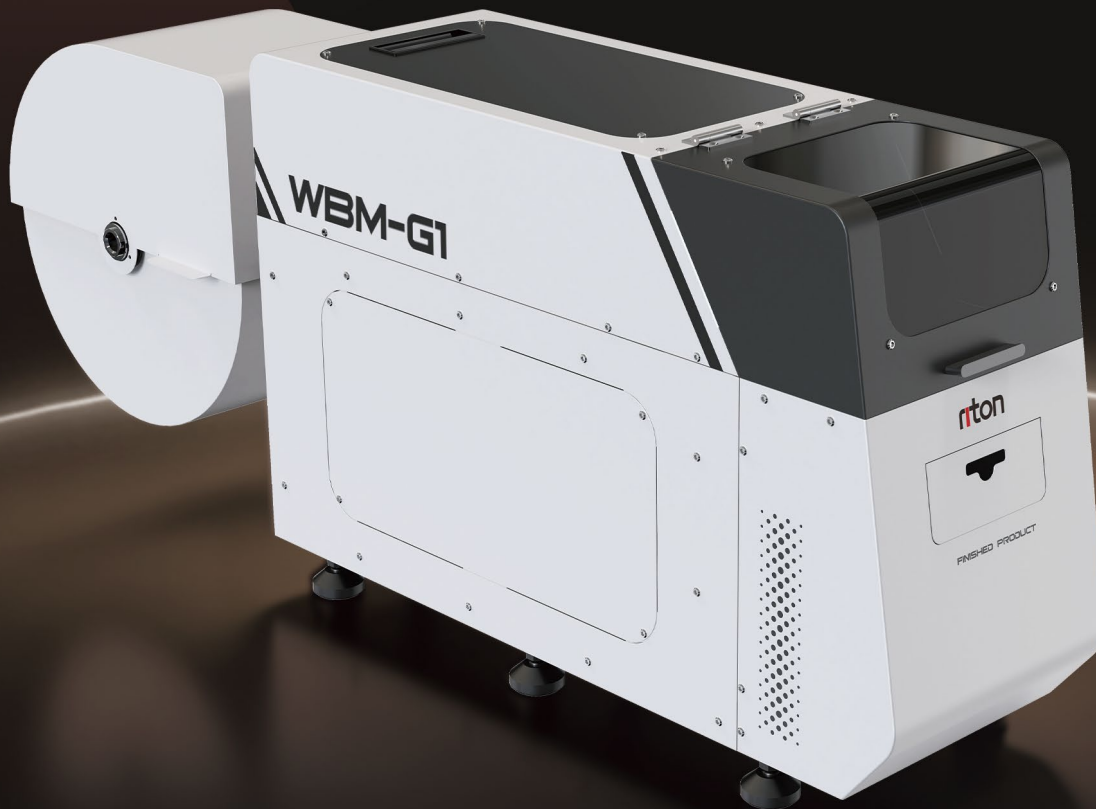




WBM-G1

Riton Desktop Automatic
Orthodontic Wire Bending Machine

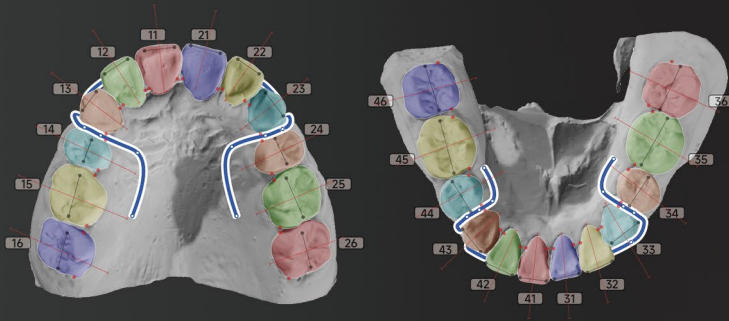
Digital Precision Wire Bending Solution



WBM-G1

Riton Desktop Automatic
Orthodontic Wire Bending Machine

The WBM-G1 serves as the central bending unit in digital orthodontic manufacturing, capable of high precision bending of various wire clasps. It ensures accurate, stable, and repeatable structural forms.



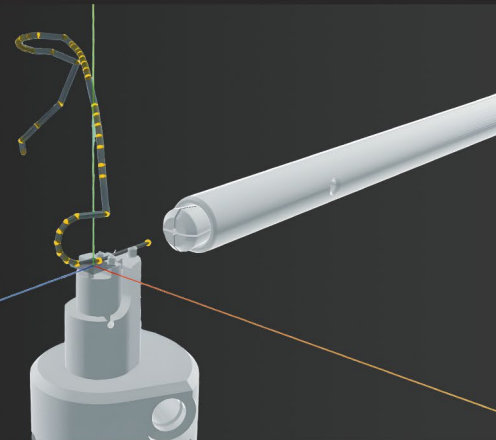
Path Algorithm

3D dynamic calculation automatically optimizes path planning, ensuring continuous, interference-free forming of the structure.



Intelligent Design

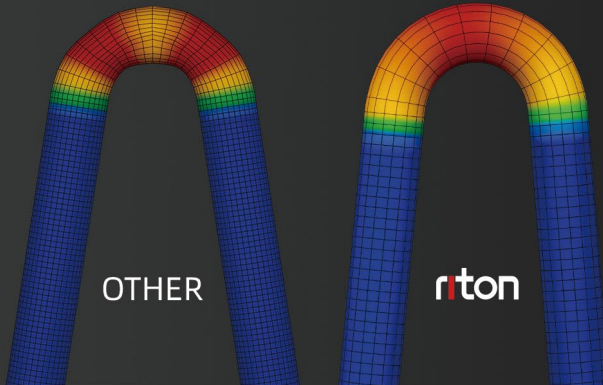
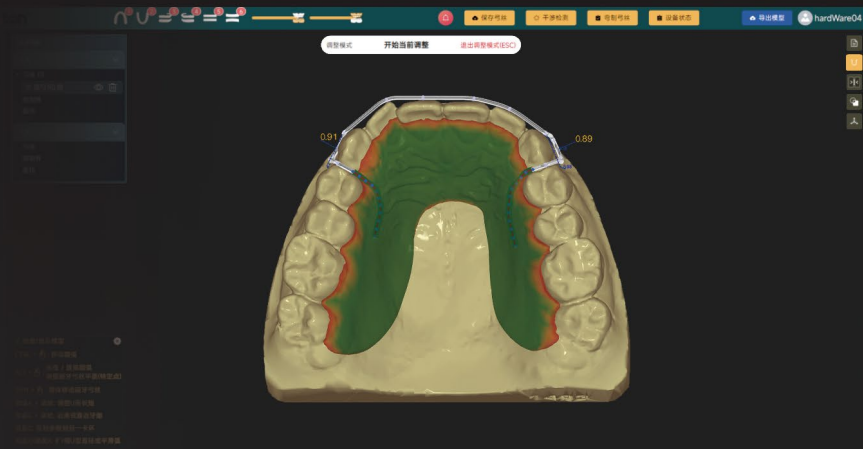
AI recognizes model feature points and quickly generates common appliance structures. The smooth-design function naturally rounds sharp bends, creating smoother, better-fitting products with high shape fidelity.





Digital Workflow

Enables coordinated design of wires and base plates, covering the full digital manufacturing chain from design → wire bending + base printing → assembly.



Bio-Inspired Bending Algorithm

Multi-axis coordinated, bio-inspired bending significantly reduces localized stretching and metal fatigue.



Direct Software Control

Manage data transfer and machine control from a single software platform, reducing manual intervention and streamlining production.

Multi-Device Connectivity

Supports many-to-many connectivity between software and machines for scalable production, with cloud-synchronized design data that remains consistent across connected devices.

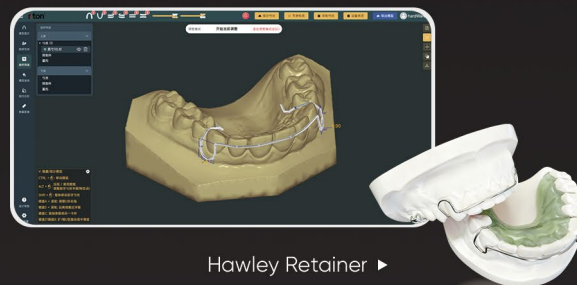


Versatile Applications

Works with Arrowhead Clasp, Double-Curve Labial Bow, TPA, Nance Appliance, Single Arm Clasp, etc.
Capable of complex 3D bending and high-volume order production.

Double-Curve Labial Bow

Design Time	2min
Bending Time	Approx. 40s
Applicable Appliances	Hawley Retainer, Frankel Appliance, Myofunctional Appliance, Lip Bumper



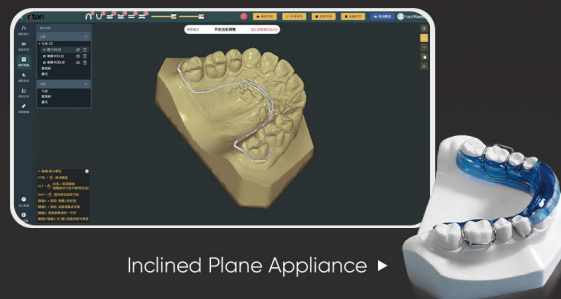
Circumferential Bow

Design Time	4min
Bending Time	Approx. 90 s
Applicable Appliances	Begg Retainer



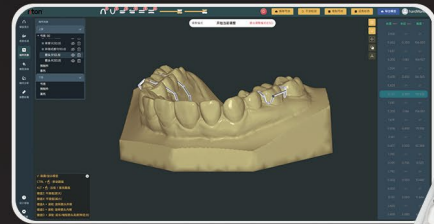
Single Arm Clasp

Design Time	2min
Bending Time	Approx. 30 s
Applicable Appliances	Inclined Plane Appliance, Flat Plane Appliance, Hawley Retainer



Arrowhead Clasp

Design Time	4 min
Bending Time	Approx. 40 s
Applicable Appliances	Hawley Retainer, Face Mask Appliance, Tongue Spring Bite Plane Appliance, Tongue Crib

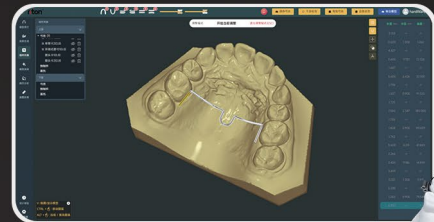


Tongue Crib ►



TPA

Design Time	2min
Bending Time	Approx. 30 s
Applicable Appliances	TPA Expander, Banded Wilson System(BWS)



TPA Expander ►

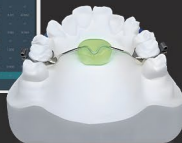


Nance Appliance

Design Time	3min
Bending Time	Approx. 30 s
Applicable Appliances	Nance Appliance, Lingual Arch Retainer



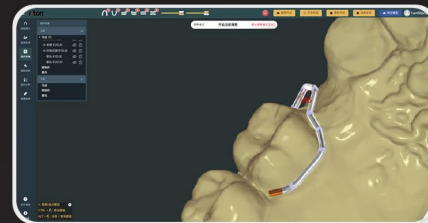
Nance Appliance ►



Versatile Applications

Space Maintainer

Design Time	3 min
Bending Time	Approx. 30 s
Applicable Appliances	Pediatric Space Maintainer

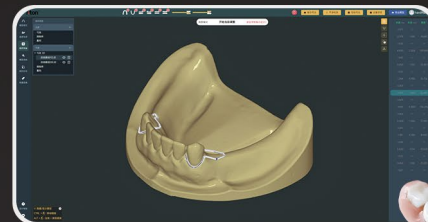


Pediatric Space Maintainer ▶



Removable Partial Denture Clasp

Design Time	3 min
Bending Time	Approx. 30 s
Applicable Appliances	Removable Partial Denture, Retainer

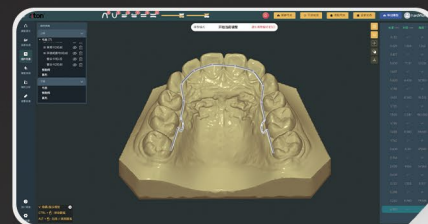


Removable Partial Denture ▶



Lingual Arch

Design Time	4 min
Bending Time	Approx. 40 s
Applicable Appliances	Lingual Arch Retainer, Tongue Crib, Tongue Spring Bite Plane Appliance



Lingual Arch Retainer ▶



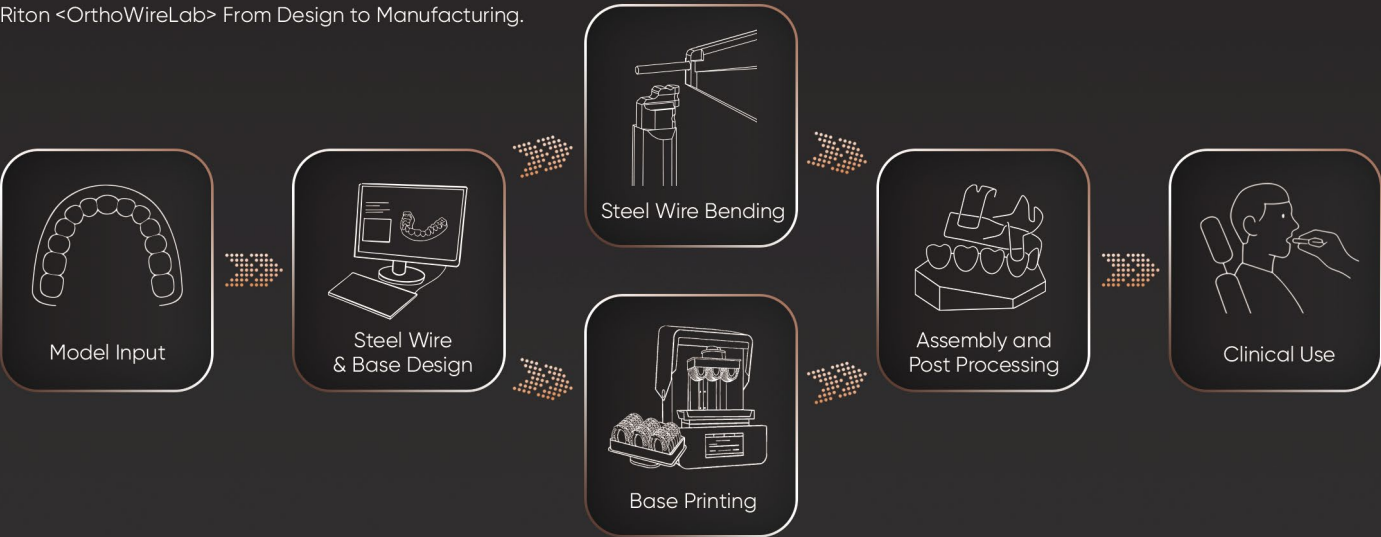
Clinical & Operational Value

- **For Clinicians**
More intuitive and efficient case discussions between doctor, technician, and patient.
- **For Laboratories**
Greater productivity and consistent, reliable output.
- **For Patients**
Enhanced comfort with durable, secure appliance fit.

riton Digital Solution		Manual Bending	
	< 15 minutes per device, supports batch processing, efficiency increased by 50%+.	Time Cost	20–30 minutes per device, low efficiency.
	User friendly, easy to master within 3 days, reduces labor input by 70%.	Labor Cost	Heavily reliant on skilled technicians, long training cycle, high labor costs.
	Repetition error ≤ ±5%, ensuring highly consistent quality.	Product Consistency	Significant manual errors, inability to guarantee precision in repeated bending.
	CAD/CAM integration with AI optimization and 3D simulation delivers true "What You See Is What You Get" results.	Design Method	Relies on experience and manual planning based on the physical model.
	3D visual treatment plan, intuitive outcome presentation, enhances trust and communication efficiency.	Doctor-Patient Communication	Relies on verbal descriptions or 2D sketches, limited patient understanding.

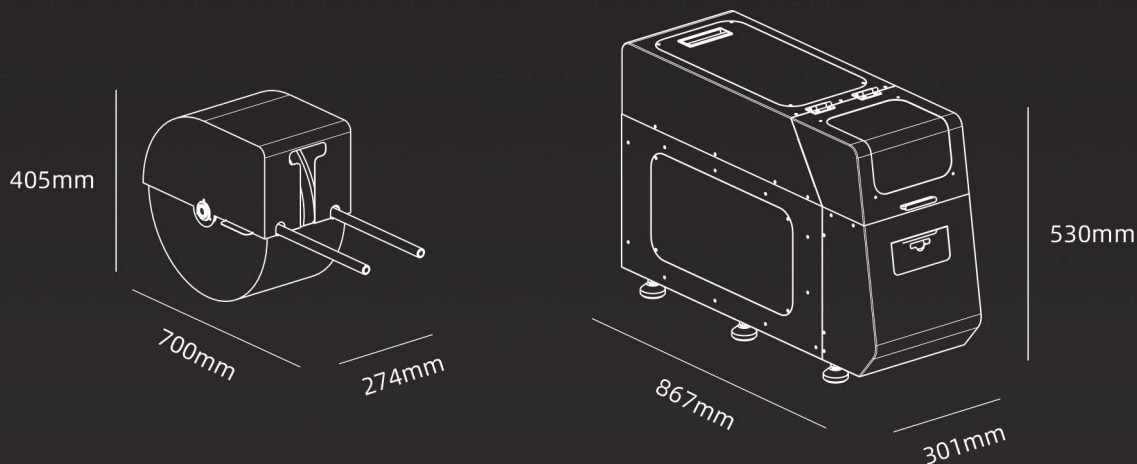
Workflow

Riton <OrthoWireLab> From Design to Manufacturing.



Technical Specifications

Power Supply	DC 24 V	Feeding Speed	80 mm/s
Power Consumption	500 W	Feeding Accuracy	±0.1 mm
Air Source	0.6 MPa Dry and Clean Air	Bending Speed	≤150°/s
Weight	Approx. 40 kg	Bending Repeatability	±0.5°
Maximum Feed Length	220 mm	Available Wire Diameters (mm)	0.7, 0.8, 0.9, 1.0



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