

HOW THE EXPANDED SOLIDWORKS PORTFOLIO, 3DEXPERIENCE WORKS, EMPOWERS THE NEXT GENERATION OF AI INNOVATIONS



**Gian Paolo
BASSI**

Senior Vice President
3DEXPERIENCE Works
Dassault Systèmes



**Rapolas
GRAZYS**

Founder & Designer
Lava Drops



**Carlos
REYES**

Entrepreneur |
Engineer & Content
Creator
Carlos 3D



**Dr. Florian
SCHÜSSLER**

Head of Product
Development
AIRSKIN / Blue Danube
Robotics GmbH



**Andreas
SPENNINGER**

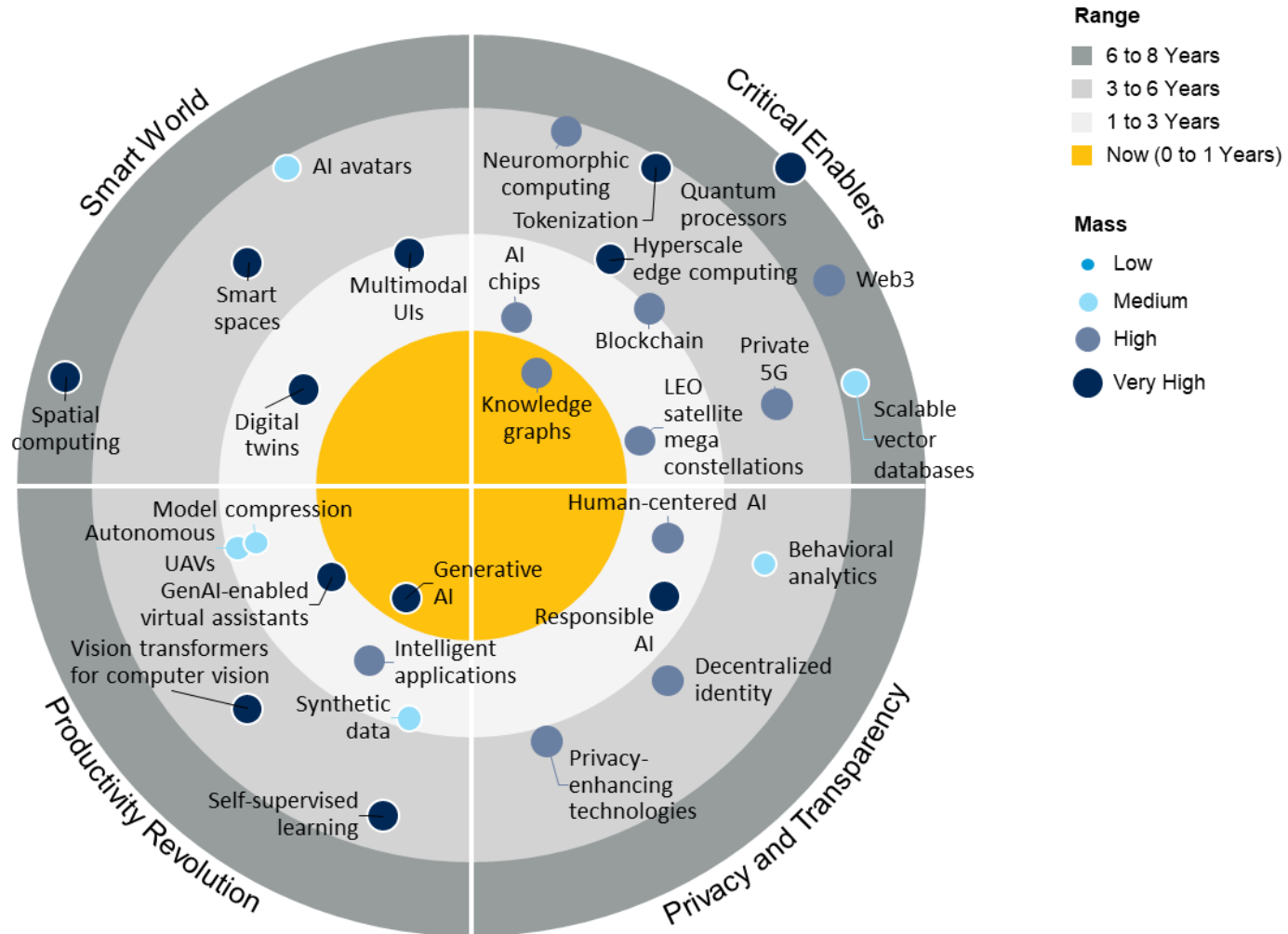
Head of Industrialization
& Safety Manager
Agile Robots SE



**Andreas
ZURWEHME**

CEO
eROCKIT AG

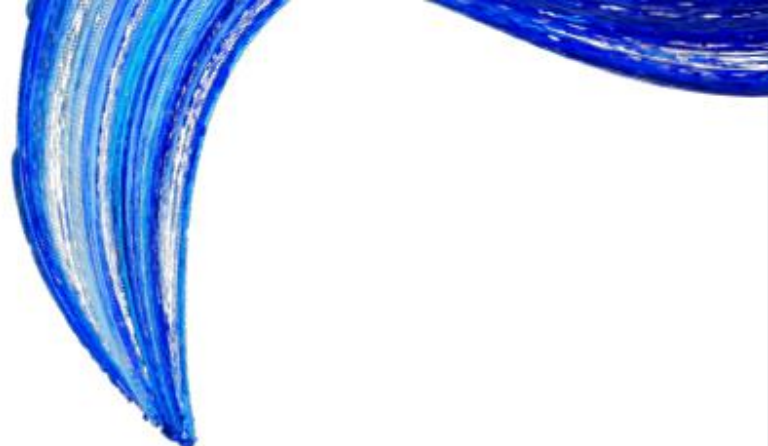
Impact Radar for 2024



Source: Gartner (January 2024)
791104

McKinsey
& Company

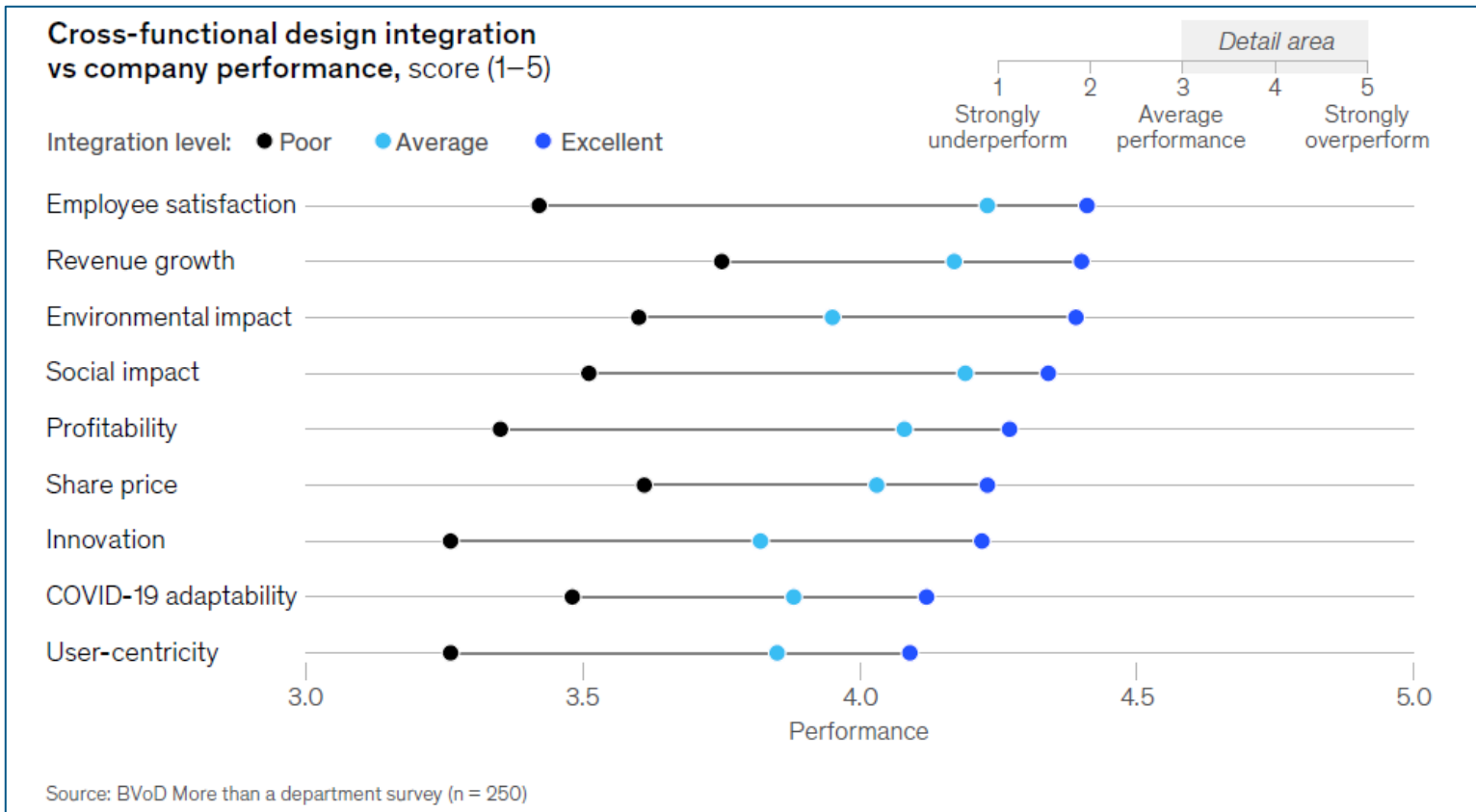
Redesigning the design department



The best corporate
design departments
are transforming from
fortified castles into
vibrant town squares.

by David Cooney,
Asuka Kondo,
Garen Kouyoumjian,
and Benedict Sheppard

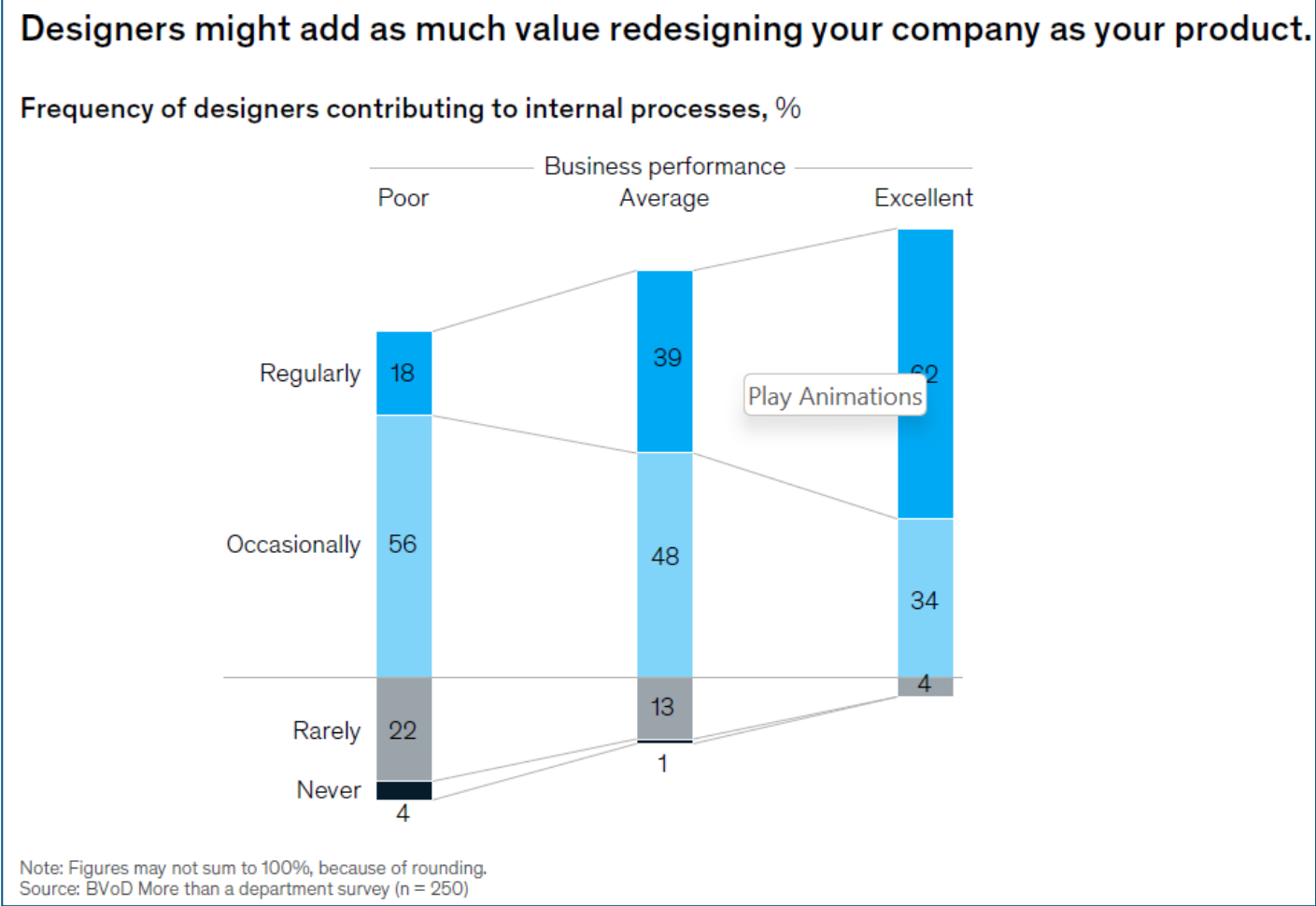
MORE COLLABORATIVE CREATIVE TEAMS DRIVE HIGHER BUSINESS PERFORMANCE



Source: "Redesigning the design department"
McKinsey April 2022

‘We used to tell the designers what to do, now they’re showing us what is possible—and it’s so much better.’

Redesigning the design department



THE EMERGENCE OF INDUSTRY 5.0

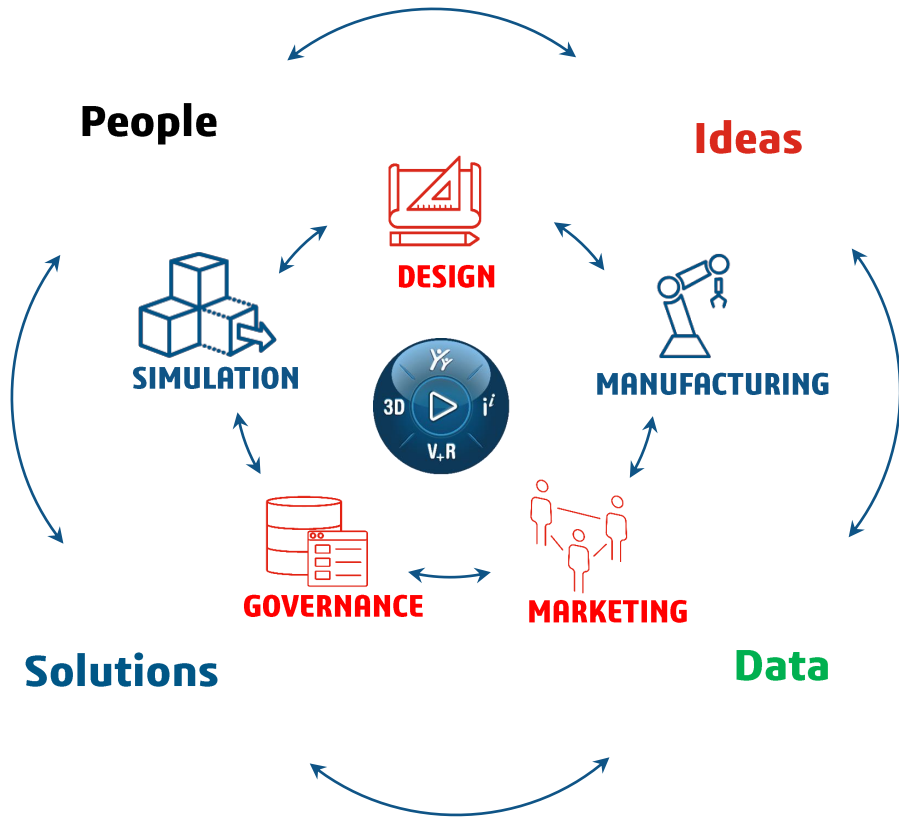


Source: European Commission: Directorate-General for Research and Innovation, Breque, M., De Nul, L. and Petridis, A., Industry 5.0 – Towards a sustainable, human-centric and resilient European industry, Publications Office of the European Union, 2021, <https://data.europa.eu/doi/10.2777/308407>

Value is created by connecting *People, Ideas, Data and Solutions*



3DEXPERIENCE WORKS



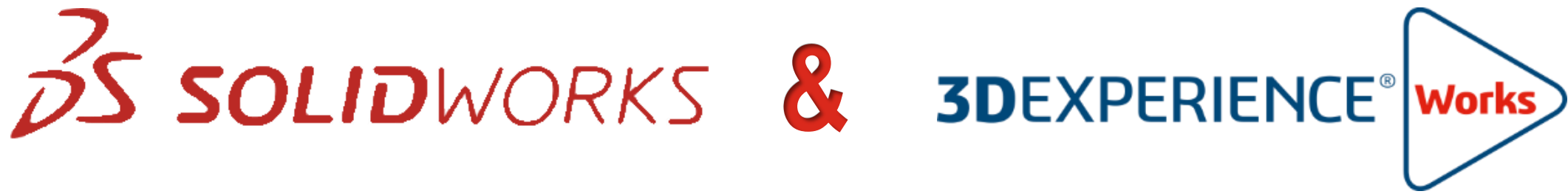
People, Ideas, Data and Solutions on the **same Cloud Platform**, always available, safe and up to date



Virtualize all your assets, IP and processes for AI-powered innovation

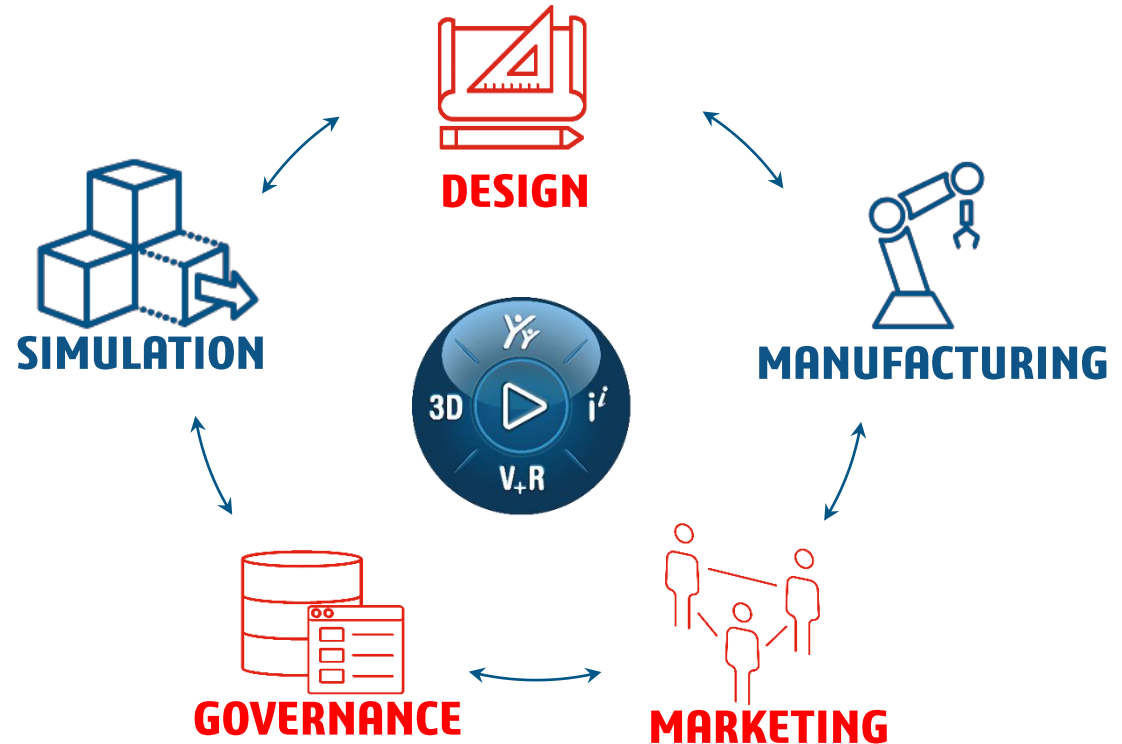


Designed to Empower **SOLIDWORKS**



Expanding the **Most Successful Design ecosystem** in the World
To the **Most Powerful Innovation Platform** in the World

- One Platform
- One Data Model
- All Brands
- Five Domains
- Any Time, Anywhere on Any Device



END TO END PRODUCT DEVELOPMENT

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DESIGN / ENGINEERING



SIMULATION



**MANUFACTURING /
PRODUCTION**



MARKETING / SALES

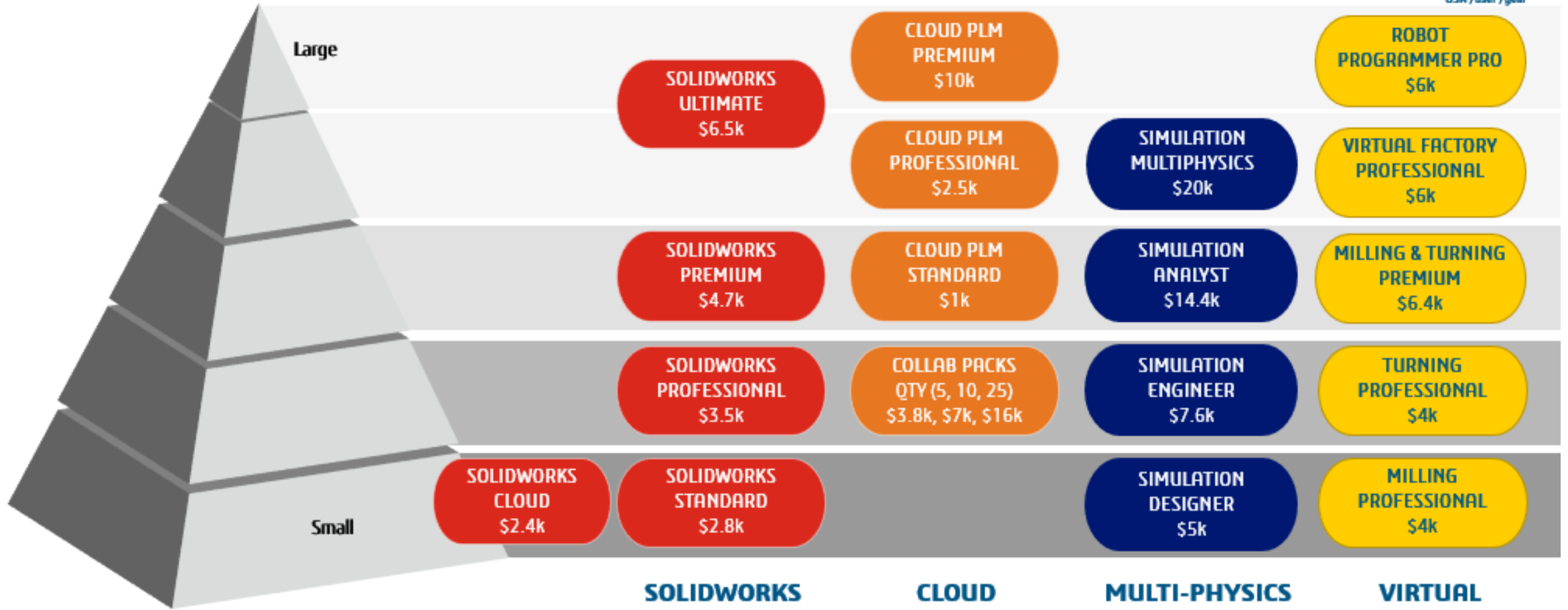


GOVERNANCE



VALUE OFFERS

USA /user /year



SOLIDWORKS

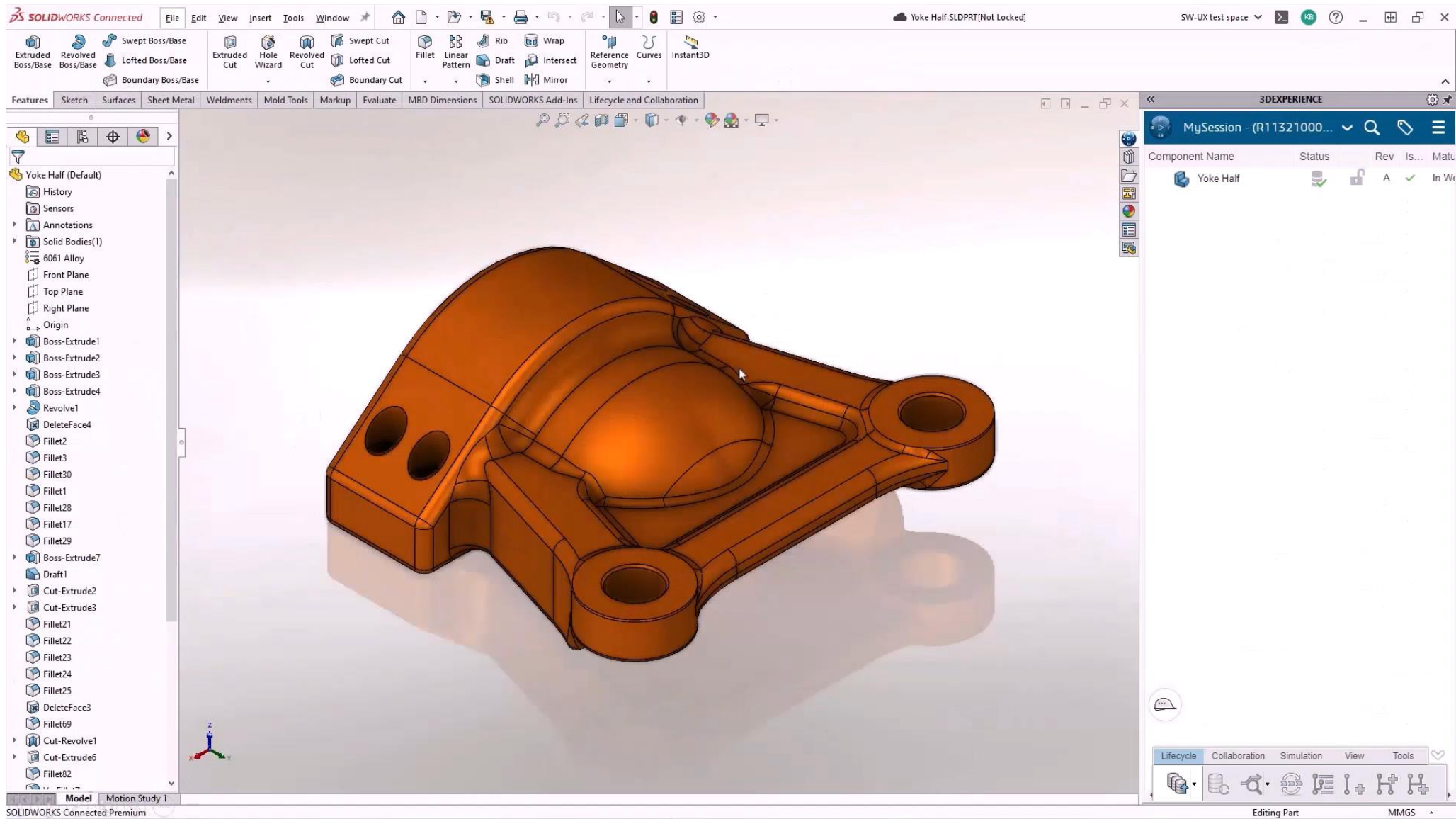
3DEXPERIENCE SOLIDWORKS
SOLIDWORKS with Cloud Services

CLOUD PLM

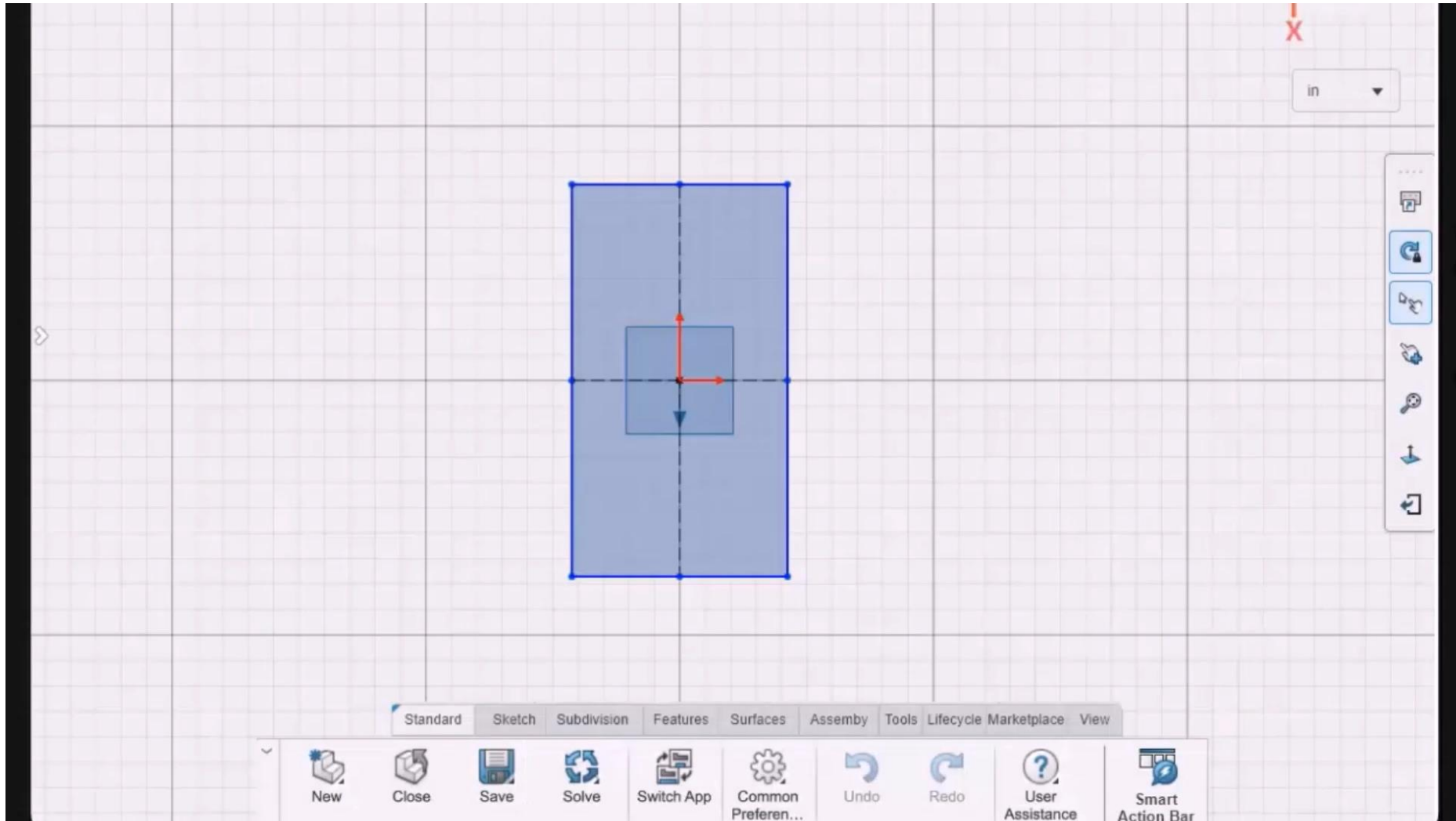
MULTI-PHYSICS SIMULATION

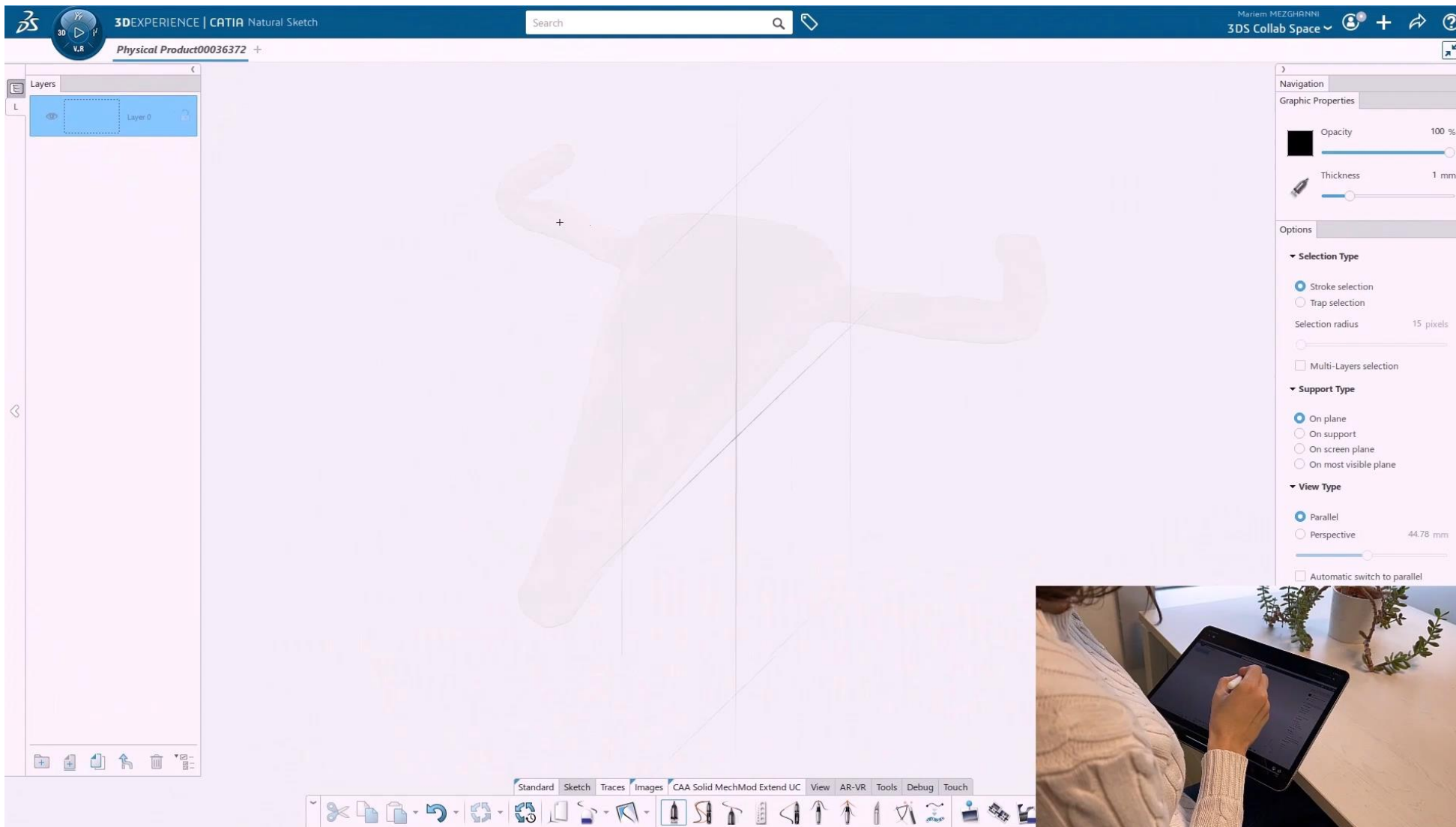
VIRTUAL FACTORY

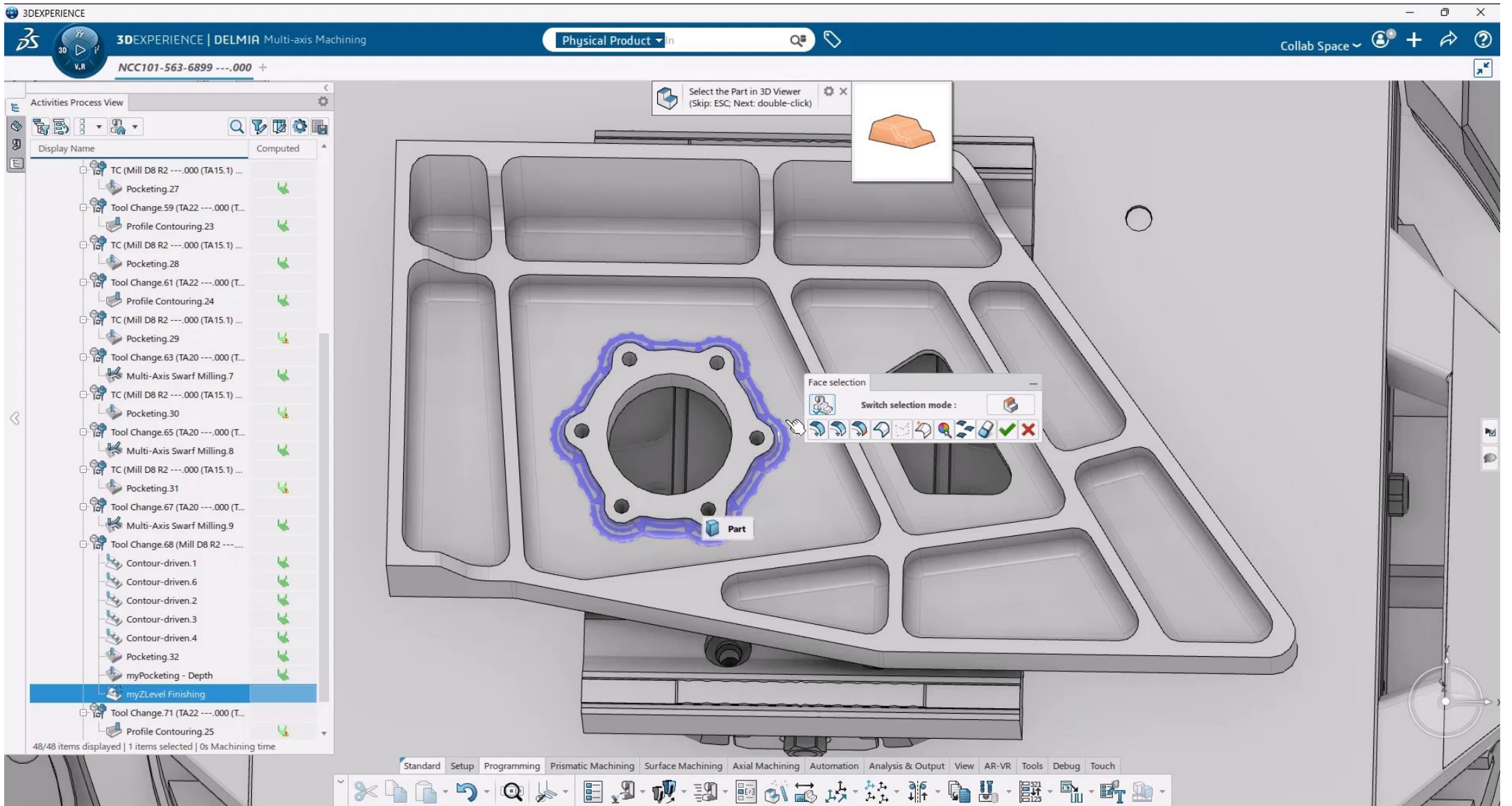


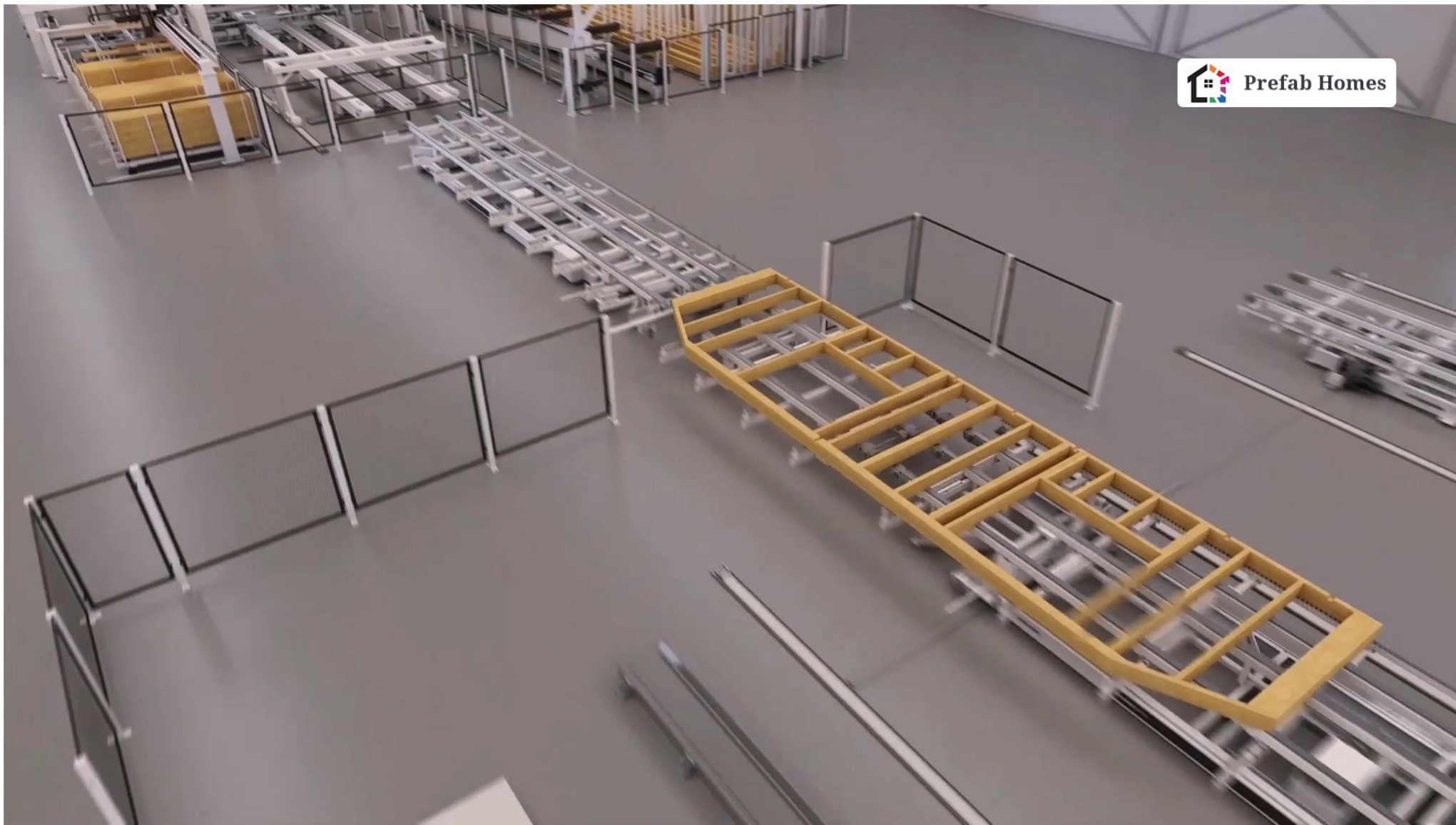












 Prefab Homes

CONTINUING STRONG MARKET DYNAMICS

“Looking toward 2028, CIMdata forecasts the PLM market to grow at a compound annual growth rate (CAGR) of 10% to \$107.2 billion.” *

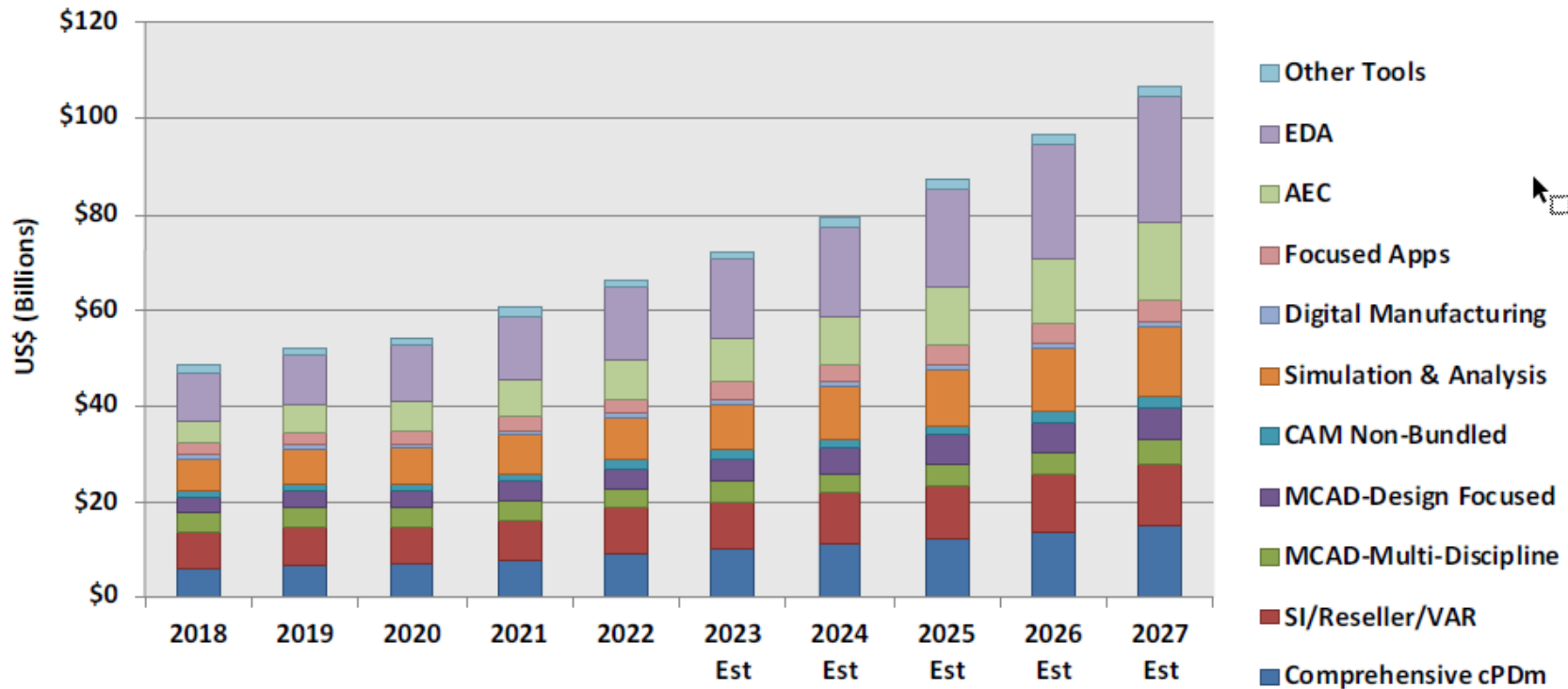


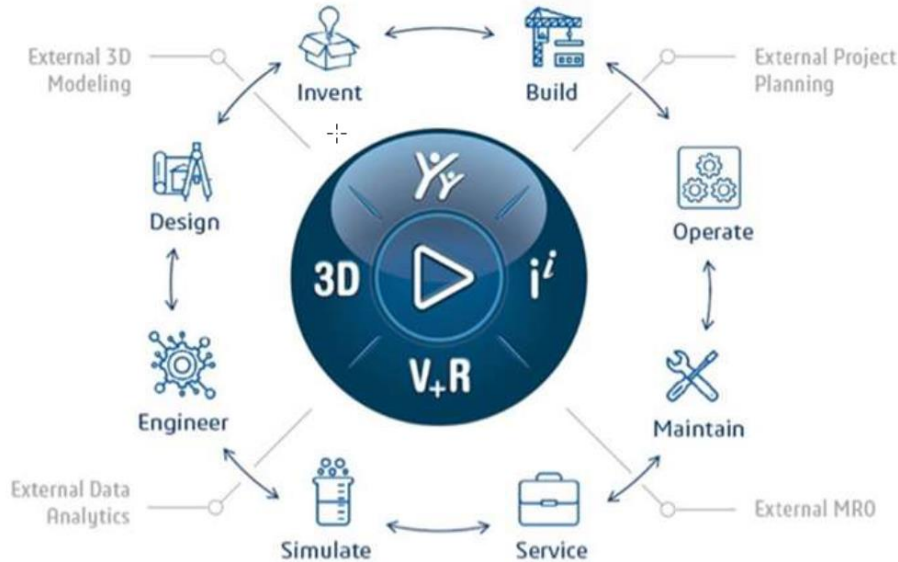
Figure 6: PLM Market History and Forecast

STRONG VALUE PROPOSITION

Dassault Systèmes Is Well Positioned

CIMdata

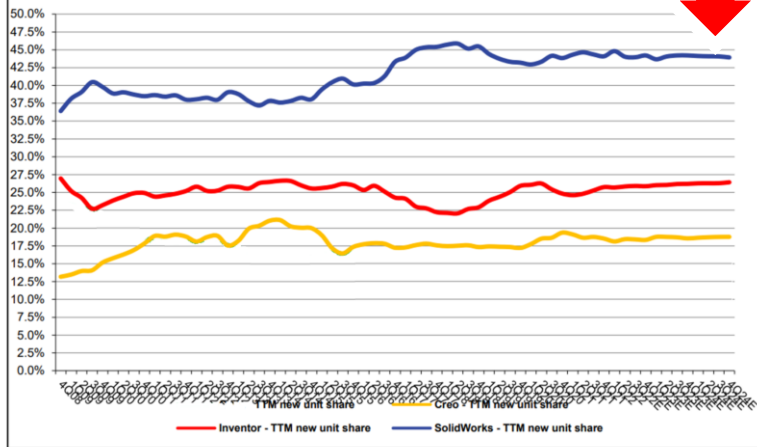
3DEXPERIENCE Works is engineered to connect people, ideas, data, and solutions



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Copyright © 2024

Chart 2. CAD, TTM new unit share, by brand, 2008-2024E



Source: Company data, Griffin Securities



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This is Agile Robots

Committed to connecting artificial intelligence and robotics technologies, Agile Robots was founded in 2018 to push the boundaries of robotics and automation.

eROCKIT®

Get on and ride!



AIRSKIN empowers a new era of human-machine interaction to unleash the full power of industrial automation.



Lava
DROPS



Carlos 3D

Content Creator

@carlos3dprint

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DREAM
+
REAL

www.carlos3dprint.com



CONTENT



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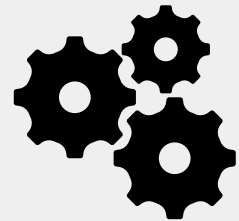
07

THANK YOU !

ABOUT ME



Born in Mexico, I moved to France in 2017.
I have an **Engineering** degree in **Electromechanics**
and a specialization in Productivity.



Solidworks user since 2009 (CSWP) & **Content Creator** since 2020



Today, I return to the real reason why I
studied engineering...

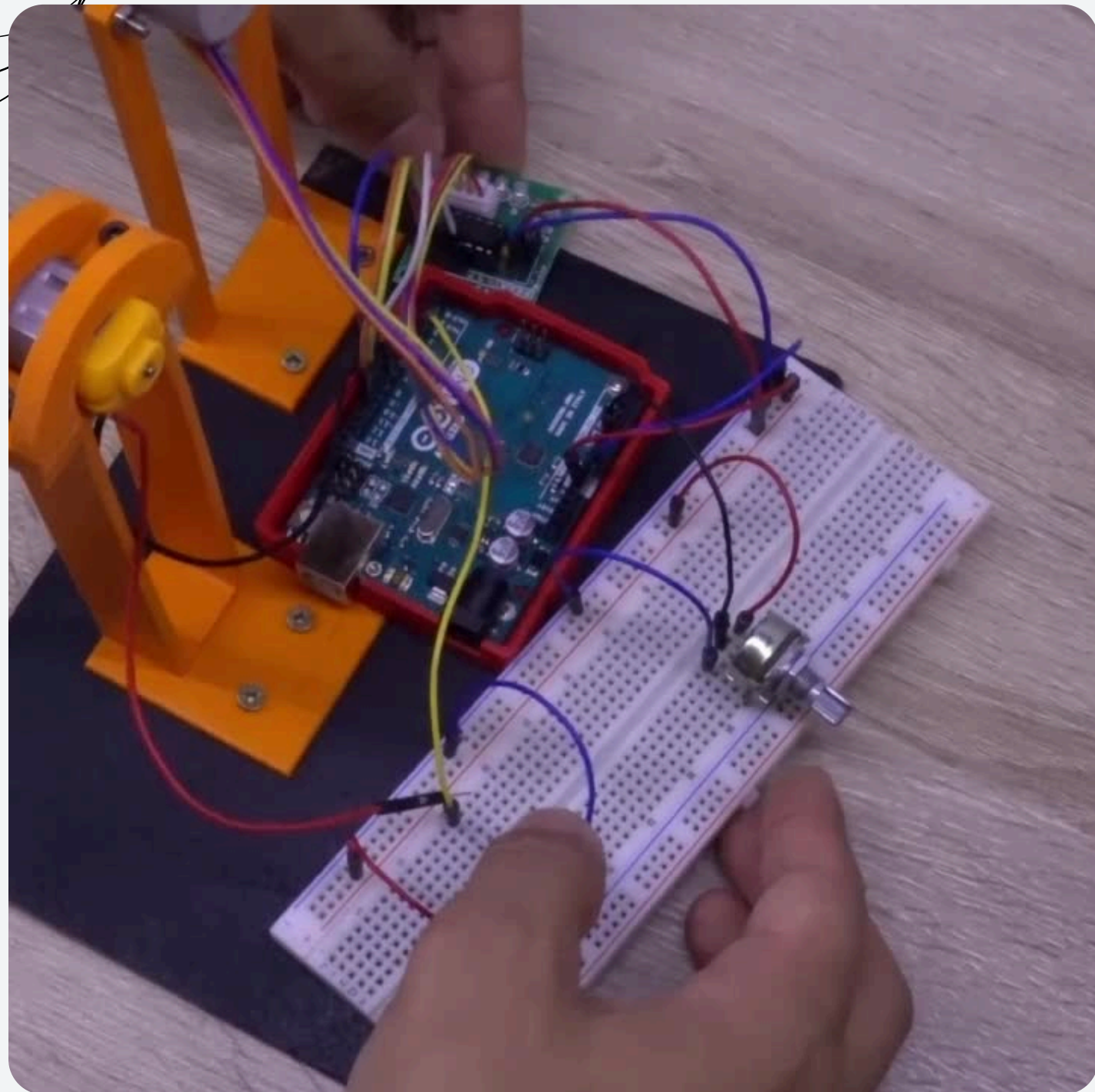
***"Create exceptional things and help people
create their own"***



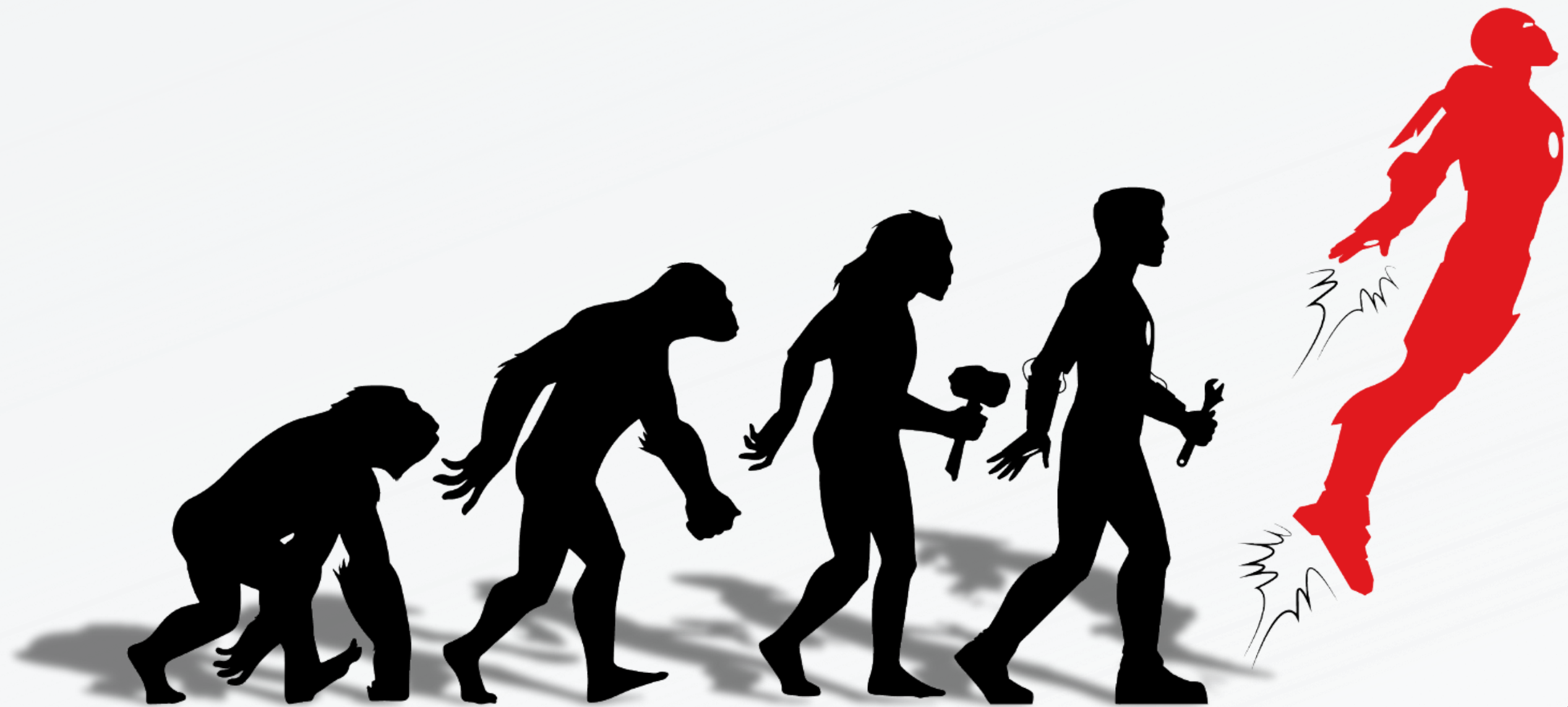
INFLUENCES



RECONNECT WITH YOUR INNER CHILD



BECOMING IRONMAN





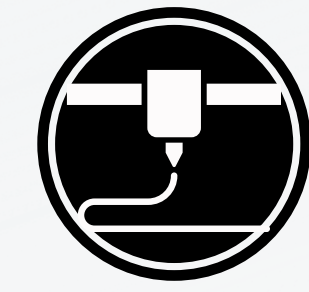
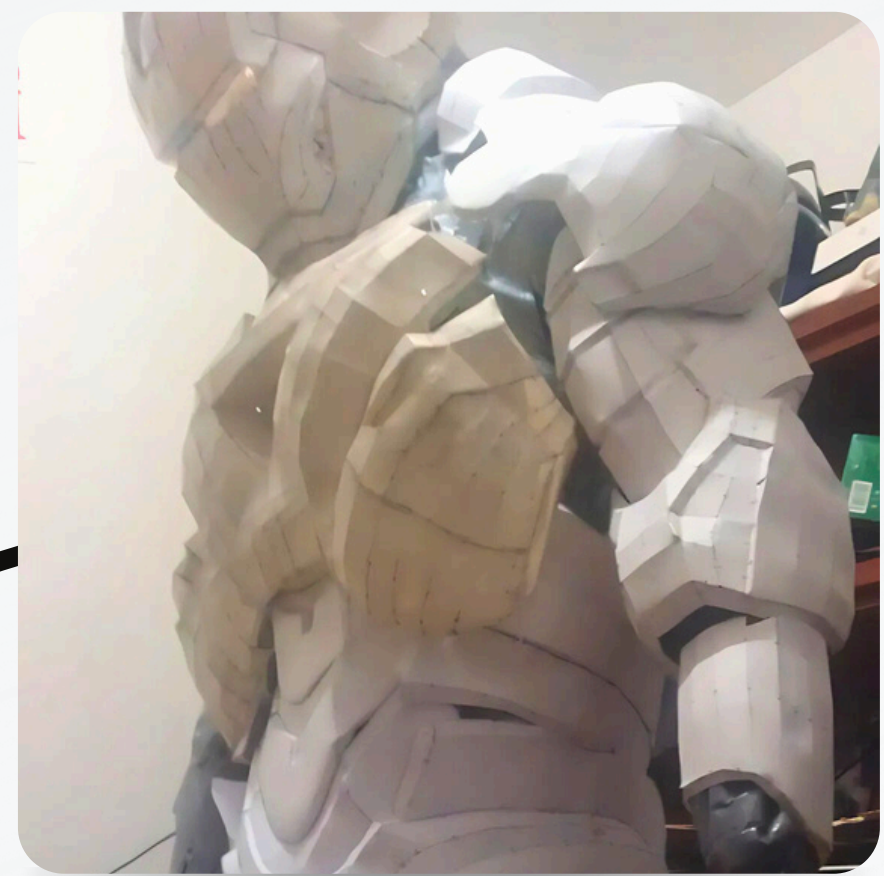
2008
The Inspiration

*The movie that
inspired generations*



2013
First Prototype

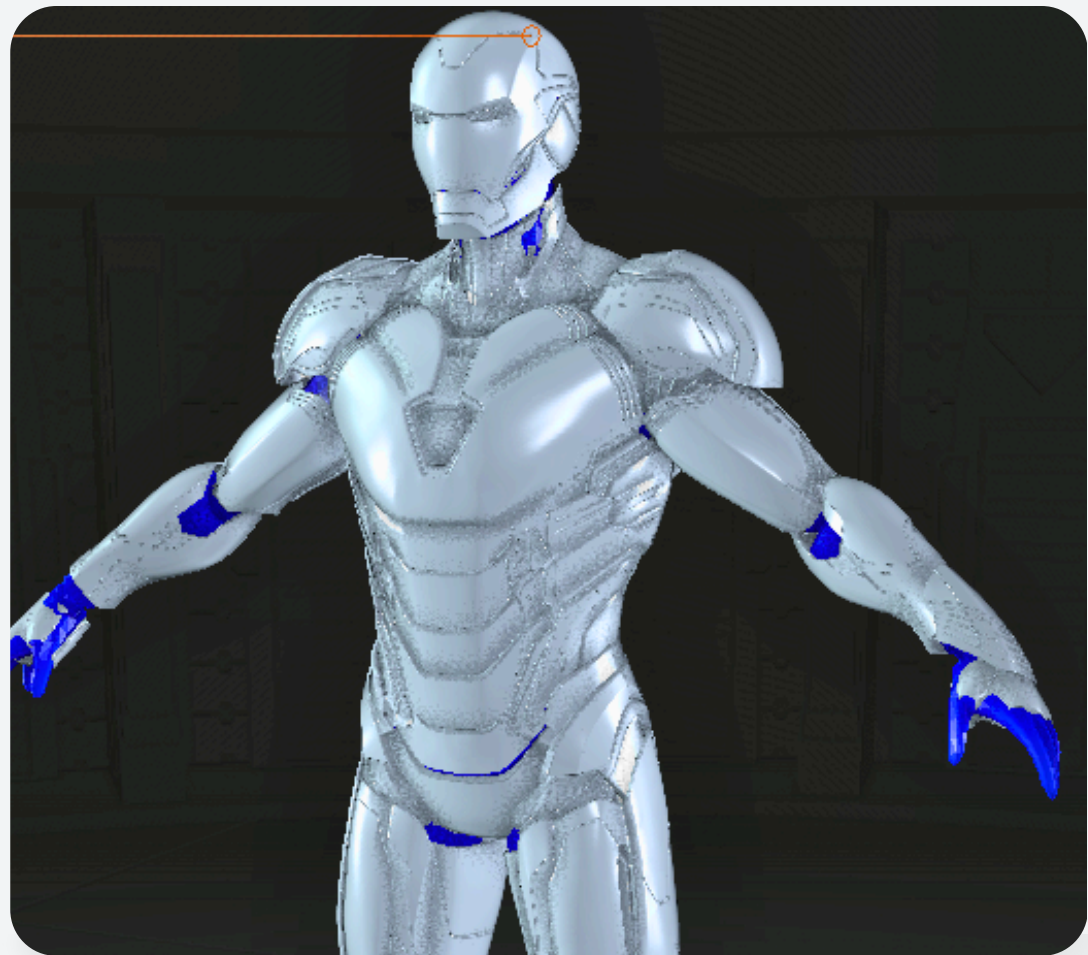
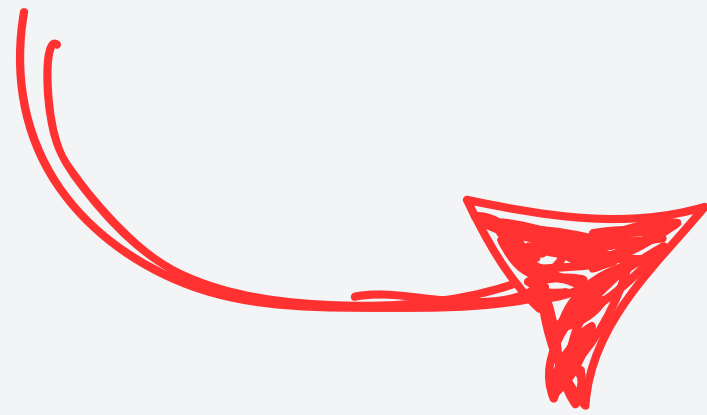
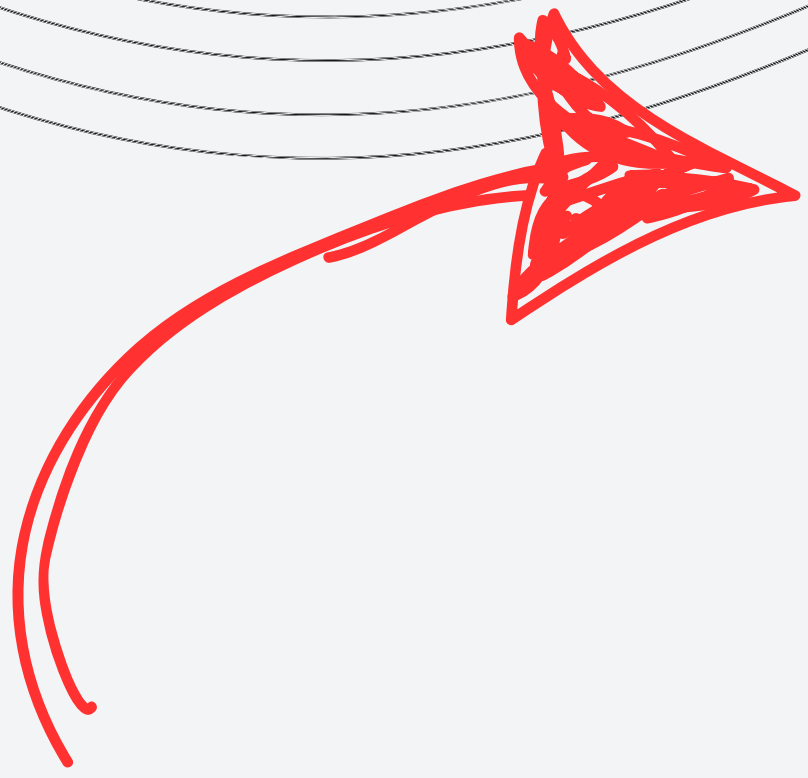
*With paper and a lot of
patience*

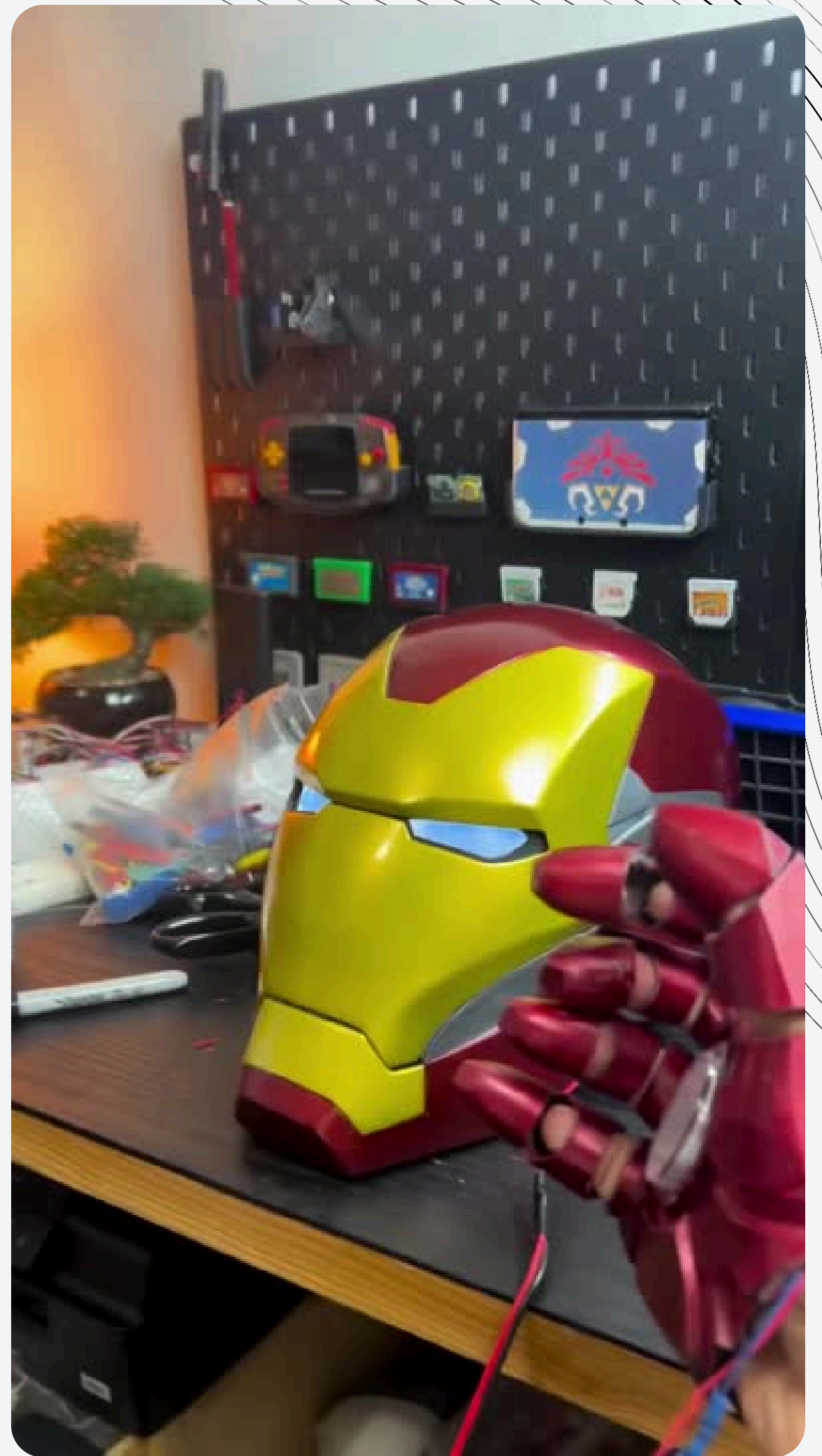
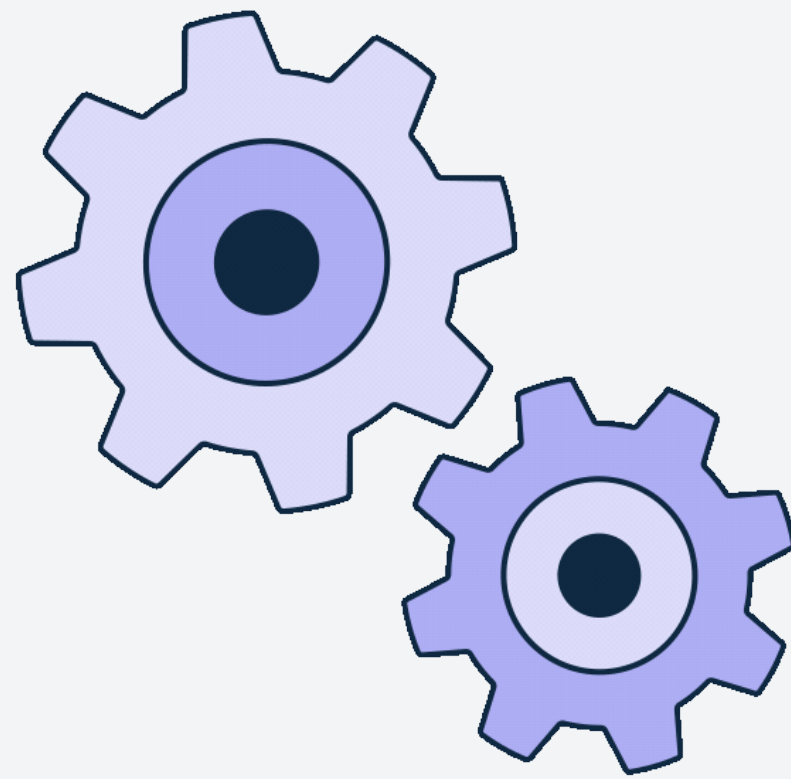
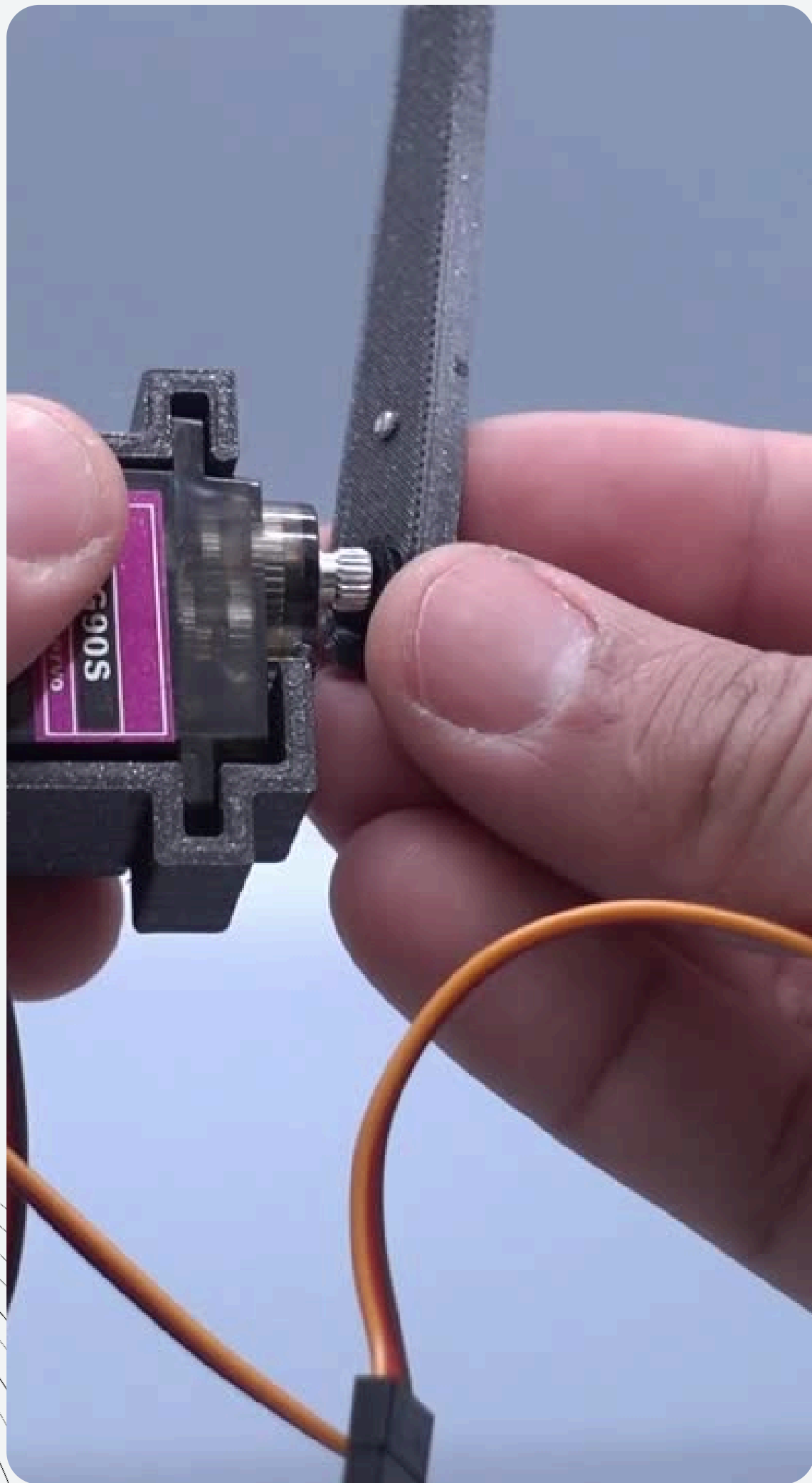


2020
Now with 3D print !

*Let's apply
some engineering !*









2021

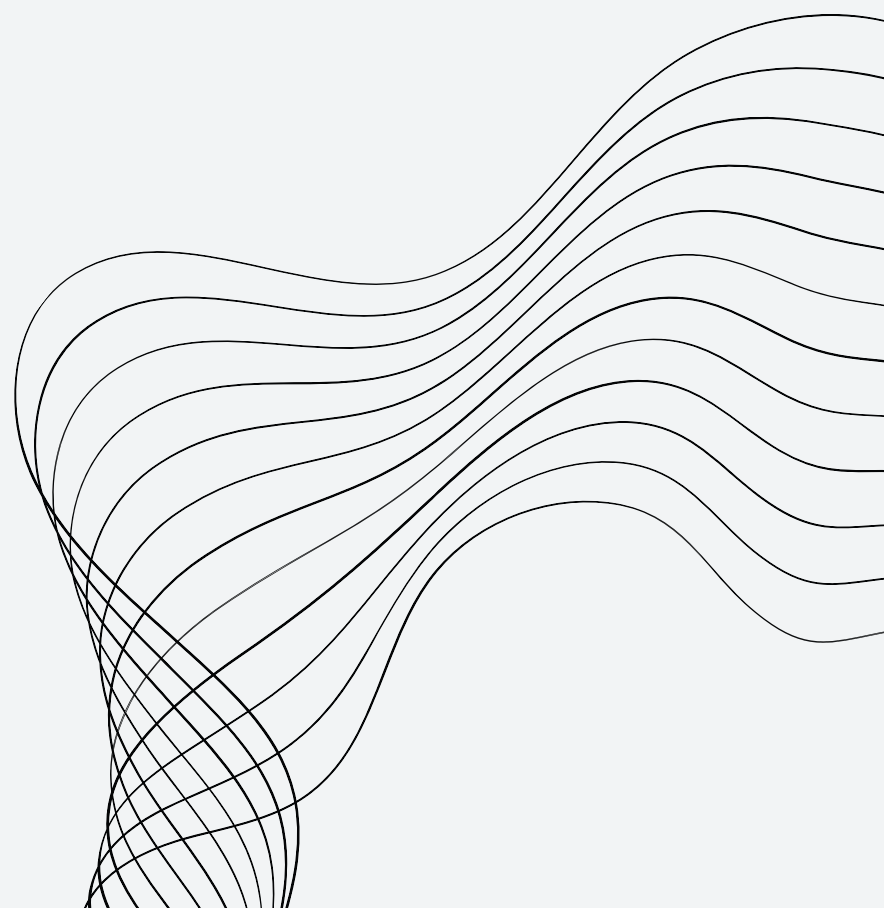
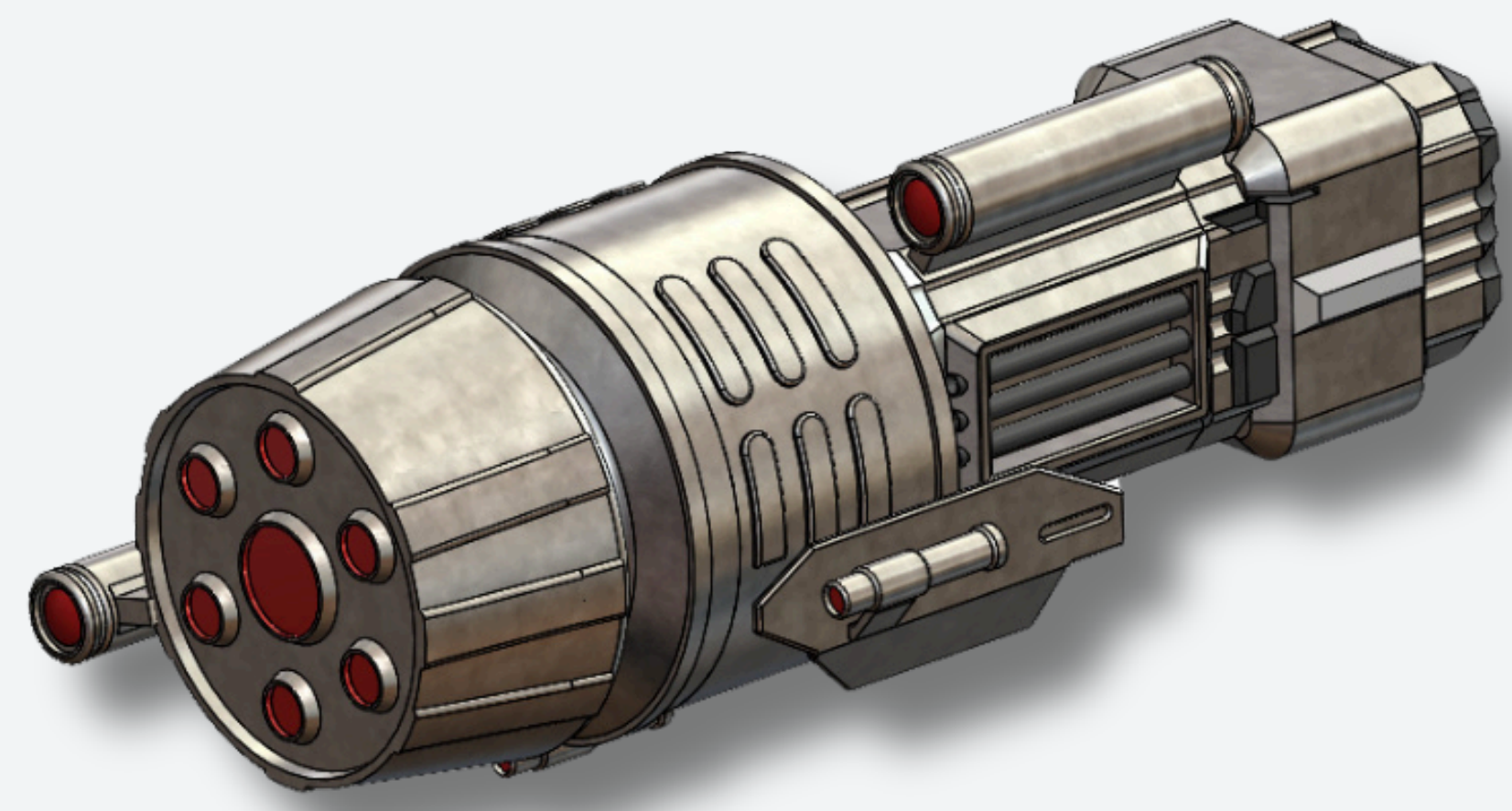
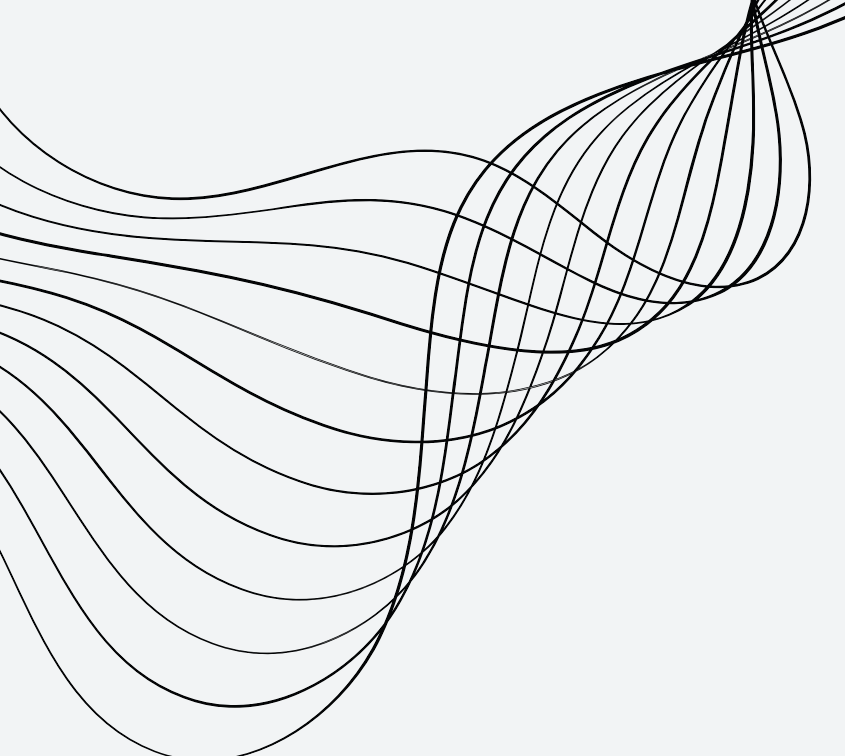


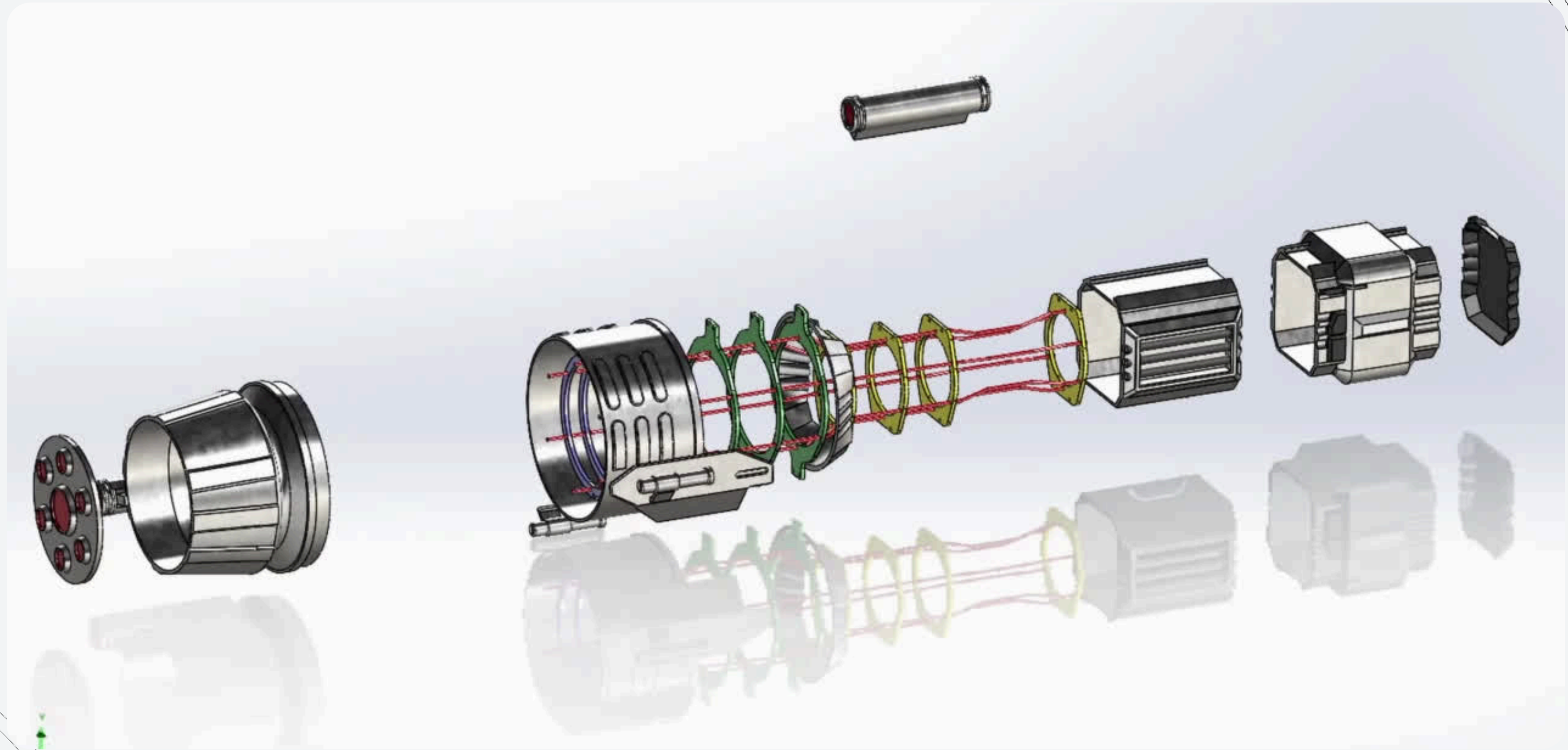
2023

DS SOLIDWORKS

FOR MAKERS









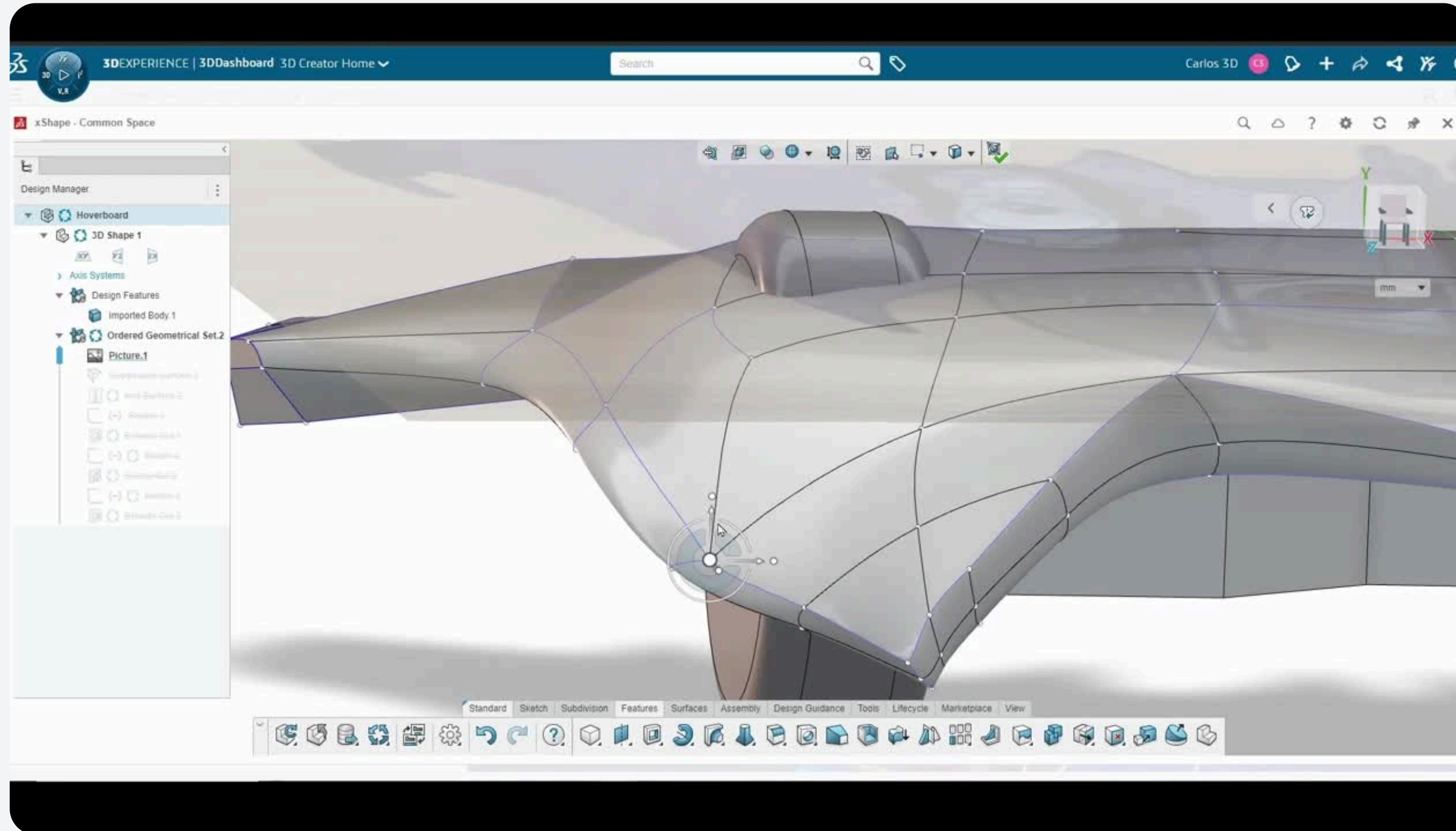
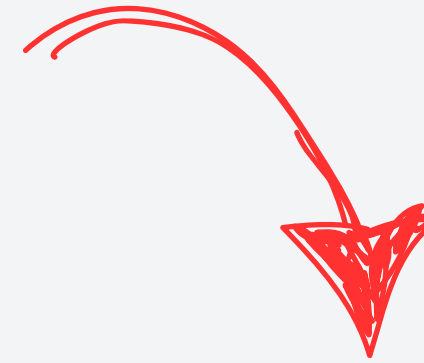
FROM CINEMA TO REALITY

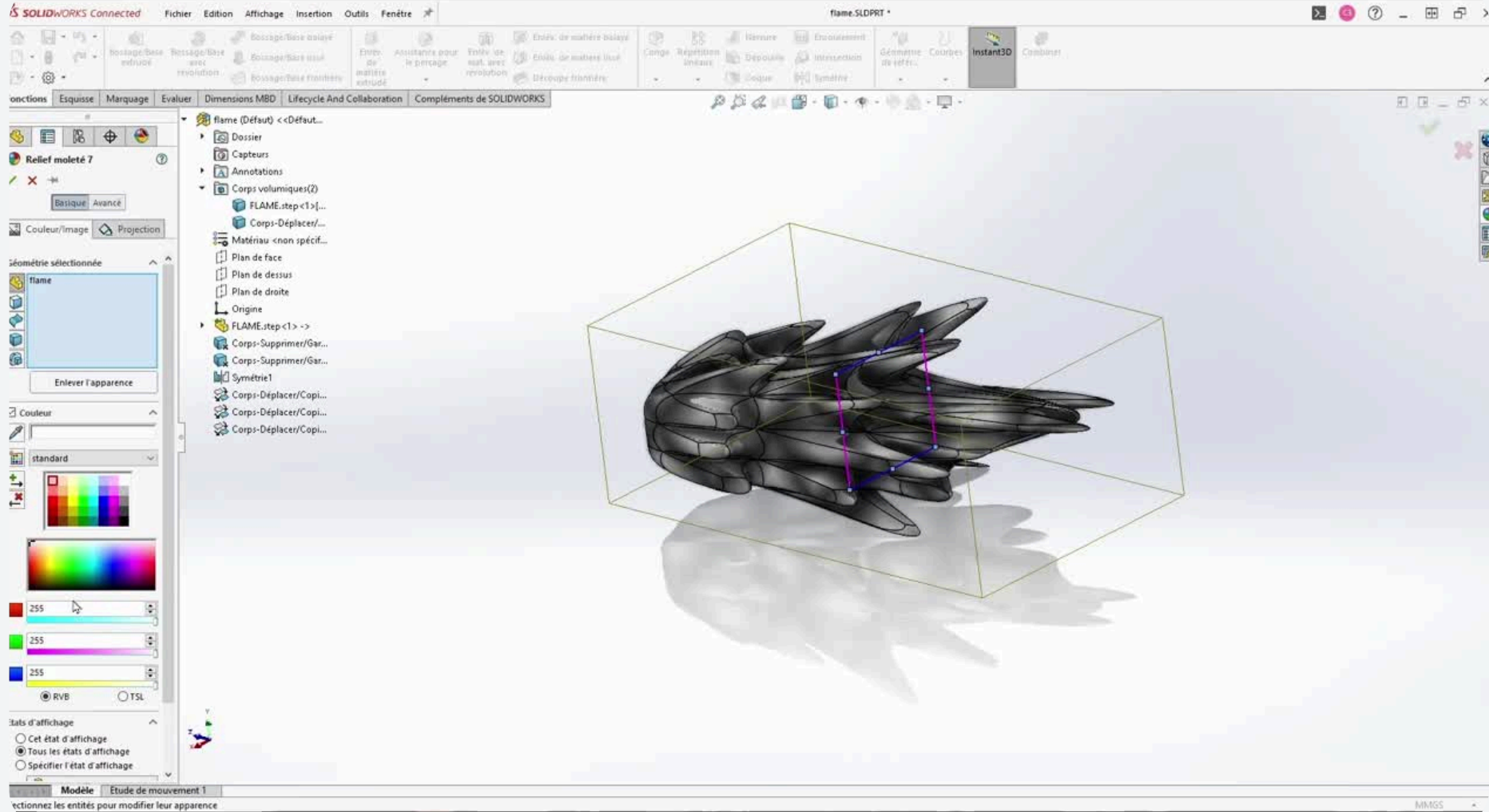




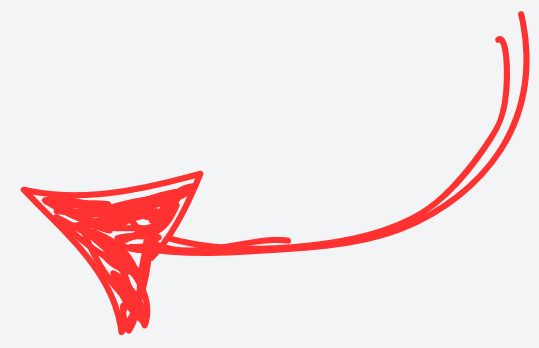


xShape

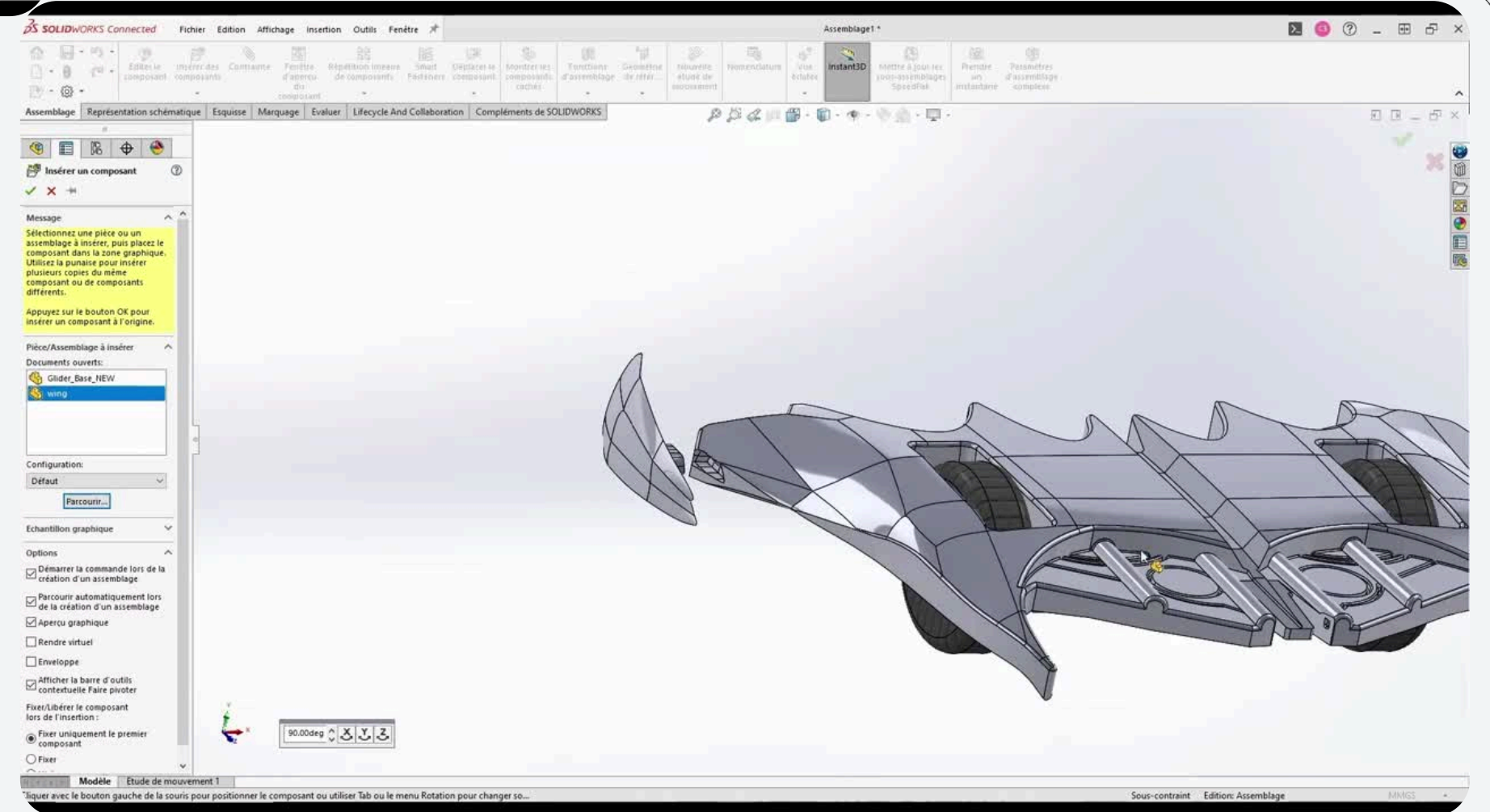
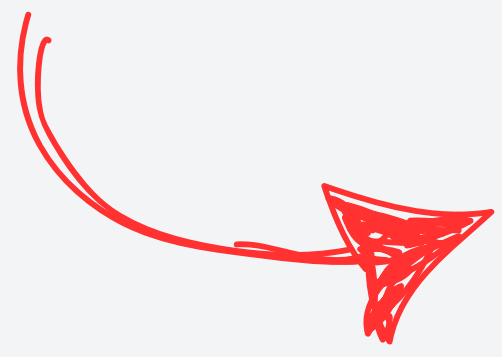


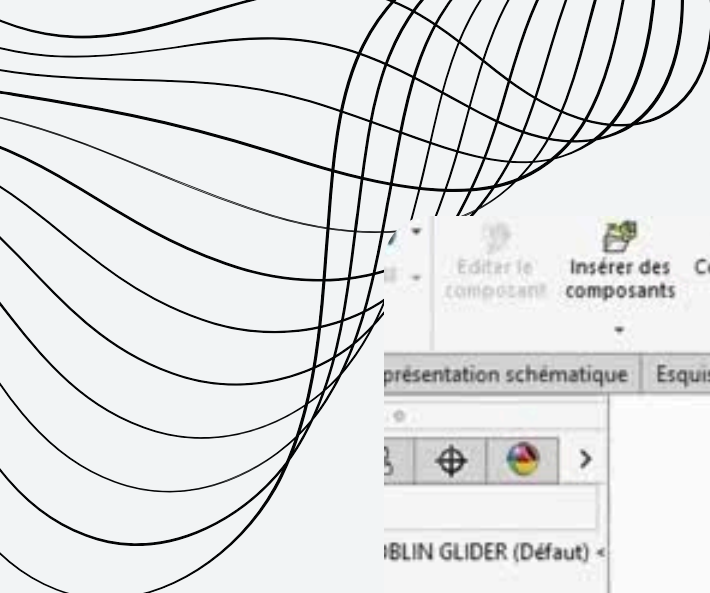


Flames



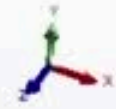
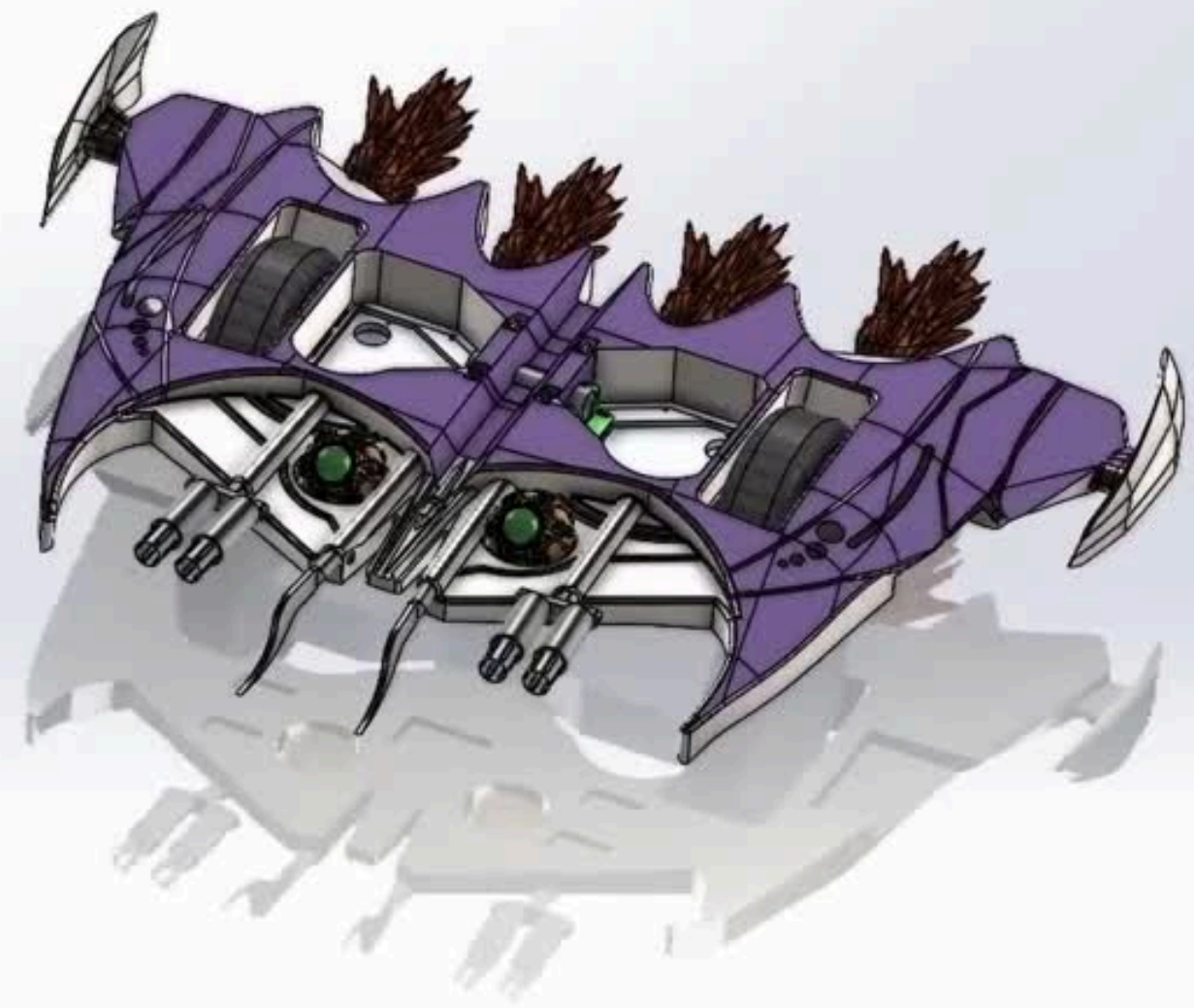
Details

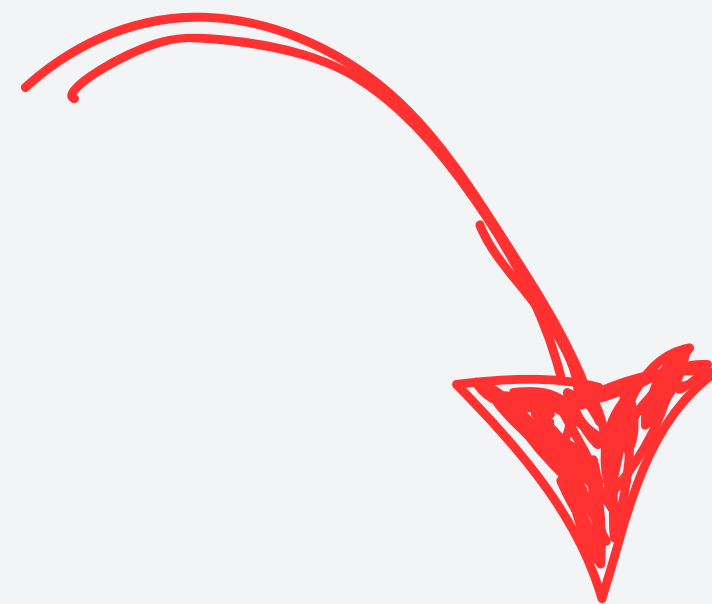
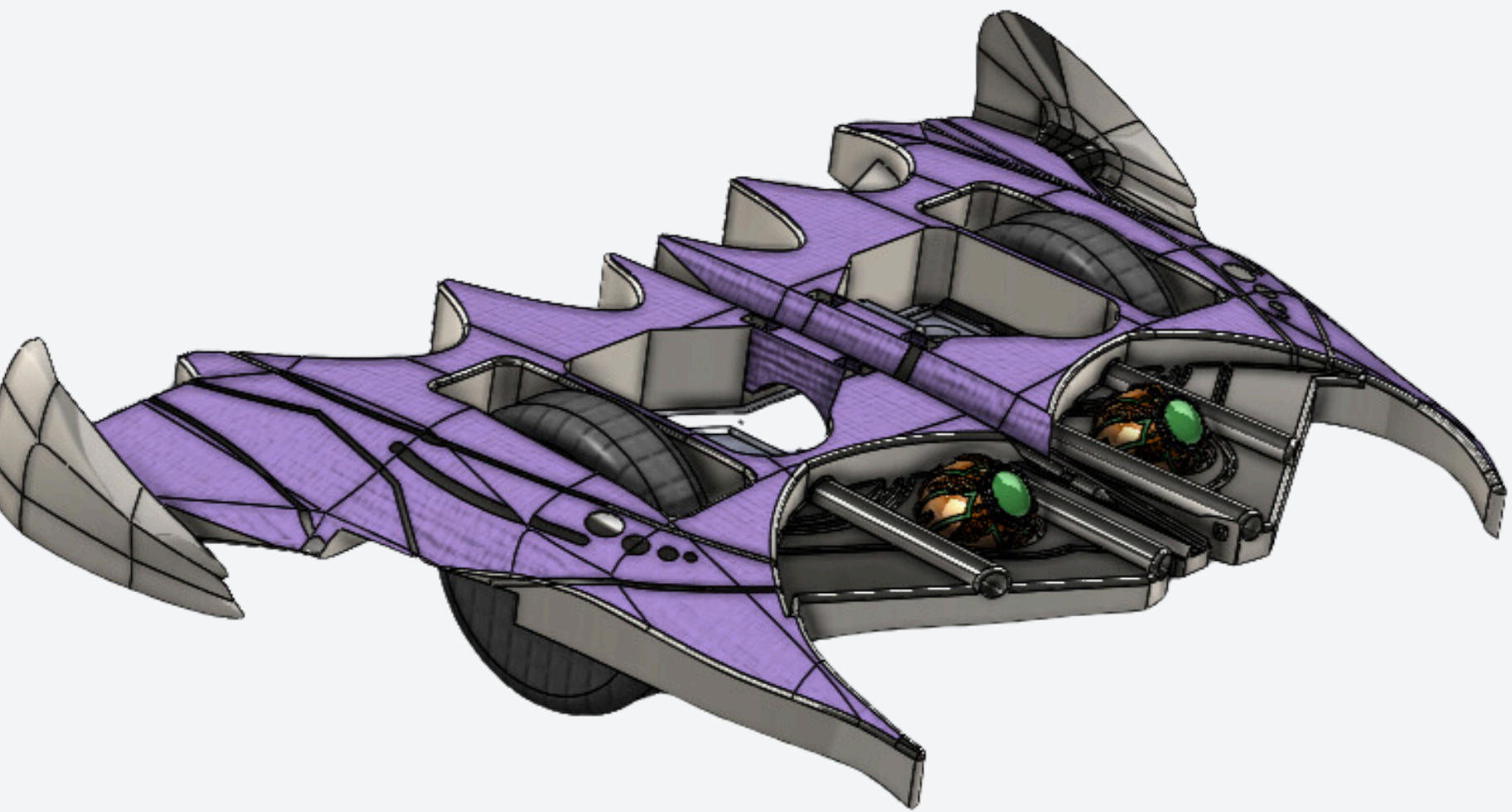




présentation schématique Esquisse Marquage Evaluer Lifecycle And Collaboration Compléments de SOLIDWORKS

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- it symétrique2
- it symétrique3
- it symétrique4
- it symétrique5





FOLLOW YOUR DREAMS



THANK'S FOR WATCHING



CARLOS 3D



@carlos3dprint



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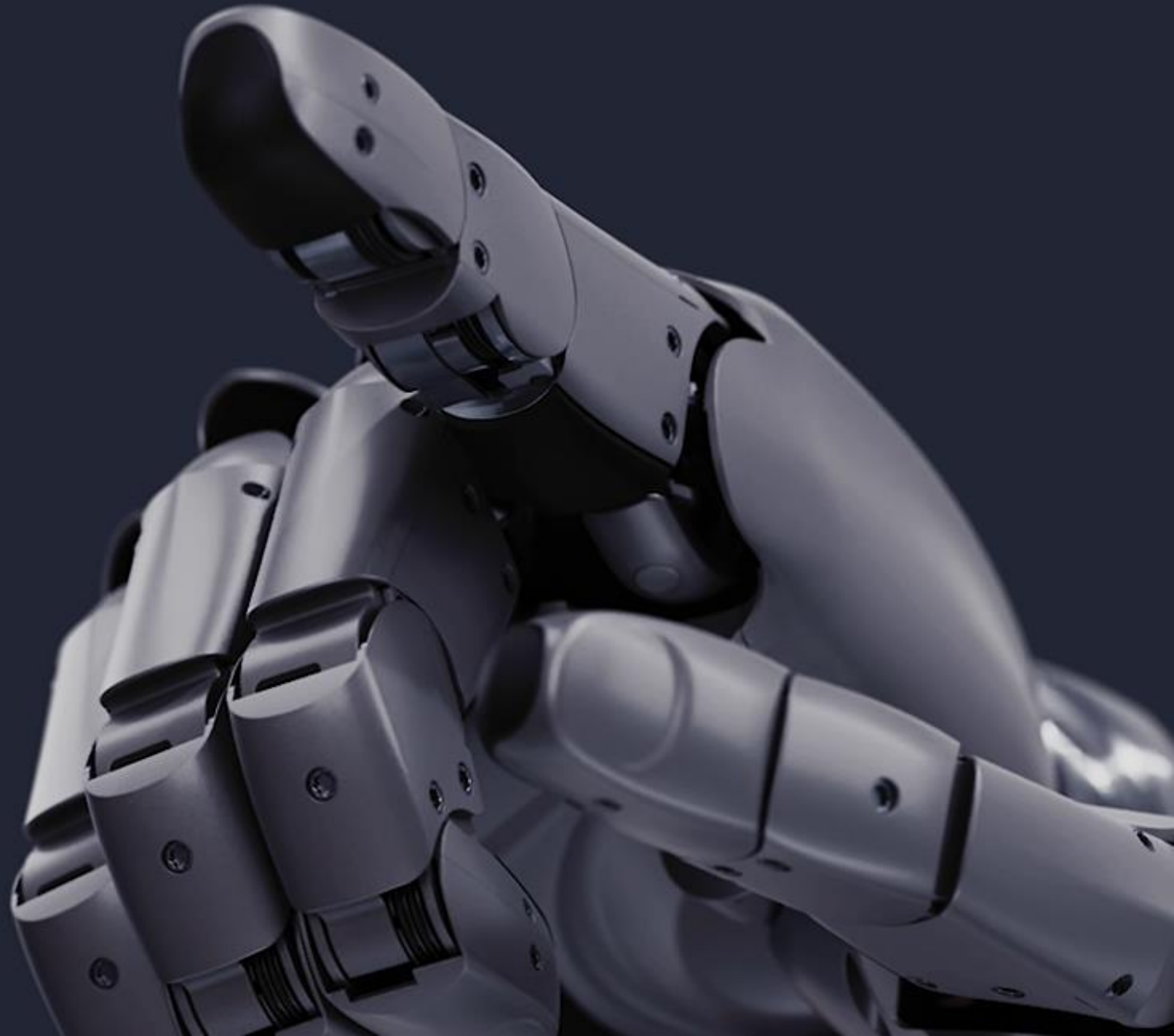


contact@carlos3dprint.com



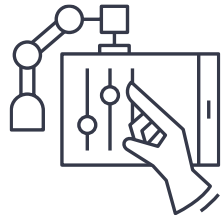
**Bridging the gap
between AI and robotics**

Andreas Spenninger
October 2024, Munich

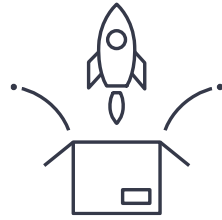




About Agile Robots



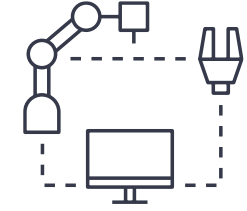
International **high-tech company** with HQ in Munich



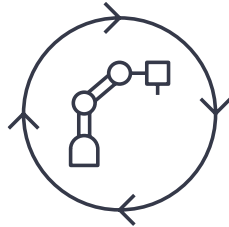
Founded 2018, Spin-off from DLR



Global team with **2,300+ employees**



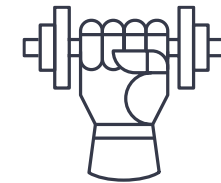
Leading provider for complex automation solutions



Own production and R&D facilities in Germany and China



Clients in automotive, consumer electronics etc.



Backed by international investors like SoftBank, Foxconn, Sequoia etc.



Our Product Portfolio

Automation Solutions

Diana 7



Thor Series



Yu 5 Industrial



Agile Hand



AMR



AgileCore





Yu 5 Industrial: Industrialization and Certification

- Challenges with **Information & Knowledge Management**
- Reviewed and reworked **technical documentation**
- **Improvement** of product quality, reliability and preparation of series production
- **TÜV certificate**





Efficient product development using 3DEXPERIENCE



- Shift to a **PLM strategy**
- **3DEXPERIENCE** enhances data collection, organization, and storage, **centralizing technical documentation**
- Breaks down information silos, **improving accessibility** of information
- **Improves development cycle** and project management with better task planning and linking of information



Thank you



AIRSKIN®

Unleashing the full power of industrial automation

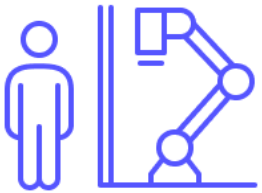
Company Presentation

airskin.io

- Fenceless robotics enables all forms of human robot interaction

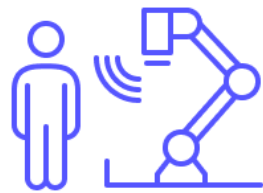
Different forms of fenceless robotics

- Separation



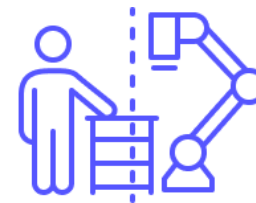
Separated workspaces

Coexistence



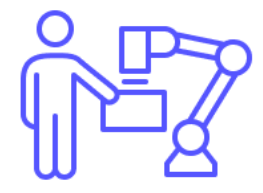
Presence detection

Cooperation



Intervention zones

Collaboration



Shared workspaces

- 99% of fenceless robot applications are coexistent or cooperative.
- All applications, where no fences separate robots from workers, are possible.
- AIRSKIN realizes open and flexible production layouts for agile manufacturing!

- AIRSKIN is the solution for fenceless robotics

The best of two worlds – Fenceless with AIRSKIN

- Industrial robot



- Speed
- Payload/Reach
- Precision/Accuracy
- Durability
- Industrial ecosystem

with
AIRSKIN

- Fenceless robot



- No Fence
- Saved floor space
- Flexibility

enables

- Fenceless application



By combining the advantages of industrial robots and collaborative robots, AIRSKIN enables productive fenceless applications.

↳ The best of two worlds

- AIRSKIN enables fenceless robotics for future production

The USPs of AIRSKIN

• SPEED

- Up to **2 m/s** in free space and
- up to **400 mm/s** for clamping



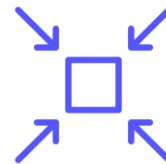
• FLEXIBILITY

- In place and task, because the safety system is mounted **directly onto the robot**



• SPACE

- Up to **90%** reduction of floor space



• SAFETY

- Prepared **Risk assessments**
- Highest safety with **PLe / Cat.3**



- Biomechanical limits for body regions according to ISO/TS 15066

Highspeed with AIRSKIN

2 types of limits

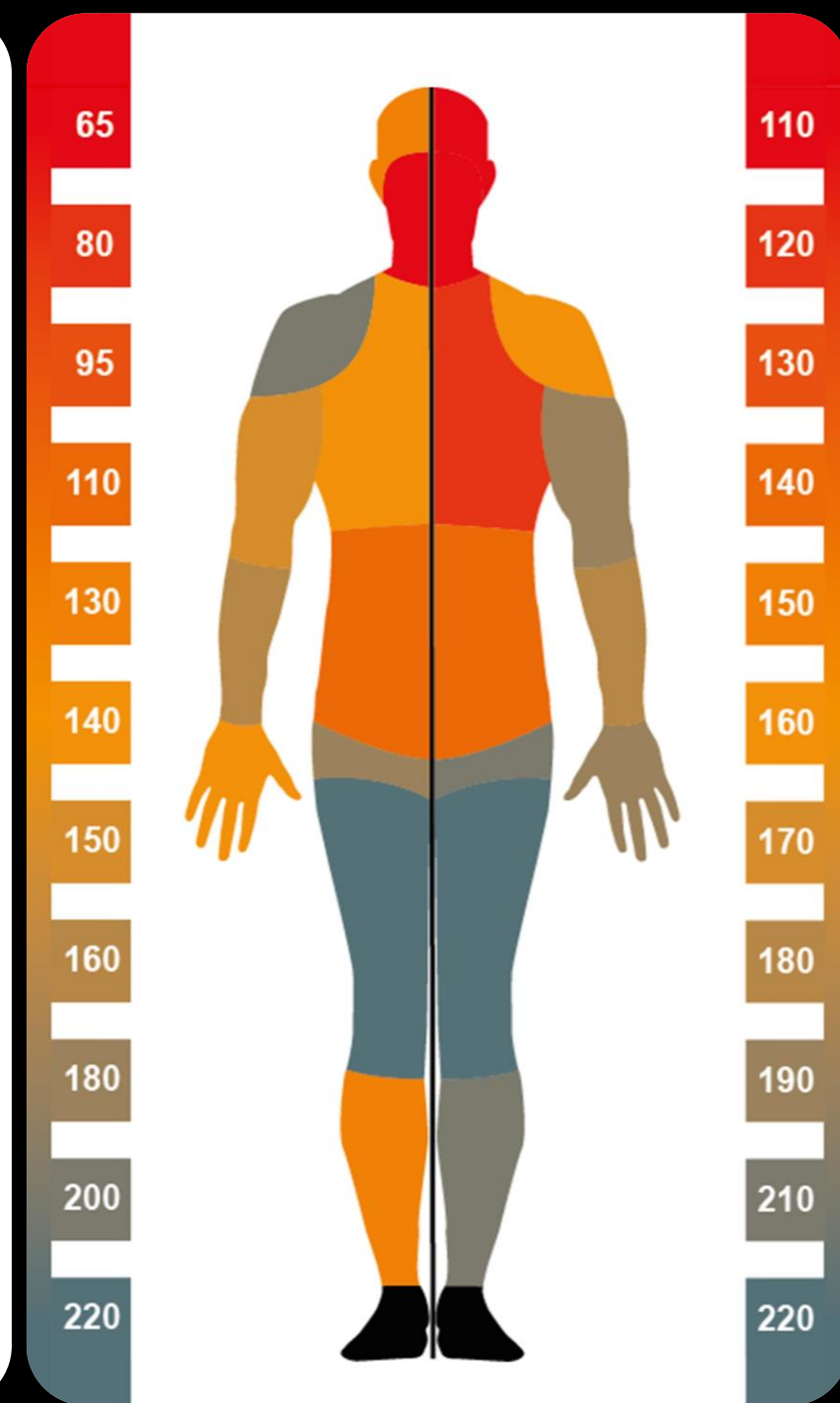
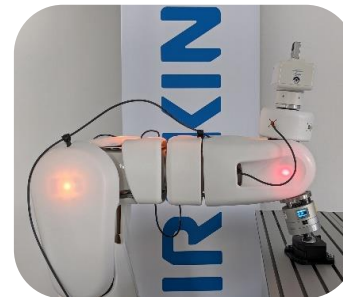
- **Force:** AIRSKIN reacts at 5 N and dampens collisions
- **Pressure:** AIRSKIN covers all sharp edges –
Pressure is never limiting the permissible speed

2 types of contact

- **Dynamic / free space: 2 m/s**
Permissible speed calculated with formula and validated with measurements
- **Quasi-static / clamping: 400 mm/s**
Permissible speed validated in measurements

Risk assessment

- Prepared Safety Concepts for risk assessments



- AIRSKIN® for mobile robots



AMR with robot and AIRSKIN

- **Customer:** Skoda
- **Problem:** Need for a mobile robot that can has enough reach (>1,6m) and payload (20kg) for mobile assembly, pick & place and machine tending tasks.
- **Solution:** A KUKA Cybertech with AIRSKIN, Safetyflange 20 and special gripper for mobile applications.
- **Installation:** 2022 in Czech Republic

- **Media:** [Video](#)



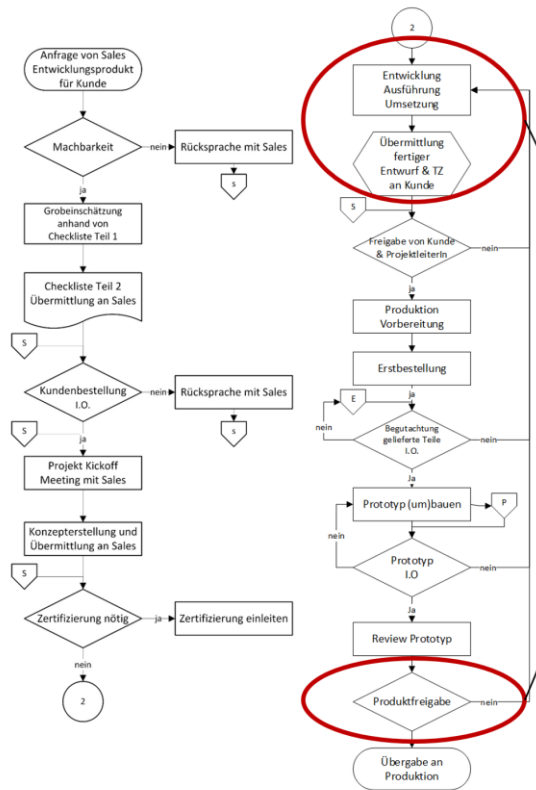
ŠKODA



The surface of the robot is interactive,
which means that it reacts to the

- Initial Situation

Multi Tools, Folder Structure, ...



- Zeitintensivste Prozessschritte:
1. Custom Supportlayer Design (31,9%)
 2. Betriebsanleitung (21,3%)
 3. Base Design (21,3%)
 4. „Langos“ (10,6%)

Tools:

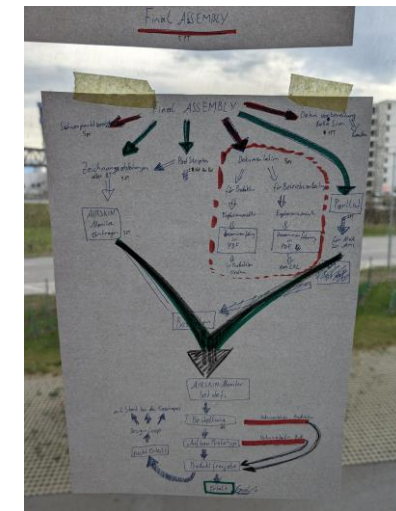
Inventor, Alias, Key Shot, Rhino ...

File management:

Server-based – many subfolders, loss of references and time-consuming repairs

Missing functionality:

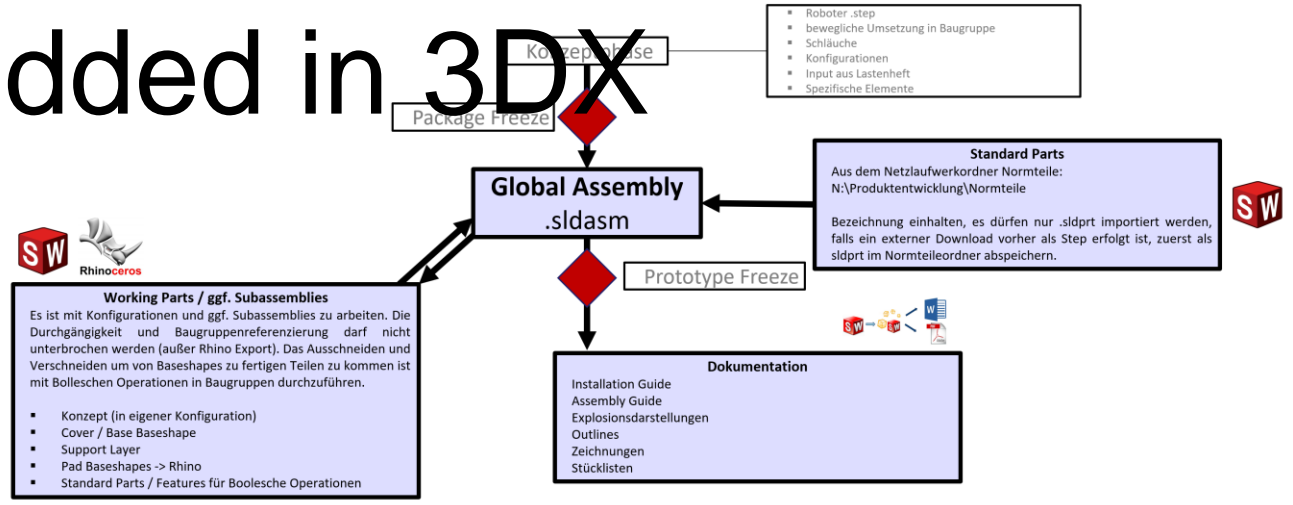
Creation of operating instructions, iteration loops, configuration management



- The path to the new development process

New Definition, embedded in 3DX

Thumbnail	Title	BDR_Standardparnummer	Material	Revision	Lock
	U-ARM Pad Baseshape Test 03			A	🔒
	U-ARM Pad Baseshape Test 04			A	🔒
	Wrist			A	🔒
	Wrist Flange			A	🔒
	Wrist Pad 1			A	🔒
	Yaskawa GP180			A	🔒
	Yaskawa GP180(Beweglich)			A	🔒
	Yaskawa GP180(Unbeweglich)			A	🔒
	Yaskawa Motoman GP180			A	🔒
	Yaskawa Motoman GP180(Achswinkel in Gleichungen)			A	🔒
	Yaskawa Motoman GP180(beweglich)			A	🔒
	Yaskawa Motoman GP180(Standard)			A	🔒



- Validation done, significant improvement

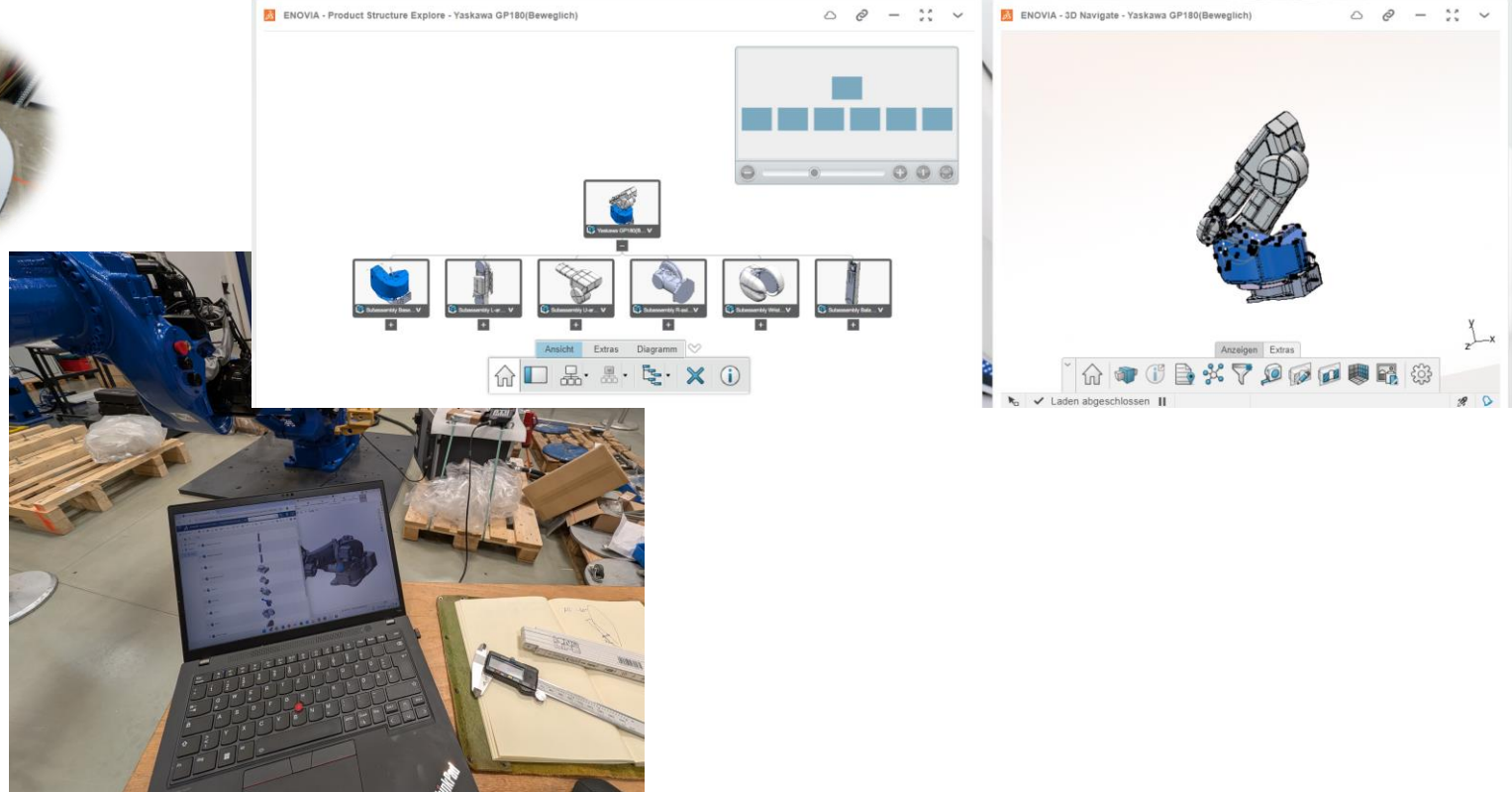
Results of New Development Projects



KUKA Iontec

New Process, Solid Works, Composer

Saving development time 20%



Yaskawa GP180

New Process, Solid Works, 3DX, Delmia, Composer, Visulize

Saving development time 43%

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- office@airskin.io
- +43 1 890 86 97



- Blue Danube Robotics GmbH
- Niedermoserstraße 14, 1220 Wien, Österreich

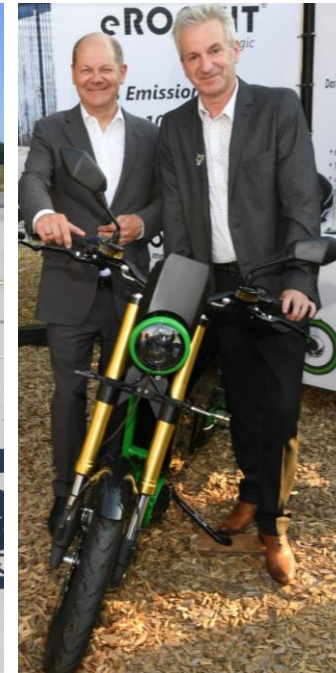


Pedaling to 100 km/h: How disruption is changing our world

Andreas Zurwehme CEO and founder of eROCKIT AG

Andy Zurwehme, CEO and founder of eROCKIT AG

- Born in Höxter/Westfalen
- Trained industrial clerk
- Entrepreneur with over 30 years of experience
- Plastics processing, mechanical engineering, automotive, sales
- Stations: London, Chicago, Silicon Valley, Asia, Switzerland
- Active in the eMobility for over 15 years



1982 – 1984 WKZ GmbH, Sales Manager, Germany/Austria/Switzerland
1984 – 1986 Z & L Maschinenbau, Co Founder, Customers from Germany to India
1986 ZIVO – Trading Industrieprodukte, Fokus on Asia and USA
1987 – 1989 Exit Datenbankdienste GmbH, Sales Manager/Board of directors
1989 – 1994 Dialog Information Services, Inc., Palo Alto USA, International Marketing Manager (responsible for 24 countries)
1995 – 1996 Too Kool GmbH, Founder and main Shareholder (Sale in 1996)
1997 – 1998 Mediatenor, Sales Manager, Top 30 Dax-Companies, Germany
1999 – 2001 atVision online GmbH, Europe's biggest web TV, Founder & Board Member
2002 – 2005 Innovatio Int. AG, Zürich, Switzerland, Sales Manager, Conference Trainer, Beirat
2006 - 2013 Interims Manager, e-Mobility Consultant and Advisory Board/Speaker
seit 2014 Founder and CEO of eROCKIT Systems GmbH
seit 2021 Founder and CEO eROCKIT AG



Disruptive products are changing the world

An iPod, a phone, an internet mobile communicator...
these are NOT three separate devices! [Steve Jobs](#)

Combines: telephone, computer, internet browser,
camera, music player,...

Use: multifunctional device
for many of life's needs,
Revolution into the digital age



eROCKIT is disruption on two wheels

Combines the best of:

Bicycle – intuitive operation,
once learned, can be recalled for a lifetime
70-80% of the world's population can do it

eBike – electric, quiet, emission-free drive,
health-promoting, maneuverable, agile, safe

Motorcycle – high speed,
fast acceleration, powerful performance,
robust components



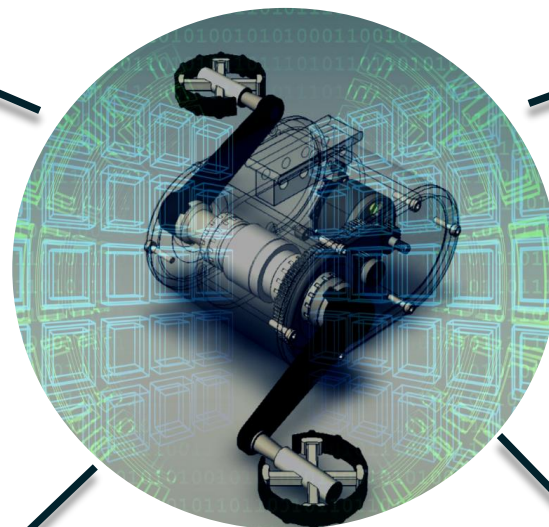
„Radeln“
auf der Autobahn



Disruptive technology: The Human Hybrid Drive



Two-wheelers
Commuter vehicles
Cargo bikes
Tricycles
Rickshaws



Boats
Lifestyle Boats
Commuter Boats
Catamaran
Jetski



Micro cars
carts

Vehicles for people with
disabilities

Industrial applications

Opportunity to participate

Stock price 2021:	450 Euro
Today 2024:	800 Euro
Company value 2021:	22 Mio Euro
Company value 2024:	45 Mio Euro
Number of shareholders:	+400

Public offer: Online issue on <https://ag.erocket.de>

Private placement: share purchase by subscription paper

Goal: We are turning eRockit into a unicorn
for technology and mobility made in Germany







**Carlos
REYES**

Entrepreneur |
Engineer & Content
Creator
Carlos 3D

CREATIVE INSPIRATION FROM VISIONARY ARTISTS



THANK YOU FOR YOUR INTEREST

