

PROJECT REPORT

On

***“Portable Electromechanical Device
For The Treatment of
Equinus deformity of The Ankle”***

Undertaken at

P.E.S. Institute of Technology

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ABSTRACT

Equinus deformity of the ankle disrupts the steady gait posture during walk by decreasing stability of the patient's body and causing inadequate clearance in between consecutive footsteps of the patient. Lengthening of Achilles tendon is one of the solutions to Equinus deformity of the ankle. Surgical procedures to lengthen Achilles tendon may not prove fruitful and are not prescribed for all patients. Life-time physiotherapy is advised in most cases to lengthen Achilles tendon. In this project an attempt is made to design and fabricate a portable device to treat Equinus deformity of the ankle by stretching Achilles tendon using a portable electromechanical device that comprises of aluminum assembly and a drive mechanism which involves ball screw and stepper motor.