TeamViewer

Smart glasses 101:
Working handsfree with AR

Augmented reality (AR) technology represents a groundbreaking approach to providing and processing information. Leading companies are actively implementing industrial AR solutions to digitalize their workflows and empower their frontline workers with cutting-edge tech. Wearable technologies, like smart glasses, provide workers with a truly hands-free mobile experience that enhances efficiency and reduces error rates.

To optimize the benefits of smart glasses technology, it is important to select a solution that aligns with both your enterprise's requirements and your specific use case.

With smart glasses, frontline workers are able to work hands-free and get support right from their field of view.

Keep relevant information always in the field of view with smart glasses

Workflow for processes guidance
Workers receive instructions directly in their field of vision providing instant access to the right information when it's needed. The instructional information presented is highly visual and easy to understand ensuring easy comprehension and swift task execution.

Confirmation technologies
Confirmation technologies in smart glasses such as voice commands, image recognition, or connected scanners allow users to verify and confirm process steps.

Remote assistance
Remote experts are able to see what the on-site workers see, supported by additional features such as pointers and document sharing to enhance collaboration.

Happier workers
Smart glasses are ergonomic and hands-free to support efficient work. The ability to gamify tasks further elevates worker productivity.

Safety warning
Not only can smart glasses detect if safety equipment is being worn correctly, they can also recognize other warning signs, helping to create a safer working environment with the support of AI technology.

Seeing is believing: Industrial AR success stories

- ✔ Samsung SDS **increased picking speed by up to 30%**, while also improving employee satisfaction and lowering error rates.

- ✔ Two months after implementation, Coca-Cola HBC recorded **99.99% accuracy** across orders.

- ✔ DHL Supply Chain cut onboarding **time by 50-70%**, completely transforming a process that used to take several days into a matter of hours.

- ✔ GlobalFoundries reduced their printing by **approximately 100,000 sheets of paper per year**, leading to cost savings and a positive environmental impact.

Get to know the vocabulary: A short overview of key terms in industrial AR

✔

Augmented reality (AR)
AR allows users to visualize data and instructions via a digital overlay that enhances real-world processes in real time.

✔

Virtual reality (VR)
VR is a completely immersive experience that shuts out the physical world by creating a virtual environment.

✔

Mixed reality (MR)
MR combines elements of AR and VR, allowing users to interact with digital objects and information in the context of their real-world surroundings.

✔

Binocular
Digital information is being displayed to both of the user's eyes simultaneously, creating a more immersive and 3D-like experience. This is useful for interacting with 3D models in MR.

✔

Monocular
Digital information is being displayed to only one of the user's eyes to provide information or notifications without obstructing their field of vision.

Common key features of industrial smart glasses

Ruggedized design (Intrinsically safe version available)

Internal speakers & audio jack

High-resolution camera and flashlight

Noise-canceling microphones (up to 95 dB)

Swappable battery

WiFi & Bluetooth

Headband, baseball cap and hard hat mountings

Flexible non-obstructive display (left & right eye)

Typically, modern smart glasses have the following features:

Ruggedized design for working in rough conditions

Internal speakers and audio jack for seamless audio, even in noisy environments

High-resolution camera and flashlight for high quality video calls when speaking with experts, as well as extended functionalities like QR code scanning

Noise-canceling microphones (up to 95 dB) for voice control without interruptions – even in noisy environments

Durable battery designed to last through long work shifts, and swappable to avoid interruptions

Wi-Fi and Bluetooth to receive information from the server and for connection with peripheral devices

Different mounting options for individual wearing comfort or head protection where needed

Flexible non-obstructive display (adjustable to left or right eye) for hands-free operations

It's a match: Smart glasses and wearables

Does your use case call for a lot of confirmations? Do you have items that are stored in a very high or very low location that need scanning? If the answer is yes, you can combine smart glasses with **wearable scanners or other body-worn devices** for optimal ergonomics. Scanners can be connected easily via Bluetooth and are suitable for 1D and 2D scanning or even RFID. Combine smart glasses with external devices that fit your use case and achieve **streamlined operations.**
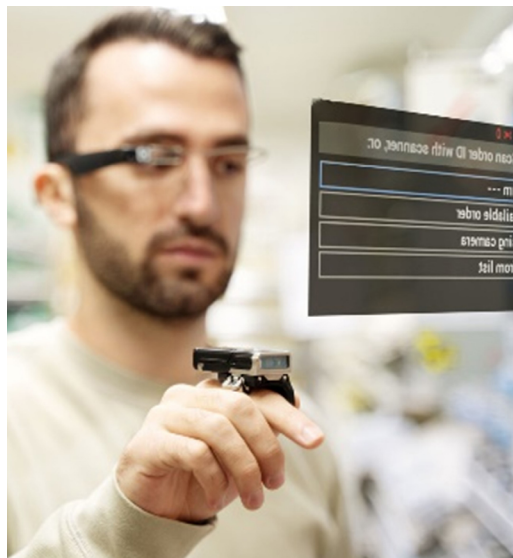
A combination of smart glasses and scanners allows for a fully hands-free confirmation of items and pick or put locations.

How to choose the right smart glasses for your industry and use case?

There are three important questions to consider when choosing the right AR solution for your enterprise.

01

Where will the smart glasses be used?
- **Light conditions:** how dark can your work environment get?
- **Level of noise:** how loud can it get?
- Is there **exposure** to moisture, dust, or dirt?
- **Temperature range:** how cold or hot can it get?
- **Level of safety:** What risks are present in your environment? Specialized wearables, such as ATX-certified glasses, may be required.

02

How much support is available?
- Remote support to minimize the need for on-site service visits
- Responsive software vendors, preferably experienced in your particular hardware
- Worldwide hardware swap service in the event of a failure
- Scalability guidance during periods of growth

03

What features do you need?
Identify two to three key requirements that are the most crucial for your workplace. Consider the following:

- Durability
- Weight
- Field of view
- Camera resolution
- Microphone quality
- Wi-Fi module performance
- Battery capacity

Interested in AR solutions for your business?

If you're not sure which smart glasses are best suited to your use case, we are happy to help!

Talk to an AR expert

TeamViewer

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.

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