Abstract

Visual impairment in terms of sight loss and blindness affects 285 million people worldwide. Owing to the recent technological advancements in the fields of electronics and hardware manufacturing, immense progress has taken place towards the availability of e-books for educational and recreational purposes as well as the display devices for the visually impaired. Today, a lot of the devices rely solely on speech output as the means of communication. But when it comes to deep understanding of the information, speech has its limitations especially in subjects like graphics and technical texts. Hence, the blind readers prefer electronic braille displays over speech output devices. But these are prohibitively expensive. Today, the search is on for a low-cost, customizable and durable refreshable display device that would help solve the predicament of thousands of visually impaired people worldwide. The aim of this paper is to give a brief overview of the currently available braille printers and braille generators along with a comparative study of their endurance, cost and durability. This paper reviews the braille display technologies that are currently available in the various developed and developing countries and
a concept design for an inexpensive and portable refreshable braille generator using electromagnetic relays and solenoids is proposed.

References

8. J. Seymour-Ford, History of the Perkins Brailler, Watertown, Massachusetts, 2009

Index Terms

Computer Science

Circuits and Systems

Keywords

Refreshable Braille Display, braille generators, electromagnetic relays, solenoids