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V1.0 2025



RUBIK X3

REDEFINE PRECISION
THE FUTURE OF
ALL-IN-ONE
DENTAL IMAGING

CE FDA

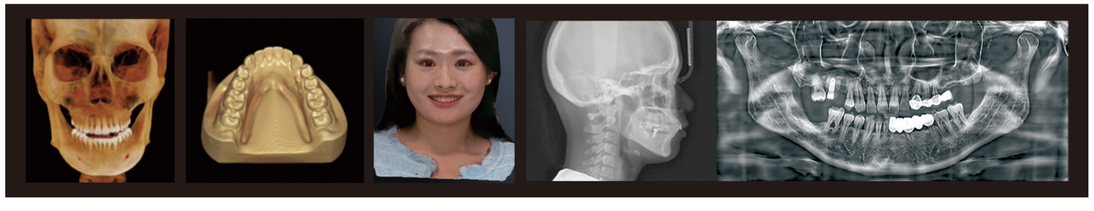
FUSSEN

MULTI-FUNCTIONAL IMAGING FOR EVERY CLINICAL NEED



ONE SYSTEM, FIVE FUNCTIONS — INFINITE POSSIBILITIES

Rubik X3 integrates 3D CT, panoramic, cephalometric (optional), facial scan, and model scan into a single compact system. This seamless fusion simplifies workflow, saves space, and builds a true digital ecosystem from diagnosis to treatment.



Facial Scan & Hybrid Capture

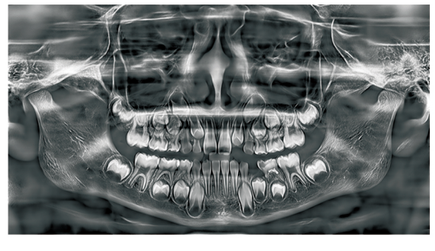
Rubik supports both independent facial surface scanning and CT + Face Scan hybrid acquisition, enabling simultaneous capture of skeletal and soft-tissue data.
This dual workflow enhances orthodontic planning, facial symmetry analysis, and patient communication with intuitive 3D visualization.



Versatile Pano Modes for Every Clinical Need

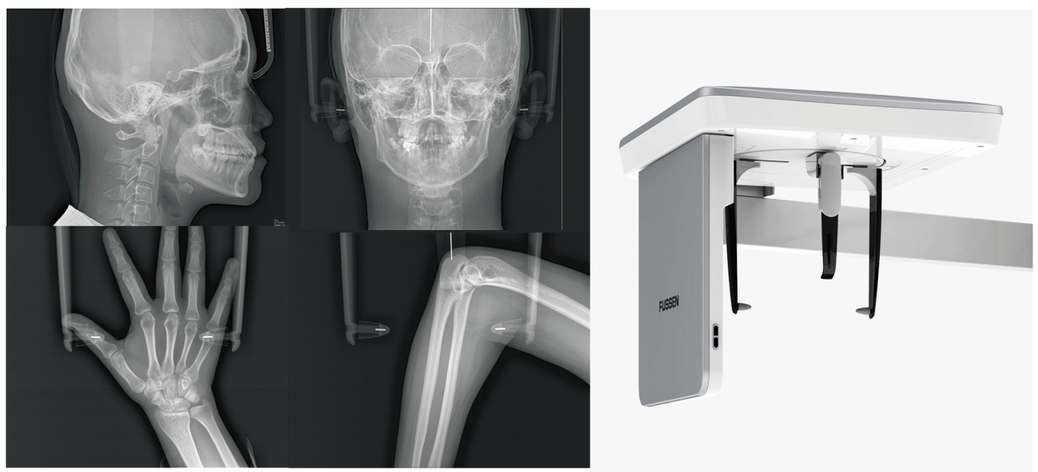
The panoramic module provides a complete set of imaging modes, including ROI Pano, Standard Pano, TMJ Pano, and Child Mode.
Each mode delivers optimized exposure and tailored protocols for clearer diagnosis across various patient groups and indications.





Ultra-Fast One-Shot CEPH for High-Demand Orthodontics

Rubik X3 offers an optional One-Shot CEPH module capable of capturing cephalometric images in just 0.2 seconds.
This ultra-fast exposure dramatically reduces radiation dose while minimizing motion artifacts, ensuring precise and reliable cephalometric measurements. It is the ideal solution for high-demand orthodontic and orthognathic practices seeking superior speed, safety, and accuracy.



EXPANSIVE FIELDS FOR EVERY CLINICAL NEED



COMPREHENSIVE FOVS FOR ALL CLINICAL NEEDS

Rubik X3 offers a comprehensive range of FOV selections — from focused 5×5 cm to large 18×20 cm stitched volumes — covering the full spectrum of dental and maxillofacial diagnostics.
Whether for endodontic precision, multi-implant planning, or full-jaw and sinus evaluation, X3 delivers crystal-clear images tailored to every clinical scenario.
Its flexible FOV configuration empowers clinics, imaging centers, and hospitals to meet diverse diagnostic demands with a single system.

5 × 5 cm

Focused field for endodontics and single-implant precision.
Ultra-small FOV ensures minimal radiation exposure, perfect for pediatric imaging, root canal treatment, and single-implant assessment.

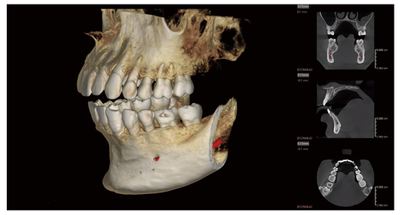




9 × 9 cm

Perfect for bilateral posterior regions and implant planning.
Balanced coverage and clarity for dual-arch implant assessment.
This mode offers diagnostic accuracy at reduced radiation levels.

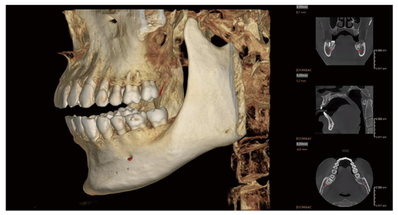


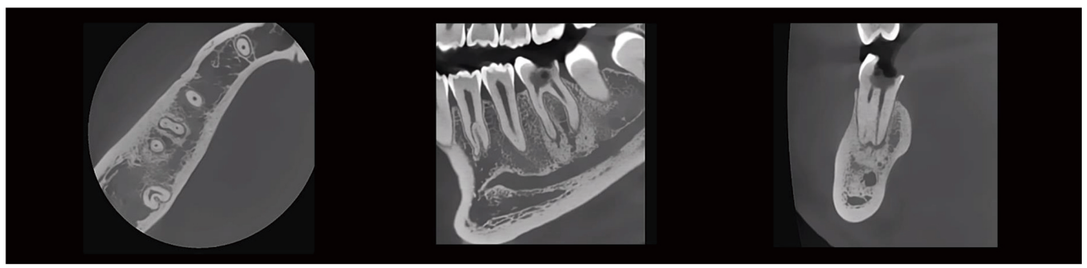


12 × 10 cm

Comprehensive view for orthodontic and full-arch assessment.
Provides complete dentition coverage for orthodontic diagnosis, eruption guidance, and pediatric jaw development.



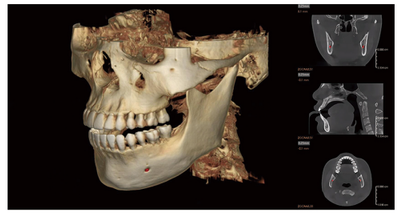




16 × 11 cm

Dual-Arch Precision for Complex Implantology
Designed for comprehensive full-arch and anterior–posterior implant planning.
This FOV provides simultaneous visualization of both jaws, enabling precise bone evaluation, multi-implant alignment, and prosthetic planning in one scan.





18 × 13 cm

Full-Jaw and TMJ Diagnostic Integration
Captures the entire dentition together with bilateral TMJs in a single exposure.
Ideal for orthodontic, prosthodontic, and jaw-joint evaluation — combining occlusal, skeletal, and joint data in one comprehensive dataset.



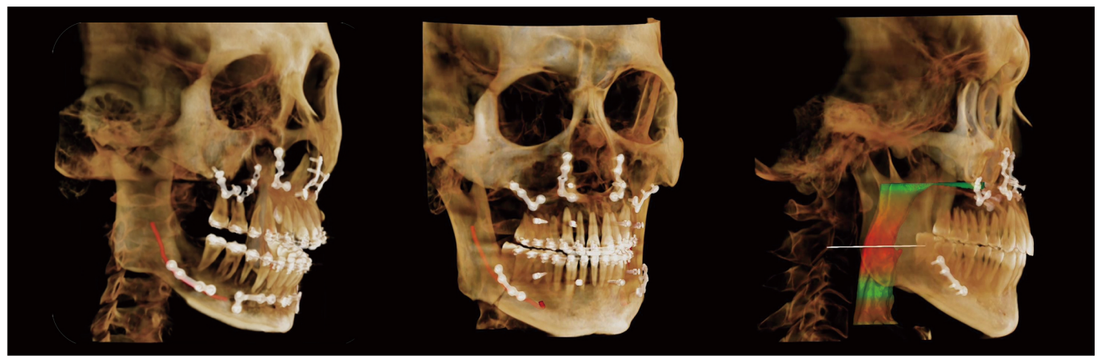


18 x 20 cm (Stitching)

Extended Craniofacial Imaging for Advanced Surgery
The extended stitched FOV encompasses the entire craniofacial region—from mandible to airway and sinus cavities. Tailored for orthognathic and maxillofacial surgery, airway studies, and complex anatomical assessments requiring full structural context.







UNMATCHED IMAGE QUALITY FOR CONFIDENT DIAGNOSIS

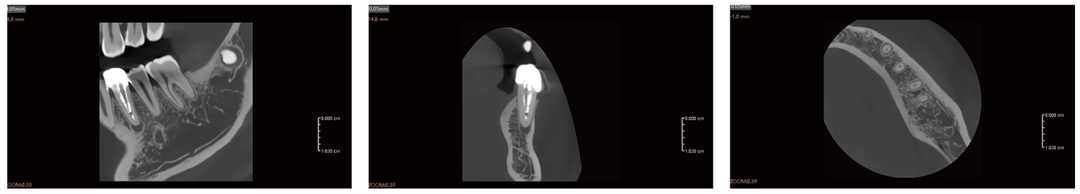


ADVANCED HARDWARE, EXCEPTIONAL IMAGING

Every crystal-clear image begins with uncompromising hardware stability and precision. It's more than a device — it's the foundation of reliable imaging quality.

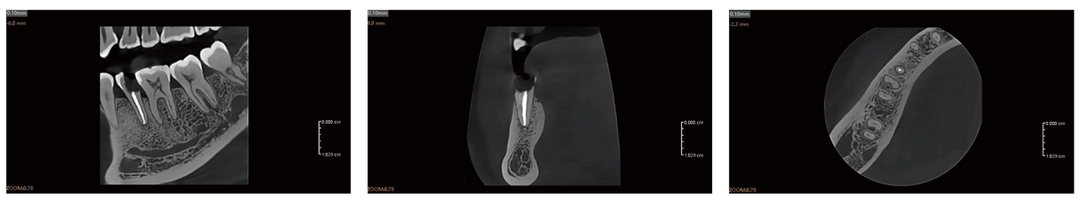
16-bit Grayscale

Capture the finest contrast differences with true 16-bit depth, revealing every subtle anatomical detail.



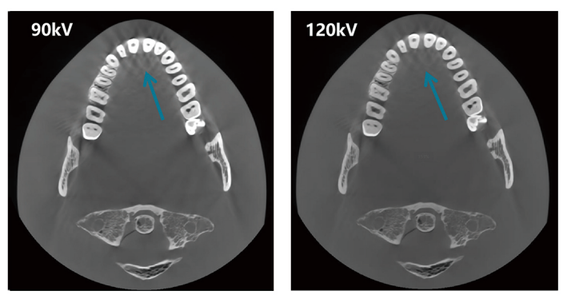
50 μm Voxel Resolution

Ultra-fine voxel resolution ensures clinical-grade sharpness for precision diagnostics and surgical planning.



120 kV High-Voltage Generator

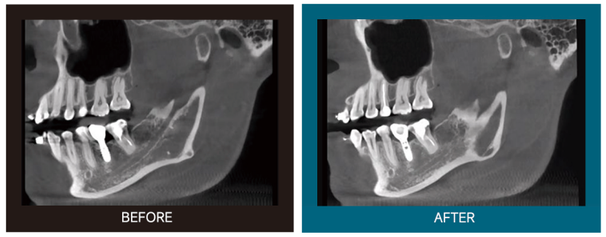
High-energy imaging for stable output and reduced noise, ensuring clarity even in challenging anatomy.



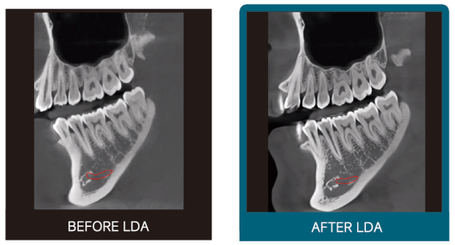
SMART ALGORITHMS SHAPE THE FUTURE OF IMAGING

Equipped with next-generation reconstruction and correction technologies, Rubik X3 delivers crystal-clear images even under challenging conditions. Each scan is automatically optimized through advanced AI and algorithmic processing.

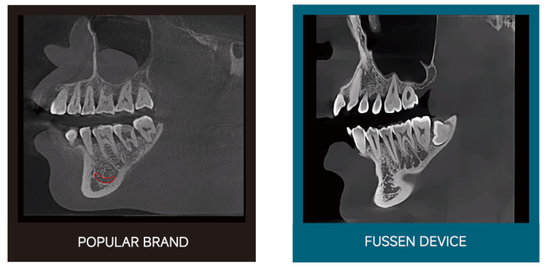
Metal Artifact Reduction (MAR)



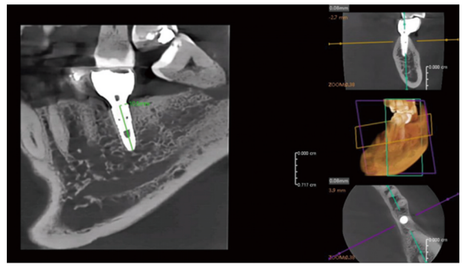
AI-Powered Low-Dose Imaging



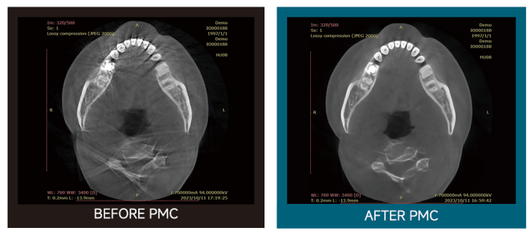
Noise Reduction & Beam Hardening Correction



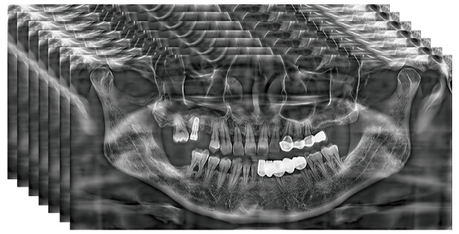
Geometric Correction



Motion Correction Algorithm



Multi-Layer Panoramic Reconstruction

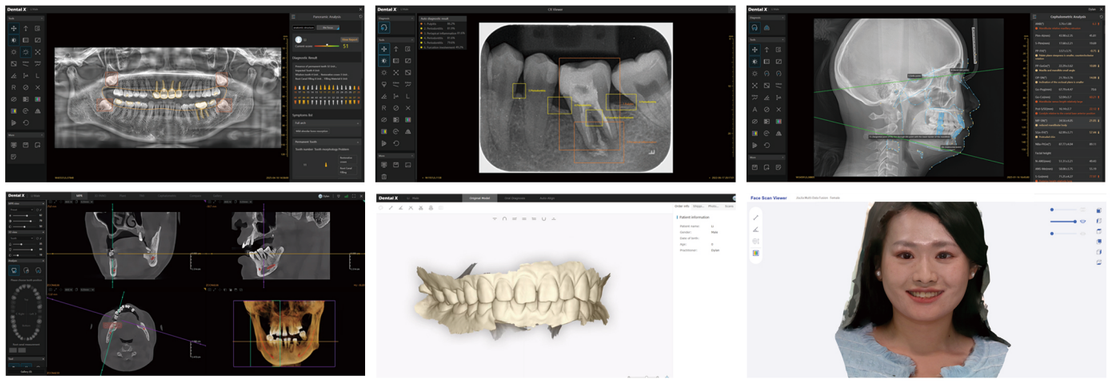


ADVANCED AI PLATFORM EMPOWERING DIAGNOSIS AND COMMUNICATION



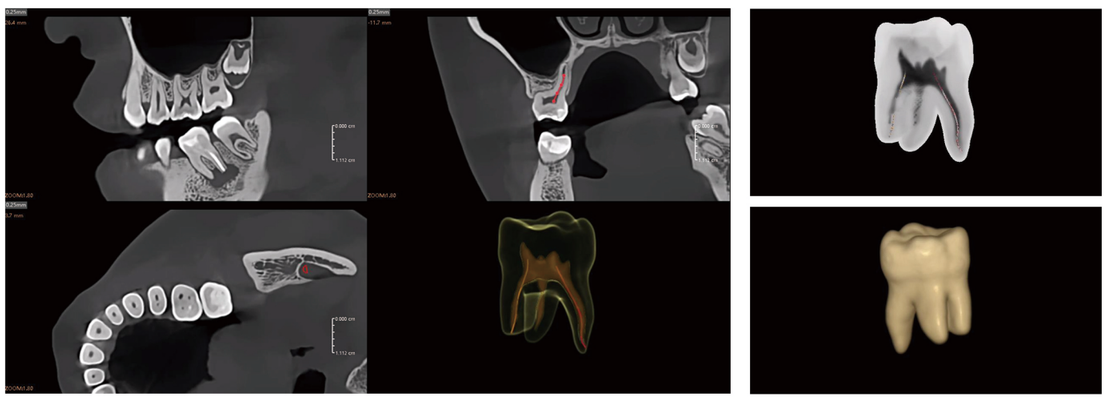
Seamless and Intelligent Workflow

Rubik X3's all-in-one AI platform unites intraoral imaging (X-ray sensors/PSP), extraoral imaging (CBCT/PANO/CEPH), facial scans, and intraoral scanner data into a single viewing and management environment. Securely stored, instantly accessible, and easily shared.



AI-Powered Endodontic Analysis

The AI endodontic module automatically detects and isolates each tooth, providing three 3D visualization modes — surface, root canal, and transparency.
This enables precise observation of root canal morphology, number, and detail, helping clinicians perform accurate diagnosis and measurement with ease.

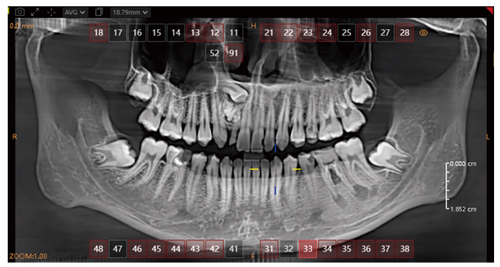


AI-Powered Diagnostic Intelligence

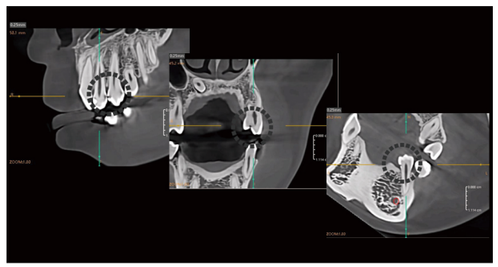
3D CT Diagnostic Assistant

Automatically detects and labels all teeth, highlights pathologies, and displays the optimal viewing angle in just one second. AI-driven reports and educational visuals enhance patient communication and case acceptance.

AI-Powered:
Rapid and Accurate Disease Detection



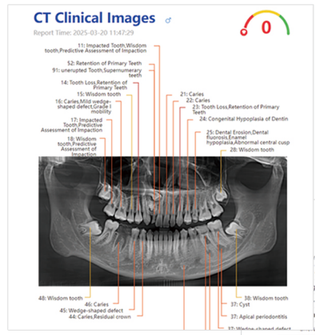
AI-Powered Precision:
Displaying the Optimal View of Conditions



AI-Enhanced Patient Communication Tools









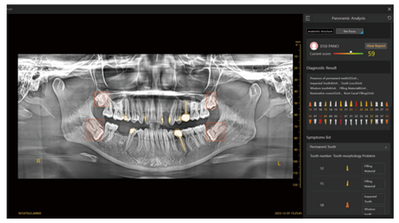
ADVANCED AI PLATFORM EMPOWERING DIAGNOSIS AND COMMUNICATION

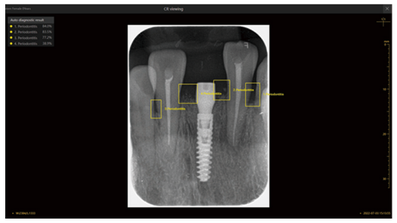


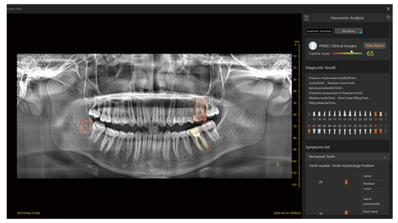
AI-Powered Diagnostic Intelligence

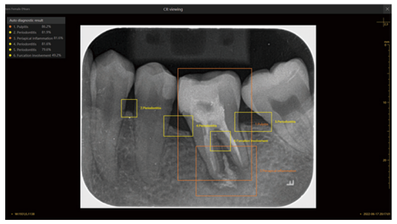
2D Imaging Assistant

AI automatically analyzes panoramic and intraoral images, identifies common lesions, and generates structured diagnostic reports instantly.





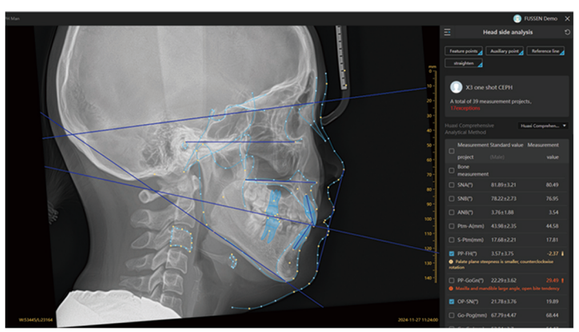


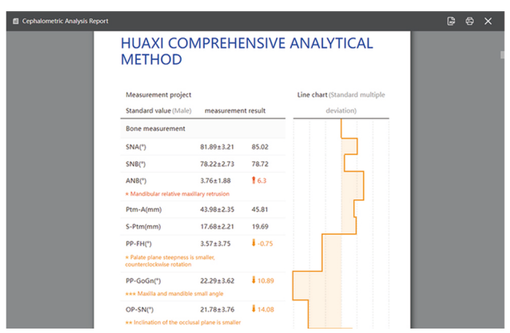




Cephalometric Auto-Analysis

Supports 14 popular tracing and measurement methods with one-click report generation, streamlining orthodontic assessment.

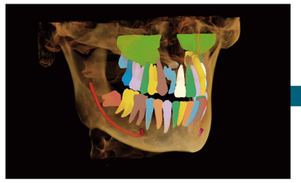




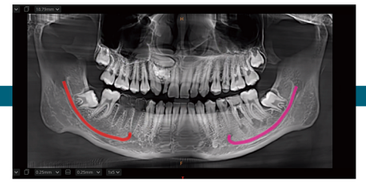
AI-Powered Implant Treatment & Surgery

AI Implant Planning Tool

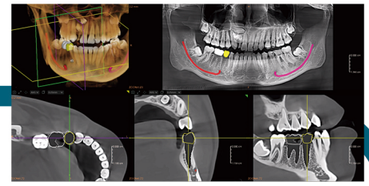
The AI-powered planning tool automatically detects teeth and the inferior alveolar nerve, providing real-time safety alerts.
It supports automatic measurement, implant simulation, and path optimization — enabling fast and precise treatment planning.



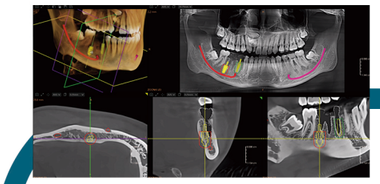
① AUTOMATICALLY MARKS THE SINUS AND NERVE



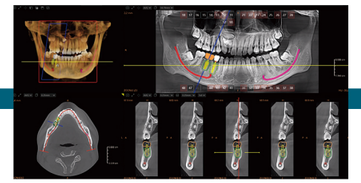
② SMART TOOTH EXTRACTION SIMULATION



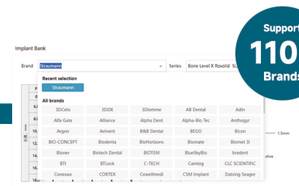
③ AUTOMATED CROWN ARRANGEMENT



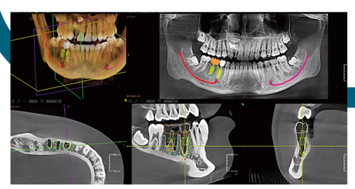
⑥ AI SMART WARNING SYSTEM



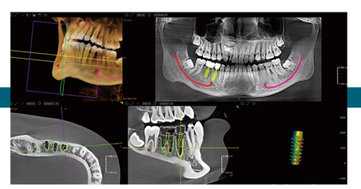
⑤ AI-DRIVEN IMPLANT SIZE RECOMMENDATION & PRECISE PLACEMENT



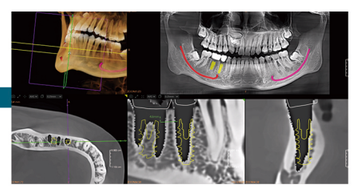
④ COMPREHENSIVE IMPLANT DATABASE



⑦ 360° COMPREHENSIVE IMPLANT-CENTERED EXAMINATION



⑧ ACCURATE IMPLANT BONE DENSITY MEASUREMENT



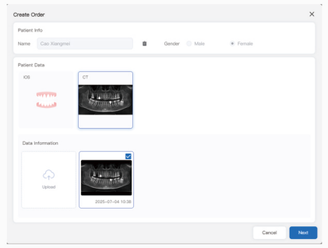
⑨ AI SMART MEASUREMENT FUNCTION



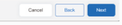
AI-Powered Implant Treatment & Surgery

AI Surgical Guide Design

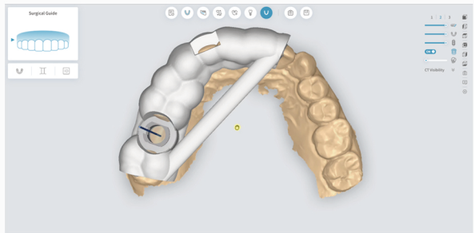
The AI surgical guide module automatically designs guides within three minutes.
Clinicians simply review and export the data, with STL files and reports generated instantly, ensuring efficiency and focus during surgery.



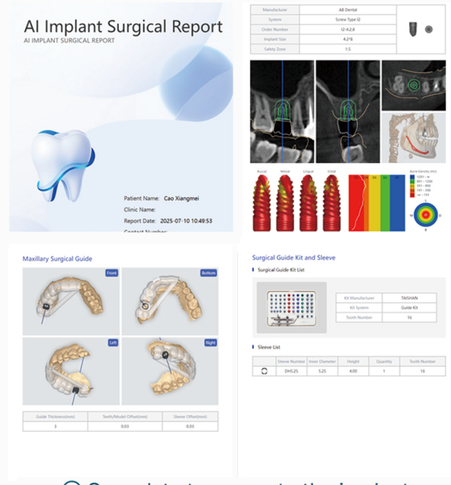
① Import CT and IOS data



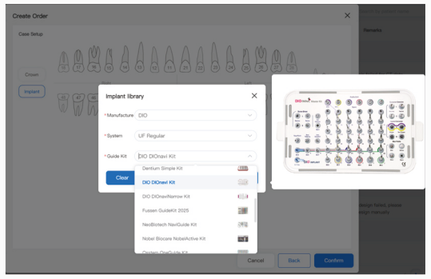
③ Select AI Implant Guide



⑤ Check the AI-designed guide



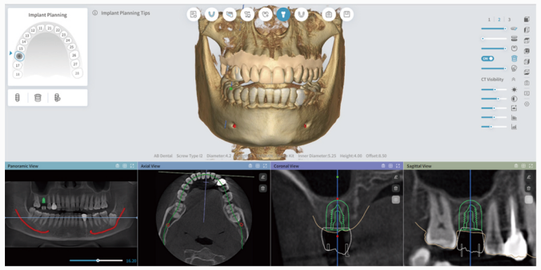
⑦ Save data to generate the implant planning report



② Select tooth position, implant brand and kit

AI Designing

④ After 3 minutes, review the AI-designed guide



⑥ You can also manually adjust the parameters of the implant planning and surgical guide

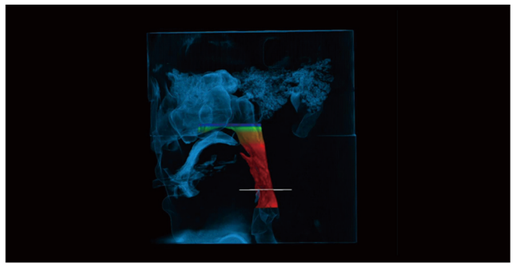
ADVANCED AI PLATFORM EMPOWERING DIAGNOSIS AND COMMUNICATION



AI-Powered Orthodontic Treatment & Analysis

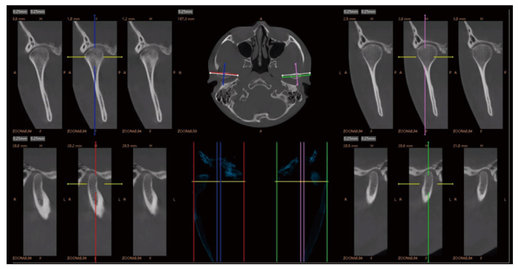
Airway Analysis

AI automatically identifies and measures airway volume and cross-sectional areas, generating a 3D visual model.
It enables quick assessment of airway conditions for orthodontic treatment and for diagnosing snoring or OSAS patients.



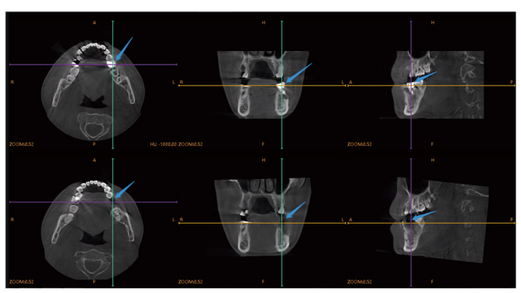
TMJ Analysis

The AI module automatically detects and labels key TMJ structures, analyzing joint space and symmetry.
It assists clinicians in identifying functional abnormalities and optimizing orthodontic or occlusal adjustments.



Before-and-After Comparison

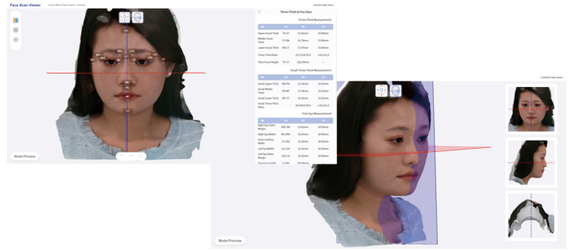
Rubik X3 automatically aligns and compares pre- and post-treatment images, visualizing dental, skeletal, and soft tissue changes.
It enhances clinical evaluation and strengthens communication with patients.



AI-Powered Aesthetic Design & Patient Communication

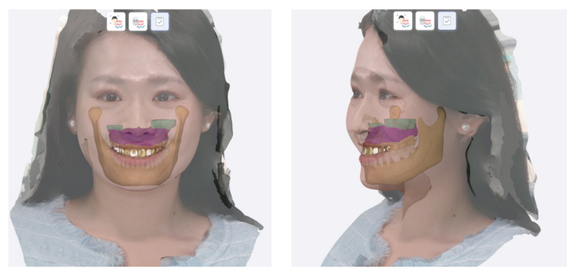
Facial Analysis for Orthodontic & Aesthetic Planning

AI automatically analyzes facial landmarks, symmetry, and smile dynamics.
It provides essential insights for orthodontic planning and aesthetic treatment design, ensuring personalized and harmonious outcomes.



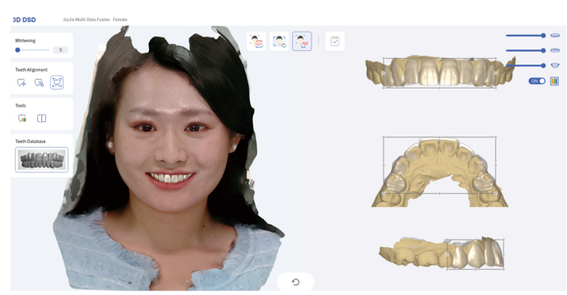
Virtual Patient Creation

Rubik X3 seamlessly integrates CBCT, intraoral, and facial scan data to create a 3D virtual patient.
This enables comprehensive visualization from bone to soft tissue, supporting precise simulation and treatment planning.



AI Smile Design for Aesthetic Restoration

The AI Smile Design module automatically proposes ideal smile lines based on facial proportions and dental structures.
Clinicians can visualize and present aesthetic outcomes on the virtual patient model, enhancing communication and patient confidence.



SMART, USER-FRIENDLY EXPERIENCE



EFFORTLESS OPERATION, ENHANCED EFFICIENCY

Rubik is designed with a user-centric workflow, combining intuitive touch controls, motorized positioning, and shared bite blocks for CT and panoramic scans.
The integrated system simplifies training and reduces the learning curve for clinicians, streamlines daily operations, and minimizes setup steps. Doctors benefit from improved efficiency and fewer errors, while patients enjoy a comfortable, stress-free experience.

One-Piece Cast Body — Built for Stability

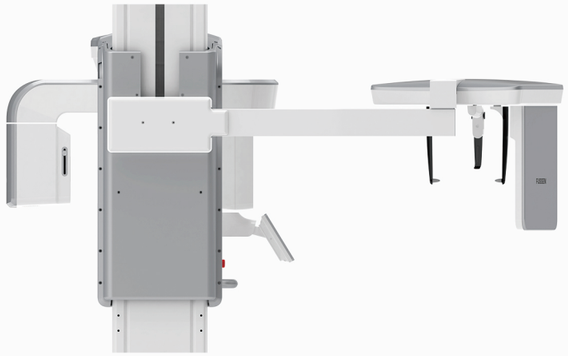
Crafted from a one-piece cast metal frame, Rubik X3 ensures superior mechanical stability and precision during every scan.

Intelligent Touch Control

A sleek, intuitive touch interface simplifies operation — making complex workflows effortless for every user.

Motorized Temple Support for Comfort & Efficiency

The motorized temple support automatically adjusts to patient positioning, saving setup time and improving comfort for both the operator and the patient.





Seamless Workflow Integration

CT and panoramic imaging share the same chin rest and bite block. With automated positioning and focus tracking, every capture is precise, fast, and reproducible.

Flexible Patient Positioning

Rubik X3 supports both standing and wheelchair positions, ensuring accessibility for all patients without compromising image quality.

Versatile Imaging Capabilities

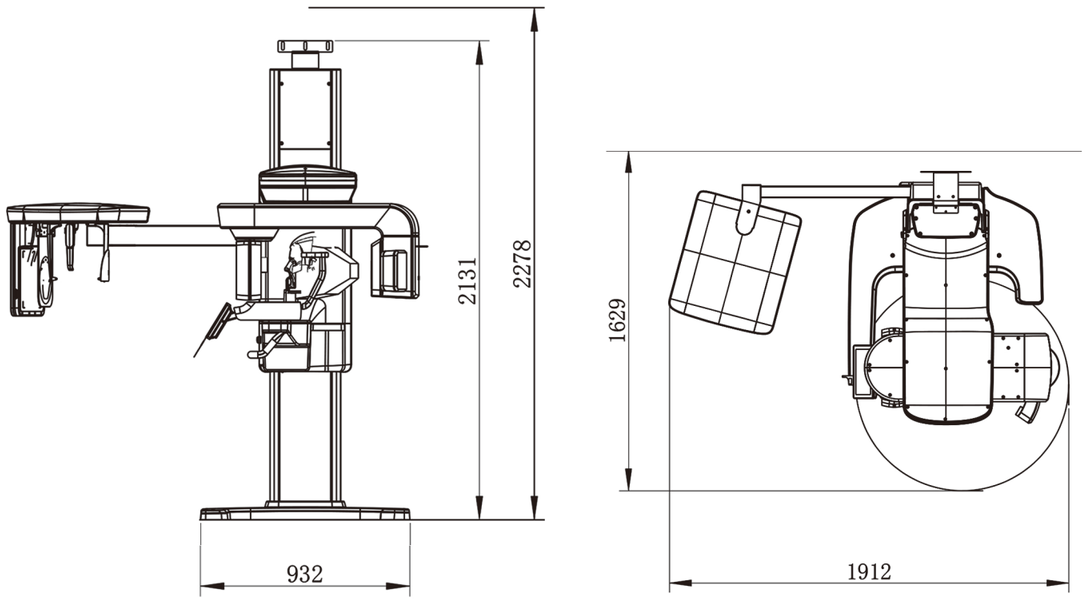
Rubik X3 enables specialized modes for edentulous and TMJ open-mouth scans — providing accurate data for advanced prosthetic and joint evaluation.







Dimensions



MODEL	CBCT	PANO	FACE SCAN	MODEL SCAN	SCAN / ONE SHOT CEPH
RUBIK X3	•	•	•	•	Optional

Standard Workstation Computer

CPU Model: Intel Core i7-12700
Memory Capacity: Samsung 16GB DDR5-5600 4400Hz
Solid State Drive: SAMSUNG MZVL8256HEJD-00BH1 256GB
Hard Disk Drive (HDD): Seagate ST1000DM014-2UB10D 1TB
Dedicated Graphics Card: NVIDIA GeForce RTX 3050 6GB
Motherboard: 894D HP
Chipset: Intel Q670

Facial Scanning Parameters

Scanning Speed: 12-18 fps
Scanning Method: Color Scanning
Single Frame Accuracy: 0.1 mm
Single Frame Scanning Area: 125 x 225 mm
Working Distance: 150-400 mm
Light Source: Infrared
Output Formats: PLY, OBJ, STL

SPECIFICATIONS		PARAMETER
CT	FOV & Voxel Size	18*20(0.3mm); 18*13(0.3/0.25mm); 16*11(0.3/0.25/0.2mm); 12*10(0.2/0.15mm); 9*9(0.15mm); 5*5(0.1/0.05mm)
PANO	Standard Pano & Pano ROI	√
	TMJ Mode	Open and close
CEPH	Scan CEPH / One Shot CEPH Lateral / AP	√
	Half Lateral/AP CEPH	Scan CEPH √ One shot CEPH ×
	Carpus	√
	Water View	√
Tube Parameters	Beam Operation Mode	CT - Pulsed, PANO&CEPH - Continuous exposure
	Anode Voltage	60-120 kV
	Anode Current	2-10 mA
	Focal Spot	0.5 mm
	Exposure Time	CT-12s; CT(quick mode)-8s. PANO-15s; PANO(child mode)-8s; PANO(TMJ)-6s; Scan CEPH(full)-15s; CEPH(half)-10s; CEPH(quick mode)-4.8s. One shot CEPH: 0.2-2s
	Total Filtration	2.5 mm Al
Detector Parameters	Detector Pixel Dimensions	CT & PANO & Scan CEPH: 100μm, One Shot CEPH: 125μm
	Contrast Resolution(grayscale)	16 bits
	Detector Type	CT&PANO&One Shot CEPH: FPD (A-Si), Scan CEPH: CMOS
Mechanical Performance Parameters	Dimension	4in1: 1650（W）x 1150（L）x 2250（H）mm 5in1: 1650（W）x 1840（L）x 2250（H）mm
	Weight	4in1: 200 ± 5 kg 5in1: 230 ± 5 kg
	Recommended Installation Space	4in1: 1700（W）x 1300（L）x 2350（H）mm 5in1: 1700（W）x 2000（L）x 2350（H）mm
Software Performance	Supported Protocols	DICOM 3.0, VDDS, CLOUD shared (DentalX)
	Workstation Local Software	Dentalflex + CTFlex
	Cloud Software	DentalX
	Reconstruction Time	CT/PANO/CEPH - 45s (Without additional algorithm selection)