Coffee-Waker
The Coffee-Waker

- Makes coffee at desired time
- Alarm controlled by removing coffee cup
  - Corrects overuse of snooze button
- Designed for bedroom use
  - Safety
  - Size and style

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Programmable Coffeemakers

- Make coffee at desired time
- Designed for kitchen use
Customer Acceptance

Our Customer:
College Students, expand to Young Professionals

If someone prepared you a cup of coffee in the morning, when would you ideally want to drink it?

Where would you keep your “Coffee-Waker?”

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# Product Contract

<table>
<thead>
<tr>
<th>Customer Need</th>
<th>Design Attributes</th>
<th>Engineering Specification(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fits comfortably on nightstand</td>
<td>Size</td>
<td>Less than 7” x 7” x 11”</td>
</tr>
<tr>
<td>Ease of use in bedroom</td>
<td>Cord length</td>
<td>5-7ft</td>
</tr>
<tr>
<td>Ease of care</td>
<td>Maintenance/Set up</td>
<td>Takes &lt;3 min</td>
</tr>
<tr>
<td>Drinkable coffee</td>
<td>Coffee temperature</td>
<td>Comes out over 170F (industry standard) but cooled to &lt;140F by time of drinking</td>
</tr>
<tr>
<td>Hard to knock device over</td>
<td>Stability</td>
<td>Does not slide on 15 degree slope and does not tip over in normal operation on 30 degree slope</td>
</tr>
<tr>
<td>Safe from hot liquid</td>
<td>Spill resistance</td>
<td>Spills &lt;20mL/s when machine or cup is tipped</td>
</tr>
<tr>
<td>Fire safe</td>
<td>Hot components insulated</td>
<td>Outside of insulation less than the plastic transition temperature of the coffeemaker material</td>
</tr>
</tbody>
</table>
Risk Assessment

**Safety**
- Children & Pets
- Knocking device over
- Knocking cup over*
- Spilling*
- Dispensing*
- Burning when drinking

**User Experience**
- Preference settings
  - Snooze (# and time)
  - Alarm (tone)
- Coffee temperature
- Milk/sugar dispensing
- Cleaning

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Assessing Risks: Demonstrations

Safety

- Knocking over
  - Cup locking mechanisms
- Spilling
  - Lid/dispensing connection

User experience

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