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(57) Abstract :
[048] The present invention relates to a new design developed in a robot for helping post stroke rehabilitation patients. The present invention is highly efficient, cost-effective. One of the primary benefits is that the robot device ensures that the movement is repeated in exactly the same way each time, which is critical for retraining the brain to enable muscles to carry out the movements independently. This consistency can be challenging for human therapists to achieve, especially during long rehabilitation sessions. This repetition is essential for building and strengthening neural connections, which can improve overall functional outcomes. The current invention robots can also collect data on the patient's performance, such as range of motion, speed, and force, providing more detailed and accurate information for therapists and doctors to assess progress. This feedback enables therapists to adjust the rehabilitation program accordingly and tailor it to the individual's needs, improving the chances of successful rehabilitation outcomes. The assistive and resistive training modality is designed and implemented in a robot which is an effective complement to traditional therapy methods, providing consistent, high-quality movement training and objective performance data to optimize the rehabilitation process. Accompanied Drawings [FIG.1-3]

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