


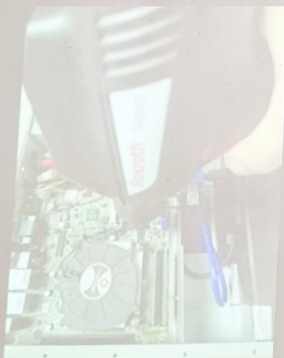
Is Projected AR the Answer to Your Manufacturing Challenges?

LEARN THE BASICS AND HOW TO MAKE A PROFIT.



Batch #82 of 120
Step time: 2.08s
Cycle time: 152
Torque: 1.06Nm 

Step 21: Take smart tool





ARKITE

"Projected AR technology is a game-changer for the manufacturing industry, providing a more immersive and intuitive experience for operators, while also improving productivity and quality control."

Introduction

In the fast-paced manufacturing environment, efficiency and productivity are key factors for businesses to stay ahead of their competition. To achieve this, companies are always searching for new technologies that can improve their processes. One such innovative technology is projected Augmented Reality (AR) for digital work instructions. By replacing or supplementing traditional screens with projectors, businesses can significantly improve their manufacturing operations. In this ebook, we'll delve into the advantages of implementing projected AR technology in your manufacturing plant.



Advantages of projected Augmented Reality technology

- 1. Increased Clarity:** One of the significant benefits of using projected AR technology is that it provides workers with high-contrast images on any surface. Unlike traditional screens, projectors display information clearly and can be easily viewed from a distance. This is particularly useful when workers are wearing protective gear or working in low-light conditions, as it can be challenging to read screens in such situations.
- 2. Enhanced Flexibility:** With a screen, manufacturers are limited to a single fixed display that cannot always be installed in convenient locations. In contrast, projectors are highly flexible and can project work instructions, schematics, or other critical information onto any surface. This adaptability allows workers to project instructions directly onto the product they're working on, making it easier for them to complete tasks with greater accuracy and efficiency.
- 3. Improved Productivity:** Projectors offer clear, easy-to-follow, and real-time instructions to workers, allowing them to complete tasks faster with fewer errors. Projected instructions can be displayed in or near the working zone, so operators can consult them without changing their focus or interrupting their work. This leads to significant cost savings over time, as well as improved quality control and customer satisfaction.
- 4. Real-time Updates:** Projectors can be connected to a centralized computer system, enabling real-time updates and adjustments to instructions as needed. This means that businesses can easily modify work instructions and ensure that workers always have the most up-to-date information.
- 5. Engaging Work Experience:** Projected AR technology provides a more immersive and engaging experience for workers. By projecting instructions and diagrams in augmented reality, workers can get a better understanding of the task at hand. This results in increased motivation and a better overall work experience.



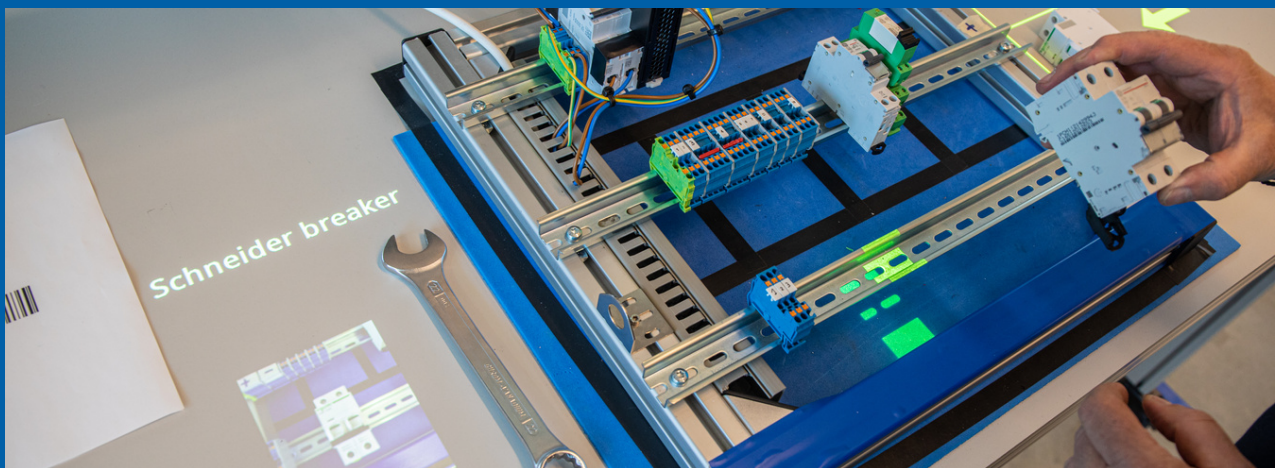
6. **Enhanced safety:** With projected AR, workers can receive safety warnings or alerts right in their field of view, reducing the likelihood of accidents or errors. For example, the AR system can project a warning sign when the worker approaches a hazardous area.

7. **Remote collaboration:** Projected AR can be used to enable remote collaboration between workers in different locations. By projecting the same information to different workspaces, teams can work together more effectively on a project, even if they are not physically located in the same place.

8. **Faster training:** Traditional training methods can be time-consuming and expensive. Projected AR can speed up the training process by providing workers with step-by-step instructions in real-time, which can be more effective than traditional classroom-style training.

9. **Easy maintenance:** AR can help technicians identify issues and resolve problems quickly and easily, without having to refer to a manual. By projecting digital instructions and guidance directly onto the equipment, technicians can quickly identify the cause of a problem and take the appropriate action.

10. **Improved quality control:** Projected AR can be used to inspect and verify the quality of finished products. For example, by projecting a 3D model of the product onto the actual physical object, workers can identify any defects or areas that need improvement. This can help ensure that the finished product meets the required standards and specifications.



Arkite's Operator Guidance Platform

If you're interested in implementing projected AR technology in your manufacturing plant, Arkite's Operator Guidance Platform can help you make the switch. This platform enriches the physical workbench with a projected digital overlay that highlights the relevant work area and projects related text, image, and video instructions. Additionally, the platform's 3D sensor validates whether all required actions in the assembly process are executed correctly and in the right sequence.

Conclusion

In conclusion, the use of projected augmented reality (AR) in a manufacturing environment is a powerful tool that can help businesses take their operations to the next level. The benefits of clearer instructions, flexibility, improved productivity, and engaging work experience are just a few of the advantages that come with this innovative technology. The ability to project work instructions, schematics, or other critical information onto any surface allows for greater adaptability to different workspaces, and can even enable instructions to be projected directly onto the product being worked on.

Projected AR also provides a more immersive and engaging experience for workers, allowing them to get a better understanding of the task at hand. Unlike AR wearables, which can be uncomfortable to use for extended periods, projected AR offers a more comfortable and intuitive user experience. Additionally, the ability to link projectors to a centralized computer system allows for real-time updates and adjustments to instructions as needed.

By providing workers with clear, easy-to-follow, and real-time instructions, they can complete tasks faster and with fewer errors. This can lead to significant cost savings over time, as well as improved quality control and customer satisfaction. And with the Arkite Operator Guidance Platform, businesses can take full advantage of the benefits of projected AR technology, by enriching the physical workbench with a projected digital overlay that highlights the relevant work area and projects related text, image, and video instructions.

