

Project Number: _____

General Information:

DO NOT PURCHASE YOUR MATERIALS UNTIL YOU HAVE REVIEWED YOUR PROJECT WITH SHOP STAFF.

- The preferred material for CNC routing is foam, available from several sources. Some sources are posted outside the shop door.
- **WE do not recommend cutting foam that has been glued together with any glue other than the recommended glue** (See posting outside the Shop door --- Glue is NOT supplied by the shop)
- If you plan to use MDF, you must provide your own bits. Average costs is about \$60 per bit. Two required.
- 2D cutting requires a DWG or DXF file typically generated from AutoCAD.
- 3D cutting will require a file in the .STL/.3DM format. Rhino, Revit, AutoCAD, Form Z, etc. can all export a file in the .STL format. .3DM file format is the natural extension when saving 3D files in Rhino. Seek an AIAS or Alpha Rho Chi member if you need help creating that file type.
- Your files and all related CNC info will be stored on your Thumb drive. It is your responsibility to keep your files and completed paper forms until your job is started.
- **The project owner is responsible for prompt cleanup of the CNC equipment and the operating area immediately after the job is complete.** The project owner or their designee MUST BE available to clean up immediately after the project is completed.
- The project will not be released until satisfactory cleanup has been completed.

Read the Process Steps at the end of this document before completing the section below.

Project Owner Section (Please Print legibly, ALL information is required):

Name: _____ Date: _____ Department: _____

I have read both pages of this document and agree to the conditions: _____

Contact Information: KSU E-mail address: _____ Phone: _____

Title of Project: _____

Description of Project: _____

Student / Course: _____ Faculty: _____ Personal: _____

Material to be used: _____ Exact Material size (inches) X: _____ Y: _____ Z: _____

Image file name: _____ Image file type: _____ Image dimension: X: _____ Y: _____ Z: _____

All projects involving use of the Architecture Department's CNC Router equipment must be reviewed and approved by the Shop Supervisor.

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Process Overview

Step 1 - Project feasibility - review and approval

See Dave Peebles, Kevin Muthersbough or Rachel Kidd in the shop to discuss the feasibility of your CNC project request. We will advise you as to:

- The suitability of using a CNC Router for what you want to do
- What CNC Router equipment, if any, is the best fit for your project
- What materials we would recommend or require that you procure (this might include router bits)
- What file type will be needed for your project (.STL or .3DM for 3D and .DWG or DXF for 2D)
- How the materials can be held for routing and any difficulties that might be incurred with your project

After getting approval for CNC Router use, and understanding the requirements, you may proceed with the next step.

Step 2 - Preparation of Project file(s):

Print out pages 1 & 2 of this form, complete page 1, and bring them along with your object file (on a thumb drive) to Dave, Kevin or Rachel in the shop. We will import your object file(s) into Aspire, the CNC modeling and machining software that we use to generate the tool path GCODE that the CNC uses. We will work with you to review the object/project, determine the best options for bits and tool paths to use for your project, and suggest modifications if needed. This may take 10 minutes, or it might take an hour, depending on the complexity of your project. If modifications to the object file are necessary, this process step will need to be repeated.

Step 3 – Running the Project and Clean-up

Use of the CNC Router is on a first ready, first served basis – working from when a project is ready to run on the machine, which means the following:

- The object file has been reviewed and executable machine tool path code has been generated
- Materials are on site and ready to mount on the machine
- Appropriate bits are on site and ready for use
- You are available to help load the machine
- You are available to assist with securing material to the machine
- You have arranged for the prompt clean-up of the machinery upon the job completion (if the job requires multiple runs, you will be expected to clean the machinery after each run in preparation for the next run)

We **DO NOT** ACCEPT RESERVATIONS on the CNC equipment as the job durations are indeterminate, and we cannot be sure that a job will be ready to run on the equipment until all of the above criteria have been met successfully.