



# NIDEK COMPANY PROFILE

THE ART OF EYE CARE

What NIDEK has been  
focusing on since  
its foundation



“invisible to visible”

(creating vision)

“visible to recognition”

(obtaining better recognition through vision)

“eye instruments”

(making excellent products for vision)

What we do best for human eyes is to provide the joy of vision through our scientific capabilities.

NIDEK will continue to strive to provide this joy of vision to people all over the world.

# Eye & Health Care

~ Offering satisfaction and joy ~

NIDEK aims to be a company to excite and impress our customers.

## **Our thoughts at the time of establishment**

Mr. Hideo Ozawa, the founder and first president and CEO of NIDEK, was fascinated with the structure and function of the eye when he studied optics in the USA in 1957.

With his strong passion for “Contributing to the promotion of Ophthalmology by combining optics with electronics,” Mr. Hideo Ozawa gathered a group of engineers, and founded NIDEK in the summer of 1971.

## **Directions for the future**

Since the 25th anniversary of our founding in 1996, NIDEK has expanded our business expertise from “Eye” to “Eye & Health Care”.

With our enthusiasm for providing a healthy and comfortable life through our acquired ocular technology, we are developing diagnostic devices for the prevention and early detection of disease and surgical devices to minimize the invasiveness of surgery. Furthermore, we are in the process of expanding our business field to encompass regenerative medicine and anti-aging health care products.

As a company with a mission, we will strive to become a leader in “Eye & Health Care”, and offer services to enhance the health and living comfort of people all over the world.



President and CEO  
**Motoki Ozawa**



## Ophthalmology & Optometry

Examining Eyes, Diagnosing Eyes and Treatment of Eye Disease  
NIDEK offers all in ophthalmic care from every angle.

### NIDEK products for everyday life



Do you recognize this balloon? If you have seen this balloon in an optical device, then you have used a NIDEK product. This means you have been examined by a leading device used for measuring refraction

of eyes which can determine reference values for how much corrective power you will need in your glasses or contact lenses.



## Coating

# NIDEK 3 Business Fields

What we do is to provide the Joy of Vision through science.

NIDEK has been creating competitive products with our technological prowess by combining optical technology and electronic technology.

At present, we are pursuing global business activities based on three fields, Ophthalmology & Optometry, Lens Edging and Coating. These activities encompass everything from development, manufacture, sales and customer service to quickly respond to our customer needs.



Joy of Vision and Satisfaction of Wearing Glasses

We support the whole process in creating the optimum eyeglasses with NIDEK products ranging from visual acuity measurement to lens edging processing.

### NIDEK products for everyday life



Nowadays, eyeglasses are considered as a fashion item. NIDEK's lens edgers used worldwide have the flexibility to process lenses for various frame shapes.

Visible Light and Invisible Light  
Our coating technology freely counteracts these light waves with an invisible thin film. We perform production by large-scale vacuum deposition coating facilities under a clean environment.

### NIDEK technology for everyday life


NIDEK's unique technology for anti-reflection film development is used in car navigation system, eyeglass and such. The film provides reduced light reflection and improved visibility.



# C Ophthalmology & Optometry

## Delivering Solutions to Your Needs at All Stages of Eye Care

Based on our long history of R&D, NIDEK has created a variety of products utilizing our advanced technology.



**Diagnosing Eyes**


**Diagnostic**

High definition images

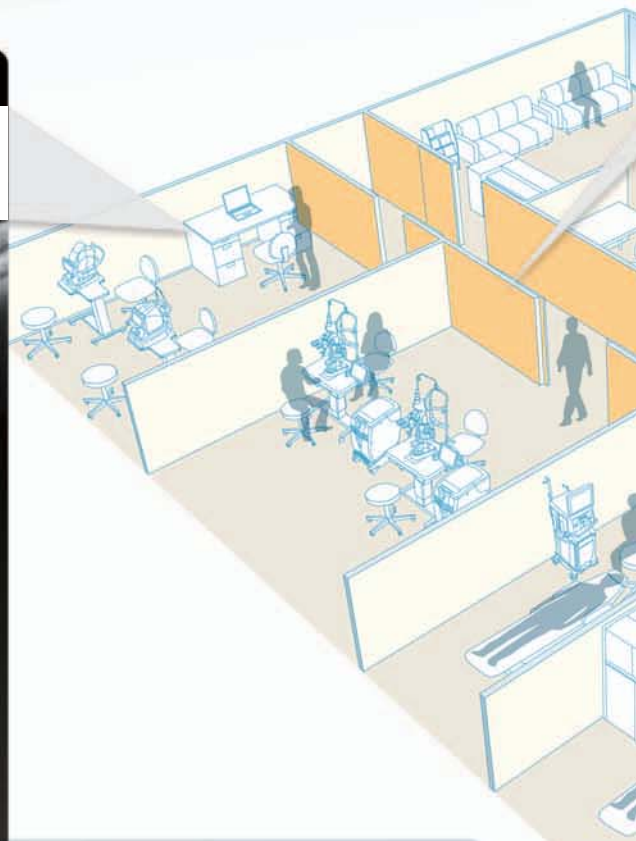

Optical Coherence Tomography (OCT)

**Retina & Glaucoma**

The fundus of the eye is the only part of the human body where the blood vessels can be observed directly from outside of the body. NIDEK fundus diagnostic techniques such as high definition OCT and fundus photography take advantage of this to assist in early detection and prevention of diseases.

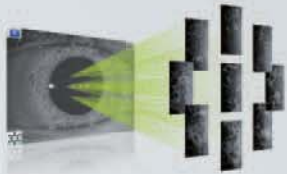


Color fundus image





**Cornea & Cataract**

The NIDEK corneal diagnostic product lineup includes an optical biometer, specular microscope and refractive power / corneal analyzer. When used in combination, these products allow the practitioner to perform comprehensive evaluation of the corneal condition and optical quality of the eye and further advance evaluation for pre and post refractive / cataract surgery.



Paracentral specular microscopy

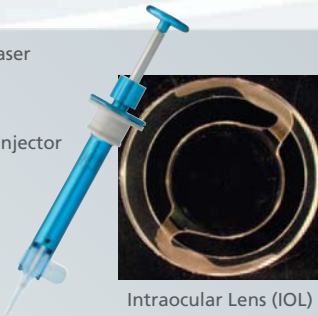


Overview summary for optimal clinical decisions



Multicolor Scan Laser Photocoagulator

IOL Injector



Intraocular Lens (IOL)



NIDEK has been engaged in the development of laser photocoagulators for treatment of retinopathy and glaucoma as well as ophthalmic surgical systems to treat cataracts.

### Surgical & IOL Ophthalmic Laser

Treatment of Eye Disease

Ophthalmic Surgical System integration with Green Laser Photocoagulator



Hospital Layout Example

Examining Eyes

### Refraction

Accommodation measurement



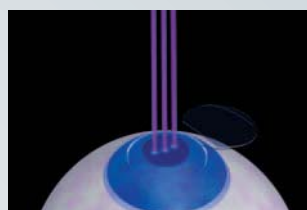
Auto Ref / Kerato / Tono / Pachymeter

We develop devices to perform the various eye test. We support doctors in examining the health condition of patients' eyes.

Correcting Vision

### Refractive Surgery

Visual acuity is corrected by irradiating a laser beam on the cornea and changing its curvature.



MultiPoint™ ablation for customized ablation.

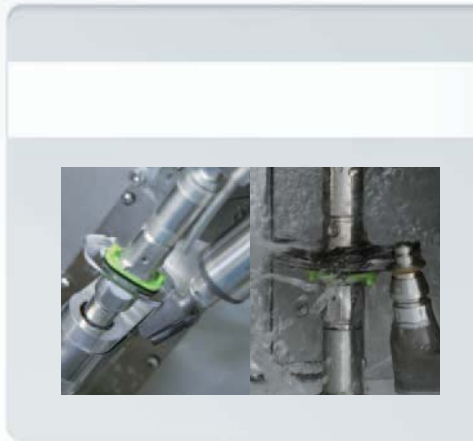


Excimer Laser System

# C Lens Edging

## Promoting Comfortable Vision Life with Its Accurate Lens Edging Technology

High quality lenses and frames are not enough to make a comfortable pair of glasses- Accurate and reliable lens processing technologies are necessary to deliver a perfect fit of lenses and frames. NIDEK remains committed to developing innovative lens edgers in order to promote comfortable vision life all over the world.



# C Coating

## Creating a Brand-new Sensitivity Value through Our Thin-film Coating

Our thin film coating technology enhances the performance of day-to-day advancements in electric displays and optical components. Combination of nano-level thin films allows transmission and reflection of specific light wavelengths according to customers' various needs.

### Hard Coating Technology

Based on our own hybrid hard coating material which takes advantage of the characteristics of organic and inorganic materials, we are expanding our new coating business.



## Lens Edger

All NIDEK lens edgers are designed to exceed the expectations of our customers. From customers looking for the latest sport glasses to those seeking the minimalistic look of rimless eyewear, NIDEK lens edgers meet and exceed all of these diverse demands. NIDEK continually listens and responds to the needs of our customers and strives to be at the forefront of the ever-changing world of lens and frame design with our lens edging technology.



## Industrial Edger

NIDEK industrial lab edging systems are extremely accurate, durable, robust, and adaptable for labs of all sizes. Various configurations are available to meet the needs of each specific lab.\*

\*a system dry edger, system edger, auto drilling unit and robotic handling unit.



Auto Dry Edging System

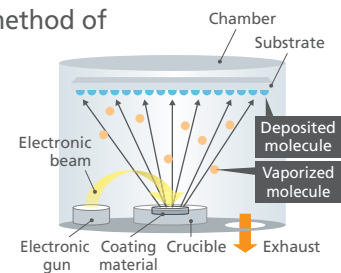
Auto Edging System

## Vacuum Deposition Technology



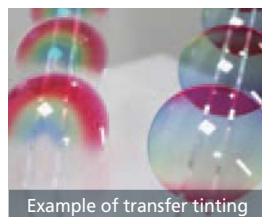
Vacuum deposition machine

Vacuum deposition is a method of film formation to control the transmittance and reflectance of light. In this method, a coating material is heated until vaporized and sublimated, and then its molecules are deposited onto a substrate in a vacuum.



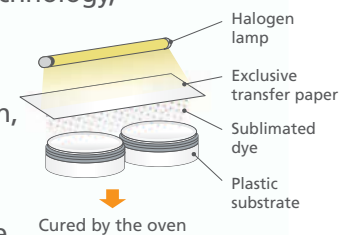
Vacuum deposition technology

## Transfer Tinting Technology



Example of transfer tinting

In our original tinting technology, unlike conventional spectacle lens tinting which uses a dye solution, exclusive ink is printed onto transfer paper and then heated to be sublimated to the object. The dye is then cured by heating in an oven.



Process of transfer tinting

Our large dip coating machine is capable of coating up to max. 1000 x 300 mm size.

Also, our spray coating machine is capable of molded parts.



Large dip coating machine

# Visual Prosthesis

“Invisible to Visible”

Development of Visual Prostheses is the dream and goal of NIDEK.

NIDEK has been conducting R&D on Visual Prostheses since 2001. Our mission is to create a medical implant system that reconstructs vision by electrically stimulating the retinal neurons with multiple points of light that the brain of a blind person recognizes as images.



Fiscal Year  
2001

NIDEK established the first vision institute for visual prostheses in Japan.

2001 ~ 2005

NIDEK has been entrusted by NEDO (New Energy and Industrial Technology Development Organization, Japan) to be a member in collaboration with several universities to promote R&D on visual prostheses as a national project of Japan.\*1

2006 ~ 2007

This continuing project has been adopted under Application of Industrial Technology Innovation, effort of the Ministry of Economy, Trade and Health, Labor and Welfare. Clinical research is in the direction of Osaka University.

\*1: The basic research has been conducted in cooperation of the following research institutions and NIDEK.  
1) Nara Institute of Science and Technology, 2) Kyushu University

\*2: Clinical research on implanting the Artificial Retina System in the human body for a longer period than that for acute clinical research (about a month).

## Social Contribution

For the future of the earth and its people



### Community and Social Contributions

We sponsored Para-sports Sailing Association of Japan for the London Paralympic Games and donated our products to local elementary schools and Gamagori City Hospital. NIDEK employees contribute to the Japan Braille Library through donation every year. Moreover, we donated relief money to the Japan Red Cross Society for use in restoration from the Great East Japan Earthquake.



### Donation of Laptop Computers to Junior High School in Cambodia

Laptop computers no longer used for business were donated to a local NPO called OASIS\* which helps to build schools in Southeast Asia, mainly in Cambodia. The laptop computers provided by NIDEK are used in classrooms.

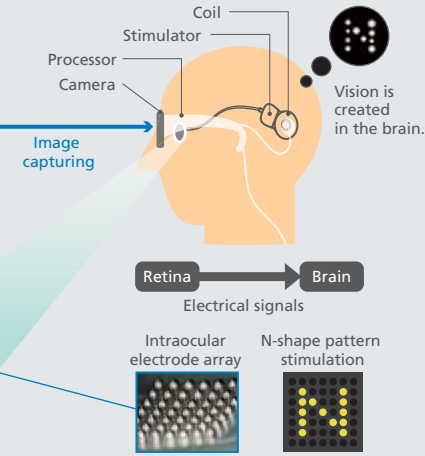


### Support for Epidemiological Research and Medical Examination in Tanzania

As part of our international contribution, we supported the collaborative research and examination conducted by Kanazawa Medical University and Muhimbili University of Health and Allied Science in Tanzania, Africa, as well as provided medical equipment maintenance.

\* NPO OASIS: OASIS is an NPO based in Gamagori, Japan. The objectives of the NPO OASIS are building and repairing schools, tree planting for environmental conservation donating medical supplies as well as brightening the lives of students in Japan and overseas with magic shows.

## NIDEK's Approach to the Artificial Retina System\*4



NIDEK is developing an Artificial Retina System that electrically stimulates the retina. Our method of retinal stimulation is called suprachoroidal transretinal stimulation. This stimulation strategy has been developed in collaboration with a research group at Osaka University, which has been our R&D partner from the launch of this project. This original method gives top priority to safety and reliability.

A certain number of electrodes are arranged on the electrode array that stimulates the retina. The light pattern received from the eye is replicated in the brain by a number of electrodes simultaneously stimulating the corresponding spots in the retina.



Sample image of the letter N using the Artificial Retina System



<p>the NEDO grant for the... It is carried out as a joint... industry, and the Ministry of... ing conducted under the</p>	<p><b>2010</b></p> <p>Semichronic clinical research*2 was performed on patients with retinitis pigmentosa under the direction of Osaka University.</p>	<p><b>2014~2015</b></p> <p>Chronic clinical research*3 was performed on patients with retinitis pigmentosa under the direction of Osaka University.</p>	<p><b>2016~</b></p> <p>The system development is moving forward toward commercialization.</p>
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\*3: Clinical research on implanting the system in the human body for about a year.

\*4: There are many types of visual prostheses for the reconstruction of vision. Among these, the one that stimulates the retina at the back of the eye is called an artificial retina system.

NIDEK continues its "Eye & Health Care" business globally in order to be a company that is always in touch with the needs of the times.



### Lectures on Ocular Health to Elementary and Junior High School Students

We provide enjoyable lectures about the human eye for elementary and junior high school students. We help students to increase their awareness of ocular health by introducing unique optical functions through fun learning quiz games.

### Efforts in Quality Assurance Activities

NIDEK has acquired the ISO 9001 international standard on quality assurance and the ISO 13485 international standard on quality management systems for medical devices. NIDEK is proud that our quality assurance activities gained the international recognitions that these international certifications attest to. We will continue to strive to enhance our product quality even further and deliver products which our customers can use with confidence.

### For the Precious Earth Environment

NIDEK has acquired ISO 14001 certification of environmental management system for the head office and all domestic production bases. In response to this age of environmental awareness, we will continue our efforts to promote active contribution to the formation of a recycling-oriented society.

### Eco-friendly Factories



In order to reduce emission of the greenhouse gas, CO<sub>2</sub>, we installed solar power generation panels on the roof of several of our facilities. The generated power is put to good use as part of the plant's power supply.



Solar panels on Osawa Plant



# Global Network

From Gamagori to the world

## Exporting NIDEK products to more than 80 countries around the world

NIDEK, headquartered in Gamagori, Japan, exports a variety of products to the world. In 1982, NIDEK established its first international office in the Silicon Valley in the USA, then moving on to France and Italy. Today, NIDEK has representative offices in China and the UAE to research the needs of markets, and opened subsidiaries in Brazil, China, and Singapore. NIDEK will continue to strive to expand our business operations globally.



NIDEK INC. (USA)



NIDEK S.A. (France)



NIDEK TECHNOLOGIES S.R.L.  
(Italy)



NIDEK DO BRASIL  
(Brazil)



NIDEK (SHANGHAI)  
CO., LTD. (China)



NIDEK SINGAPORE  
PTE. LTD. (Singapore)



Beijing Office (China)





Dubai Office (UAE)



USA

Brazil

-  Overseas Subsidiary
-  Representative Office

## NIDEK offers High-quality Products

Most NIDEK products are assembled one by one at our own plants in Gamagori instead of using an assembly-line system. Our business is conducted from start to finish, through production testing and shipping in the best of production environments, all under the watchful eye of the people in charge. Clean rooms are used for some parts of production as well as for IOLs and coating processes. By this environment, we are maintaining superior quality of NIDEK products.

Also, we accurately identify customer needs and respond to them by developing our own software for our products in order to continue to provide latest systems.



## 5 Plants in Gamagori, Domestic Sales and Service Offices in 13 Cities throughout Japan

NIDEK has domestic sales offices in 13 major Japanese cities from Sapporo to Fukuoka. NIDEK products are used by 10,000 ophthalmologists and 20,000 opticians in Japan. We provide excellent and speedy services to meet local needs.



Head Office



Hamacho Plant



Osawa Plant



Tsurugahama Plant



Higashihama Plant





<http://www.nidek.com>