**Smart Gloves for Speech Handicapped**

People with disabilities in the world do not fully participate in society because of their physical dysfunctions. The aim of this project is to use the sign language as a tool for the handover of the hand gestures to the text and voice. The sign language is a visual language created by the hearing impaired when communicating among themselves, using hand gestures and facial expressions.

The project uses the Arduino Mega card, a physical programming platform consisting of an I / O card and an application environment that includes an application of Processing / Wiring. The most important reason for Arduino to be preferred in this project is the Arduino libraries, which enable everyone to program without requiring detailed knowledge of the microcontroller.

The first part is the glove we will wear. The glove has separate Flex sensors for each finger. Flex sensors resitances increase on the sensor as they flex. The glove also has an IMU sensor to distinguish between one glove's right, left, down, and up position changes. According to the common data received from the Flex sensor and IMU, the movement of our hands is transferred to the second part of the screen and speaker as a word.

The second part of the project consists of a display and a loudspeaker. According to the information from the sensors in the first part, output operations are performed in this section. The words appear as writing on the screen, and the sound from the speaker. To record the sound extraction process, we need an SD card. These gloves can make it easier for people with speech impaired to communicate.

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