



Innovation > Sport & Fitness > VR game could help restore 3D vision

VR GAME COULD HELP RESTORE 3D VISION

 SPORT & FITNESS

Now funding on Indiegogo, Diplopia is a game that uses virtual reality and motion sensing to treat common vision problems such as lazy eye.

This is part of a new series of articles that looks at entrepreneurs hoping to get their ideas off the ground through crowdfunding. At the time of writing, each of these innovations is currently seeking funding.

Video games can be useful for a variety of medical setting thanks to the mental and physical stimulation they provide to patients, and in the past we've seen platforms developed to help [tackle depression](#) and even [aid stroke recovery](#). Now funding on Indiegogo, [Diplopia](#) is another such title that uses virtual reality and motion sensing to treat common vision problems such as lazy eye.

Two of the problems people with eye conditions such as Strabismus often experience are diplopia — double vision — and amblyopia — lazy eye — both of which can result in a loss of depth of perception, obstructing the ability to see in three dimensions. The game is based on the popular Atari title [Breakout](#) — where players try to clear rows of blocks by directing a constantly bouncing ball against them. Diplopia however takes advantage of the [Oculus Rift](#) virtual reality headset, which uses stereoscopic imaging to create the illusion of 3D space. The game is also controlled using the [Leap Motion](#) gesture-detecting device. Players are shown the bricks and ball in one eye and the paddle in the other, and the game can only be won when the two eyes work together to align the images as one. By playing the game, those with Strabismus condition their eyes to operate in tandem, treating their double vision.

The video below shows the game in action:

<https://www.youtube.com/watch?v=W5tVBfBJr-s>

Diplopia is interesting in that, even though it is designed to help those with a particular medical condition, it can still be enjoyed by those with unaffected vision. The game can be backed until 12 January 2014 on Indiegogo for as little as USD 20 without the Oculus Rift or USD 400 with the device bundled in. Are there other health problems that could be treated through games such as this?

Indiegogo: www.igg.me/at/diplopia

16th December 2013

Website: www.leapgamer.com

Contact: www.twitter.com/jamesblaha

