Accessible Assistive Technology for People with Quadriplegia

Vasques, Alvaro (School: Instituto Federal de Educacao, Ciencia e Tecnologia Baiano Campus Valenca)

The modern world lives in a constant technological evolution. Today, more than ever, we have access to technologies sufficiently advanced to provide independence and autonomy to most people, especially those with physical limitations. In this context, assistive technologies emerge which, according to the Statute of People with Disabilities, are defined as: products, resources, methodologies, strategies, practices and services that aim to promote functionality, related to the activity and participation of people with disabilities or reduced mobility, aiming at their autonomy, independence, quality of life and social inclusion. Applying the use of technological resources to benefit people with disabilities and / or limitations is extremely necessary and conducive to the development of a more egalitarian society. This project aimed to develop a low-cost device that allows the handling of computers by people with quadriplegia or similar physical limitations, aiming at their autonomy, independence, quality of life and social inclusion. More precisely, this work aimed to develop at least two versions of a prototype that acted like a mouse and allowed people with quadriplegia to control the movements of the cursor, in addition to using the functions of clicking with the right and left buttons or using the scroll, from the movements of the head itself.

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