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Bellevue startup sees contact lenses replacing bulky VR headsets | Tech Spotlight



Bellevue startup Innovega looks to enable virtual-reality viewing using screen-equipped glasses plus contact lenses. Innovega may have found a way to get rid of bulky virtual-reality headsets, using a pair of regular-size glasses and contact lenses.

Virtual reality may be a hot new trend, but those dorky headsets certainly are not. What if experiencing virtual reality was as simple as putting on a pair of contacts?

Bellevue startup Innovega may have found a way to get rid of bulky virtual-reality headsets, using a pair of regular-size glasses and contact lenses — a product that it calls eMacula.



eMacula
enhanced retina technologies

Currently, virtual-reality (VR) headsets use screens similar to smartphone screens, Innovega CEO Steve Willey explained. The screen must be set a few inches from the eyes to allow people to perceive it correctly. The familiar big VR headsets allow the screen to sit the correct distance from your face.

Innovega set out to find a way to make virtual and augmented reality more accessible and mobile.

“Our company recognizes what we had to do to catalyze this industry was we had to solve the optics problems,” Willey said.

Innovega is accomplishing that by fixing a screen to the inside of a traditional pair of glasses. Then it adds contact lenses to the equation. The contacts, which are outfitted with dual focal planes similar to bifocals, let wearers focus on the screen without its having to be set inches away from their eyes.

The contacts also correct vision, so they could be outfitted with a wearer’s prescription and be worn daily, just like regular contact lenses.

Innovega, which got its start in 2008, has been doing clinical trials on the lenses for a year. It’s currently working to obtain Food and Drug Administration approval for its contacts.

The company has raised about \$3 million from investors, including Tencent, the owner of popular Chinese messaging app WeChat. Innovega has also raised about \$6 million from government grants, including from the National Science Foundation.

The company has 10 employees and plans to partner with VR companies to bring actual media to its eMacula glasses/contact lenses.