SYSTEM FOR A DISABLED PERSON TO OPERATE A COMPUTER

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by

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Abstract

Being physically challenged is like a curse to a handicapped person that makes life miserable by making him dependent on others for basic survival. But thanks to the new advancements of new technology, even physically challenged individuals can now enjoy the life, and can contribute to the development process of the country.

There are certain numbers of people who are having physical impairments from the birth. Apart from them we should keep in mind that considerable number of soldiers who fought for the country is also experiencing this situation. Even though they are physically handicapped, mentally they also are human beings like us.

The world today is largely dependent on computers. Therefore not being aware of the tricks of this trade is bound to make a person feel left out. In developed countries, the situation is totally deferent comparing to countries like Sri Lanka, as they use expensive assistive devices to help with those people. It leads us to find an appropriate solution for this issue minimizing the cost of system, but achieving the same benefits.

The output of my project will be very useful equipment in the medical field as it allows the person to operate a computer and do whatever they want independently. From the start command to the switch off command the system will be totally controlled by voice commands. The mouse pointer will be controlled using eye movements. In that case, we are planning to use image processing technology.

I gathered information through various recourses regarding this topic. The skills I developed studying references and the courage to make my project a reality.

Basically I used the knowledge of C++ to handle this project. It consists of both hardware and software components. The program is designed in such a way that works only for one individual whose voice is keyed to the program. I used a web cam and a headset as the hardware components.

This system will change the lifestyle of the people who are suffering with physical impairments, and it will help them eliminating the barriers of disability in using a computer.