CORPOS: Orthopedic Posture Corrector

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This project presents the development of a system that monitors the position of an employee while the worker is performing sitting activities. The biggest cause of the work abstention in Brazil is done by pathologies in the spine, which causes health damage to worker and financial damages to the employer company. Professionals in the ergonomics field indicate the bad posture as the main agent of disease in the spine region of the human body, especially when happen in a wrong way of sitting position that puts the spine in a bigger pressure. The proposal involves the development of two main steps: the step that monitors postural angles and the step that performs the data store through the use time. The first step determines if the person is in a correctly seated, generating a vibrating alert to warning the user when he is in a bad posture. The second is responsible for monitoring the posture data and results visualization of actions in real time in a graphical interface. The two stages were simulated in an integrated and isolated bench, proving the measurement accuracy of angles made by the device through a physical test. The field tests had done on people who work in a full time sitting way, in administrative jobs . The tests had monitored and guided by a physiotherapy professional, who has validated the research and system operation The device application in working environments during the workday can result in a great.

Awards Won: