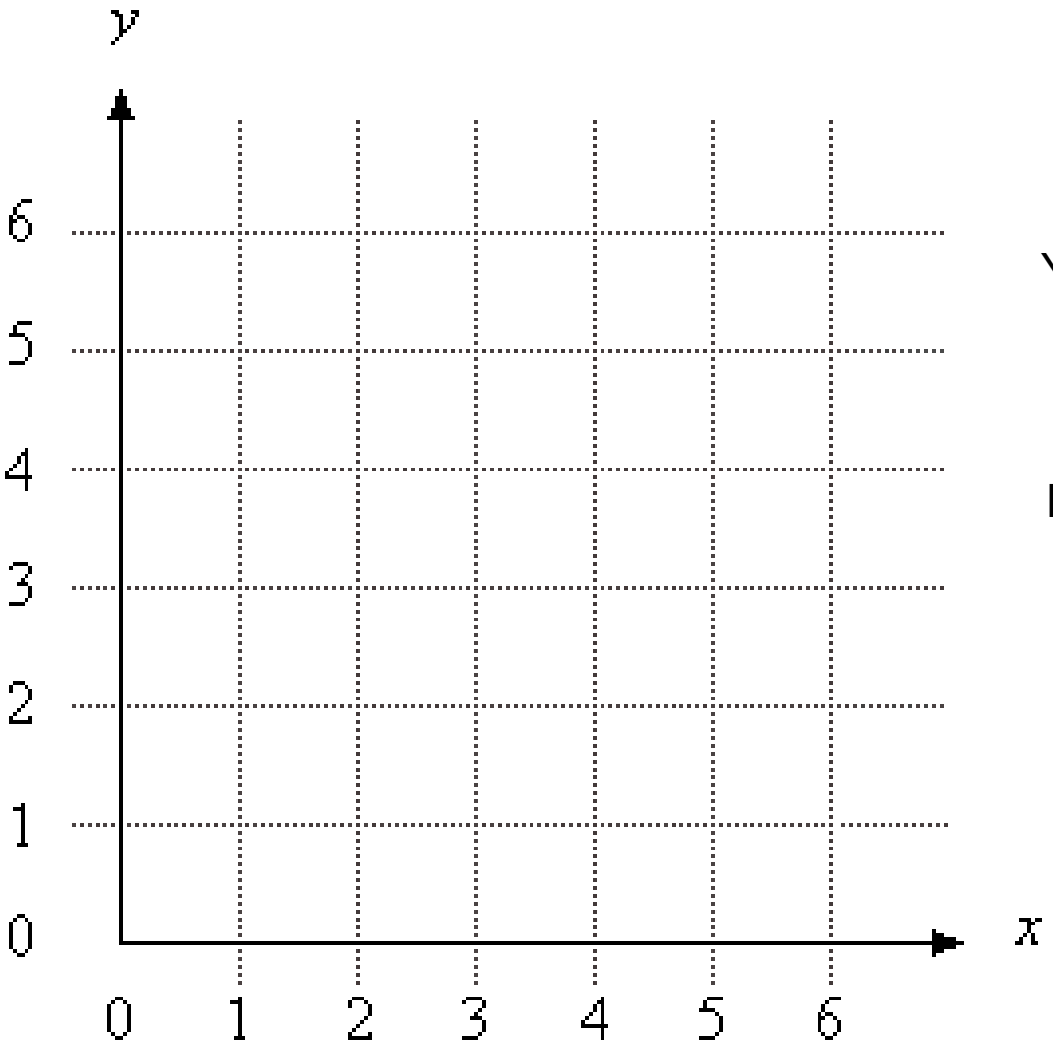
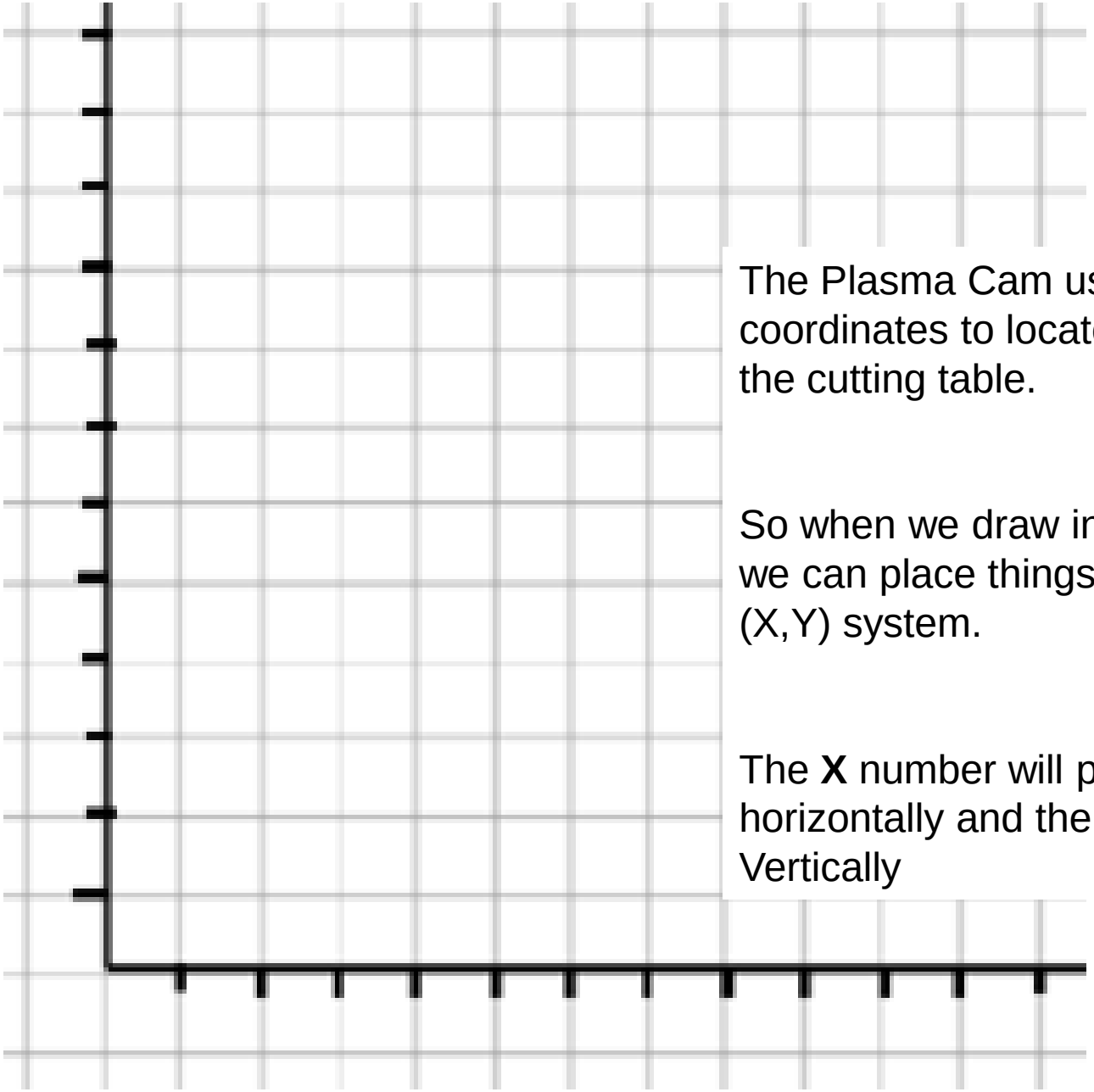
# Coordinate Grid




You might recognize this from Algebra?

For our applications you need to remember that the position of the “x” and “y” axis



The Plasma Cam uses the same coordinates to locate objects on the cutting table.

So when we draw in Plasma Cam, we can place things using the (X,Y) system.

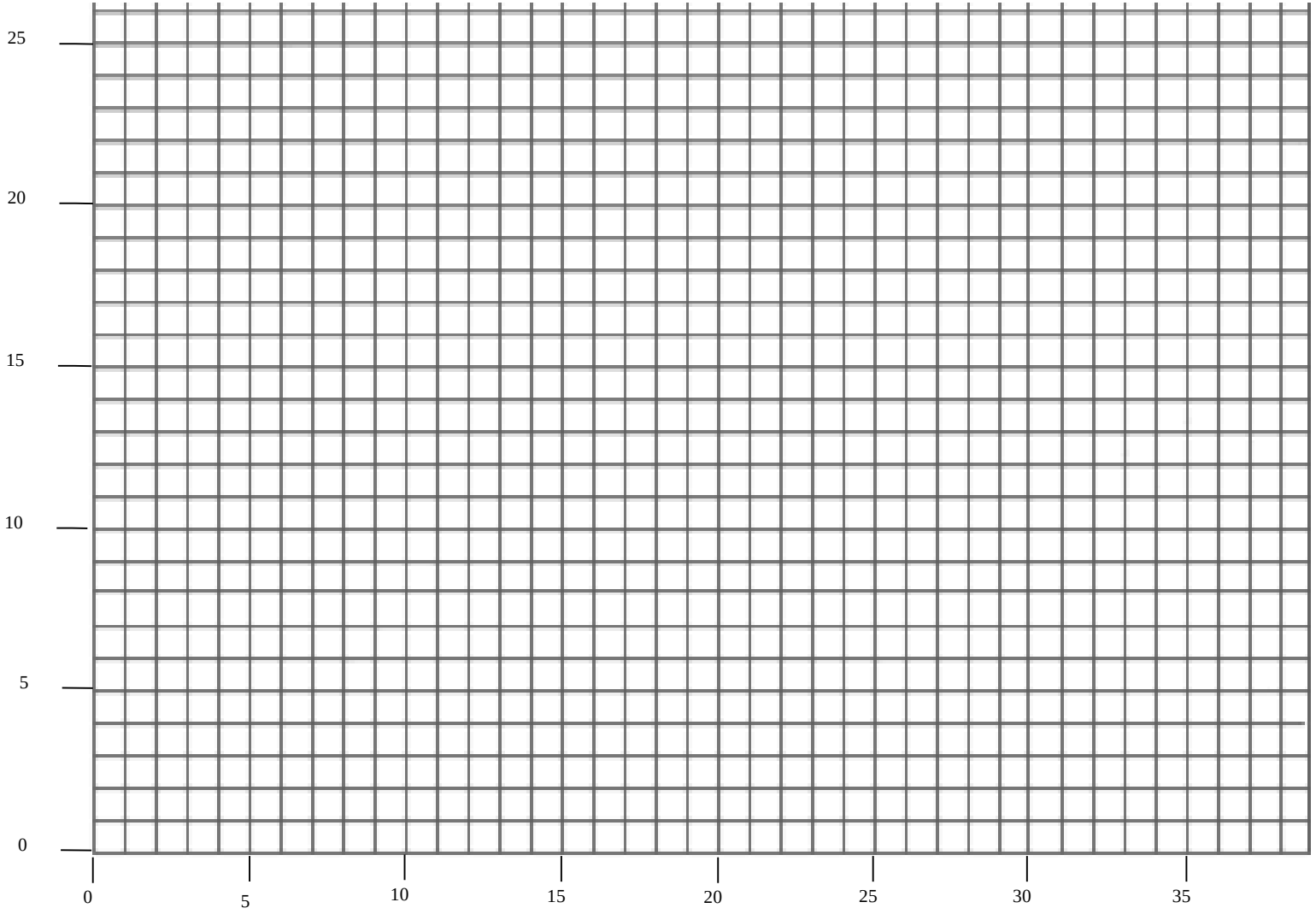
The **X** number will place us horizontally and the **Y** will place us Vertically

Plasma Cam Grid

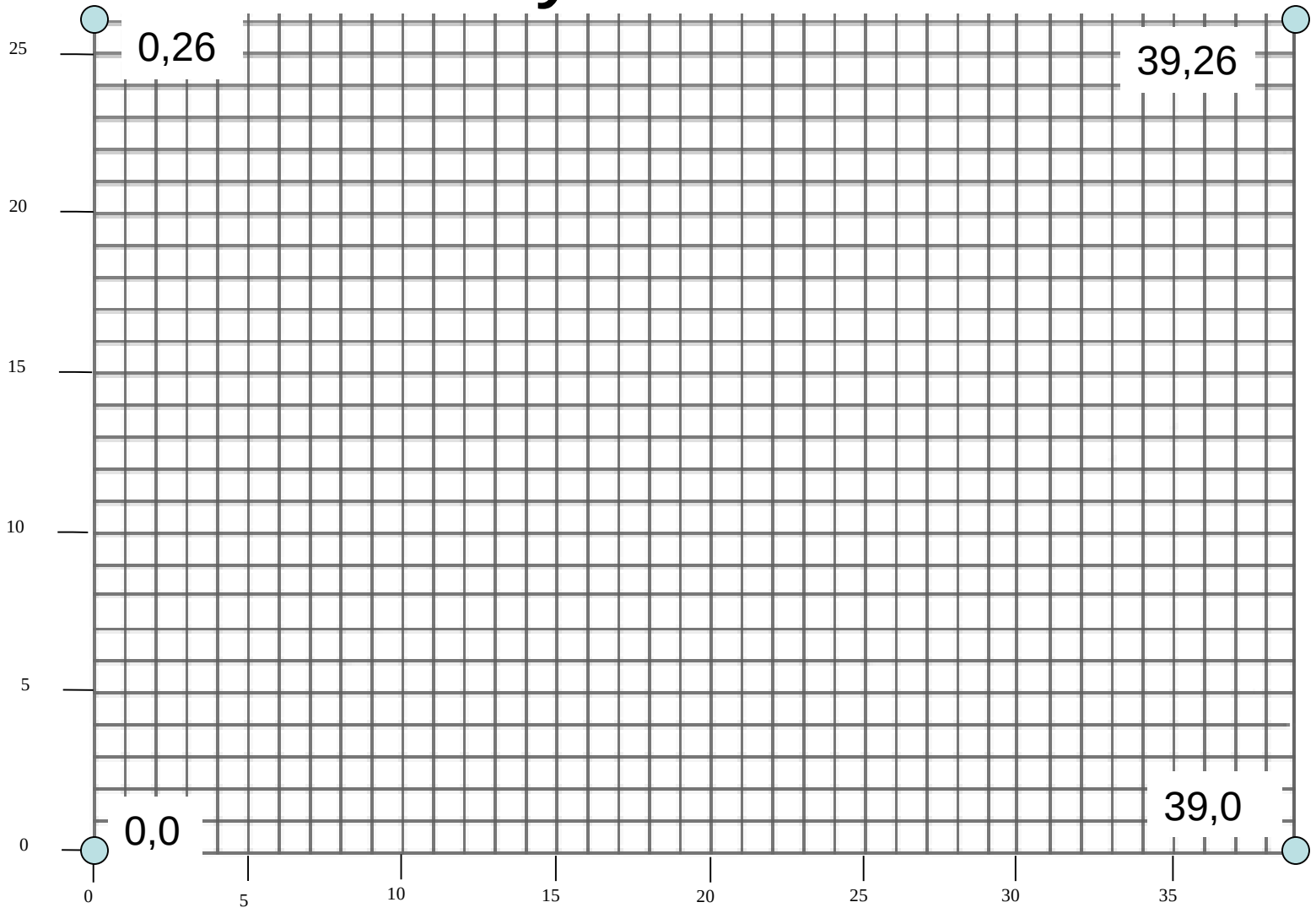
48” x 48”

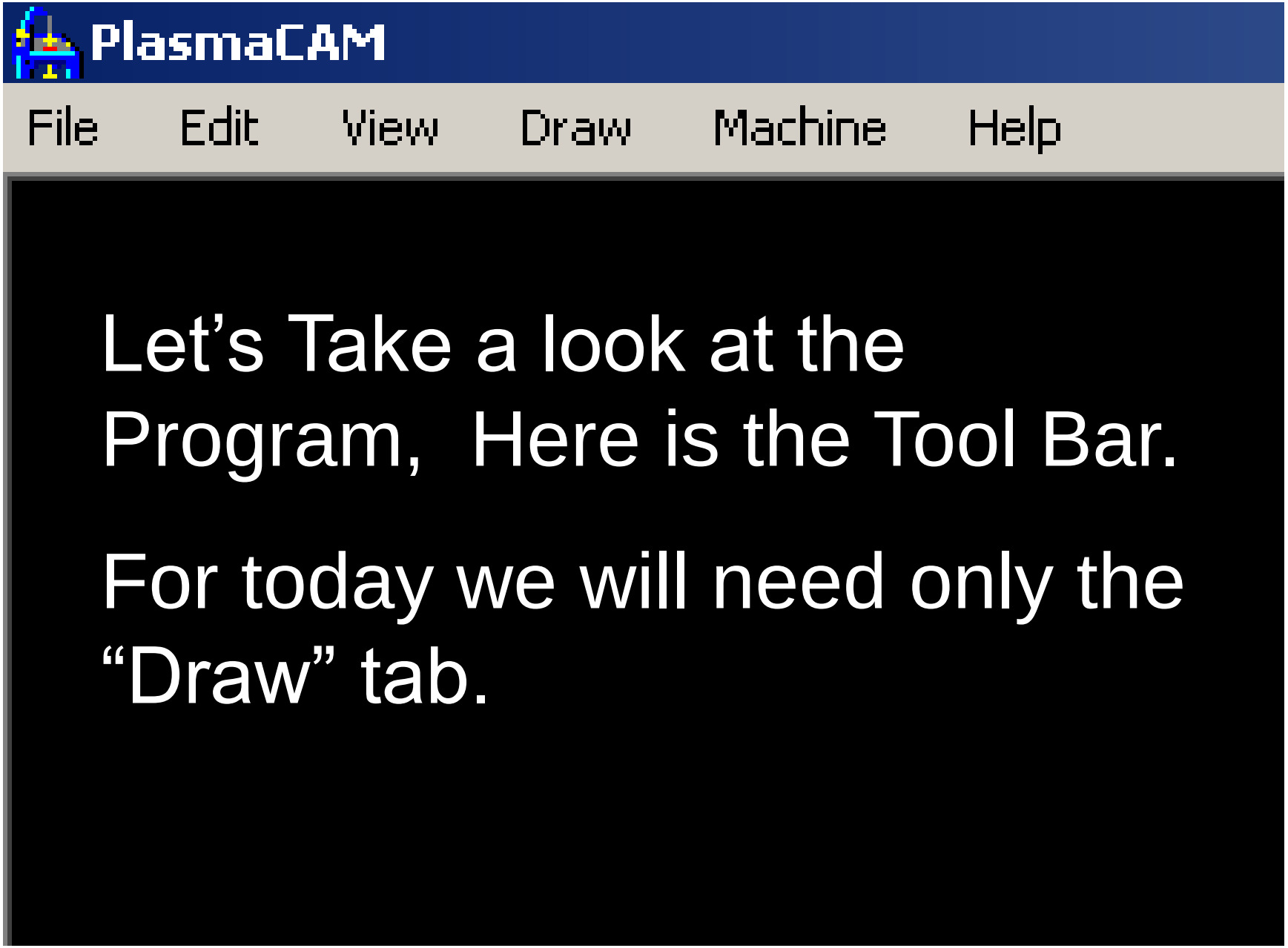
Spacing Set to 1” x 1”

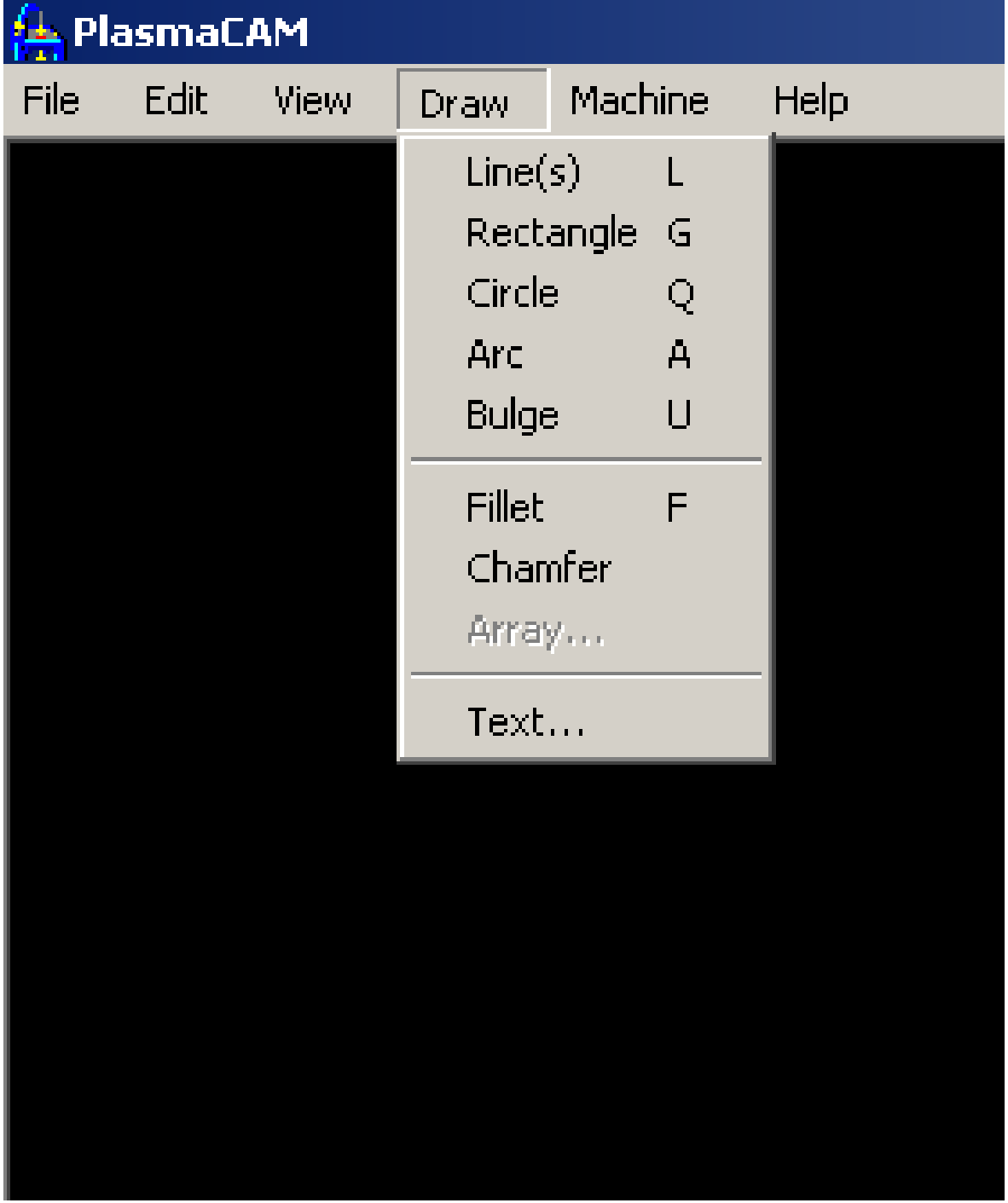
# Label the four corners of the grid on your notes.



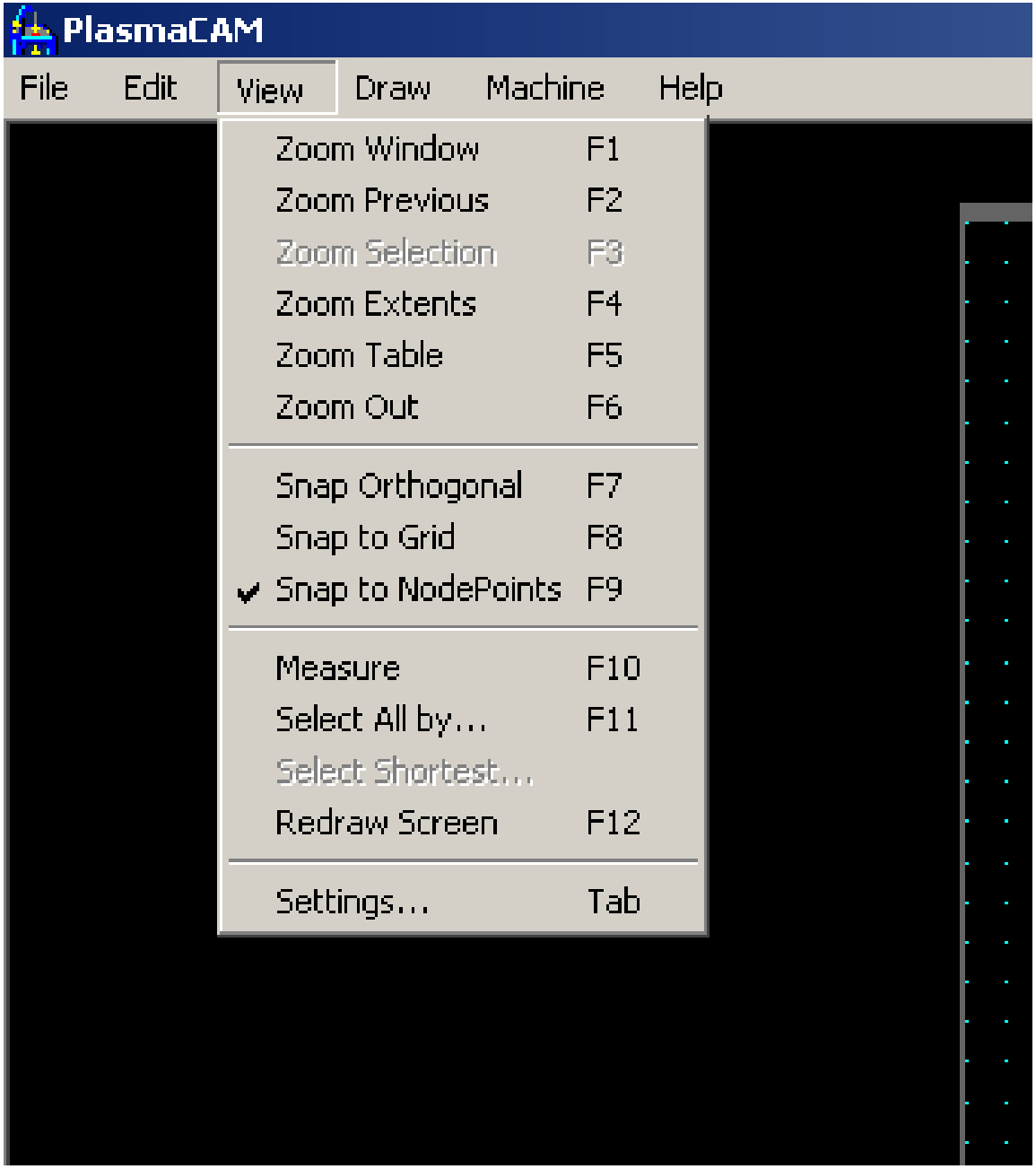
# Label the four corners of the grid on your notes.



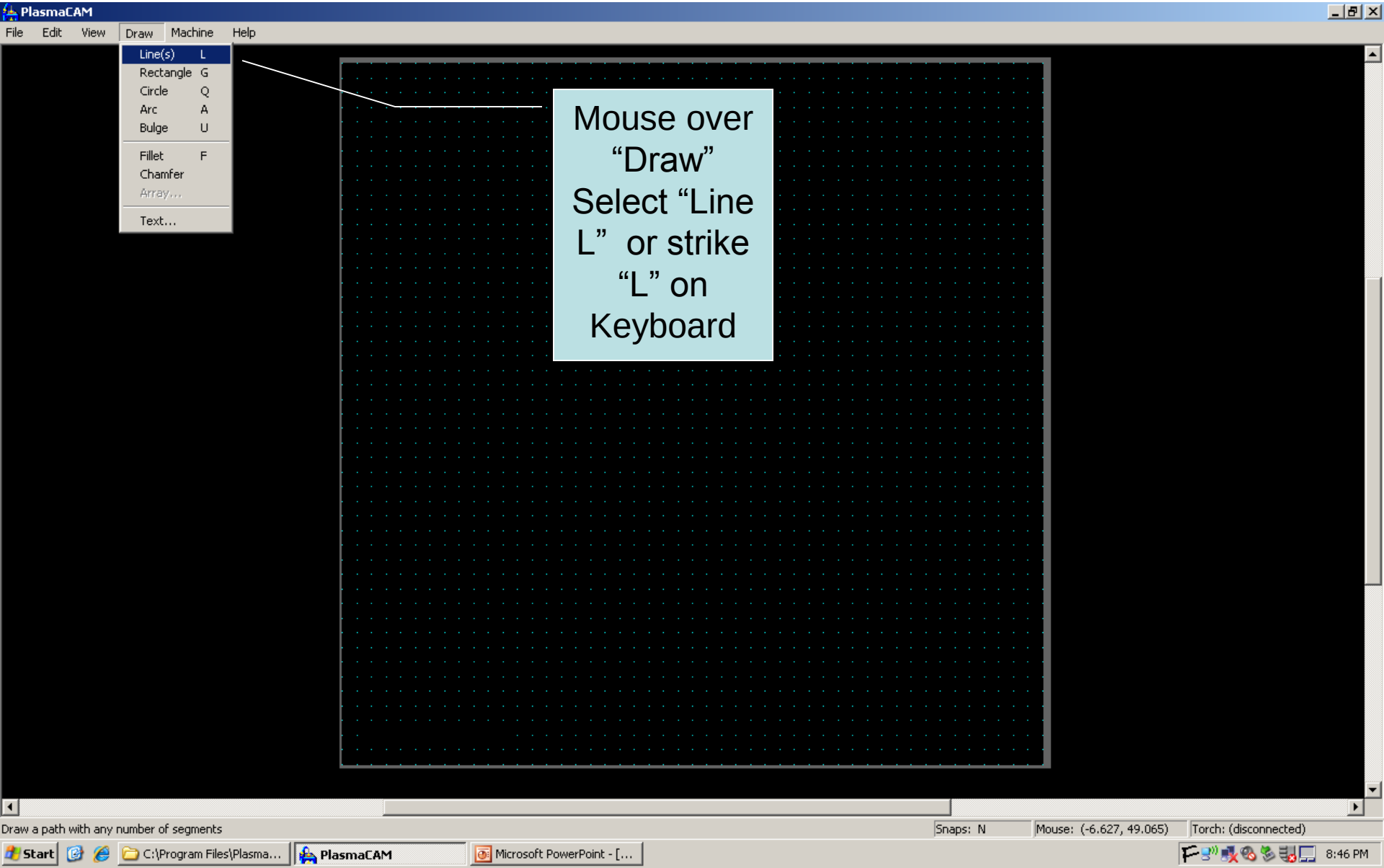

PlasmaCAM
File
Edit
View
Draw
Machine
Help
Let’s Take a look at the Program, Here is the Tool Bar.
For today we will need only the “Draw” tab.

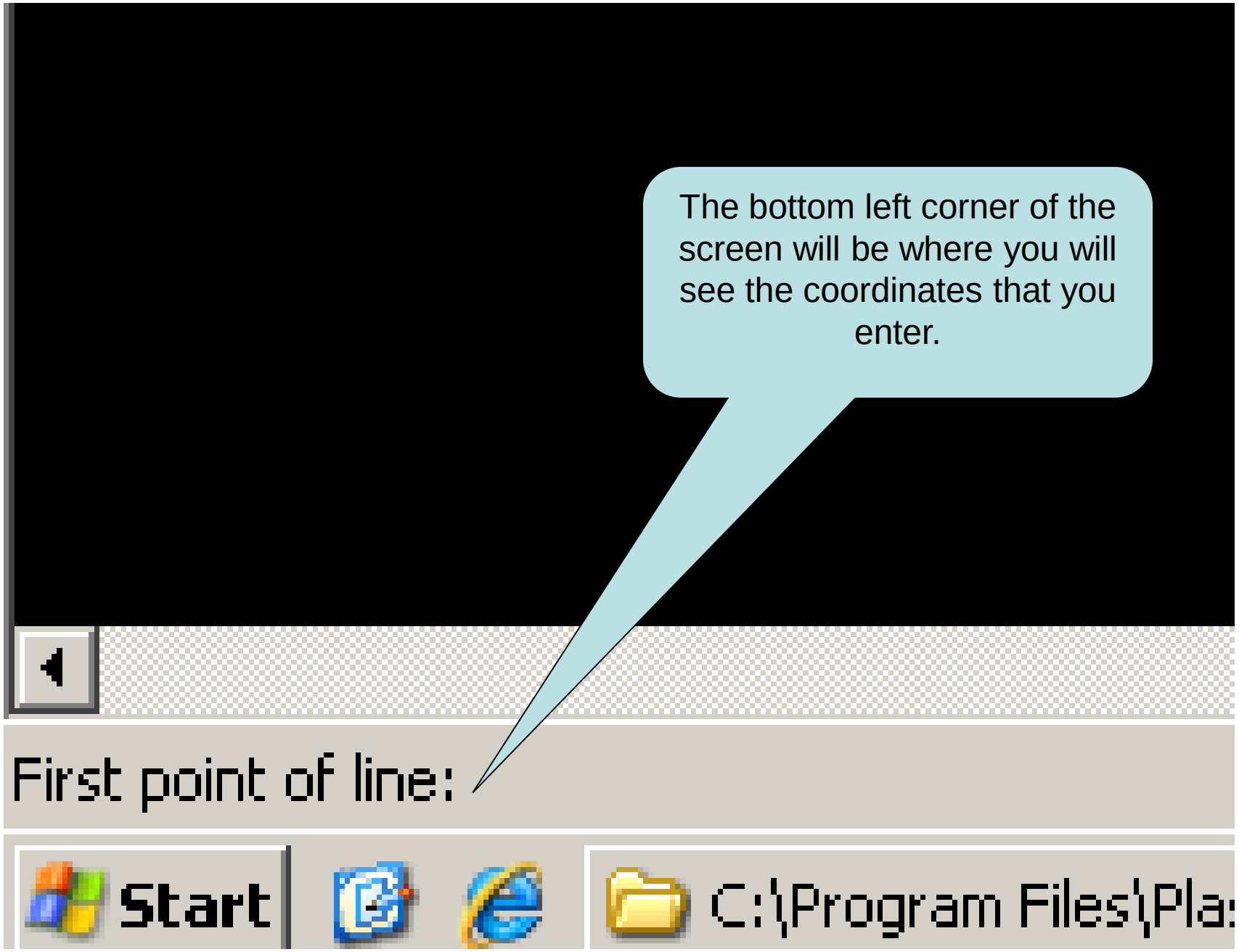


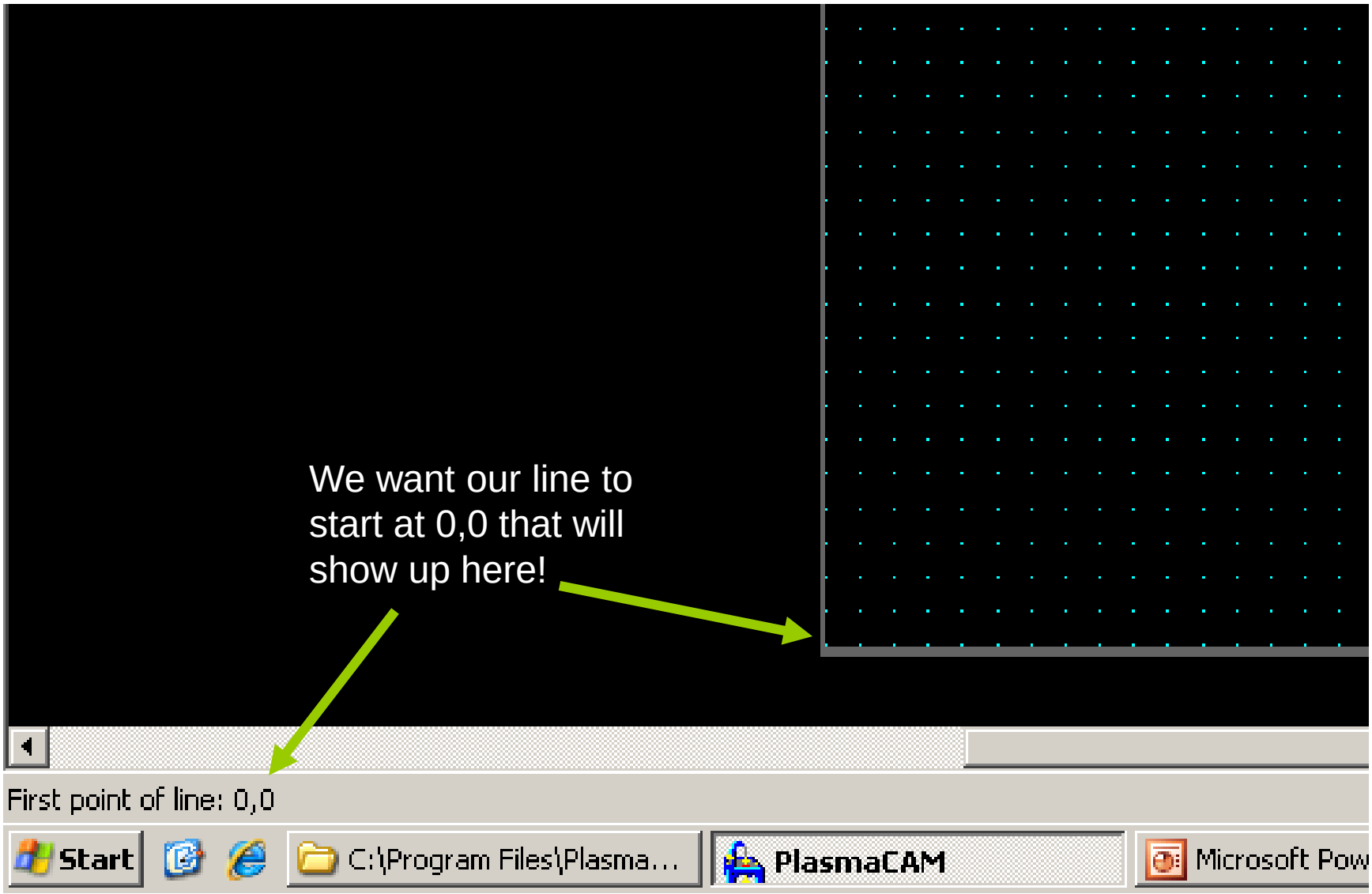

These are the Draw Commands that we will work with! Please take note of all the shortcut commands. Write them on your note page!

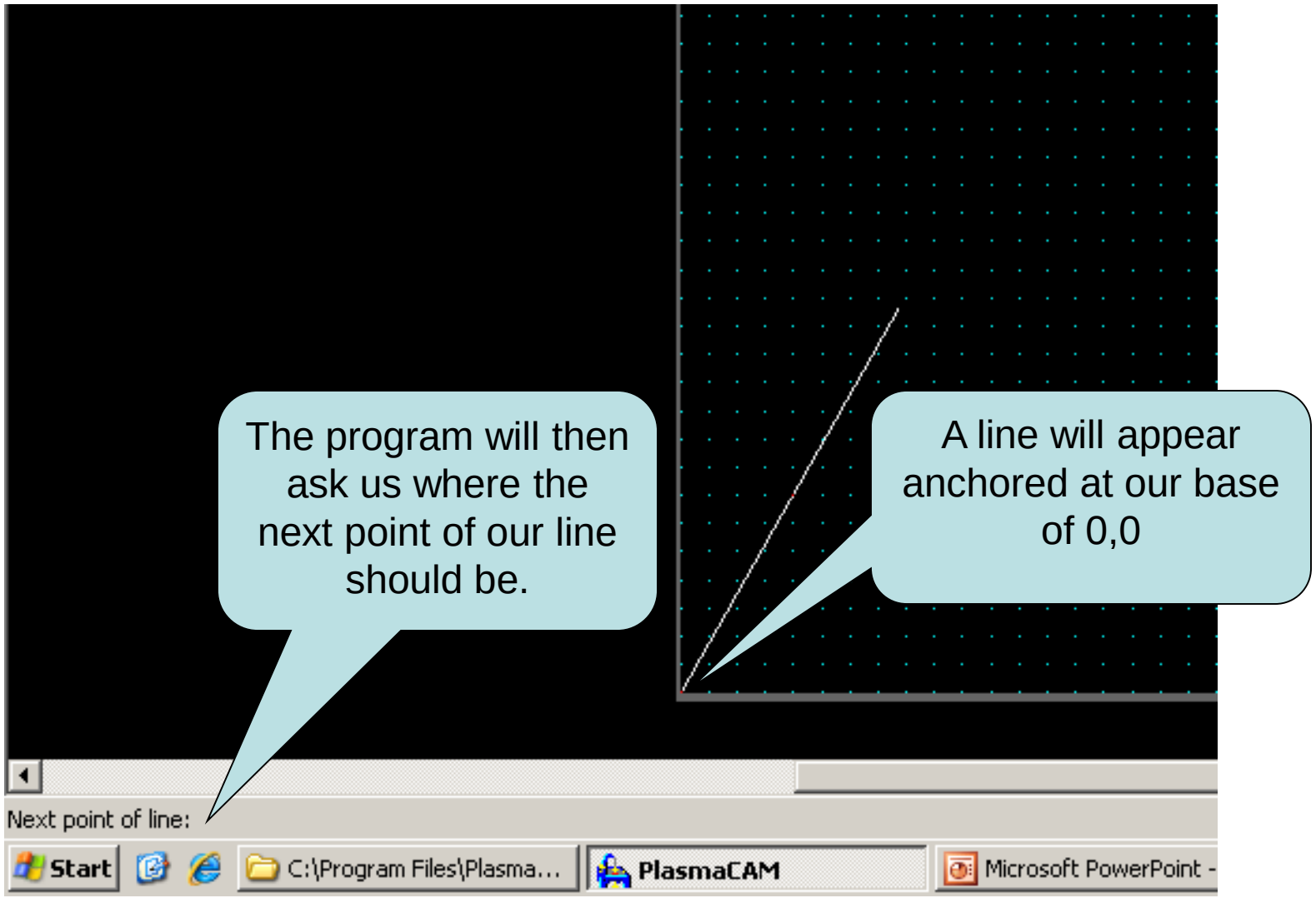

PlasmaCAM
File
Edit
View
Draw
Machine
Help
Zoom Window F1
Zoom Previous F2
Zoom Selection F3
Zoom Extents F4
Zoom Table F5
Zoom Out F6
Snap Orthogonal F7
Snap to Grid F8
Snap to NodePoints F9
Measure F10
Select All by... F11
Select Shortest...
Redraw Screen F12
Settings... Tab

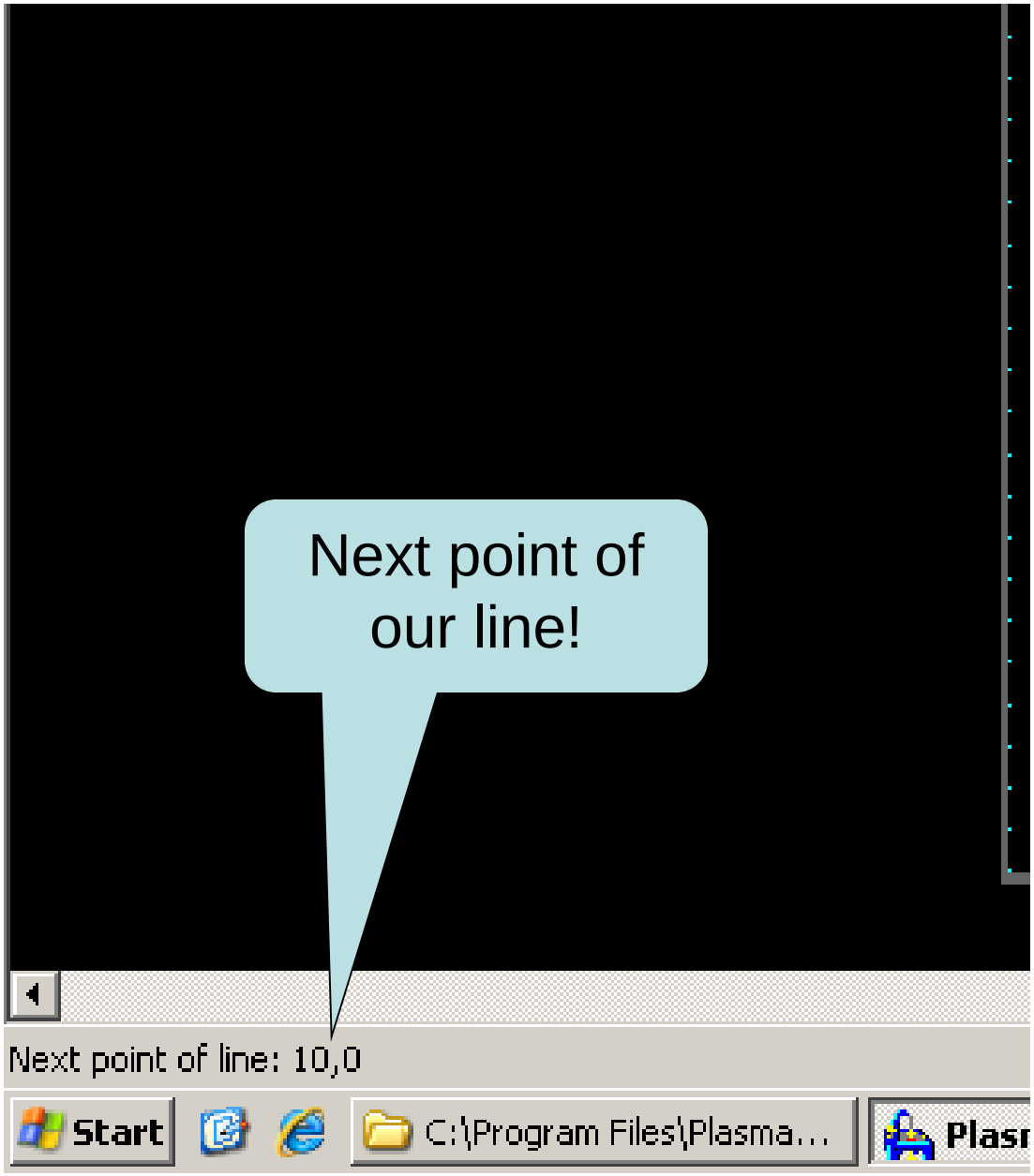
# To Draw a Line:




The bottom left corner of the screen will be where you will see the coordinates that you enter.
First point of line:
Start
C:\Program Files\Pla


We want our line to start at 0,0 that will show up here!
First point of line: 0,0
Start
C:\Program Files\Plasma...
PlasmaCAM
Microsoft Pow

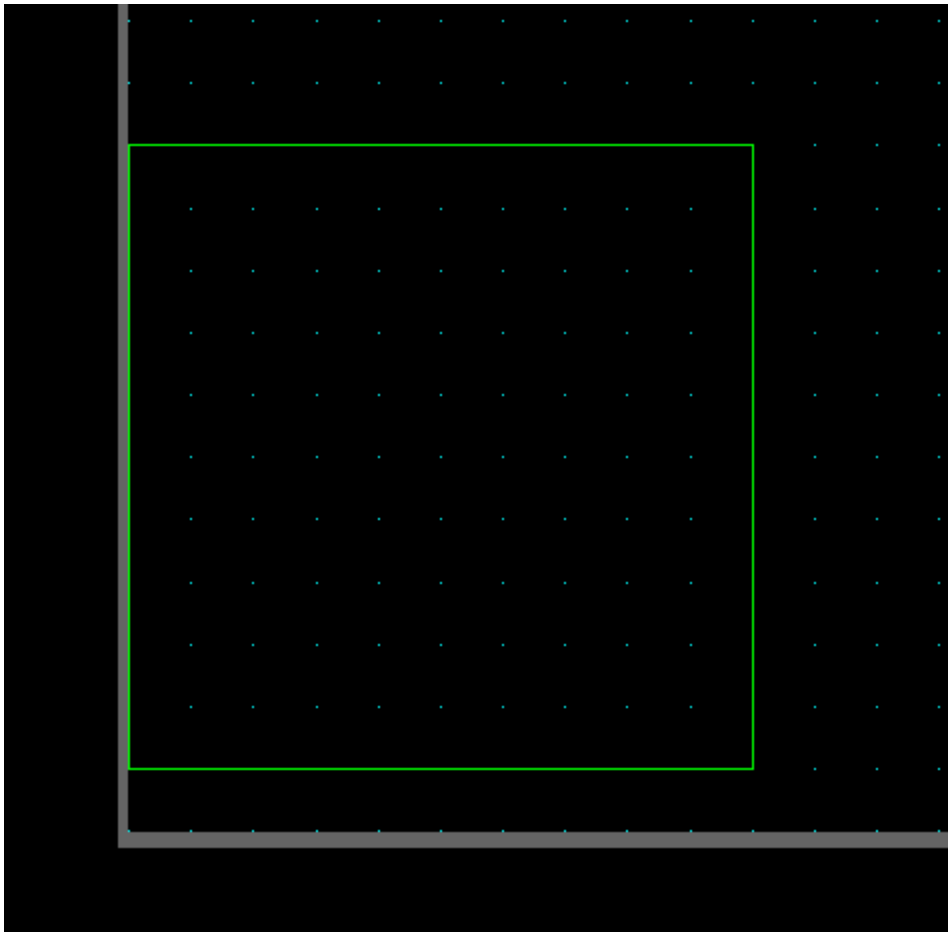

The program will then ask us where the next point of our line should be.
A line will appear anchored at our base of 0,0
Next point of line:
Start
C:\Program Files\Plasma...
PlasmaCAM
Microsoft PowerPoint -


Next point of our line!
Next point of line: 10,0
Start
C:\Program Files\Plasma...
Plasr

Draw this line on you note page.

10” Line drawn at 0,0 to 10,0

# To Draw a Square



Keyboard Shortcut:

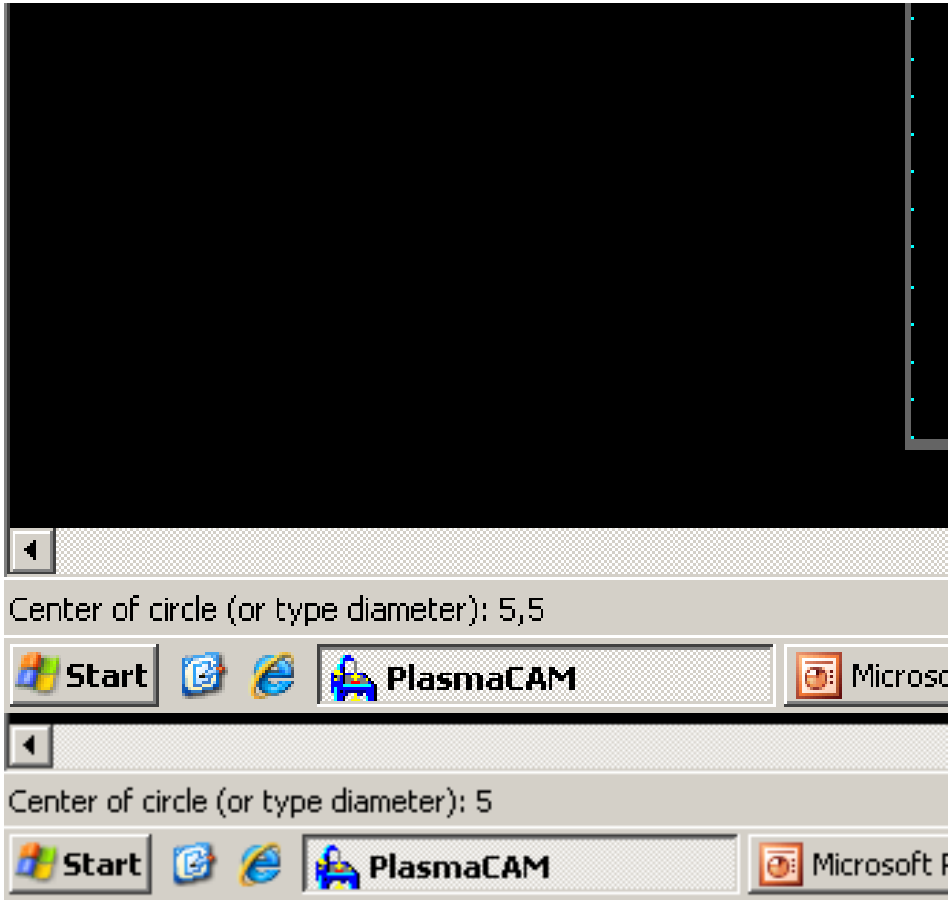
“G”  (IDK G???)

First Corner  0,1

Second Corner 10,11

Draw this on your note page.

# To Draw a Circle



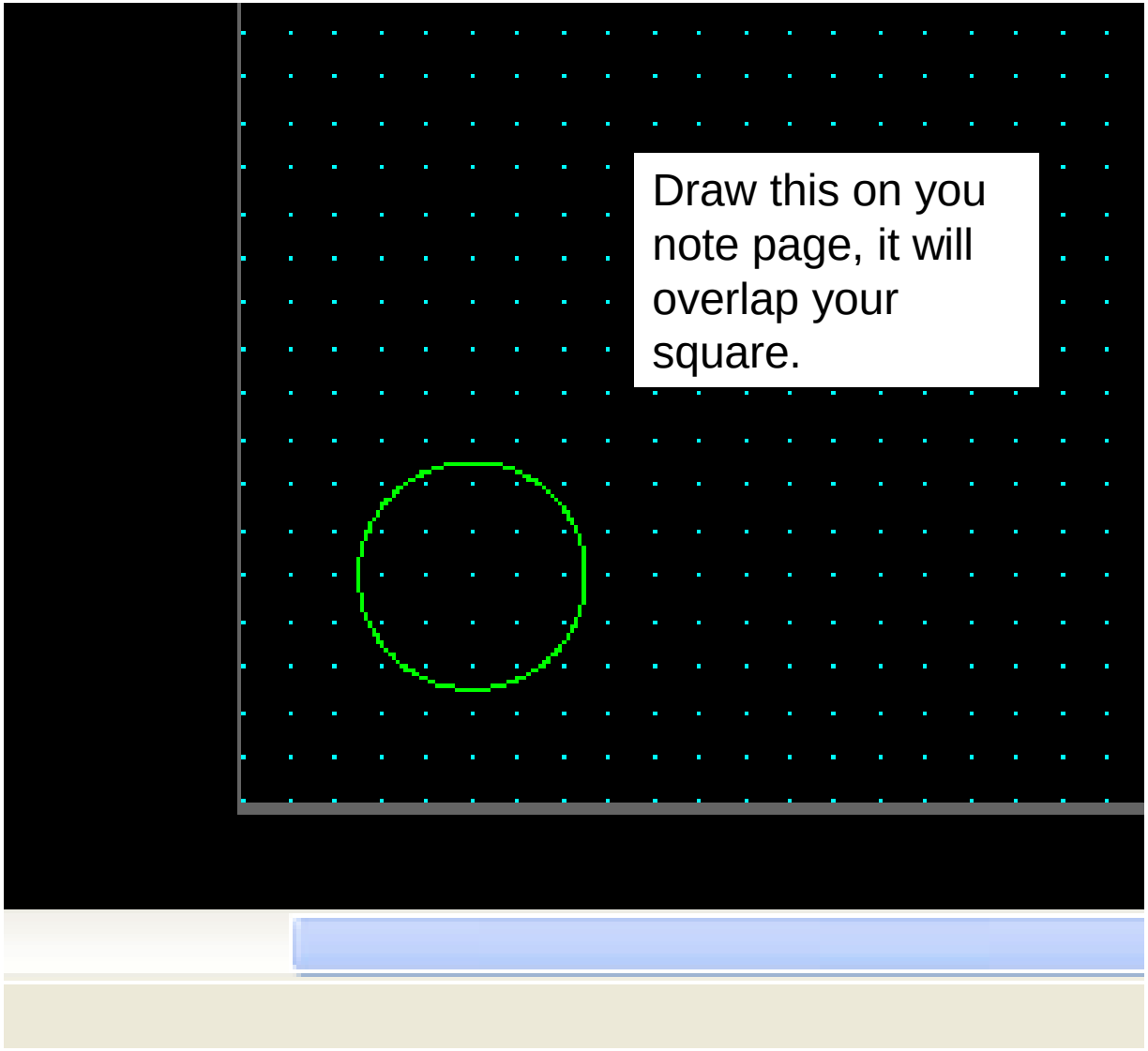

Keyboard Shortcut:

“Q”

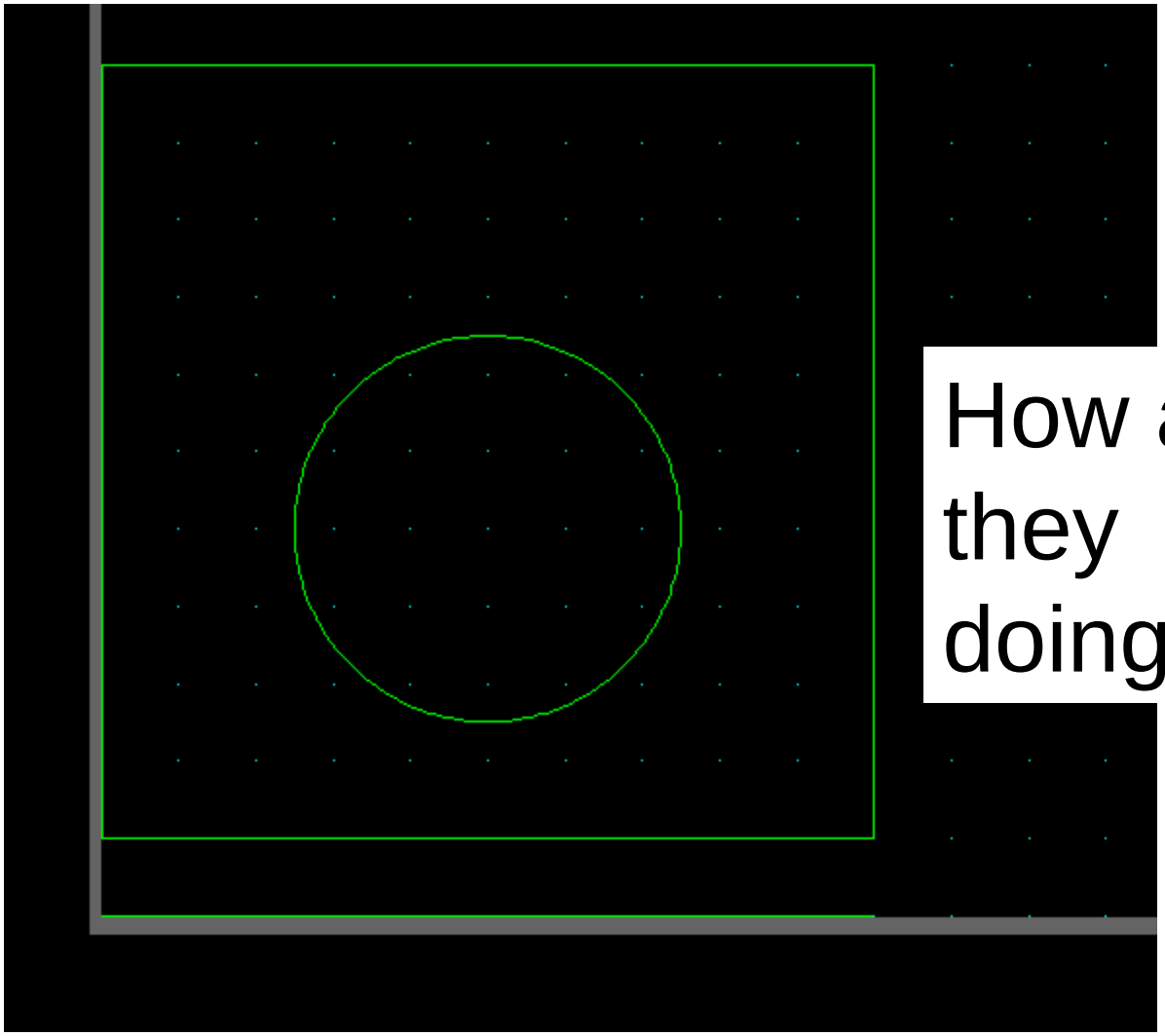
Enter Center Point (X,Y)

Or simply type desired diameter and place freehand.

# 5” Diameter Circle at 5,5

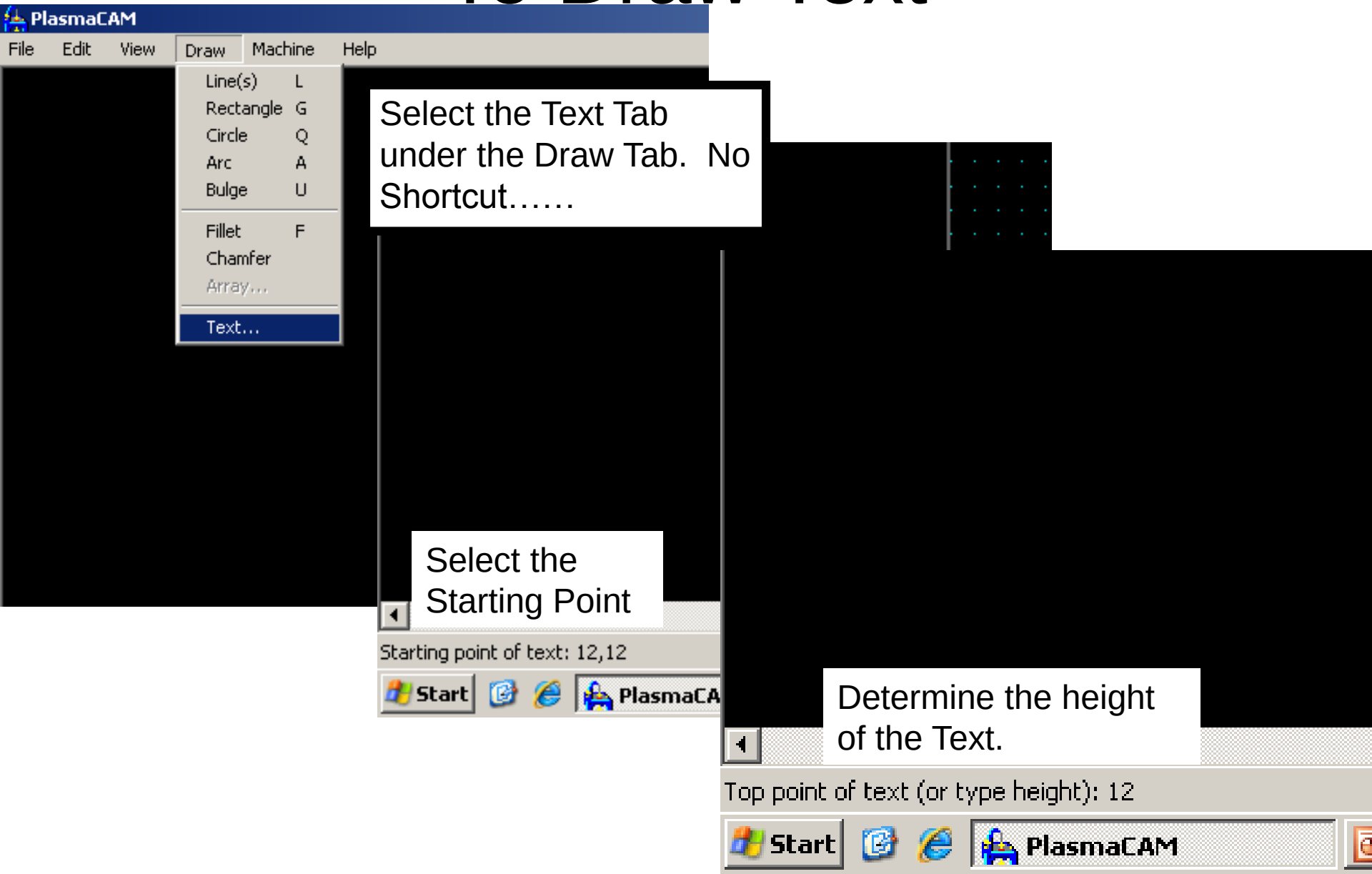


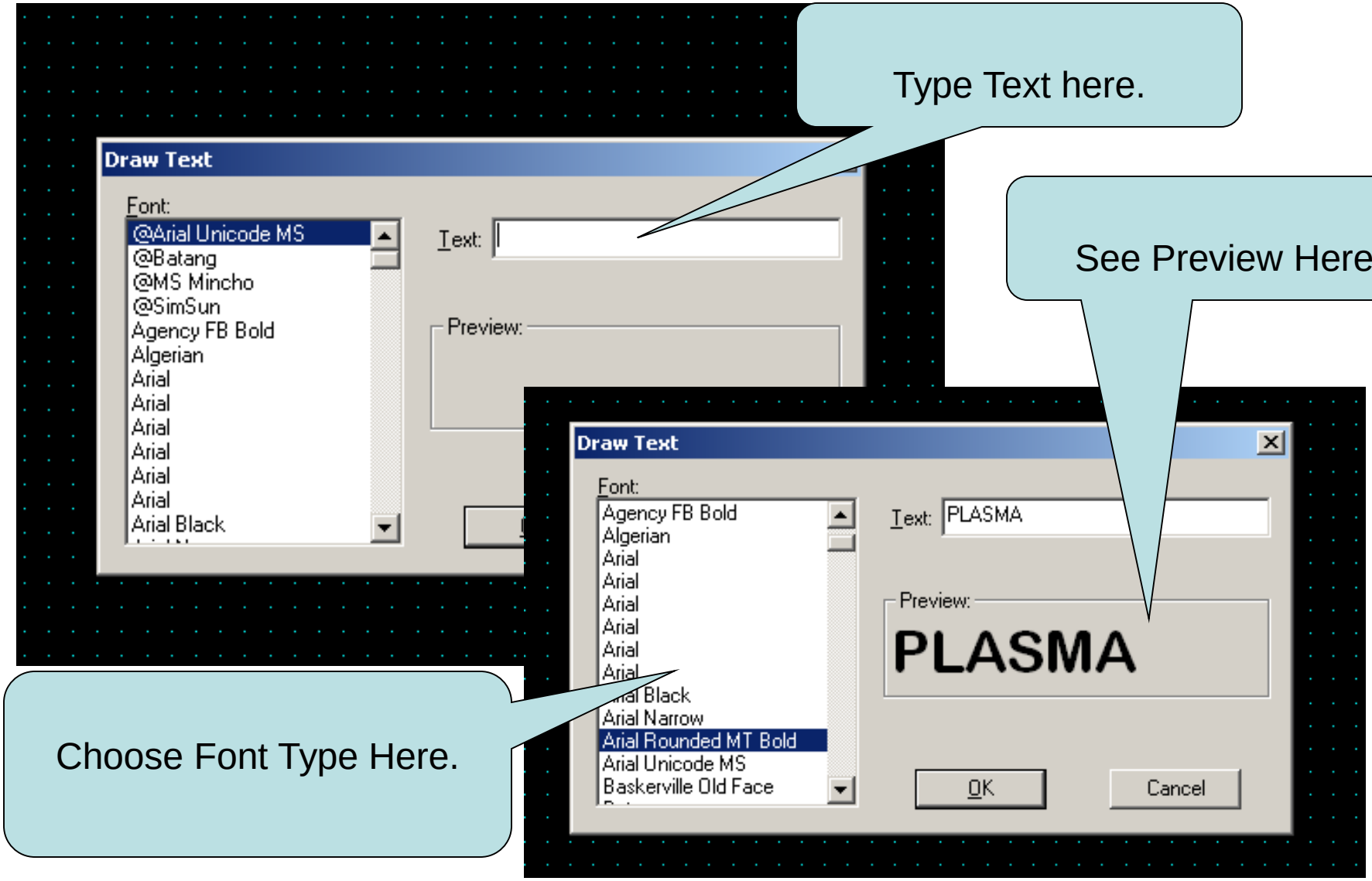
This is what the lower left of your notes should look like, compare yours to your neighbor…..

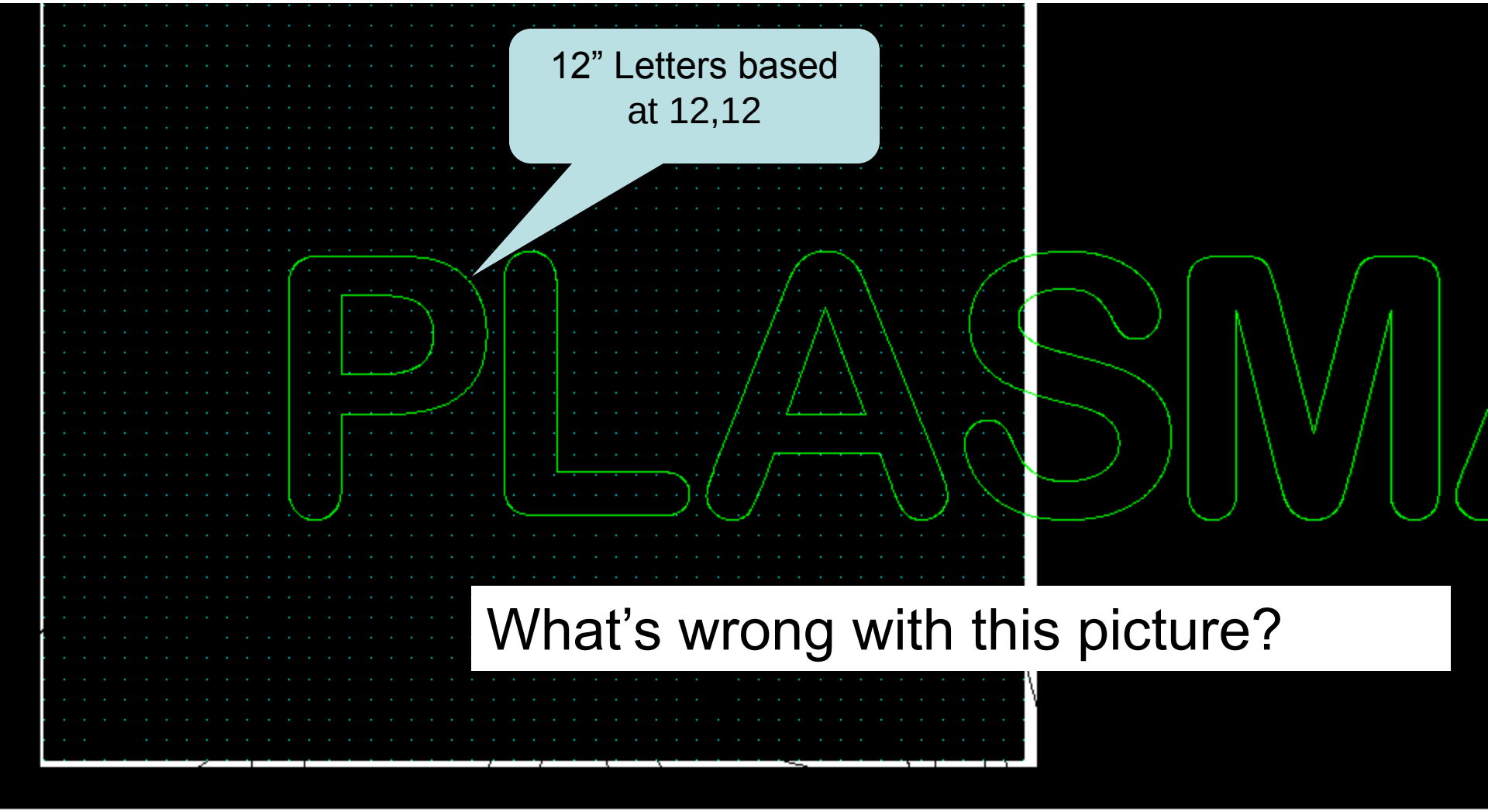


How are they doing???

# To Draw Text


PlasmaCAM
File
Edit
View
Draw
Machine
Help
Line(s) L
Rectangle G
Circle Q
Arc A
Bulge U
Fillet F
Chamfer
Array...
Text...
Select the Text Tab under the Draw Tab. No Shortcut……
Select the Starting Point
Starting point of text: 12,12
Start
PlasmaCA
Determine the height of the Text.
Top point of text (or type height): 12
Start
PlasmaCAM

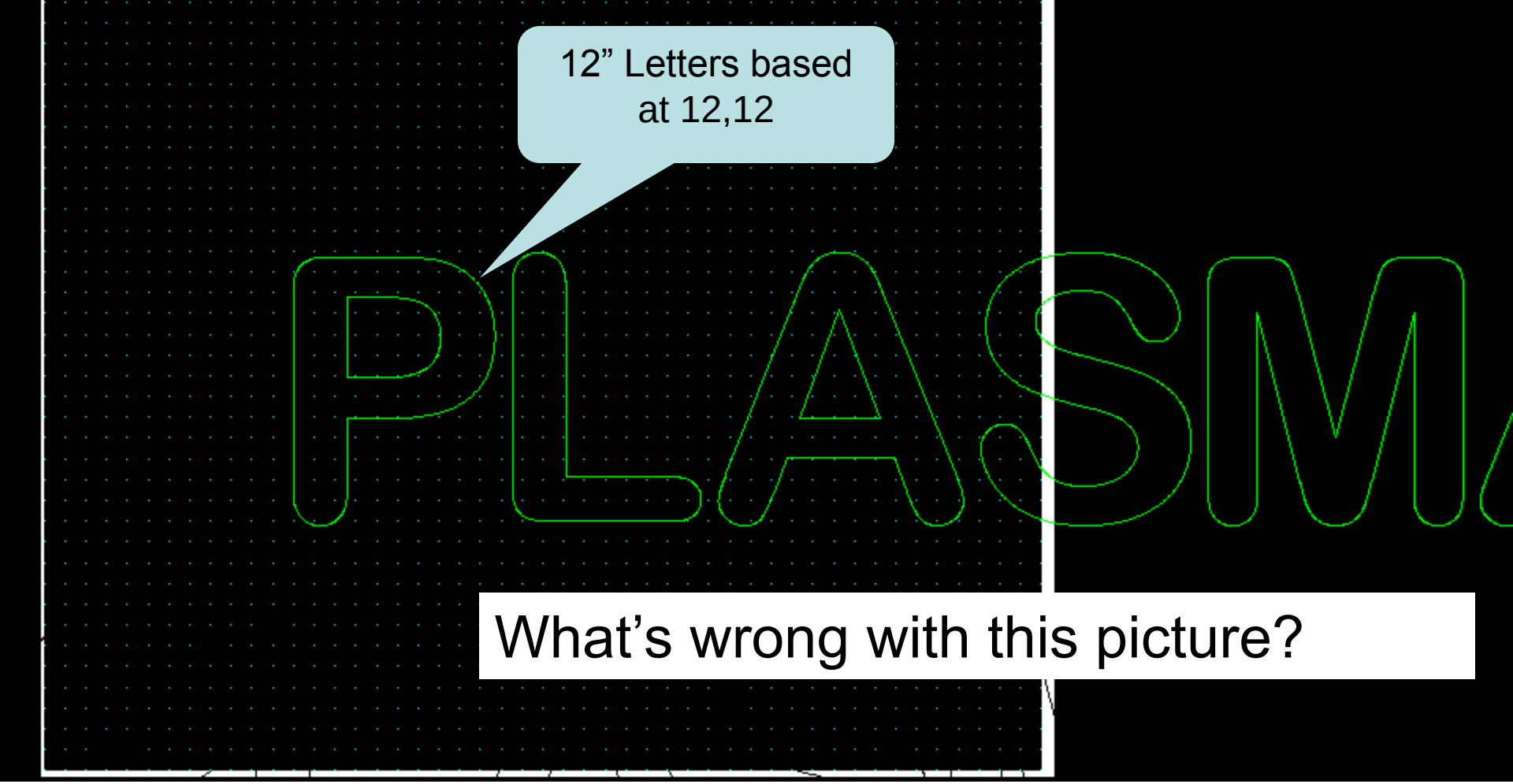

Type Text here.
See Preview Here.
Choose Font Type Here.
Draw Text
Font:
@Arial Unicode MS
@Batang
@MS Mincho
@SimSun
Agency FB Bold
Algerian
Arial
Arial
Arial
Arial
Arial
Arial
Arial Black
Text:
Preview:
Draw Text
Font:
Agency FB Bold
Algerian
Arial
Arial
Arial
Arial
Arial
Arial
Arial Black
Arial Narrow
Arial Rounded MT Bold
Arial Unicode MS
Baskerville Old Face
Text:
PLASMA
Preview:
PLASMA
OK
Cancel




Snaps: N Mouse: (11.407, 26.048) Torch: (disconnected)

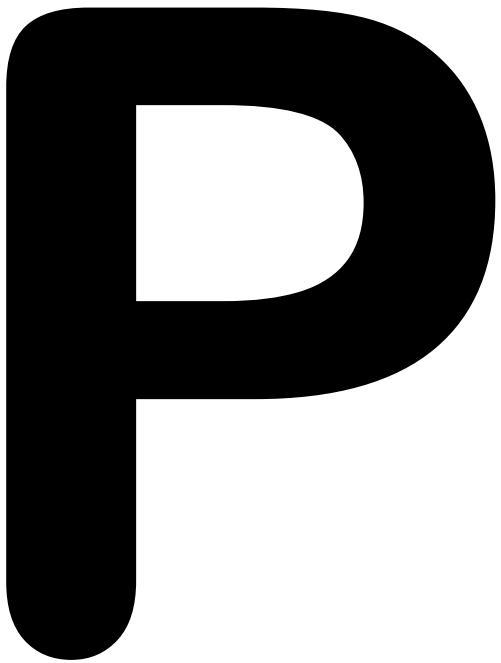
Microsoft PowerPoint - [...

9:38



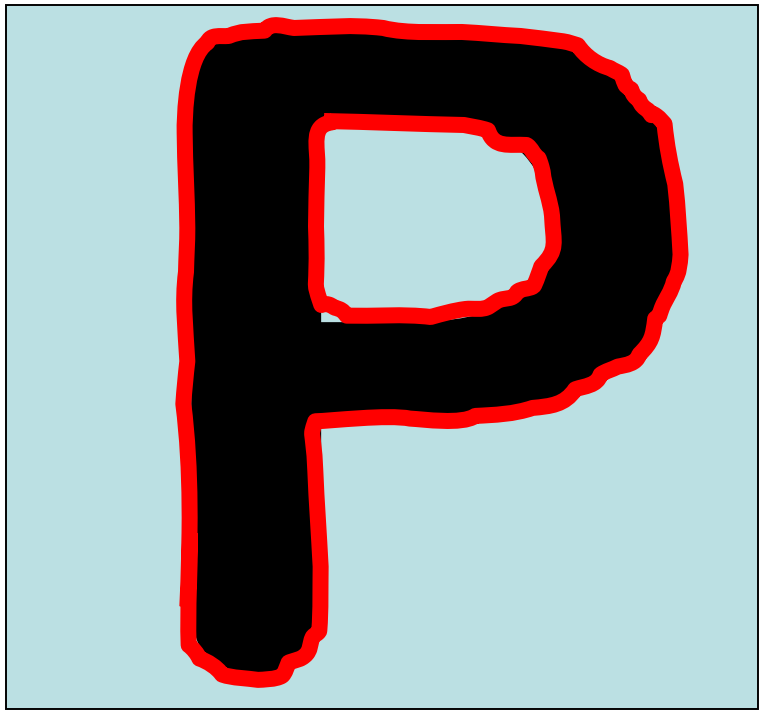

That’s right, too big, we’ll talk about scaling later……

Text presents another problem, it has to be stenciled so that the parts of the letter that make it legible remain after the machine has cut it out.



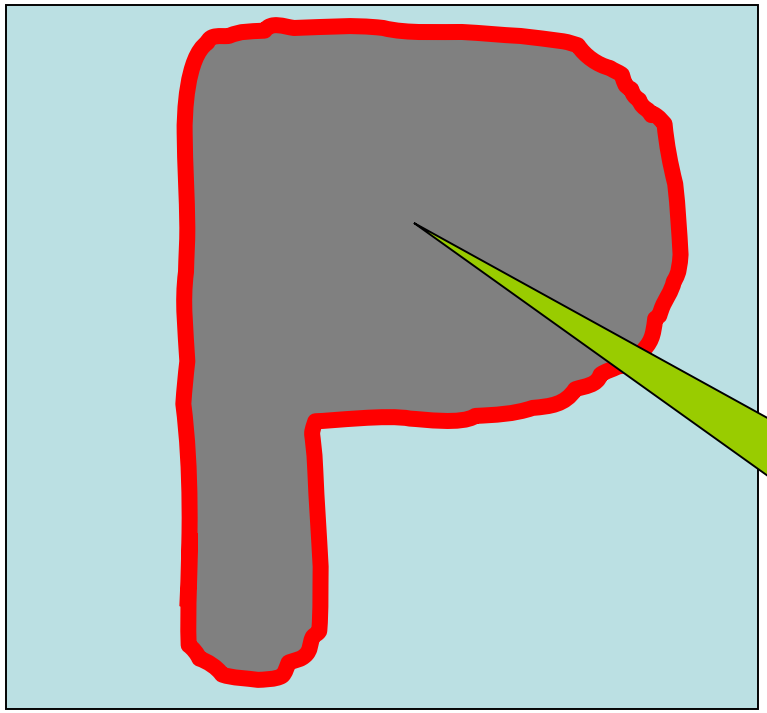
Letters like P, A, B, R, O all need some attention before we can cut them out.

Text presents another problem, it has to be stenciled so that the parts of the letter that make it legible remain after the machine has cut it out.



The Red Outline represents the cut path of the plasma torch

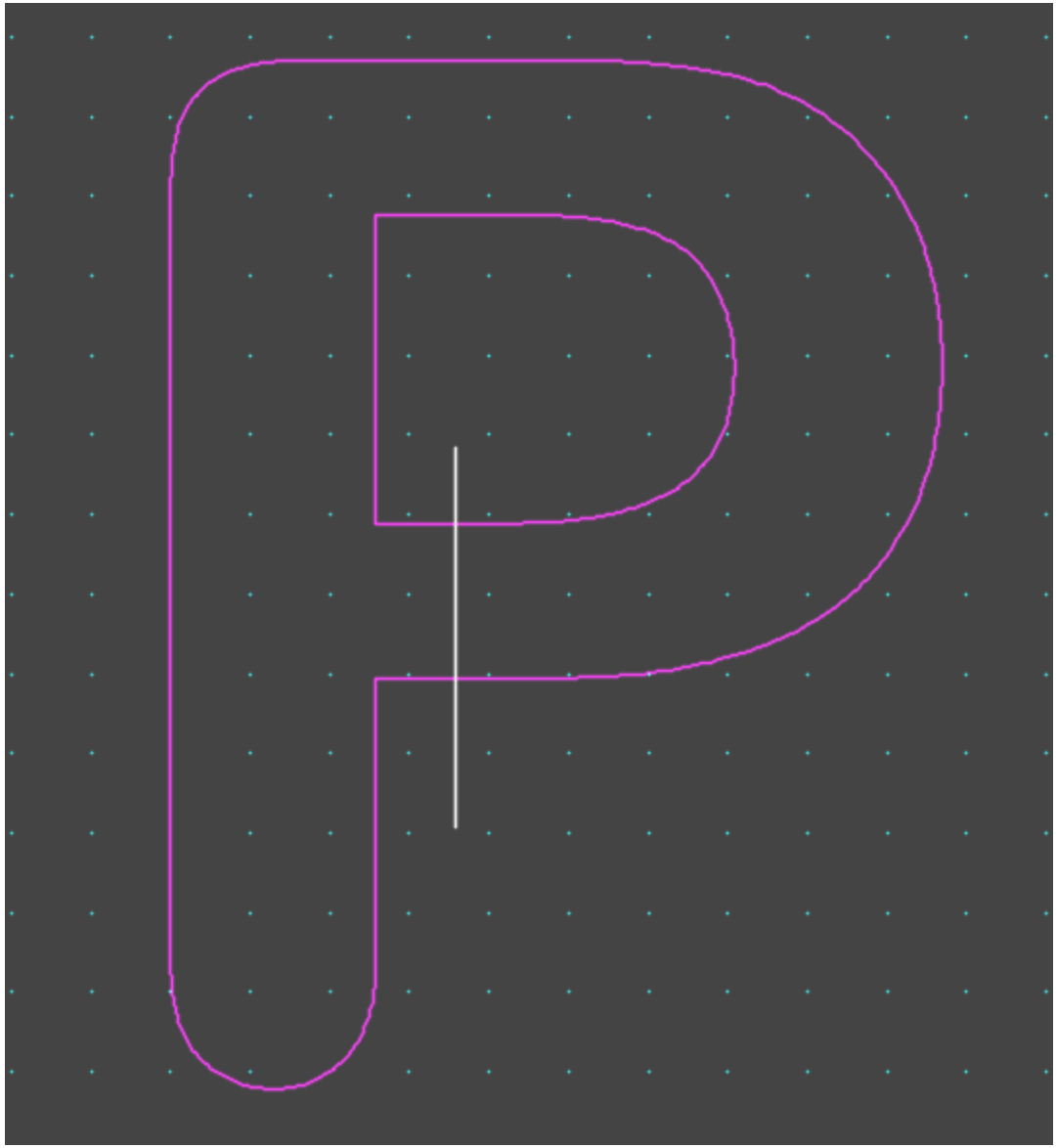
# Text presents another problem, it has to be stenciled so that the parts of the letter that make it legible remain after the machine has cut it out.



The Red Outline represents the cut path of the plasma torch, this is what remains if we don't "Stencil" the letter.

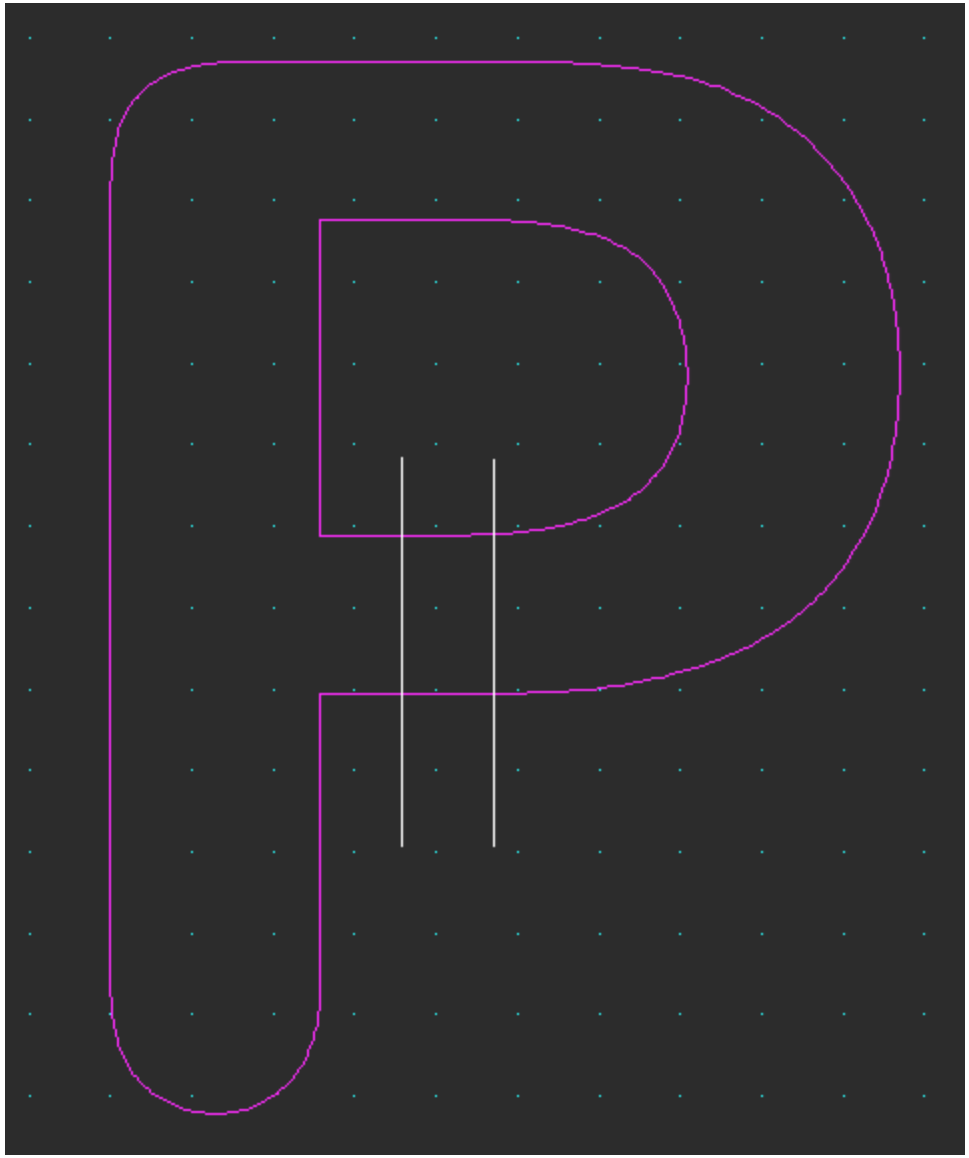
Note the center of the P is missing…..

# How to Stencil a letter



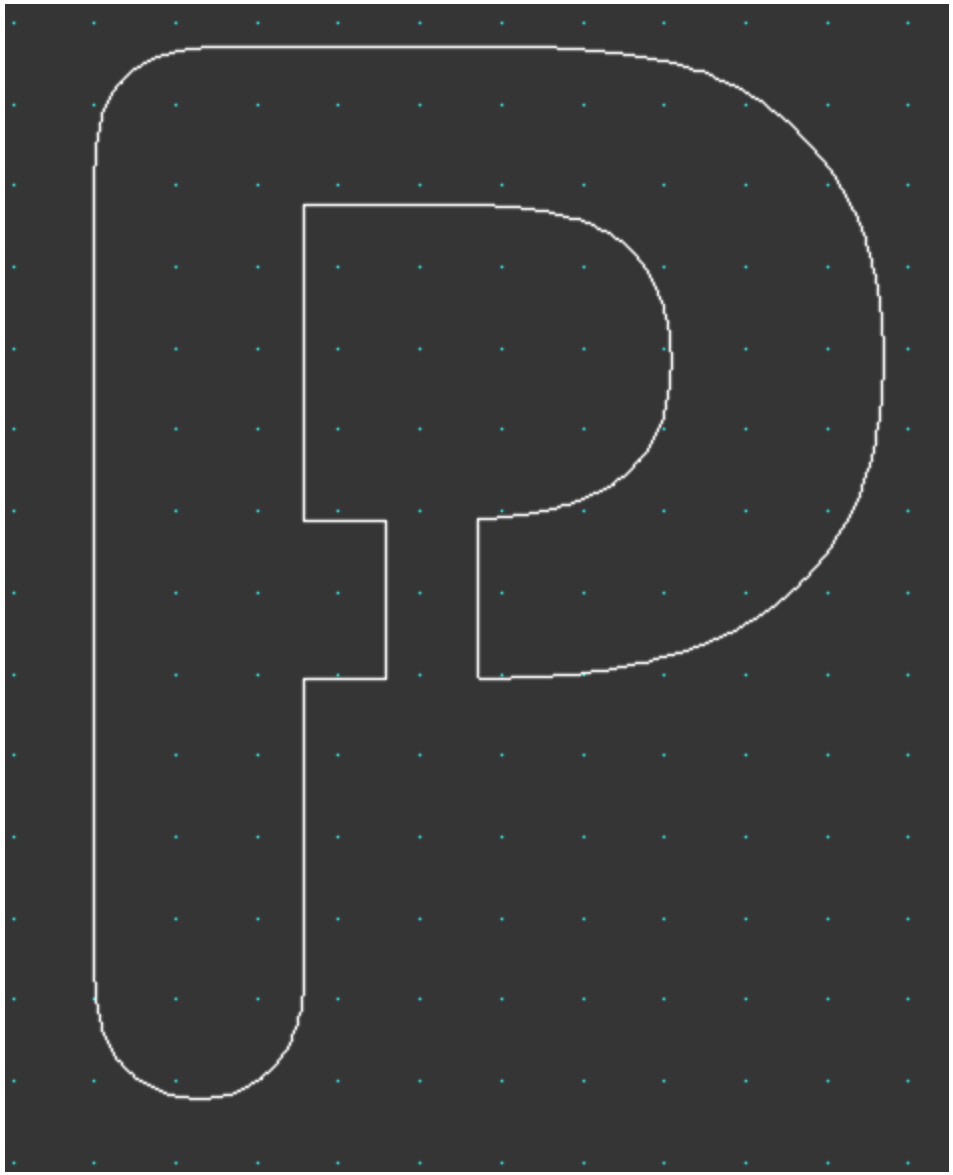
Draw a line that will cross the P like shown here.

# How to Stencil a letter



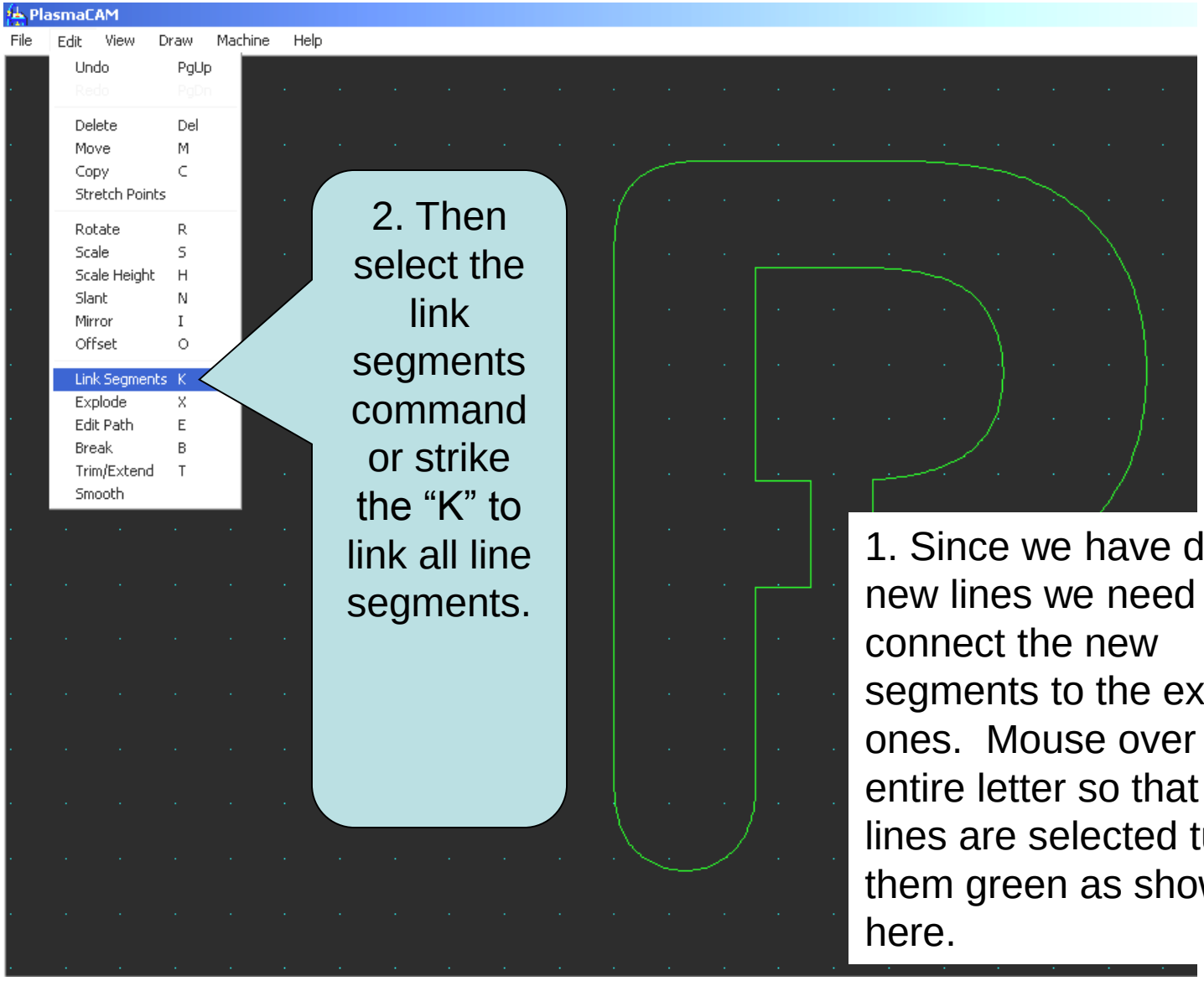
Draw a second line parallel to the first that will cross the P like shown here.

# How to Stencil a letter



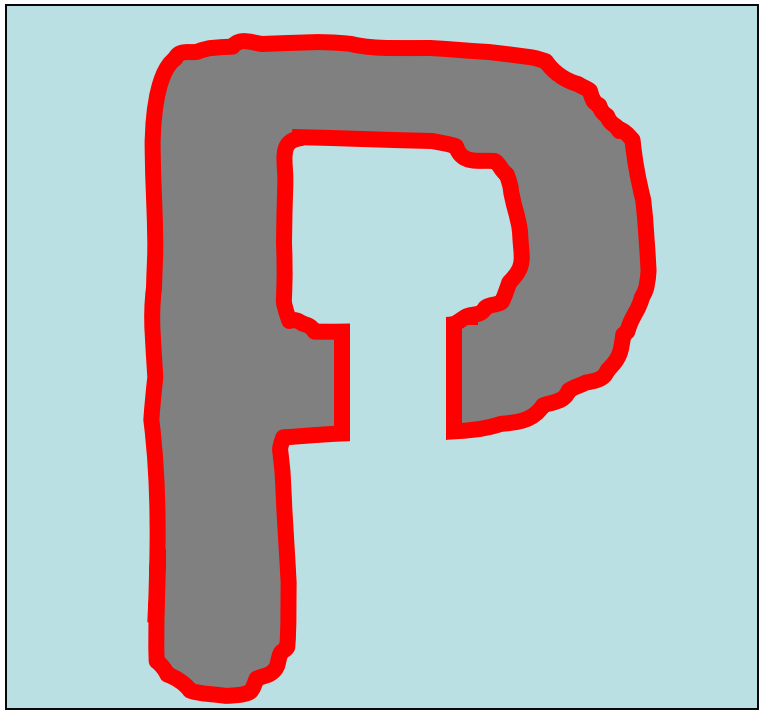
Using the Trim/Extend (T) command found under the Edit Tab, trim the two lines creating a bridge so that the Center of the P does not fall out when the perimeter is cut.

# How to Stencil a letter



# Stenciled P

The center of the P will remain as a piece of the steel left on the table after the cut.  The Area in Dark Grey will fall.



# Now You Do it!

- Draw a 2” Square at 20,15
- Draw a 2” Circle at 20,10
- Draw a 2” Circle at 10, 20
- Draw your initials at 0,0 with 4” Letters