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PROGRAMME ABSTRACT



"Bridging Gaps with Creativity for Future Sustainability"



"Bridging the Gaps with Creativity for Future Sustainability"

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DESIGN A FINGERS EXERGAME TO IMPROVE FINE MOTOR SKILL FOR AUTISTIC CHILDREN USING ARDUINO

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Abstract

Autism is a lifelong developmental disability that affects how people perceive the world and interact with others. Most of these children have difficulty with fine motor skills which typically struggle with handwriting and fine activities in their routine life such as using buttons, zips, laces and cutlery. Because fine motor activities encompass so many routine functions, a fine motor delay can have a measurable negative impact on a person's ability to handle daily practical tasks. This project call Finger Exergame for Autistic Children (FEfAC) proposed a simple fine motor exercise aid plus game (exergame) for autistic children who discover from fine motor difficulties. The proposed exergame will blinking randomly and user need to bend their finger accordingly. It will notify to the user, whether they bend the right finger or not. The system is realized using Arduino, which is programmed to control all the operated circuit. This project successfully combines the use of the small muscles in the hands, in accordance with what the children's eyes see and very helpful in strengthening the finger muscles of autistic children.