

NEWS RELEASE

i-PRO Receives the Invention Encouragement Award from the Japan Institute of Invention and Innovation

Invention rerated to the four-color separation prism structure for the medical endoscope camera

Tokyo, Japan, November 7, 2023 — i-PRO Co, Ltd., a global leader in professional security solutions for surveillance and public safety, has been recognized by the Japan Institute of Invention and Innovation (JIII) for its invention related to the four-color separation prism structure of medical endoscope cameras. The invention, Optical Device (Patent No. 6388240), received the Invention Encouragement Award at the 2023 Kyushu Regional Invention Awards by JIII. The awards were announced on the JIII website on Thursday, October 19, and the award ceremony was held at Hakata Sunhills Hotel on Thursday, November 2.

The i-PRO medical cameras are incorporated into rigid endoscopes used for abdominal surgery, thoracic surgery, etc. and are adopted by many medical device manufacturers around the world. The Invention Encouragement Award was bestowed upon this invention due to the prism structure of an endoscopic camera.

Traditionally, the optical device of an endoscope camera head used a prism that separated the colors into three colors: red, blue, and green. However, because mucous membranes within the body have similar colors and shapes, it has been difficult to identify lesions using only images obtained in the visible light range. Therefore, there was a need to make it easier to discover lesions by injecting a reagent into the body that selectively accumulates in the lesions and emits fluorescence in the infrared region, which allows for observing the fluorescence with an endoscope.

In order to meet these needs in medical field, i-PRO has developed an optical device equipped with four color separation prisms (red, blue, green, and infrared prisms). As a result, in addition to images obtained in the visible light region, it is now possible to visualize lesions and make them easier to understand by using images of the parts that emit light in the infrared region using fluorescent reagents.

Independent signal
RGB
IR
Simultaneously
CCU
Sensor
IR light
IR
Superposition
IR Overlay on
RGB

The i-PRO four-color separation prism structure

JIII's Regional Invention Awards honor engineers, researchers, and developers who have created outstanding inventions, ideas, and/or designs in eight regions across the country (Hokkaido, Tohoku, Kanto, Chubu, Kinki, Chugoku, Shikoku, and Kyushu). The invention in question must be patented, registered as a utility model or design, and be in practical use.

The awards began in 1921, and it can be said that its history traces Japan's progress in science and technology. The i-PRO development department is located within the i-PRO Fukuoka Office (Fukuoka City, Fukuoka Prefecture), but this time the company applied and received the award from the Kyushu region.

i-PRO will continue to innovate its core imaging technology, making it possible to "see what you have been missing" and "find out what you couldn't see" with high-precision and realistic images while contributing to the advancement of medical care.



i-PRO receiving the prize at the award ceremony for Invention on Thursday, November 2, 2023

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About Japan Institute of Invention and Innovation

https://www.koueki.jiii.or.jp/english/awarding/

About i-PRO

i-PRO Co., Ltd., is a global leader of advanced sensing technologies in the fields of Intelligent Surveillance, Public Safety and Industrial/Medical Imaging. Established in 2019, i-PRO was built on a legacy of over 60 years of innovation with Panasonic.

The company's products, software and services extend human senses to capture moments of truth with innovations that inform and protect. In order to help create a safer world, i-PRO Co., Ltd., supports the work of professionals who protect and save lives.

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