



AR glasses | Photo source [Pixabay](#)

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COGNITIVE AR BRINGS TRAINING MANUALS TO LIFE

 WORK & LIFESTYLE

A German startup has developed a cognitive augmented reality system that turns AR glasses into training manuals for manufacturers.

We have seen augmented reality find an increasing number of uses, from [children's education](#) to keeping [firefighters](#) safe. Now, a German tech company is bring augmented reality onto the factory floor, with a system that allows the creation of flexible, cognitive AR training manuals and handbooks that learn as they teach. Startup [ioxp](#) is a spin off from [The German Research Center for Artificial Intelligence](#) and develops training manuals that work with AR glasses to place step-by-step instructions directly into the field of vision of the user. The software combines artificial intelligence with AR to produce a system that can quickly and easily understand almost any work environment and process and teach it to workers step-by-step.

The ioxp system works with almost any device that is equipped for AR. The software creates a set of instructional illustrations and animated annotations using video and 3D hand-tracking to guide the user through each step in a work process by showing the right procedures in a semi-transparent overlay. The worker simply copies the actions of the overlay. The software can also analyze the work area before and after each step to detect unwanted changes and correct any errors. After the completion of each step, the user receives feedback from the system on whether the step has been completed successfully or not.

The ioxp system does not require an internet connection, making it very secure, and can be used at any time by simply putting on a pair of AR glasses. At the moment, the company is focused on marketing the system to factories and other manufacturers, but they do envision a time when the

system will be cheap enough to provide instructions to individuals doing DIY around the house or putting together flat-pack furniture. What other uses would there be for a AR instruction manual?

13th November 2017

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