



Automatic Hand Sanitizer Dispenser developed by Mr Harikrishnan V ( Alumni 2021)

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# Leg-up for tired limbs

DC CORRESPONDENT

In our day-to-day life, we may come across many people who suffer from mobility issues due to lack of bone strength and arthrosis. Some may be congenital while some happen as a consequence of accidents or diseases. A group of students of the Department of Electrical and Electronics of the SCMS College of Engineering and Technology, Karukutty, has developed a machine called 'Powered Exoskeleton' that would help people with weak bones and muscles move. Akhil Kishore, Akhila K.M., Arun Gopan, and Deepa M.S. developed the



The students with their project coordinator

machine under the guidance of their project coordinator Priya Venugopal. According to the makers, the machine has two parts — Exo Skeleton and

EMG sensor. The Exo Skeleton is designed using two powerful PMDC motors that are attached to a gear box. The velcro will help the user wear the

machine on his or her body. The EMG sensor will be placed on the muscles and it will release electric waves equivalent to the moves of one's muscles. These waves, with the help of a microcontroller, find out the kinds of movement happening inside one's body. The information will further be sent to the motor driver and the Exo skeleton will move as per the directions, reducing the pressure exerted on muscles and bones.

Right now, 'Powered Exo Skeleton' can be used only for legs. However, the students claim that it can later be moulded as a machine for hands and spine too.



AUTOMATIC LIQUID DISPENSER