Final Project Review

Team Castle Quest

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Team Castle Quest

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CSE
Project Overview

- Electronic entertainment is no longer group-centric
- Virtually multiplayer, physically singleplayer
- Market and psychological demand for group centric games, especially board games

- Castle Quest is a electronic 4-player fantasy board game centered around an electronic Castle
## Requirements Analysis: Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Accomplishment</th>
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</thead>
<tbody>
<tr>
<td>Meet child safety standards of Consumer Product Safety Commission</td>
<td>- Uses under 5.5 Amperes</td>
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<tr>
<td></td>
<td>- Technically could be described as a general use product rather than a child</td>
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<tr>
<td></td>
<td>product (12 yrs or younger)</td>
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<td></td>
<td>- Doesn’t tip over at a 15 degree angle</td>
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<td></td>
<td>- Real version would have more solid construction</td>
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<tr>
<td>Game should weigh &lt; 5 lbs</td>
<td>7.5lbs</td>
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<tr>
<td>10+ hours battery life</td>
<td>4~5 hours</td>
</tr>
<tr>
<td>Durability to survive transport and repetitive construction/deconstruction</td>
<td>Can be transported easily and has survived personal testing</td>
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<tr>
<td>Support for up to 4 players</td>
<td>4 players can play</td>
</tr>
<tr>
<td>Simple, intuitive gameplay mechanics</td>
<td>Gameplay is relatively simple</td>
</tr>
<tr>
<td>Inexpensive</td>
<td>single unit: $250, mass production will be less</td>
</tr>
<tr>
<td>Specification</td>
<td>Accomplishment</td>
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<td>-----------------------------------</td>
<td>-----------------------------------------------------------------</td>
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<tr>
<td>Fun to play</td>
<td>Yes</td>
</tr>
<tr>
<td>Game should fit into a 1ft3 container</td>
<td>Were told in MDR not to make the board foldable</td>
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</tbody>
</table>
FPR Deliverables

- Final Game and Board Assembly
- Testing
  - Software
  - Hardware
  - Integration
- Aesthetics
  - Tower and Board
  - Player Guide
Sarah’s FRP Deliverables

- Used GIMP to create final board graphic based on paper and pencil mock-up
- Added USB port and speaker holes to tower
- Painted tower
David’s FPR Deliverables

- Worked with Eric to make gameplay more fun
- Updated, Sized and Printed Player’s Manual
- Assisted in mounting components to tower
- Playtested singleplayer and multiplayer gameplay
- Attached final board graphics
Devrim’s FPR Deliverables

- Found power consumption measurements
- Ordered a new battery
- Finished the pcb and mounted it inside the tower
- Made speaker amplifier and mounted it and the speaker inside the tower
Eric’s FPR Deliverables

- Added LEDs to the front of the tower
- Attached lazy susan to the board
- Added rotation stoppers to the tower
- Fixed board LED holes and tower screen hole
- Playtested with 3 non-group members
### Final Budget

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>IO: LEDs, speaker, touchscreen</td>
<td>$191</td>
</tr>
<tr>
<td>Power supply/PCB</td>
<td>$45</td>
</tr>
<tr>
<td>Tower Aesthetics</td>
<td>$20</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$256</strong></td>
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</tbody>
</table>

- Our total project budget remained under $500
Conclusions
Demo

Outline of demo:

a) Constructed castle
b) Using pcb/battery
c) Playing the game
d) Saving/Loading
QUESTIONS?