Braille Cell & Keyboard Device

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For their education, the blind need to use convenient learning methods and strategies. Since they cannot learn as other individuals do, the Braille method was an outstanding and successful solution to help them in this area. Many books have been written about the Braille method and the way it is used to teach the blind, whereby any person can learn how they read, write, and learn. The question was whether it was possible to design and manufacture a device specifically for the blind with properties and features that fulfill their needs and allows them to use communication technologies in their newest and simplest form. Many devices have been created to help the blind to read and write, including voice equipment and other, but no device has been designed so far to enable the blind to read or write on a computer or a memory card so they can get rid of the heavy text- books and older appliances, and learn new technologies. We have thus designed our device using Arduino technology, using controllable mechanical thrust valves representative of the Braille cell, through a program especially written for this device, which enables the blind to read, write and communicate with the computer using modern technology. This device is characterized by its small size, simplicity of use, and running on a simple, 9-volt battery. It also boasts safety, and less expensive costs in comparison with other devices The device consists of a cell designed to mimic the Braille cell, and a keyboard designed to operate with this device. The content is projected on an LCD screen at the front of our device, while communication occurs with the computer either through blue tooth technology or a USB cable. It is also possible to communicate with a mobile, also through blue tooth.

Awards Won:
Fourth Award of $500