ARCH 497-02 Summer 2019

Assignment 02

Due Tuesday, May 28

READ

Read up until page 66.

DO

Revise your drawing in Rhino if necessary to fix any issues you found. Instead of a pen, we'll be using a carbide cutter (see tooling below) to engrave the same path.

MATERIALS

0.5"-0.75" thick MDF, 30"x22" max.

TOOLING

Onsrud 61-240, 0.125" dia. Single, straight-flute cutter. The recommended feed per tooth, or chip load is 0.007"-0.009". Let's just say 0.005" to be safe for now. If we run the spindle at 10000RPM, the feed rate would be:

Feed Rate (Inch per minute) = Spindle Speed (RPM) x # of flutes x chip load

--so--

10000 X 1 X 0.005 = 50 IPM

DELIVERABLES

You code saved with an extension of .NC saved to a flash drive. A physical object produced on the machine and photo documentation.

CONSIDERATIONS

I made an engraving template which I put in a TEMPLATES folder in my github repository. I was going to show you how to clone a repository today, but for now, just delete the old ZIP file your previously downloaded and download

the new version. It’s already set up with the speeds and feeds above. All you have to do is to replace my squiggly line with your own geometry and select it as a machining feature in RhinoCAM.

You should use my updated post file which is in the repository in a folder called POST-PROCESSOR. It is named FlashCut-Precix-Inch.spm. RhinoCAM will be looking for it on the Desktop, so move the file from the downloaded ZIP to your desktop, and you should be good to go.

Double check the code after you post to verify that you’ve used the correct post. The file should start with:

```
(FlashCut-Precix-Inch Post Processor)
(Version 2, 05/12/2019)
(Brett Ian Balogh: brettbalogh@gmail.com)
G0 G17 G20 G40 G80 G90
(Engraving)
```

As always, let me know if you have any questions or concerns. Email me at:

bbalogh@iit.edu