



EXPANDING AUTO PARTS TRACEABILITY

Kiryu, Japan

In order to achieve traceability for products, it is necessary to collect information on the manufacturing process in real time. The armature assembly line was selected as a model to test the IoT system.

It is necessary to attach a serial number to the product in order to identify each piece. The serial number is in the form of a QR code. The parts (hubs) are laser-engraved in advance, and a serial number is acquired in each process.

The serial number acquired in each process is linked to the numerical data of that process (dimensions, load values, processing machine numbers, etc.) and transferred to the production information collection database. Through communication between these computers, production information is continuously collected.

The database is connected to the company network and communicates with the server. Communication between control devices, personal computers, and servers has traditionally been considered unsuitable. However, recently it has become possible due to improvements in IoT technology, and direct communication with the central servers.

The production information collected by these IoT communication stations is sent to the data server. The information stored in the data server is managed by serial number. Some of the information stored in this data server for this particular part is described below.●



Armature hub



QR Code on hub

- | | |
|--|---|
| 1. Serial number | 4. Rivet height |
| 2. Assembly date/time (year/month/day/hour/second) | 5. Dimensions after grinding (runout, etc.) |
| 3. Press load/bottom dead center position | 6. Image inspection |

KANSAS STATE COMPETES IN QUARTER-SCALE TRACTOR COMPETITION

Kansas City, KS

This year Kansas State University once again used clutches supplied by Ogura. Their design this year had higher reflected inertia, so they required more torque than normal. They were eventually able to make this work but because of some weight issues, they had to make some final design modifications, which hurt them slightly during some of the pull competitions. They ended up in second place for their overall design, and they were appreciative of the design assistance that Ogura application engineering gave regarding questions on how to achieve the greatest torque from the clutch. Ogura looks forward to assisting next year's students with their 2022/2023 design.●



2022 Kansas City University's students quarter-scale design team

Ogura Sales Rep Profile

CRAIG DRDEK
Motion Control Resources

Hello, my name is Craig Drdek. I have been a rep with Ogura for 10 months starting when I became a member of the Motion Control Resources team. My specific coverage for Ogura consists of specific accounts through Eastern OH, and West Virginia.

I live in greater Cleveland, OH where I was born and raised. I am newly married to my wife Jackie. Away from work, I enjoy keeping active outdoors including golf, upland bird hunting with my dog, deer hunting, fishing, and boating. Hockey has always been a big part of my life. I continue to stay involved with the game by coaching a High School team, currently in my 12th season. I'm an avid Cleveland sports fan and a Cleveland Browns season ticket holder.

I earned my bachelor's degree from Eastern Michigan University studying Business Marketing, Sales Management. During my time there I spent 4 years as a member of the hockey team. Prior to joining MCR, I spent the last 14 years in industrial distribution. Most recently as Sales Manager for Laird Plastics, a performance plastics distributor.

I have a strong working knowledge of the industrial end user and OEM markets in the territory. I'm looking forward to using my past experiences to help grow new applications for Ogura in our market. ●



Craig Drdek

ENEOS SUPER TAIKYU SERIES 2022

Kiryu, Japan

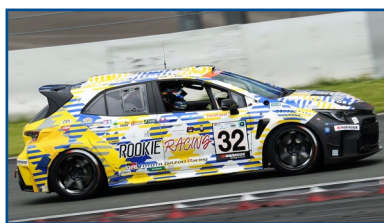
The "Super Taikyu Race Fuji 24 Hours Race" was

held in June. As with the first race, Mr. Ogura participated as a driver of the "ORC Rookie" GR Corolla H2 concept with five other drivers, including the President of Toyota Industries Corporation, (participating under the name



Ogura racing team

Morizo). The vehicle which runs on carbon-neutral fuel Orc Rookie GR86 CNF Concept was also on the team.



Hydrogen Corolla

The first half of the race went smoothly but in the middle of the night, the GR86 had to make a pit stop due to transmission trouble. Thanks to the pit crew's professionalism, the vehicle was able to return to the track in about two hours. However, soon after, there was an accident with Hydrogen Corolla when Mr. Ogura was preparing to board the car and had no choice but to make an emergency pit stop. Mr. Ogura could not return to racing until early morning.

Both the hydrogen Corolla and the GR86 finished the race without any further issues. The Hydrogen Corolla finished the race in 478 laps, which is 120 laps higher than last year's 358 laps in the 24-hour race, showing dramatic progress this year. ●

NEW EMPLOYEES WELCOMED

Kiryu, Japan

Last year, with COVID-19 still at its peak, Ogura Japan hired only 17 people in total. That is why this year, putting all its efforts into recruitment, Ogura Japan hired 40 graduates of high school, vocational schools, universities, and graduate schools. In his welcome speech, Mr. Ogura mentioned that COVID-19 brought the new style of job hunting, face-to-face and online, which he compared to fencing with the sword in each hand. He also pointed out that this year's new employees skills and knowledge can be easily applied to any field depending on their training at Ogura, which makes them a more flexible resource. ●



New Employees 2022

Application Story

THE WILLIAMS SISTERS AND FEDERER NEVER HAD THIS

The Lubbock Science Spectrum Museum in Lubbock, Texas recently opened a new exhibit entitled 'The Science of Sports'. This new exhibit focuses on how science plays an enormous role in sports. From mathematics to friction, inertia to reaction, sports contain hundreds of scientific principles.

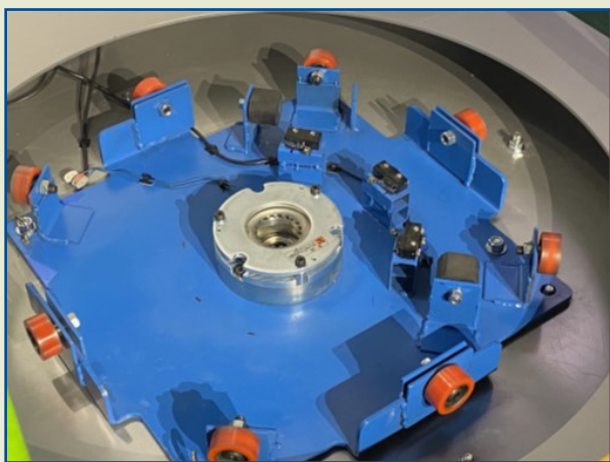
The Tennis Turn Interactive is a bespoke interactive game that focuses on teaching reaction and proper foot/hip positioning when receiving a tennis serve. Eidson Studios, a US based design, content creation, and integration company, designed and fabricated this highly popular game.

The game consists of a large video monitor that displays the audio/visual content of the game, a rotating electro-mechanical turntable that collects the response of the player, buttons atop two handholds requiring the player to constantly depress, as well as video and data processing instrumentation.

To play the game, the player is presented with point-of-view videos of a tennis player randomly serving the four basic tennis serves: Ad Wide, Ad Center, Deuce Wide, and Deuce Center. The player then must react quickly and position their feet and hips correctly by rotating the turntable to the left or to the right. Position correctly three times and the player wins the match; position incorrectly three times and the player loses the match.



Tennis turn interactive



Tennis turntable base with Ogura brake

For player safety, Eidson quickly realized the device needed a fail-safe spring-applied brake that would prohibit the turntable from rotating while entering or exiting the game, or if the player wasn't firmly holding on to both handholds at any time during the game. A minimum of three points of contact was the goal to satisfy the concern. Eidson designed it so that the player would be required to depress and hold buttons atop each handhold to release a spring-applied brake and would engage the brake if either button was released.

In searching for a brake that fit within the space constraints and braking requirements for this project, Eidson discovered Ogura Industrial Corporation. Working together with sales and engineering, the RNB-10 was selected for its size and braking properties. "The RNB-10 works perfectly for this application," Eidson remarks. "I know that this application is way outside normal engineering for Ogura, but these guys rocked with helping me select and acquire the brake. The brake is very solid when actuated and allows for smooth rotation when the brake is released. I'm really pleased with the device, or to use the tennis term, it's "love" for Ogura."●

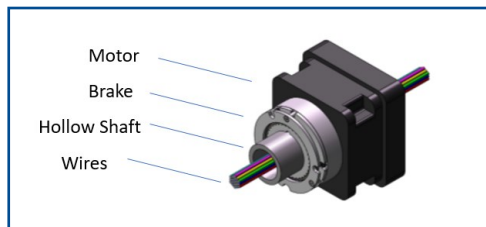


Ogura in the News

OGURA'S NEW LARGE BORE BRAKES FOR ROBOT AND MEDICAL EQUIPMENT

Somerset, NJ

Ogura has developed a new line of small brakes for robotic and medical equipment applications. The MCNB-HS Series power-off spring applied brakes have oversized bores to allow wires to be fed through the shaft's hollow bore. The wires are for power or for feedback from sensors or encoders. The ratio of the brake's field core diameter to OD is leading the industry.



Ogura's large bore holding brake s

Internal designs allow for reduced backlash, high cycling, long life, optimized torque per size, thin profile, low

weight, limited drag, and low power requirements. Reduced backlash is important for precision and accuracy. Special attention is made to provide stable performance and response during total life for high-cycle applications. Torque is optimized to provide a smaller package size and lower weight. The thin profiles provide an advantage where space constraints are tight. Low power requirements reduce energy consumption and limit heat generation. ●

CHUCK MILLER AND BOBBY CLEVELAND COMPETE IN TWO RACES

*Twelve Mile, IN
Clements, MD*

Last quarter, Chuck Miller and Bobby Cleveland participated in two lawn mower races, Twelve Mile Race in Indiana, and Bowels Farm Race in Maryland. The Twelve Mile Race started its history in 1963 with the 12-mile 500 (the birthplace of lawn mower racing). For Bobby and



Chuck and Bobby with their trophies



*Chuck's 1st and Bobby's 3rd place in 12
Mile Race*

Chuck, this was their 2nd year racing there, and it was a great weekend celebrating the 4th of July. The Ogura Clutch Racing Team did very well with Bobby Cleveland coming away with 3rd place and

Chuck Miller with the win in the BP class!

The Bowles Farm race is a two-day event to raise money for the local Fire Department to buy emergency equipment. The Ogura team has been racing here for over 50 years. It was again quite a successful race for Ogura Clutch Team with Bobby coming away with 2nd place in BP class on Friday and 4th place on Saturday. Chuck finished 2nd in FXT class both nights. ●