PENSALABS !

Streamline Your Wire Bending:
Automate your wire bending process to reduce cost & training while increasing your productivity & quality.

In-House Efficiency:
Save money by producing faster & in-house, avoiding supply chain woes.

Transform your wire bending process

Configurable
Tooling is customized to your specs, wire size & material

Automated
Produce thousands of repeatable parts with low labor

Precise
Accurate parts to your specifications

Art to part in minutes
Quick programming allows you to create one-off prototypes, patient specific parts or small batch production

Versatile
One machine adapts to a wide variety different parts & wire sizes

User-friendly
Intuitive software allows new employees to be productive on the first day

Benchtop size
Easy to move, accommodates to your space constraints & workflow

Easy to set up
Plug it in, turn it on, you're up & running quickly

We make it easy!

1. Consultative sales process

2. Team training support

3. Customer support from our team of experts

4. Quick lead times

About Pensa Labs

We are a team of innovation-driven experts who are passionate about helping businesses unlock their full potential through automation. Our customers are looking to replace manual methods with a more automated workflow. We provide accessible, precise and configurable digital fabrication solutions that simplify workflows, reduce labor costs, training costs and the loss of institutional knowledge, while creating new possibilities.

We have envisioned a new approach to manufacturing. Our equipment enables both the positives of industrialization (low cost, highly repeatable and accurate parts) as well as the advantages of craftsmanship (bespoke customization and specialization).

Contact

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D.I.Wire Pro

This 2D CNC benchtop wire former offers the kind of power, speed, and precision that professionals need. Fully configurable and affordable, the D.I.Wire Pro solves your prototyping or small batch production needs. The machine has a bend mechanism that outputs accurate and repeatable shapes.
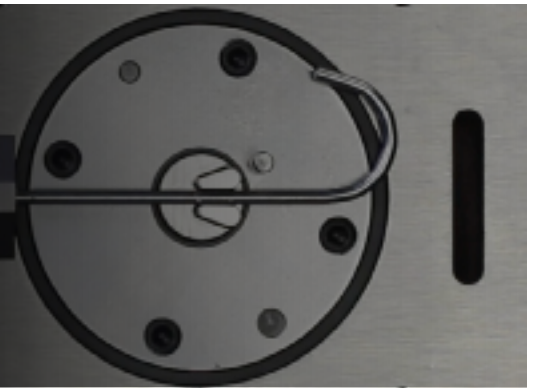
Technical Specs: Capabilities & Requirements

Can it make my part? *if your material is anything other than round wire/rod, contact us and we will let you know the bend capability.	**2D Bends** **Bend Capabilities:** Wire diameters: from 0.45 mm (0.018") – 4.7 mm (0.1875") **Cut Capabilities:** Cut up to 2 mm (0.080") **Feed Wheel Driven:** Great for continuous wire feeds from a spool **Die size range:** Up to 8.2 mm (0.322") **Bending Style:** Offset Bend Die **Materials:** A range of materials from stainless steel, spring steel, copper, brass, aluminum, and more
How accurate is it? **Will it make the same part over & over?**	**Position Accuracy:** • Stepper motor driven axes • Feed error: +/- 0.4 mm (0.016") • Bend Pin error: +/- 0.5°
How easy is it to use?	**Software:** • Program in simple script language (Feed, Bend) • Program in G-Code for full control of the machine • Characterize your material's springback and the algorithm will compensate during the bend • Supports SVG imports
Does it fit within my workflow?	**Machine:** Tabletop size: 41 cm x 29 cm x 33 cm (16.25" x 11.25" x 13") Weight: 45.3 kg (100 lbs) Power Req: 100-240 VAC, 1.8 A, 50-60 Hz
Can I expand my automation?	**Automatic cutter:** Integrated cutter bend head tooling configurable up to 0.45 mm (0.018") – 2.0 mm (0.080") **Wire straightener:** For straightening coils of wire up to 2 mm (0.080")
When can I get one?	Order now, production lead time is 4-6 weeks
How much does it cost?	Please get in touch with sales for a quote. Free software with purchase.

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Workflow: Simple & Easy

Draw Curve
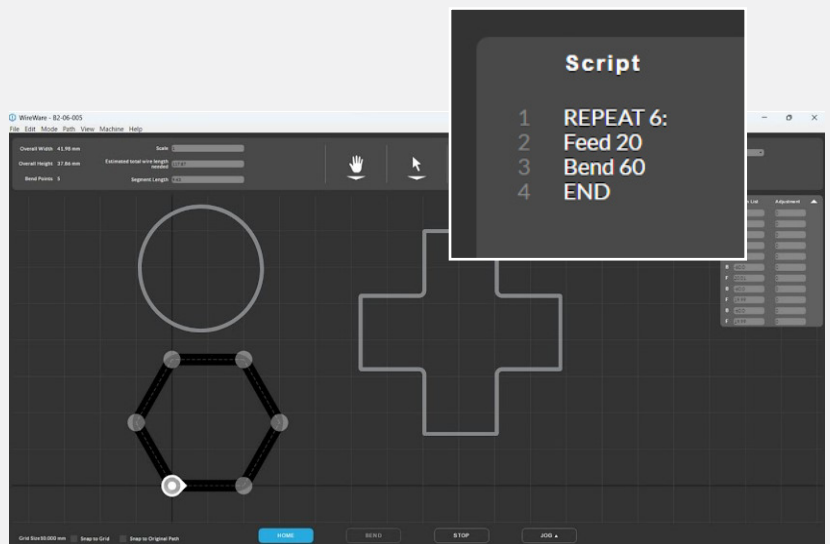Use WireWare 2.0 to create your design or import your SVG.

Connect
Connect D.I.Wire Pro & computer via USB. Open WireWare 2.0 to start a bend project or open saved bends.

Load Wire
D.I.Wire Pro allows you to create custom material profiles that compensate for material properties.

Bend
D.I.Wire Pro makes your part.

Check out this video to step through the D.I.Wire Pro workflow!

Software: WireWare 2.0

WireWare 2.0 stands out as an easy to use software tool to create and bend your desired wire parts efficiently. It's essential for a wide range of production settings.

Easy to Master
Caters to various needs, from mass production of 2D parts to custom part creation. A user-friendly interface allows new operators to be productive immediately, making it invaluable in multiple sectors.

Two Programming Modes
Features two user-friendly modes: Script Mode and Path Mode. In Script Mode, you can effortlessly program commands such as 'FEED' and 'BEND' or use G-Code for precise control. Path Mode allows you to visualize the feed and bend lists and drag points around, with the software rendering the part in real-time for an intuitive design experience.

Material Compensation
Features a calibration tool to create material profiles that compensate for material springback during bending, enabling accurate and repeatable results.

Import Shapes
Streamlines the workflow from concept to creation, enabling the import of drawn parts (SVG format) into precise FEED and BEND commands, facilitating efficient and flexible design processes.