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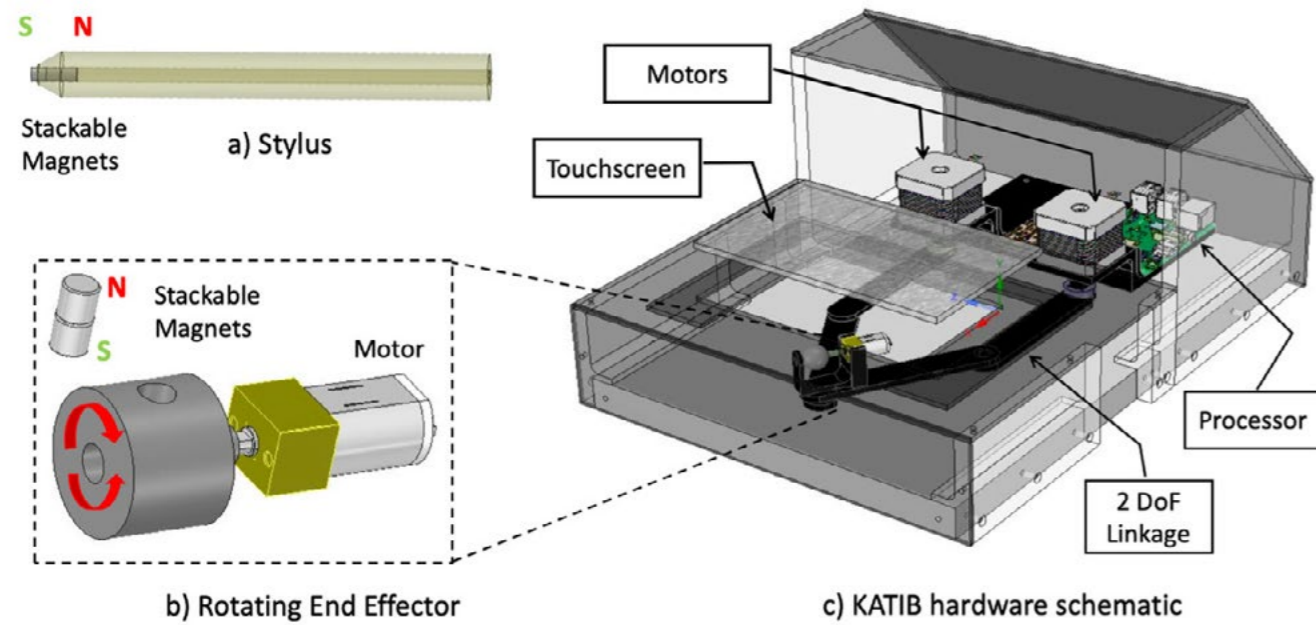
Major
Computer
Engineering

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DEVELOPING SERIOUS TASKS FOR KATIB FOR THE REHABILITATION OF FINE MOTOR SKILLS

We took part in a summer research project based in the Applied Interactive Multimedia (AIM) Lab of NYUAD. Our role over the summer was to develop handwriting tasks based on adaptive serious games to improve the fine motor skills associated with handwriting. The tasks are to be run on KATIB which is a handwriting assisting platform that provides contact-less kinesthetic feedback by utilizing magnetic forces. KATIB aims to help post-stroke patients regain writing skills through its easy-to-use software. It enables patients to perform physical tasks while receiving real-time feedback from their therapists.

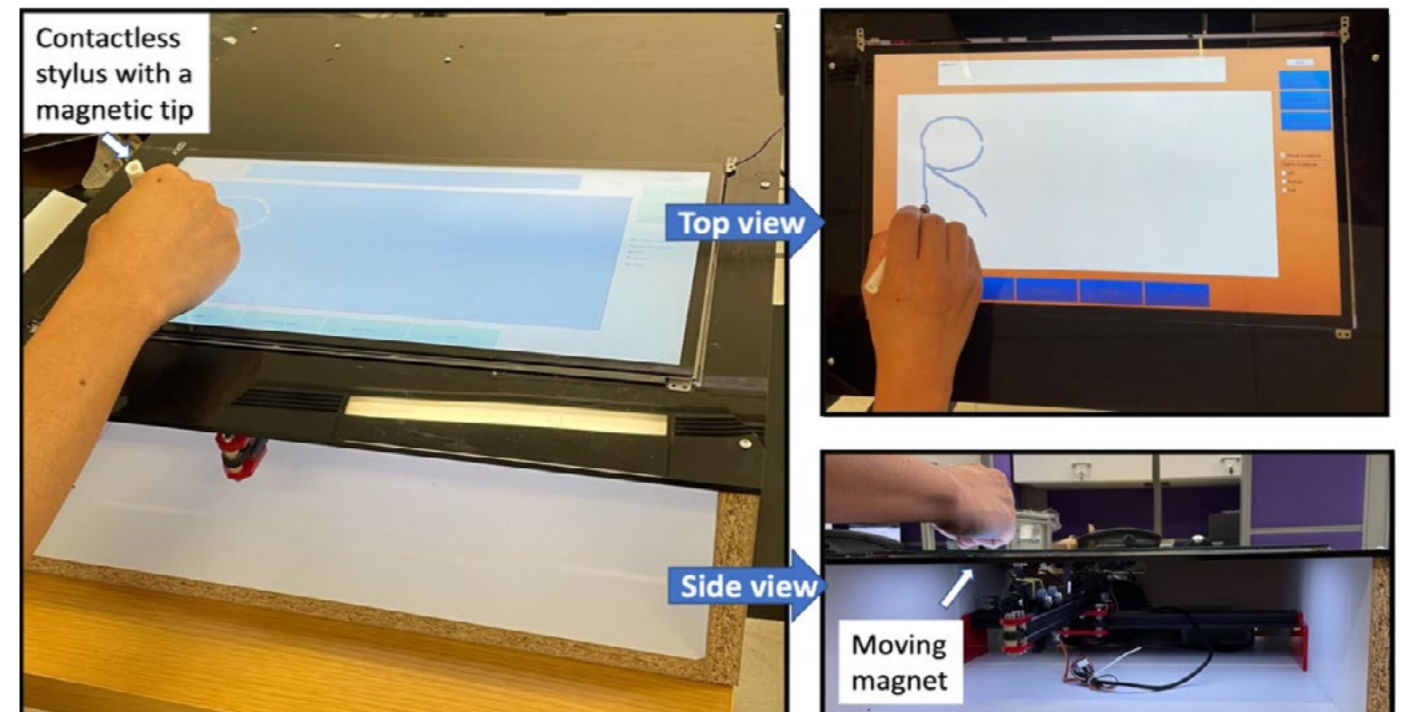
The purpose was to make the rehabilitation of handwriting skills fun and engaging. We developed a range of serious games, targeting varying skills and adjustable levels of difficulty. The games utilize freehand handwriting through the KATIB platform to address varied handwriting abilities of patients. This application is meant for both the academic and health sectors where schools and hospitals can implement it for students and post-stroke patients respectively.



KATIB Platform providing contactless force feedback



Testing the software developed



KATIB prototype