

Eye Tracking for Quality Control in Automotive Manufacturing

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Introduction

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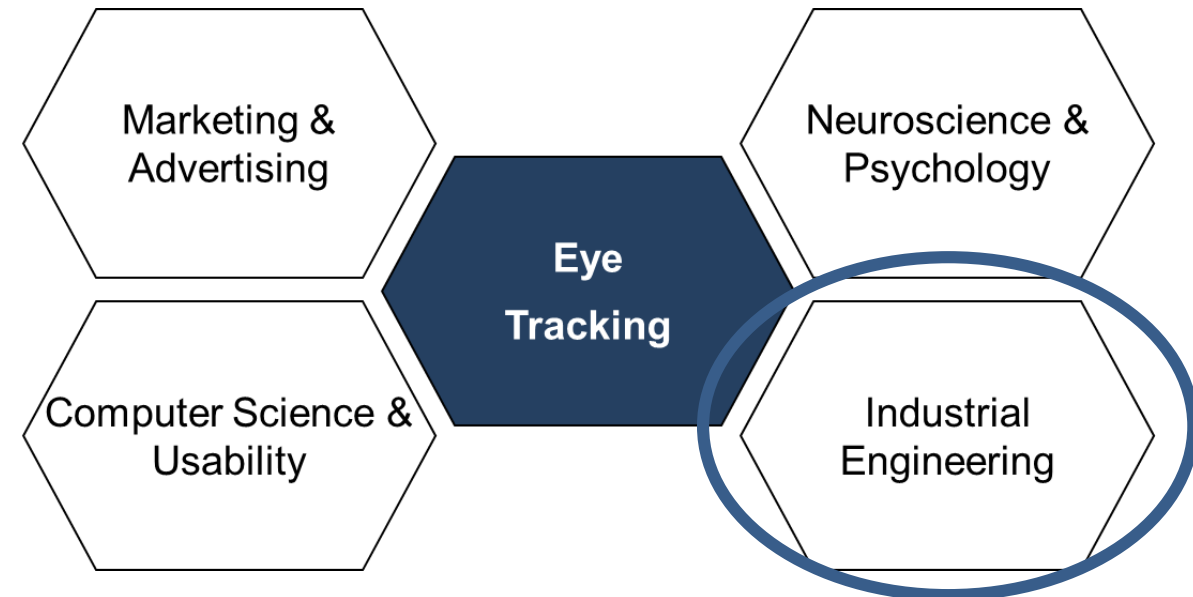
Picture: Tobias Vollmer

Eye-Tracking: Technology & Areas of Application

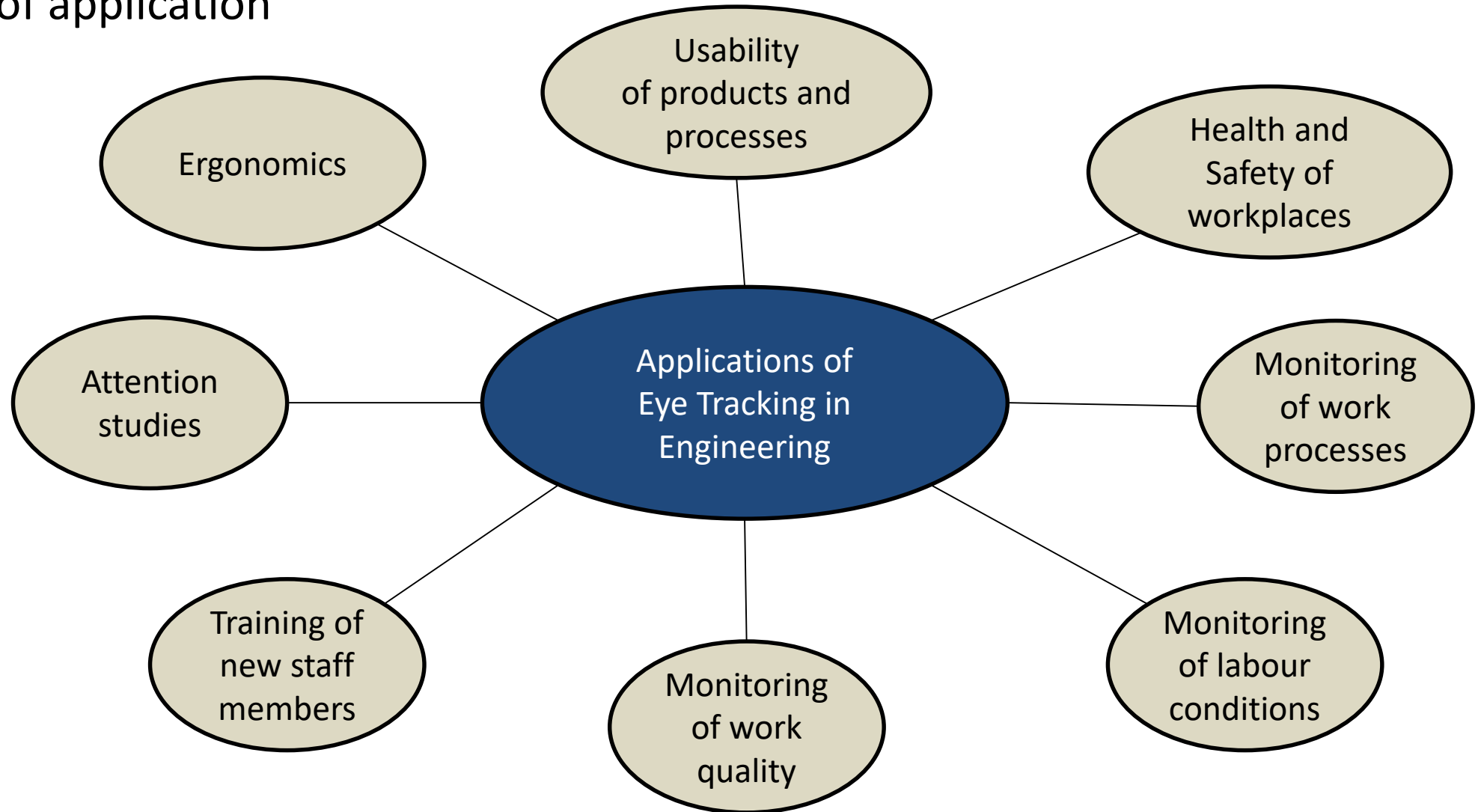


- “Traditional” areas of application
- Various research materials available

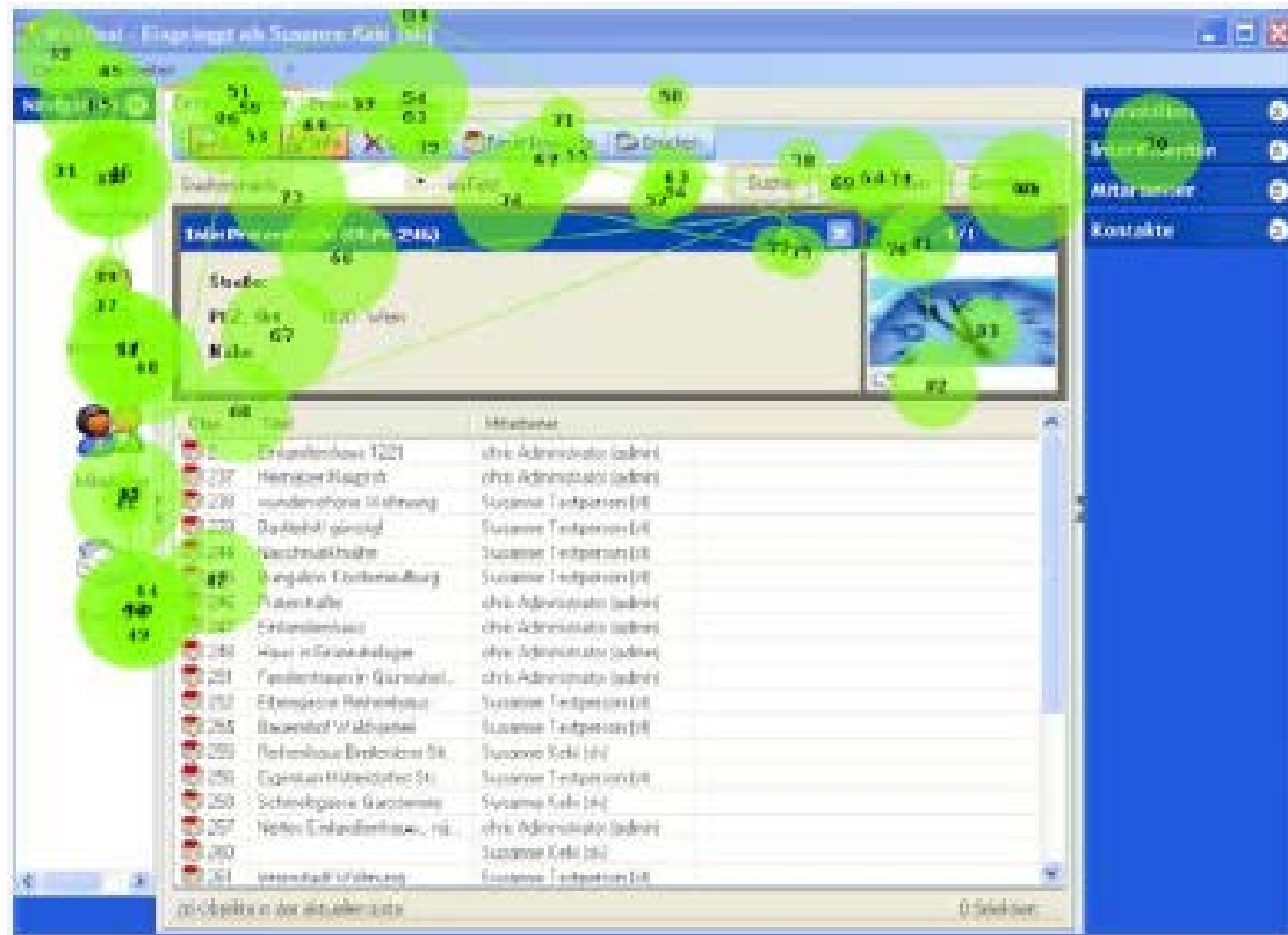
- Infrared technique / corneal reflection
- Determines eye’s position, viewing direction and eye movement
- Powerful tool understanding human behavior



Possible fields of application

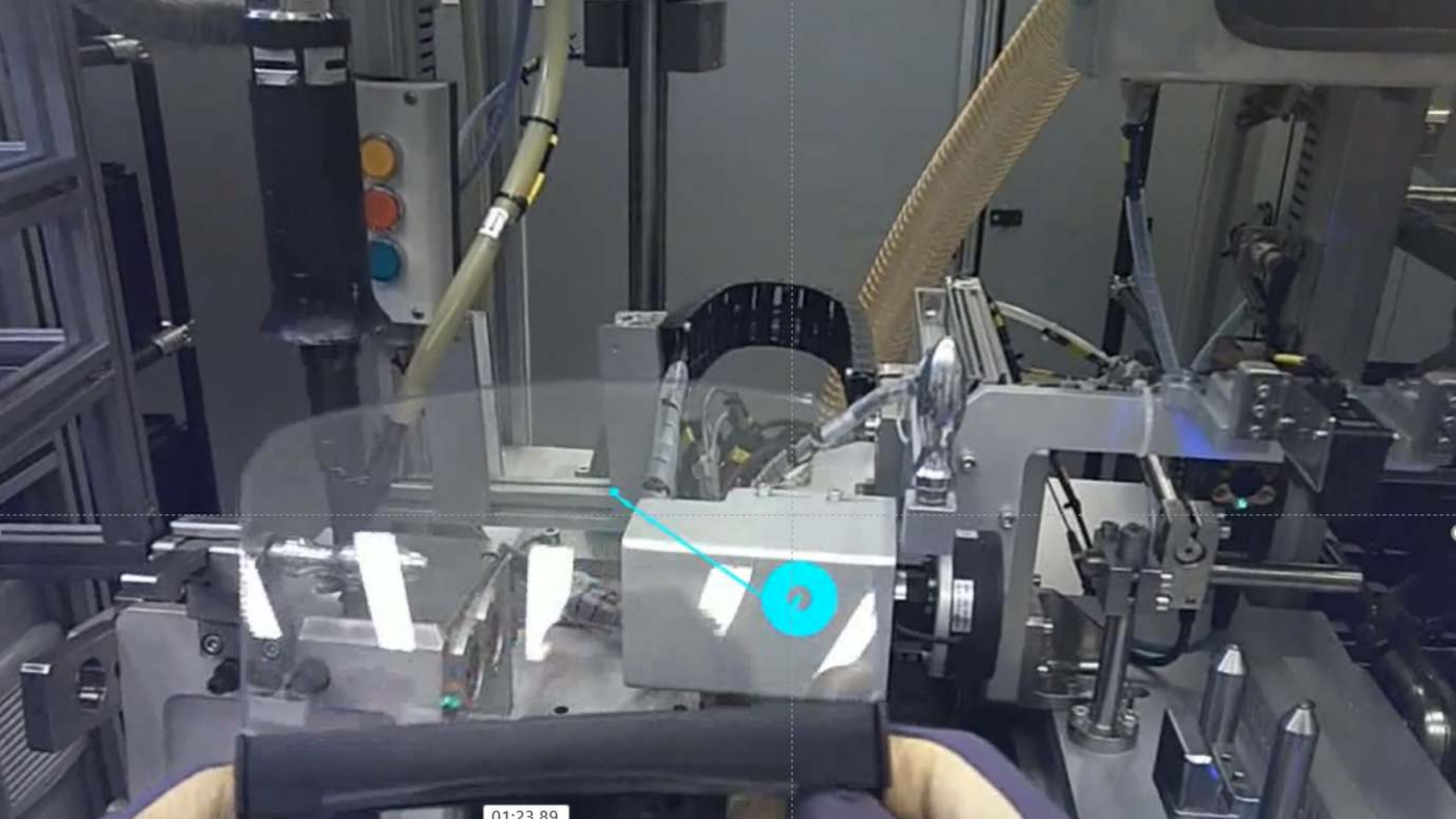


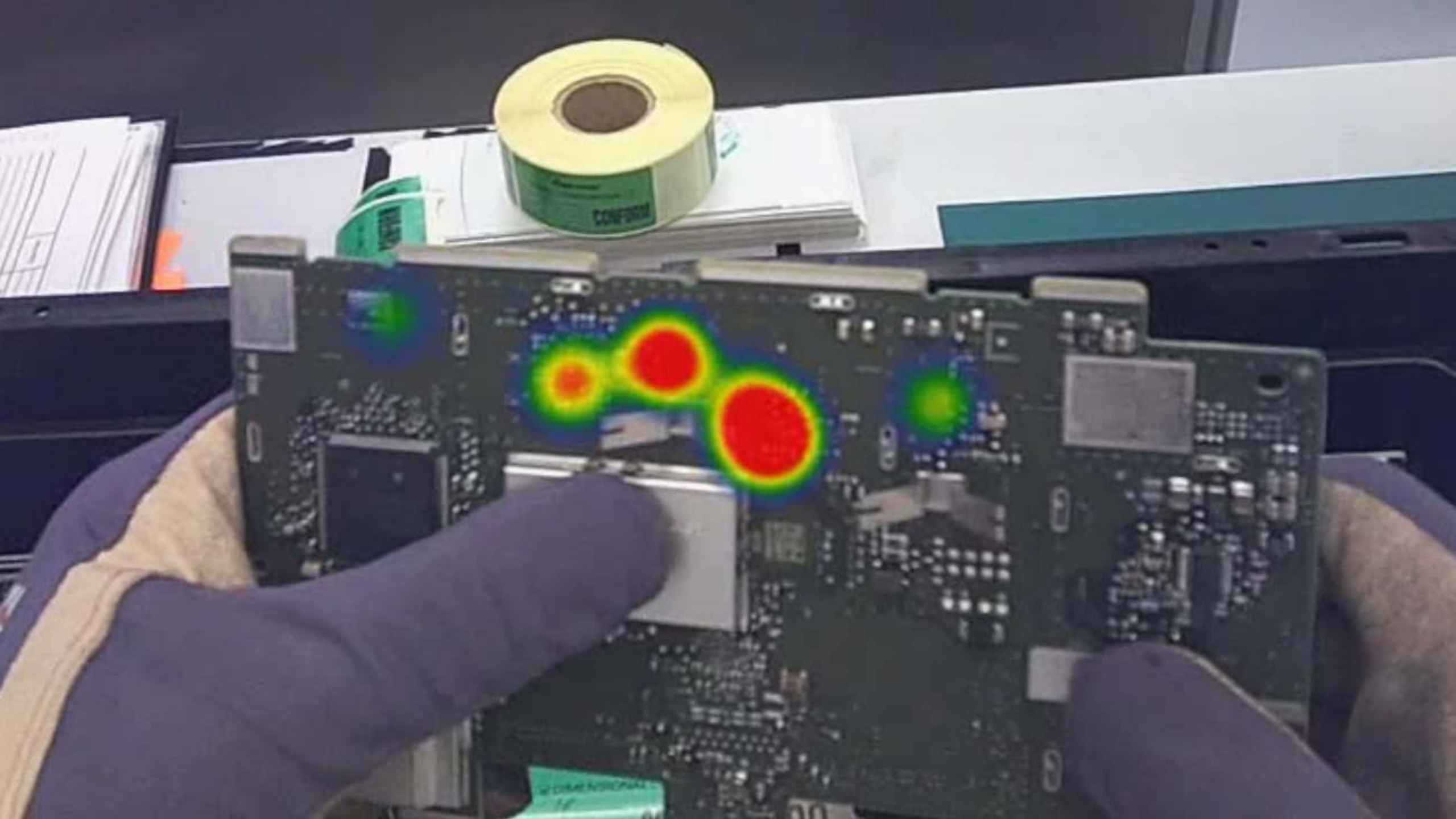
Application: Usability studies



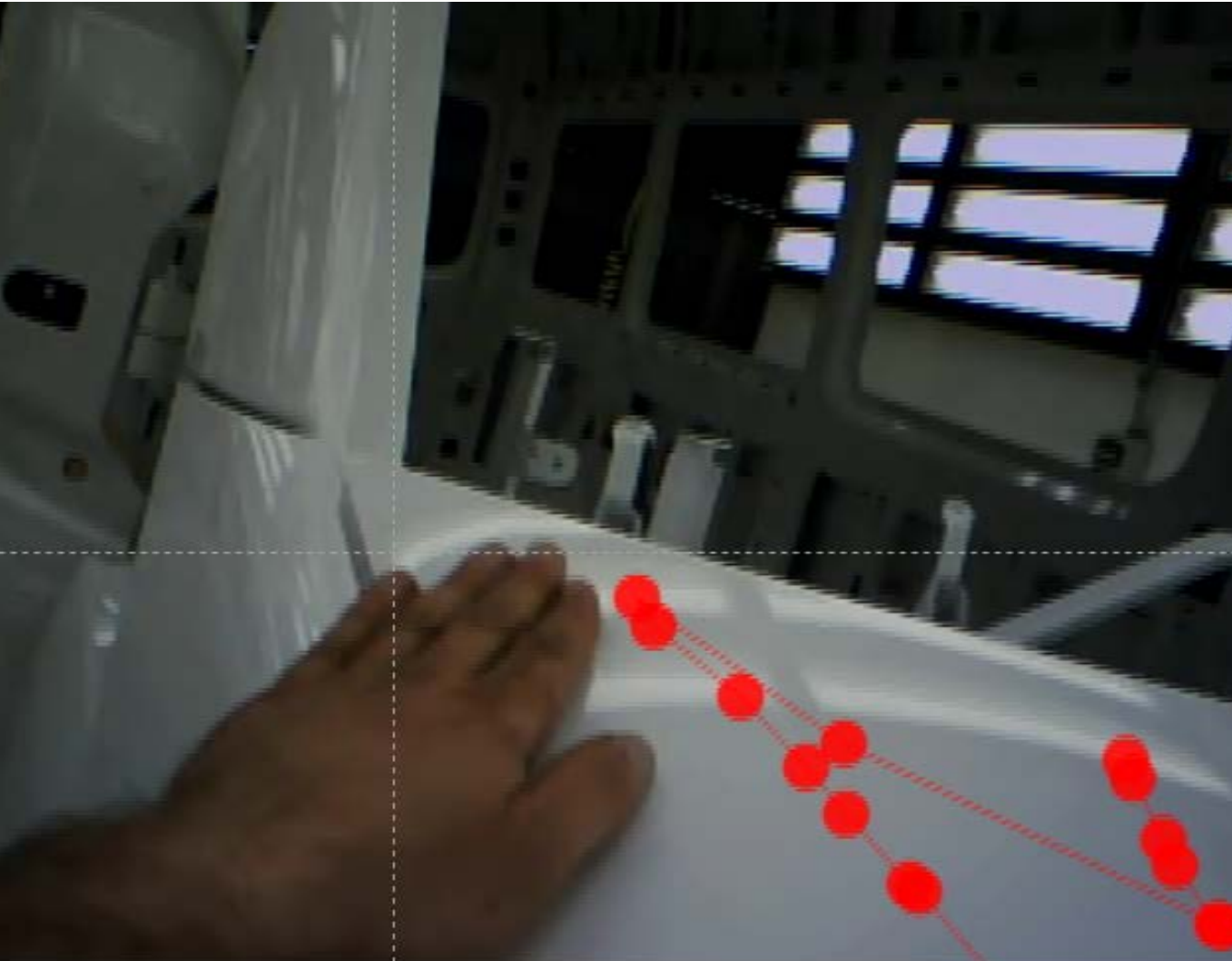
Student Projects







Practical application: Check of coating



Experimental Study – Data Analysis

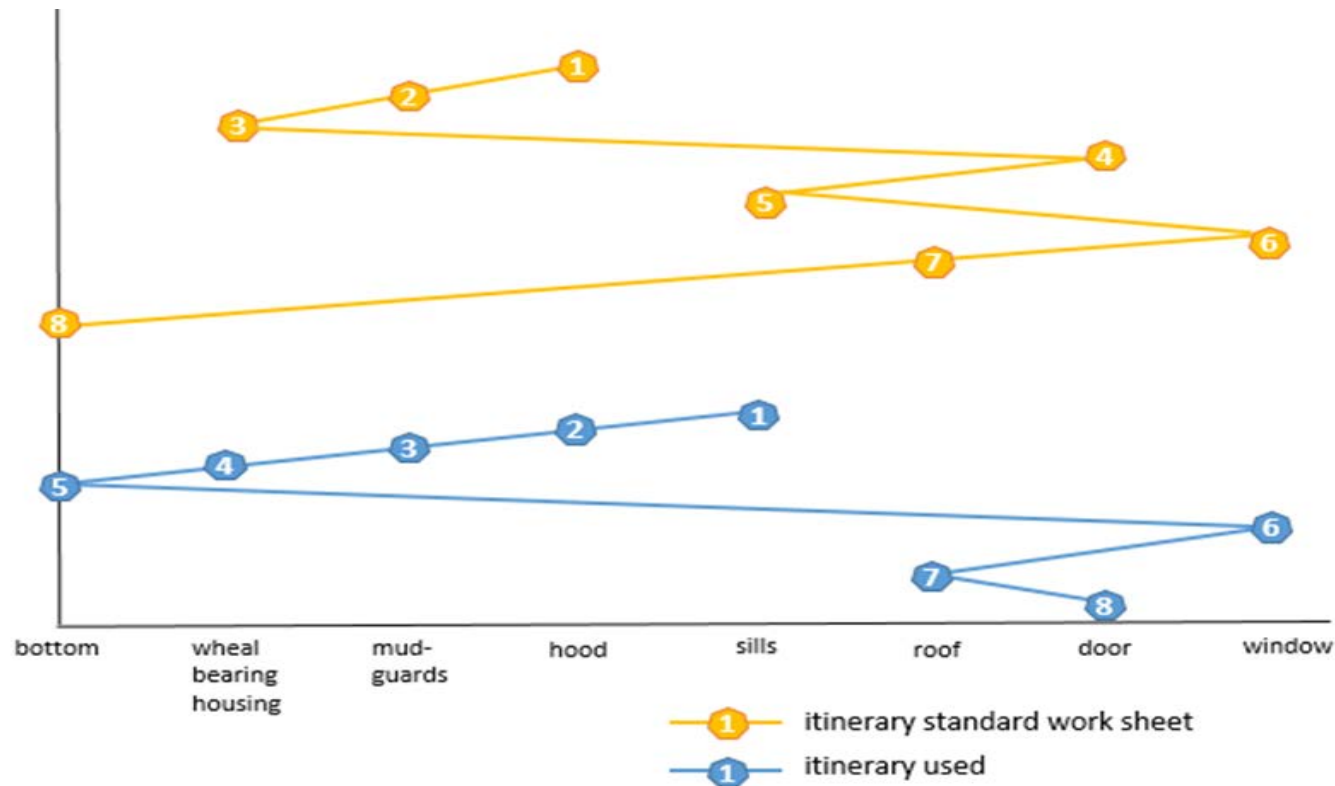


Figure: Own Design

Findings:

- ✓ Itinerary used is not equal to the one on the standard work sheet
- ✓ „Practice“ shows a more user-friendly itinerary

Experimental Study – Data Analysis II

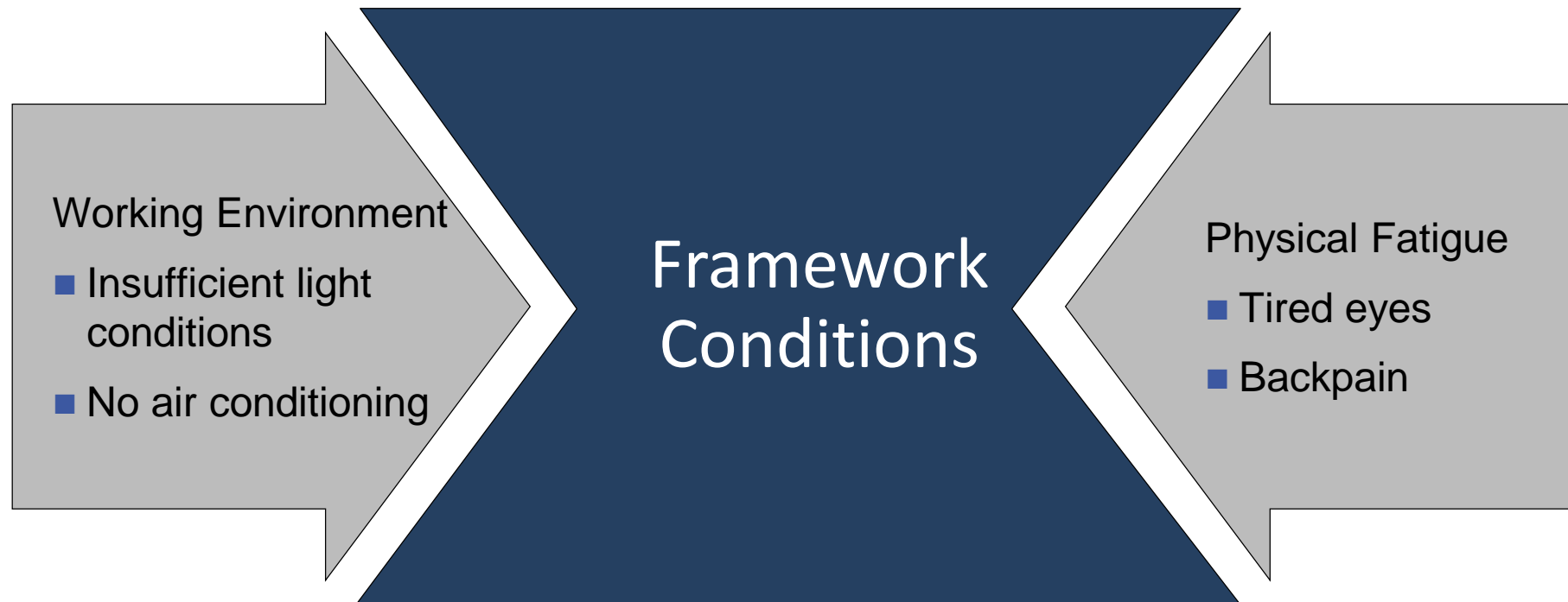


Figure: Own Visualisation with Tobii Professional 3.2.1

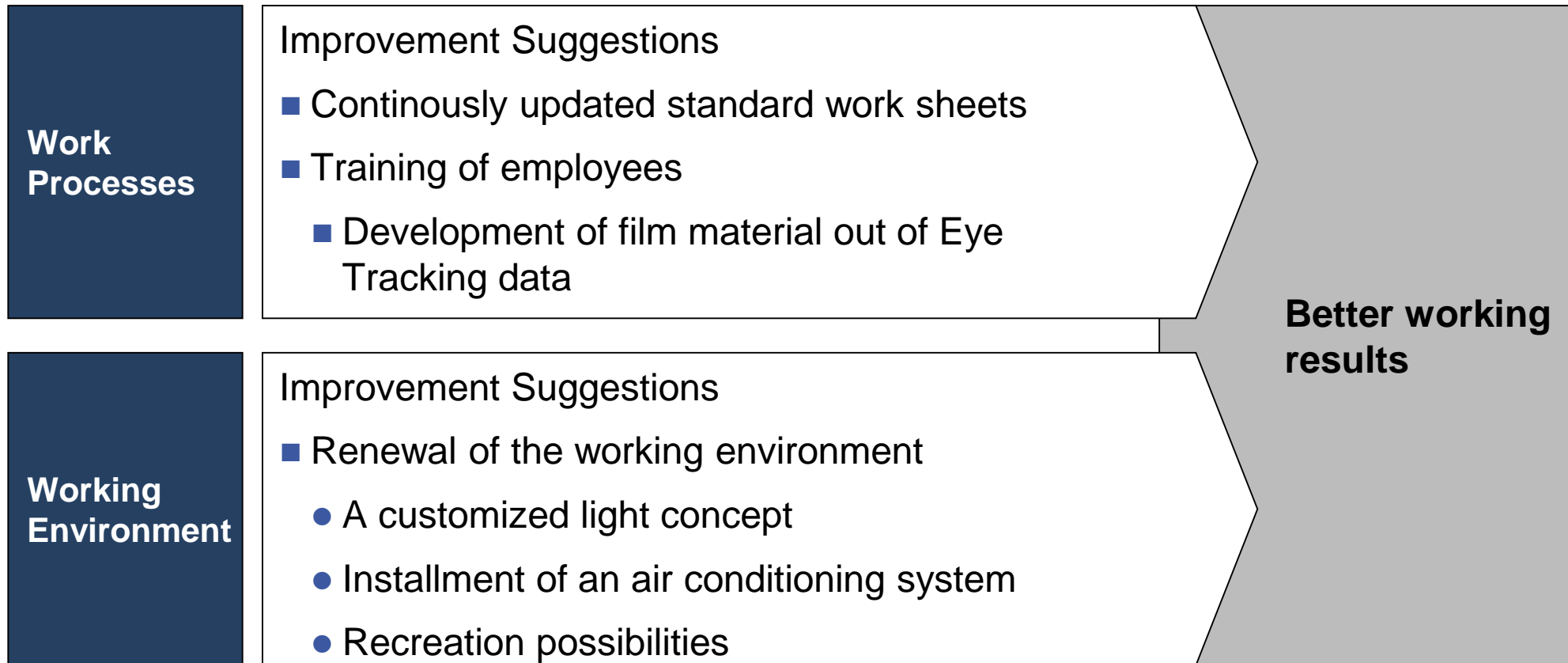
Findings:

- ✓ Visualization shows that most parts have not been controlled properly
- ✓ Too less time has been spent on checking “sensitive” areas

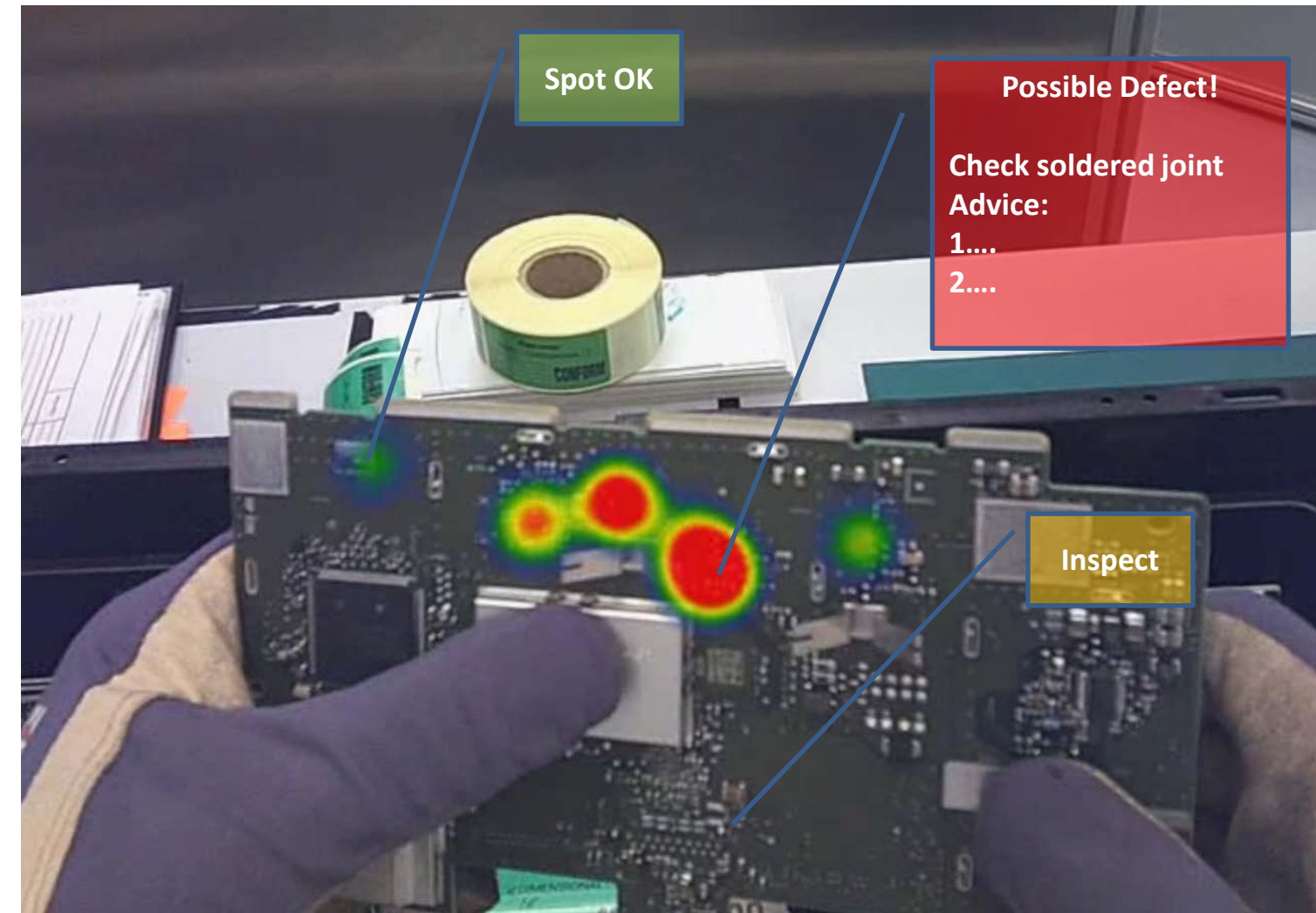
Experimental Study – Data Analysis III



Experimental Study – Conclusions



Outlook



- Powerful tool to examine and improve workplaces and processes
- Very quick wins
- Next level: Combining Eye tracking with feedback
- **We are looking for PARTNERS !!!**