

# A3 PROJECT REPORT: Damage documentation via Smart Glasses

## Theme / Keywords

Damage documentation via Smart Glasses /  
LEAN 4.0, Smart Glasses, Damage documentation, Process Guidance,  
Bachelor thesis, Project partner

## Background.

A detailed damage documentation is very important. In order to cover all relevant aspects, it is therefore advisable to proceed systematically. This is usually done by working through a checklist. Against this background, a Smart Glasses-based application that guides the employee through the documentation process was developed in cooperation with a project partner of the LEAN 4.0 consortium.

## Analysis.

For correct documentation, it is necessary to process the checklist step by step. This requires a continuous alignment of the work steps. Comparisons, however, are often very time-consuming, as the employee has to interrupt his or her work constantly. To avoid this problem, it makes sense to use Smart Glasses. This provides employees with all relevant information and allows them to focus on their work.

## Goal.

The aim is to use smart glasses to implement a seamless documentation process and at the same time to optimize the workflow in order to save time. In addition, process digitization is intended to take a further step towards a paperless factory.

## Proposal / Action plan.

The idea is to place these in the context of Industry 4.0 and thus uncover interesting new use cases. The knowledge obtained can then be used to initiate pilot projects with the project partners.

## The setup consists of:

- a Vuzix Blade (Smart Glasses)

## Features of the Smart Glasses:

- Display integrated in the field of view (see-through)
- Good wearing comfort (light, stable, good hold on the head)
- Fast acclimatization time



Source: Vuzix.com

## Evaluation.

The evaluation was carried out by Rosen employees as well as by researchers from the University of Osnabrück. In addition, a user friendliness survey was conducted in which students were asked to rate the application.

Several test runs were carried out. The test results were taken into account during the development.

## Conclusion / Follow-up.

It turned out that simple solutions are a good approach to establish new technologies in companies. Especially older employees with little previous knowledge benefit from less complex applications because it makes it easier for them to get started. Future updates should make it possible to carry out the entire documentation process via smart glasses. This means that it should be possible to forward the documented data (status of the goods, images, etc.) directly to the system via the smart glasses.