TEAM 6 WEEKLY PRESENTATION
ALTERNATIVE MOUSE INPUT SYSTEM
HEAD MOUNTED ART INSTRUMENT
GAME FOR IMPROVING NAME RECALL

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Project Overview
Alternative Mouse Input System

- Above is the completed drawing of the foot mouse setup, with the track ball mouse setup pictured below.
- In addition there will be two games to test the alternative mouse input devices.
Project Overview
Head Mounted Art Instrument

- Picture of the two tracks in the frame
- Single track pictured below
Work Completed
Alternative Mouse Input System

- Both test games for the alternative mouse input system have been completed.
- Mounted foot pedals to plastic backing.
- Track ball is ready for integration into mouse housing.
Work Completed

Mounted Art Instrument

- Machined bracket that will hold motor in place and mounted motor onto track (both motors have been mounted).
- Re-Machined connection that will connect drive shaft to motor.
- Performed test with motor and drive shaft.
  - Vibration issues have been fixed
Work Completed
Mounted Art Instrument

- Assembled parts to create complete track system with motor.
- Purchased accelerometers for movement tracking.
  - Tested accelerometers – Processing accelerometer signals with motor control
- Continued with PIC programming
- Purchased micro-switches to limit track movement.
- Going to mount x-y track on wooden board
Work Completed
Game for Improving Name Recall

- Game is complete.
- Integrated voice recognition into game.
- Testing command control voice recognition prompt.
Future Work

Alternative Mouse Input System

- Foot mouse – Paint foot mouse, attach foot strap.
- Track ball – Fit and wire buttons, complete housing.
- Test with games.
Future Work
Head Mounted Art Instrument

- Program PIC to control motors.
- Use express PCB to create circuit board.
- Wire motors to PIC Microcontroller.
- Wire and test accelerometers to PIC Microcontroller.
- Attach Accelerometers to hand and head mounted device.
Future Work

Game for Improving Name Recall

- Continue with command and control integration.
- Make game aesthetically pleasing.
- If time allows, add additional components to game (relationships)
Project Review

- (Alternative Mouse) Foot mouse and trackball are nearly completed. Both games are ready for testing. Alternative Input design project is near completion.
- (Art Instrument) Construction of track has been completed. Main work will be focused on pic programming.
- (Name Game) Computer game is finished. Speech engine is being tested. Project is near completion.
## Timeline

<table>
<thead>
<tr>
<th>Task Name</th>
<th>Duration</th>
<th>Start</th>
<th>Finish</th>
<th>Resource Names</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input straps and Paint footmouse</td>
<td>13 days</td>
<td>Wed 3/26/08</td>
<td>Fri 4/11/08</td>
<td>All</td>
</tr>
<tr>
<td>Finish Trackball housing</td>
<td>6 days</td>
<td>Fri 3/28/08</td>
<td>Fri 4/4/08</td>
<td>Derek</td>
</tr>
<tr>
<td>Wire buttons to internal circuitry</td>
<td>18 days</td>
<td>Wed 3/19/08</td>
<td>Fri 4/11/08</td>
<td>Derek</td>
</tr>
<tr>
<td>Test foot mouse system with games</td>
<td>11 days</td>
<td>Fri 3/28/08</td>
<td>Fri 4/11/08</td>
<td>Andrew</td>
</tr>
<tr>
<td>Test track ball system with games</td>
<td>11 days</td>
<td>Fri 3/28/08</td>
<td>Fri 4/11/08</td>
<td>Andrew</td>
</tr>
<tr>
<td>Test voice recognition game</td>
<td>4 days</td>
<td>Tue 4/1/08</td>
<td>Fri 4/4/08</td>
<td>Matt</td>
</tr>
<tr>
<td>Attach tracks to plexiglass base</td>
<td>2 days</td>
<td>Tue 4/1/08</td>
<td>Wed 4/2/08</td>
<td>Derek</td>
</tr>
<tr>
<td>Finish programming of PIC16F877A</td>
<td>14 days</td>
<td>Tue 4/1/08</td>
<td>Fri 4/18/08</td>
<td>All</td>
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<tr>
<td>Wire accelerometers to PIC</td>
<td>10 days</td>
<td>Fri 3/21/08</td>
<td>Thu 4/3/08</td>
<td>Andrew</td>
</tr>
<tr>
<td>Add express PCB</td>
<td>4 days</td>
<td>Wed 4/23/08</td>
<td>Mon 4/28/08</td>
<td>All</td>
</tr>
</tbody>
</table>
Hours Worked

- Derek – 15 hours
- Matt – 16 hours
- Andrew – 13 hours