



How **Augmented Reality** solutions create a **safer workplace**

While a steadily growing number of tools assist people in office jobs, making their work easier and more ergonomic, relatively little effort is focused on deskless workers. That's changing. Augmented reality (AR) solutions, specifically designed to support mobile, hands-on workers, do not only guarantee efficiency gains, but also add to increased workplace ergonomics and operational safety.

With industrial augmented reality solutions, all context-relevant information is projected directly into the workers' field of vision while their hands remain free. Interruptions of the actual job, let's say to find information elsewhere, becomes a thing of the past, increasing concentration levels.

Reducing the margin for dangerous errors

As the smart glasses are not restricting peripheral vision, the entire work environment can always be observed. Passing vehicles or potentially perilous situations are less likely to be overlooked. Also, the hands are free to lift heavy items with both hands. Daily operations like climbing a ladder become safer when both hands are free to hold on.

When in doubt, an expert or a more experienced colleague is only one AR call away, mitigating the risk for improper procedures due to lack of experience, making remote support a true security factor. Clear AR instructions and context-relevant alerts throughout the task drive operational safety levels up. AI capabilities take it to the next level. By simply looking at a tool, intelligent AR solutions can identify if it's the correct one, leaving virtually no room for error.

At a glance



Wearables and AR solutions make shopfloor operations hands-free and more focused



Clear visual guidance ensures that the right procedure is being followed, hence the margin for error decreases



Automatic warnings increase situational awareness and operational safety.



Integrated documentation features allow for a compliant reporting.



Individualized AR solution to meet your security needs – Customer example

Across industries, companies rely on TeamViewer Frontline's standard safety features such as displaying warning in hazardous areas, e.g. displaying "Attention: High Voltage!" as soon as workers enter an environment with a possible high-voltage risk. But adjustments for individual safety standards are simply configured.

After an accident left one solo-operating technician unconscious on-site, a utility company decided to ramp up safety measures for their field service staff with TeamViewer Frontline. When one of their technicians is out on the field, the AR solution triggers them to confirm their location via a simple scan. After that, the following steps of the maintenance procedure are displayed on the smart glasses. Throughout the job, the AR solution requests confirmation from the technician at certain intervals. If one of these is not answered by the technician, the control center is informed automatically, so they can instantly send help to the correct location.



Safety Benefits



Focus

Information and instructions are right in the worker's field of vision. Dangerous distractions have become a thing of the past.



Ergonomics

Awkward movements are reduced. Wearables follow natural movements and display useful cues. Both hands are free for heavy items.



Alerts

Safety instructions and warnings can be integrated into work processes and appear directly in the field of vision at the right moment



Motivation

Frustration caused by mistakes decreases. Lengthy search for help is cut. Knowledge can be shared instantly via remote support.



Cost Reduction

Reduced error rates, less downtime, and less staff shortages due to accidents contribute to business goals.

Driving ergonomics for long-term health & safety

Workers equipped with industrial AR solutions are mobile and have both hands free for their actual work, making operations more flexible and, above all, more ergonomic, by supporting good posture. The head-worn smart glasses following natural body movements restrict the range of motion less than, for example, paper lists or mobile tablets. There is no more back and forth between the actual work and a stationary PC for instructions.

The hands-free aspect is particularly advantageous when heavy parts such as vehicle components have to be lifted. By preventively pointing out additional information such as weight or size of an item the operator can ask for help when needed. This can prevent the risk of injury.

Use Case: Lockout Tagout Procedure

AR solutions support common operational workplace safety procedures such as lockout-tagout, which is relevant to protect employees when working with machinery and equipment to ensure an environment free of electricity when performing maintenance or repairs. Frontline's AR solutions guide the technician through the procedure to ensure the correct chronology of all steps involved, like attaching locks and tags to parts of the machine. Mandatory verifications or documentation are integrated directly in the workflow, not only ensuring compliance before proceeding with the maintenance work, but also eventually the technician's own safety.



Add AI for extra safety

Within TeamViewer Frontline, integrated standard AI capabilities are focused on the safety of frontline workers.

⊖ **Helmet detection:** Deploying workers to a hazardous environment where a helmet is a must? Add a self-check to any Frontline workflow and make sure the right safety gear is in place.

⊖ **Warning sign detection:** Within Frontline's xAssist solution for remote support, warning signs surrounding the worker are recognized within a call and enriched with an explanation for extra safety

These examples do not match specific security measures required within your company? No problem! With the AiStudio add-on individualized, AI-powered capabilities within AR workflows are just a few clicks away – no programming knowledge needed. In no time, add a check if the gloves are being worn or the right safety goggles are in place to ensure your workers' safety.



About TeamViewer

As a leading global technology company, TeamViewer offers a secure remote connectivity platform to access, control, manage, monitor, and support any device – across platforms – from anywhere.

With more than 600,000 customers, TeamViewer is free for private, non-commercial use and has been installed on more than 2.5 billion devices. TeamViewer continuously innovates in the fields of Remote Connectivity, Augmented Reality, Internet of Things, and Digital Customer Engagement, enabling companies from all industries to digitally transform their business-critical processes through seamless connectivity.

Founded in 2005, and headquartered in Göppingen, Germany, TeamViewer is a publicly held company with approximately 1,400 global employees. TeamViewer AG (TMV) is listed at Frankfurt Stock Exchange and belongs to the MDAX.

Contact

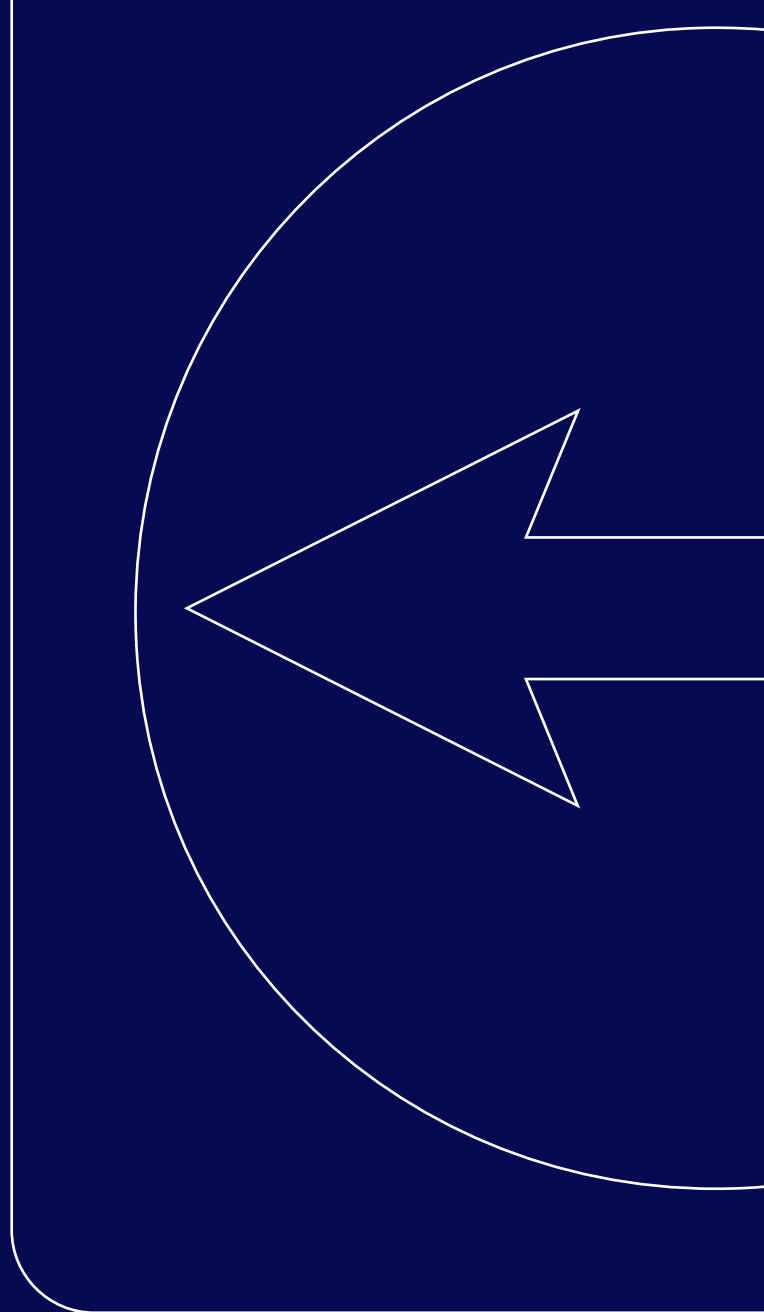
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