

## Gloved Human-Machine Interface

This technology offers a vibrotactile feedback consisting of several systems, devices, circuits, or user interfaces adapted for activities for a bulky glove wearer that comprise tracking movement of the gloved hand and interpreting a gloved finger movement of a human.

### What is the Problem?

Users wearing bulky gloves sacrifice tactile feedback, which can lead to numerous limitations in different applications. Loss of touch can lead to undesirable performance or engagement with the environment. The combination of tactile feedback while using bulky gloves would increase performance and safety in a number of applications.

### What is the Solution?

This solution includes new techniques for providing vibrotactile feedback to a user wearing bulky gloves. These techniques include several systems, devices, circuits, or user interfaces adapted for activities that can comprise tracking movement of a gloved hand of a human and interpreting a gloved finger movement of the human. In response to interpreting the gloved finger movement, the system can provide feedback to the user.

### What Differentiates it from Solutions Available Today?

Currently, users in bulky gloves are limited to a decrease in tactile feedback, which leads to limited performance. The benefits of this technology are 1) improving ability to interact with digital devices such as touch screens and 2) in conjunction with a tactile sensor on the glove exterior, restoration of sense of touch blocked by the bulky gloves.

### Patent Information:

[US9104271B1](#)

### References

1. Kannan M. Krishnan(2010 July) , <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2949969/>, Trans Magn

### Technology ID

BDP 6723

### Category

Hardware/Other  
Selection of Available  
Technologies

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