

(54) Title of the invention : A FULLY AUTOMATIC DEVICE TO EXAMINE PEDIATRIC VISION

(57) Abstract :

The present invention relates to a system and method for pediatric vision testing in the field of ophthalmology. The system comprises a Spectacle Frame (101) designed to fit on a child's face, housing an Infrared Camera Device (102) capturing real-time videography of both eyes and a Gaze Tracking System (103) analyzing eye movements. Preferential Looking Cards (104) with different visual acuity levels are presented to the child, equipped with a Gyroscope (105) for card orientation detection. A Mobile Communication System (106) connects the cards to the Gaze Tracking System (103), and a Computing Device (107) processes data, providing information on visual acuity, fixation, and eye movement quality. The method involves fitting the Spectacle Frame, capturing real-time videography, analyzing the gaze, presenting Preferential Looking Cards, detecting card orientation, comparing gaze and card orientation, and outputting data. The invention enables accurate and objective vision testing in infants and young children.

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