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(71)**Name of Applicant :**
**1)GD Goenka University**
Address of Applicant :Sohna Gurugram Road, Sohna, Haryana, India, Gurugram ---------- ----------
**Name of Applicant : NA**
**Address of Applicant : NA**
(72)**Name of Inventor :**
**1)Krishna Kumar Gupta**
Address of Applicant :Department of Optometry, School of Medical and Allied sciences, GD Goenka University Gurugram ---------- ----------

(57) Abstract :
The present invention relates to anautomatic adjustable trial frame system (100) for optometry represents a breakthrough in eye examination technology, seamlessly integrating advanced features to elevate precision and efficiency. The system(100) includes a meticulously designed housing frame(108), a proximity sensor (104) for precise facial contour assessment, and a motor unit (106) activated by the proximity sensor (104) for automatic adjustments of interpupillary distance, nosepad position, and temple arm orientation. The system(100) includes a processor (110) orchestrates this synchronization, receiving inputs from the proximity sensor (104) to direct the motor unit (104) in real-time. Further enhancing hygiene, the system (100) incorporates a UV Sterilization case (102) with an ultraviolet lamp, ensuring complete sterilization within a predetermined period, mitigating cross-contamination risks. Additionally, a magnetic lens holder (112) adds stability by securely gripping trial lenses, preventing slippage during eye testing.

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