Smooth Talker
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• Volume Recognition

• Designed for lecturers or as a speech pathology aid

• Notifies user when speaking too quietly
Market

1.54 million College Lecturers in U.S.

1.18 million children with Autism in U.S.
User Research

• “I would really appreciate at times knowing if I am speaking loudly enough.”
  -Anna Kohler, MIT Senior Lecturer Theater Arts

• “This would be helpful when teaching children with ASD how to communicate.”
  -Tim Sullivan, author of “Give Me a Voice: Helping Children with Autism Find Their Voice”
Benchmarking

Target Price
$30

Portable PA System
$20-40

Classroom noise indicator
$100
# Product Contract

<table>
<thead>
<tr>
<th>Customer Need</th>
<th>Product Attribute(s)</th>
<th>Engineering Specification(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can notify user when speaking too softly</td>
<td>Signal source detection</td>
<td>Detect whisper amidst ambient noise &gt; 40 dB</td>
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<tr>
<td>Won’t run out of battery</td>
<td>Power Consumption</td>
<td>Battery life &gt; 3 Hours</td>
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<td>Can be set up quickly</td>
<td>Set-up time</td>
<td>&lt; 30s</td>
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<td>Alerts user in discrete, non-distracting way</td>
<td>Feedback</td>
<td>Average of 4 out of 5 on Likert Scale</td>
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<tr>
<td>Aesthetics</td>
<td>Form Factor</td>
<td>Average of 4 out of 5 on Likert Scale</td>
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Can we reliably detect when the user is speaking too softly and address ambient noise?
Yes, using a contact microphone
Moving Forward

• Address frequency analysis for intonation feedback

• Create appealing user interface

• User testing