AR & VR Smartglasses and Functional Contact Lenses 2016-2026

Description: This new report is focused on how the market for smart glasses and contact lenses is going to evolve in the next decade, based on the exciting research and developments efforts of recent years along with the high visibility some projects and collaborations have enjoyed. The amount of visibility this space is experiencing is exciting developers of a range of allied technologies into fast-tracking/focusing their efforts, as well as creating devices and components designed specifically to serve this emerging industry.

Some of the newest devices that have ignited significant interest in smart eyewear are going above and beyond the conventional definition of a smart object; they are in effect, portable, wearable computers with a host of functionalities, specially designed apps etc. that add new ways for the wearer to interact with the world along with smartphone capabilities, health tracking options and many other features. The features of some of the more advanced devices have been based on and have sparked worldwide innovation efforts aiming to create an ecosystem of components that will enable what is bound to be a revolution in form factor for wearables.

User interface is probably one of the most significant features in this revolution. As interfacing with computers undergoes a constant evolution, allowing for wider adoption as interaction becomes more "natural", smartglasses are bringing about the next big step in this ever-changing space. From keyboards to touchscreens to cameras & positioning/location/infrared sensors, a new wave of innovation is making interfacing with computers gesture-based, and nowhere else is that more obvious than in eye-worn computing.

But it is not just wearable sensors and user interfaces, but also near-eye displays and optics as well as energy storage devices that represent some of the examples of technology tool kits that are evolving and improving in performance. They are hence constituting the pieces that are falling into place in order to enable new functionalities and form factors, both necessary to create products as innovative as near-eye and on-eye computers.

There are of course significant challenges that need to be addressed in order to achieve consumer acceptance and widespread proliferation of this paradigm-shifting type of device. Miniaturization of components, development of powering schemes that will allow sufficient usage time between recharge points, flexibility and stretchability of components that are meant to operate in diverse environments (from saline solutions to high and low temperatures) are only some of the segments where innovative research and development work is taking place.

The report includes insight into how different entities are addressing these challenges: developments, company and research activities in the space for smart glasses and lenses as well as company profiles of players actively involved in this space, concluding with market forecasts for both smart glasses and smart contact lenses for the next decade.

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