COST EFFECTIVE PROJECTOR (AIMEN)

This system extends the workers capabilities to perform semi-autonomous operations at the pre-fabrication and outfitting stages. The aim is to replace the traditional paper-based drawings and project such drawings on the target with accuracy and precision.

Involved partners

aimen
TECHNOLOGY CENTRE

Technlology

- **Scanning the area:** This feature is exercised with the help of the pan-tilt unit and low cost RGB-D camera.
- **Localization algorithm:** It consists of matching the point cloud acquired in the scanning phase with the CAD of the area by user initial guess, ICP algorithm, and projection of elements.

Application Impact

Projection systems in construction and retrofitting increase productivity and efficiency. They are ideal for small and medium-sized manufacturers dealing with low-volume, high-mix production. These systems reduce paper documentation and human errors, allowing technicians to focus on operations. They also serve as a quick verification tool for new designs and features. Mari4_YARD's projection technologies work in shared spaces, reducing the chance of impact with human co-workers.