2007 TAIWAN INTERNATIONAL SCIENCE FAIR

CATEGORY : Medicine and Health

PROJECT : Keyboard for Blinds

AWARDS : Medicine and Health Second Award

SCHOOL : Politecnico De Baja California

FINALISTS : Edgar Eduardo Castro Luna

COUNTRY : México

ABSTRACT OF EXHIBIT
TAIWAN INTERNATIONAL SCIENCE FAIR

CATEGORY: **Medicine and Health**

TITLE: **Keyboard for Blinds**

NAME: **Edgar Eduardo Castro Luna**

COUNTRY: **México**

The reason for making this project was with the intention to help the blind persons.
A lot of people with vision problems don't have the resources available to acquire equipment or programs that make it easier for them to use a computer to write, to communicate etc...

Being aware of this problem we took the liberty of researching at a community center that helps the blind persons in Tijuana Baja California, Mexico. We found that they had a type writer (Perkins) with only 6 keys that symbolized Braille.

They also had a normal keyboard that had the Braille code over each key, but it is complicated to learn because of its many keys.

Due to our research our intention was to design a system that respect the Braille symbols of the Perkins type writer and translated them to the common alphabet.
We believe that this project will help many people especially the blind, with writing books, letters, articles, etc. So they can be integrated to activities and jobs reserved, until now, for people with the sight sense.

My project also has 8 keys, when the person press a key combination the PC emits the sound of the letter. And when a word is completed the PC reproduce the whole word on the speaker. When the entire paragraph is completed there is an option to reproduce it.
It has also other functions as erase everything, back space, etc. All these with the 8 keys.
To control the system I used the parallel port of a PC, with a control program made in Visual Basic.
Currently there are systems for the blind but are very expensive, they have a cost of approximately $900.00 US dollars, which is a high price to pay for some people. My project has a cost of $70.00 US dollars thus making it easy for a person who has a computer to be able to buy this keyboard.
This project is being use in the "Blind Persons Training Center" of Tijuana city. They helped us to develop it, giving some ideas to improve it.

評語

This project is develop a sanded、simplied、and low cost keyboard for the blind. With proper keypad arrangements, the designer (author) successful accomplish the task and reduced t he price of a similar model from 900.00 to 70.00 USD.