AMIT EMBEDDED SYSTEMS GRADUATION PROJECT

GLOVE FOR DEAF

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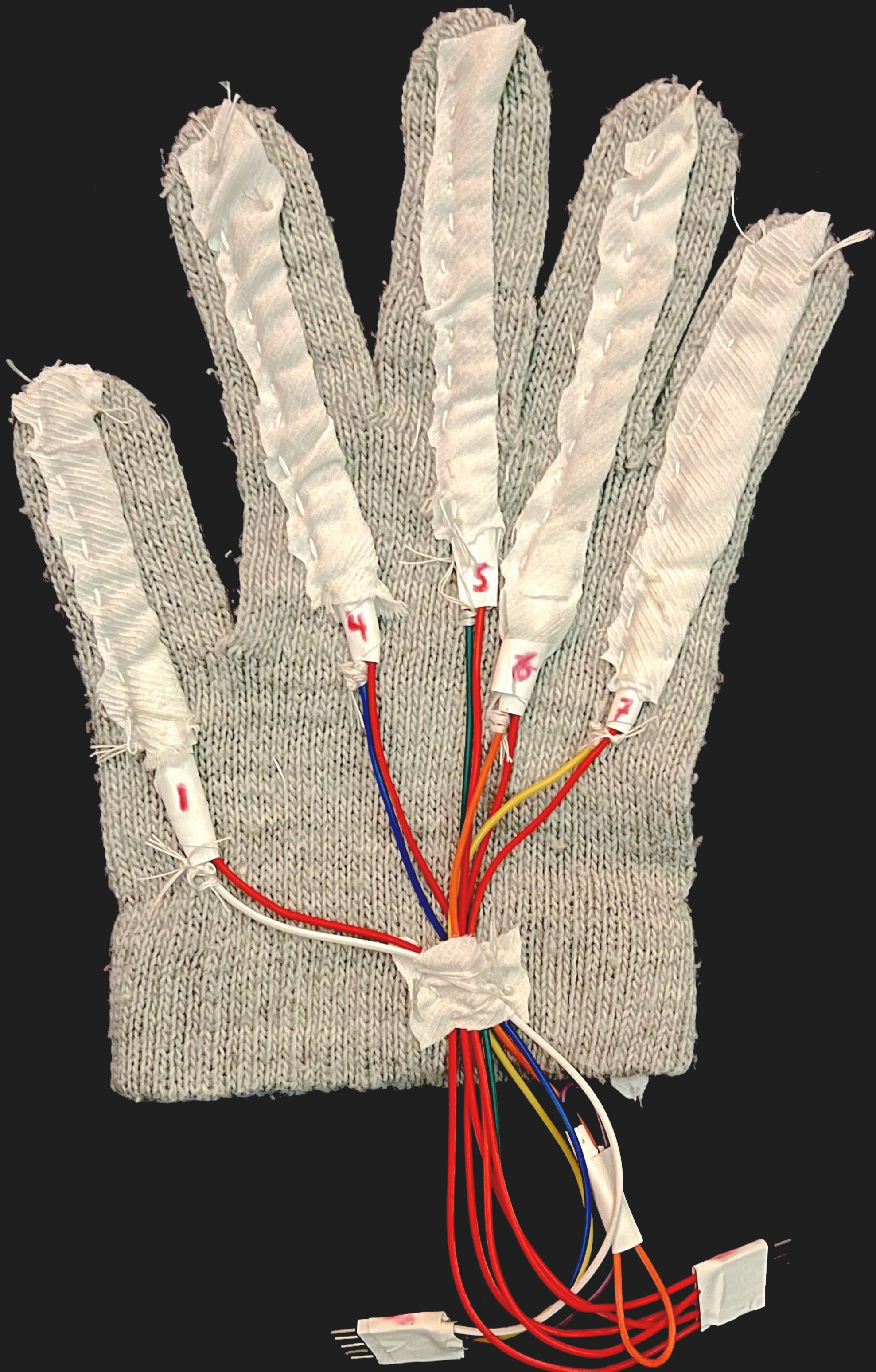
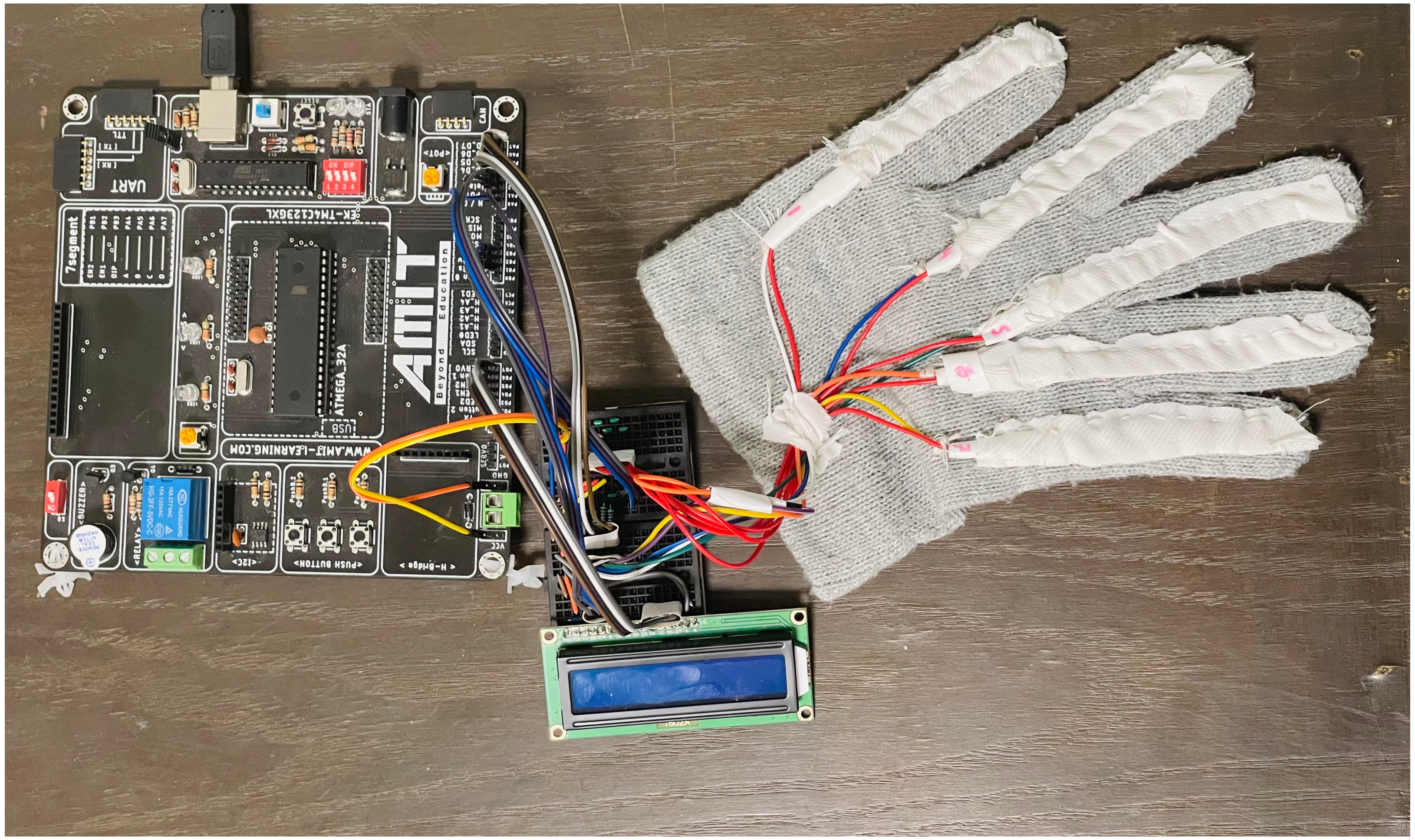


Motive behind the project

WE ALL DESERVE TO BE UNDERSTOOD

MAIN HARDWARE COMPONENTS

- Atmega32A
- 5 Bend Sensors
- 16*2 Blue LCD
- Amit Kit for interface



MAIN SOFTWARE COMPONENTS

- MCAL: DIO, ADC
- HAL: LCD, Flex_sensor
- APP: main
- Services: Signs_translator
- LIB: std_types, Bit_math

STEPS

- Measuring the sensors analog values when bended and normal to get an edge between them by reading the ADC value for them.
- Optimising the hardware connections to overcome the kit noise through connecting the sensors to pull down resistors.
- Converting the arabic letters to special characters.
- Building the translator library through measuring the return ADC value and comparing it to the edge value and so detect the bend state of the finger.

RESULT

Fast Reactive Signs Translator Glove.