Paper ID:	1571072729
Paper Title:	Hand sign language translator using flex sensors and gyro sensors in pattern recognition method
Authors:	Udomporn Manupibul (Mahidol University, Thailand); Nanticha Supmool (Satriwithaya School, Thailand); Pawarit Kositanon and Supakorn Chaichalotornkul (Mahidol University, Thailand)
Email:	udomporn.man@mahidol.edu

Abstract

This project presents an innovative language translation glove designed specifically for individuals who are deaf or difficult of hearing and rely on sign language for communication. This glove represents a significant advancement in assistive technology because it employs pattern recognition to facilitate real-time, two-way communication. It is medical equipment that has the unique ability to translate both sign language gestures into audible speech and spoken language into text displayed on a screen. The inside wiring of the glove prioritizes efficiency, durability, and user comfort, ensuring practical application in everyday use. This paper presents the development of the software and hardware, with a focus on achieving high accuracy rates ranging from 93.3% to 100% for initial word predictions. The successful realization of this glove and system has the potential to impact assistive technologies for individuals with disabilities.