Ehrgeiz
By: Team XD

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Project Overview

• Summarize your project topic
  – Topic: 2-Glove Interface for Computers
  – Goal: create an innovative I/O interface for personal computer
  – Approach: USB interfacing, Wireless interfacing, Sensors to translate hand gestures

• System Level Design
Progress to Date

• Figured out what microP to use for Base device (AT90USB1287), sensors to use for Glove device (Flex Resistors and Accelerometers), wireless interface device (XBEE).

• Looked at LUFA, a driver for USB AVR’s that has USB interfacing capabilities and classes for HID (Human Interface Device). LUFA is written by Dean Camera, a moderator at AVRFREAKS.

• Received AT90USB1287 and is still learning the main components of writing the AVR side drivers to interface an HID compliant device.
Current Goal

• The goal as of now is to have a keyboard ‘Enter’ button on the base board and transmit it to the PC via USB interface.

• The significance of this is to make sure that the base board can communicate properly to the PC using USB correctly.
Current Work

• Learning how to write AVR side driver to interface with the PC’s HID drivers.
• Editing the LUFA code to comply with my driver needs.
• Figuring out how to design the base board and have it milled as soon as possible.
**Introduction**

Available Weeks in Summer 2009

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<th>Introduction</th>
<th>Project Proposal</th>
<th>Research on USB Interfacing</th>
<th>Write AVR side driver for HID</th>
<th>Interface base board with PC via USB</th>
<th>A/D testing for gloves</th>
<th>Build glove board</th>
<th>Analog to Digital to HID conversion</th>
<th>Transmit Glove data to PC</th>
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- Planned
- Extension
- Down time

5/28/2009
Overall Project Status

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To get back on schedule, the base board must be designed and milled as soon as possible. This is required for testing since the AT90USB1287 does not have a DIP package.