

Sign Language Glove

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The main part of our life is communication, but some people can't talk. It is very hard to communicate with people, who don't know the sign language for them. My decision will simplify the communication without sign language translator. As example: the person will need an emergency assistance, but no one will understand him. The glove developed for silent people. It can interpret sign language as chars on the display. Device contains 5 flex sensors at each finger, and the 3-axis gyroscope and accelerometer placed at the top of the hand. After taking measurements information goes to the main board named "Intel Edison". "Edison" is running by Linux. Board is receiving signals with analog ports from flex sensors and the gyroscope is connected via I2C bus. Program process data and prints appropriate char to the display via Bluetooth connection. The display is running by small board "Arduino LilyPad". When board has received char, it prints him to the LED matrix via SPI interface.