`

ABSTRACT

The importance of education as a key to the development of children, especially those with visual impairments, this research explains that learning for visually impaired children requires a different approach, especially in recognizing braille letters. The ability to read braille letters is an important prerequisite in the educational process, involving the role of teachers and parents as companions who understand braille letters. Through an independent number learning tool for the blind based on Radio Frequency Identification (RFID), it seeks to reduce the dependence of blind children on assistants to provide opportunities for independent learning. The developed system consists of RFID Card as an input source, RFID Reader to read information from RFID Card, and data processing done by Arduino Promini. The result of the process is delivered through a voice output. The number learning tool is in the form of a bracelet and uses RC522 RFID technology to facilitate tapping of RFID cards. This tool has an RFID reading accuracy of 100% obtained from the calculation of accuracy on the confusion matrix. The tool is able to be responsive to various variations of RFID cards and can read RFID cards up to a reading distance of 2.5 cm on Mifare RFID cards.

Keywords: Blind, Braille, Radio Frequency Identification (RFID)