

Upto 80%  
Made in India Parts

### Spindle & Laser 2-in-1 CNC



PCB PROTOTYPING



#### High Speed Spindle

Spindles from Teknomotor, Italy rated for Continuous Operations - Suitable for soft materials like plastics, acrylic, wood, mdf etc.



#### Innovative Materials

World's first Composite Superstructure CNC with Lifetime Warranty on the material. No Sagging, hogging, rust or corrosion



#### Rated for 24/7 Ops

Run long operations with confidence. High quality Spindles, Steppers and Electronics enable high productivity.

Call / WhatsApp /  
Telegram

+91 90190 54837



Our Location

Bangalore,  
Karnataka  
India



# Technical Specifications

Machine Type	3 Axis
Working Area X x Y	500 x 400 MM
Z Axis Travel	100 MM (Customizable)
Footprint - Machine	900 x 900 MM
Footprint - Control Box	610 x 450 MM
Chassis - Composite Superstructure	Carbon Fiber / Fiber Glass Superstructure - Desktop/Tabletop
Controller Type	<p>Arduino Controller - Machine can be operated through a USB connection with any Windows Laptop/Desktop with Windows 10 or 11.</p> <p>PC Optimization Settings and Open source Software (GSender / UGS) will be provided as links to download and install.</p> <ul style="list-style-type: none"> <li>• Software 1 - Converts Excellon &amp; Gerber to GCODE</li> <li>• Software 2 - Runs the machine as per the GCODE</li> </ul>
Max Travel Speed (X, Y & Z)	4 Meters / Minute
Spindle - Country of Origin	Teknomotor, Italy
Spindle - Power	0.73 KW / 1 HP
Spindle - MAX RPM	24,000
Spindle - Tool Change type	MTC - Manual Tool Change
Spindle - Collet	ER20
Spindle Maximum Run-out (Certified)	<20 Microns
Spindle Maximum Run-out (Tested)	<10 Microns
Dill Holes Per Minute - Stepper	Between 30-40 - Depends on Spindle retract height & Movement between each hole.
Dill Holes Per Minute - Servo - Upgrade Required	Between 80-100 - Depends on spindle retract height and movement between each hole.
Applications	High power PCB, Analog PCB, Digital PCB
Drive - All Axis	Hiwin/THK/Other Rolled Ball Screw - 16 MM
Guides - All Axis	Hiwin/THK/Other 20 MM Linear Guide & Block

Drive Motors	NEMA 24 & 23 - Stepper Motor (Made in India)
Certified Repeat Positioning Accuracy	<50 Microns
Tested Repeat Positioning Accuracy	Between 15-25 Microns / 0.015 to 0.025 MM
Spindle Control	Manual Spindle Control - VFD
Stock / Material Fixturing Support	Aluminium Extruded T Slot Stock Mounting Profiles
Movement	Simultaneous 3 Axis Motion – Full Interpolation
Machine Movement Type	Moving Bed / Fixed Gantry System
Ship Configuration	Ships Fully Assembled with selected accessories
Continuous Operations Capable	Yes, Certified for 24/7 Operations
Warranty	1 Year Warranty – All Parts Covered
Extended Warranty	Optional - Up to 10 Additional Years. Available in increments of 1/2/3/4/5 Years
Annual Maintenance Contracts (AMC)	Optional - Up to 10 Additional Years. Available in increments of 1/2/3/4/5 Years
Superstructure Warranty	Lifetime Warranty on all composite parts installed on the machines. Warranty applicable under normal operating conditions.
Certification	ISO 9001 & CE Certified
CAM Support	Fully compliant with GCODE / MCODE (GRBL) - Solidworks, Catia, Fusion etc.
Tool Sensor	Z-Axis Touch / Non-Touch Sensor - Optional for Purchase
Materials Supported	ABS, Polycarbonate, Acrylic, Composites, carbon fiber, fiber glass, aramid, fibre Glass, Carbon Fibre, Wood, MDF, PCB, Epoxy, Graphite,
Calibrated By	All of our measurements are made with Mitutoyo calibrated instruments
Diode Laser Compatibility	Yes - With Arduino Controller option Only
Power Input	Single Phase Input – 220V / 110V

Current Requirement	16 Amp Plug Point Required
Bellow Implementation	Optional
Fully Transparent Enclosure	Optional
Machine Code Support	Fully Compliant with GCODE / MCODE
Control PC	Optional - Laptop or Desktop with Monitor, Keyboard & Mouse - Original Windows 10/11
Software Provided	Gsender/UGS (Machine Control) & FlatCAM
Cooling System	Air Cooled Spindle
Laser Attachment	Optical Diode Laser
Laser Power	10W - Optical Output
Laser Power Upgrades	20W, 30W, 40W & 60W
Laser Wavelength	450 NM
Laser Beam Width	80 x 80 Microns
Laser Design & Creation Software	Lightburn - Perpetual License - 3 Seats
Laser Materials Capability (Etching/Cutting)	<p><b>Cutting</b> - Wood (Basswood, Pine wood, Walnut, Cherry &amp; Other woods), MDF, Bamboo, Cardboard, Paper (Kraft paper, Sponge paper), Acrylic &amp; Plastics (Hard plastics, some non-transparent)</p> <p><b>Etching Only</b> - Ceramics, Dark Stone, Coated Glass (after applying coating), Non-reflective plating and lacquered metal like Anodized Aluminium, PCB board, Aluminum Oxide, Stainless Steel, Leather, Fiberglass board</p>

# PCBProto 5040 DUO

## 3 AXIS CNC



# Highlights



HIWIN / THK  
16MM BALL SCREW  
20 MM LINEAR GUIDES

NEMA 23 & 24  
STEPPERS  
MADE IN INDIA

24,000 RPM SPINDLE  
TEKNOMOTOR, ITALY

SINGLE PHASE INPUT  
ONLY



MACHINE CONTROL  
BOX

ALL MADE IN INDIA  
COMPONENTS - DRIVERS, POWER  
SUPPLY, VFD, SWITCHES, FAN,  
ETC.



EXTRUDED  
ALUMINIUM  
TSLOT  
PROFILES

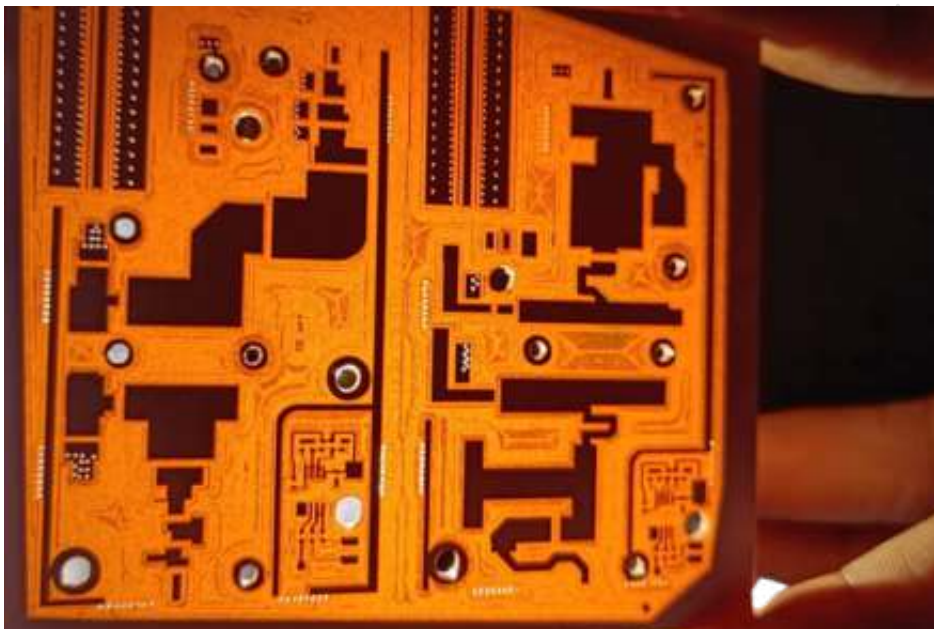
## USE YOUR LAPTOP/PC

REQUIRES A USB 2.0 PORT &  
OPEN SOURCE SOFTWARES

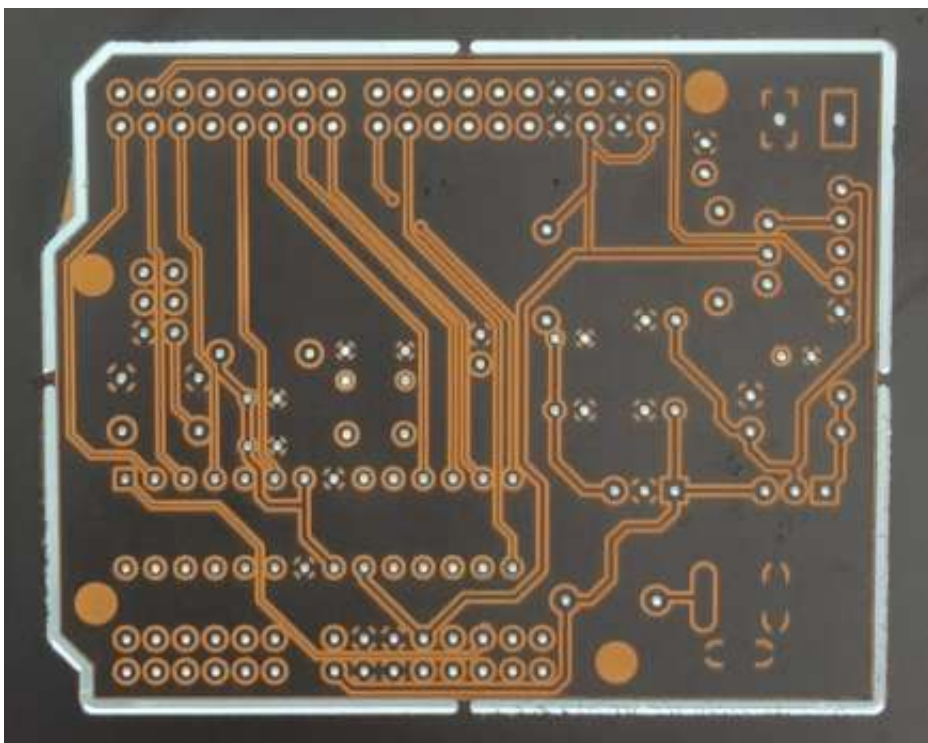
OTHER CONTROLLERS ALSO  
AVAILABLE

PIONEERING COMPOSITE  
SUPERSTRUCTURE WITH  
LIFETIME WARRANTY

**OTHER CONTROLLER OPTIONS ALSO AVAILABLE**



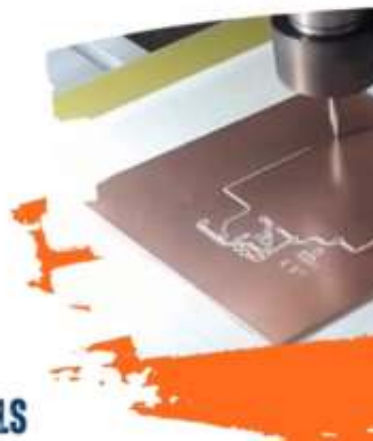
[Video 1](#)



[Video 2](#)

HOW TO MAKE  
DOUBLE SIDED  
PCB'S

**AKRIT**  
PRECISION SYSTEM



#TUTORIALS

[Tutorial Video -  
PCB Making](#)

# 10W Diode Laser Highlights



- Preinstalled on the machine
- Easily removable during spindle operations
- Switch between Laser & Spindle easily
- Facility to connect air compressor for better cuts with the laser
- Fully Licensed Lightburn software for laser
- Rated for 15,000 hours of operation
- Covered in 1 Year Machine Warranty

**LIGHTBURN**

BETTER SOFTWARE FOR LASER CUTTERS

# ACCESSORIES INCLUDED WITH THE MACHINE

## Cutting Bits

PCB Drilling Bits - Collection - 10 Pcs

- Drill Dia 0.3MM to 1.2 MM
- Shaft Dia - 3.175 MM

PCB Engraving Bits - 2 Pcs

- 0.1 MM Tip
- Shaft Dia - 4 MM
- Angle - 30 Degrees

Endmill - Routing Operations - 1 Pcs

- 2 MM Dia Flat End Corn EndMill

## Collets for Spindle

ER 16 Collet (Based on Spindle) - 3 PCS

---3MM Dia

---4MM Dia

---6MM Dia

## Others

-- T Nuts (For Securing the Material) - 10 Pcs

-- Spanner Compatible with spindle Nut

-- Connector Cable - 1 Piece

-- Stock Mounting Bolts & Nuts - 8 Pcs

-- Composite Stock Holders - 4 Pcs

- Machine is shipped fully built in a plug & play condition
- Installation is not required - If requested additional costs will apply
- If shipped with a control pc, it is shipped fully configured in plug & play condition

# LASERS

Make Your Machine 2-in-1 Laser & Spindle



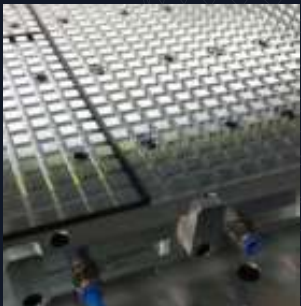
\*with Arduino Controller Only

# CLAMPING



**OPTIONS,  
UPGRADES &  
ACCESSORIES**

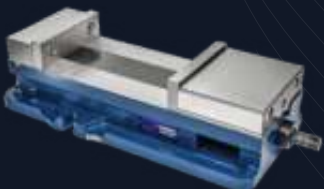
# OTHER ACCESSORIES



Probes



Flood Cooling



Bellows

# SPINDLE OPTIONS



Rectangular - Air Cooled  
Runout - ~10 Microns  
Single Bearing  
18000 RPM  
1.1 KW  
ER 20  
MTC

Teknomotor, Made in Italy



Rectangular - Air Cooled  
Runout - ~10 Microns  
Double Bearing  
18000 RPM  
1.1 KW  
ER 20  
MTC

Teknomotor, Made in Italy

## INDUS SPINDLES



Round - Air / Water Cooled  
Runout - <20 Microns \*  
40,000 RPM  
ER 11  
1 KW  
MTC / QTC  
Indus, Made in India

## ENCLOSURES



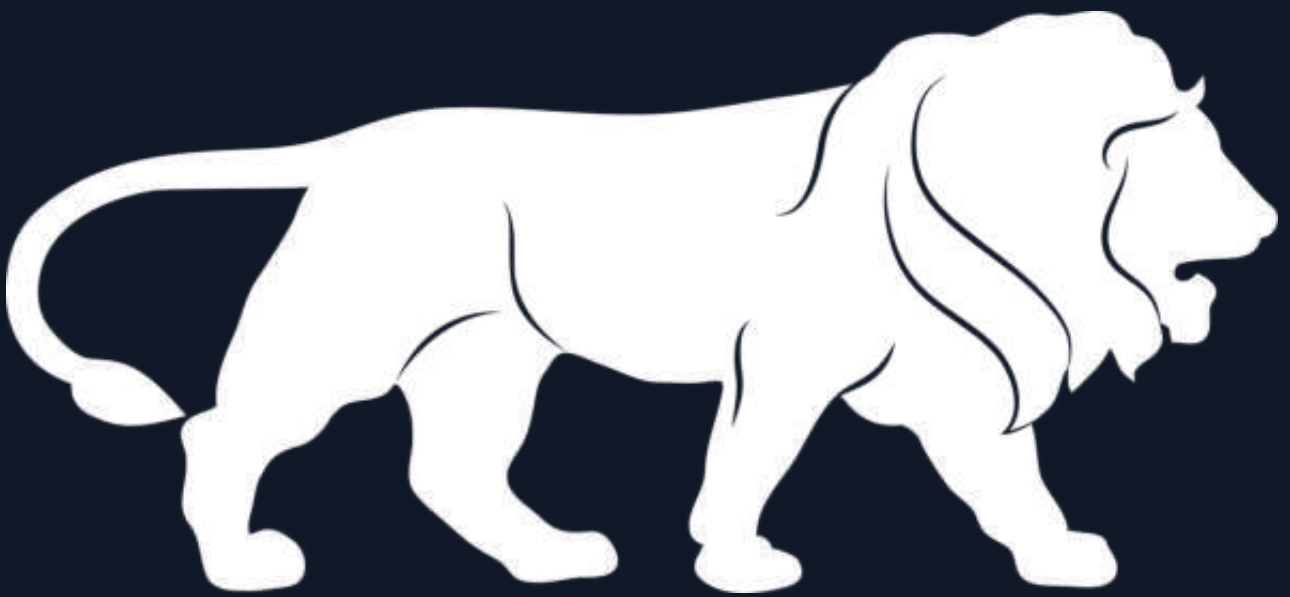
**OPTIONS,  
UPGRADES &  
ACCESSORIES**

## SERVOS



**& OTHERS**

PROUDLY  
MADE IN INDIA



ENGINEER BEAUTIFUL