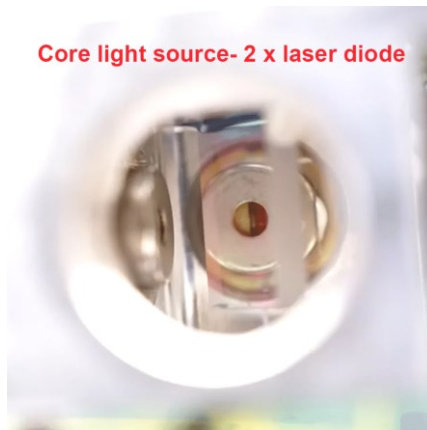# Neje A40640

## SPECIFICATION

**Module**: NEJE A40640
Focus: 0.04x0.06mm
Focus method: adjustable ( Recommend 30-55mm )
Optical power: Pulse 12W+, CW 11W+, Use 80% power (9W+) when cutting for a long time.
Replaceable lens design: Yes, Added window protection lens to extend service life (high temperature resistance of 1000 degrees Celsius)
Stainless steel direct grayscale engraving: Yes
3D hardwood engraving: Yes
Maximum cutting thickness: 20mm
Wavelength: 450nm
Weight: 204g
Module Size: 40x50x85 mm
Input: DC 12V 4A
Interface: 4pin PH2.0
Compatible with: NEJE 3 Max, NEJE 3 Pro, NEJE 3 Plus, NEJE 2s Max, NEJE 2s Plus, etc...
Power control: PWM Power Modulation
Fan: double ball high life fan
Drive: NEJE smart quiet drive, built-in static elimination technology.
Surge protection: Yes
Smart feedback: Yes

Temperature feedback: Yes
Temperature control: 45℃
air pump: 0.5-1.5mpa clean air (Needle type air nozzle supports oily and water-containing air source, and sealed air nozzle can only use clean air pump)
Air interface: 4mm pvc trachea
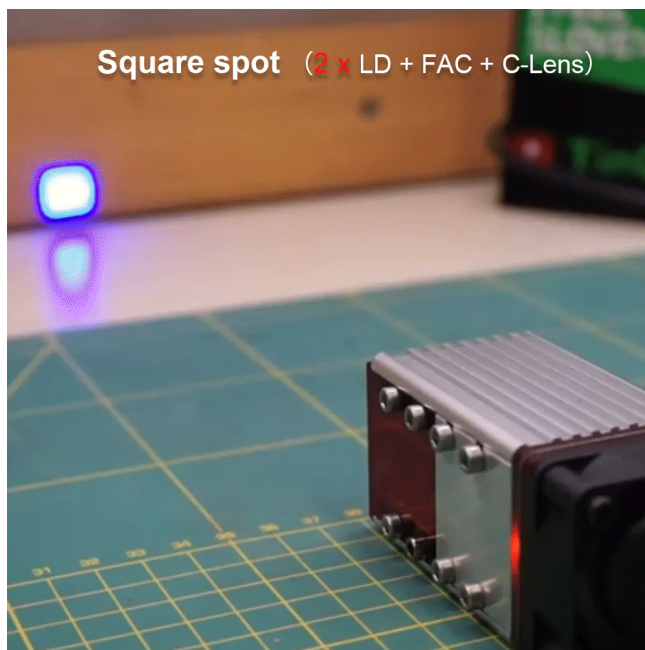Original registered brand: Yes
**Warranty**: 2 years
Warranty Statement: The conditions of NEJE's free after-sale policy must be met under the conditions of non-human disassembly and mis-operation and use in the correct environment.
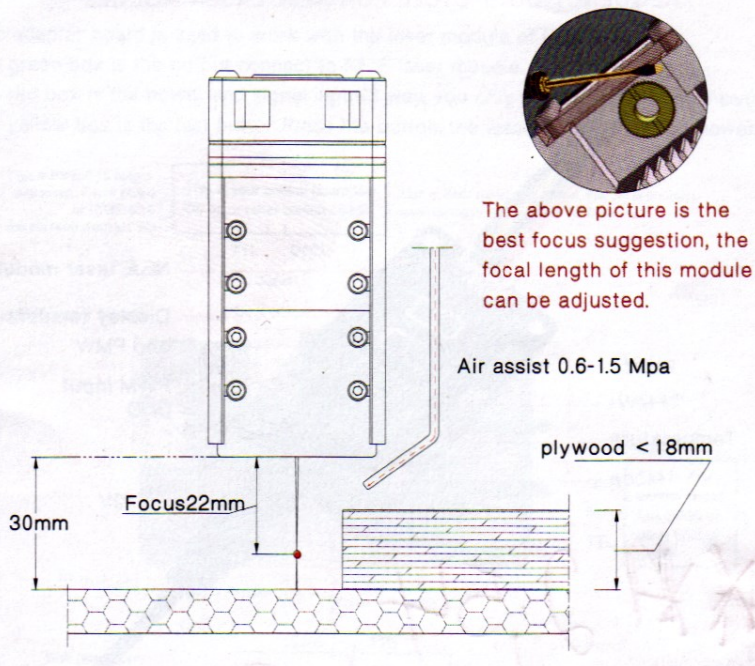If the wrong voltage is input, or the lens is damaged due to lack of maintenance, it is not within the scope of free after-sale; for maintenance instructions, please refer to NEJE.WIKI

Package list:

- 1 x NEJE A40640 laser module ( Built-in high pressure air nozzle )
- 1 x Laser module height adjuster
- 1 x 4 pin cable(30cm)
- 1 x 2pin yellow and black signal line + 3pin input line
- 1 x NEJE digital pwm temperature test / switch / interface adapter board
- 1 x NEJE test / switch / interface adapter board
- 1 x 2.5mm L-shaped wrench
- 1 x 5mm L-shaped wrench
- 1 x Tube (4mm x 2m)
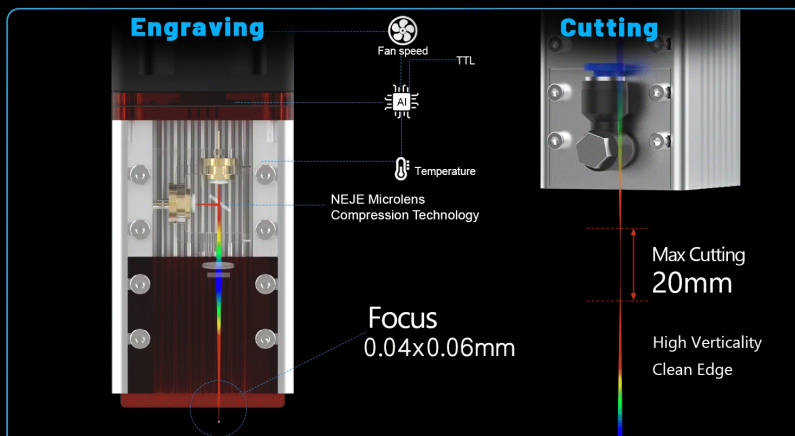- 1 x connector (M8 to M4)

# NEJE A40640 FOCUS WITH AIR ASSIST

The above picture is the best focus suggestion, the focal length of this module can be adjusted.

Air assist 0.6-1.5 Mpa

plywood < 18mm

Focus22mm

30mm

# One Module Solve All Puzzles

NEJE A40640 Dual Beam 12W+ Optical Power Module with 2 Years Warranty

**Engraving**

Fan speed

TTL

AI

Temperature

NEJE Microlens
Compression Technology

Focus
0.04x0.06mm

**Cutting**

Max Cutting
20mm

High Verticality
Clean Edge

Excellent engraving performance

8mm thickness basswood (One-pass)

A2/3A
TERAS HIJAU RESIDENCE

NEJE
A40640

# Powerful Cutting but Fewer Burnt Marks

**NEJE A40640**  VS  **Others**

Max Cutting
**20mm**

Max Cutting
**6mm**

High Verticality    Clean Edge

8mm thickness basswood (One-pass)

Not vertical, Many carbonized
substances, edge error
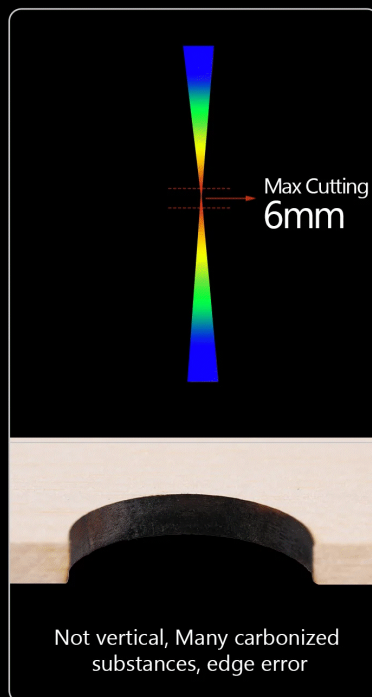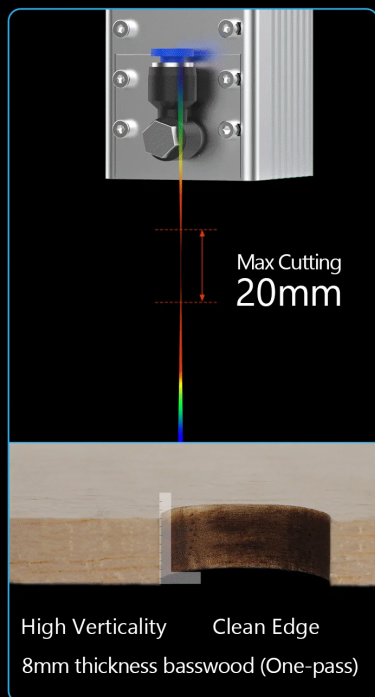
# Top engraving ability

clear grayscale engraving on stainless steel surface

NEJE

A40640

Maximum cutting thickness 20mm
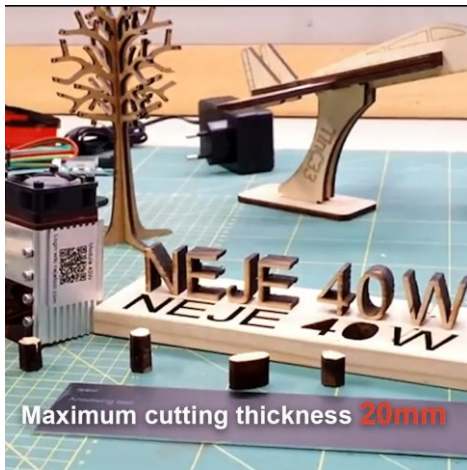
# Hundreds of Materials For More Professional DIY Enjoyment

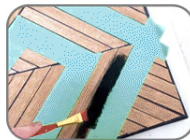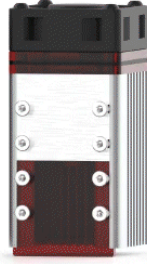| | | |
|---|---|---|
| Wood Board Cutting | Kraft Paper Cutting | Black Acrylic Cutting |
| Plastic Engraving | Anodized Aluminum Engraving | Corrugated Board Cutting |
| Solid Wood Carving | Veneer Cutting | Bamboo Carving |
| MDF Board Engraving and Cutting | Cardboard Cutting | Stamp Rubber Carving |
| Canvas art Engraving and Cutting | Non-woven Fabric Cutting | Painted Metal Engraving |
| Painted Tile Engraving | Stone Carving | Film-coated Transparent Acrylic |
| V2A Stainless Steel Engraving | Glass and Mirror Engraving | 3D Wood Engraving |
| Leather Engraving | Grayscale Engraving | EPE Cutting |
| Large Area Black Acrylic Cutting | | |

# NEJE A40640 Laser module

| | |
|---|---|
| Radiator size | 40x50x60mm |
| Weight | 204g |
| Focus method | Zoom focus (The close focus is smaller, suitable for metal engraving and thin material cutting, and the far focus is suitable for cutting thick materials) |
| Application | Metal engraving, thin metal cutting, stone engraving, glass engraving, seal engraving, cardboard cutting,wood etching, canvas engraving, fabric engraving and cutting, leather engraving and cutting, MDF board cutting, plywood cutting, acrylic cutting, etc;variable focus design, long focal length combined with high pressure air Auxiliary is suitable for cutting thick wood and other materials for making furniture such as lamps, chairs, tables, etc. |
| Max air pressure | 1.5mPa |
| Speed of the Fan | 10600RPM(Double ball bearing) |
| Interface | PH2.0 4Pin + ( 2Pin 12v extra power – can be free) |
| Drive design | Built-in |
| Input | 12V 4A |
| Optical power | Pulse 12 W+, CW 11W+ |
| Wavelength | 450nm |
| Number of diodes | 2 |
| Light source | 2 x LD +FAC tech |
| Min focus spot size | 0.06 x 0.06mm |
| Temperature feedback | YES |
| Power adjustment method | PWM duty cycle   (3.3V – 24V, 0-20KHz) |
| Continuously working(cw) | Unlimited |
| Fan speed control | YES |
| Light feedback | YES |
| Warranty | 2 years (20000h) |
| Max cutting & carving depth | 20mm |
| Cutting speed (plywood 3mm，with air assist，clear edge) | 420m/ min 100%power from 1 pass |
| Stainless steel direct engraving | YES |
| Support stainless steel grayscale | YES |

# Cutting Speed

| | |
|---|---|
| Laser module : | NEJE A40640 |
| plywood 2mm cut : | 480mm/min,S1000, 1 pass |
| plywood 3mm cut : | 420mm/min,S1000, 1 pass |
| plywood 4mm cut : | 360mm/min,S1000, 1 pass |
| plywood 5mm cut : | 240mm/min,S1000， 1 pass |
| plywood 8mm cut : | 120mm/min,S1000， 1 pass |
| plywood 18mm cut : | 120mm/min,S1000， 3 pass |
| birch ply 3mm : | 480mm/min,S1000, 1 pass |
| MDF board 3mm cut : | 120mm/min,S1000, 1 pass |
| MDF board 5mm cut : | 120mm/min,S1000, 2 pass |
| MDF board 8mm cut : | 120mm/min,S1000, 3 pass |
| balck acrylic plate 3mm cut : | 120mm/min,S1000, 1 pass |
| balck acrylic plate 5mm cut : | 120mm/min,S1000, 2 pass |

NOTE : The above data needs to add air assist correctly(0.6-1.5mPA)with laserGRBL or lightburn;
lightburn: 60mm/min=1mm/sec,S1000=100% Power

# NEJE A40640
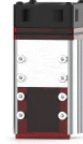


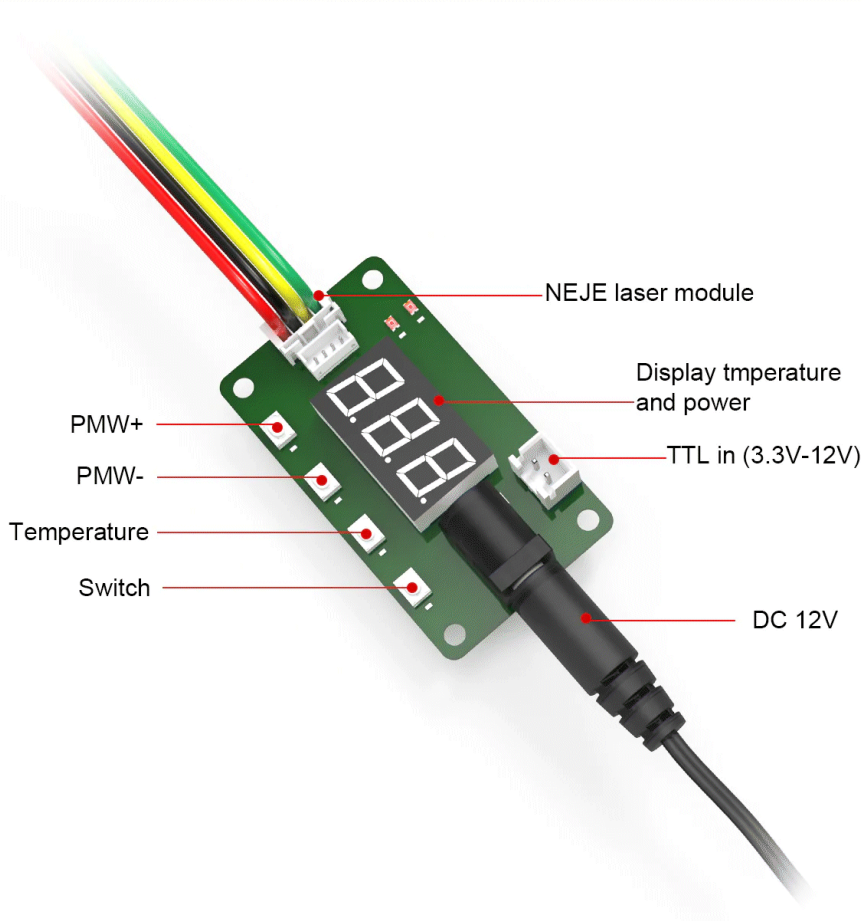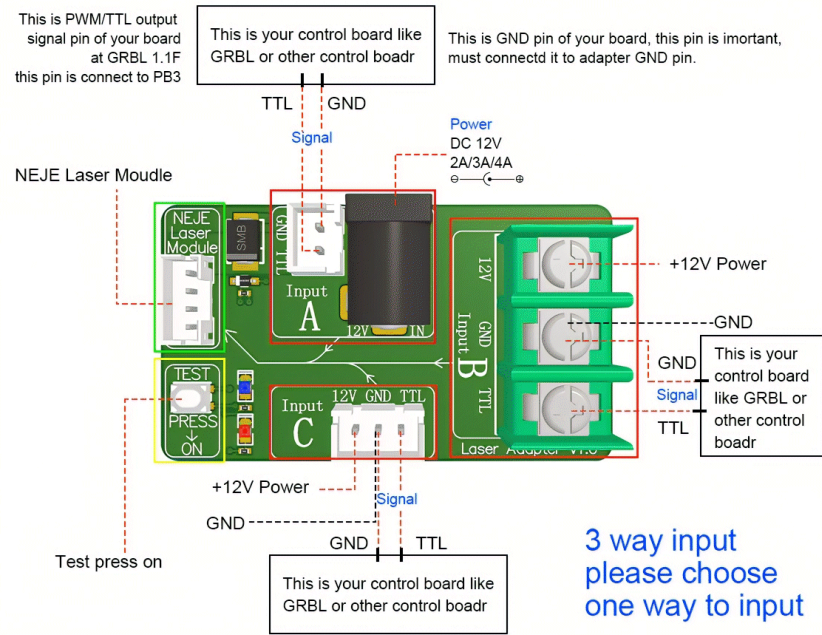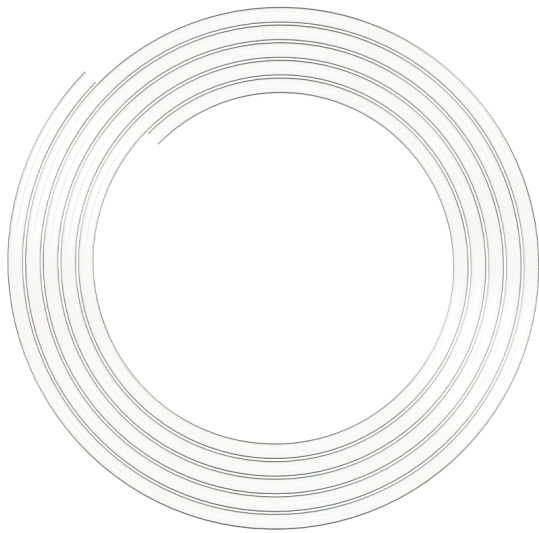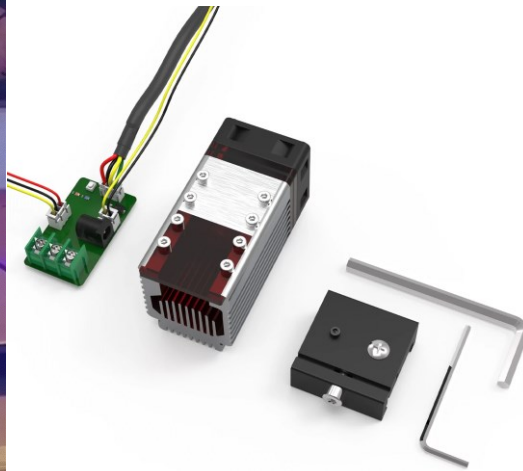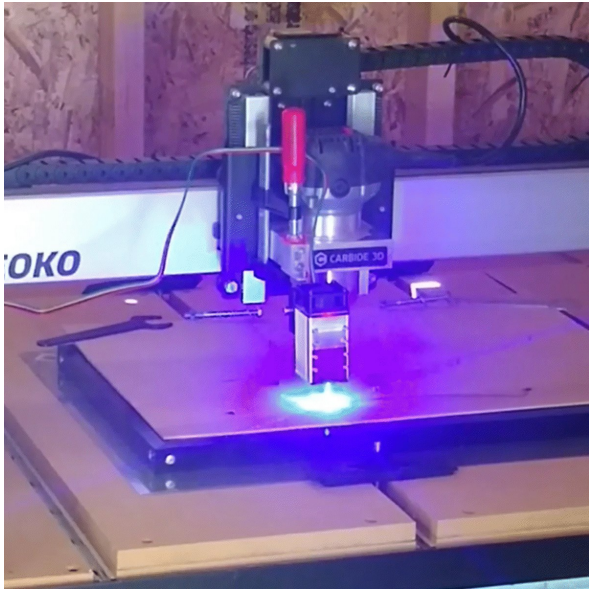| Material Description | Marking | Craving | Cutting |
|---|---|---|---|
| plywood 5mm | ✓ | ✓ | ✓ |
| plywood 8mm | ✓ | ✓ | ✓ |
| plywood 18mm | ✓ | ✓ | ✓ |
| MDF board 5mm | ✓ | ✓ | ✓ |
| MDF board 8mm | ✓ | ✓ | ✓ |
| MDF board 18mm | ✓ | ✓ | ✓ |
| Balsa 8mm | ✓ | ✓ | ✓ |
| hard wood 18mm | ✓ | ✓ | ✓ |
| Acrylie 8mm(Dark Color) | ✓ | ✓ | ✓ |
| Brushed Acrylie(transparent) | ✓ | X | X |
| Corrugated cardboard < 8mm | ✓ | ✓ | ✓ |
| Kraft Paper 0.5mm | ✓ | ✓ | ✓ |
| Paperboard 2mm | ✓ | ✓ | ✓ |
| weeding invitation paper 0.5mm | ✓ | ✓ | ✓ |
| Colored A4 Paper(Not White) | ✓ | ✓ | ✓ |
| A4 Paper(White) | X | X | ✓ |
| Spray art stencils from mylar sheets(less than 1mm thick) | X | X | ✓ |
| Heat transfer vinyl | X | X | ✓ |
| bamboo | ✓ | ✓ | ✓ |
| stamp rubber | ✓ | ✓ | ✓ |
| Non-woven | ✓ | X | ✓ |
| Cotton | ✓ | X | ✓ |
| Linen | ✓ | X | ✓ |
| Velvet | ✓ | X | ✓ |
| Canvas | ✓ | X | ✓ |
| fabric  polyester | ✓ | X | ✓ |
| fabric synthetics | ✓ | X | ✓ |
| Leather < 2mm | ✓ | ✓ | ✓ |
| Leather < 4mm | ✓ | ✓ | ✓ |
| Plastic | ✓ | ✓ | ✓ |
| PPR | ✓ | ✓ | X |
| ABS Sheet<2mm（Dark Color) | ✓ | ✓ | ✓ |
| PVC Sheet 2mm（Dark Color) | ✓ | ✓ | ✓ |
| Brushed PVC transparent board | ✓ | X | X |
| Black foamex(EPE) | ✓ | ✓ | ✓ |
| KT Board | X | X | ✓ |
| EVA foam | ✓ | ✓ | ✓ |
| Bakelite | ✓ | ✓ | X |
| Brushed Glass | ✓ | X | X |
| Cobblestone | ✓ | X | X |
| Brushed Ceramic | ✓ | X | X |
| Pinted Metal | ✓ | X | X |
| PCB board | ✓ | X | X |
| Anodised Aluminium | ✓ | X | X |
| Brushed Stainless steel | ✓ | X | X |
| mirror Stainless steel | ✓ | X | X |
| Gold | X | X | X |

# Adapter Board Instructions

This adapter board is used to work with the laser module of NEJE.

The green box is the output connect to NEJE laser moudle.

The red box is the power and signal input(3 way, you only nced to select one input).

The yellow box is thc test button.Press the button, the laser will be on at full power.

This is PWM/TTL output signal pin of your board at GRBL 1.1F this pin is connect to PB3

This is your control board like GRBL or other control boadr

This is GND pin of your board, this pin is imortant, must connectd it to adapter GND pin.

TTL    GND

Signal

Power
DC 12V
2A/3A/4A

NEJE Laser Moudle

NEJE Laser Module

Input A

12V IN

+12V Power

GND

Input B

GND

This is your control board like GRBL or other control boadr

Signal

TTL

TEST PRESS ON

Input C

12V GND TTL

Laser Adapter V1.0

Test press on

+12V Power

Signal

GND

GND    TTL

This is your control board like GRBL or other control boadr

3 way input
please choose
one way to input

NEJE laser module

Display tmperature and power

PMW+

PMW-

TTL in (3.3V-12V)

Temperature

Switch

DC 12V

# NEJE MODULE KIT

NEJE·v1.00

Designed for   arduino project
                 cnc machine
                 3d printer
                 wood router machine
                 cnc milling machine
                 other laser cnc machine