

## Hill International Trucks Augmented reality in trucking: Smart glasses Vs. Head-up display

Augmented Reality or AR technology is making its way into the commercial motor vehicle spectrum and has been gaining a lot of attention ever since Google Glass was released. Unlike virtual reality which uses a totally artificial world, Augmented Reality shows a layer of imaging over a real world scenario. This makes AR a technology that can be used in everyday activities and in various work environments.

Although some argue that AR is still a long way away from the trucking industry, the applications are already being used and developed in many consumer vehicle companies. The biggest challenge in the commercial motor vehicle market is choosing between two AR options. An on-board head-up display option allows for users to see augmented images displayed through line of sight. Smart glasses, on the other hand, display imaging through an optical lens in a wearable device rather than an on-board hub. Both options have their advantages, but which one is better for the industry?



## **Smart Glasses:**

There is an immediate sense of discretion when talking about the use of smart glasses, wearable devices, and various handheld devices that have the ability to portray augmented images. Perhaps the best example is the phenomenon of mobile applications that allow you to see images on your smart phone screen while you stroll through town or use GPS location for directions. The fear in terms of driving heavy duty trucks and machinery is continuing to show unsafe habits while using a mobile device or glasses. Although don't count out wearable or external technology just yet.

Wearable devices have shifted from the mindset of "what can I do while driving" to more practical applications including: identifying average speed, providing alerts, and other safety precautions. Drivers will be immediately notified of real time information with a no-hands device. Smart glasses technology is one of the cheaper options because it requires no installation for an internal hub. Still, this can be a nuisance for truckers driving multiple hours a day.





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## Head-up display:

Head-Up Displays, also known as AR HUD's, are embedded systems that essentially have the same processes as wearable devices. From a broad perspective, HUD systems show vehicle information such as speed, warning signals and indicator arrows on the windshield, allowing drivers to maintain their focus on the road while receiving information. We have already seen a huge increase in demand for HUD embedded systems for example: BMW, Chevrolet, Lexus, Mercedes-Benz, Ford and Volvo all carry vehicle models with these systems.

The main reason AR HUD's are recommended over a wearable device is the potential for less distraction. The embedded devices will already be programmed into the truck - making driver effort minimal and letting drivers focus on other priorities such as driving, routes, and meeting deadlines.

