



Move the Heart and Touch the Soul



Pioneer, driven by its Group Philosophy “Move the Heart and Touch the Soul”, consistently brings the world’s first and the industry’s first products and services since its establishment in 1938. Last year, Pioneer established “Steering the way to the future”, as a new corporate vision representing its ideal direction towards the year 2024, and has been working to further enhance its corporate value. In anticipation of a new stage of our growth, Pioneer will leverage its proven manufacturing capabilities in the car electronics to continually create new products that impress customers around the world. By using AI to analyze and utilize data from maps and mobilities, we will also build new business models, including services that solve social issues such as traffic congestions and accidents. Additionally, through our unique products and services, we will strive to become a company that is able to deliver new value and excitement more to customers than ever.



Shiro Yahara
President and CEO

Corporate Outline

Corporate Outline (Consolidated Results for Fiscal 2020)

Established	January 1, 1938
Capital	131.381 billion yen
Headquarters	Bunkyo Green Court, 28-8, Honkomagome 2-chome, Bunkyo-ku, Tokyo 113-0021, Japan
Net Sales	315,130 million yen
Number of Employees	12,059

Group Vision

Steering the way to the future

Establish a solid earnings base in the mobility space first
with unparalleled creativity and assured excellence

Further refine our renowned entertainment and comfort solutions and
target “safety” and “security”

Use digital and data to better know our customers and create businesses
that help address societal challenges

Become a professional group whose people work
with a sense of confidence and pride

Business Overview

Pioneer Corporation has 70 subsidiaries and affiliates around the globe and engages primarily in the car electronics business by using its leading-edge technologies to turn innovative and visionary ideas into industry-leading mobility products and services. Pioneer is also one of the key players in developing and offering diverse solutions for emerging autonomous driving.

Mobility Products

- Development, manufacture, and sales of in-car equipment for consumer and OEM markets



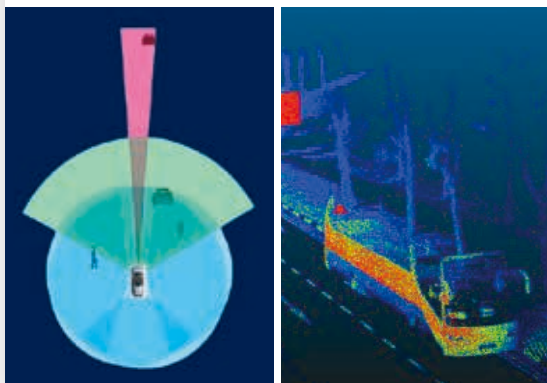
Mobility Services

- Provision of information services associated with digital maps and location data

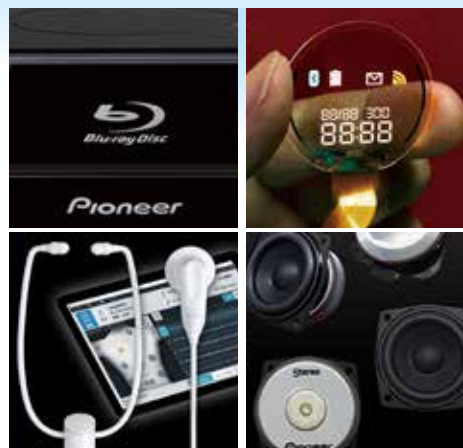


Autonomous-Driving Field

- Development of sensors and software algorithms essential for autonomous driving



Others



Mobility Products

Pioneer leverages its leading-edge technologies, which have created a series of the world's first and industry-first products, to remain at the forefront in creating and delivering new value in mobility products and contributing to auto safety and comfort on the road.

Consumer Market Business

A broad range of our in-car products—including the *Carrozzeria* series for the Japanese market, navigation systems, audio/video systems, speakers, and driving recorders—provide greater auto safety and comfort as well as enhanced in-car entertainment experience.



OEM Business

Pioneer supplies high-quality navigation systems, audio/video systems, and speakers to leading automakers around the globe. We also offer solutions developed using our proprietary technologies to create safe and comfortable in-car environment for the next-generation vehicles.



Mobility Services

Leveraging a wealth of probe data and location data we have amassed over the years, Pioneer commercializes information services and provides digital map data for a variety of devices and applications.

Data solutions

Pioneer plays a prominent role in ensuring auto safety on the road by developing and offering cloud services that work with on-board car navigation systems and driving recorders.

Telematics services

Intelligent Pilot

It is a type of advanced driver-assistance system (ADAS) that predicts the likelihood of road accidents and pitfalls by analyzing comprehensive information such as digital map data, probe data, points of past accidents, weather conditions, and the driver's driving behavior, and alerts the driver to a collision risk or an oncoming danger. Some insurance companies offer this system as an option to their customers.



■ Car solutions

Our *Vehicle Assist* service communicates with car navigation systems and driving recorders on board commercial fleets of vehicles and provides sophisticated fleet management, including vehicle tracking and dispatching as well as the monitoring of driver behavior.



■ Map businesses

Pioneer compiles and sells digital map data for use in car navigation systems, smartphones, and PCs. In addition, we are expanding our map business into commercial and GIS* applications and developing and compiling high-precision digital maps considered essential for emerging autonomous driving.



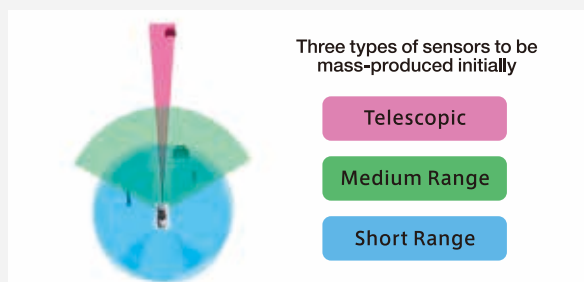
*Geographic Information System (GIS): Technology that displays visualized positioning information and enables sophisticated analysis and quick judgment.

Autonomous-Driving Field

Pioneer is striving to become one of the key players in the emerging autonomous-driving field by making the most of the proprietary optical and car-navigation technologies we have accumulated over the years as well as our technical prowess in compiling and updating digital map data.

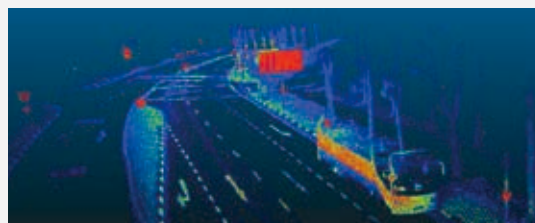
■ 3D-LiDAR sensors

Pioneer has been working on 3D-LiDAR sensors capable of real-time, three-dimensional imaging of the surroundings by determining the exact locations and distances of objects around them, made possible by our proprietary optical and MEMS (Micro-Electro-Mechanical Systems) technologies. We intend to start mass-production of these sensors in the autumn of 2020 to be incorporated into level-3 and higher self-driving vehicles. More advanced LiDAR sensors are also in our R&D pipeline.



■ LiDAR software algorithms

Pioneer has been developing software algorithms for 3D-LiDAR sensors to acquire point cloud data, detect objects, and estimate positions of objects.



Others

Pioneer applies its proprietary audio, optical, and video technologies to developing and marketing, among others, commercial audio solutions, high-end audio equipment, and optical storage devices.

Commercial audio solutions

Pioneer supplies to corporate customers high-quality speaker devices for use in PCs as well as technical solutions for improving audio quality.



High-end audio equipment

Pioneer's high-end speakers and audio components sold under the *TAD* brand have established a solid position in the professional and consumer markets around the globe.



Optical storage devices

Pioneer offers high-precision BD/DVD drives for PCs, including ones capable of reading Ultra HD Blu-ray discs, and audio devices.



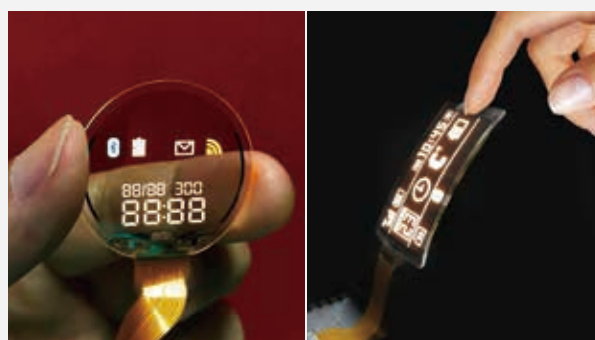
Medical- and health-care devices

Pioneer develops and manufactures compact wearable laser blood flow meters that measure blood flow in a noninvasive manner, and electronic stethoscopes based on our proprietary audio technology.



OLED devices

Pioneer develops and sells thin, light, sturdy, and low-power OLED displays and special-purpose OLED light sources.

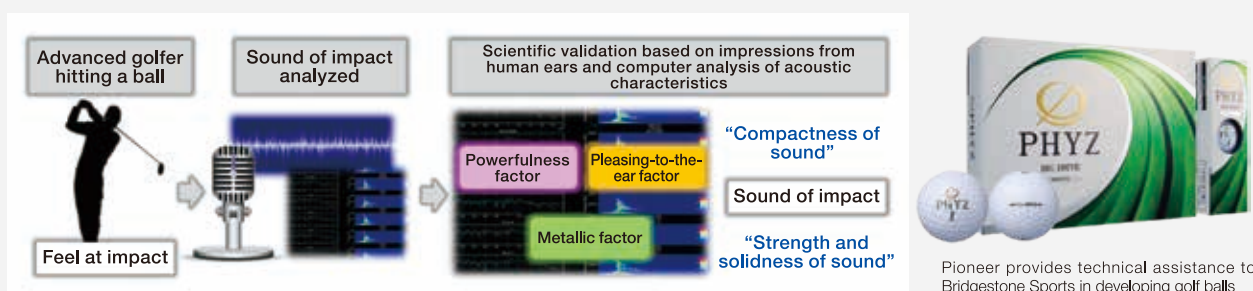


Research and Development

Pioneer's research and development efforts are focused primarily on moving its car electronics business forward. We apply our proprietary optical, audio, signal-processing technologies to creating new value at an accelerated pace in increasingly broader fields.

Acoustic analysis

Pioneer applies its acoustic control and analysis techniques, which were born out of its wealth of assets and expertise in audio technologies amassed over decades since early days, to resolving issues and creating value in our car electronics and other businesses. As an example of applying our acoustic analysis technology, we provide a golf ball manufacturer with technical assistance in analyzing the sound of a golf ball being hit by a club head.



Behavior-prediction and image-recognition technologies

Pioneer has been conducting research and develop for technologies to predict the behavior of a driver and a passenger by analyzing their past behavior patterns and biological data as well present traffic flows, combined with objects and the movement of vehicles on the road ahead drivers normally recognize and pay attention to.

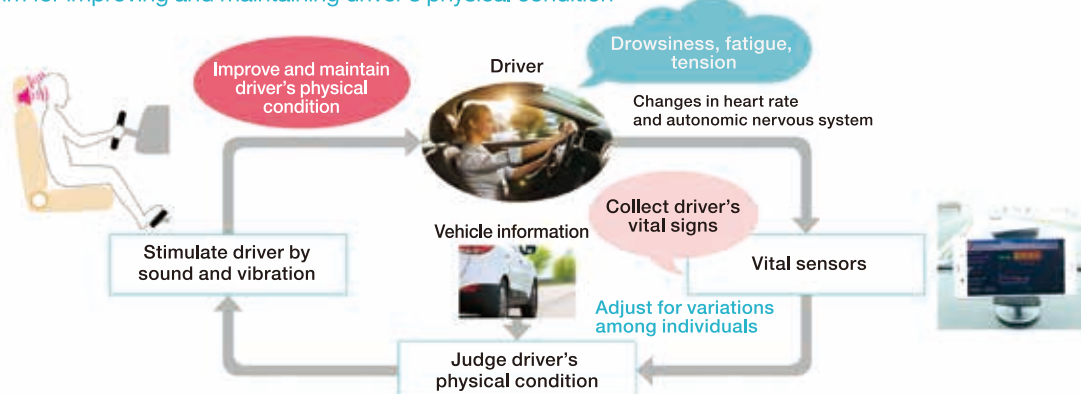


Other R&D projects

Driver monitoring

Pioneer has been working on sensor technologies and systems to judge the driver's physical condition based on information collected from vital sensors that detect the driver's line of sight, facial direction, posture, and pulse, and improve the condition by stimulating the driver by sound and vibration.

Algorithm for improving and maintaining driver's physical condition



Please visit the Pioneer website for more information about R&D
https://global.pioneer/en/crdl_design/crdl/



Corporate Citizenship

Under the Group Philosophy “Move the Heart and Touch the Soul” and with a focus on audio & video, environmental protection, and educational support, Pioneer engages in a variety of social outreach programs. Every employee takes ownership of these programs and plays a role in helping achieve a sustainable and fulfilling society.

“Listen through the Body” Concerts

Since 1992, Pioneer has been holding *Listen through the Body Concerts* for the hearing impaired to offer them an opportunity enjoy good music and rhythms. In these concerts, musical sound is converted into vibrations by the *Body Sonic* system, originally developed by Pioneer’s founder, Nozomu Matsumoto.

The concert was selected as one of Good Design Best 100 for 2018 by the Japan Institute of Design Promotion.



GOOD DESIGN AWARD 2018

Pioneer Forest

A 24,000 m² cypress forest near Lake Kamakita in Saitama Prefecture is named *Pioneer Forest*. The company has been pruning and thinning trees to preserve the forest since 2005.



Hands-on Craft Workshop

Pioneer holds Hands-on Craft Workshops to provide children with an opportunity to enjoy making things. Participating children learn how sound is generated and travels and how a speaker works and carry out a task of crafting a speaker made of paper; they all become excited when they hear sound come out of their hand-crafted speakers.



Others

- Environmental preservation and community cleanup
- Community outreach programs

Please visit the Pioneer website for more information about our social outreach programs.

<https://global.pioneer/en/society/contribution/>



History of Pioneer Corporation

Pioneer has been offering many world's first products that bring previously unavailable value to customers for more than 80 years.

- 1937 Pioneer's founder, Nozomu Matsumoto, develops the A-8 dynamic speaker.
- 1938 Fukuin Shokai Denki Seisakusho (precursor of Pioneer) founded.
- 1947 Fukuin Denki Kabushiki Kaisha incorporated.
- 1961 Company name changed to Pioneer Electronic Corporation (now Pioneer Corporation).
- 1962 Introduces world's first floor-standing stereo system with detached speakers.
- 1975 Introduces world's first component car stereo.
- 1984 Introduces world's first CD player for the car.
- 1986 *Carrozzeria* brand adopted for consumer-market car audio products in Japan.
- 1990 Introduces world's first GPS car navigation system for consumer market.
- 1992 Introduces world's first 4x speed CD-ROM changer.
- 1996 Introduces DVD player and world's first DVD/LD/CD combination player for home use.
- 1997 Introduces world's first DVD-based car navigation system.



A-8 dynamic speaker (1937)



Component car stereo (1975)

- Introduces world's first DVD-R drive.
- Introduces world's first OLED-equipped car audio product.
- Introduces world's first 50-inch high-definition XGA plasma display for home use.
- 1999 Introduces world's first DVD recorder.



GPS car navigation system (1990)

- 2004 Introduces world's first DVD player for professional DJs and VJs.
- 2006 Introduces world's first 50-inch 1080p plasma display.
- 2008 Develops world's first 16-layer BD-compatible optical disc with 400 GB storage capacity.
- 2010 Introduces world's first speaker with HVT (Horizontal-Vertical Transforming) technology.
- 2012 Introduces world's first car navigation system with head-up display to project augmented reality information.
- 2013 Introduces world's first *pedaling monitor system* that provides real-time graphical representation of a cyclist's pedaling.
- 2014 Starts mass production of world's first dimming and color tuning-type OLED lighting panel modules that use wet-coating process to produce light-emitting layer.
- Launch *Vehicle Assist*, cloud-based fleet management service.



Cyber Navi equipped with AR HUD (2012)

- 2016 Develops the *Intelligent Pilot*, advanced driver-assistance system that can be installed in cars on the road.
- 2017 Pioneer and HERE Technologies enter into business alliance.

- 2018 Pioneer celebrates its 80th anniversary

Enters into a partnership with Baring Private Equity Asia

- 2019 Pioneer and Canon agree to jointly develop 3D-LiDAR sensors

Releases the new *Cyber Navi* car navigation system with upgraded capability to access on-demand content and designed to work with docomo in Car Connect service

- 2020 Pioneer and Continental Agree on Strategic Partnership for a New User Experience



Cyber Navi (2019)

