

# nex)))onar



## THE MOTION CAPTURE SOLUTION

Real time location system

Worker assistance for quality control and error-free production



# MANY DEFECTS IN VEHICLES



**In the same period more than twice as many vehicles were recalled than new vehicles were sold.**

According to the study "Recall trends of global automobile manufacturers 2011-2021" from the Center of Automotive Management (CAM).<sup>1</sup>

## WHAT ARE THE REASONS FOR THIS?



Increasing complexity and speed of development of vehicles  
→ **Growing error frequency and immature components**



Time pressure shortens production cycles  
→ **Frequent errors during assembly.**



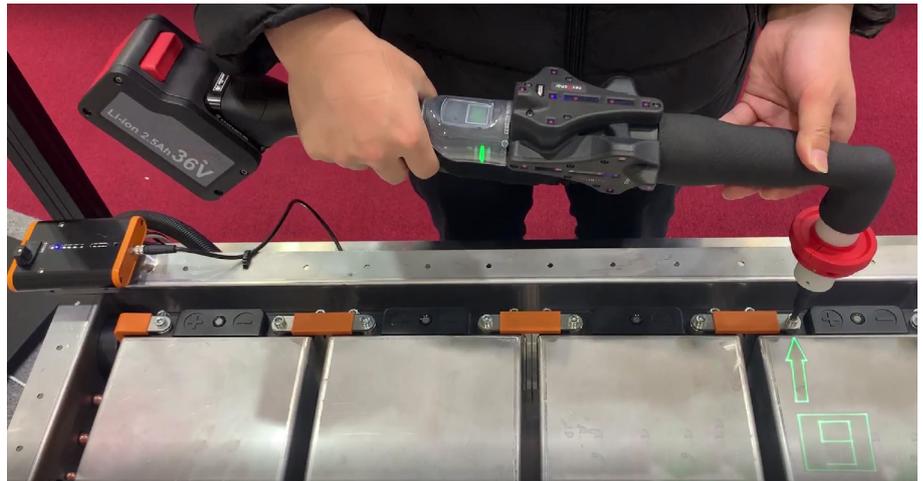
Inadequate training of employees and lack of quality controls  
→ **Increase in error rate.**

# SOLUTIONS

## INTELLIGENT WORKER ASSISTANCE FOR POSITION MONITORING OF TOOLS

### GOOD TO KNOW

6% of the global population is colour blind or has other colour blindness issues. Nexonar offers an audio support system for these groups of people.



Each work step is explained step by step and makes error-free work possible

## OUR OBJECTIVE

- ))) True to the "Poka Yoke" principle, we make error-free work possible.
- ))) Ensuring security within the work process by locking the device in the wrong position and unlocking it in the right one.
- ))) Through visual and auditory feedback, we help the worker to achieve a process in which error prevention and quality control go hand in hand.

## YOUR BENEFITS

- ))) Less follow-up remedy of defects
- ))) Easier handling through image, text and sound support system
- ))) Less need for training with frequently changing personnel
- ))) Better cost/benefit ratio in the long term
- ))) Error exclusion in complex and/or monotonous work activities

## PRODUCTS



### IR CAMERA

- ))) Flexible attachment and assembly options
- ))) Various fields of view (up to 4x4m per camera)
- ))) Up to 8 additional cameras at one workstation
- ))) Only receptive to infrared light

### BENEFITS OF IR TECHNOLOGY

- ))) Compliant with General Data Protection Regulation (GDPR)
- ))) Possibility of very precise work processes with distances up to 1mm
- ))) Independent from the light condition at the work place



Tool Tracker

Teaching Tracker

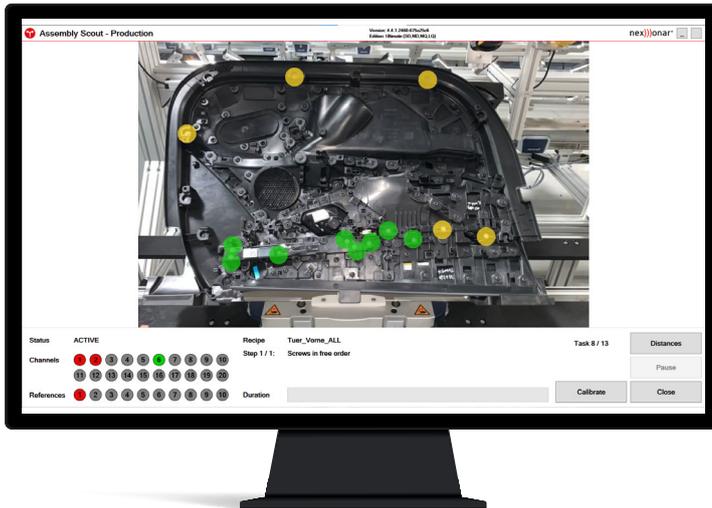
MQ Reference Tracker

Hand Size Tracker



We can see more!

# VISUALIZATION



## ASSEMBLY SCOUT HMI

- ))) Visualize the tasks you have to do
- ))) Customized operator instructions
- ))) Monitor dynamically the positions and control your process

## 3D LASER GUIDANCE

- ))) Visualize the right positions directly on the application
- ))) Movable laser without loss of accuracy
- ))) Possibility to configure customized shapes (arrow, cross, number)



## AUGMENTED REALITY PRODUCTION

- ))) Visualize the status of an actual system setup
- ))) Check for faulty positions
- ))) Help to improve virtual zone positions according to the tool orientation

## SOFTWARE

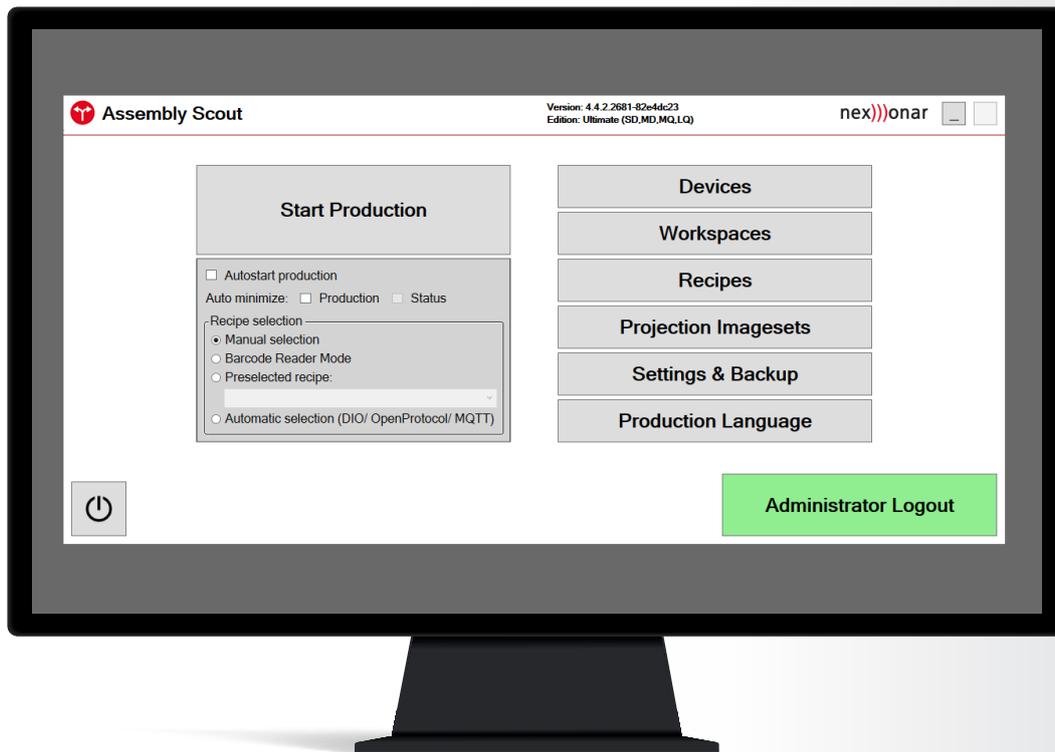
### ASSEMBLY SCOUT CONFIGURATION

- ))) Worker assistance software
- ))) Dynamic monitoring of the positions
- ))) Error-free work
- ))) Real-time analytics

### CONNECTIONS

- ))) ProfiNet
- ))) Ethernet/IP
- ))) Profibus
- ))) Discreet I/O
- ))) Open Protocol
- ))) MQTT
- ))) OPC/UA
- ))) PivotWare (Desoutter)
- ))) OGS (Bosch Rexroth)
- ))) VPG+ (SCS)
- ))) SQS (Atlas Copco)
- ))) AklanS (VW/Audi)

## USER INTERFACE



Simple controls



Tracker selection



Definition of the workspace



Create factory recipes



Lots of customization options

# SERVICES



## SERVICE

### INSTALLATION

- ))) Correct installation of the trackers in the respective areas
- ))) Precise setting of the cameras and teaching of the virtual points
- ))) Simple adaptation to existing systems and structures

### PROJECT SUPPORT

- ))) Visual examples with a demo showcase
- ))) Constant contact with us and our service team
- ))) Fast error analysis and immediate resolution of problems
- ))) 1-year warranty period
- ))) Flexible system customization and offers



## SUPPORT



## ADVICE

### TRAINING

- ))) Online or at your site by highly qualified experts
- ))) Training on installing additional systems (Assembly Scout, Motion Visualizer, etc.)
- ))) Training in handling the system and creating factory recipes

We can see more!