MEDICA 2025 Düsseldorf

AI Saves Lives

Empowers Precision Cancer Diagnosis

New perspective on endoscopy,
surgery and your doctor life.

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AI Saves Lives

Novius Inc. is an AI-oriented technology company dedicated to transforming the way people see and understand visual information. By leveraging advanced artificial intelligence, we specialize in real-time 2D-to-3D conversion that makes conventional imaging smarter, more precise, and more immersive. **All of our medical imaging software are based on AI x 3D in real time conversion**

Our core focus is on healthcare innovation—particularly in oncology—where AI-driven 3D imaging supports earlier and more accurate cancer diagnosis, precise surgical planning, and improved treatment outcomes. Through the integration of AI with endoscopy, X-ray fluoroscopy, and angiography, Novius delivers a new dimension of medical imaging that enhances both diagnostic confidence and therapeutic precision.

At Novius, we believe AI is not just tool but the foundation of our vision. Our mission is to harness AI to uncover hidden insights in visual data, empower professionals with more accurate decision-making, and expand human capabilities through enhanced perception. By pushing the boundaries of visual intelligence, Novius is shaping future where AI-driven imaging accelerates innovation, improves outcomes, and creates new opportunities across medicine, and industry.

BREAKTHROUGHS IN CANCER DIAGNOSIS

National Cancer Center Hospital Tokyo, Japan(World's Best Specialized Hospitals 2026 Oncology Rank.16)

In collaboration with two of Japan’s premier medical institutions—**National Cancer Center Hospital (NCCH) in Tokyo and Asahi General Hospital in Chiba Prefecture**—we are developing an advanced imaging platform that combines AI with X-ray fluoroscopy and bi-plane angiography. This system enables real-time 3D reconstruction of anatomical structures from conventional 2D images, providing clinicians with enhanced depth perception and precise lesion localization—capabilities not previously attainable within standard imaging workflows.This joint initiative is led by Dr. Yukihiro Yoshida, distinguished thoracic surgeon at the National Cancer Center Hospital (NCCH). His profound clinical expertise and unwavering commitment to advancing cancer care shape the vision of this project. Dedicated to driving innovation in oncological diagnosis, the collaboration aims to enable cancer detection at the earliest and most treatable stages, while developing scalable solutions capable of transforming cancer diagnosis and treatment worldwide. At its core, this project is nothing less than a redefinition of the future of cancer care.

“improving diagnostic accuracy leads to better treatment outcomes, joint research and development is being advanced by the National Cancer Center Hospital, Asahi Central Hospital, and Novius.”

Currently for sale

Approved by Ministry of Health,
Labor and Welfare Japan

N-ViSiON 3D
Imaging System

NOVIUS

New perspective on endoscopy

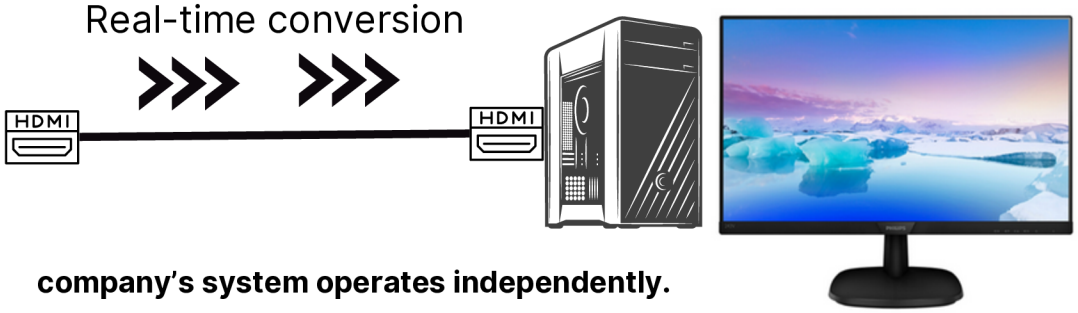
Glass-Free 2D-3D Imaging System for Endoscopy All in one System

Existing 2D Monocular Endoscope Cameras Can Be Used

Package price
$15,000-

Nvidia GeForce RTX GPU

Real-time conversion



company's system operates independently.

Glass-free 3D 27" Monitor 4K

N-Vision3D generates another pseudo image (R) based on one real image (L).
Equipped with an automatic correction function that uses AI to synthesize images under optimal conditions and generate natural-looking 3D images.
(Automatic adjustment optimizer function)

- ◆Eye tracking system is used for 27" monitor.
- ◆Existing 2D monocular endoscope cameras can be used
- ◆You can use 3D displays already on the market
- ◆2D→3D conversion is real-time

NOTE: This image software is intended only for converting 2D images to 3D visualizations and does not provide diagnostic nor clinical decision support nor interpreting medical data.

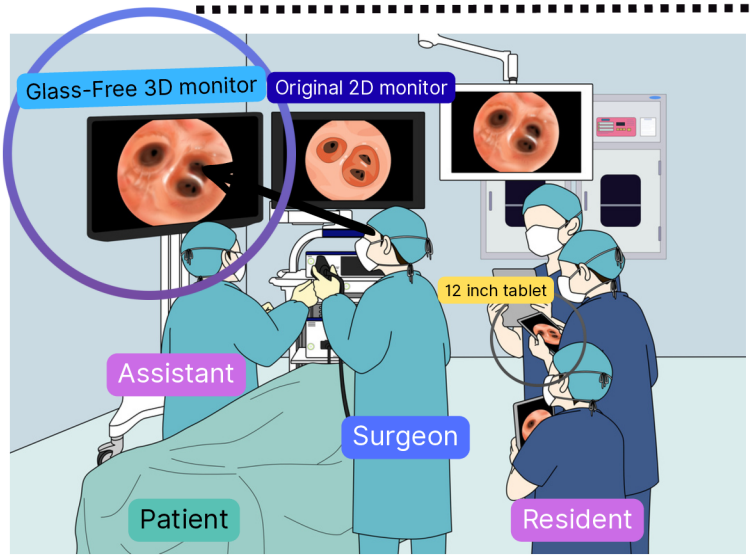
PACKAGE INCLUDES

※AI software will be installed and tested on PC & monitor before delivery.

AI Imaging Software (N-vision3D)	HDMI Cable
Nvidia GeForce RTX Desk Top	Capture Card
Glass-free 3D 27" Monitor 4K	Accessories
Operation Manual	One-year warranty

Simultaneous Multi-Viewing Glass-Free 3D Endoscopic Imaging System (First Industry)

In oncology, this technology enhances spatial understanding of tumors and anatomy, leading to improved surgical precision while seamlessly integrating with established clinical workflows.



Medical School

The resulting 3D images are displayed simultaneously and on multiple devices, including a 27-inch 3D 4K monitor, a 12-inch 4K tablet, and a projector. A key feature is the simultaneous, long-distance streaming capability to an unlimited number of minor 12-inch monitors, provided there is Wi-Fi and internet access.

◆ Remote Streaming: it can simultaneously stream to multiple devices of even those far away, provided there is Wi-Fi and internet access.
◆Maintains established workflows (no changes needed for the endoscope setup).
◆2D→3D conversion is real-time

PACKAGE INCLUDES

※You do not need Red Circle Products If You have already bought N-vision3D

※AI software will be installed and tested on PC & monitor before delivery.

- AI Imaging Software (N-vision3D)
- Nvidia GeForce RTX Desk Top
- Glass-free 3D 27" Monitor 4K
- 12 inch 4K 3D Tablet
- HDMI Cable
- Capture Card
- Accessories
- One-year warranty
- Operation Manual

Currently for sale

Real-time Operated 3D Projector

For Education (e.g., surgical training,Resident,Trainees).
Research.
International information sharing.

◆This setup faithfully reproduces the surgeon's delicate techniques and the depth perception of the surgical field, allowing observers (physicians and trainees) to view procedures in immersive 3D using dedicated glasses.

◆Enhanced Collaboration: Remote streaming enables doctors and students who cannot attend in person to participate in real-time discussions and conferences.

◆ The AI-powered real-time 2D-to-3D conversion captures actual surgical procedures as stereoscopic images.

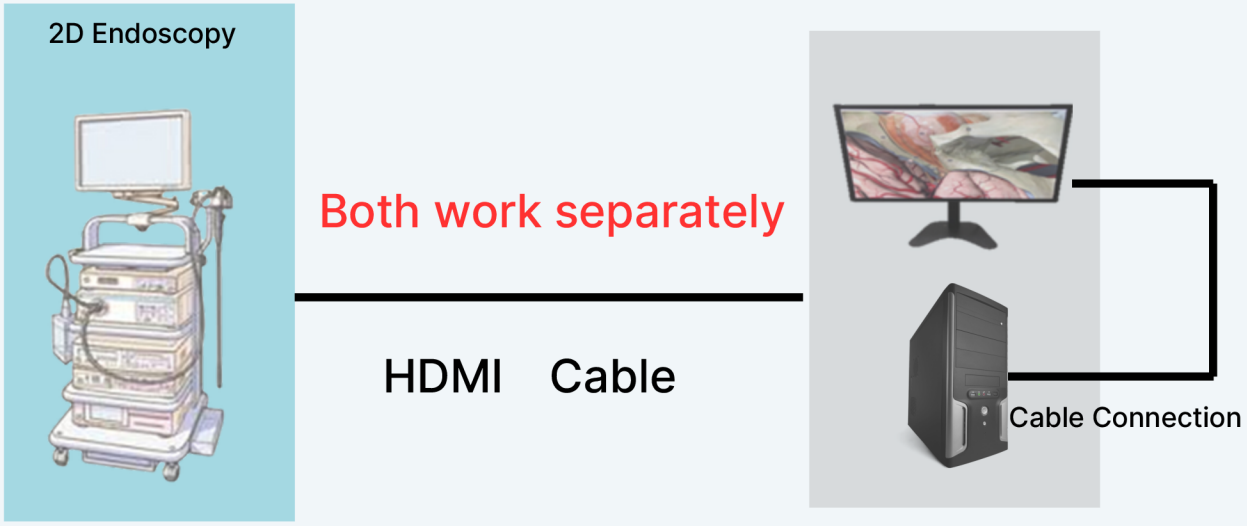
PACKAGE INCLUDES

※AI software will be installed and tested on devices before delivery.

- AI Imaging Software (N-vision3D)
- BenQ MH560 Projector
- Polarized 3d Glasses
- Accessories
- Big Screen
- One-year warranty

Our Solution

A New Look at Endoscopic Medical Test and Surgery



No software, hardware, additions, or modifications are required to your current 2D endoscope, or to any 2D endoscope you plan to purchase. Therefore, the functionality of your existing 2D endoscope is not affected in any way. Simply connect the HDMI output on the back of your existing 2D endoscope video system to the PC we provide with an HDMI cable. Then, simply connect the cable from the PC to the naked-eye 3D monitor to create a 3D image. At the same time as the 2D image projected on the original 2D endoscope, the 3D image will be projected on the 3D monitor in real time as two video images.

1 **Improve Diagnostic Accuracy and Safety**

2 **Enhanced Anatomical Depth Perception**

3 **Increased Efficiency and Accessibility**

State-of-the-art AI x 3D technology provides palpable sense of depth. Unique AI algorithm development enables more accurate observation of the field of view, which has been difficult with conventional endoscope systems. This enables a more accurate grasp of space, which has been difficult with conventional endoscopic systems.

Endoscopic and laparoscopic surgeries can be performed more accurately and more quickly. The Novius 3D Imaging Solution will be of great benefit to physicians and medical professionals.

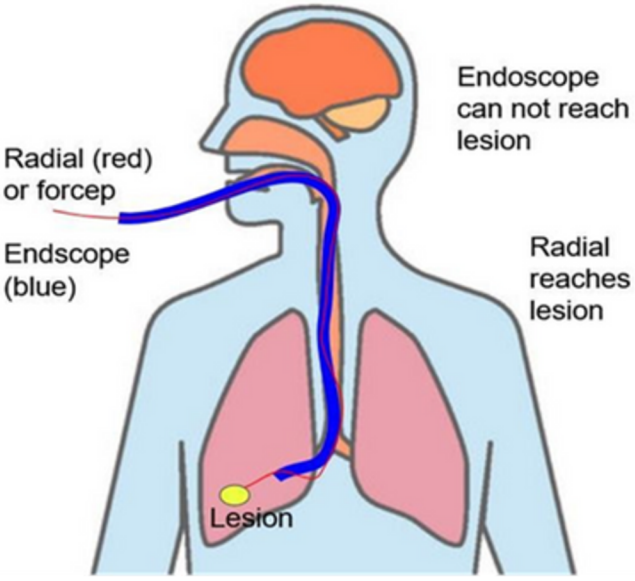
Launch next Spring

3D x-Ray Fluoroscopy (Oncology)

Joint R&D National Cancer Center Hospital (NCCH) and Novius

Issue to be solved for lung cancer:
The diagnostic rate for peripheral lesions smaller than 2 cm is only 34% in lung cancer. Residual cancer cells (left behind) can cause metastasis or disease progression, increasing mortality.

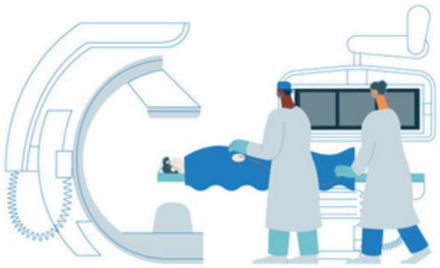
Solution:
Small cancers (less than 2 cm) are often difficult to detect because they can be obscured by ribs or blood vessels. Cancers occurring in the hilum (the entrance to the lung) are also challenging to visualize on X-ray examinations due to overlapping structures such as the bronchi, heart, sternum, and blood vessels. However, our real-time 3D conversion image processing technology can solve this problem.



The above features aim to improve the accuracy of lung cancer diagnosis, prevent the overlooking of lesions, and reduce radiation exposure by shortening examination times. This will alleviate the physical burden on medical staff, radiologists, and patients, increase the number of patients seen per day, and enable the saving of more lives.

Launch next Spring

AIx3D Bi-Plane Angiography



3D x Bi-Plan Angiography

Multiple Joint R&D with NCCH and Asahi Central Hospital and Novius

Generally, angiography equipment is not used for cancer diagnosis. However, in the case of HHC, lesions may not be clearly visualized with standard imaging tests, and angiography may be the only way to identify them. Therefore, it is sometimes used for diagnostic purposes while also being employed for treatment. HCC is a particularly common malignant tumor among Japanese individuals, accounting for the majority of liver cancers.

In IVR, 3D catheter is used to selectively access the tumor-localized artery, and the tumor-feeding vessels are precisely visualized using biplane angiography. Furthermore, by injecting anticancer drugs or embolization agents into these vessels, tumor blood flow is blocked, inducing a localized antitumor effect.
The advantage of 3D imaging is that it clarifies the spatial relationships between vessels that appear overlapping in 2D imaging through 3D reconstruction. In treating hepatocellular carcinoma, identifying the vessels supplying oxygen and nutrients to the tumor (tumor-feeding vessels) is critically important. This is because accurately pinpointing these vessels allows for the precise delivery of anticancer drugs or embolization agents, enabling effective treatment of the tumor alone.

We aim to achieve not only 3D reconstruction through AI analysis, but also the identification of tumor vessels from automated vascular recognition, treatment support, and even efficacy prediction.

Cancer where our developed 3D technology demonstrates its efficacy

This system is under development collaborated with National Cancer Center Hospital. It is ready to launch by next spring.

Lung Cancer	Advantage for 3D visualization Better detection of small nodules and accurate tumor size and location and clear view of tumor-vessel relation.	Launch Next Spring
Gastric Cancer	Advantage for 3D visualization Detect subtle mucosal lesions and assess tumor depth Accuracy and visualize tumor margins clearly	Still Under Development
Colon Cancer	Advantage for 3D visualization 3D endoscopy provides stereoscopic views of polyps and tumors, reducing missed lesions	Still Under Development
Esophagus	Advantage for 3D visualization Improved detection of flat or subtle lesions and enhanced visualization of mucosal structure	Available Now

These above system are completed and currently for sale.
Proprietary developed by NOVIUS

Novius's Innovative Technology

Novius introduces a breakthrough AI-powered 2D→3D real-time visualization technology that transforms conventional medical imaging—such as endoscopy, bronchoscopy, and fluoroscopy—into
immersive, depth-accurate 3D views without the need for dual-lens or stereo cameras.

By integrating AI-based depth estimation and 3D reconstruction, Novius enables clinicians to visualize subtle anatomical structures, detect early-stage cancers, and navigate biopsy instruments with unprecedented precision. This innovation enhances diagnostic accuracy, shortens procedure time, and reduces patient risk—all while being compatible with existing imaging systems.

Our platform represents a new paradigm in digital medicine: converting any standard 2D medical video into a real-time 3D experience, empowering healthcare professionals to see deeper, act faster,
and save more lives.

To: Investor

Joint R&D with National Cancer Center Hospital Japan

Harnessing AI and 3D technology to overcome and ultimately eradicate lung cancer and live longer and healthier lives

Research Purpose
Traditional bronchoscopic biopsy primarily relies on fluoroscopic guidance and often results in suboptimal diagnostic yields. One of the main reasons for this limitation is the inherent difficulty in accurately determining whether the biopsy instrument has reached or penetrated the target lesion within the lung parenchyma. Fluoroscopy only provides two-dimensional projection images, lacking information about depth and spatial orientation. As a result, physicians often experience uncertainty when assessing the three-dimensional relationship between the biopsy instrument and the lesion. In particular, relying on a single frontal fluoroscopic image makes it difficult to recognize anterior-posterior displacement or assess the distance between the lesion and the instrument tip. This lack of depth perception contributes to sampling errors, prolonged procedure times, and reduced diagnostic accuracy, especially for small or peripherally located lung nodules.
Recent advances in three-dimensional (3D) visualization and artificial intelligence (AI)-assisted depth estimation techniques have begun to address these critical limitations. By reconstructing 3D anatomical structures in real time from traditional 2D bronchoscopic or fluoroscopic images, these techniques enable clinicians to intuitively understand the spatial relationships between the airway, surrounding vasculature, and target lesions. AI algorithms trained on large datasets infer depth information and generate volumetric representations, allowing clinicians to visualize both the trajectory and position of the biopsy instrument relative to the lesion. This enhanced depth perception enables more accurate instrument navigation, improved lesion targeting, and reduced sampling error. Furthermore, the integration of real-time 3D guidance may contribute to shorter procedure times, improved diagnostic yields, and ultimately safer and more efficient bronchoscopic interventions, especially in cases involving small, deep, or anatomically complex lesions.

What Does This R&D Benefits To Mankind

This R&D can transform conventional bronchoscopy into real-time, spatially intelligent diagnostic tool, improving patient outcomes while establishing scalable technological and commercial platform for 3D medical imaging innovation.

1. Saving Lives Through Earlier Cancer Detection
This R&D enables earlier and more accurate diagnosis of lung cancer — the world's leading cause of cancer death. By providing real-time 3D visualization and AI-assisted depth perception, physicians can detect and biopsy even the smallest or deepest lesions that are often missed in conventional 2D imaging. Earlier detection means earlier treatment, dramatically improving survival rates and quality of life

2. Reducing Invasive Procedures and Patient Burden
3D and AI-guided navigation minimizes unnecessary tissue sampling and reduces radiation exposure and procedural time. Patients experience less pain, fewer complications, and faster recovery, contributing to safer and more human-centered healthcare.

3. Enhancing Human Longevity and Well-Being
Ultimately, by transforming early cancer detection from a subjective

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