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(51) International classification	:G02B 27/01, G06F 3/01, A61H 5/00, A61B 3/113, A61F 9/008	(71)Name of Applicant : 1)Chitkara University Address of Applicant :Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Rajpura Punjab India
(31) Priority Document No	:NA	(72)Name of Inventor : 1)Sonali Gupta
(32) Priority Date	:NA	2)Nikit Kundra
(33) Name of priority country	:NA	3)Saitirumaladev Kalicheti
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(57) Abstract :

A neuromodulatory virtual reality-based ocular therapy device, comprising a virtual reality headset 101 to be worn over a user's head, a plurality of adjustable straps 102 with motorized rollers 103 to ensure secure and comfortable positioning over the user's head, a user-interface to receive user-specific data including age, gender, historical ocular records, and current vision metrics for personalized calibration and therapy session customization, a sensing unit 104 to continuously monitor eye movements, visual focus, and engagement during therapy sessions, a lens 105 operable in different modes and turns completely black, grey, or any other colour functioning as a visual patch or blackout, effectively blocking external visuals to focus the user's attention through another eye, a dynamic display screen to project visuals such as images and videos to enhance the treatment of amblyopia and improve visual engagement, and a plurality of variable focus adjustment wheels 108 to adjust lens-to-display distance.

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