Stepping Shop | Team 5

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Technical Specification (UPDATED)

- **Hardware**
  - Asus Xtion Pro
  - Trade Show Display Screen
  - Hi-Def Projector
  - Microphone
  - Speaker
  - Pandaboard ES

- **Software**
  - OpenNI SDK
  - Voice Input Interpreter

- **Protocol**
  - Real-Time Streaming Protocol
  - USB 2.0 Protocol
  - Transition-minimized differential signaling (TMDS)
Features

- Essentials
  - Display interior of store, w/ products on wall.
  - Allow users to navigate store (update display accordingly) through hand gestures.

- Extras
  - Voice search (Say the desired area of store that you want to go to)
  - Payments processing (Allow users to pull up details about products and buy products)
  - Recommend products to friends (social aspect)
Architecture

1. Real-Time Streaming Protocol
2. USB 2.0 Protocol
3. Transition-minimized differential signaling (TMDS)
4. Real-Time Streaming Protocol
5. USB 2.0 Protocol
<table>
<thead>
<tr>
<th>Risks</th>
<th>Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment may too noisy for voice commands</td>
<td>User stands in specific spot for the microphone</td>
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<tr>
<td>Some users, like senior citizens, have restricted level of motion</td>
<td>Option to have Accelerated Mode where motions are much more sensitive</td>
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<tr>
<td>Users may want to keep their buying private</td>
<td>Option for Incognito Mode</td>
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<tr>
<td>Xtion Pro Motion Sensing Fail</td>
<td>Voice Commands: “Left, Right, Forward, Close-up, etc.”</td>
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<tr>
<td>Microphone Voice Command Fail</td>
<td>Have an inventory map to select items from</td>
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Questions, Comments, Concerns?

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