

**PROJECT REPORT**  
**ON**  
**WIRELESS HAND MOUSE**

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## **ABSTRACT**

**Wireless Hand Mouse** is a wireless USB gesture input system that enables a person to use a computer by performing intuitive hand and finger motions in the air. It performs all functions that the normal mouse does.

The motivation of this project was to create an intuitive input system that would be easy and fun to use for computer applications that are not particularly keystroke-intensive, such as surfing the web and playing video games. The previous implementation of this project uses flex sensors. We decided to improve upon this concept by incorporating tilt sensor to detect the tilt of the hand as well, thus permitting wrist movements to control the keystroke input in combination with the touch actions. This also allows for a comparable assortment of possible keystrokes with a reduced number of touch or contact sensors, which in turn enables us to define larger contact zones to allow easier activation. We incorporated the feature and implemented mouse smoothing and additional gesture-sensing elements to provide a higher degree of control for the user.