

Randy Johnson
2219 Swan Ct., Mendota Heights, MN 55120
rljsail@hotmail.com
Mobile: 651-253-4073

3D Modeling for CNC Woodworking
September 23-27, 2019

Dear Student,

Learning how to create 3D models for CNC is primarily a computer skill that requires a lot of practice and an ability to visualize the design in your mind and then translate it to the computer. Yet as with other skills there are tips, tricks and techniques that can ease the learning curve – and that's what this class is all about. Through a series of project design exercises, you will have the chance to learn and practice a variety of 3D modeling techniques. This class will focus primarily on the designing with Vectric Aspire software, but we will also explore other 3D modeling techniques and you will have a chance to carve a couple of your designs on a CNC during the class.

See you soon,
Randy

Tools to bring:

- A laptop computer with Windows 7 or 10 installed
- Scroll wheel mouse (very important)
- Thumb drive for transferring files to the machine
- Metal rule (12" to 18")
- Tape measure (6' to 16')
- Dial or Digital Caliper (6" or 8", does not need to be expensive, but needs to measure decimal inches)
- Hearing protection
- Eye protection

Class outline

Day 1 – Monday

- Introductions and safety.
- Aspire software setup
- Presentation – 3D Modeling Part 1
- Design time – Project 1 – 3D signs

- Demo – Machine setup and operation

Day 2 – Tuesday

- Presentation – 3D Modeling Part 2
- Design time – Project 2 – Rosette modeling
- Demo – Hold-down and jiggling options
- Machine time

Day 3 – Wednesday

- Presentation – 3D Modeling Part 3
- Design time – Project 3 – Decorative moldings and frames
- Demo – Machining curved molding
- Machine time

Day 4 – Thursday

- Presentation – 3D Modeling Part 4
- Design time – Project 4 – Modeling a traditional carving
- Demo – Scanning an existing design
- Machine time

Day 5 – Friday

- Presentation – 3D Modeling Part 5
- Design time – Project 5 – Modeling animals and people
- Demo – Two-sided carving
- Machine time
- Wrap-up