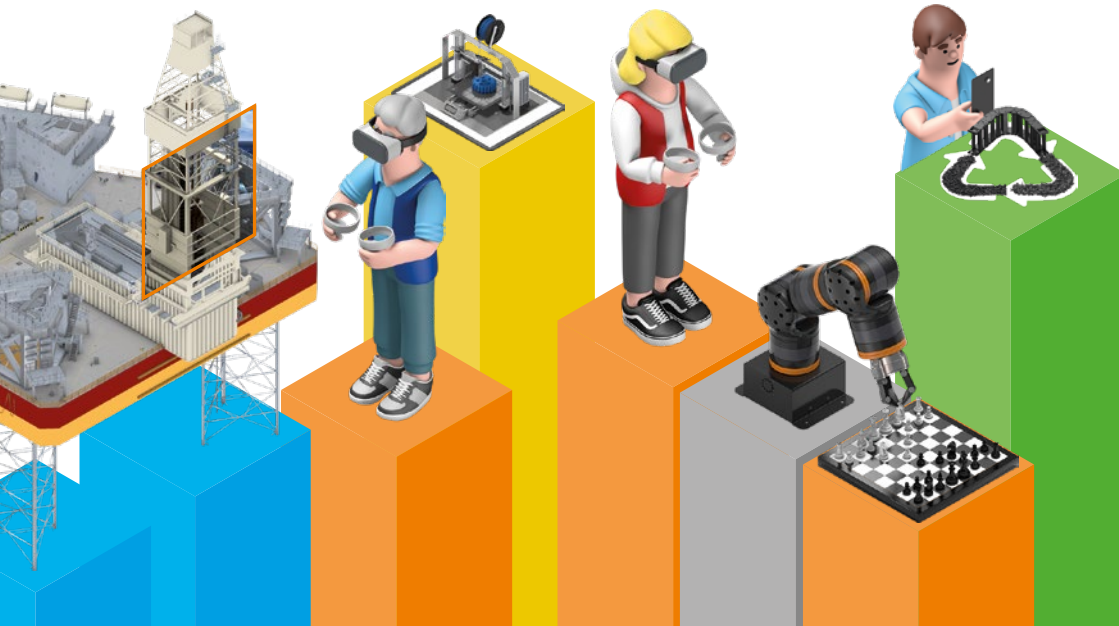
Digital services and solutions

igus® enjoyneering®

... unleash your engineering power with play

#digitalnews2023



Dear customers,

Engineers are often naturally curious and have a strong urge to explore. Playing and experimenting with new technologies and ideas creates innovative solutions and products. This creative process helps to push the boundaries of what is possible and opens up new perspectives in technology and industry. It is precisely this urge to play and experiment, along with outstanding achievements in industry, technology, and production, that we at igus® would like to promote at this year's Hannover Messe. Playfully reaching the best engineering achievements - that's what igus® enjoyneering® is about: digital offers that facilitate work for you and your teams and increase creativity.

In the igus® metaverse, you as an engineer can optimise sustainable prototypes with your team. The virtual world helps identify weaknesses at an early stage and implement plant and machine developments at many times your usual speed. The igusGO app shows you how to design and improve systems and machines to work without lubrication in seconds - just by sending a photo.

We have been supporting you since 2000 by calculating service life and other parameters to make your motion plastics® applications durable and sustainable. kopla, our fully managed service platform, now offers companies our proven technology for developing their own customised online configurators and simulators quickly and cost-effectively.

We are also dedicated to environmental protection, from the igus:bike made of recycling material, which has won several awards, to the Chainge recycling platform but also to an energy-efficient heating system that uses machine heat.

Our goal is to offer you enjoyment, fun and even more success at work. Try our enjoyneering® offers and join us on this journey as a user or beta tester. Tell us what you think.

Have fun engineering!

Frank Blase

"One difference between the world's leading architects and the others is: They know how to play."[1]

Dr. Donald McKinnon, UC Berkely, from the book „Creativity“ by John Cleese

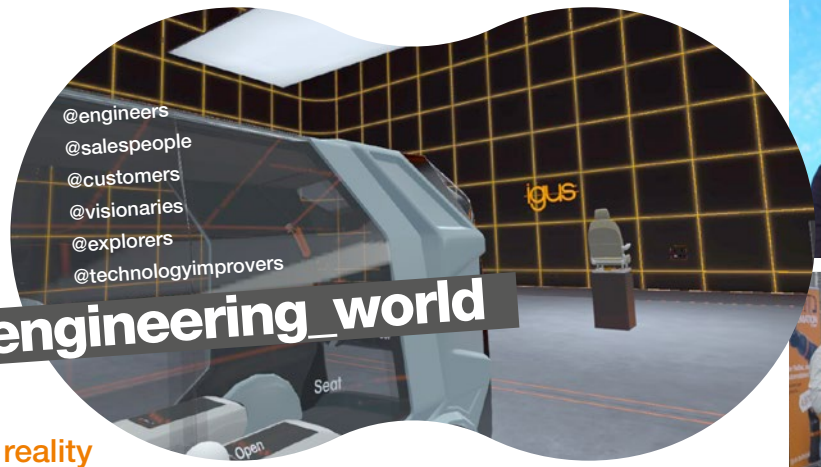
1) Source: https://www.themarginalian.org/2016/12/29/the-creative-architect

An overview of all services and solutions:

igus enjoyneering

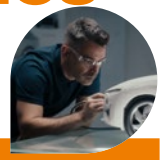
Collaborative engineering

iguverse



So that everything fits in reality

Industrial metaverse: Implement developments of systems and machines 10 x faster[2]?



Welcome to the iguverse® - the igus® metaverse that simplifies your engineering! Save time and money in the virtual engineering world, find the right components quickly, and develop your product digitally with igus® experts. The 1:1 feasibility analysis with 3D models support your product development, identifying weak points at an early stage and optimising your design - with no physical prototypes. You can also use the iguverse® as a presentation platform or a virtual support for repairs. It is an efficient, user-friendly platform for sustainable product development and rapid prototyping.

#metaverse #new_work
#collaborative_engineering
#virtual_commissioning

"As an engineer, I would like to optimise our prototype production and make it more sustainable. I explore the iguverse, an engineering platform in the metaverse. I use VR glasses to enter the virtual igus® world, work on projects digitally, and network with colleagues in a manner that saves time, money, and CO_2 so that I can clearly visualise problems and quickly work out solutions. I find 3D models for my applications in the right machine and industry world. Working with igus® experts, I develop prototypes and perform feasibility studies. Augmented reality helps me identify design flaws at an early stage - also saving time, travel cost, and resources. Colleagues and machine users can exchange ideas in the iguverse®, undergo training, and support service technicians with repairs."

2) See example: Bell Helicopter, HTC VIVE: youtu.be/9rF2NBEHOow

"The third wave of the internet is about innovatively adressing real world problems."

Steve Case, Founder of AOL

... unleash your engineering power with play

Book an appointment online & find out more
www.igus.eu/iguverse

▲

- A permanently storing and continuing virtual project space that a team can use as space basis of its work.
- More safety through reduced risks
- Repeatability
- Faster integration into the production environment
- Optimised quality of systems and machines
- Good data collection and analysis
- Understanding of complex relationships and early testing
- Faster realisation of the idea to the product

▼

- Cost reduction through simulation
- Time saving on site
- Minimisation of downtime
- Reduced risk of planning errors
- Lowered travel expenses
- Elimination/reduction of prototyping effort

■

- When an igus® e-loop was installed on a drilling platform, important design changes ultimately meant that the product could not be installed as planned. If the installation had been simulated in the iguverse®, the difficulties with the mounting bracket and cable guidance would have been recognised at an early stage and could have been resolved more efficiently. The virtual world would have made problems and solutions visible immediately.

●

- Reduces travel time and CO_2
- Conserves resources: no need for complex prototype production
- Improves team flexibility and adaptability
- Increases employee satisfaction
- Can improve team effectiveness

Collaborative engineering
A digital parallel universe for industry - how engineers, salespeople and customers will work together in the iguverse® in the future.
Four of many examples of how the **iguverse®** can help you in the real world.

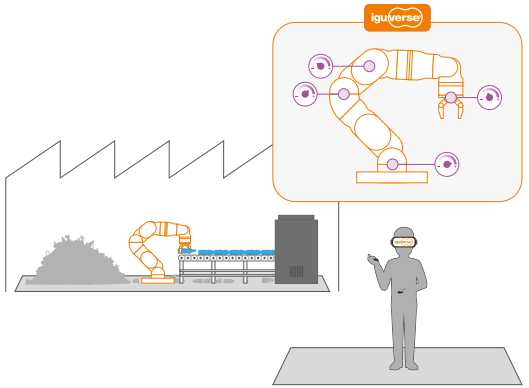
The iguverse® is an XR collaboration platform that enables companies to use virtual reality immediately and work on machines, systems, and vehicles together. Digital twins of all products are provided in the iguverse®. Users can install these twins directly in the virtual engineering environment. More effective collaboration and faster development cycles improve companies' technical capabilities.

1. Control robots remotely

▲
- Reduce hazards
- Improve flexibility and adaptability
- Increases employee satisfaction
- Can improve team effectiveness

●
- Reduce travel time and CO_2
- Reduce waste and errors

#simulated_remote_work #better_work
#virtual_commissioning #digital_twin

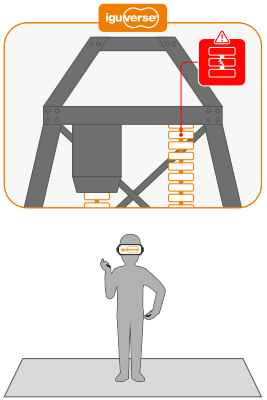


2. Simulate assembly and installation

▲
- Cost reduction through simulation
- Time saving on site
- More safety
- Avoid errors
- Repeatability
- Good data collection and analysis

●
- Reduce travel time and CO_2
- Use resources in a more targeted manner

#metaverse #new_work
#collaborative_engineering
#virtual_commissioning

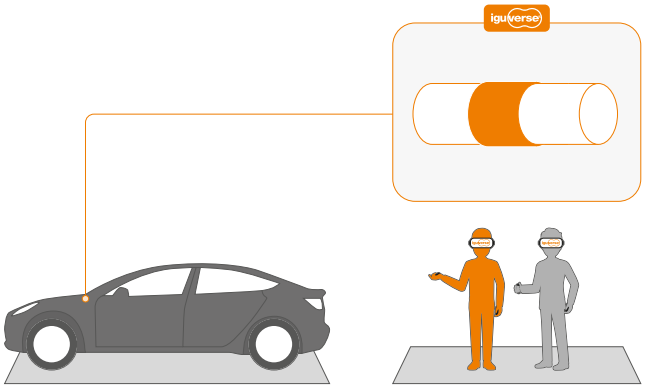


3. Develop products collaboratively

▲
- Improve product quality
- Accelerate product development
- Improve innovation
- Enhance flexibility
- Improve risk management

●
- Use resources more effectively

#metaverse #new_work
#collaborative_engineering
#virtual_commissioning

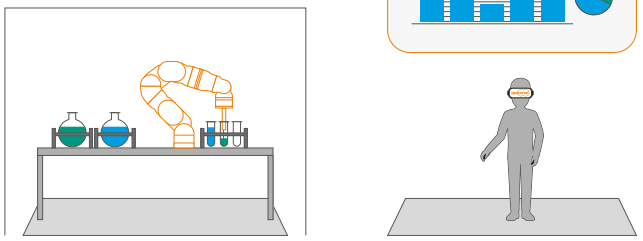


4. Training, remote maintenance and virtual commissioning

▲
- Time and cost savings
- Increase availability
- Increased safety

●
- Improve resource use
- Reduce environmental impact

#metaverse #new_work
#collaborative_engineering
#virtual_commissioning



Find these and other examples online at www.igus.eu/iguverse or contact us.

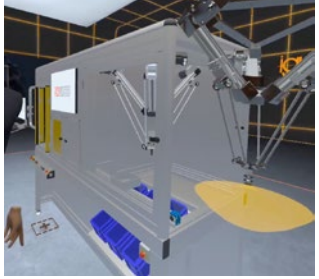
Collaborative engineering
Practical experience

Our customer, SK Laser, is already in the iguverse®

igus® has opened the iguverse®, an XR collaboration platform for customers, to promote top engineering development with more sustainability and much shorter development cycles. Smaller companies can use virtual reality without having to invest in their own infrastructure development work. This enables them to keep in touch with the future of engineering. In the iguverse®, companies can work together in virtual reality, share resources and information, and learn from each other, regardless of geographic location. igus® is available as a development partner and can in the future provide digital twins of all products in the iguverse®, which users can install directly in the virtual engineering environment. The iguverse® could also become a new way of presenting and selling products and services. For companies that want to experiment with virtual reality in the future, **igus® is currently looking for beta testers** for a low fee.

Companies can use the platform to cut costs for a VR infrastructure in the future and increase customer utility with more effective collaboration and faster development cycles.

#metaverse #newwork
#collaborative_engineering
#virtual_commissioning



Installation test: igus® delta robot in a virtual SK laser machine

Faster and smoother than is possible in the physical world alone.

"We spent about an hour in the igus® parallel universe, walked through cars with built-in energy chains and saw an energy chain in action on a virtual drilling platform. With our virtual hands, we were able to make the products larger and smaller and examine them in detail. igus® is taking the first steps towards the metaverse in mechanical and plant engineering, and this has great potential for product presentations."

Dina Reit
CEO of SK LASER,
Family Entrepreneur of the Year for 2022

Your machine in the virtual world.

Developing together virtually.
Virtual customers presentations.
Virtual trainings

The first customers are already in the iguverse®. Become a beta customer, too. Find more details at our stand or online:

www.igus.eu/iguverse

Revolutionary AI product search

igus go

#revolutionary

@productseekers
@optimisers
@explorers
@technologyimprovers

Design lubrication-free applications in seconds

Discover the optimisation potential of thousands of objects in just a few seconds?

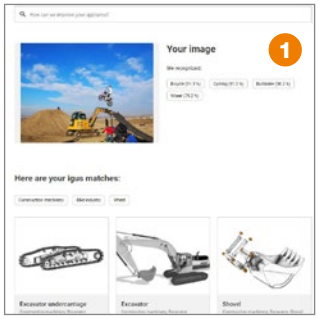
Experience a revolutionary way of searching for products with igusGO - our cloud platform with artificial intelligence.

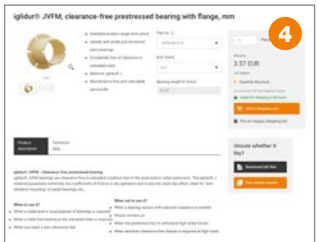
Simply take a picture of the existing application, including its surroundings, and the igusGO intelligence will show you which igus® products can help you to design your application without lubrication. The app also shows where there is more potential to improve your machine's technology and even reduce costs at the same time. You will find out more about applications that have already been optimised on comparable machines and components and be taken directly to the shop, where you can view more information and order or submit queries directly.

#artificial_intelligence #lubrication-free_application #technology_optimisation #best_practices #comparable_machines #direct_order

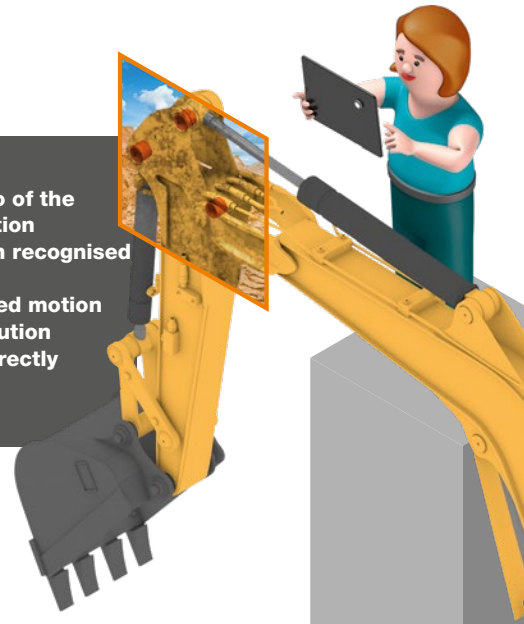
"As a designer at an agricultural machinery manufacturer, I used the artificial intelligence in the igusGO cloud platform to make my machine maintenance-free. I wanted to improve the kinematics on a mowing tractor's axle adjustment mechanism. I photographed the product with my smartphone and uploaded the picture to igusGO. The AI suggested a lubrication-free bearing point to improve my machine and reduce my costs. The app gave me access to applications that had already been implemented, and I could use it to learn and apply best practices. igusGO enabled me to quickly and easily optimise my product and reduce costs without time-consuming research and consulting."

We are starting a beta development program and are actively looking for partners to test our technology with.
Become a beta tester by registering now: www.igus.eu/igusgo





1. **Take a photo of the real application**
2. **Choose from recognised suggestions**
3. **See a detailed motion plastics® solution**
4. **Buy parts directly in the shop**



- Reduce maintenance for machines and systems
- Discover potential for improvement within seconds
- Use AI in product development and optimisation

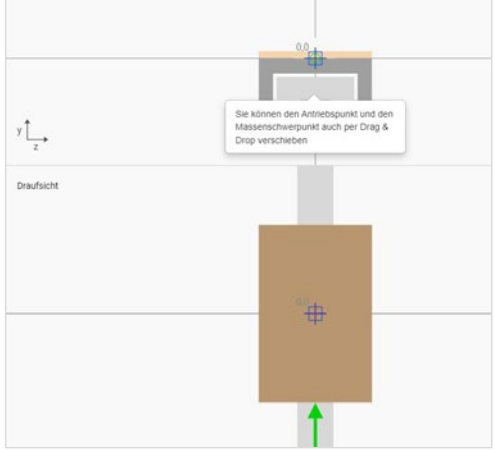
- Save time, since there is no consulting or searching for the right solution for the movement
- Discover cost reduction potential within seconds
- Access the shop directly to obtain more information or order directly

- Helps to make machines and systems lubrication-free
- Lubrication-free solutions to replace lubricated drive units

Service platform

kopla.io

make your products a digital experience



Quickly and easily build your own online configurator

Configure, design, simulate - offer the right product quickly and easily with digital sales tools

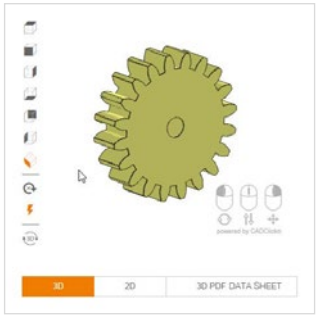
With our full-managed service platform kopla, we provide you your own configuration solutions according to your specifications - quickly and inexpensively. The solution is aimed specifically at medium-sized companies and corporations that operate internationally and want to market their products online. The modular principle and a fully managed service cloud solution, the time-to-market is reduced. The target group is companies that want to position themselves in a customer-oriented way in the digital age. With years of experience, we offer a comprehensive solution to make products presentable online and increase market opportunities. Contact us today to explore your digital options.

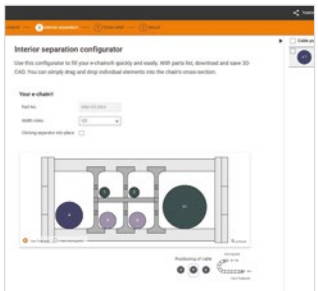
#online_tools #efficiency #cad_models

"As the CEO of a medium-sized manufacturing company, I look for ways to better explain my products online and present them in international markets. The kopla service platform gives me just that - it enables me to create and share design and calculation tools. The modular principle and a full-managed-service cloud solution reduces my time to market and lets me concentrate on my core business. kopla has incorporated many years of experience in various product categories, so I can be confident that it is intimately familiar with the required data and best possible uses. As a CEO who is willing to try new things, I want to position my company successfully in the digital age and increase my market opportunities."

Image recognition with 3D technology - rooniq

Send us your query here:
www.igus.eu/kopla





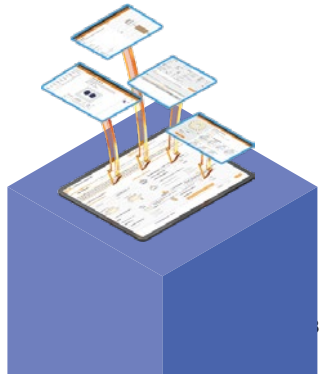
#fullservice

@CEO
@marketingmanagers
@salesmanagers
@itmanagers
@costreducers
@midsizedcompanies
@SME

- Modern technology stack based on AWS services, Angular and AI algorithms, image recognition with 3D technology - investment protection
- Experience products digitally - make sales process more efficient through automation, increase the offers quality and become faster
- For your end customers: configure, calculate, simulate - find the right product at any time and order it at the best price
- Offline variant - configurators can be used anywhere at any time

- Fully managed service platform - develop custom configurators quickly and inexpensively

- Platform concept uses synergies and saves resources



AI spare parts service

iDentify

Minimise downtime

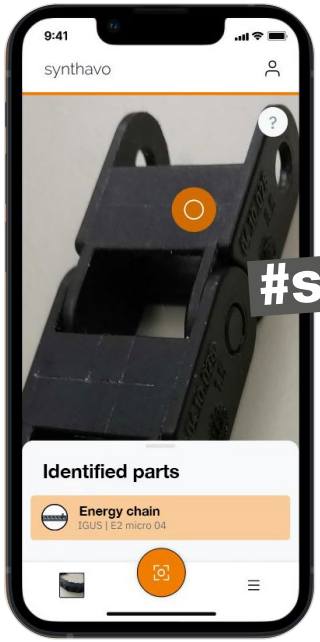
Quick procurement of spare parts with AI

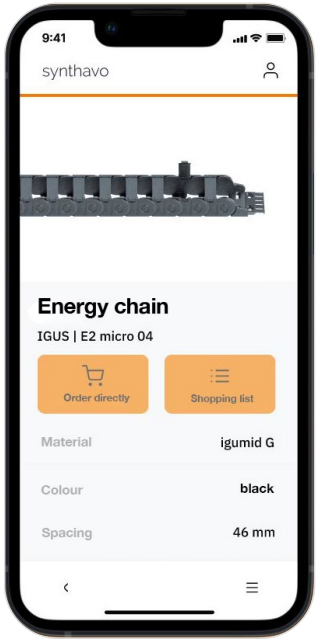
In spare part procurement, every minute counts. The easiest way to procure the parts is to take a picture of your application with a smartphone or tablet. Our artificial intelligence in the cloud does the rest. It analyses the photo and searches for the exact part you are looking for among hundreds of thousands of igus® products. You can then order that part immediately with the cloud service. This greatly reduces machine and system downtime. The new cloud service can be operated intuitively - even by non-technicians. Try it, send a photo, and see how the AI-supported spare parts procurement of tomorrow works today.

#spare_part_procurement #artificial_intelligence #downtime_reduction #speed #maintenance

"As an employee in a production company, I know that production line downtime due to a lack of spare parts can cause high costs. But the igus® solution provides a quick remedy: just send a picture of the required component to igus® with your smartphone or tablet. Our AI will identify the part accurately. The order service can then be set in motion to reduce downtime and the associated costs. Tedious searching through documentation and product catalogues is now a thing of the past. Try it out or share this tip with your colleagues in maintenance!"

Test directly:
www.igus.eu/identify





#spare_part_procurement

@maintainer
@installer
@maintenanceengineer
@costreducers

▲
- Avoid mistakes by having AI support part selection
- Consistent online selection, configuration, optimisation and ordering process
- Quick and easy spare part procurement with a photograph of the application

▼
- Minimises downtimes and associated losses
- Spare parts procurement that saves time and reduces costs
- Intuitive operation for even non-technicians

●
- Minimises rejects or waste with the precise spare parts procurement
- Uses resources efficiently by quickly restarting machines and systems

Augmented Reality

@designengineers
@developers
@optimisers

#digital_twin

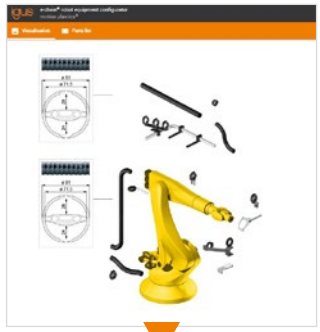
Quicker design process

Augmented reality for maximum transparency and system security

Imagine: You are examining your design not just on a screen, but the virtual model in the reality. You can really do it with the AR feature that igus® will integrate into the online tool platform. This is how it works: You configure the product, design and test the AR model. The result is more transparency and planning security and a faster design process. You can use your smartphone, tablet, or data glasses to view virtual models in the reality. And you can design different models for maximum ease of viewing. Benefit from fast, cost-effective feasibility studies and check product integration in advance. In this way, you save time and costs and recognise possible errors even before a prototype is created - on the virtually projected model of the digital twin.

#ar #3d_models #security #feasibility_studies #product_integration

Ron, a senior engineer at a mechanical engineering company, is currently planning a larger facility. In order to ensure that the robot fits into the production environment and that suboptimal design details are detected and corrected at an early stage, he is testing the igus® augmented reality software for the first time. He looks at the true-to-scale 3D system models in the iguverse® on his tablet and projects them into the real environment as a virtual model. In some cases, feasibility studies help him to find the best detailed solution. Ron is enthusiastic and sees igus® inside as a glimpse into the future of system planning, where he can save time and money.



Find out more:
www.igus.eu/AR

Scan the QR code now and load the 3D model

- Assess the design in virtual reality and check it as a virtual model in reality
- Maximum transparency and security
- Quicker design process
- Check product integration in advance
- Cost-effective, time-saving gateway to the world of Industry 4.0

- Faster and more cost-effective feasibility studies
- Detect possible errors before a prototype is created
- Identify potential errors at an early stage to save rework costs during development
- Fast and more cost-effective feasibility studies instead of complicate, time-consuming CAD visualisation

- Fewer physical prototypes needed, so less waste and emissions

igus enjoyneering

Industrial 3D printing service

speediPrint

– motion on demand –

Solution for individual application on a single page

The most cost-effective solution from all motion plastics® materials & igus® manufacturing processes

Get to your individual component at rocket speed: That is the basic concept of the igus motion on demand service. Just upload the 3D model, and manufacturability is checked automatically, prices and delivery times are calculated, and the component can be ordered directly online. You can also calculate the expected service life of the component in your individual application. As an alternative to the CAD upload, select a plain bearing geometry, enter individual dimensions and quantity, and directly compare prices, delivery times, and tolerances of suitable plain bearing solutions - on just one page, for all manufacturing processes offered by igus® and all suitable motion plastics® materials. After selecting your solution, download the STEP model or technical drawing and order directly online.

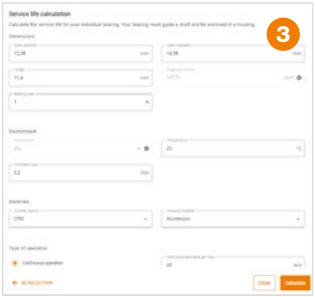
#speed #quality #reliability

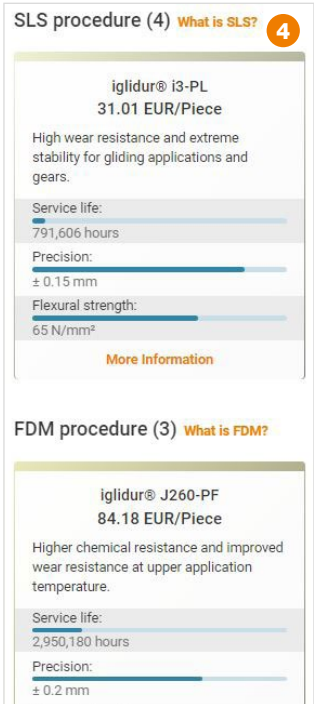
Jakob, head of maintenance at a production company, is faced with a challenge: an important machine has broken down and the spare part cannot be delivered immediately. Fortunately, he remembers the igus® production service and uploads the CAD model of the component to the online tool. Within seconds, he receives a service life forecast and a quote and can place the order. Since he needs only one, the 3D printing service is the perfect solution. Jakob even receives optimisation tips from igus® and implements them. The next day, the 3D-printed component is on site and can be installed. Jakob is enthusiastic about the speed and simplicity of the 3D printing service and knows that he can continue to rely on igus® to get him spare parts quickly.

1. Upload the CAD
2. Select sliding surface
3. Calculate the service life
4. Select manufacturing process with price

... unleash your engineering power with play

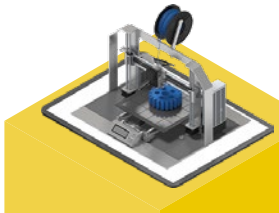
Try it now:
www.igus.eu/mod





#prototyping

@spareparts
@workingsamples
@prototypes
@smallseries
@specialparts



- Automatic manufacturability analysis
- Expected component service life calculation
- Technical solution optimisation for your individual application

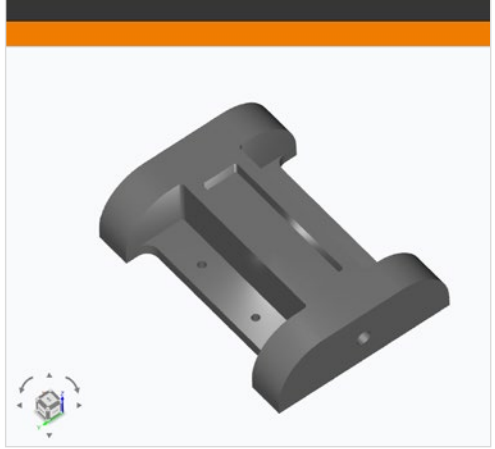
- Comparison of prices and delivery times for all manufacturing processes offered by igus® and suitable motion plastics® materials on one page
- Individual dimensions and quantities
- Simply find the most cost-effective solution that works

- Use the full expected service life of the component instead of replacing it prematurely
- Ordering spare parts and working samples quickly and easily extends machine service life

CNC service

speediCut

– motion on demand –



Price information and feasability analyse in one tool

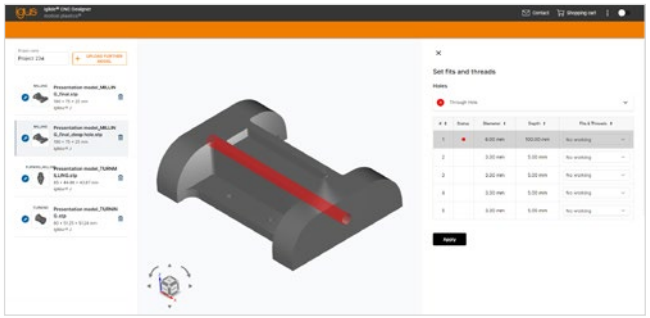
Request or order machined parts made of iglidur® conveniently and quickly online

Request or order machined parts made of iglidur® easily and quickly online! With our CNC service 2.0 simply upload a 3D model and you will receive transparent price information and an manufacturing feasibility analysis. The tool provides visual feedback and reviews the 3D model geometry. The price calculation is updated in a matter of seconds depending on the selected components. In the case of high complexity or feasibility problems, the tool provides feedback. The service life prediction will be available soon. With the express option, receive your CNC components made of iglidur® in 3 to 4 days.

#price_calculation #feasibility_analyse #3dmodel #servicelife_prediction

"As a designer, I often need CNC turned and machined components made of iglidur® materials from igus®, manufactured according to my design specifications. In time-critical situations, it is very helpful to receive a price information quickly and easily. With the CNC Service 2.0, I can upload my 3D model and immediately receive a transparent price calculation, including an automatic manufacturing feasibility analysis. The tool gives me visual feedback when production-critical points have been found on the model and automatically checks technical drawings for tolerances and other information. This gives me the basis for a reliable price calculation, which is updated in a matter of seconds depending on the material, tolerance, quantity and delivery time selected. If I'm in a hurry, as in the case mentioned above, I can also choose the express option and my CNC components are ready-to-ship in just 3 to 4 days."

Configurate now:
www.igus.eu/speedicut



@spareparts
@workingsamples
@prototypes
@smallseries
@specialparts

▲
- Transparent instant calculation
- Thorough analysis of machined parts
- Automated feasibility check (based on 3D model)
- Automated tolerance check (based on technical drawing)
- Coming soon: integrated service life prediction
- Variety of iglidur® materials for CNC components in every application

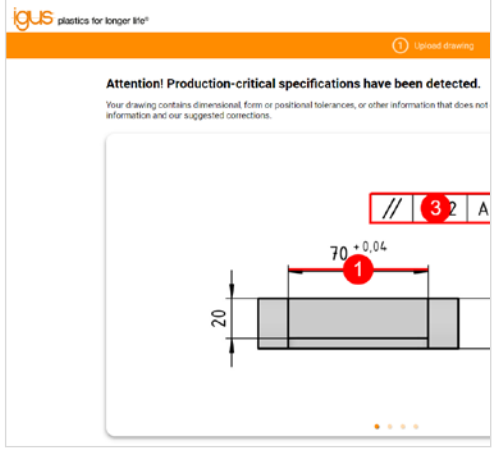
▼
- Feedback regarding price and technology for fast decision-making
- Improved design for easier operation
- Quotes or orders without stress
- Express delivery service for urgent matters

●
- iglidur® parts are lubrication and maintenance-free

Review of technical drawings

Tolerance check

– motion on demand –



Testing for the suitability of machining plastics

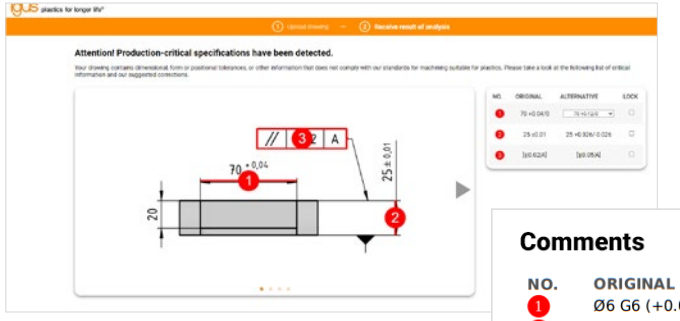
Revolutionary recognition of 2D drawings with tolerance recommendations

You have finished designing a machined component, but are not sure whether the tolerances and surface specifications you have provided are suitable for plastics? In comparison to the tolerance of metal components, there are often uncertainties as to how to correctly design plastic components. All you have to do is upload a technical drawing of your component as a PDF or image file. The tool checks all the information in the drawing with regard to our plastic manufacturing standards. In just a few seconds, non-feasible dimensional, shape and position tolerances as well as surface specifications are visually marked on your drawing and correction suggestions are displayed. You can select the alternatives that suit you and even download a corrected version of your original drawing as a PDF file. Technical feedback - automated, fast and easy.

#correction_suggestion #in_seconds

"As a designer of turned and machined components, I often have uncertainties about the tolerances and surface design of my machined parts made of iglidur®. With igus® online tolerance check tool, I can now upload my technical drawing as a PDF or image file and have all the information checked with regard to plastic-specific manufacturing standards in just a few seconds. The tool visually marks unfeasible dimensional, shape and position tolerances as well as surface specifications and shows me correction suggestions. I can select the alternatives that suit me and even download a corrected version of my original drawing as a PDF file. This is how I get automated technical feedback, quickly and easily - without any uncertainties when manufacturing my components."

Test quickly:
www.igus.eu/tolerance-check

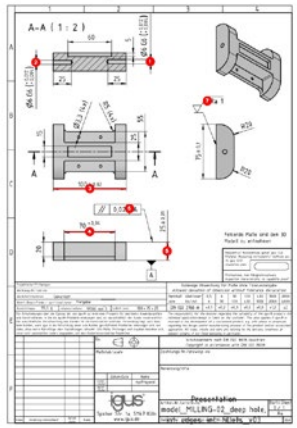


@spareparts
@workingsamples
@prototypes
@smallseries
@specialparts

Comments

NO.	ORIGINAL	ALTERNATIVE
1	Ø6 G6 (+0.01/+0.00	Ø6 G9 (+0.032/+0.002)
2	Ø6 G6 (+0.01/+0.00	Ø6 G9 (+0.032/+0.002)
3	100 ±0.02	100 +0.07/-0.07
4	70 +0.04/0	70 +0.12/0
5	25 ±0.01	25 +0.026/-0.026
6	[⫽|0.02|A]	[⫽|0.05|A]
7	√URa(DIN) 1	Ra 2-3 µm

Igus feasibility check



▲
- Checking dimensional, form and position tolerances online
- Designing to suit plastics

▼
- Avoid coordination effort
- Avoid complaints

●
- iglidur® parts are lubrication and maintenance-free

igus enjoyneering

igus® marketplace and services for Low Cost Robotix

RBTX low cost robotix

#automate

@midsizedcompanies
@SME

RBTX marketplace, RBTXpert, RBTXperience

RBTX: Your marketplace for Low Cost Robotix

Components from leading brands | Return on investment of 3-12 months | Automate without knowledge of robotics

RBTX is a marketplace that brings together users and suppliers of affordable Low Cost Robotics components. Our simple tools and reliable services save you time and money by finding robotics solutions that suit your budget and applications. Compatibility guaranteed.

RBTX is a registered trademark of igus® GmbH. igus® is a leading manufacturer of energy chain systems and polymer plain bearings. The company is headquartered in Cologne, Germany.

#low_cost #automation

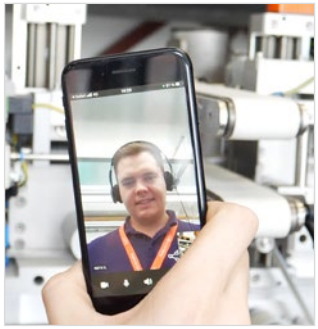
"As a user of robotics solutions, I look for easy ways to find cost-effective yet reliable robotic components that meet my requirements. On the RBTX platform, I want to be able to search for suitable robotics solutions that fit my budget and applications. The platform should be easy to use and allow me to apply filters to refine my search. I want to be sure that the components I choose are mutually compatible and that I can save time and money by using reliable RBTX services and tools. If I have questions or need help, I want to be able to contact the RBTX team directly and get support."

... unleash your engineering power with play

Discover now:
www.rbtx.com/en

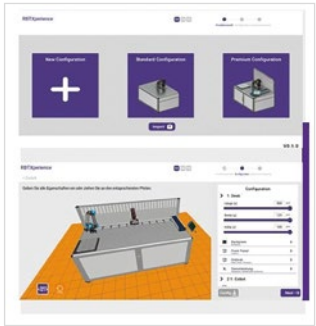
RBTX marketplace - The marketplace for Low Cost Robotics

- Growing low-cost product portfolio
- Focus on the low-cost price segment, over 350 application examples with 98% of them under €12,000
- Over 2,000 advisory customer projects and free feasibility studies in our 22 customer testing areas worldwide
- Durable industrial products from leading manufacturers, more than 100 partners



RBTXpert - free online consultation for your application

- Easily automate your manual processes
- Free consultation from our RBTXperts
- Over 2,000 advisory projects
- Automation with little effort



RBTXperience - individual cobot solution for your application

- Components and dimensions tailored to your needs.
- Save time with customised kits or by using a design from the community
- Tested for compatibility
- Can be expanded at will

Platform
Chainge

Recycling made easy

Marketplace for recycled technical plastics

What happens to our products at the end of their life cycle? This question has stayed with us and it gave us the idea for our Chainge program. We want to provide our customers an easy way to recycle industrial plastics. If you too would like to contribute to the material flow and the circular economy, simply submit an inquiry for your recyclable plastic. In our Chainge marketplace (chainge.igus.eu/marketplace), you can find the recycled material that suits you. We offer recyclates, regranulates, and regrinds that enable you to create new products according to your needs.

#sustainability #recycling

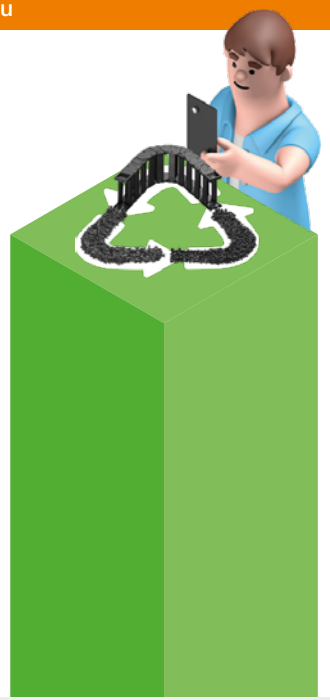
"During new product development, sustainability is very high on my list of requirements. I was able to search for recycled material on the chainge.igus.eu/marketplace website and found the material that best suited my needs. I want to have recyclates, regranulates and regrinds available to create new products that meet the needs of my industry. I also want to make sure that the materials I use come from trusted, sustainable sources that respect the environment. If I have questions or need other information, I want to be able to contact the Chainge team directly to ask for help."

Three steps to Circular economy:

1. **Enter material information**
2. **Enter contact details**
3. **Submit inquiry and start recycling**

igus® has received 75,000kg of material since 2019

Join now:
chainge.igus.eu



Our raw materials are too valuable to be incinerated. We must take a different path, away from a linear economy and towards a circular one. igus® therefore supports innovative recycling. Many industrial components end up as waste at the end of their service life. Thus a linear economy wastes valuable resources. So we are doing our best to simplify industrial plastic component recycling. A current example is our Chainge recycling program: users simply send us their worn-out energy chains, regardless of manufacturer. We take care of sorting and recycling and thank participants with a voucher for a purchase from igus®. This benefits customers and the environment equally. igus® also invests in the HydroPRS recycling technology from Mura Technology Limited, which converts unsorted plastic back to oil in just 20 minutes using just water, high temperatures, and pressure.

Platform

igus:bike

Join now:
www.igus.bike

reddot award winner

GERMAN DESIGN AWARD WINNER 2023

GOOD DESIGN

New bikes for a new era

igus:bike platform for sustainable and urban mobility

#recycling

@bicycleindustry
@manufacturers
@distributors
@cyclists

"We want to use our platform to enable the bicycle industry to produce bikes made of plastic."

"The plastic in the garbage dumps of the world is becoming a valuable resource"

The igus:bike platform offers bicycle and component manufacturers the opportunity to work with us to advance modern mobility. One provider with which we work closely is mtrl, a Dutch company. As part of an investment by igus® that involves close partnership, we pool our experience and energy to demonstrate the endless possibilities of plastics in the bicycle industry and to realise new visions. Generation 4.0 of the bicycle gives mtrl the first bike presented on the igus:bike platform to set global standards. The igus:bike platform shows the current state of the art and helps bicycle and component manufacturers to network and exchange information - and move together towards future mobility.

#recycling #corrosion-resistant-bike

Irina is an engineer and a passionate environmentalist. As an enthusiastic cyclist, she is interested in the igus:bike platform, which enables bicycle and component manufacturers to work on the future of mobility. mtrl, a Dutch company, develops innovative plastic bicycles and works closely with igus® to research the capabilities of plastics in the bicycle industry. Together they presented Generation 4.0 of the mtrl bike on the igus:bike platform, which shows the current state of the art. The platform offers opportunities for networking and exchange among bicycle and component manufacturers. Cooperation among different component manufacturers can make innovative ideas and visions reality and bring new products to the market.

The igus:bike platform is a global contact point that gives companies an easy way to communicate and from which close cooperation can quickly develop. Manufacturers of bicycles and components network and benefit from previous experience and different strengths. The vision is shared expertise and greatly shortened innovation and development cycles for everyone.

igus enjoyneering

Online configurators

igus® online tools

simulate - configure - digital twin

Discover igus® online tools

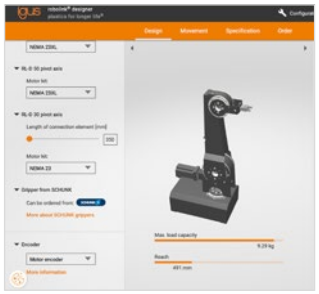
Reduce process costs and configure products more efficiently

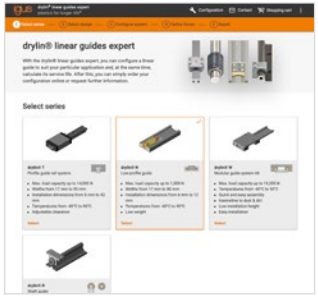
Experience the faster, more efficient way of configuring the product with the igus® online tools. Find the ideal tribo-component for your application and configure it to your requirements in seconds. At igus®, you can design and configure energy chains, cables, drive technology, low-cost robots, smart plastics and 3D printed components fully digitally online. Prices, delivery times and expected service life are calculated throughout and enable the ideal solution to be developed. Download data sheets, CAD models and technical drawing and order the configured product online.

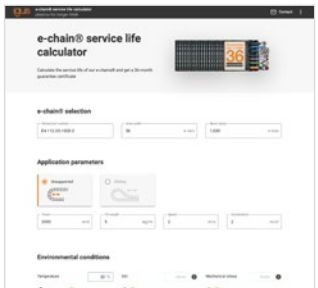
#product_configuration #individual_application #design_optimisation

"As a development engineer, I have to find and configure the right parts for my design every day. This used to cost me a lot of time, but since I discovered the online tools from igus® it's faster and the result is better. The tools are intuitive and for different product groups. In just a few steps, I can find the ideal product for my application. I can configure according to my individual requirements, can compare prices and delivery times and can order online immediately, even if it's just one part. And all within seconds. The service life calculation also allows me to make a good assessment of the durability. I can also download CAD models and technical drawings free of charge - I save time and costs."

- Configurators
- Simulators
- Service life calculator
- Product finder
- 3D CAD







... unleash your engineering power with play

Try it now:
www.igus.eu/tools

#enhanced_efficiency

@engineers
@designengineers

▲
- Consistent online product selection, configuration and ordering process
- Fast realisation of the idea to the ready, optimal product
- Service life simulation and calculation
- CAD data for integration into your own design

▼
- Service life calculation and simulation prevent expensive product failures
- Find the most cost-effective solution that works
- Wireless and intuitive operation for time-saving

●
- Entirely digital design and configuration reduce resource consumption
- Service life calculation and simulation prevent expensive product failures

#internetofthings

@industry4.0

Top engineering made smart

Record operating states, evaluate machine data, and extend product service life

$1,500,000,000,000 ... Yes, $1.5 trillion ... that's the cost of production losses industrial companies suffer each year according to a study by Senseye, an analysis software manufacturer from the UK. Companies have to work productively and cost-effectively and avoid failures. Automation and the Industrial Internet of Things (IIoT) are powerful aids. Our smart plastics are a cost-effective ticket to the world of Industry 4.0. Plain bearings, energy chains, and cables are equipped with monitoring sensors. They communicate wirelessly with IT modules and reveal their status in real time. This avoids expensive system failures (condition monitoring) and allows optimal maintenance planning (predictive maintenance). The goal is increased productivity, reduced costs, and enhanced competitiveness - in our own factory and for our customers.

#automation #reliability

"As a maintenance manager, it's my job to make sure my production line doesn't go down. That's why I use the Internet of Things (IoT): Networked machines and intelligent components with integrated sensors automatically collect data and communicate with each other. Combined with AI software, they can detect unexpected operating conditions and act before costly damage occurs by triggering an alarm or shutting down the system. They also calculate the component's remaining service life and tell me the best time to service them. I enjoy working with a partner like igus®, which has already implemented more than 2,500 such IIoT industrial maintenance applications and also demonstrates its IoT skills in its own factory."

Find you smart solution:
www.igus.eu/smartplastics

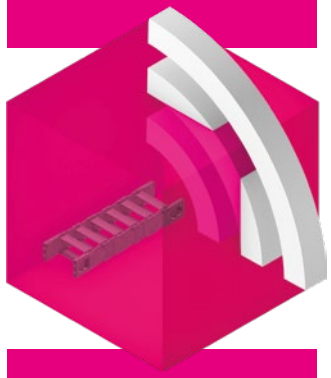
igus® smart service in three service packages

superwise i.Cee
... allows exact service life prediction
... guarantees optimised maintenance planning

superwise i.Sense
... displays the status in real time
... sensor-based display of the service life (dynamic)
... includes remote sensor setup

superwise Basic
... includes components overview
... saves installation history
... indicates the service life (statistic-based)
... includes next service reminder

"Avoid unplanned repair cost of €40,000[3] and even more for a replacement!"



"Predictive maintenance can reduce maintenance costs by up to 30% and machine downtime by up to 70%."[4]

▲
- Sensor integration into smart plastics components
- Service life transparency (condition monitoring)
- Predictive maintenance
- Real-time monitoring and early replacement increase productivity

▼
- Avoid system failures with optimised maintenance planning

●
- No premature replacement "to be on the safe side": use the full component service life without increasing the risk of failure

Source: 3) igus® - e.g. at a stacker reclaimer. igus® application at Tata Steel in Haldia, India with a travel of 480m and a chain length of 240m was able to avoid a replacement worth about €40,000 4) Elisabetta Castiglioni, A1 Digital - https://www.produktion.de/trends-innovationen/id-6-beispiele-wie-man-mit-industrie-4-0-geld-sparen-kann-295.html

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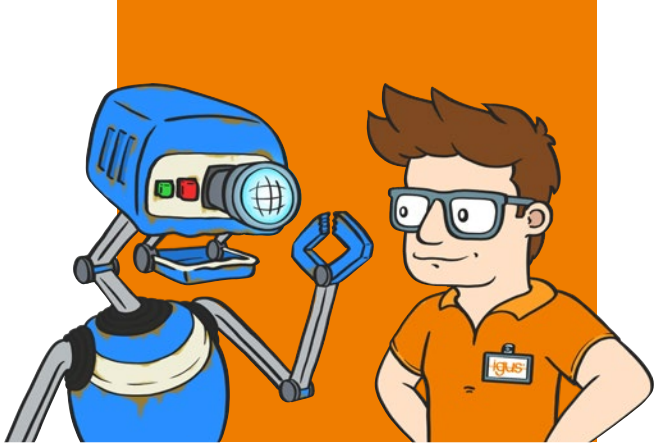
Idle-Game

igumania
improves what moves



... unleash your engineering power with play

Play here now!
www.igus.eu/igumania

#gaming

@gamers
@interestedusers

Experience the
motion plastics® game

Fight against maintenance and plant downtime and unlock new solutions

Immerse yourself in the world of igumania® and, as the production manager of a Mars Rover factory, combat unplanned maintenance and plant downtimes with your assistant, Rusty. A joint success story with motion plastics® begins with a visit from Dave, the technical consultant from igus®. The more problems you solve on the shop floor, the more lubrication-free motion plastics® solutions you can unlock in the igus® laboratory technology tree. Experience the IMPS (igus® motion plastics® show) in a playful way and learn more about our products. Achievements unlock more perks, helping you become the hero of your Mars Rover factory.

#computer_game #gaming #manufacturing
#production #maintenance #hero

Peter, the production manager at a Mars Rover factory, often struggles with unscheduled maintenance and plant downtime. Dave, the igus® sales consultant, visits him and shows him how motion plastics® can be used to minimise service and downtime for his systems. Peter then begins to tackle maintenance costs and unexpected machine breakdowns in the "motion plastics® game" and unlocks new solutions with each success to improve production processes, reduce downtime, and avoid using lubricants. He playfully learns more about igus® products in the IMPS (igus® motion plastics® show), and his achievements unlock more perks. Become a production hero with igus® motion plastics®.

igus.eu/enjoyneering

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