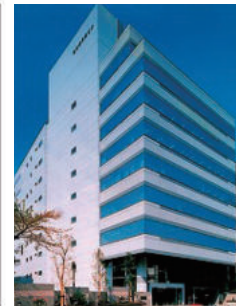
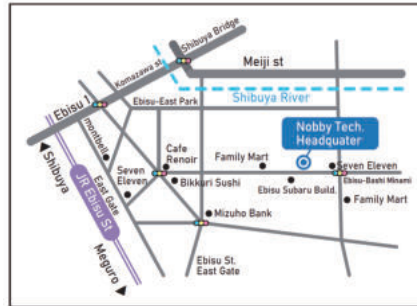


Headquarters

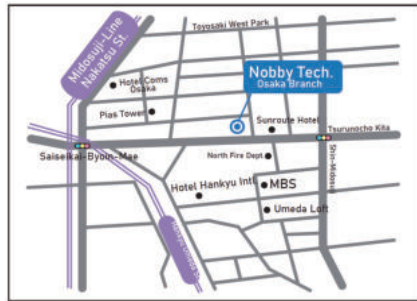
Tokyu Fudosan Ebisu Building 7F, 1-18-18 Ebisu,
Shibuya-ku, Tokyo, 150-0013, Japan
TEL: +81-3-3443-2633 FAX: +81-3-3443-2660



CORPORATE PROFILE

Osaka Branch

#1008, I&F Umeda Building, 10-2, Toyosaki 3-chome,
Kita-ku, Osaka-shi, Osaka 531-0072, Japan
TEL: +81-6-6292-7050 FAX: +81-3-6292-7075



Nagoya Branch

4F, Meieki4-24-16, Nakamura-ku,
Nagoya-shi, Aichi, 450-0002, Japan
TEL: +81-52-856-9582 FAX: +81-52-856-9501

PixelGate Ltd.

Tokyu Fudosan Ebisu Building 7F, 1-18-18 Ebisu,
Shibuya-ku, Tokyo, 150-0013, Japan
TEL : +81-3-3443-2688 FAX : +81-3-3443-2660
<http://www.pixelgate.co.jp>
E-mail : sales@pixelgate.co.jp



URL : <https://www.nobby-tech.co.jp>
E-mail : sales@nobby-tech.co.jp



A Group of Professionals Specializing in Measurement of High Speed Phenomena

Nobby Tech. Ltd. was established in 1998 as a group of professionals specializing in measurement of high-speed phenomena. Since then, we have continuously endeavored to provide products and services with "customer satisfaction" in mind. For the past 25 years years, while centering on import of cutting-edge electronics, Nobby Tech. Ltd. has been expanding its business by offering a wide range of products focused on high-speed phenomena, including high-speed cameras, doppler radars, super-slow cameras for the broadcasting industry, and Nobby Tech's 3D real-time motion measurement system based on motion capture technology. We aim not only to sell products but also to obtain and provide the data customers need. Through cutting-edge measuring instruments and measurement technology, a wealth of experience and knowledge combined with an excellent support system, Nobby Tech. Ltd. continuously strives to expand its opportunities in a wide variety of business domain including R&D institutions, the manufacturing industry that is the root of monozukuri (making things), the aerospace and defense sector, medical sector, and entertainment sector that includes media outlets such as television and commercials, and sports science.

Work Motto

- Engage in new measurement technologies and continue to propose them to customers
- Demonstrate our own techniques and problem-solving skills without relying heavily on products' capabilities
- Confront difficulties and strive to go higher
- Work is not given, we create it ourselves and complete it
- Display good manners, comply with laws and regulations, and become a first-class business person

We constantly collect the latest information on measurement to provide the technologies from all over the world

U.K	
Specialised Imaging Ltd.	Ultra-high speed camera
MS Instruments PLC	Ballistic instruments /instrumentation
USA	
AMETEK Group Vision Research Inc.	High-speed super-slow camera
Physics Applications Inc.	Two stage light gas gun
Visual Instrumentation Corporation	Hi-G Lighting, Battery, Camera mount
HIVE Lighting Inc	LED, Plasma lighting
Xcitex Technologies	Motion analysis softwear
L3Harris Applied Technology, Inc.	Flash X-ray system, digital X-ray camera system capacitor bank
Whithner	Trigger screen
Dynasen Inc.	Shock pressure sensor
Zacuto	Universal camera support
Gears Sports	Real-time swing analysis system
BlackBox Biometrics, Inc	Blast gauge
4D Motion Sports	4D Motion
Finland	
Cavitar	Pulse Laser Illumination
Korea	
SALTED	Smart insole

Ireland	
SQ9	Hole More Putts
Germany	
High-Speed Photo-Systeme	Nano flash system
Soft2tech	Work procedure support system
Dr. Müller Instruments GmbH & Co.KG	Pressure sensor
RP Acoustics	Fiber optic probe hydrophone
AMO GmbH	Transient recorder
Science & Motion Sports	Golf putting measurement system
Denmark	
Weibel Scientific	Doppler radar system
Canada	
IMAGO Machine Vision Inc.	Video tracker
Instantel	Vibration monitor
France	
IDIL Fibres Optiques	PDV
Turkey	
Eron Elektronik	High-speed trigger miops
Spain	
New Infrared Technologies (NIT)	Mid infrared high-speed camera

Our Vision

Our Strength

We, a group of professionals specializing in measuring high-speed phenomena, acquire high-quality data by dealing with various kinds of products, not only for selling technologies but also for contracting measurement in accordance with customer demands

Brands

Our brand is an aggregation of products from 30 companies from both domestic and overseas that specializes in numerous applications. We merge them together into our product line to pursue new measurements.

Customer Satisfaction

We strive to provide products or measurement technologies that meet the needs of our customers. High-quality data is acquired by exerting ourselves to obtain specialized knowledge and skills.

Market Strategy

We make inroads into B2B markets such as universities, research institutions of government agencies, corporate R&Ds, and B2C businesses for golf gears. Joining customer businesses brings us "the speed for responding to a request from customers" and "the flexibility of complying with market demands". We create a process that generate customer benefits and provide new values from the sales of hardware.

Corporate Philosophy

We regard measurement technologies as the basis for social contribution, and support its cutting-edge researches and developments. We strive to become "an excellent company" with a pleasant work environment where all employees can enhance their capabilities.

Missions

We provide high-precision visualization of high-speed phenomena and high-precision 3D motion measurement by integrating cutting-edge technologies from around the world. We regard measurement technologies as the basis for social contribution, and offer supports for the progress and developments of various fields such as R&D for production technologies, video entertainment, and sports.

A shining company !

We strive to become an "excellent company" with a pleasant work environment where all employees can hold their dreams and enhance their abilities by working hard and encouraging one another.

New Businesses

We are constantly on the lookout for new and unique measurement technologies from around the world.

Development Department

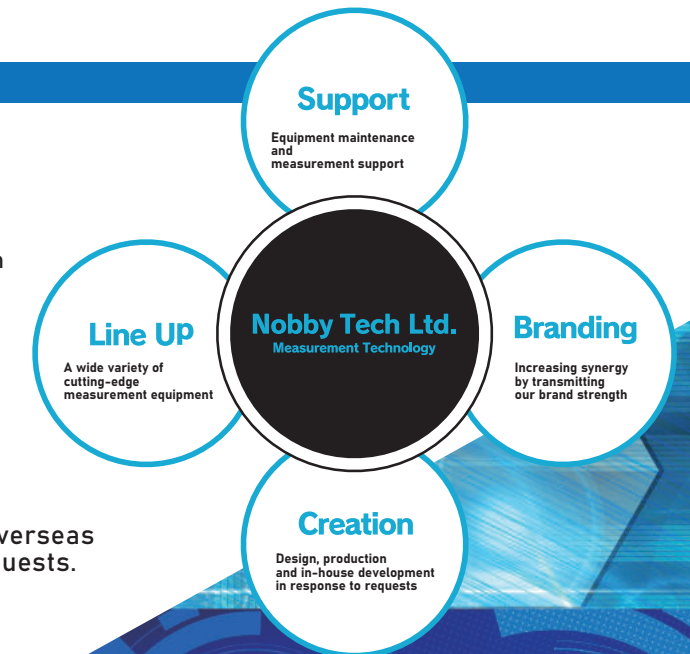
Pixel Gate Ltd., a Nobby Tech affiliation, is in charge of the software development of VENUS3D R, a 3D measuring device using motion capture. Pixel Gate engages in development as well as customization to meet customer requests.

Work Guideline

Nobby Tech. Ltd. strives to improve customer satisfaction with professionalism and logical actions

New possibilities with digital image measurements / analyses

We import distinctive image measurement devices from overseas to accommodate to various applications and customer requests. They are categorized into four functions.



Growth Strategy

We offer flexible market-based sales, rentals, and support activities for corporate and private businesses. We increase the values of measurement data by sharing them on cloud services

Quality Policy

Quality management system is our priority. As part of our quality policy we raise, we aim for high-quality products and services to meet 100 % customers' needs. Moreover, we will realize our company's development and contribution to society by considering and implementing business improvements that meet the needs of our customers and the circumstances of the moment.

Business field

High-speed Dept. :
Providing new image measurement proposals with "visualization of high-speed phenomena".

Broadcast & Professional Equipment Dept. :
Contributing to the creative video market by applying visualization technologies to the entertainment market.

Aerospace & Military Equipment Dept. :
Providing the latest measurement technologies for the aerospace and defense industries.

3D measurement Dept. :
Providing physical data cannot be obtained by images alone and creating associated values.

Sports Science Dept. :
Helping improve skills with our latest technologies and delighting by unraveling sports scientifically.

Welding and Metalworking Dept. :
Providing solutions to decrease the number of failures of weldings and offer visualization and numerical analysis.

Imaging System Dept.

High Speed
Dept.
.....

For visualization and analysis of R&D, manufacturing/industrial-related, academic research, automotive sector, motion engineering, medicine, biology, and more

High-Speed Cameras & Imaging Measuring Equipments

The High Speed handles an increasing of image-focused products, mainly high-speed cameras.

Notably, we import equipment and peripheral accessories for capturing particular moments from overseas and provide them to domestic customers after incorporating know-how.

We have developed original technologies through many years of business with overseas manufacturers, and we believe it will play a major role in the “visualization of high-speed phenomena” which is becoming increasingly complex, micro, and high-speed.

Imaging Devices

High-speed camera Phantom, ultra-high-speed camera Kirana, SIM, two-color temperature measurement system Thermoera, a real-time weld measurement system Weld-EYE, Mid-infrared-high speed camera TACHYON 16Kplus, Weld monitor camera Cavitar Welding Camera

Lighting Devices

Laser lighting for visualization CaviLux
Plasma lighting HIVE, LED lighting

Major Applications

Combustion, spray, discharge, shock wave, destruction, fluid (microfluid), deformation, flying object, inkjet, collision test, welding, production technology, biomechanics, and more

Analyses and Measurement Software

Motion analysis software,
Image editing software Pixel runner,
PIV analysis software, DIC analysis software



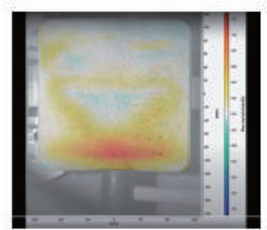
The latest released high speed camera
Phantom TMX series



High speed camera
Phantom



Laser lighting for visualization
CAVILUX



DIC analysis

Broadcast Equipment For Professionals

We offer sales and rental of video equipment, mainly the super-slow camera Phantom.

The slow-motion images familiar with commercials, sports broadcasts, television programs, and movies are recognized as common video expressions.

Phantom, which created this trend, is widely accepted as the industry standard for high-quality 4K high-speed cameras.

We will continue to provide products and services that satisfy our customers by providing high-quality camera accessories and lenses.



Phantom high-speed camera for professionals Phantom Flex4k



High speed trigger and auto tracking payload
MIOPS



Camera-support rigs, ZACUTO

Offering visualization and analysis tools for Welding and Metalworking measurement

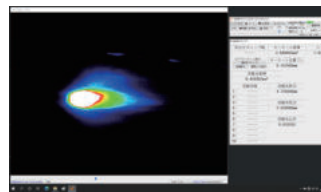
For example, it is a principle in the welding process to join according to the drawings based on proper welding design. However, welding defects may occur due to various external and internal factors.

To reduce defects and improve production line yields, high-quality welding conditions must be established.

We support the welding and metalworking industries by offering a variety of visualization and numerical analysis tools



Mid-infrared high-speed camera
TACHYON 16k Plus



Real-time weld measurement system
Weld-EYE



Weld monitor camera
Cavitar Welding Camera



Two-color temperature measurement
Thermoera

Imaging System Dept.

3D Measurement Dept.

For 3D measurement and analysis for R&D, factory automation, and biomechanics fields

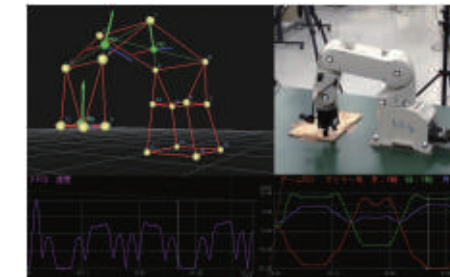
The 3D Measurement Group proposes and sells the 3D motion capture that requires high-precise image processing as a simple system for everyone. It offers high-precision displacement, angle, and velocity analysis without complex procedures or experiences. We work every day to contribute to the advancement of 3D measurement by creating new functions based on customer requirements, enhancing software together with Pixel Gate Ltd. and establishing new measurements, special markers, and compatibility with external devices.

3D real-time motion measurement system VENUS3D R

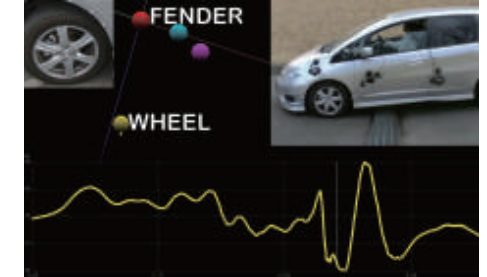
Supports re-time measurement/ analysis of 3D coordinates by non-contact, high precision, and high sampling

Work procedure support system Nexonar Assembly Scout

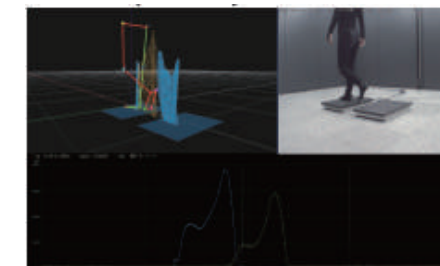
Unifies work procedure on the shop floor and fool-proofing to realize higher productivity and quality



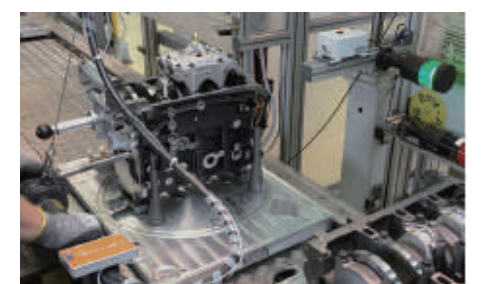
3D measurement of robot's movement captured by VENUS3D R



Measurement of moving wheel captured by VENUS3D R



Simultaneous measurement of VENUS3D R and Force-plate



Oil pump assembly using Assembly Scout

Sports Science Dept.

Offering Proposals and Services for Sports Science

The Sports Science Department handles measurement equipment mainly for golf. It provides real-time measurement and digital data of the body and club movement during a golf swing.

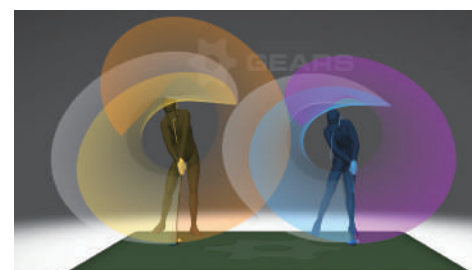
We propose measurement equipment that offers an analysis based on scientific evidence in the sports fields. At the Nobby Tech Gold Studio, we offer motion capture experiences, lessons by instructors, and club fittings.

GEARS

GEARS SPORTS (USA)
Measures body form and club movement during a swing

PuttLab

Science & Motion Sports (Germany)
Putting motion capture



Real-time swing analysis system "GEARS"



Putting diagnosis system "PuttLab"

Portable putter diagnosis system
"Hole More Putts"

Hole More Putts™

SQ9 (Ireland)
Portable putter diagnosis

Smart Insole

SALTED (South Korea)
Smart Insole



Smart Insole
SALTED Smart Insole

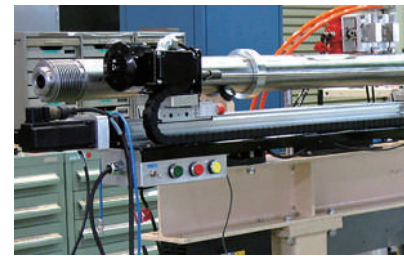
Aerospace & Military Equipment Dept.

Measurements for various aerospace and defense-related applications

Aerospace & Military Equipment Dept. introduces cutting-edge measurement technologies specialized for the aerospace and defense industries from overseas, and provides abundant support to meet customers challenging requests. Visualization devices or sensors to reveal ultra-high velocity phenomena such as explosion, shock wave, and destruction supports high-level measurement technologies.

The two stages light gas gun can eject flying objects at 8km/s or faster, and can be applied to the study of material deformation and destruction as well as debris research.

Flash X-ray system is installed to visualize the before and after of projectile collisions. Doppler radar is used for a variety of applications ranging from launching rocket safety controls to projectile trajectory measurements.



Two-stage light gas gun



Flash X-ray system

Electronic target system



Video tracker



Doppler radar

Doppler Radar

Weibel Scientific A/S (Denmark)
Measuring projectile's trajectory, velocity, distances, and 3d trajectory.

Video Tracker

IMAGO Machine Vision (Canada)
Multi-Tracker Triangulation System

Flash X-ray System

L3 Harris Applied Technology, Inc. (USA)
Measuring high-speed projectiles, fragments, shaped charge jets

Shock Pressure Sensor

Dynasen Inc. (USA)
Measurement of shock wave magnitudes and shock front velocities

Two Stage Light Gas Gun

Physics Applications Inc. (USA)
Flying object ejection system

Technical Support Dept.

【Technical Support】 Measuring and Analyzing, Maintenance and Support Services for Various Measuring Equipment

Nobby Tech's Technical Support Department provides full support for the customers' measurements and analyses with our knowledge and expertise in using advanced measuring equipment.

We also offer seamless services ranging from proposals of measurement methods to equipment rentals, filmings, data analyses, and creating reports. We also provide various support services such as maintenance training and repair of Nobby Tech products.



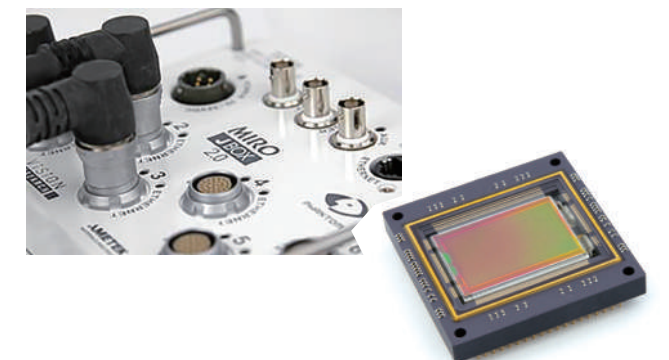
Contract measurement

【Phantom Service Center Japan】

Providing High-speed Camera PHANTOM' s Supports and Repair Services

Phantom Service Center Japan is licensed by Vision Research and provides all support services in Japan, such as operation supports, repairs, inspections, adjustments, and troubleshooting at Nobby Tech's Tokyo headquarter. We keep all repair parts and inspection/adjustment equipment in stock, with a system for responding quickly to customer requests.

Phantom Service Center Japan 



1998

October
Nobby Tech established

1999

April
Mitsui Optonics' two-color temp-measurement system "Thermara" service started
December
Weibel Doppler Rader system service started



2000

July
Müller Instruments Pressure sensor etc, service started



August
Started selling L-3C Harris Technologies flash X-ray system



October
Started selling Vision Research high-speed camera



November
An order from Tohoku Univeristy Two staged light gas gun



2001

May
PAI Ultrahigh -speed injection system Service started
May
Started selling Physics Applications "Projectile injection system"
May
Concluded GAA with High-Speed Photo-System "high brightness nano-flash"
August
Visual Instrumentation "Gravity-resistant Light / Battery" service started

2002

January
Started selling Dynasen Pressure sensor
August
Whithner Trigger screen, service started



2003

March
MSI Projectile measurement system service started



2004

September
Specialized Imaging Ultrahigh-speed camera service started



October
An order from TRDI Flash X-ray syatem etc.



December
Started selling Interactive Sports Games "Trackman"

2005

April
Xcitex Body-moving analysis software "ProAnalyst" service started

2006

June
Vision Research High-speed camera for broadcasting released

2007

May
Started selling Camera support system "ZACUTO"



August
An order from TRDI Out-of-gun ballistic property test system no.1



2008

June
Made an increase of capital to JPY50,000,000
August
Osaka brach opened



2009

December
ArrowTech Ballistics Simulation Software PRODAS service started

December
Started selling Specialised Imaging Ultra Fast Framing Camera SIM

2010

June
Pixel Gate established for software-development

Setem্বর
In-house development of motion caputure system "VENUS3D" service started

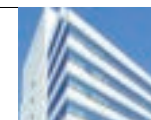


November
Concluded GAA with IMAGO Machine Vision



2011

September
Headquater relocated to Ebisu, Shibuya-ku for expanding business



November
An order from JAXA Doppler rader for rocket-tracking



Surveillance for safety flight H2-A rocket, Epsilon rocket etc.

December
Started selling Handy high-speed camera with LCD panel "Phantom Miro M"

2012

April
Mitsui Photonics two-color temperature measurement system "Thermara" service started

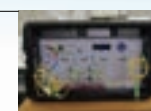


July
Nagoya Branch opened

November
Ultrahigh-speed framing Camera "Kirana" service started

2014

April
IDIL Fibers Optiques PDV (Photonic Doppler Velocimetry) service started



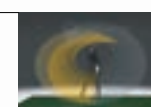
August
An order from ISSP of ultrahigh magnetic field 1000 tesla generator



November
CAVITAR laser lightning "Cavilux" service started

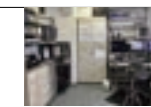


November
Gears sports real-time swing analysis system "GEARS" service started



2015

January
Phantom Service Center Japan established



February
Science&Motion Sports Golf putting measurement system "PuttLab" service started

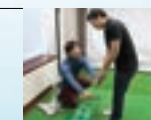


May
4D Motion Sports "4D motion" service started



2016

February
Nobby Tech Golf Studio at Yokohama Hilltop opened



2017

2015

2010

2007

2002

1998

2018

March
Watlicam Amphibious camera system "Watlicam" service started



2019

May
New Infrared Technologies Mid infrared high-speed camera "TACHYON 16k" service started



2020

2020

January
Anveck portable putter analysis "Hole More Putts" service started



March
SALTED Foot pressure measurement "Salted Smart Insole" service started

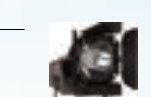


2017

May
Eron Elektronik "Miops" service started



June
Hive Lightning "HIVE" service started



September
BlackBox Biometrics tremor detector "Blastgauge" service started



Concluded sales agreement with Critical Solutions International

October
Soft2tec "nexonar Assembly Scout" service started





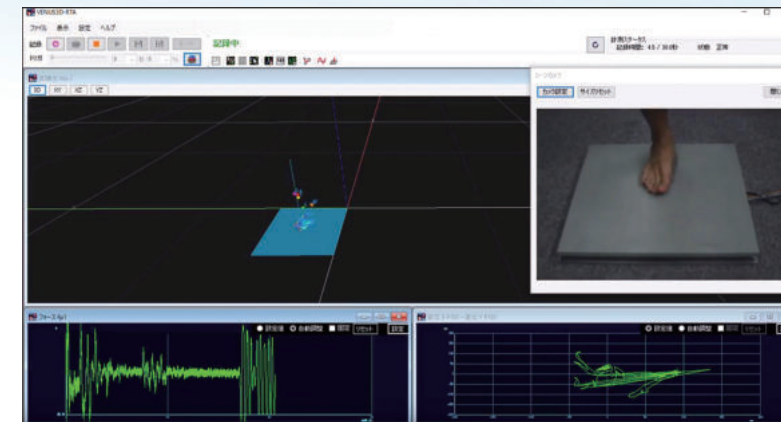
Pixel Gate Ltd., a Nobby Tech affiliation

Nobby Tech' s Unique Image Editing Software

Pixel Gate Ltd., develops 3D measurement / analysis software “VENUS3D R” and image / waveform editing software “PixelRunner GII” .

“VENUS3D R” is capable of 3D real-time motion measuerment, and can also read and analyze data from analog waveform data recording systems and force plates.

Pixel Gate also focuses on the development of custom-made software for high-speed camera interfaces, trigger devices, and special measurement software, in addition to customized systems for customers.



Real-time motion measurement
VENUS3D R



Waveform editing software
PixelRunner



Corporate Profile

Name	Nobby Tech. Ltd.
Foundation	October 1998
Capital	JPY 50,000,000
President	Nobuie Konishi
Directors	Tomoyuki Yoshida Akira Akichika Takaaki Mizushima Toshiyuki Hirota
Number of Employees	36 (as of May 2022)
Bank	Mitsubishi UFJ Yokohama Bank Mizuho Bank

Location

Headquarter	Tokyu Fudosan Ebisu Building 7F, 1-18-18 Ebisu, Shibuya-ku 150-0013, Japan
Osaka Branch	#1008, 1&F Umeda Building, 10-2 Toyouaki 3-chome, Kita-ku, Osaka-shi, Osaka 531-0072, Japan
Nagoya Brach	24-16, Meieki 4-chome, Nakamura-ku, Nagoya-shi, Aichi 450-0002, Japan

Our Customers

Public Institutions

ATLA
JGSDF
National Institute of Advanced Industrial Science and Technology
Institute of Physical and Chemical Research
JAXA
National Institute for Fusion Science
National Maritime Research Institute
National Agriculture and Food Research Organization
Japan Institute of Sports Sciences
National Research Institute of Police Science
National Institute for Materials Science
National Institutes for Quantum and Radiological Science and Technology
Japan Automobile Research Institute
Japan Organization of Occupational Health and Safety
Japan Sport Council
Central Research Institute of Electric Power Industry
Nagoya Municipal Indutrial Research Institute
Osaka Research Institute of Industrial Science and Technology
Tokyo Metropolitan Industrial Technology Research Institute
Technology Research Association for Future Additive Manufacturing
Japan Skating Federation

Private Corporations

Toyota Motor
Yamaha Motor
Kawasaki Heavy Industries
Subaru
Asahi Kasei
Nissan Motor
Mazda Motor
Hitachi
Honda Motor
Nippon kohki
Toshiba
Mitsubishi Heavy Industries
Canon
IHI
DAIKIN INDUSTRIES
The Japan Steel Works
Komatsu
NOF
Nagao Industrial
BANZAI
Nippon Steel Engineering
Maeda
Panasonic
DENSO
Suzuki Motor
CHUGOKUKAYAKU
Bridgestone
Nikon Instech
HAGIWARA TECHNO SOLUTIONS
DITECT
Mihiro
Shinwa
TSUBAKIMOTO KOGYO
Kato Koken
Spice
PXG TOKYO FITTING STUDIO
Hill Top Yokohama Club
Sumitomo Fudosan Esforte
Universal Golf Sha
MAJESTY GOLF
SHUZENJI COUNTRY CLUB
True Golf Academy
Ken Horio Gold Acaemy

Universities

Hokkaido Univeristy
Hiroshima University
Iwate University
Tohoku University
University of Tsukuba
Utsunomiya University
Keio University
University of Tokyo
Tokyo Institute of Technology
University of Electric-Communications
Nihon University
Hosei University
Waseda University
Tokai University
National Defense Academy
Nagoya University
Nagoya Institute of Technology
Doshisha University
Ritsumeikan University
Kyoto University
Osaka University
Kobe University
Kanazawa University
Hiroshima University
Kanazawa University
Hiroshima University
Yamaguchi University
Kyushu University
Kyushu Institute of Technology
Kumamoto University
Miyazaki University
UNIVERSITY OF THE RYUKYUS
National Institute of Technology,
Okinawa College
Gumma University
Chiba Institute of Technology
Okinawa Institute of Science and Technology Graduate University