

## CNC Routers

The JobMaster CNC Router machines and accompanying project based curriculum are turnkey solutions to provide an introduction to CNC machining in the Technical Education Classroom. The CNC Routers are also a great peripheral for any woodshop, engineering lab or maker space.

Intelitek's bundles for CNC router machines ship with everything needed to get started quickly including starter material, all relevant CAD/CAM software and sample G-Code projects. Just follow the easy to use getting started guide and cut!

The curriculum, delivered on the LearnMate LMS, is based on Intelitek's experience in both CNC and educational training. The courseware allows users to design and cut their own complex projects quickly. Users can create large and small structures and have a hands on approach to turning 2D materials into 3D objects.



### Benefits

- Allows visualization of assembly of 2D object in 3D space.
- Provides students the ability to create impressive large scale projects at a very low cost.
- Fast Paced project based learning allows students to produce results quickly to keep them motivated.
- Cut most projects in under 30 minutes.
- Teaches G-Code, an industry standard, that's used with other CNC mills and lathes.
- Make impressive projects using up to 4ft x 8ft sized materials.
- Includes 40 Seats of V-Carve Pro CAD/CAM software for an entire class to use.

### Solution to Teach Students:

- Custom Fabrication
- Machinery Manufacturing
- Equipment Manufacturing
- Production Facilities
- Plate Production
- Hobbyist Jobs

### ProRouter Bundles Typically Include:

- Router Table
- Porter Cable Router or Spindle
- Controller with Mach3 Software
- VCarve Pro CAD Software with 40 User License for Education
- 7 pc Starter Bit Kit
- Dust Collector/Dust Foot
- Spare Pieces of MDF
- PC with Software installed
- 8 hours of "Getting Started Curriculum"

### Mach3 Control Software

Mach3 has become the popular choice of control software for CNC light duty routers. Feature rich, it provides a great solution for a CNC control package. Mach3 works on most Windows PC's to control the motion of the router by processing G-Code into physical movements. Mach3 offers many advanced features found in more complex control systems.

### VCarve Pro Software

VCarve Pro provides a powerful but intuitive software solution for cutting parts on the JobMaster Routers. VCarve Pro creates the files used by the router to bring projects to life. This software works with 3D / 2D files created by your favorite CAD software and popular graphics files like JPEG and SVG for those more artistically inclined.

VCarve Pro includes the functionality demanded for complex work while remaining incredibly easy to use. The software is used by cabinet makers, wood workers, sign makers, prop makers, plastic fabricators, and hobbyists and in many other applications.



# JobMaster CNC Routers

## Specifications - Power Requirements

BenchRouter 1000	110V or 220V (Machine only)
ProRouter with Porter Cable:	110V, 20A (Machine only)
ProRouter with Spindle:	220V, 15A (Machine only)
Computer:	110V system on a dedicated circuit

## Express CNC Router Curriculum

Intelitek's Express Curriculum is a direct, project driven course that enables students to bring objects they create to life quickly and motivates them to complete other projects. Students will learn terminology related to CNC as well as how to setup the router using Mach3™ control software. This is followed up by five projects using Vectric VCarve Pro to produce amazing results.

### Course Outline

- Getting Started with Routers
- Basic Terminology
- Axis of Travel
- Securing the Work Piece
- Installing a Tool
- Spoil board
- Dust Collection
- Mach3 Layout
- Homing the Router
- Jogging the Router
- Setting Part Zero
- G-Code Editing
- Cutting a Sample Part
- Introduction to Vectric VCarve Pro
- Making a Gear Clock Drawing
- Importing Pictures
- Importing a Drawing DXF/DWG/SVG
- 3D Dinosaur Project

## Software Included Features:

- 2D Design & Layout Tools
- Layer control, lines, snap grid
- True Shape Nesting, Test editing
- File import DWG, DXF, EPS, AI, PDF
- Image file import: BMP, JPG, TIF, GIF
- 2-D Profiling with interactive tabs/bridges
- Lead and ramp options
- Program pierce height/cut height
- Automatic cutting sequence
- Visual G-Code display/Real-time display
- Error message display

## PC Controller

Windows-7 PC with Software pre-installed including:

- 19 inch Flat Screen Monitor
- Keyboard and Laser Mouse
- AMDA 6 – 3.9 GHz
- 8 Gigabytes DDR3 Memory
- 120 Gig solid state Hard Drive
- 4 USB 2.0 Ports, 2 USB 3.0 Ports
- Video output- VGA, DVI, and HDMI
- Windows 7 Operating System
- All fully interfaced and tested with Customer's Machine

## Models/Specifications

Models:	BenchRouter 1000	ProRouter 2x00
Position Speeds (X,Y,Z):	350 IPM	800, 800, 600 IPM
Step Resolution:	.0005" (0.01mm)	.0005" (0.01mm)
Positioning Accuracy:	(+/-) .002" (0.05mm)	(+/-) .002" (0.05mm)
Cutting Accuracy:	(+/-) .005" (0.13mm)	(+/-) .005" (0.13mm)
Axis Drive System (X,Y):		Rack & Pinion
Axis Drive System (Z):		Rack & Pinion
Maximum Tools:	800W Spindle	Porter Cable or Spindle
Gantry Clearance:	Up to 4" (101mm)	Up to 6" (152mm)
Sizes Available:	24" x 16" (60cm x 40cm)	30" x 30" (76cm x 76cm) 4' x 4' (1.2m x 1.2m) 4' x 8' (1.2m x 2.4m) 5'x10' (1.5m x 3m)

## Ordering Information

### BenchRouter 1000 Bundles

Each BenchRouter 1000 Starter Bundle includes a router with a 24"x16" MDF cutting area, 800W high speed spindle, USB connection, Mach3 Control Software, Shop Vacuum & Dust Foot, Starter Bit Kit, 1 license of VCarve Pro (40 Seats for education), 2 pieces of 24" x 16" MDF and 8 hours of "Getting Started" Curriculum with G-code Projects.

BenchRouter 1000 Starter Bundle 110V	CNC-1000-STND
BenchRouter 1000 Starter Bundle 220V	CNC-1000-STND-2
BenchRouter 1000 Shield	10-1200-1000

### ProRouter Bundles:

Each ProRouter Starter Bundle includes a 110V, 3.25HP Porter Cable Router, and each ProRouter Advanced Bundle includes a 220V, 3kw HSP Spindle. All bundles include: a Desktop PC with Windows 7 Professional, 19" Monitor, Mach3 Control Software, 7pc Starter Bit Kit, 220V 2Hp 30 Micron Dust Collector & Dust Foot, MTC Z Setter, 1 license of VCarve Pro (40 Seats for education), 2 pieces of MDF, and 8 hours of "Getting Started Curriculum" including G-code Projects. **REQUIRES LMS ADD-On.**

ProRouter 2000 Starter Bundle, 110V (4'x4')	CNC-2000-STND
ProRouter 2000 Advanced Bundle, 220V (4' x 4')	CNC-2000-STND-2
ProRouter 2100 Starter Bundle, 110V (4' x 8')	CNC-2100-STND
ProRouter 2100 Advanced Bundle, 220V (4'x8')	CNC-2100-STND-2

### CNC ProRouters:

Each ProRouter machine includes a 110V, 3.25HP Porter Cable Router, a Desktop PC with Windows 7 Professional, 19" Monitor, USB Keyboard/Optical Mouse, Ethernet Connection, Mach3 Control Software, 7pc Starter Bit Kit, Dust Foot, MTC Z Setter, and 1 license of VCarve Pro (40 Seats for education)

ProRouter (30" x 30")	00-6118-0000
ProRouter (4'x4')	00-2044-0220
ProRouter (4'x8')	00-2048-0220
ProRouter (5'x10')	00-6116-0000

### CNC Curriculum and LearnMate 7 Hosting:

LM7 Content, Lab, Intro to CNC Routers VCarve Pro	77-8160-0001
LM7 Hosting 1st Year for 1 school, 100 users	77-1201-0000

### ProRouter Optional Upgrades and Accessories:

A range of additional component upgrades and accessories are available (Spindles, vacuum beds, vacuum pumps, router bit kits, etc.). Please contact your local sales rep for details.

Contact Us:

**FIRST**  
**TECHNOLOGIES INC.**  
Putting Education ... FIRST

Toll Free: 800-787-9717  
Phone: 262-753-6900  
Fax: 262-753-6901

(P DLO  
LORU LUVWHFKHGFRP  
ZZZILUVWHFKHGFRP