ABSTRACT

At this writings is written the result of research about "development of the communication tool to help between blind and deaf using braille code and recognition of voice pattern". The design and implementation is how to build a help tool to let a deaf and blind person communicate using Braille code and also converting text into speech and speech recognition. The Braille code help tool is made of BS2P40 microcontroller to convert character sent by the computer into Braille codes and the type of the character as well.To make the Braille code, solenoid is used, which needs IC ULN2803 drivers and serial port as the tool to communicate between computer and microcontroller. The speech recognition uses dictation technique and its made by SAPI and visual basic 6.0 program for the application.

From the design and implementation, all characters is obtained and 10 basic Indonesian language that's sent by a deaf or blind person can be converted into Braille character using codes of solenoid, while of the text to speech was audible pronunciation of the 35 samples of English words are all declared a succeeded (pronunciation of the word clearly audible). While for the sample said Indonesian language that was approved ± 20 words

Key words: communication tools, blind, deaf, Braille code, the speech recognition