TOP STUDENT PROJECTS

Best innovations from VTU Regional Centre, Belagavi

PROJECT TITLE

SMART ASSISTIVE DEVICE FOR PARALYZED JOINT REHABILITATION



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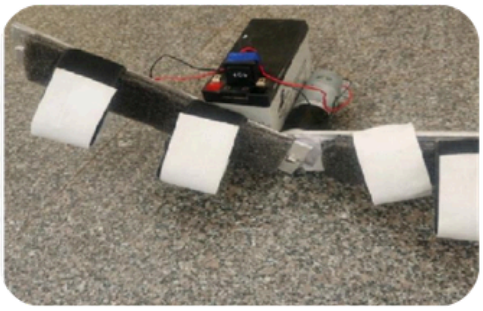


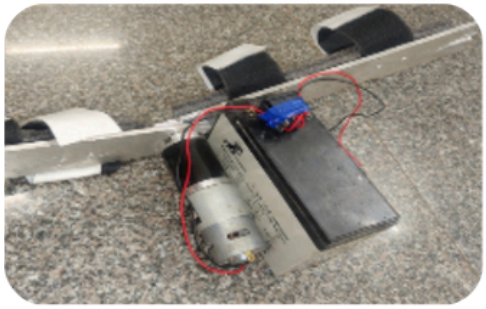
PROBLEM STATEMENT

Paralyzed patients often experience joint stiffness and reduced mobility due to limited physical movement. Existing rehabilitation equipment is expensive and inaccessible for many users, creating a need for a low-cost, easy-to-use joint exercise device for regular therapy.

SOLUTION

Low-Cost Joint Exercise Device assists paralyzed patients in performing controlled and repetitive joint movements to improve flexibility, blood circulation, and muscle rehabilitation. Designed with a simple, safe, and user-friendly mechanism, the device supports regular physiotherapy at home or in healthcare facilities with minimal caregiver assistance. Its affordable and portable design increases accessibility to rehabilitation, reduces therapy costs, and promotes faster recovery while enhancing patient comfort, mobility, and overall quality of life.





SCAN ME

Technology stacks:

- DC Motor
- Stress Sensor
- ESP8266
- C++
- Battery
- CAD Modelling