EasyFridge

2.009 Sketch Model Presentation
October 2, 2008
Silver B
Market

• 2007
  – $33.1 billion spent on large home appliances
  – 10.4 million refrigerators sold
• Homeowners prefer to upgrade internally
• Many established brands/manufacturers
• Survey:
  – Overwhelming need for easily adjustable shelves
  – Problem with holding the door open to see what’s inside
  – Did not prefer clear doors due to interior messiness
Product from 1951
Goal: Determine customer needs and reaction

Tested the model on people in Lobby 7

Built scale model fridge with hand driven rotation and vertical adjustment and a “clear door”
## Costs

- **Refrigerator retail price:** ~$1,000-10,000
- **Approximately** $300 in additional manufacturing costs
- **Additional** $1,000 cost to consumer

<table>
<thead>
<tr>
<th>Vertical Lift</th>
<th>Rotation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor: $150</td>
<td>Turntable: $15</td>
</tr>
<tr>
<td>Thrust Bearing: $15/shelf</td>
<td>Mounted Bearing: $18</td>
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<tr>
<td>Threaded Rod: $50</td>
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</tbody>
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Lobby 7 Testing

- 93% wanted rotating shelves
- 92% wanted lifting shelves
- 93% of users were interested in a clear door
  - Of which 38% wanted adjustable opacity
Going Forward

- More research into shelf actuation, robustness
- Efficiency of clear/glass doors
  - Adjustable opacity

- Customer ideas:
  - Consistent temperature distribution
  - Removable shelves for cleaning
  - Condenser/coil location