



TWO TREES

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Laser Engraver
Product Manual

Everyone is a Creator

Company Profile

Two Trees is a technology company specializing in CNC Router Machines, Laser Engravers and Consumer 3D Printers. From the self-developed TTC450 CNC Router Machine and the TS2 Laser Engraver to the SK1 3D Printer, the company continues to introduce innovative products that provide users with efficient creative tools and solutions. With a state-of-the-art R&D center and manufacturing facility in China, more than 200 employees worldwide, the company is committed to meeting the global demand for high-quality creative experiences. We hope to bring safer and smarter technology and DIY tools, so that everyone can recognize their own creativity, grow freely, and Two Trees will make a forest.



80+ Patent Certificates,
40+ Trademarks, And 10+ Copyrights.



200+ Industry Professionals
High-tech Enterprise



10000m², Modern Factory,
Efficient Production Line.



Production And Export Volumes
Have Increased By Nearly 175%.

TTS-20Ultra Laser Engraver
TS5 Laser Engraver



2025

TS1 Mini Laser Engraver
TTS-20 Max Laser Engraver
TS2-40W Laser Engraver
TS2-20W Laser Engraver
TS2-40 Max Laser Engraver



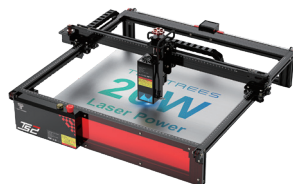
2024

TTS-25 Pro Laser Engraver
TTS-55 Pro Laser Engraver
TTS-10 Pro Laser Engraver
TTS-20 Pro Laser Engraver



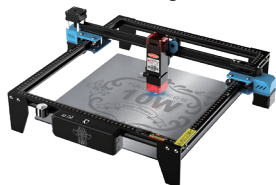
2023

TS3 Laser Engraver
TS2-20W Laser Engraver

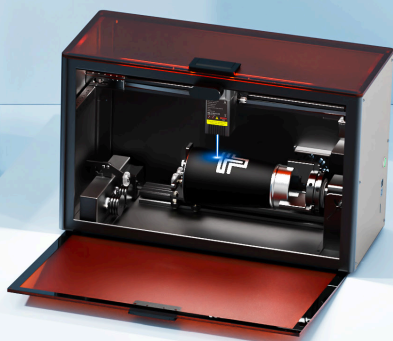
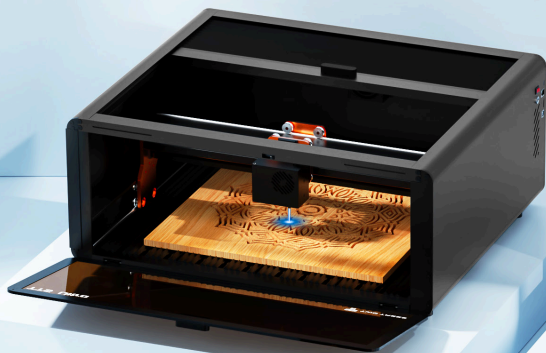


2022

TTS-55 Laser Engraver
TTS-10W Laser Engraver
TS2-10W Laser Engraver



2021



TwoTrees TTS-20 Ultra



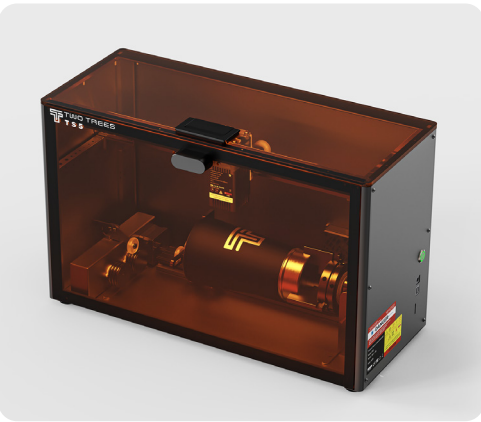
- Features:
- 1. Sealed Design For Greater Safety
 - 2. Multi-material Compatibility
 - 3. Antioxidant for Profiles
 - 4. Quick and Precise Positioning
 - 5. Excellent Cutting Performance

Specifications:

Overall Power:	96W	Engraving Area:	400X300mm
Input Voltage:	100-240V-50-60Hz	Machine Dimensions:	620X546.5X280mm
Laser Power:	20W	Spot Size:	60X100μm
Output Voltage:	24V	Laser Wavelength:	455+10nm
Engraving Speed:	10000mm/Min	Engraving Materials:	Wood, Plastic, Paper, Leather, Stainless Steel
Engraving Accuracy:	100±0.05mm	Main Body Material:	Sheet Metal + Aluminum + Acrylic
Upgrade Features: Enclosed Design, Filtering Glare, Eye Protection Upgrade Kits: Optional Smoke Exhaust Kit			



TwoTrees TS5



Features:

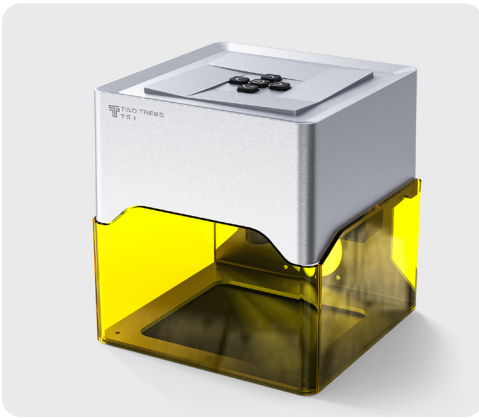
- 1. Enclosed Design
- 2. Eye-Safe Filtered Window
- 3. Reversible/Roller Chuck
- 4. 95% Pre-Assembled
- 5. Magnetic Snap-On Panels

Specifications:

Overall Power:	60W	Engraving Area:	249X123X123mm
Input Voltage:	100-240V~50/60Hz	Machine Dimensions:	480X200X298mm
Laser Power:	7W	Spot Size:	0.035X0.1mm
Output Voltage:	24V	Machine Weight:	9.13kg
Packaging Dimensions:	553X280X387mm	Gross Weight:	10.55kg
Engraving Speed:	2000mm/Min	Engraving Materials:	Mugs,Wine Glasses, Stainless Steel, Rings
Engraving Accuracy:	100±0.1mm	Main Body Material:	Sheet Metal + Aluminum + Acrylic
Upgrade Features:Specializing in cylinder engraving, personalized mugs			



TwoTrees TS1



Features:

- 1. Compact Size
- 2. Manual Focus
- 3. More Accurate And Efficient
- 4. Easy Engraving in 5 Seconds
- 5. Protective Glasses Ensure Safety

Specifications:

Overall Power:	17.5W	Engraving Area:	80X80mm
Input Voltage:	100-240V~50-60Hz	Machine Dimensions:	157X157X167mm
Laser Power:	1.6W	Spot Size:	0.2X0.6mm
Output Voltage:	DC12V/2A	Machine Weight:	1025.7g
Packaging Dimensions:	203X210X196mm	Gross Weight:	1229.7g
Engraving Speed:	3000mm/Min	Engraving Materials:	Wood, Plastic, Paper, Leather, Stainless Steel
Engraving Accuracy:	100±0.05mm	Main Body Material:	Injection Molded Parts + Aluminum
Software: Lightburn, lasergrbl, MKSLaser			



TwoTrees **TS2-40 Max**



Features:

- 1. Up to 40W Laser Module
- 2. Built-in Intelligent Safety Features
- 3. Strong Support and Stability
- 4. More Powerful Cutting Material Capability
- 5. Eye Protection

Specifications:

Overall Power:	178W	Engraving Area:	450mmX900mm
Input Voltage:	100-240V-50-60Hz	Machine Dimensions:	735mmX1230mmX190mm
Laser Power:	40W	Spot Size:	110X120μm
Output Voltage:	24V/9A	Machine Weight:	7.6kg
Packaging Dimensions:	1255X321X220mm	Gross Weight:	11.0kg
Engraving Speed:	6000mm/Min	Engraving Materials:	Wood, Plastic, Paper, Leather, Stainless Steel
Engraving Accuracy:	100±0.05mm	Main Body Material:	Sheet Metal + Aluminum + Acrylic
Upgrade Features: 20w/40w Switching at Wills			



TwoTrees TS2-20 Max

Features:

- 1. Fast Engraving Speed
- 2. Sliding Block For Precise Focusing
- 3. Excellent Cutting Performance
- 4. Intelligent Security Settings
- 5. Support Offline Engraving

Specifications:

Overall Power:	96W	Engraving Area:	450mmX900mm
Input Voltage:	100-240V-50-60Hz	Machine Dimensions:	735mmX1230mmX190mm
Laser Power:	20W	Spot Size:	1000X130 um
Output Voltage:	DC24V/4A	Machine Weight:	7.2kg
Packaging Dimensions:	1255X321X220mm	Gross Weight:	10.4kg
Engraving Speed:	6000mm/Min	Engraving Materials:	Wood, Plastic, Paper, Leather, Stainless Steel
Engraving Accuracy:	100±0.05mm	Main Body Material:	Sheet Metal + Aluminum + Acrylic
Upgrade Features: COS Optical Design Laser Module			



TwoTrees **TS2-40W**



Features:

- 1. Neat layout
- 2. Powerful 40W laser
- 3. Quick and Precise Positioning
- 4. Shields for Eye Protection
- 5. Easy Remote Control

Specifications:

Overall Power:	178W	Engraving Area	450mmX410mm
Input Voltage:	100-240V~50-60Hz	Machine Dimensions:	735mmX720mmX190mm
Laser Power:	40W	Spot Size:	110X120μm
Output Voltage:	24V/9A	Machine Weight:	7.1kg
Packaging Dimensions:	740X221X317mm	Gross Weight:	9.7kg
Engraving Speed:	6000mm/Min	Engraving Materials:	Wood, Plastic, Paper, Leather, Stainless Steel
Engraving Accuracy:	100±0.05mm	Main Body Material:	Sheet Metal + Aluminum + Acrylic
Upgrade Features: 20w/40w Switching at Wills			



TwoTrees TS2-20W



Features:

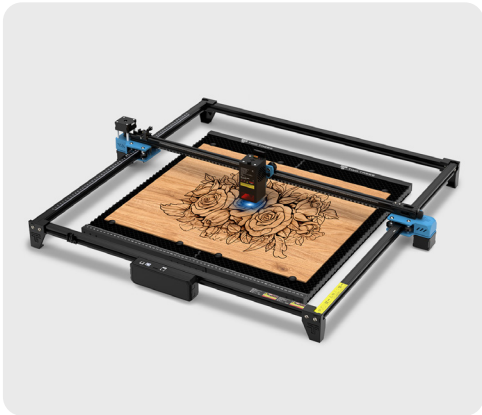
- 1. Neat layout
- 2. Safer to Use
- 3. Ultra-Powerful Cutting
- 4. Fast Auto Focus
- 5. Support Offline Engraving

Specifications:

Overall Power:	96W	Engraving Area	410mmX410mm
Input Voltage:	100-240V~50-60Hz	Machine Dimensions:	735mmX720mmX190mm
Laser Power:	20W	Spot Size:	100X130μm
Output Voltage:	DC24V/4A	Machine Weight:	8.2kg
Packaging Dimensions:	760X230X350mm	Gross Weight:	11kg
Engraving Speed:	10000mm/Min	Engraving Materials:	Wood, Plastic, Paper, Leather, Stainless Steel
Engraving Accuracy:	100±0.05mm	Main Body Material:	Sheet Metal + Aluminum + Acrylic
Upgrade Features: Auto-focus			



TwoTrees **TTS-20 Max**

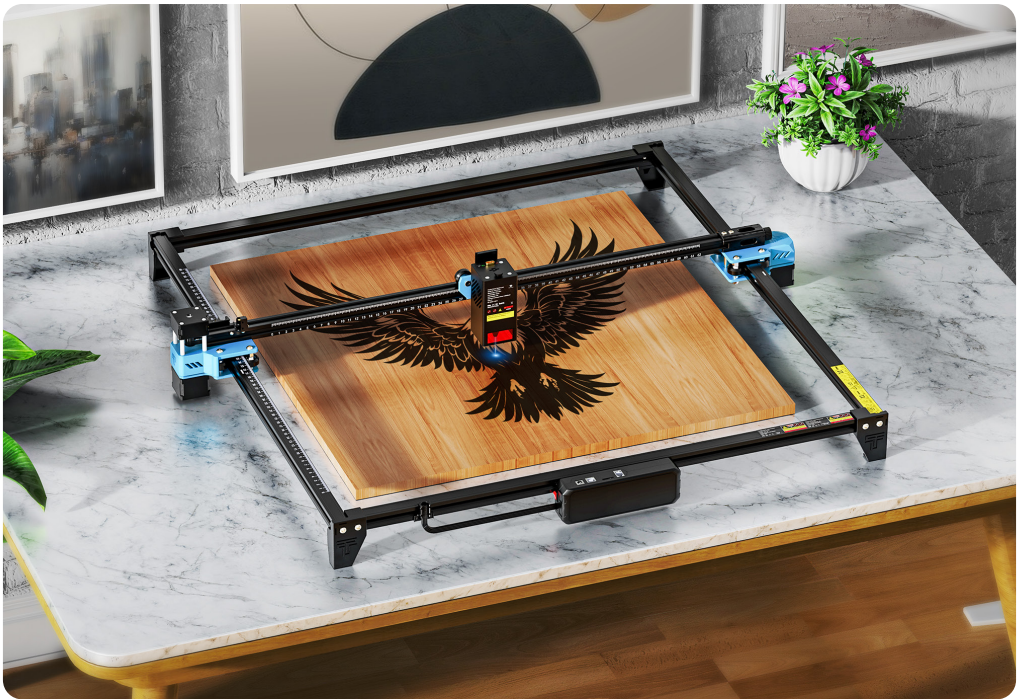


Features:

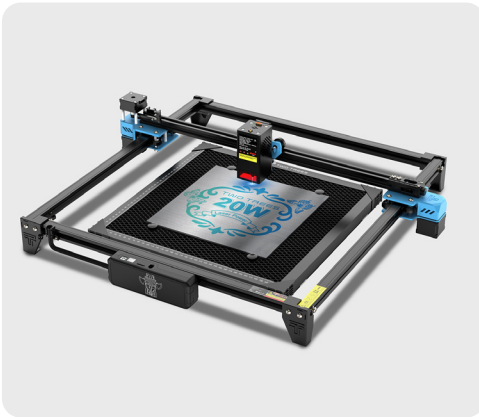
- 1. Up to 10000mm/Min
- 2. Excellent Cutting Performance
- 3. 80% Pre-Assembled
- 4. Larger Engraving Area
- 5. Support Offline Engraving

Specifications:

Overall Power:	96W	Engraving Area:	600X600mm
Input Voltage:	100-240V~50-60Hz	Machine Dimensions:	787X766X124mm
Laser Power:	20W	Spot Size:	100X130um
Output Voltage:	DC24V/4A	Machine Weight:	3.6kg
Packaging Dimensions:	830X155X175mm	Gross Weight:	5.6kg
Engraving Speed:	10000mm/Min	Engraving Materials:	Wood, Plastic, Paper, Leather, Stainless Steel
Engraving Accuracy:	100±0.05mm	Main Body Material:	Aluminum + Injection Molded Parts
Motherboard Model: MKS LS ESP32 PRO V1.1 Size Increase upgrade			



TwoTrees **TTS-20 Pro**



Features:

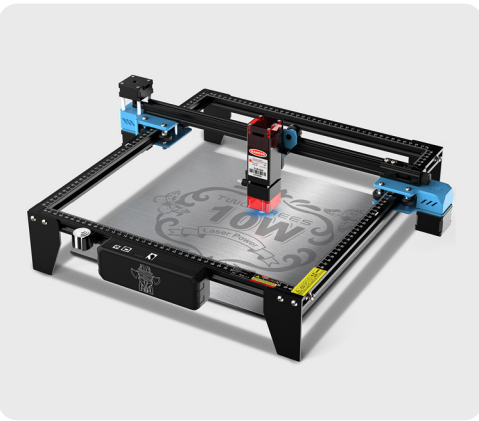
- 1. Upgrade 20W Laser
- 2. 80% Pre-Assembled
- 3. Compressed Spot Technology
- 4. Support Offline Engraving

Specifications:

Overall Power:	96W	Engraving Area:	418X418mm
Input Voltage:	100-240V-50-60Hz	Machine Dimensions:	695X620X125mm
Laser Power:	20W	Spot Size:	Rectangle 100X130µm
Output Voltage:	DC24V/4A	Machine Weight:	6.2kg
Packaging Dimensions:	740X643X160mm	Gross Weight:	10.8kg
Engraving Speed:	10000mm/Min	Engraving Materials:	Wood, Plastic, Paper, Leather, Stainless Steel
Engraving Accuracy:	100±0.05mm	Main Body Material:	Aluminum + Injection Molded Parts
Motherboard Model: MKS LS ESP32 PRO V1.1			



TwoTrees **TTS-10 Pro**

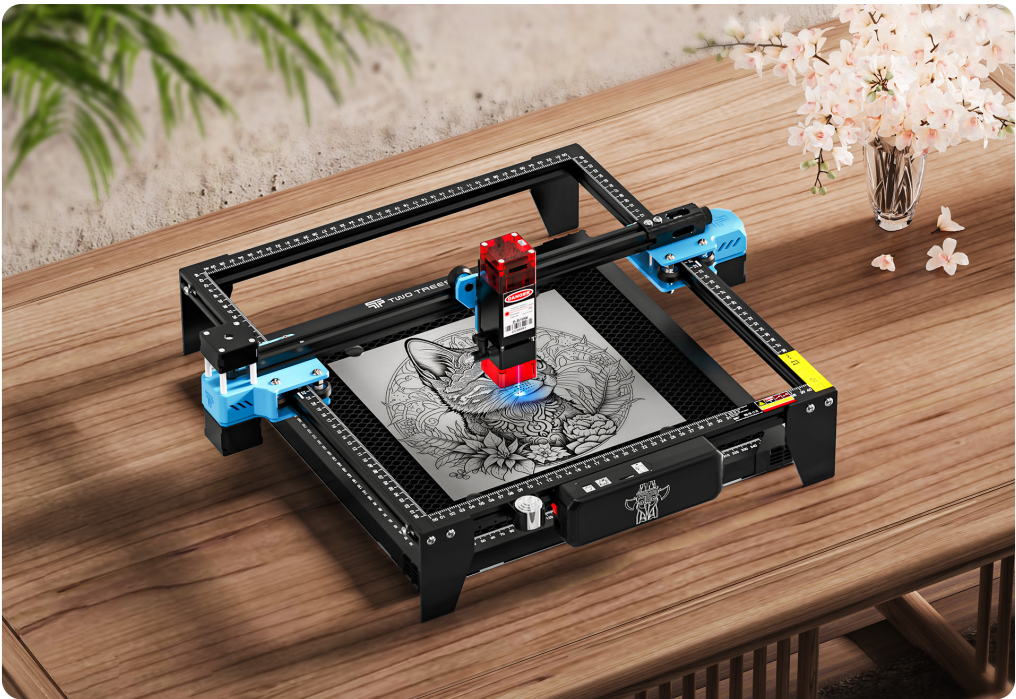


Features:

- 1. High Precision Engraving
- 2. Easy to Use
- 3. Top-Notch Safety
- 4. Independent APP Connect
- 5. Eye Protection

Specifications:

Overall Power:	55W	Engraving Area:	300X300mm
Input Voltage:	100AC-240AC 50/60Hz	Machine Dimensions:	570X510X150mm
Laser Power:	10W	Spot Size:	0.069X0.157mm
Output Voltage:	DC24V/4A	Machine Weight:	3.6kg
Packaging Dimensions:	510X180X180mm	Gross Weight:	4.3kg
Engraving Speed:	30000mm/Min	Engraving Materials:	Wood, Plastic, Paper, Leather, Stainless Steel
Engraving Accuracy:	100±0.05mm	Main Body Material:	Aluminum
Motherboard Model: MKS LS ESP32 PRO V1.1			



TwoTrees **TTS-55 Pro**



Features:

- 1. Support Offline Engraving
- 2. Compression Spot Technology
- 3. Independent APP Connect
- 4. 32-bit Motherboard
- 5. Eye Protection

Specifications:

Overall Power:	41W	Engraving Area:	300X300mm
Input Voltage:	100AC-240AC 50/60Hz	Machine Dimensions:	570X510X150mm
Laser Power:	5.5W	Spot Size:	0.08X0.08mm
Output Voltage:	DC12V/4A	Machine Weight:	3.2kg
Packaging Dimensions:	510X180X180mm	Gross Weight:	3.89kg
Engraving Speed:	30000mm/Min	Engraving Materials:	Wood, Plastic, Paper, Leather, Stainless Steel
Engraving Accuracy:	100±0.05mm	Main Body Material:	Aluminum + Injection Molded Parts
Motherboard Model: MKS LS ESP32 PRO V1.1			



Upgradeable Kits



TwoTrees Air Assist Kit

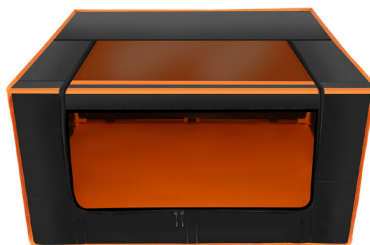
Features:

1. For TwoTrees TS3,TTS,TTS Pro Series
2. Improved Cutting Efficiency
3. Easy to Use

TwoTrees TS2 Engraver Enclosure

Features:

1. Eyes Protection
2. Smoke Vent Design
3. Water Resistant
4. Fireproof Material



TwoTrees Aluminum Laser Cutting Honeycomb Workbench

Features:

1. Desk Protection
2. Increase Efficiency
3. Accelerated Smoke Evacuation
4. Humanized Design
5. Steady and Firm

TwoTrees T20 1064nm Infrared Laser Module for TTS Series

Features:

1. Ultra-strong Optical Power
2. 1064nm Wavelength
3. Auto Focus
4. For TTS or Other
5. Higher Speed Engraving



TwoTrees T20 1064nm Infrared Laser Module for TS2 Series

Features:

1. Ultra-strong Optical Power
2. 1064nm Wavelength
3. Auto Focus
4. For TS2 or Other
5. Higher Speed Engraving



TwoTrees 20W Laser Module Air Assist Laser for TS2 Laser Engraving

Features:

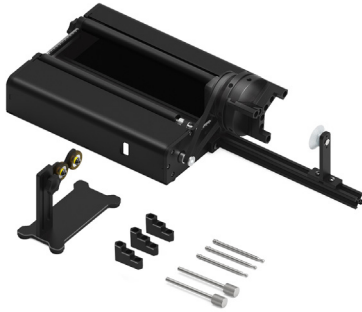
1. For TS2 or Other
2. Eye Protection
3. Air Assist
4. Auto Focus
5. Cut 0.08mm Steel



TwoTrees Engraving Machine Laser Module Laser 24V 10W With Protective Cover

Features:

1. Variety of Engraving Materials
2. Precise Positioning
3. Cover Protection
4. Long Service Life
5. Warm-up Time <1 Minute



TwoTrees TR2 PRO Rotary Attachment MIN 1 DIA Engraving For Laser Engraver

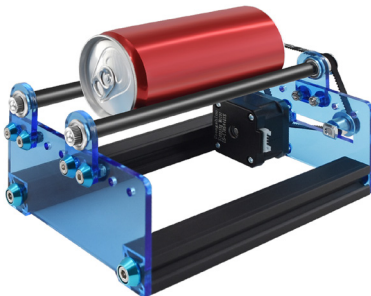
Features:

1. 90% Pre-Assembled
2. More Application Scenarios
3. Multifunctional Y-axis Rotary
4. Roller Rotary
5. Up to 0.45° Precise Control

TwoTrees-TR3 Laser Rotary Roller

Features:

1. Easy to Deal With Various Cylinders
2. Easy Connection
3. Compatible With 95% of Engraving Machines
4. 100% Pre-Installed
5. 360° Rotary Roller



TwoTrees Y-axis Rotary Attachment for Laser

Features:

1. Adjustable Width (5 levels)
2. Small Size
3. Rotate and Cylindrical Engraving
4. Embellished With VI Bottom Cover
5. Elaborate Design

Available Consumables



TwoTrees 75 Pieces Engraver Material Pack

Features:

1. 11 Kinds of Laser Materials
2. For Wood Carving
3. For Metal Carving
4. Meeting Multiple Needs



TwoTrees 6Pcs Rubberwood Spliced Plywood Engraver

Features:

1. Double-Sided Rubber Wood Splicing
2. More Suitable For Laser Engraving
3. Environmentally Friendly Materials
4. Wide Range of Applications
5. Smooth Surface

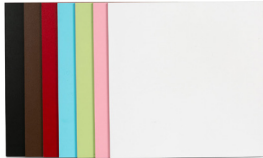




TwoTrees Creative Engraving And Cutting Clock Material

Features:

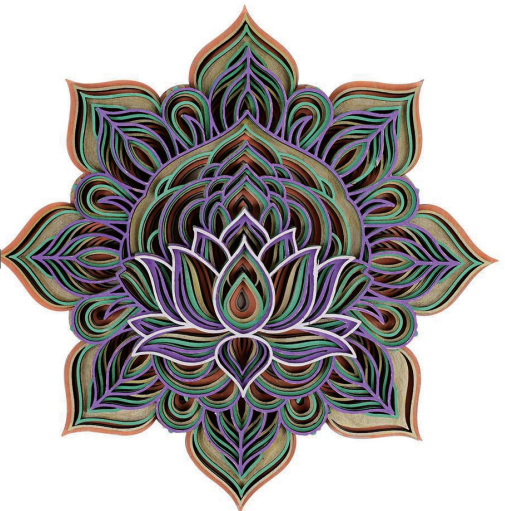
1. Carve Out Creativity
2. Easy to Operate
3. For Home Decoration



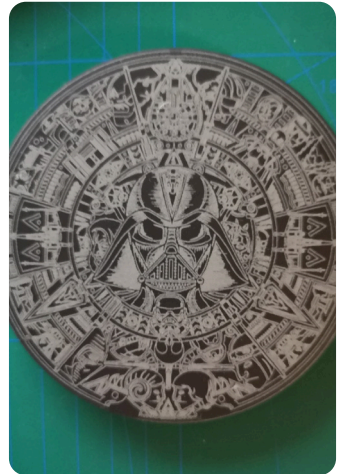
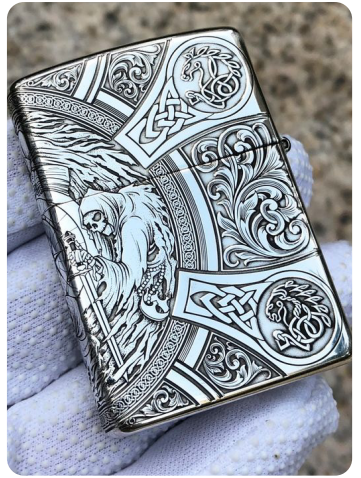
TwoTrees 6Pcs Rubberwood Spliced Plywood 12" x 12'Unfinished Wood for Laser Engraving

Features:

1. Different Colors
2. Easy to Shape
3. Safe Materials
4. Durable
5. Neat Edges Without Burrs



Artwork Display









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