

TABLE III. USER INPUT GESTURE









Hand Gesture	LCD command
	
	
	
	

TABLE IV. FILE NAME

Command	File Name
Reserve for user input	"1.wav"
Reserve for user input	"2.wav"
Reserve for user input	"3.wav"
Reserve for user input	"4.wav"

## VII. ADVANTAGES

Some of the advantages of this device are discussed below-

- The communication between a normal person and a speech impaired person become easier.
- As here LCD is used to show the user command so one speech impaired person can also communicate with a deaf person.
- There is an option for user input.
- This device is portable. So user can bring it anywhere he/she wants.
- It is cost effective. So everyone can afford it.

## VIII. CONCLUSION

The main purpose of this project is to help the mute communities by developing an electronic speaking system.

This electronic speaking system can help the speech impaired people to communicate with normal people in the real world. Arduino is main control unit for this project. A data gloves is finally developed for the speech impaired patients. Now they don't have to face any kind of problem with their communication. Arduino was programmed such way that configuration settings can readily change without changing the entire program code. Glove was prepared carefully so that everyone can use that glove. While developing this device the main problem was the lack of necessary equipment in our country. But alternative method was taken and make sure the electronic speaking system (Speak Up) is developed. All the simulation was done before implementing the hardware circuit to make sure all the component that were used worked correctly. After achieving desired output from the simulation, the hardware was implemented. After hardware implementation, final results were analyzed. Desired results were found. In this paper several recommendations were given so that this device can be developed more in the near future. This electronic speaking system (Speak Up) will make a revolutionary change in the communication process of speech impaired people.

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