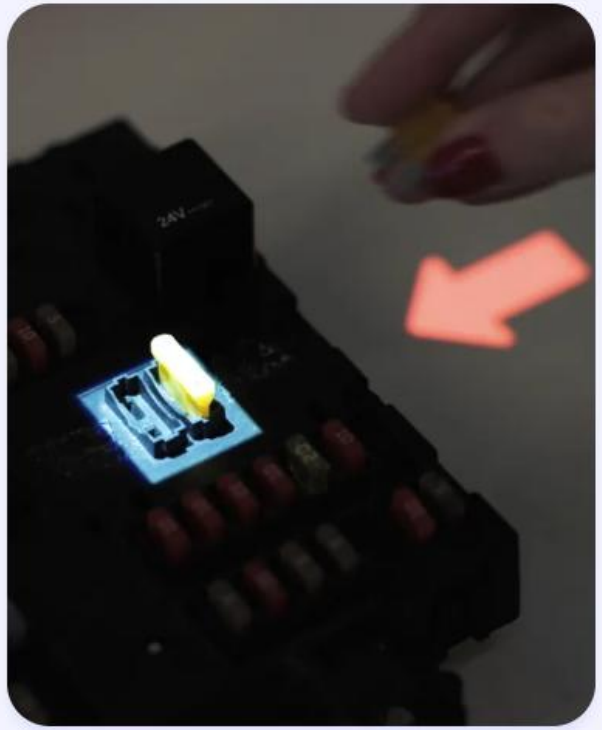
ansomat

Client Use Cases 2026

Operator Guidance Technology leads to...



90%
Less errors

Eliminate operator mistakes

50-75%
Faster training

Facilitate training on-the-job

+44%
Increase staff employability

Employ lower skilled workers for complex tasks

Operator Guidance Options

Digital Work Instructions

Variant, & skill-based work **instructions**

Operator **action recording**

Smart Tightening

Integrate with **any fastening tool**

Tool **Position Control**

Augmented Reality (AR) & Inspection

Project work instructions **(AR)**

Validate actions with **Machine Vision or sensors**

Ultimate

Full capabilities

Use Cases | General

Not allowed to disclose company name

ITM POWER
Energy Storage | Clean Fuel

Energy Power Stack Assembly

100% verification of every single part

ZUMTOBEL

Lighting infra +25K variants

100+ stations from very basic to full advanced

Kitchen builder

Picking & kitting small components batch

Pick-to-light and kitting validation warehouse

MAA T A
WERKT VOOR U

Sheltered Workplace

Augmented Reality Guidance

PCB board assembler

Electronic Device Assembly

AR guided assembly

TNO

Electronic Device Repair

Variant-specific repairs

Note: this is a non-exhaustive list of customers, we've chosen those for which we have most documentation

Use Cases | Automotive & Aerospace

Not allowed to disclose company name

EV Battery Assembly

No-fault-forward for new product intro

Hydrogen Fuel Cell

Process & tightening control for new product

Engine Assembly

No-fault forward with most advanced suite of tools

Airplane Wing Assembly

Ensure accurate hole drilling

Jet Booster Assembly

Cross-sequence tool position control

Business Seat Assembly

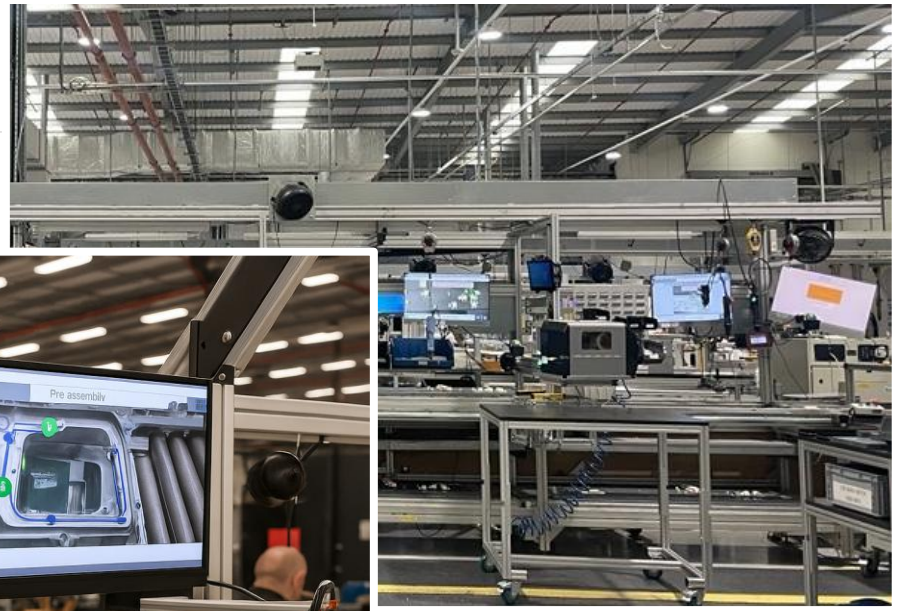
Guaranteed precision & traceability

Note: this is a non-exhaustive list of customers, we've chosen those for which we have most documentation

General Manufacturing

Lighting Solutions | Factory Scale

ZUMTOBEL



PROBLEM

- **Plant-wide process control** needed for **25,000+ variants**
- High-mix, low-volume production with constant new variants
- **Traditional PLC solutions can't scale with frequent changes**

SOLUTION → FROM SIMPLE GUIDANCE TO TURNKEY

- From **simple digital work instructions** to **advanced stations**
- **AR-based sequence guidance**
- **Tools** with live torque feedback (DOGA, Makita)
- **Condition-based workflows** adapt to **new variants**
- **Skill-based instructions levels,** showing more info to trainees
- **Webcam image capture** for documentation
- **Weight checks** confirm all components are present

*Reduced **# claims** from **3550 to 500** in 3 years time*

Ultimate

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CUSTOMER TESTIMONIAL

Energy Power Stack Assembly

ITM POWER
Energy Storage | Clean Fuel

PROBLEM

- **20h manual** stack build assembly
- **One wrong component can fail the entire stack**

SOLUTION → 100% INSPECTION MANUAL PLACED PARTS

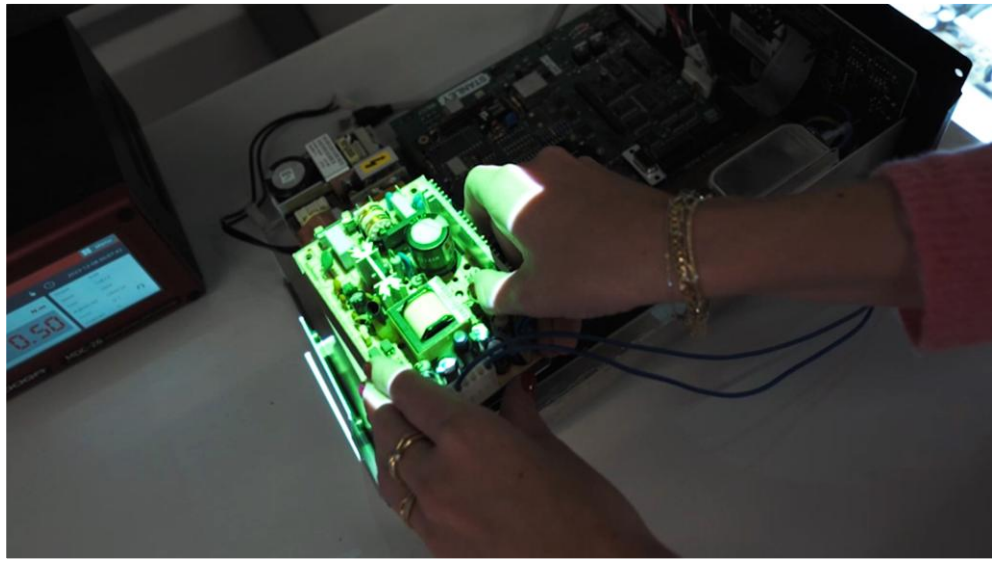
"Deal with +1.000 steps, +3.500 vision checks for 1 product built"

- **AR projects instructions directly onto the stack**
- **Vision** system verifies every individual part
- All vision images logged for full traceability
- **~ 3.600 vision inspections** per stack
- Consistent quality with early error detection
- Operators can resume after breaks without missing steps

From 64% first-time-right to 99%(!) first-time right

AR & Inspection

Electronic Device Assembly



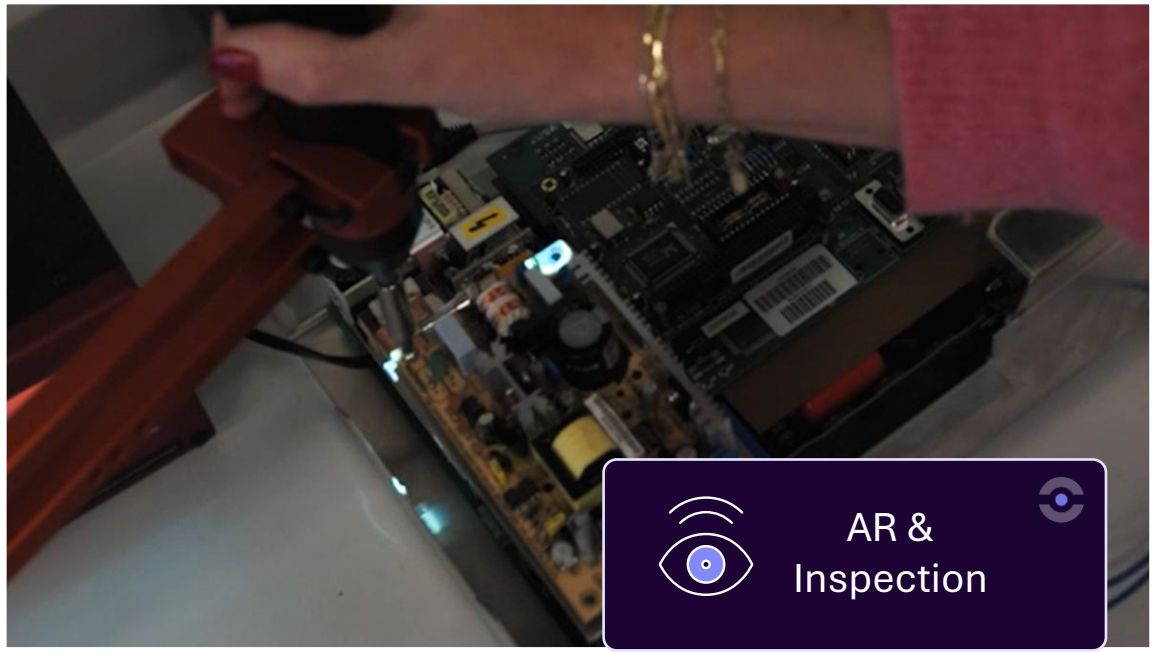
PROBLEM

- Deal with **ever-expanding array of new device models**
- High **risk of incorrect component placement** & **missing screws**
- **Steep technician learning curve** leads to errors

SOLUTION → DETAILED PART AND ACTION INSPECTION

"Monitor fine-detailed work to the highest degree"

- **Project (AR)** projects step-by-step instructions onto electronics device
- **Automatic step selection** per variant
- **Skill-based instruction** levels
- **DOGA low-torque** tool integration (DOGA)
- **Position-controlled tightening** with **positioning arm**. Tool won't release when incorrectly positioned (DOGA)



Increase first-time-right

Reduce potential mistakes

Electronics Device Repair

PROBLEM

- Maintain **consistent repair quality** and efficiency
- Deal with **ever-expanding array of new device models**
- **Repair steps vary by fault**
- **Steep technician learning curve** leads to errors

SOLUTION → VARIANT SPECIFIC REPAIR INSTRUCTIONS

"Variant-aware, skill-based guidance for any technician"

- **Scan barcode** to trigger right variant and load **appropriate flow**
- **Analyse pack** to identify the issues and diplay the relevant corrective actions
- **Pick items from correct bin** using **projector-guided visual instructions**
- Confirm completed actions via vision system
- Retrieve data from previous station to detect unfinished or incorrectly completed actions
- **Label print** with correct identifying information so each pack can be tracked

Technicians faster trained

Reduce potential mistakes

AR & Inspection

Sheltered Workplaces

SOLUTION → AUGMENTED REALITY GUIDANCE

"Make tasks simpler, more consistent, ensuring every worker can deliver high-quality results"

- **Step-by-step visual guidance** projected onto work area
- **Machine vision** confirms correct parts and actions
- **Adaptive instructions to match workers ability**
- **Digital traceability:** replace paper and reduce admin work
- **Gamification** with visuals to increase worker satisfaction

Reduce need supverision intervention

Faster onboarding

PROBLEM

- People with **disability difficult to interpret text-heavy** instructions
- **Supervisors spend significant time** verifying tasks
- **Slow learning curve** & slow onboarding

AR & Inspection

Picking and kitting bags small components

Kitchen & bathroom builder

PROBLEM

- **Many variant kitting possibilities,** increasing risk of confusion
- **Missing parts in kitting bag** leads to frustrating customers, cause delays and negative experiences

SOLUTION → PICK TO LIGHT & KITTING VALIDATION

"Ensure torque accuracy before every repair"

- **Scan barcode** to trigger right variant and load **appropriate flow**
- **Pick from right bin with bin,** using guided indications with bracelet
- **Put part in tray with vision system validation**, allowing to check part correctness
- **Fill the bag** placing validated parts into packaging
- **Label print** with correct identifying information so each pack can be tracked

Better consistency & process reliability

Improve training efficiency

AR & Inspection

Automotive & Aerospace

EV Battery Assembly

DAF
A PACCAR COMPANY

PROBLEM

- **New EV** product → needs flexible instruction configuration
- **Many fastening points** & screw **variants**
- **No full-errorpoofing** nor traceability

SOLUTION → NO FAULT FORWARD NEW EV BATTERY

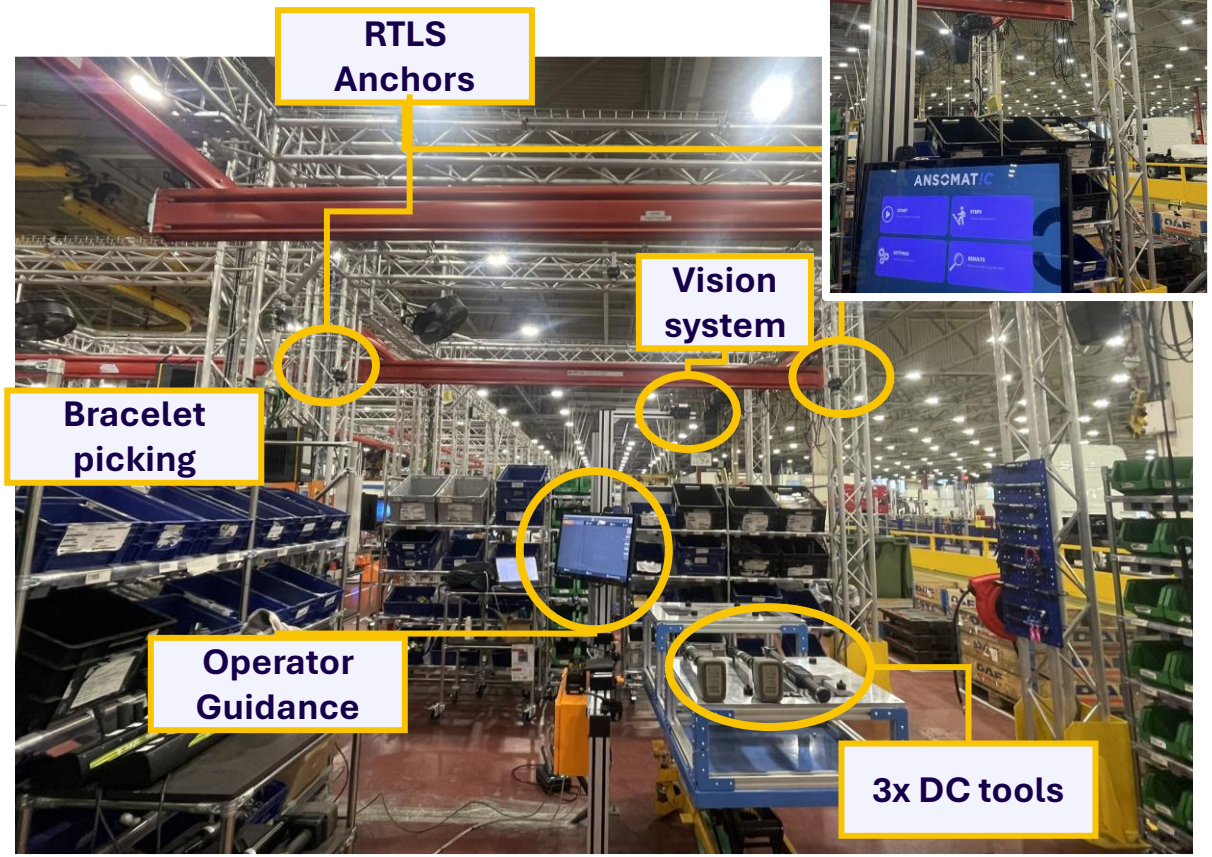
« Progress only after correct execution»

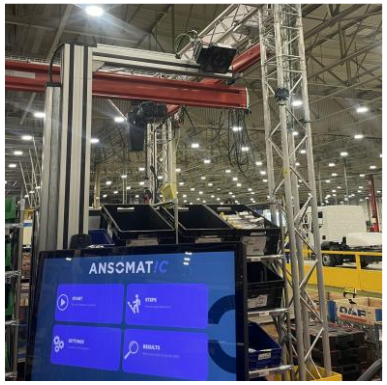
- **MES integration** to automatically trigger production order
- **Digital step-by-step guidance** for all variants
- **Machine vision** for process validation (KEYENCE)
- **DC fastening tools** with torque and angle control
- **RTLS-based** precise tool positioning (ZERØKEY)
- **Bracelet-based picking** to replace conventional pick-to-light hardware (ZERØKEY)

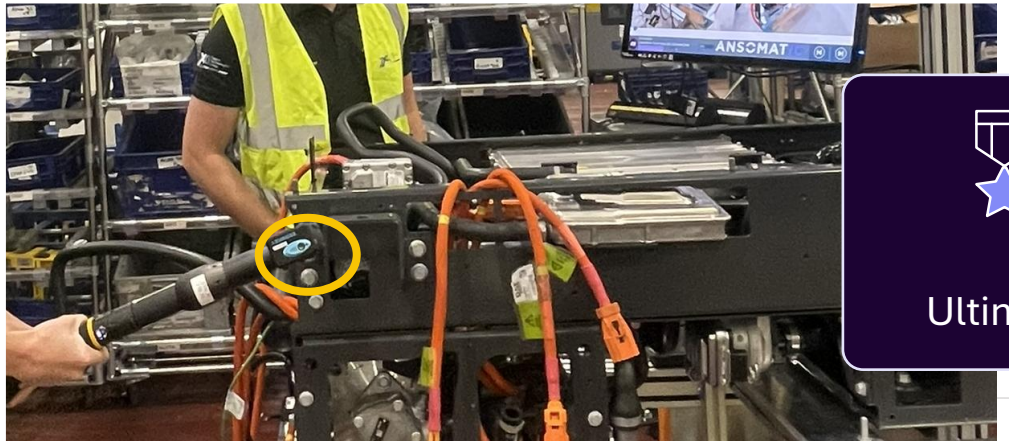
92%
First-time-right

Strong **reduction rework** & scrap

Faster **NPI ramp-up** & operator **training**







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Hydrogen Fuel Cell

TOYOTA

Tightening

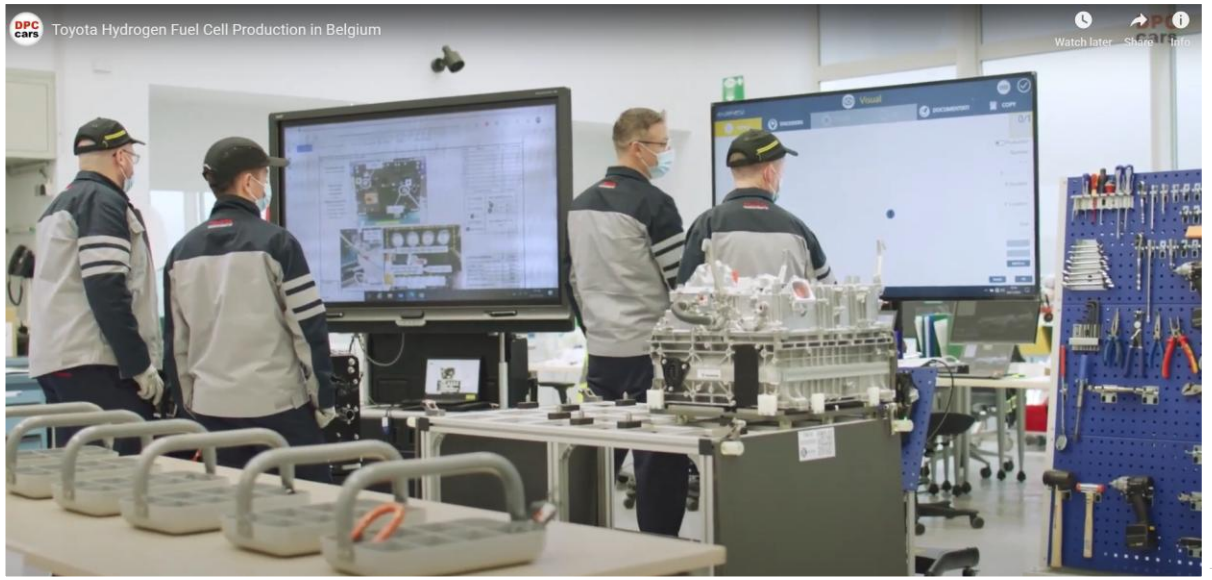
PROBLEM

- **Hydrogen** is **nascent, requiring flexible processes** for **continuous improvement**
- **Strict compliance** requirements **demand full traceability**

SOLUTION → PROCESS CONTROL NEW PRODUCT LAUNCH

"Configure, adapt, improve the process instantly"

- **Barcode scanner** for automatic program selection
- Digital **work instructions** with **visual bolt sequence**
- **Intelligent torque wrenches** for controller tightening
- **Tool position control** to ensure correct bolt order
- **Pick-to-light system** for correct part selection
- **Full traceability:** torque, angle, operator ID,…



100% built-in quality at source

Full traceability human actions & reporting

VIDEO OF APPLICATION IN ACTION

Engine Manufacturing

AUTOCRAFT Solutions Group JLR

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PROBLEM

- **OEM** required **quality control**
- **No repeatability** manual processes

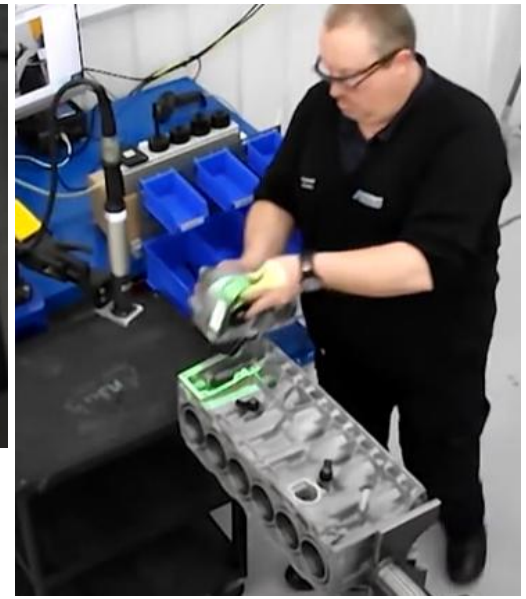
SOLUTION → NO FAULT FORWARD ASSEMBLY

« The flexibility of a human combined with repeatability of a machine! »

- **Project work instructions (AR)** onto engine
- **DC tools** with **socket selection** control (ESTIC)
- **RTLS-based positioning** to ensure precise fastening ZERØKEY
- **Machine Vision** workflow verification (KEYENCE)
- **In-process image capture** for traceability
- **Pick-to-light** bearing selection (SICK)
- **Digital birth certificate** per engine

99% first-Time-right

> Thanks to Ansomat solution we can reduce training time from 3 months to 1 week
>
> **Simon Warburton – CTO**



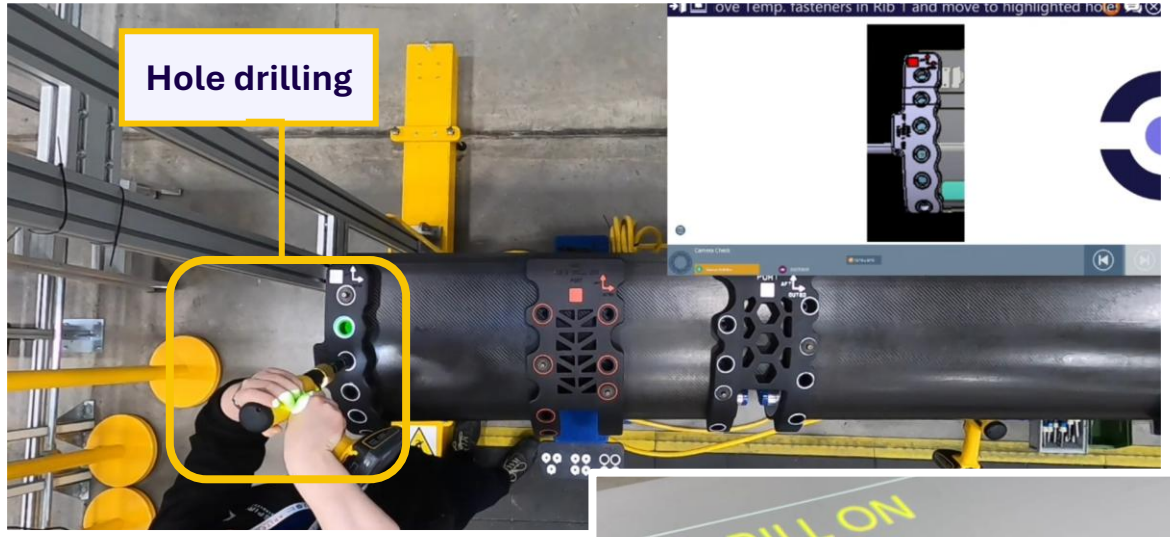
VIDEO OF APPLICATION IN ACTION

Airplan Wing Assembly

SPIRIT AEROSYSTEMS

PROBLEM

- Uncertainty about correct hole drilling
- **Large parts make QC difficult and costly**
- **Paper instructions** with **no validation**
- **No** operator **performance traceability**



SOLUTION → ENSURE ACCURATE HOLE DRILLING

"Support accurate work for long aerospace parts"

- **AR** guides correct drilling location
- **Sliding vision + projector cover 14m workspace**
- Instruction videos preview next task
- **RFID-based tool registration**
- **Digital twin** validates quality via logged actions

Increase product quality and first-time right to 97%!

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VIDEO OF APPLICATION IN ACTION

Jet Booster Assembly

SAFRAN
AEROSPACE · DEFENCE · SECURITY

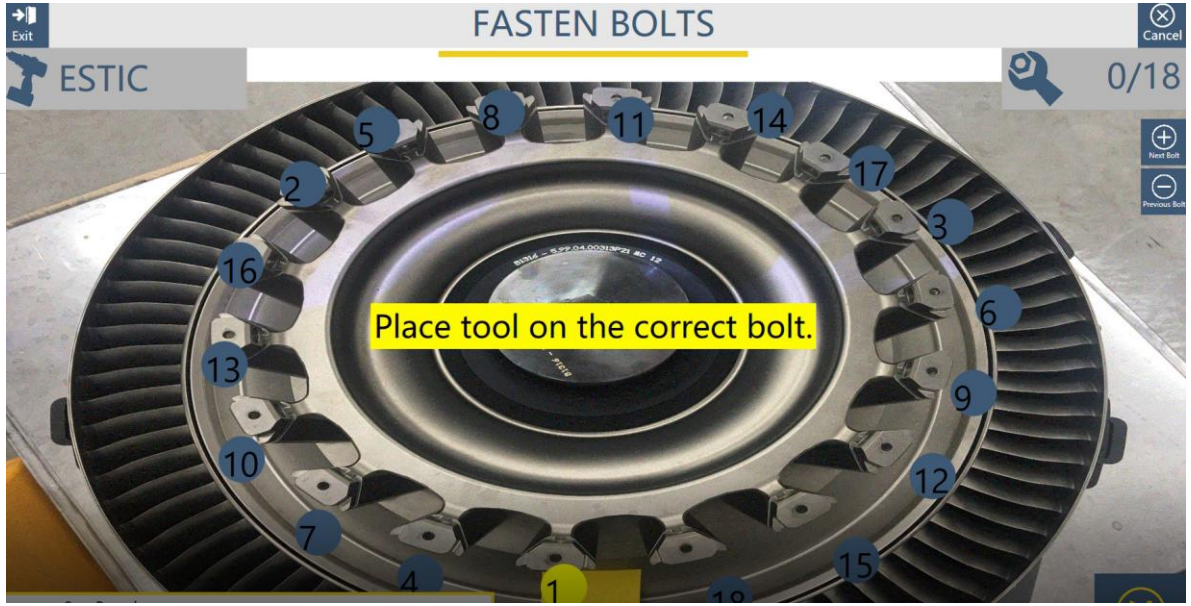
PROBLEM

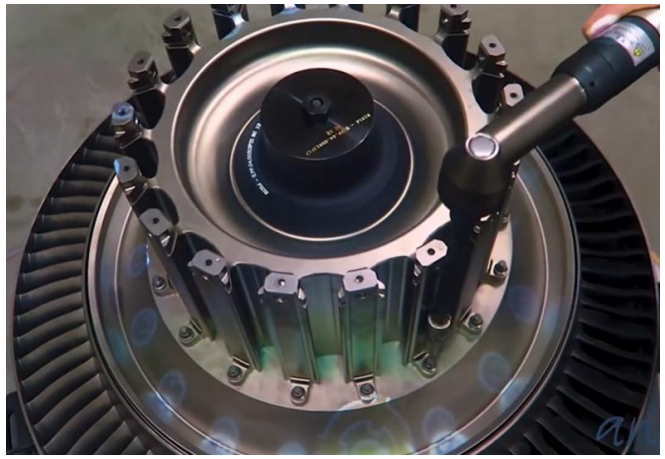
- Aero-booster **bolts require a strict 18-bolt cross sequence**
- **Errors occur when bolt sequence isn't followed**

SOLUTION → TOOL POSITION CONTROL CROSS SEQUENCE

"Ensure correct position cross tightenings "

- **Projection** bolt sequence onto the booster (Augmented Reality)
- **Verifiy position** of the booster **through machine vision**
- **Track tool position with vision** to flag incorrect bolt position (ESTIC)
- **Take** image of completed booster through vision
- **Record full torque/angle traceability** for every tightening





Enable operator rotation

Reduce production errors wrong tightening sequence

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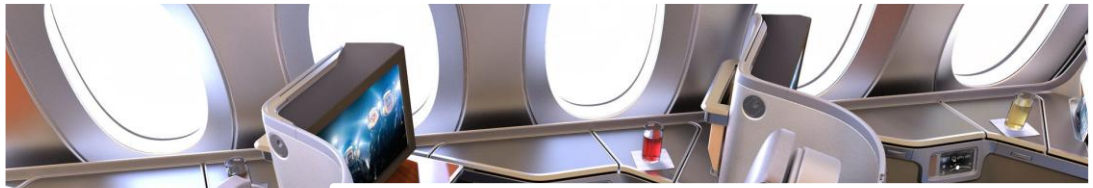
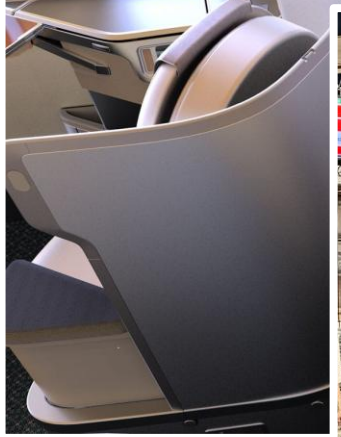
[VIDEO OF APPLICATION IN ACTION]





Business Seat Assembly

SOLUTION → GUARANTEED PRECISION AND TRACEABILITY MANUAL PROCESS

"Ensure consistency, compliance and error-free assembly"

- **Step-by-step visual guidance** displayed on a PC or workstation
- **Stanley tool integration** provides real-time torque and angle feedback (STANLEY)
- **Full traceability** of all operator actions incl. torque

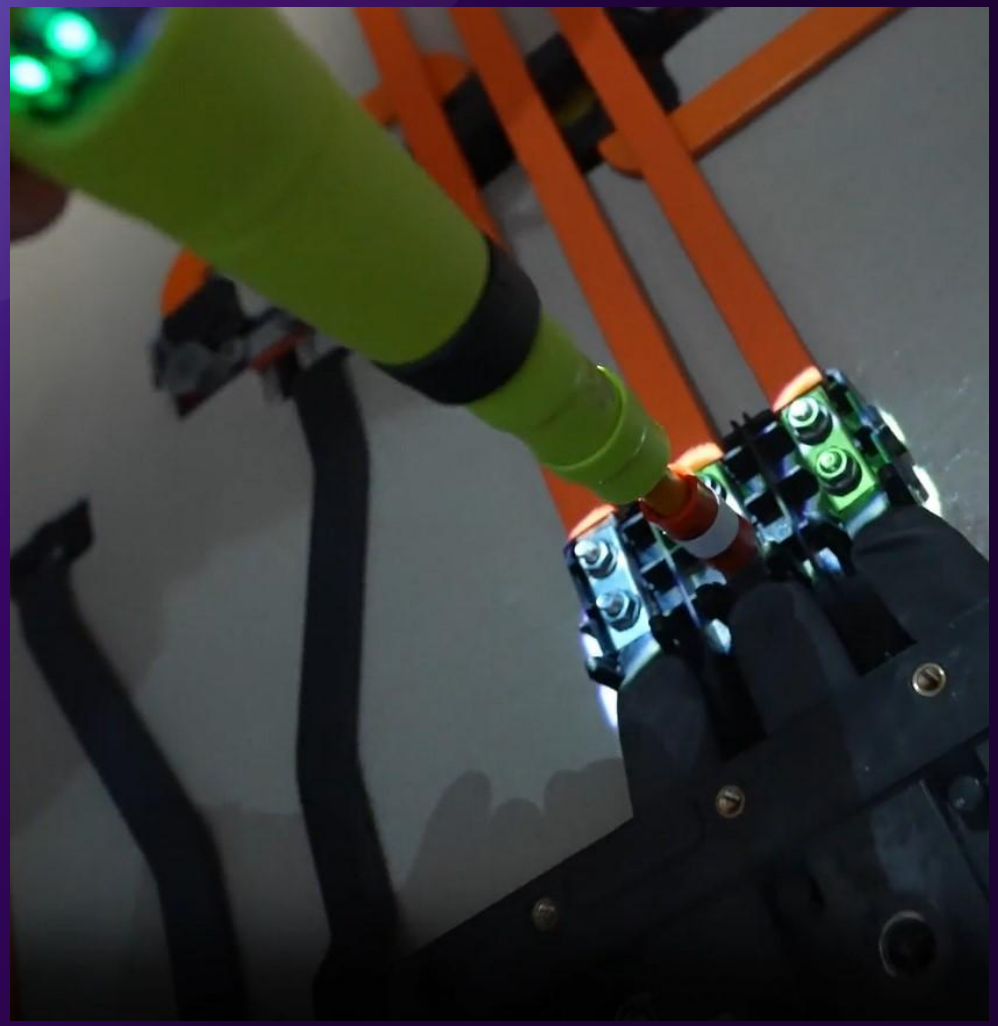
Lower risk of rework

Speed up training new hires

PROBLEM

- Business seat = **Highly critical, errors are costly**
- **Torque requirements not followed**
- **Limited traceability** manual work
- **Risk of FOD** (=foreign object detection)

Tightening



More info?

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