VCarve Software & CNC (Computer Numerical Control) Router Introduction

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Prerequisite: This is a class for beginners on the CNC. *If you have a good background in computer skills, and remember some high school geometry, this class will be easier to comprehend quickly. If not … prepare to be inundated with complex information.*

Enrollment. Limited to three per class, with a minimum of two.

Schedule: This class is normally held once a month (verify dates and times using on-line wood club monthly calendar). It is a 2-session class - which are NOT done on successive days. The first is in the Wood Club library, the second will be held in the Machine Room.

Student Materials to Buy & Prepare Prior to Class: Bring a flash-drive to class to transfer VCarve software from Woodshop PC to your home PC. The student is responsible for providing the piece of wood on which their project will be cut. The actual wood size should be at least an inch longer & wider on each side than the final project size. This added size allows for the wood to be securely attached to the machine bed without the clamps coming in contact with the cutting spindle and potentially damaging either the clamps and/or cutting bit. Each student will get a detailed email prior to class with more details.

Description: This is a 2-session class - which are NOT done on successive days.

Session 1 will cover creating a CNC computer design using the Vectric (VCarve) software to create the instructions (tool paths) to tell the CNC machine how to move to create different types of projects. The students will download the Vectric (VCarve) software onto their home computer using the step by step descriptions supplied by the instructor. The student will also choose a project to design, using the VCarve software.

After Session 1 is completed, the student will complete their software design project at home. When that is finished (be it several days, a week, or even a month) the student and instructor will meet for a second time in a one-on-one meeting at a date and time agreeable to both.

Session 2 will find the student creating the desired tool paths, then learning how to correctly set up the software on the CNC machine, and finally to actually cut the student's project in wood mounted on the CNC.

The MakerSpace software license for VCarvePro is part of what students get from this class. This license allows Club members to download the VCarvePro software on their home

computer, create a design, then bring the pattern to the shop to cut the design on the CNC machine using the VCarvePro software.

Although this class introduces the student to the software and hardware for the club's CNC machine, this course alone is NOT sufficient to allow unrestricted use of the CNC Stinger I machine. The student will need to complete a mentoring program that the instructor will discuss with the student to reach full certification. The instructor and student will set up a timeline to complete the student's mentored project.

The Stinger I CNC Router is a robust benchtop model. Our Stinger I is a 2' x 3' model 23. The Stinger I is constructed on a welded steel frame and enlist heavy-duty precision rails and bearings, giving it a rigid yet smooth movement. See picture below.

Fee: $30 - not including student pre-purchase and preparation of material. This fee includes multiple sessions of 1-on-1 instructor time to help modify and finalize each student's project design - done after the initial group-class.
Tools: Will be provided.

Pre-Class Study Material:
        Videos: Vectric VcarvePro Tutorial Videos
        Documents:
        Introduction to the CNC Router -- Course Syllabus
        Introduction to CNC
        Introduction to CNCStinger I Instructions
        Stinger I Applications
        WinCNC Controller
        Sign Up:CNC Claass - Basic