent(s) www.omax.com/patents  
OMAX Copyright © 1998-2013 OMAX Corporation All Rights Reserved

Scale: 148% Elements: 15 Commands: 45,356 Units: inches Soft Limits are Disabled [ /Step ] : [ Stopped ] : [ Fault Triggered ]

1:01 PM  
12/18/2023

# Click "Start"



The screenshot displays the OMAX MAKE software interface. The main window shows a 3D model of a part with a red dashed outline. The top menu bar includes File, Tools, Setup, Homes, View, XData, History, and Help and Reference. The top right corner shows nozzle position information: Distance from "User Home" is 0.0000 inches and Distance from "Path Start" is 0.0000 inches. The OMAX Path Control panel is open, showing a warning icon and a red arrow pointing to the "Start" button. The panel displays Elapsed: 00:00:00:00 and Remaining: 00:00:00:48. Below the buttons, it shows Start / Continue Machining (Right-Click for "Dry Running" and other options). The bottom status bar indicates Scale: 148%, Elements: 15, Commands: 45,356, Units: inches, Soft Limits are Disabled, and a fault detected message: [Step][Stopped]Fault Triggered. The system clock shows 1:02 PM on 12/18/2023.

OMAX MAKE | F4Display\_imported\_cxf.ORD

File Tools Setup Homes View XData History Help and Reference

Nozzle Position  
Distance from "User Home": 0.0000 0.0000 Go home  
Distance from "Path Start": 0.0000 0.0000 Go home

OMAX Path Control

Elapsed: 00:00:00:00 Remaining: 00:00:00:48

Warning: Operations here may activate the cutting head. Wiggles to pierce: 0

Start / Continue Machining (Right-Click for "Dry Running" and other options)

Machineability: 219.3 (metal)  
Thickness: 0.1250 inches  
Tool offset: 0.0125 inches  
Rotation: 0°

Time for path: 0.815 min.  
Estimated cost for path: \$0.34  
Estimated abrasive needed: 0.55 Lbs.

Piercing: High pressure | Intelli-PIERCE  
Pierces: 1 (0 are wiggle pierces)  
Cutting: High pressure

Width of path: 3.1121 (inches)  
Height of path: 5.4476  
Length of tool path: 24.1281  
Length of cutting: 17.2089

(Values reported after tool offset applied.)

Pressure and nozzle setup:

High pressure setting: 30000.00 PSI  
Low pressure setting: 20000.00 PSI  
Mixing tube diameter: 0.0300 inches  
Jewel diameter: 0.0140 inches  
Abrasive flow rate: 0.7500 lb/min  
Abrasive size: 80.00 Mesh (US Std.)  
Abrasive index: 1.00

Feed rate breakdown: (inches/min.)

OMAX MAKE: Precision Velocity Controller  
Patent(s) www.omax.com/patents  
OMAX Copyright © 1998-2019 OMAX Corporation All Rights Reserved

Scale: 148% Elements: 15 Commands: 45,356 Units: inches Soft Limits are Disabled [Step][Stopped]Fault Triggered

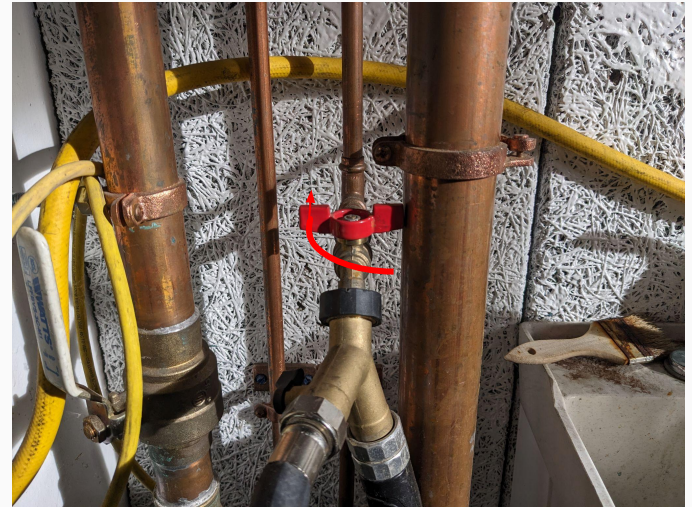
1:02 PM 12/18/2023

Use the “Water Level” switch to lower the water below your material

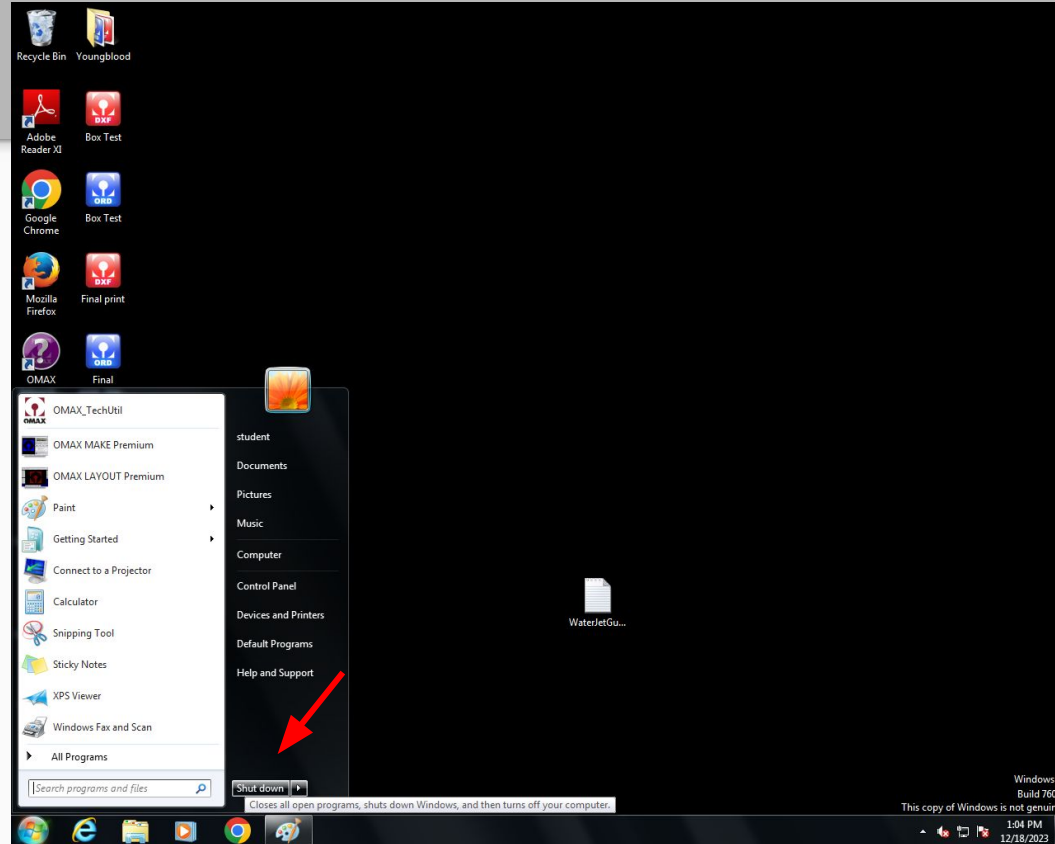




# Turn off the air and water

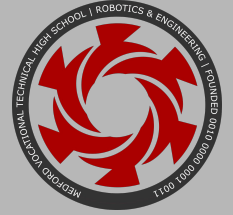


In the Start menu, click “Shutdown”  
Wait for the computer to fully shutdown to  
continue





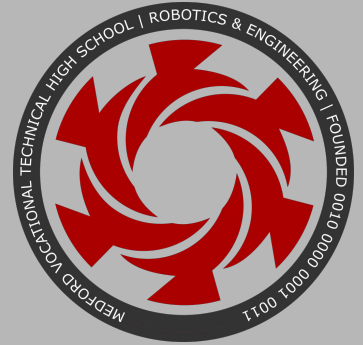
# Rotate both power switches



# Turn off power

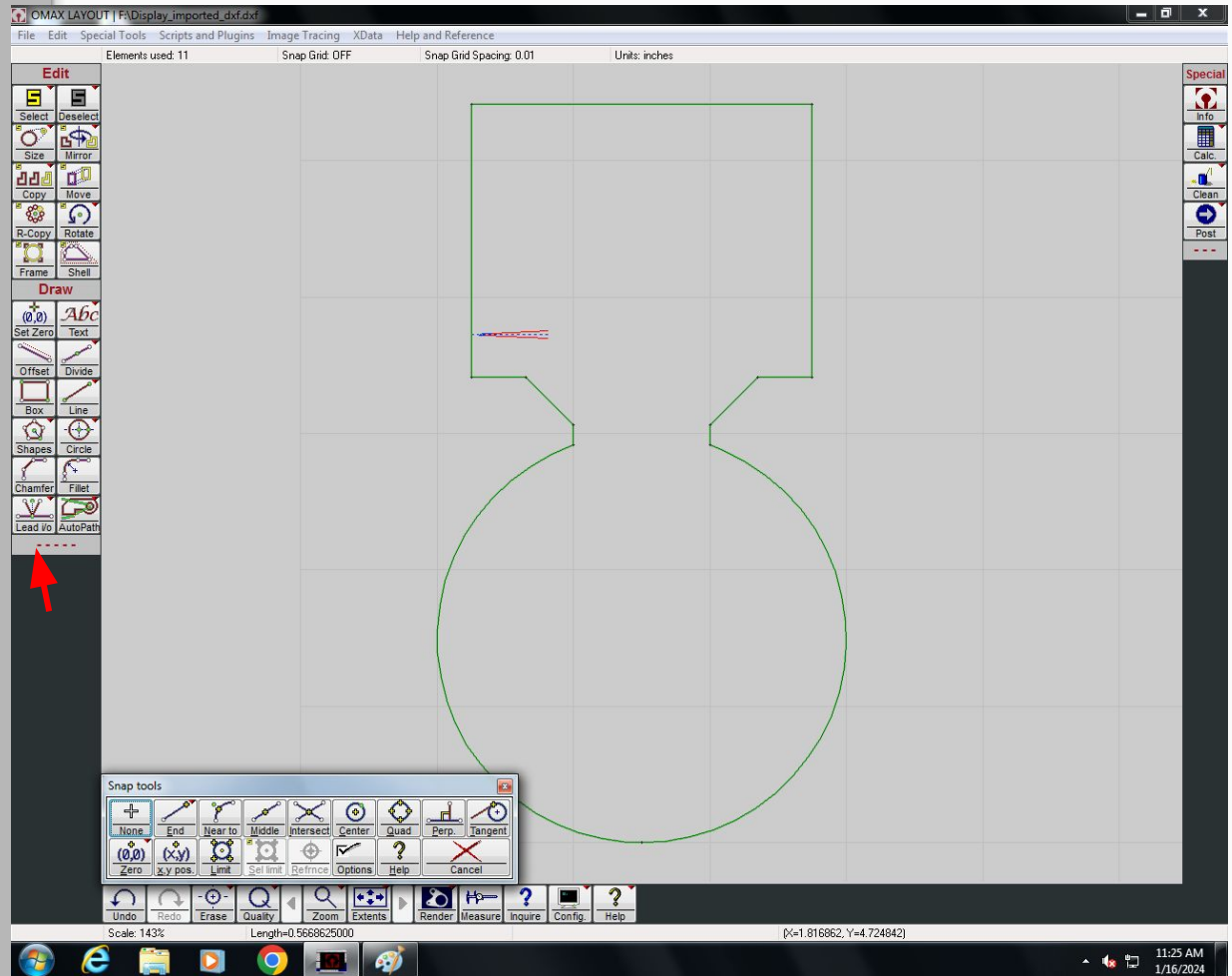


Congratulations! You have  
successfully used the OMAX  
2626 JET MACHINING  
CENTER.

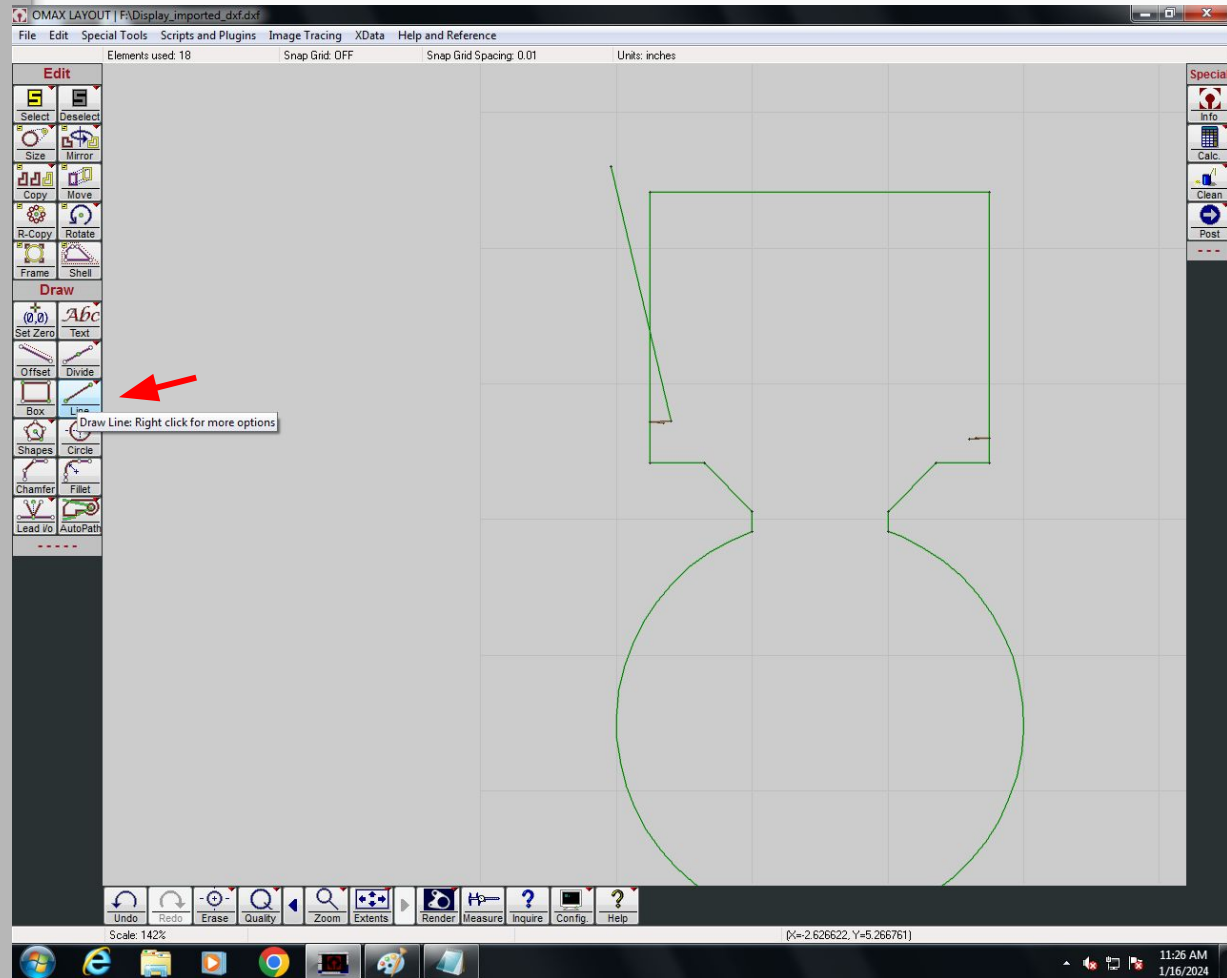




Select the  
“Lead In” tool  
and draw lead  
ins for all of  
your cuts.  
TAKE NOTE OF  
WHICH CUTS  
SHOULD BE  
ON THE INSIDE  
AND OUTSIDE

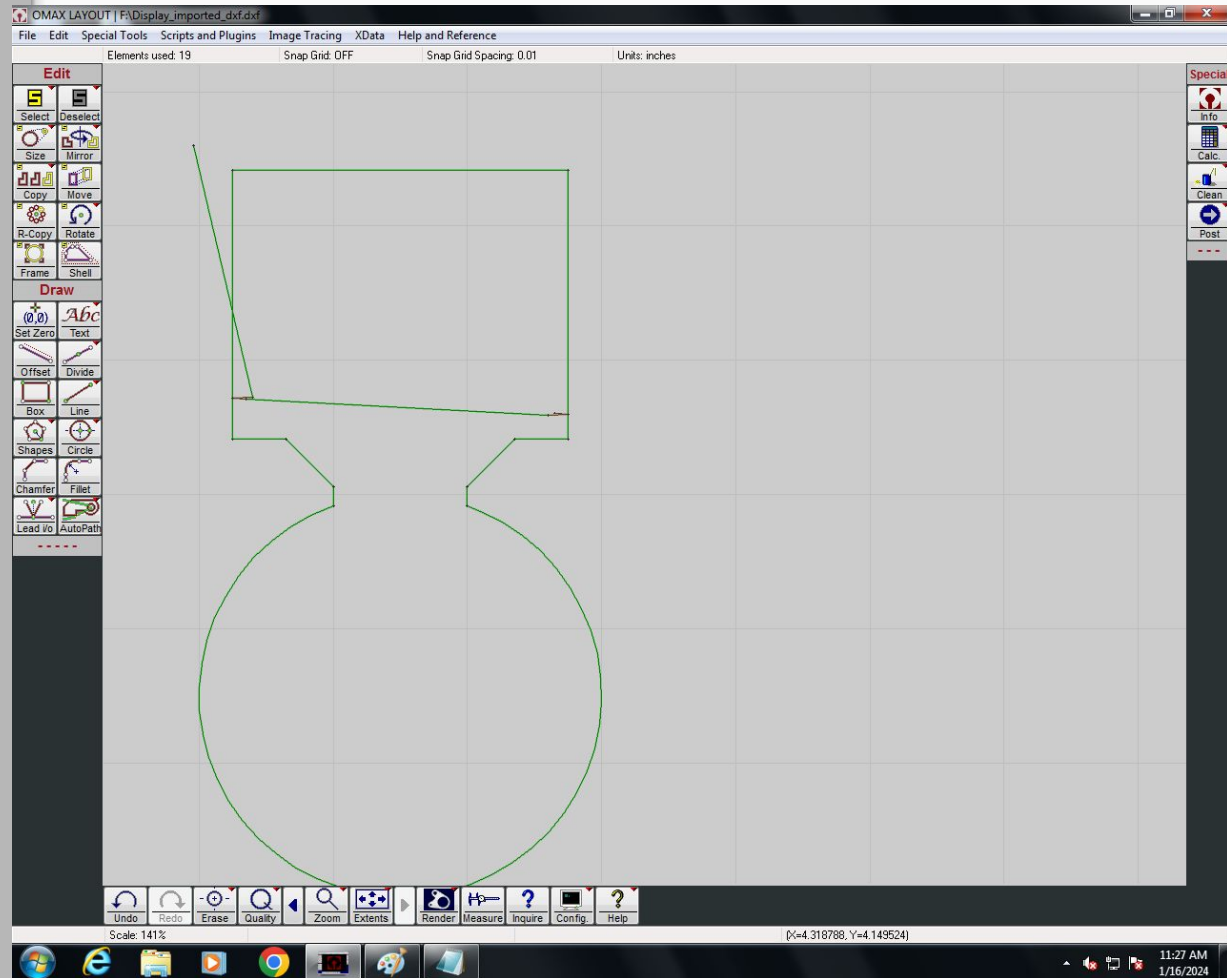


Select the  
“Line” tool and  
draw a line  
from the  
top-left corner  
of your part to  
the **LONG** end  
of your first cut



Use the “Line” tool to connect all of your lead ins in the order you want them to be cut.

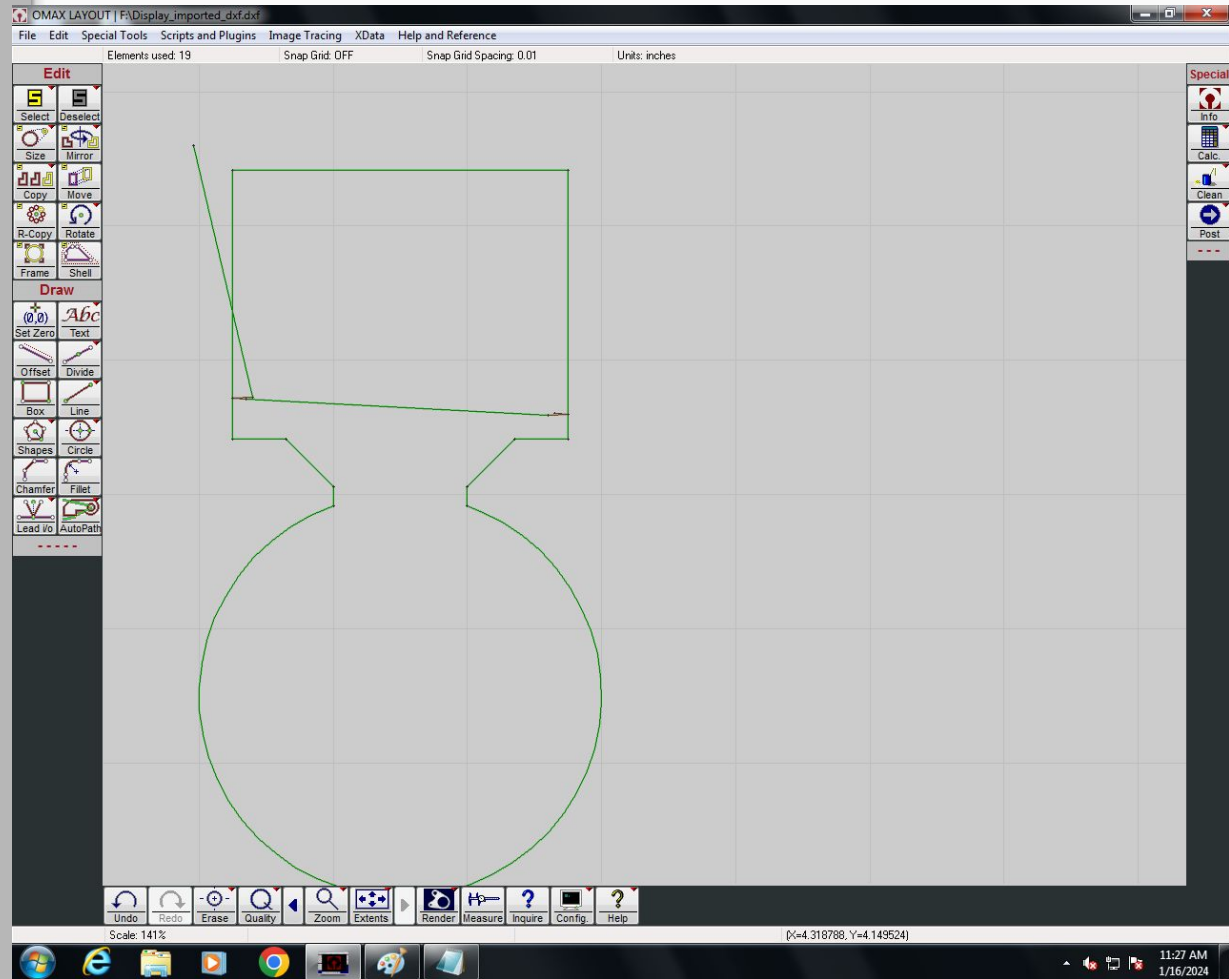
This example part would only require one lead in, the second one is just an example.



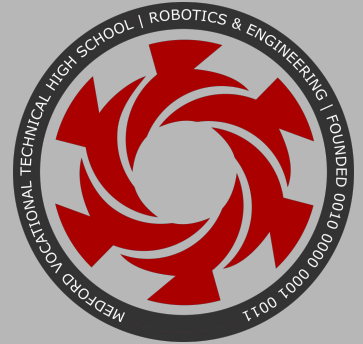


Try to reduce the amount of movement the cutting head will do over already cut area.

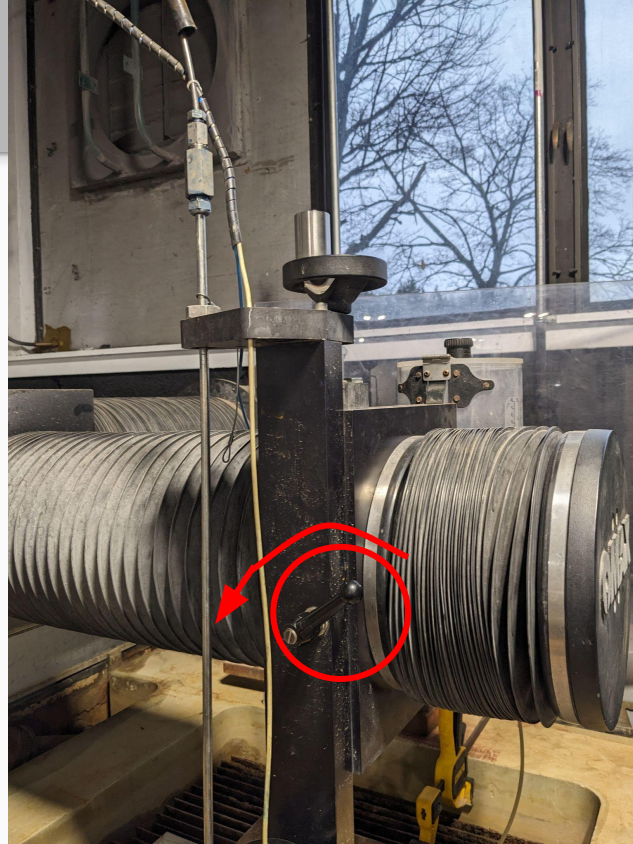
REMEMBER: THE LONG END IS THE LEAD IN, THE SHORT END IS THE LEAD OUT



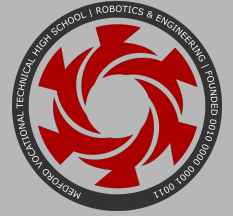
JUMP TO SLIDE 20 TO  
CONTINUE



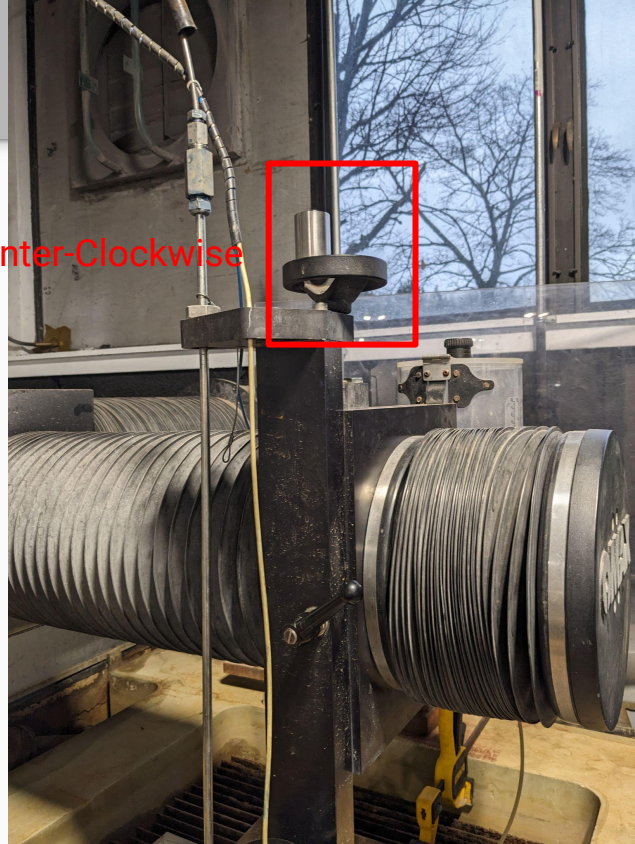
# Loosen the cutting head (if isn't already)



Raise the cutting head until it is clear of any weights or other objects in the bed.



Turn Counter-Clockwise





JUMP TO SLIDE 29 TO  
CONTINUE



If there is already some material in the machine, remove it.

Then place the material you intend to cut from into the cutting bed



Your material should be up against the edge of metal in the bottom-left of the cutting bed





Use the clamp to secure the material.

Then place at least one weight on the material away from where you intend to cut from.





JUMP TO SLIDE 31 TO  
CONTINUE

