

L A S E R C U T T E R P R O T O C O L

File type: AutoCAD 2009 or older

Materials NOT to be cut: PVC , Metal, Latex ,PETG

- Maximum material size: 17.75"x31.75" landscape
- Maximum material thickness will vary according to density (1/4" for most woods).
- Appointments will be available by signing up in the digital fabrication rooms
- Appointee must be on time. Cutting queue will proceed otherwise
- Appointments are available in 2 hour blocks.

*****STUDENTS ARE RESPONSIBLE FOR PROVIDING SUITABLE LASER CUT FILES*****

AutoCAD Layer Setup:

Through the layer manager create four new layers using the primary color options as follows:

- “**CUT**”- this layer will be **red** and responsible for lines you wish to be cut.
- “**SCORE**”- this layer will be **blue** and responsible for lines you wish to be scored.
- “**RASTER**”- this layer will be **green** and responsible for content you wish to be etched out.
- “**NOPLOT**”- this layer will be **white/black** and should reflect the dimensions of the material you wish to cut. *** this layer must a no-plot layer (printer icon with a red slash over it)***

Scaling your file:

- Copy file into new window.
- Complete file in actual dimension then convert to model size.
- In the drawing include a line that is equal to 1'0"
- Use this line as reference to scale drawing
- Convert to line to from 1' to the scale of actual model (i.e. 1'to 1/8" , 1' to 1/32" etc.)
- Drawing will shrink significantly.
- Draw the actual dimension of material to be cut MAXIMUM 17.75" x 31.75" landscape.
- Compose compositions accordingly.

File Requirements:

Files created in this manner will reduce cutting time and improve cut quality.

-No duplicate/overlapping lines. (“overkill” selection command will delete unnecessary lines)

- No segmented lines. Use complete or polylines when possible, this creates a consistency along edges.
- “noplots” layer and “cut” layer may not intersect.

Cutting Tips:

- Make sure material is as flat as possible.
- Account for material thickness when creating AutoCAD file.
- Rastering or “etching material” will be very time consuming
- Cut files in an order that will allow you to proceed with model production
- Keep film on plastic products, this will eliminate burn and smoke marks.
- Bring material test sample if possible.