Canary

Red A
Interconnected fire alarms in commercial buildings

False alarms can cost hundreds of dollars in fines and fees
Canary

The first alert smoke detector for kitchens
62% of home cooking fires

Our survey results supported this (51%)
Current Solutions

Dissipate the smoke  Open doors and windows  Turn off smoke detector
<table>
<thead>
<tr>
<th>Customer Need</th>
<th>Product Attribute(s)</th>
<th>Engineering Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unobtrusive</td>
<td>Size</td>
<td>5&quot; x 5&quot; x 4&quot;</td>
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<tr>
<td>Distinguishes between smoke and steam</td>
<td>Humidity Threshold</td>
<td>60% humidity indicates steam</td>
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<tr>
<td>Can be used at various distances from stove</td>
<td>Detection Range</td>
<td>6&quot; - 36&quot; above stove</td>
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<tr>
<td>Affordable</td>
<td>Cost</td>
<td>&lt; $30</td>
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</table>
Assembly Design
Photoelectric Detection

Standby

- Photodiode
- LED

Alarm triggered

- Smoke Particles
Humidity Sensor
Future Development

Conduct more tests to validate humidity threshold

Improve air sampling method

Further develop form factor informed by user studies