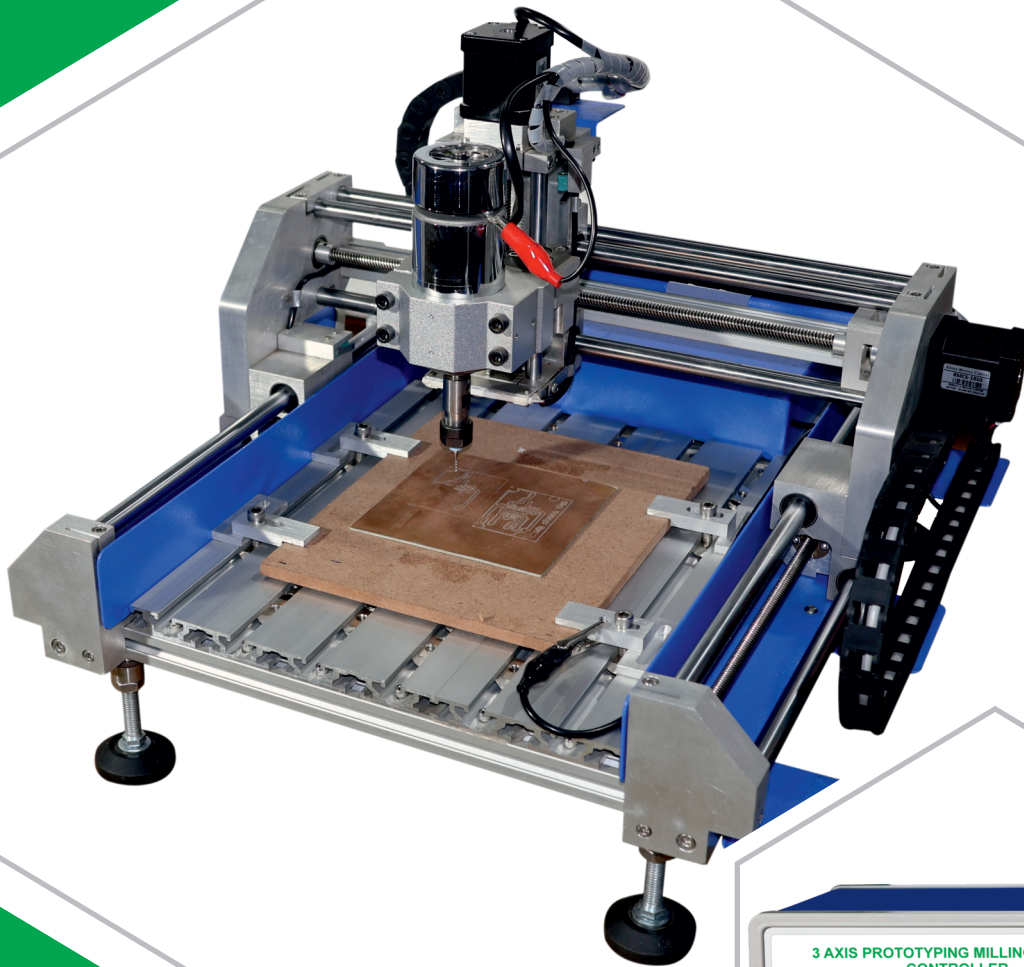
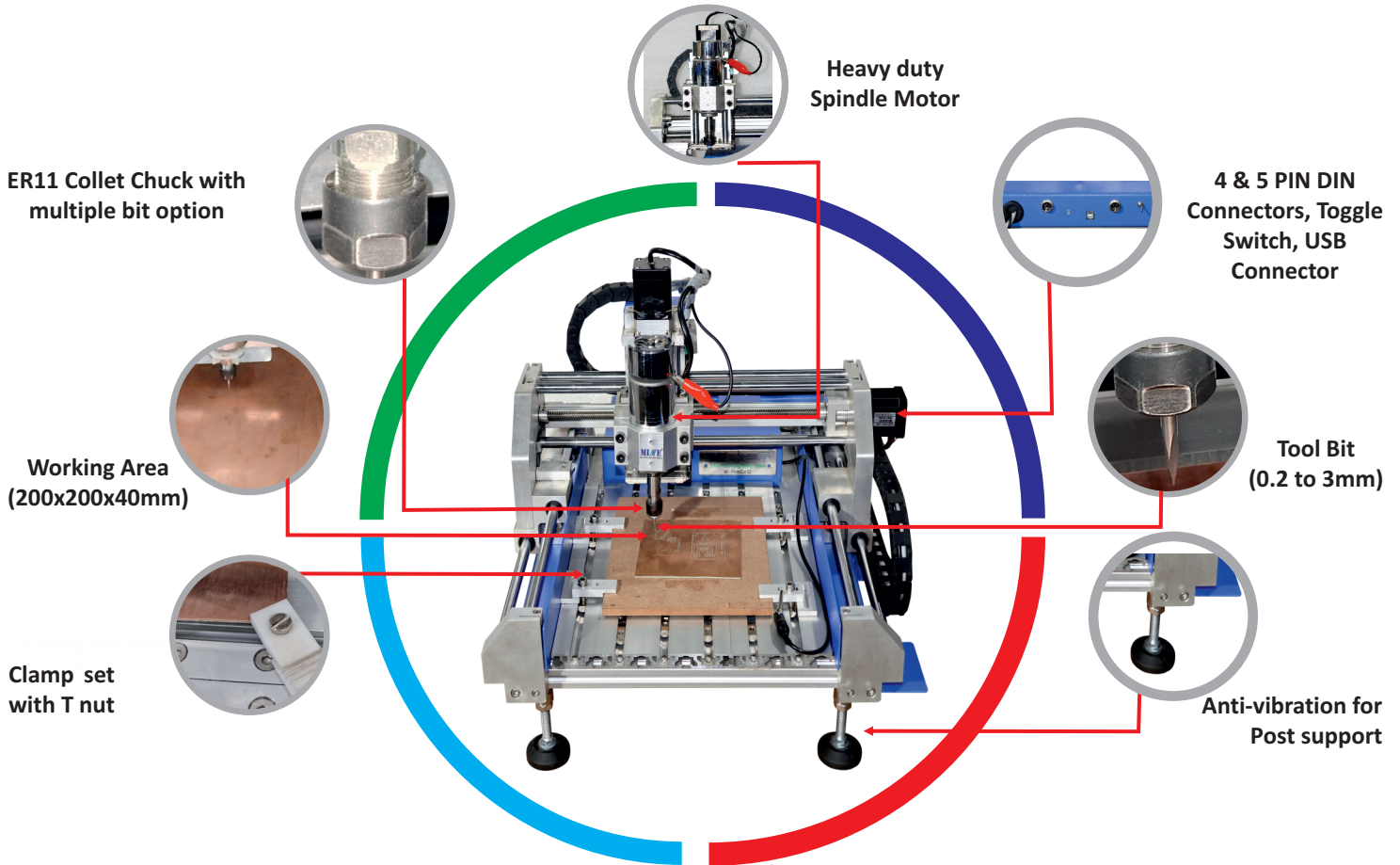


**3Axis Proto Typing Milling  
System  
MI-ProtoCut 02**



**Mine Instruments Pvt. Ltd.**  
An ISO 9001:2015 Certified Company

## About



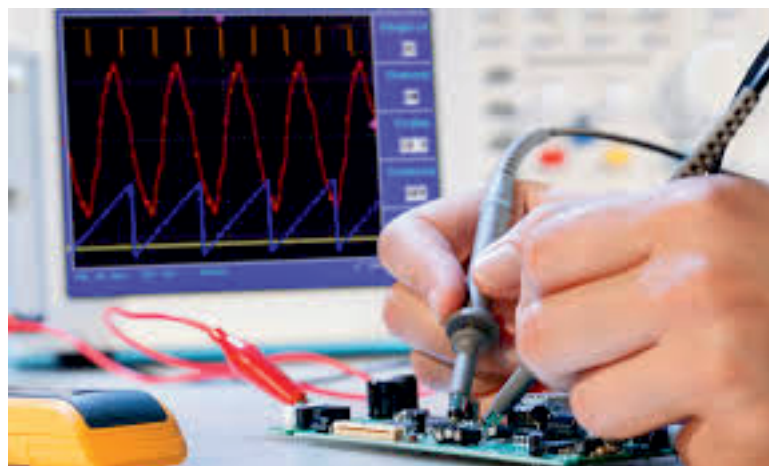
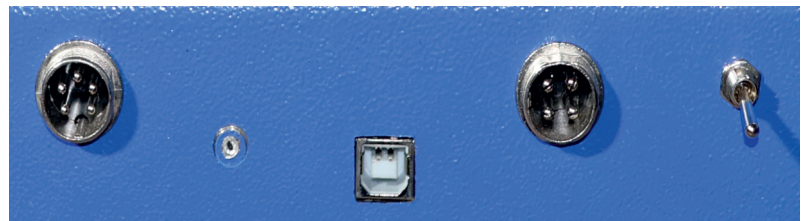
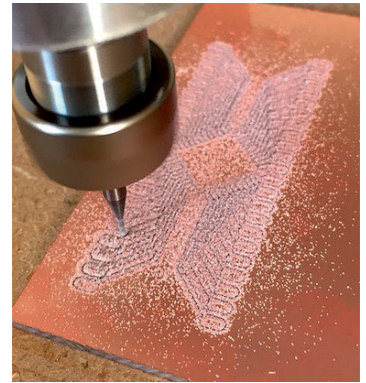
The Mine MI-ProtoCut02 3Axis Proto Typing Milling System is a highly precise & durable machine crafted entirely from aluminum alloy, ensuring robust performance without any plastic components. The system uses a lead screw transmission for accurate movement. It efficiently handles cutting, engraving, & drilling tasks across materials such as wood, PCBs, plastics, & light metals like copper & brass. Additionally, it can engrave on metals like silver & aluminum, making it a versatile tool for detailed prototyping & fabrication projects.

## Advantages

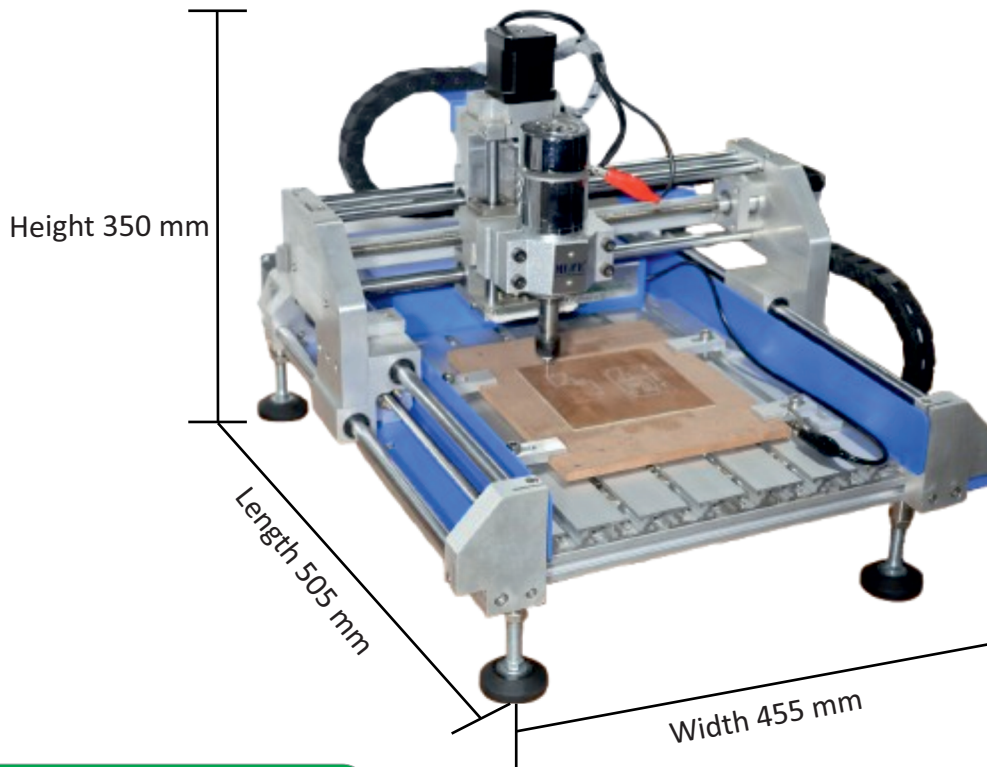
- PCB milling is beneficial for PCB prototyping & making special PCB designs.
- PCB milling is much safer than chemical etching process.
- It is provide highly accurate result with good reliability
- User-Friendly
- Secure & Safe

## Features

- Versatile PCB prototyping with engraving
- Micro drilling & milling
- Create object for on acrylic & wood
- PC-based software with interactive GUI
- USB interface
- Software support extended gerber files from all CAD software
- Works with PCB, acrylic, plastic & even soft metals like aluminum
- Auto depth adjustment
- High RPM Spindle Motor
- Fast operation
- Energy efficient
- LED Light for work area
- Robust design
- Simple & easy to operate
- Chemical free operation



## PCB Machine Dimensions



## Technical Specifications

Working Area (X*Y*Z)	: 200*200*40 mm (Approx)
Minimum drill hole size	: 0.2mm
Track Width	: 0.2mm
X/Y Resolution	: 0.06mm
Operating Voltage	: 230V AC, 50Hz
Software supporting Operating System	: Windows 7/8/10 & Linux
Z-axis Stroke	: 40mm maximum, Engraving depth depends on the length of the tool edge.
Transmission Unit	: Lead Screw
Theoretical Resolution	: 0.002mm per step
Depth sensing and adjustment	: Automatic, software controlled
Tool change	: Manual
Tool holder	: 1/8 inch & Er11 Collet
Main application	: Engraving, Cutting & Drilling for PCB, wood, plastics, acrylic & Metals (copper, aluminum, brass & silver etc.)

### Spindle Motor

Spindle Speed (Max RPM)	: 10,000 RPM
Spindle Motor	: 300W
Spindle Control	: Manual & Automatic

## Mechanical Specifications

Machine Dimensions (W*D*H)	:	(W 455 × D 505 × H 350) mm Approx.
Machine Construction material	:	6061 & 6063 hard aluminum alloy for better mechanical stability
Maximum job height	:	<= 40mm
Transmission unit	:	Lead Screw
Repeat positioning Accuracy	:	0.1mm - 0.2mm
Machine weight	:	30kg-40kg (Approx)

## PCB Machine Controller

### 1. Front side of PCB Machine Controller



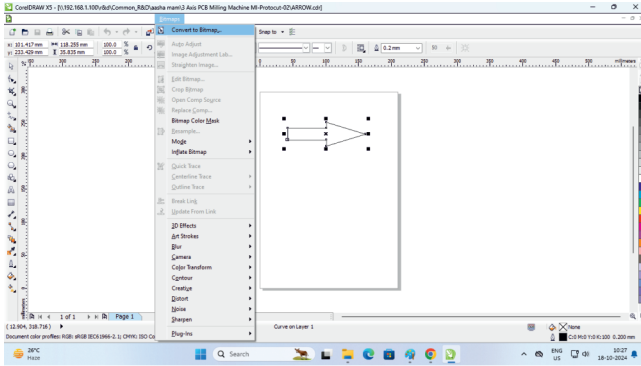
### 2. Dimensions

Length	:	345mm
Width	:	305mm
Height	:	120mm

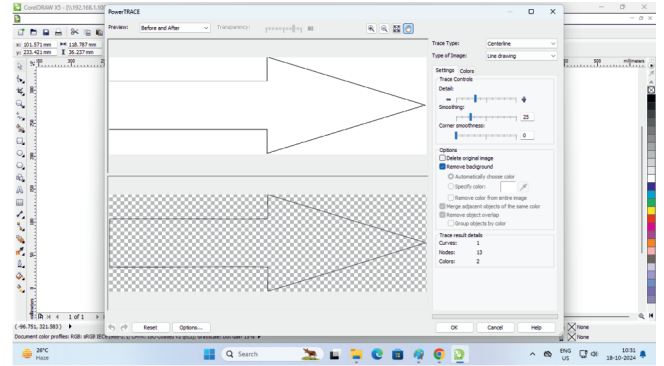
### 3. Back side of PCB Machine Controller



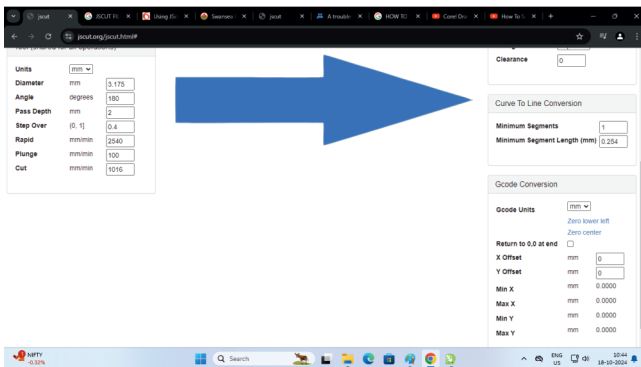
**Software Window**



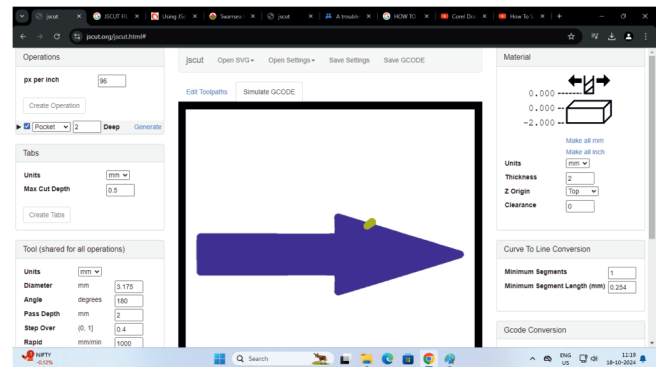
**Arrow generate by coreldraw**



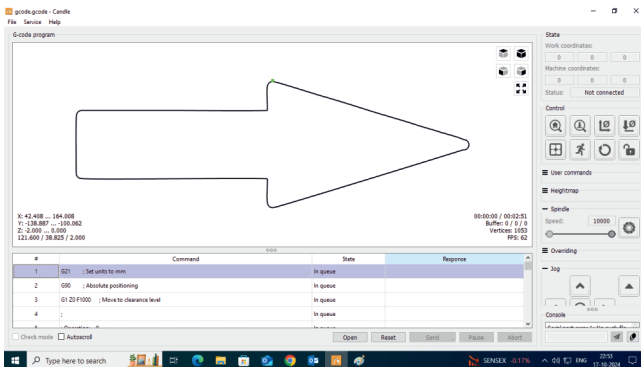
**Save file in SVG**



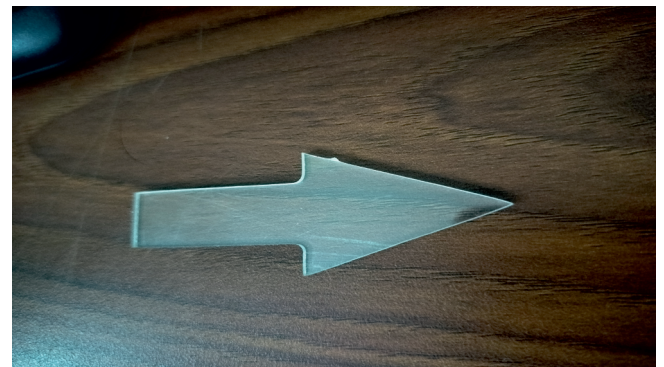
**Import arrow in JS cut**



**Save Gcode file**



**Operation in Candle**

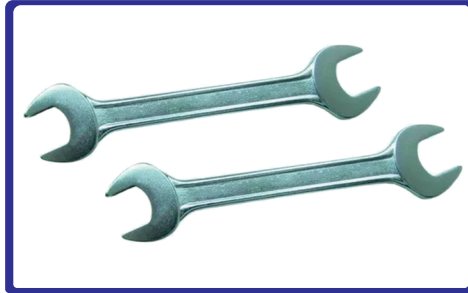


**Final Object**

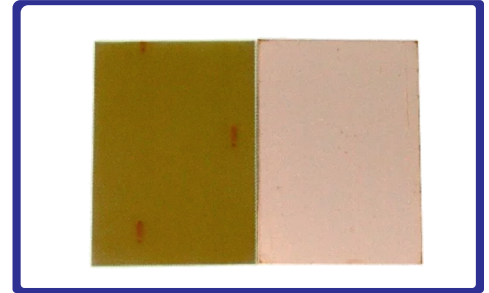
**Accessories**



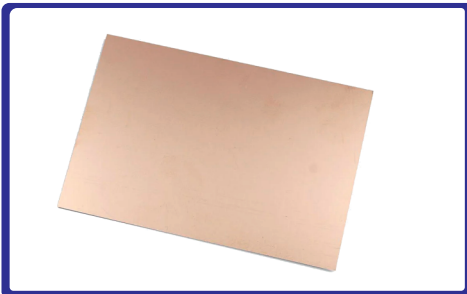
Drill Bits-10nos.



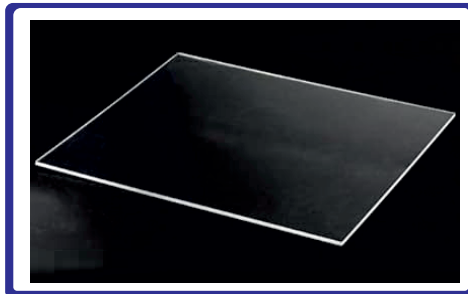
Wrenches-2nos.



Single Side PCB - 8nos.



Double Side PCB - 5nos.



Acrylic Plate 3mm x 3



Vacuum cleaner - 01nos.



USB Cable



Tool bits - Router Bits - 2nos.



Engrave/Milling bits (0.2mm) - 10 nos.



Power cable



Operating Manual

