

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202211064157 A

(19) INDIA

(22) Date of filing of Application :10/11/2022

(43) Publication Date : 25/11/2022

(54) Title of the invention : POSTURE MAINTENANCE DEVICE

(51) International classification :A63B0023020000, G08B0021040000, H01F0001440000, B25J0019000000, A43B0013180000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present invention relates to a posture maintenance device which comprises of a wearable unit 1 for users back with plurality of straps 2, an artificial intelligence based thermal imaging unit 5 for determining user's height and strain of muscles of users back along with plurality of horizontal 7 and vertical telescopic rods 6 to form a frame to support the back in attaining correct posture, an ultrasonic sensor for determining morphological structure connected with multiple hinge joints 9 in frame to acquire shape of users back, a chamber 11 placed in fabric 10 to store magnetorheological fluid, an electronic controlled nozzle 12 for releasing fluid, multiple electromagnets to increase viscosity of fluid to comfort the user, plurality of pneumatic blocks 13 for providing massaging sensation, a peltier unit to provide fomentation on users back to relieve back muscle strain.

No. of Pages : 18 No. of Claims : 6

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