



Automation, we do

Center of engineering and advanced technology S.A. de C.V.



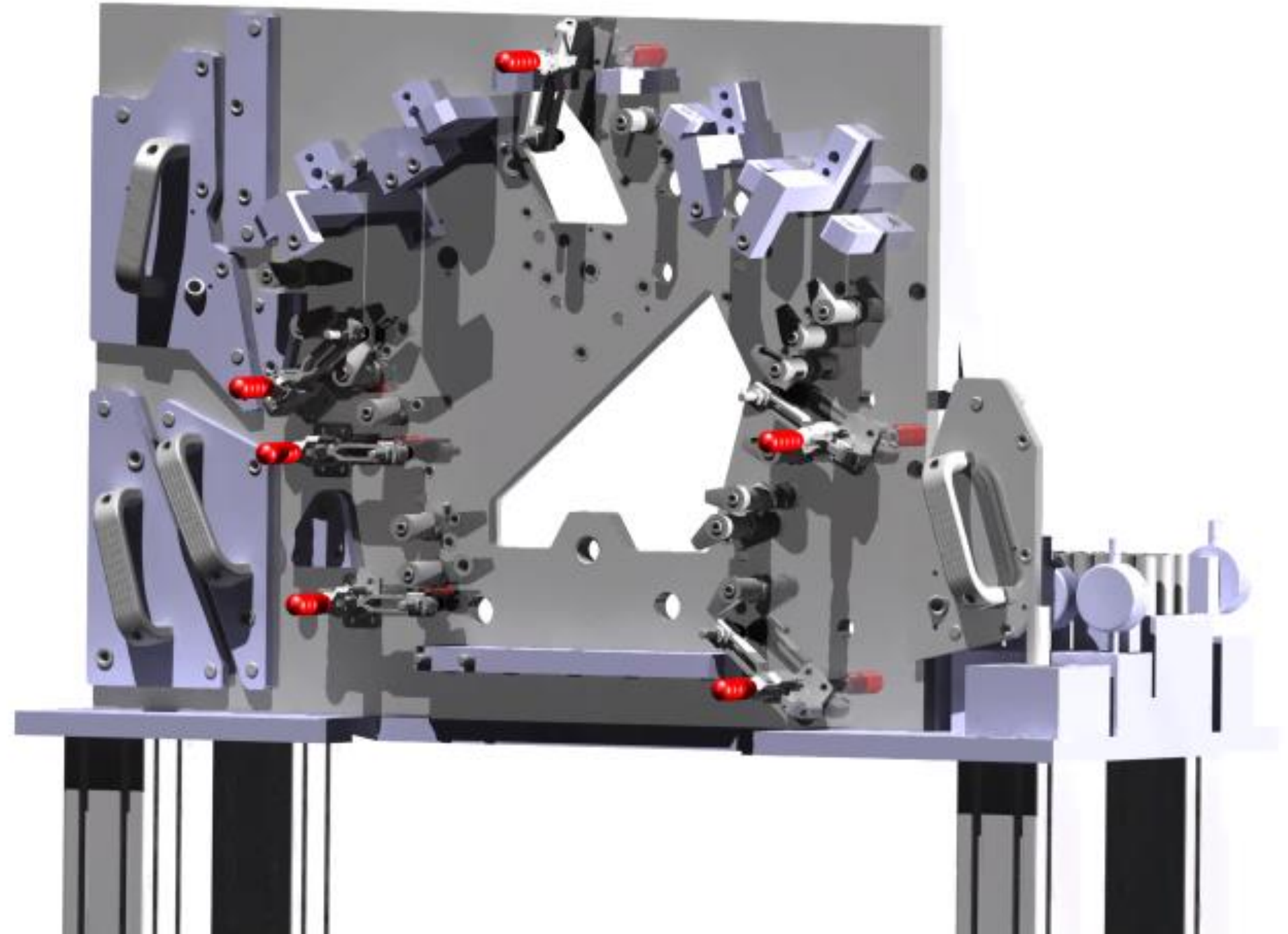
Company Background

- Ceat was founded in 2006 to cover the necessities of our customers as a design engineering center, moving to the manufacturing area starting in 2008 doing the first integrations with a manufacturing size of 2152 sqft.
- Yearly manufacturing capacity:
 - 10 Inspections cells with automation.
 - 42 jigs fixtures.
 - Special machining parts and design.
- Max value project automatic inspection of cracks and internal defects, 300k.
- Our biggest size work has been 125 X 31 ft. for GKN

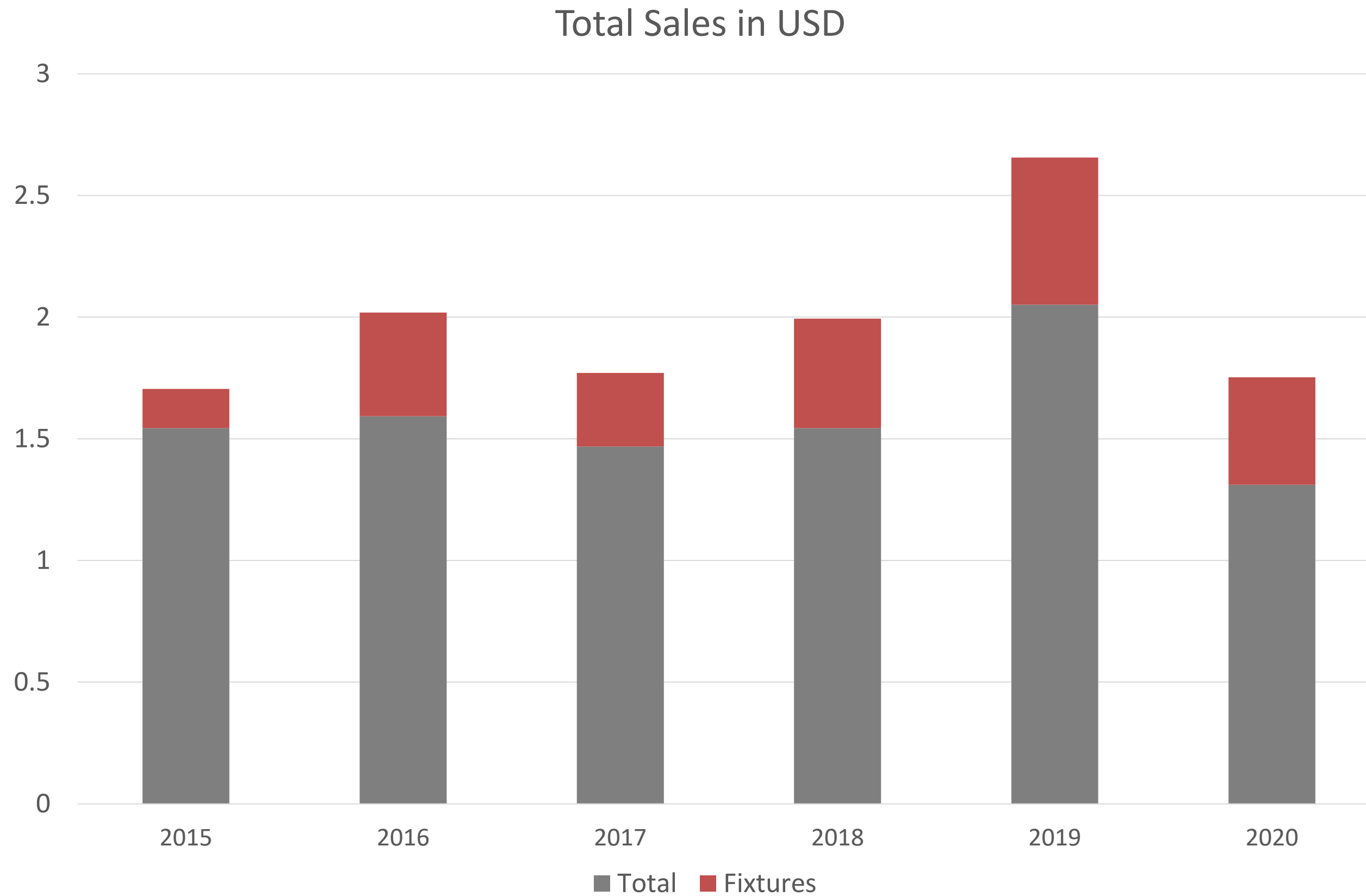


Mission, Vision and values

- Mission:
 - Create security by ensuring the quality through applied innovation and engineering.
- Vision (2025):
 - Being recognized as a high-tech company in the mexican industry.
- Values:
 - Integrity: Be all you can be with strong ethical principles – Do the right thing.
 - Innovation: The only way to survive is to continuously transform into something else.
 - Productivity: Do more with less



Turnover



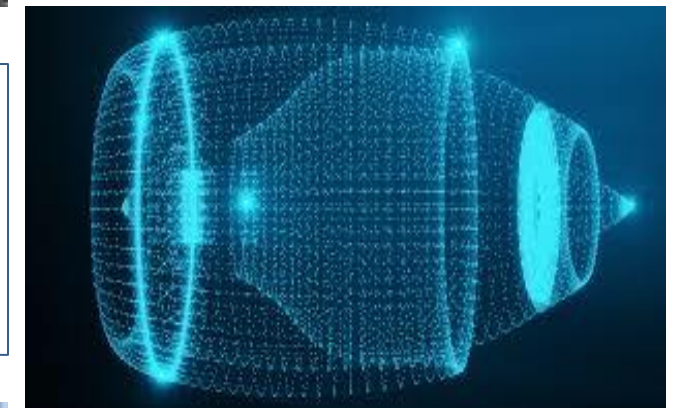
Strategy



- B2B



- Automotive
- Aerospace
- General Manufacturing



Quality Certifications

- ISO 9001:2015 on going
- EMA 17025
- 2017 Universal Robots Certified System Integrator



Universal Robots Certified System Integrator Program

2017 Universal Robots Certified System Integrator Requirements

Universal Robots Non-Disclosure Agreement

- ☐ Signed and returned with the Universal Robots Certified System Integrator Program document

Annual Volume Threshold

- ☐ 10 Robots purchased and installed annually

Certification & Training Requirements

- ☐ At all times, a minimum of 1 technical staff member must have Universal Robots Certification. This certification is received by attending the training classes and completing the Certified System Integrator Test listed below. The training/testing location and date will be coordinated through the Regional Office Tech Support Contact.
 - ☐ Universal Robots Online Training Academy (90 minutes) <http://www.universal-robots.com/academy>
 - ☐ Universal Robots Core (2 Days) and Service & Troubleshooting Training (1 Day)
 - ☐ Core training is 2 days followed by 1 day of Service & Troubleshooting training
 - ☐ Universal Robots Advanced (2 Days)
 - ☐ Prerequisite: Completion of Core Training
 - ☐ Universal Robots Certified System Integrator Test (1 Day)
 - ☐ Prerequisite: Completion of Advanced Training
 - ☐ Must be taken within 6 months of first staff member's completion of Core Training
 - ☐ May be waived through confirmation of multiple complex applications in industry

Reporting

- ☐ 1 case study per year

Business Plan

- ☐ 1 Year business plan

Product Purchasing

- ☐ Universal Robots product is available for purchase through our authorized distributors. It is strongly advised that product purchasing is sourced through the Universal Robots authorized distributor located in the market near the end customer receiving the finished product.

2017 Universal Robots Certified System Integrator Program Benefits

- ☐ Listed on the Universal Robots web page after first sale of a Universal Robots UR3, UR5, or UR10
- ☐ Direct access to Universal Robots Technical Support Team in the US
- ☐ Personalized training certificate
- ☐ Certified System Integrator logo for marketing use
- ☐ Benefit from special pricing at any Authorized Universal Robots distributor location



Work experience

- Ceat has as company differentiation the quality of the tools based on the experience selling quality equipment.
- Head count 15 employees
- Specialized head count designers, machining leader, automatization leader.
- We have and average of 10 years of experience.



Skilss	Head Count	Experience
Designers	2	+ 8 years
Machining ops	2	+ 20 years
Assembly Mech	1	+ 25 years
Electricians	1	+ 20 years
PLC	1	+ 4 years
Pneumatic	1	+5 years
Project Manager	1	+ 7 years
Administrative	3	+ 25 years
Service engineer	1	+ 7 years
Sales representative	1	+ 7 years
Supply chain	1	+ 15 years
CMM Tech	1	+ 15 years
Total	16	

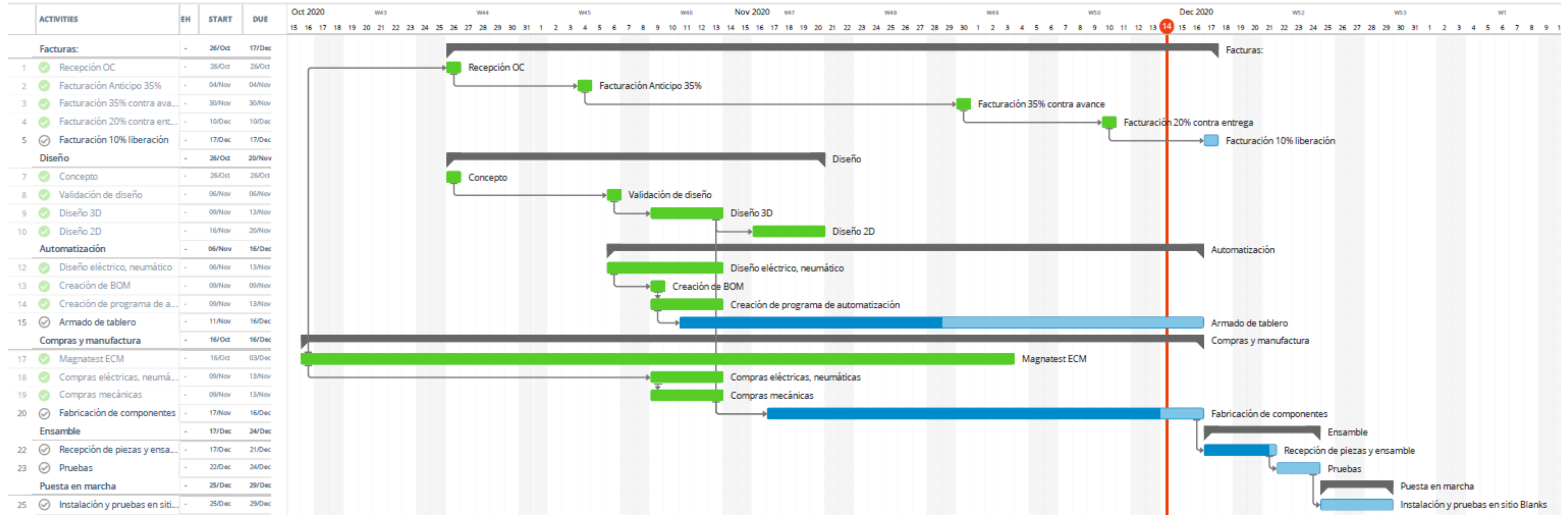
Project Manager



DAN.004 Bliss

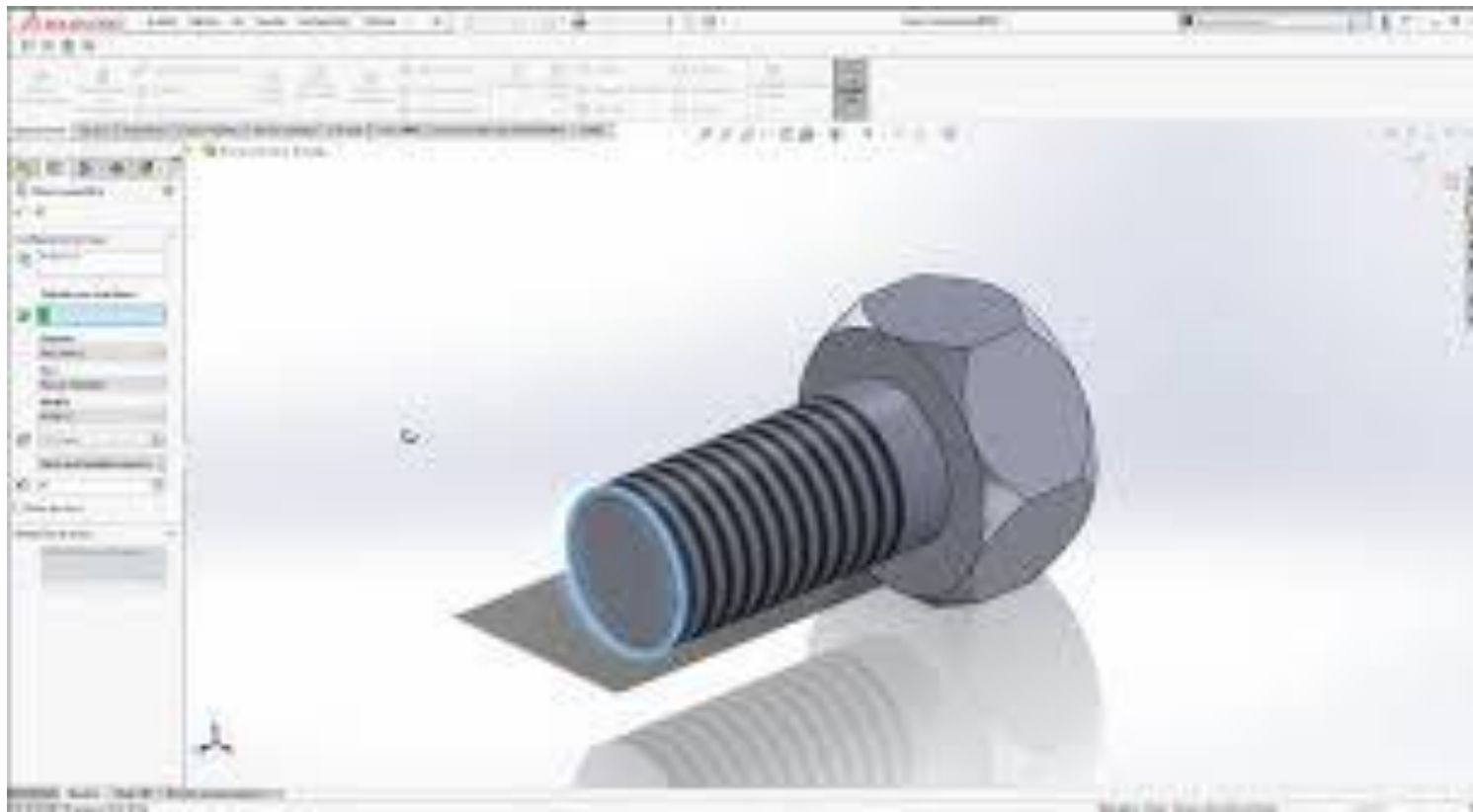
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Instagantt



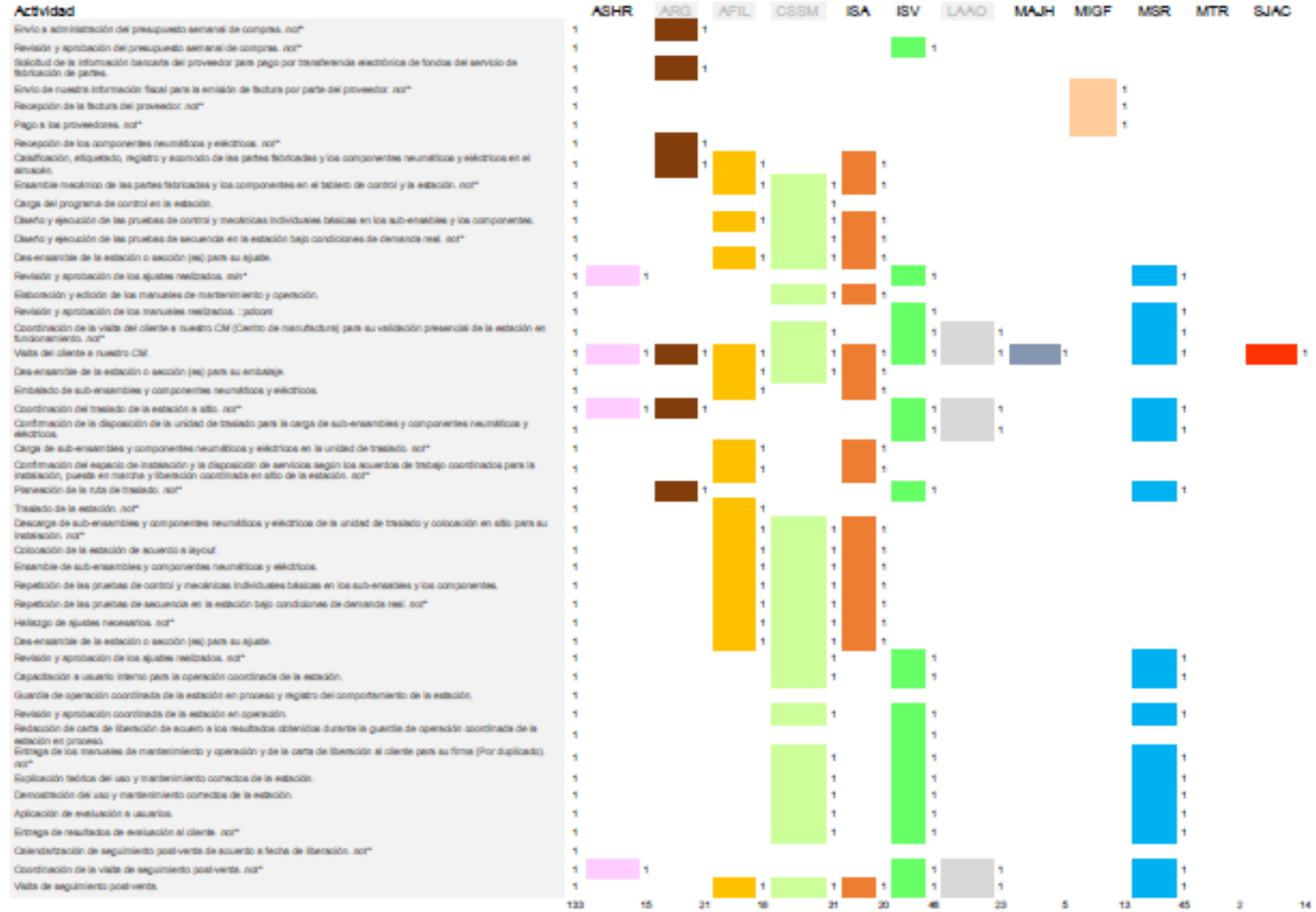
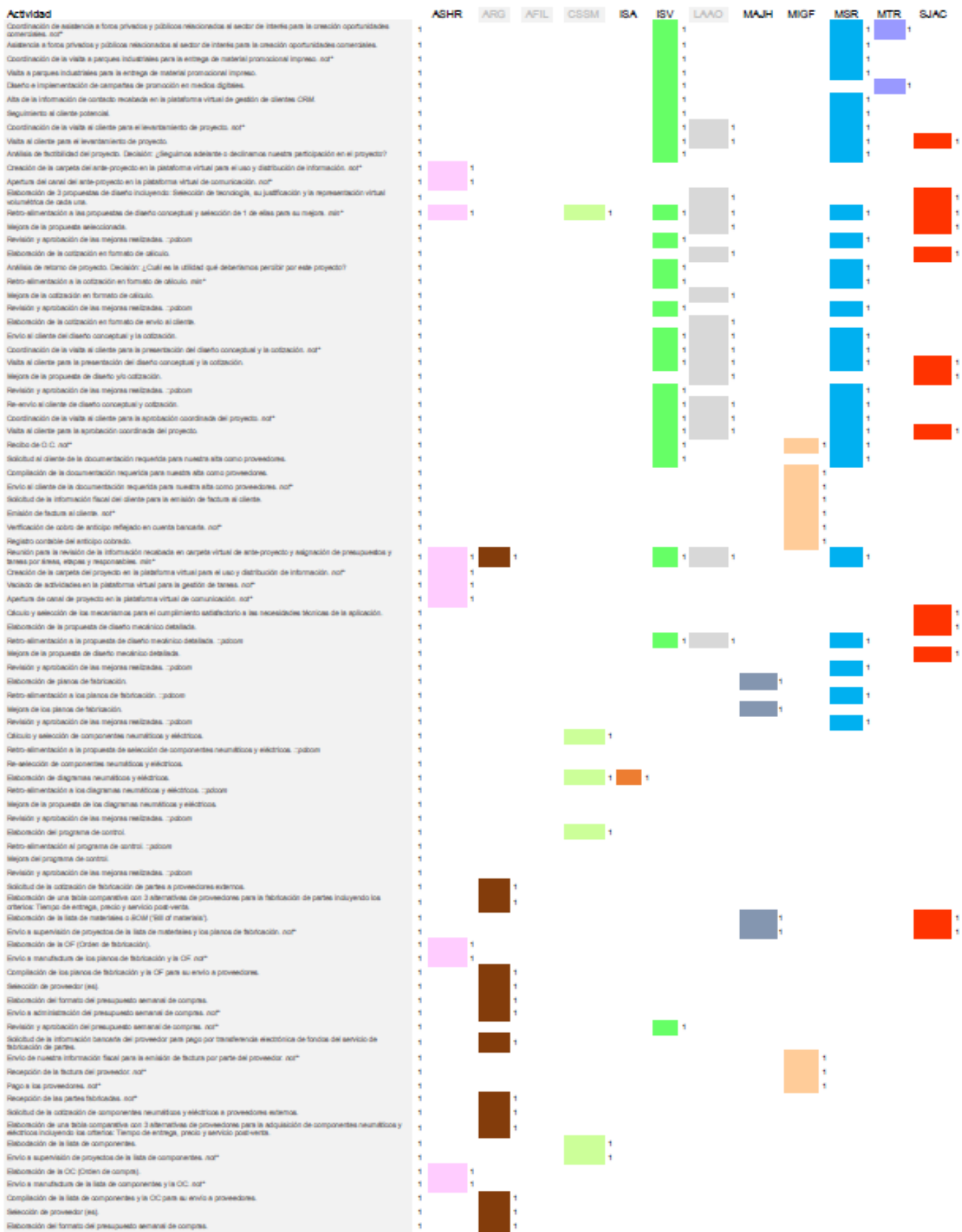
Design and manufacturing engineering

- 2 Designers with over 8 years of experience designing tooling
- Solid works design software
- 2 licenses.
- Simulation outsourced



 **SOLIDWORKS**

Operational Master Planning



Fab & Paint shop equipment

#	Manufacturing equipment	Description	Size
3	Miller/Lincoln	Mig Welding machine	211/400
2	AX Tech/Lincoln	Tig Welding Machine	200
1	Titanium	Manual Saw	10"
1	Dewalt	Circular Manual Saw	14"
1	Makita	Circular Manual Saw	14"



Manufacturing Machinery & Equipment

#	Manufacturing equipment	Description	Table Size
2	DMG MORI MILLTAP 700 / MCLANE	CNC Vertical	30X20X20 “
2	CK6140S MCLANE	CNC Lathe	13 X40”
5	Titanium	Conventional Mill	40X20X15”
1	Chmer 50 EZ	EDM	20X15”
1	Plastic Injection	Plastic Injection	160 Tons
1	West Lake	Milling Drill	30”
1	Chmer GX530L	Wire EDM	32X24X10”



Assembly & Tech Equipment

- 1 Mechanical Assembly expert
- 1 Pneumatic expert
- 1 Electrician
- 1 PLC programmer
- They are in charge of the full assembly of the tools produced with an average of 13 years of experience
- Several assembly tools:
 - Manual drills.
 - Wrenches.
 - Working benches
 - Manual grinders.
 - Pneumatic moto tool.
 - Manual assembly tools
 - Manual gages



Tryout and certification area & equipment

- We do test and tryout of every jig, work station assembled.
- We have master samples doing quality certifications with Faro Arm & Laser Tracker.
- Master parts validation with 8 hours tryout run.
- We have 1 quality technician with over 15 years of experience.



Quality Equipment

#	Equipment	Descriptions	Brand
1	Laser Tracker	0.035 mm repeatability	Leica
Several	Manual gauges		Mitutoyo, T&O
1	Ultrasound thickness gauge	0.1 mm repeatability	Karl Deutsch
1	Linear Laser	1 mm repeatability	Bosh
1	Eddy Current Crack detector	0.2 mm – below coating	Foerster



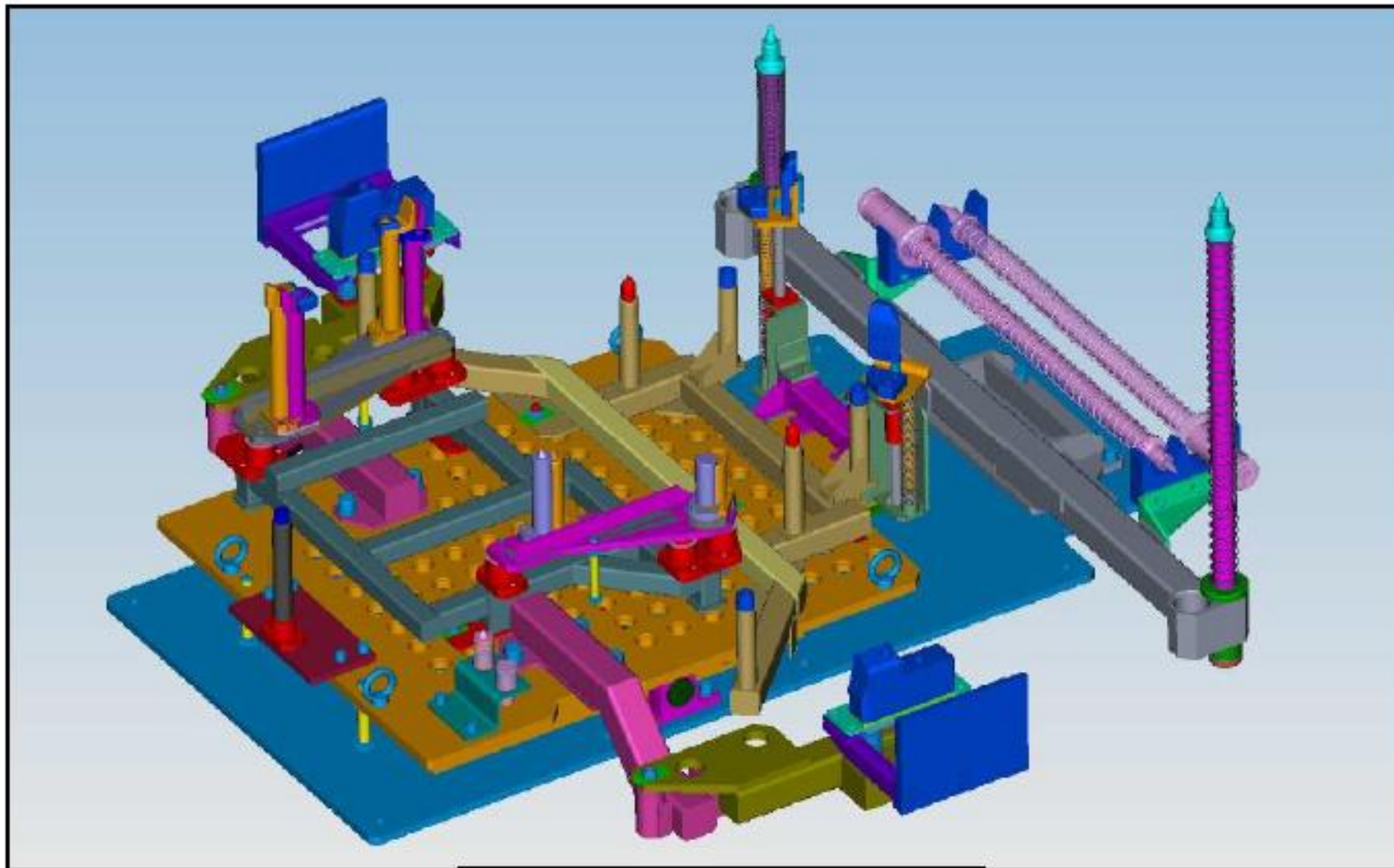
Data Management

- Protection on equipment and internet by Kaspersky
- We reinforce in every project an NDA, saving physical information protecting information

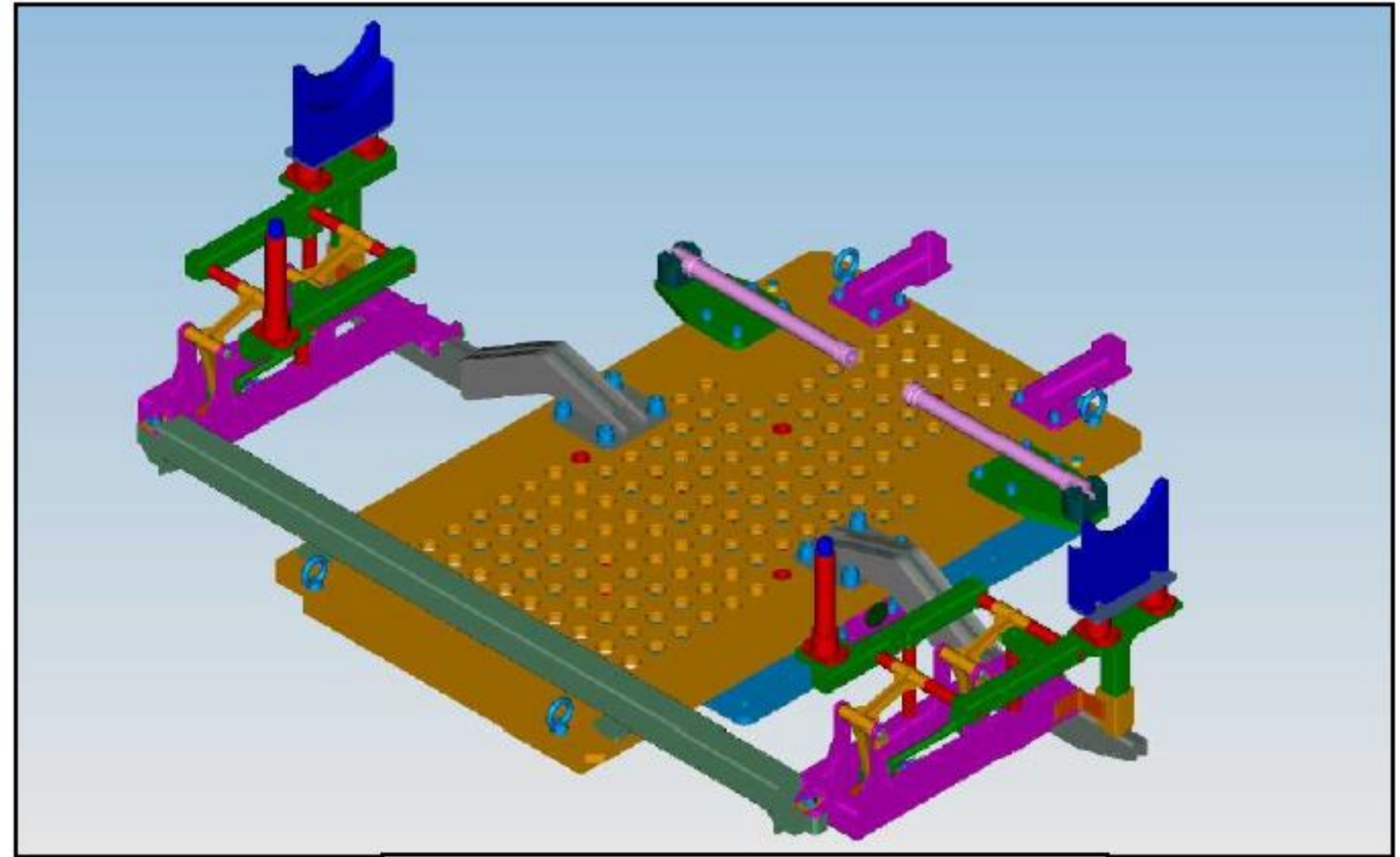


Portfolio

- Engine and Rear Suspension Pallets(14 pallets each)
- OEM: Mazda



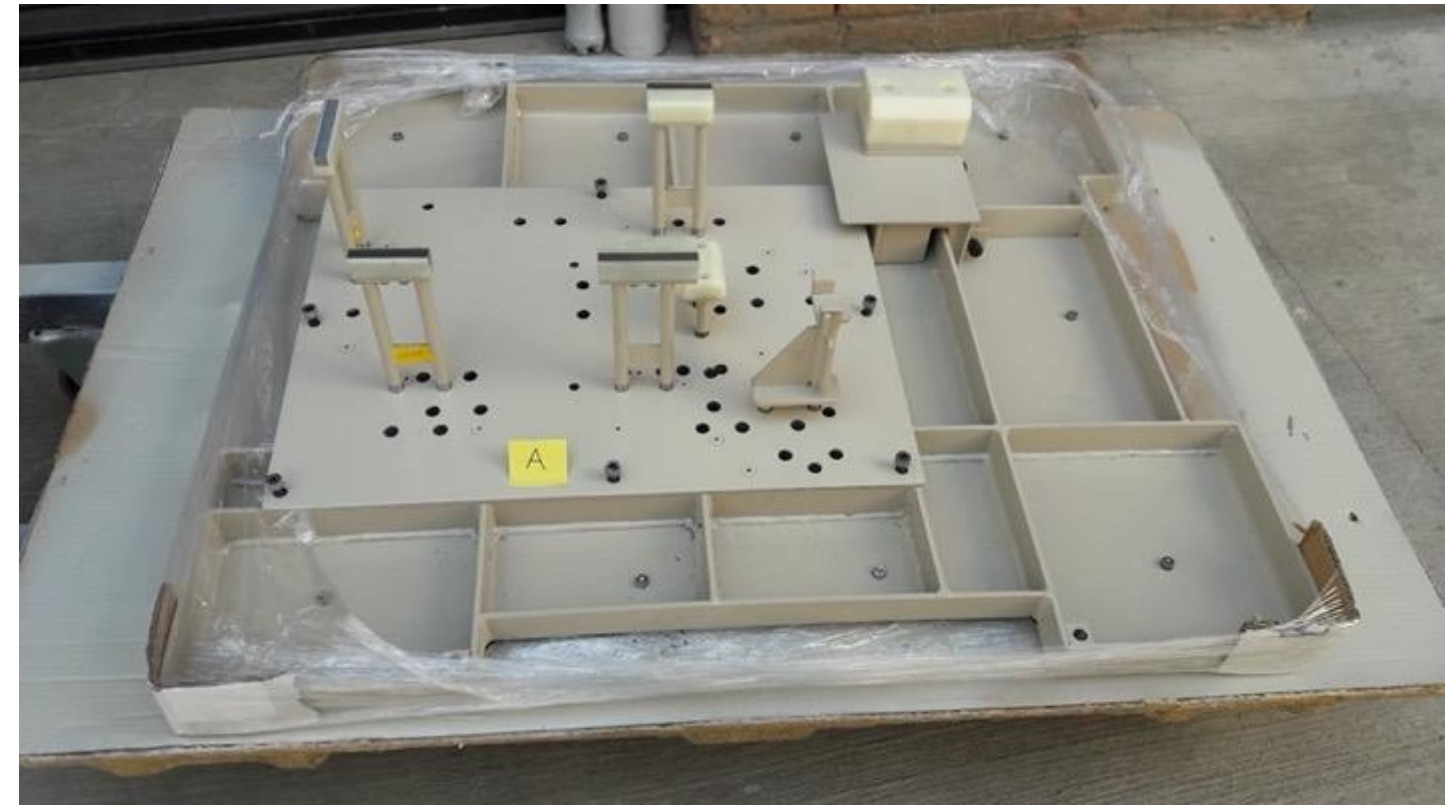
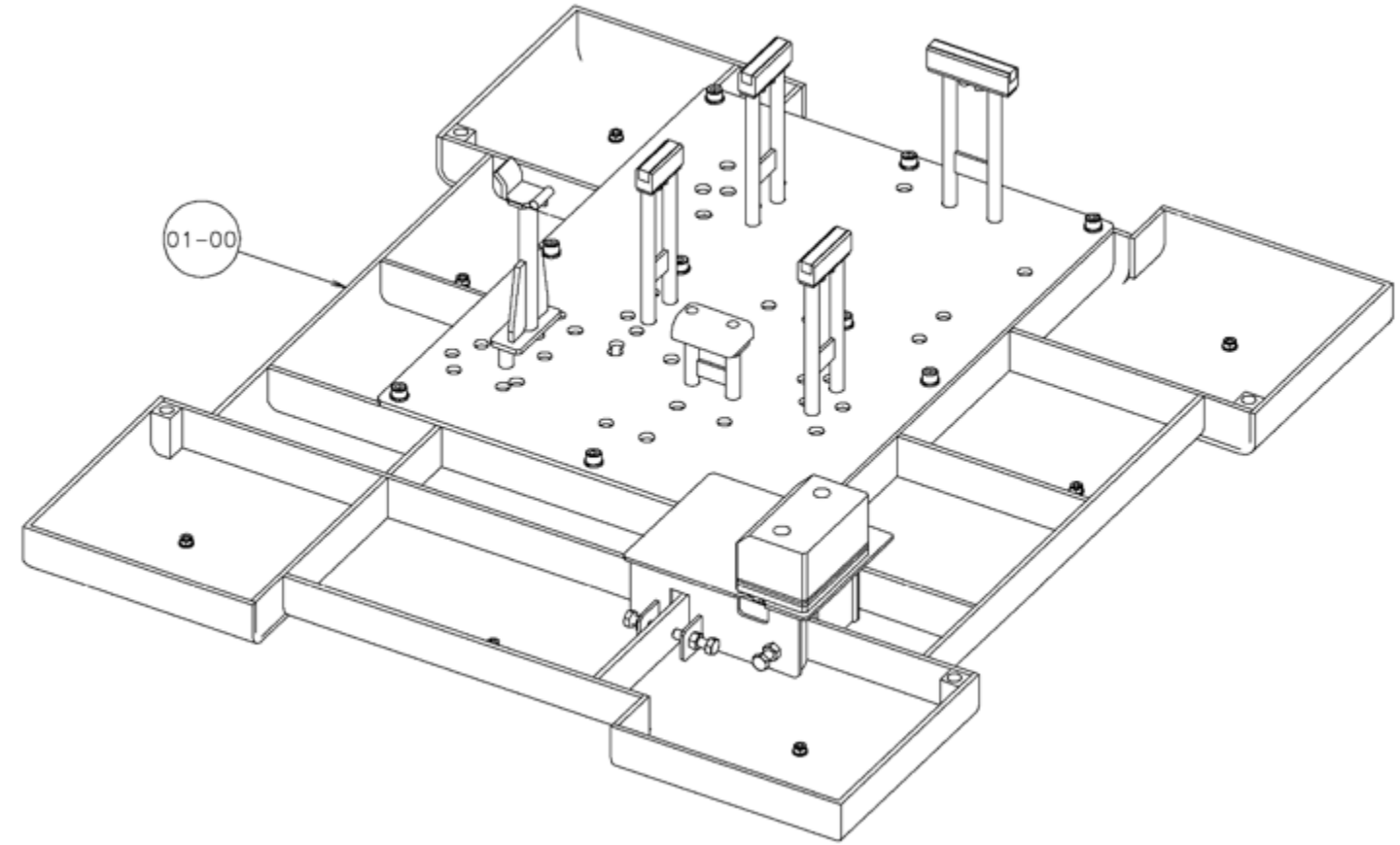
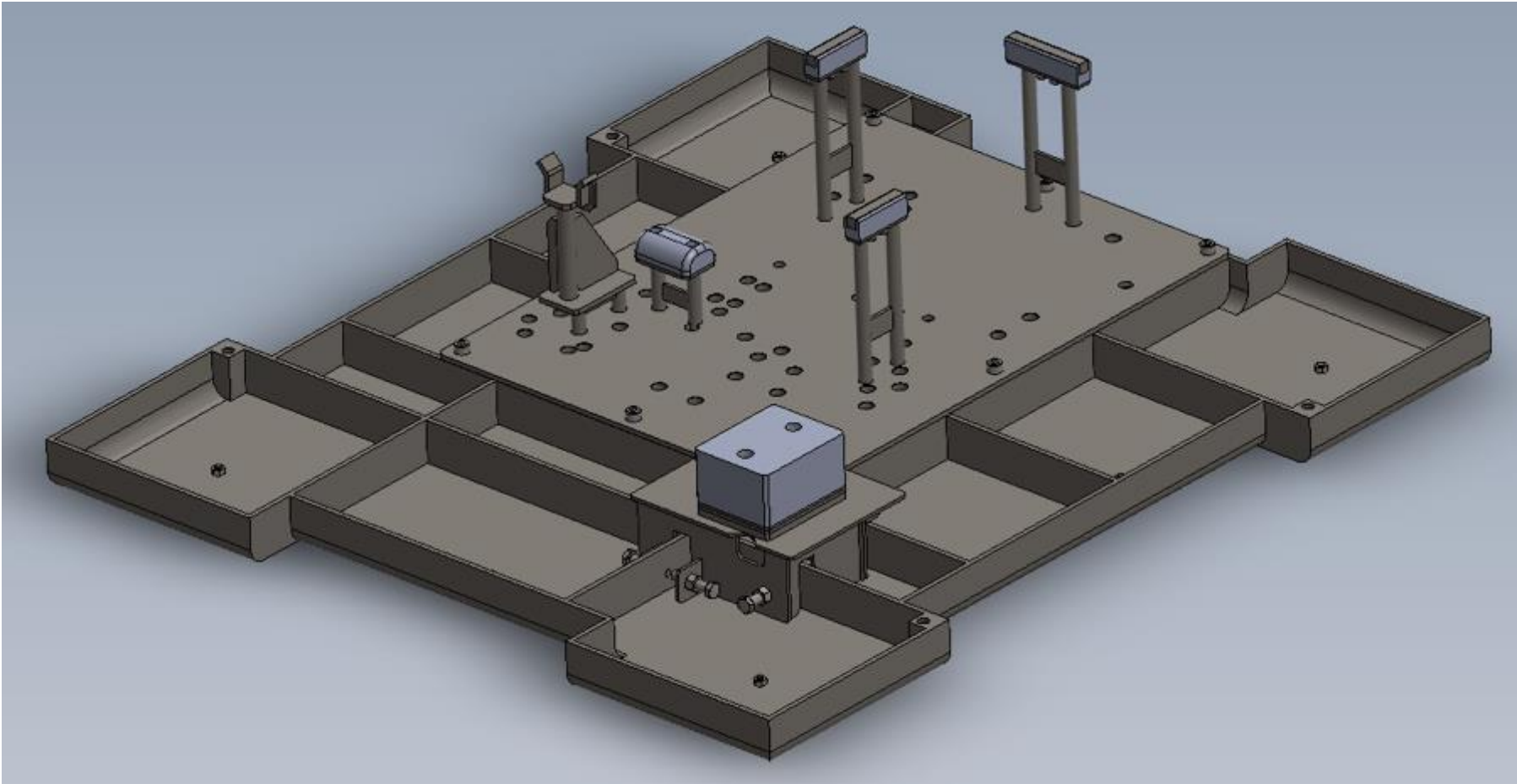
ENG docking pallet



Rear suspension docking pallet

Portfolio

- Engine Assembly Pallet (15 pallets)
- OEM: Mazda



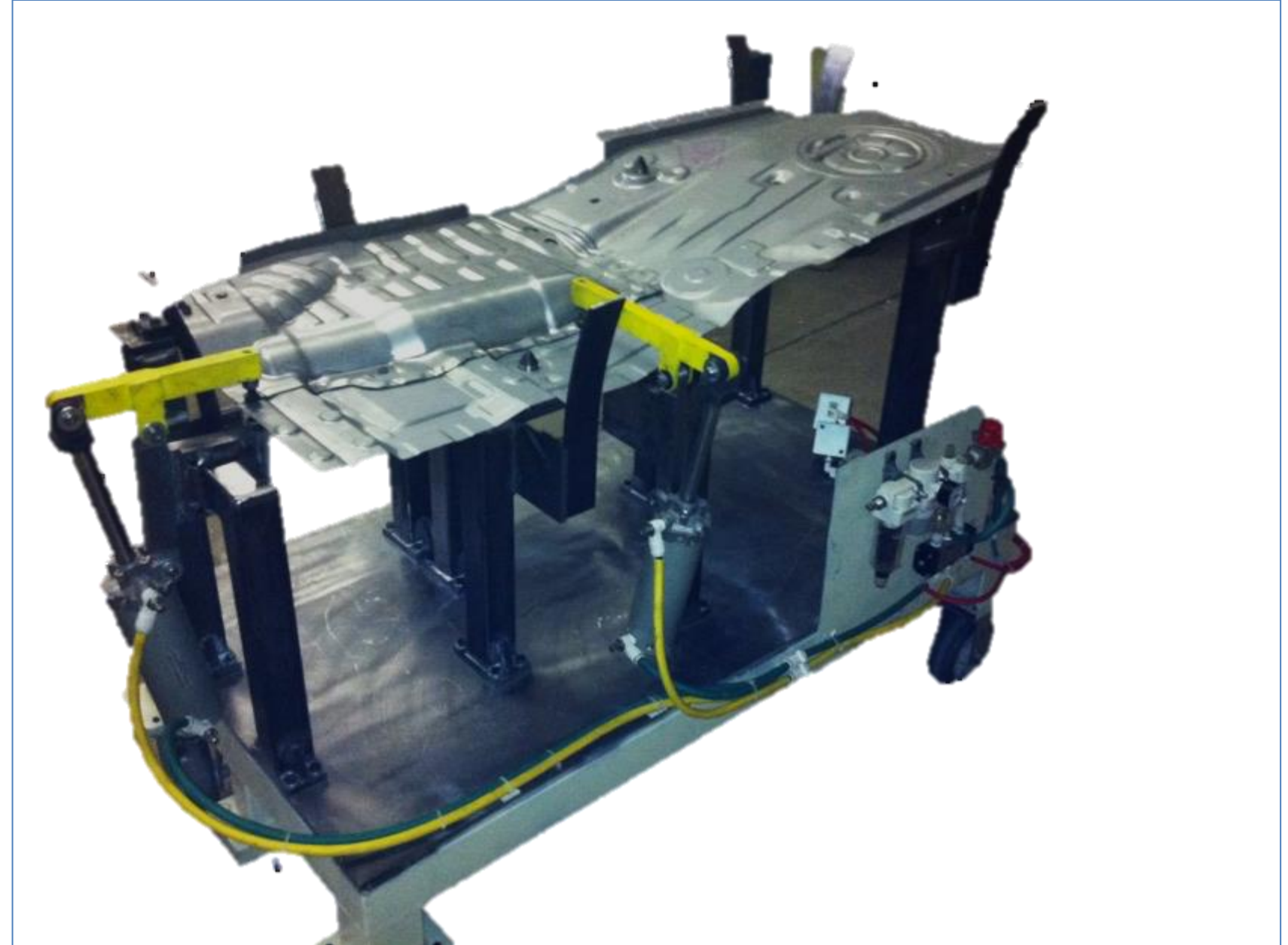
Portfolio

- Welding Jigs (2)
- Tier 1: Kyoho
- OEM: Toyota



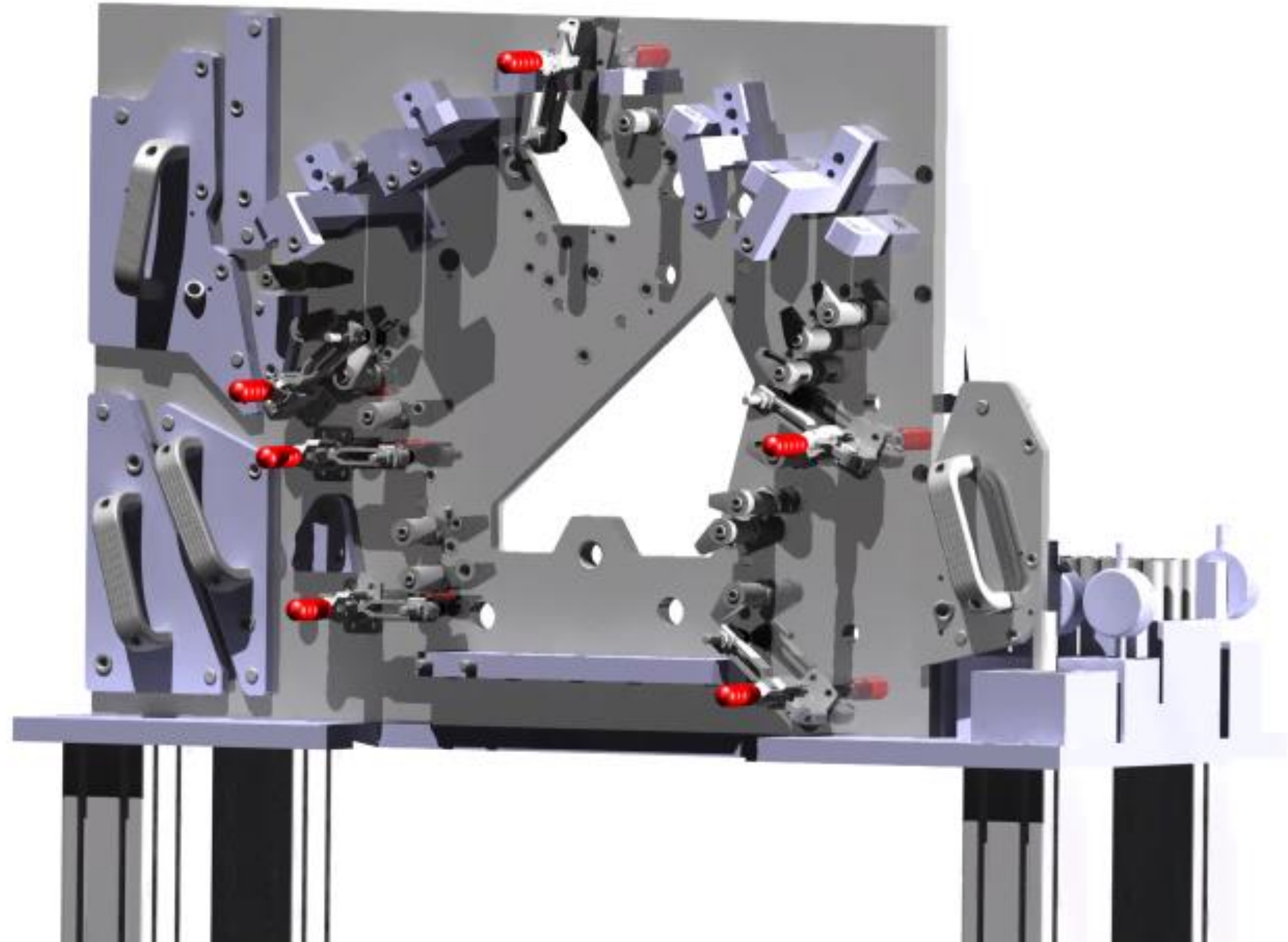
Portfolio

- Assembly Fixture (1)
- OEM: Honda



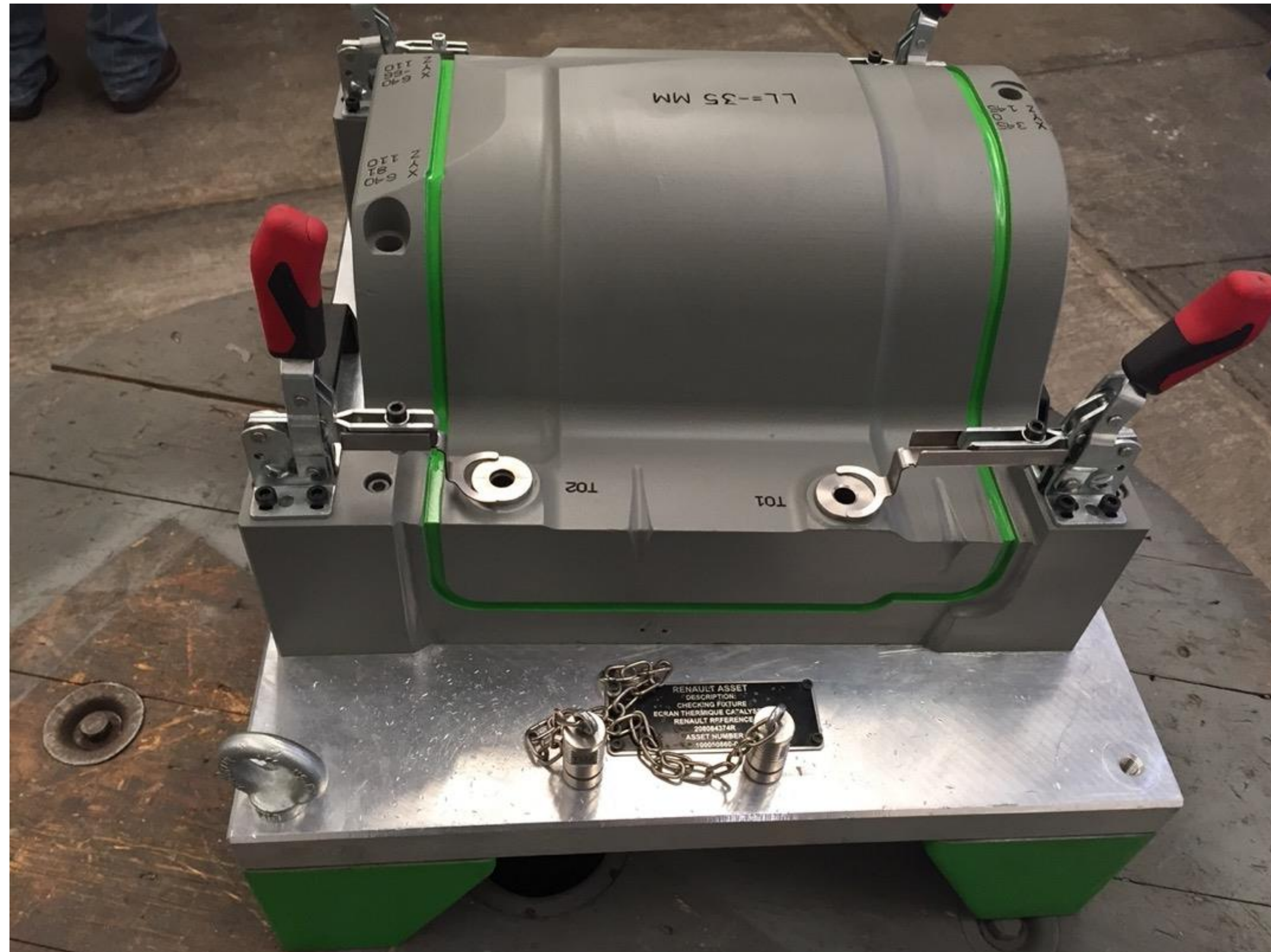
Portfolio

- Checking fixture (2)
- True hole position between holes.
- Pentastar
- Tier 1: Aumatec
- OEM: Chrysler



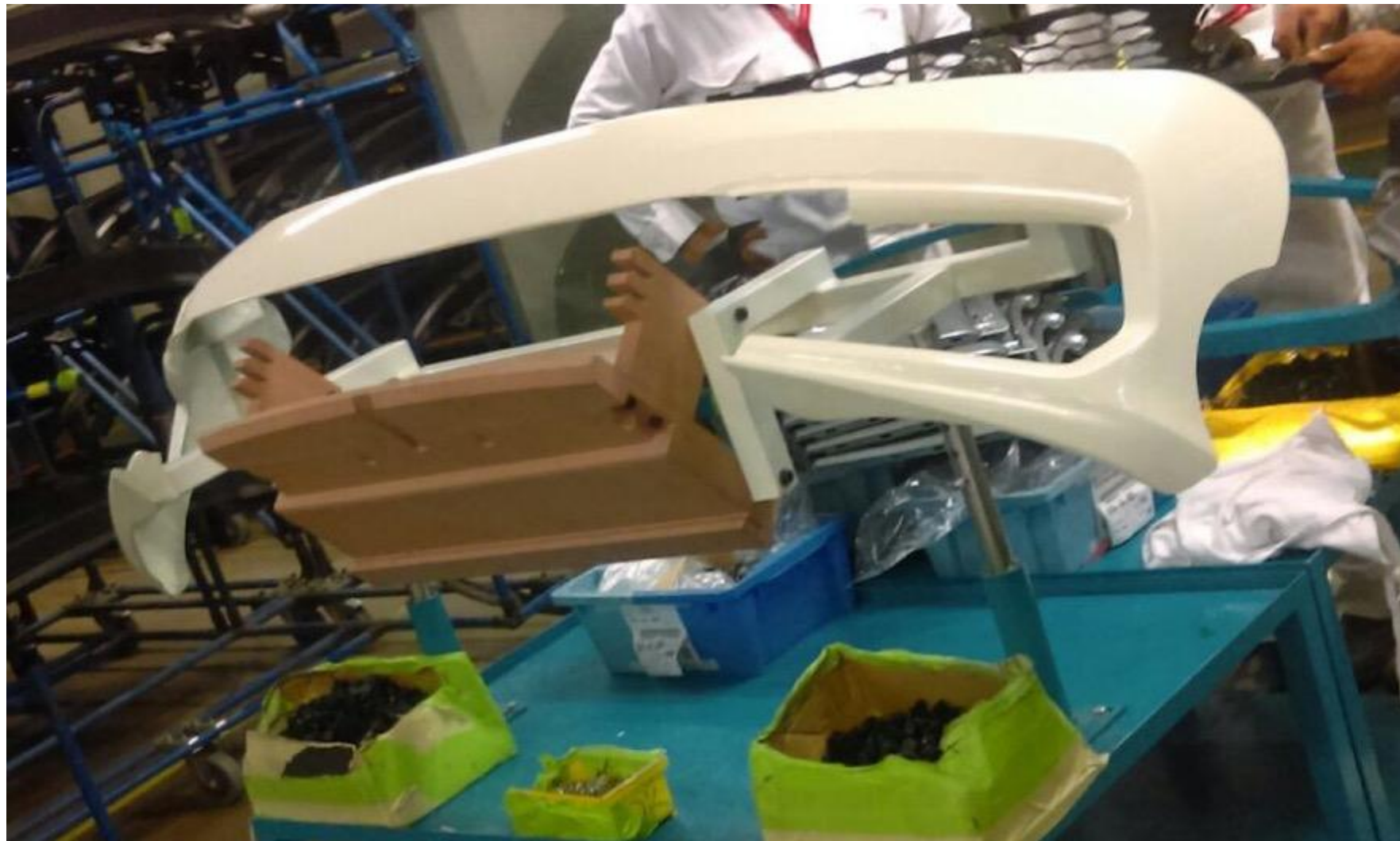
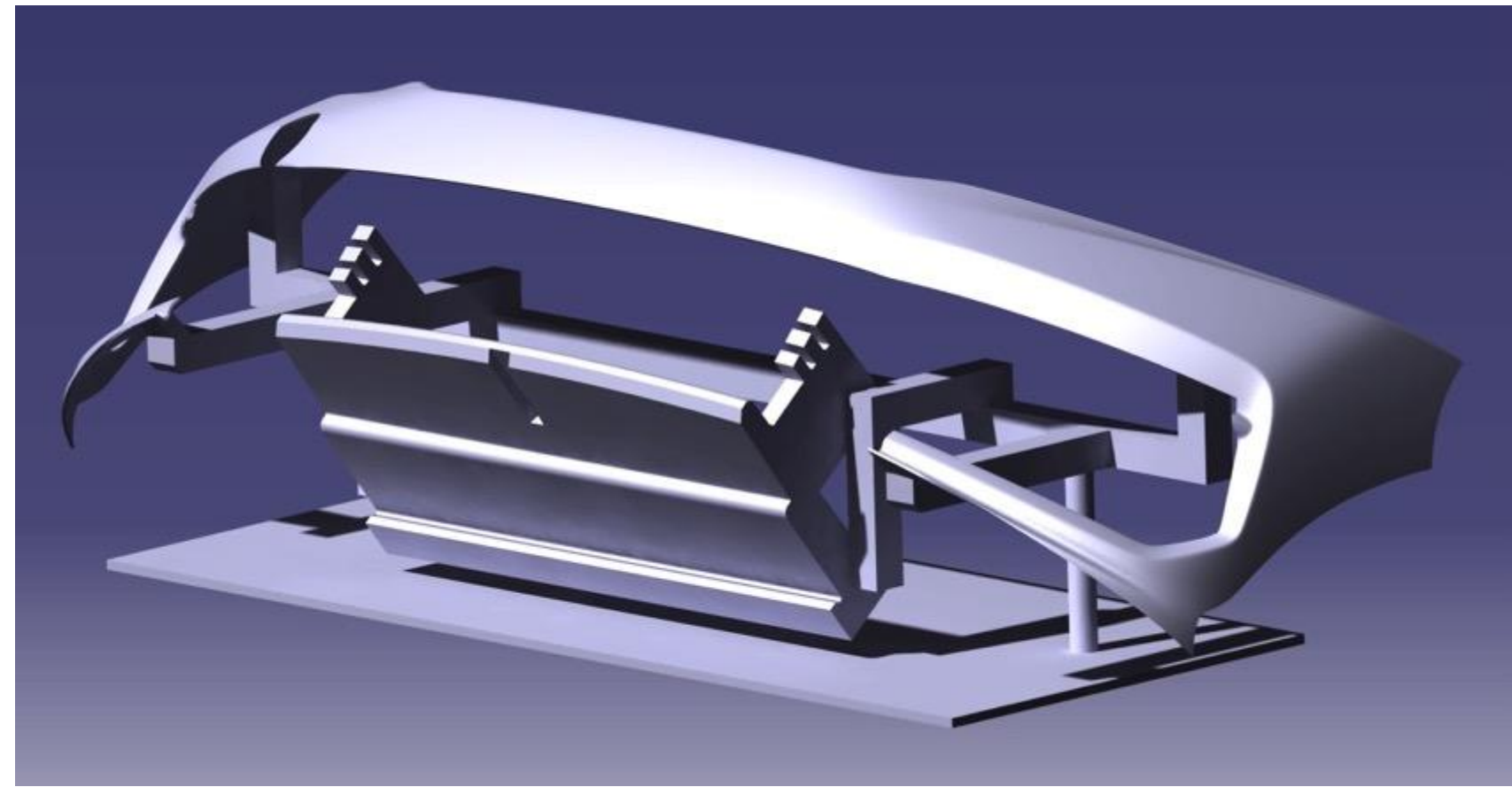
Portfolio

- Checking fixture (7)
- Holes and profile
- Tier 1: Carcoustics
- OEM: Renault and Volkswagen



Portfolio

- Assembly fixture (3)
- Front bumper assembly
- OEM: Honda



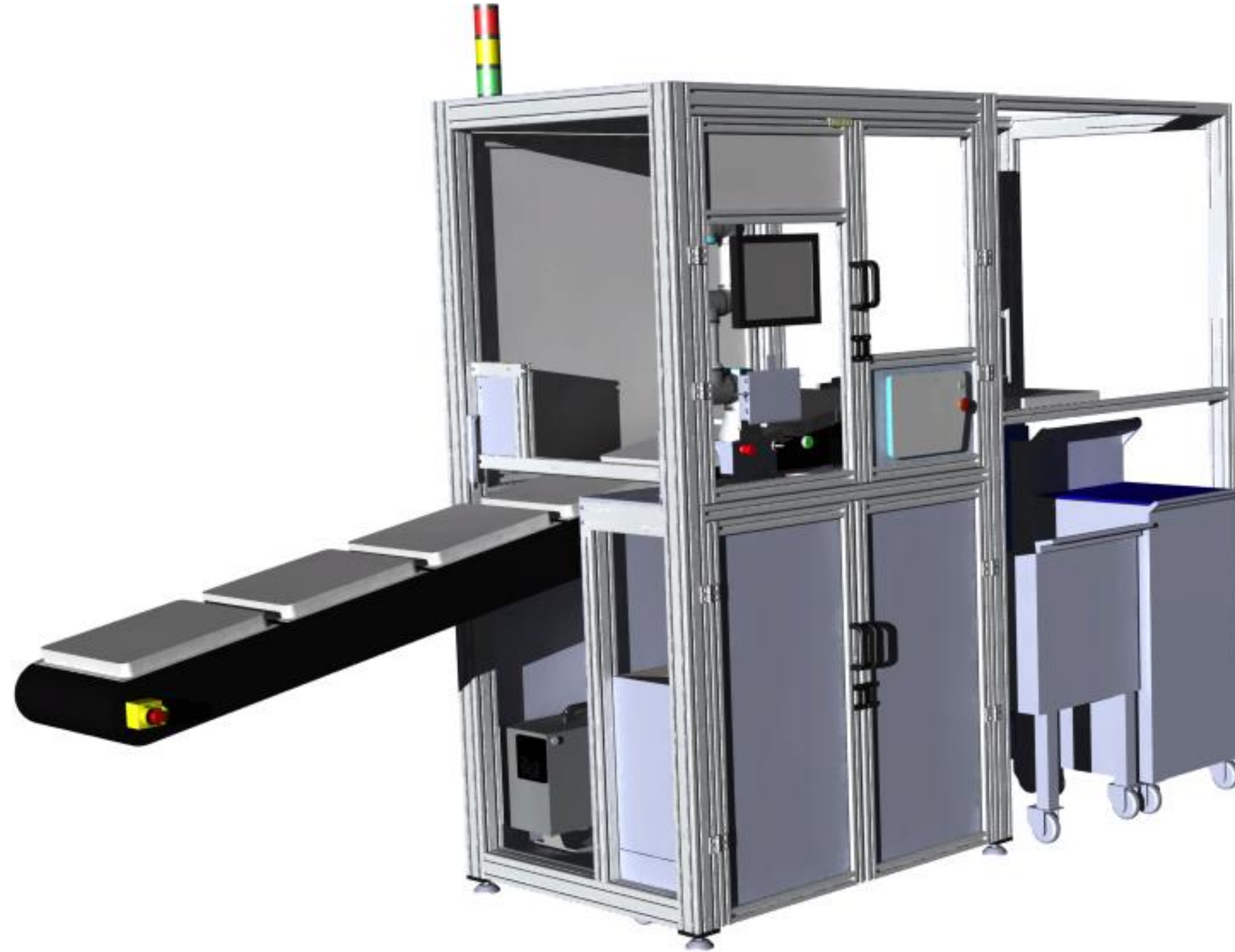
Portfolio

- ECT Hardness Tester (2)
- Tier 2: Draxton
- OEM: GM



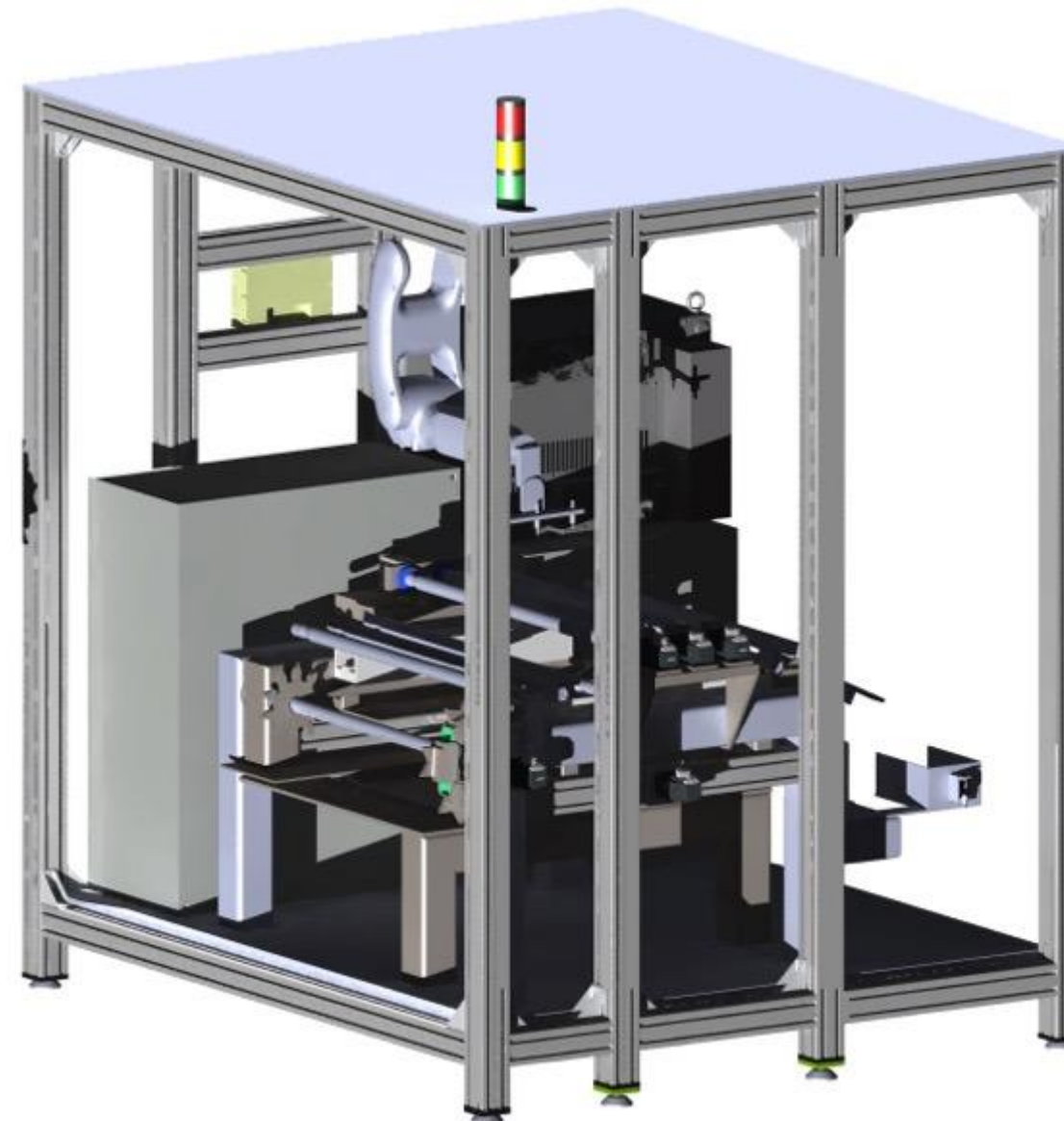
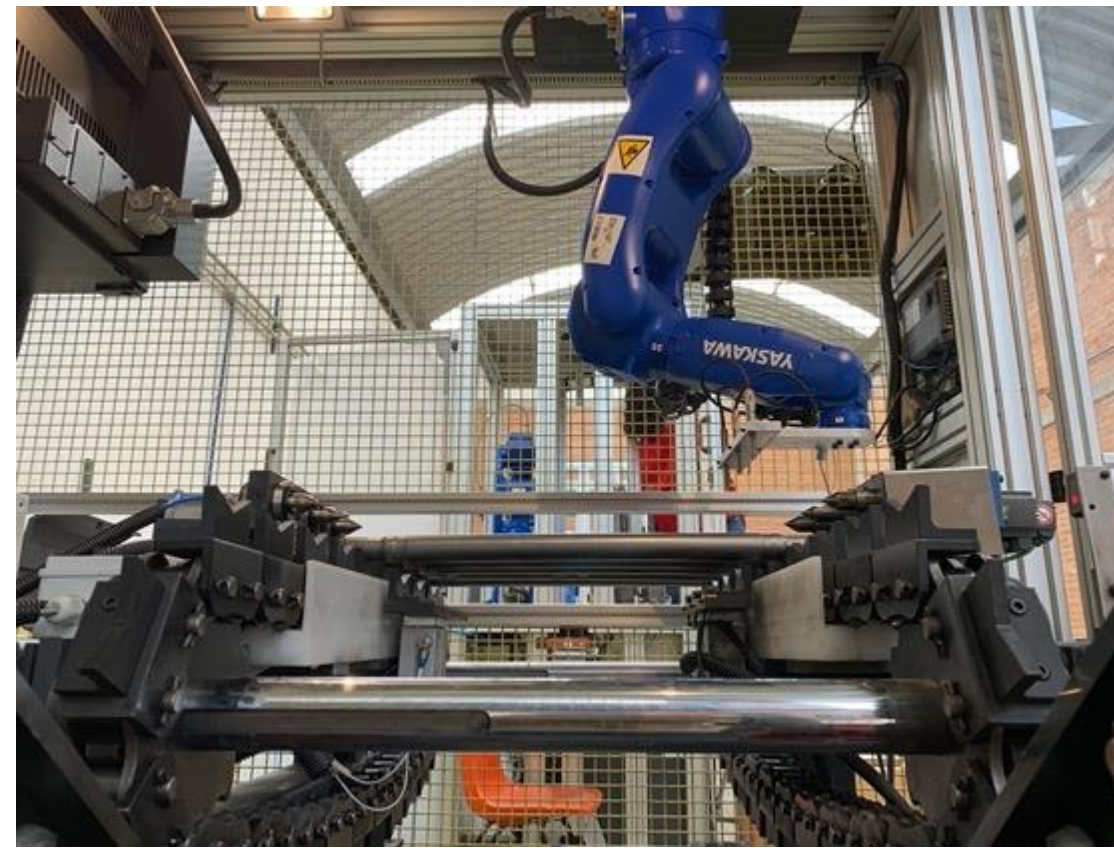
Portfolio

- X-Ray Segregation systems (2)
- Tier 2: Hitchiner
- OEM: Chrysler



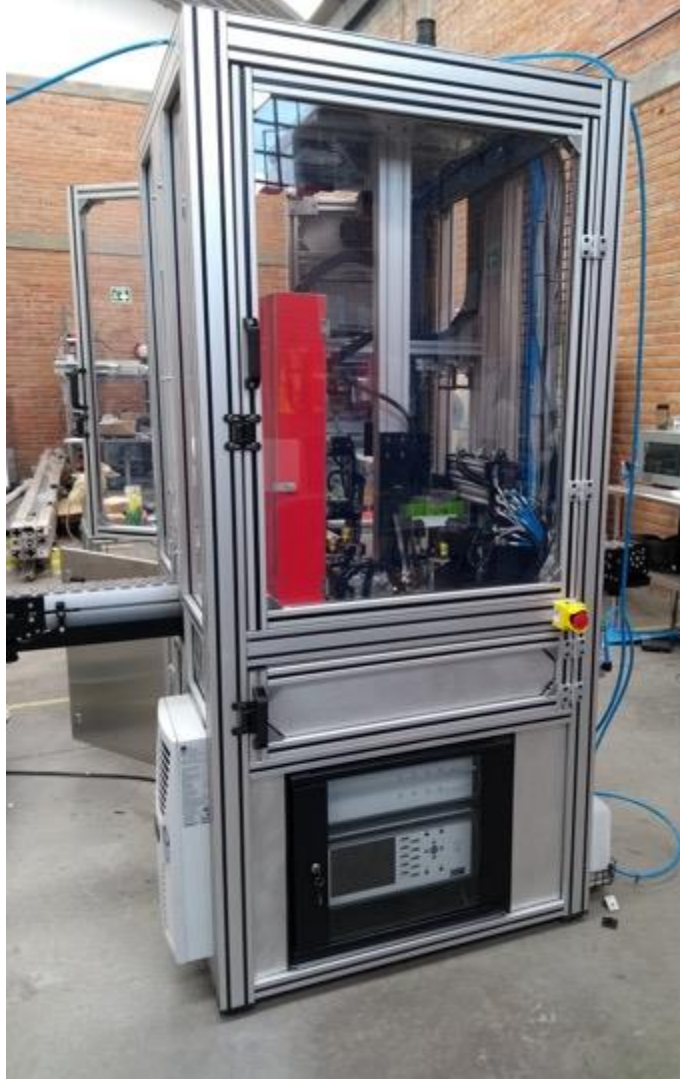
Portfolio

- ECT Crack Detector
- Tier 1: GKN
- OEM: BMW



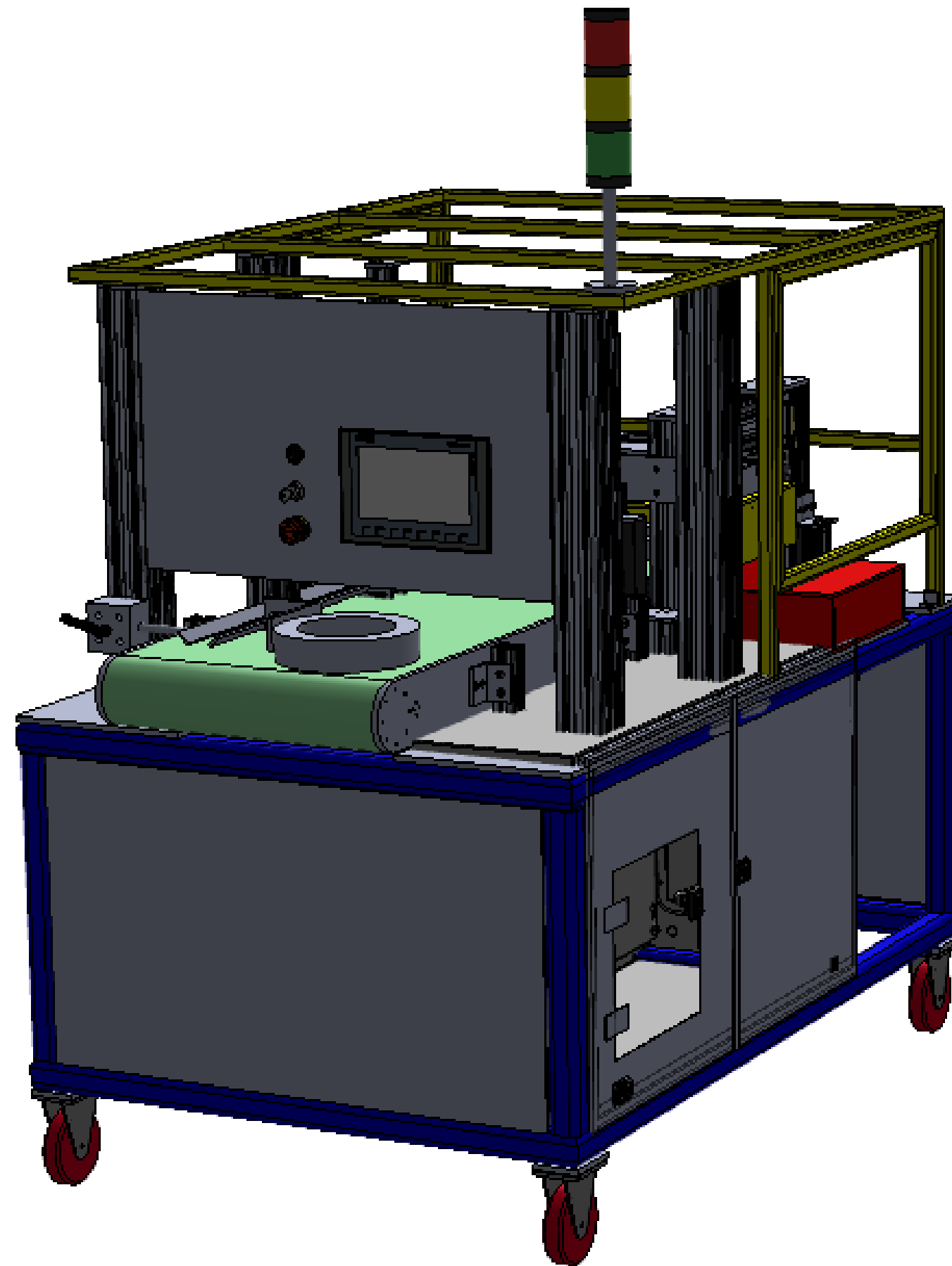
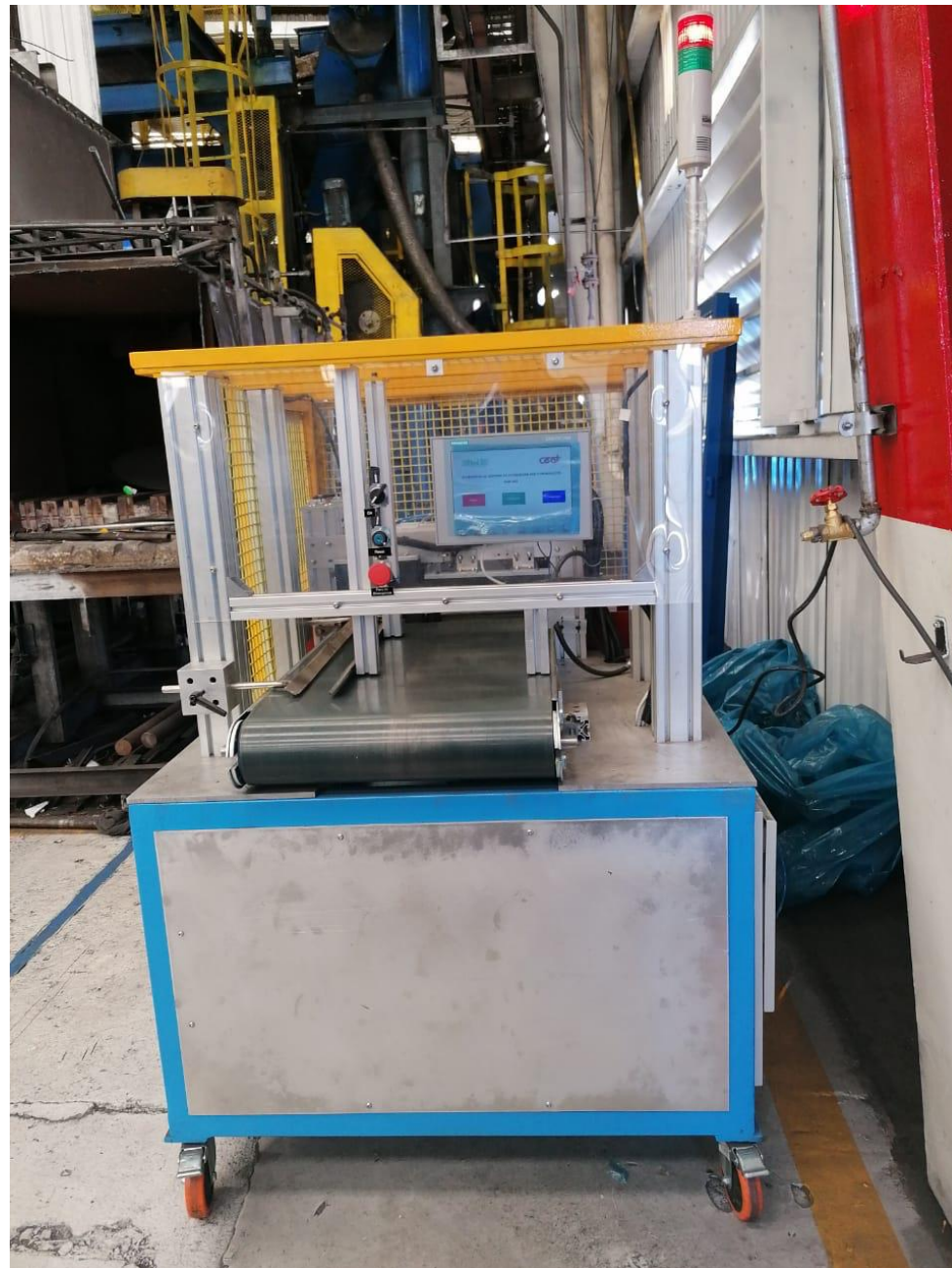
Portfolio

- ECT Hardness Tester (5)
- Tier 1: GKN
- OEM: Multiple



Portfolio

- ECT Alloy Mix Tester (2)
- Tier 1: DANA
- OEM: Multiple



Supply base

SIEMENS

 **UNIVERSAL ROBOTS**

YASKAWA

THK


serviacero
comercial

 **MISUMI**

 **FESTO**


La paloma
•Tu mejor aleación•

BALLUFF

 **DESTACO**
a **DOVER** company

 **SMC**


IIRSACERO
S.A. DE C.V.

BÖHLER  **UDDEHOLM**


Carr Lane
MANUFACTURING CO.

Ceat

Customers



Contact

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