COCHLEAR IMPLANT UX SURVEY

How do we (CI users) rate our experience with education, career, social life?
01

Demographics of Respondents
Total number of respondents

35

CI users aged 18 and above

(Sourced from CI-related community groups on Facebook & Whatsapp)

Gender

13 (37%)

22 (67%)
Age

- 18 - 24: 15
- 25 - 30: 9
- 31 - 40: 5
- 41 - 50: 3
- 61 - 70: 2
- 71 - 80: 1

Count
Country

Malaysia | 10
Singapore | 7
Canada | 7
United States | 5
United Kingdom | 2
India | 1
Australia | 2
N/A | 1

Flags were downloaded from countryflags.com
Age Implantated

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 5</td>
<td>11</td>
</tr>
<tr>
<td>6 - 10</td>
<td>6</td>
</tr>
<tr>
<td>11 - 15</td>
<td>4</td>
</tr>
<tr>
<td>16 - 20</td>
<td>1</td>
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<tr>
<td>21 - 25</td>
<td>5</td>
</tr>
<tr>
<td>26 - 30</td>
<td>3</td>
</tr>
<tr>
<td>31 - 40</td>
<td>1</td>
</tr>
<tr>
<td>41 - 50</td>
<td>2</td>
</tr>
<tr>
<td>51 - 60</td>
<td>1</td>
</tr>
<tr>
<td>61 - 70</td>
<td>1</td>
</tr>
</tbody>
</table>
Hearing Loss

- Genetic: 37.1%
- Acquired: 60.0%
- Not sure: 2.9%
02 Education

Level of Education, Experience & Support at School
High educational attainment held/currently pursuing

- High school
- Bachelor's degree
- Master's degree

Count
Experience at secondary educational institution (secondary school/high school/junior college)

- Difficulties in communicating with new friends/college mates
- I was able to thrive in that environment.
- I was able to meet the baseline and graduate in time.
- I was constantly struggling at school.
- I did well academically but a little restricted socially
Was the classroom setup conducive for your hearing needs? Were you able to get the support you need?

- Yes - I was able to get help when I needed it
- No - I had to rely on myself
Field of work

- Marketing, Sales & Service: 14.3%
- Finance: 14.3%
- Education & Training: 19.0%
- Manufacturing, services and repair: 4.8%
- Banking: 4.8%
- Architecture & Construction: 4.8%
- Government & Public Administration: 4.8%
- Health Science: 9.5%
- Agriculture, Food & Natural Resources: 4.8%
- Library: 4.8%
- Information Technology: 4.8%
- Tennis Coaching: 4.8%
- Retired civil servant: 4.8%
SOCIAL

9 Inner-Dialogue Statements
Interaction & dynamic at home, school and social setting
Intra-Group Comparison

IMPLANTED AT AGE 18 OR BELOW

9 Inner-Discourse Statements
"I think about how others would judge me because of my CI (speech processor, surgical scar) or hearing needs."

Implanted before age 18 - response to the statement as a teenager & as an adult now

<table>
<thead>
<tr>
<th></th>
<th>Teenager</th>
<th>Adult</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Occasionally</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Seldom</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Never</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

0 2 4 6 8 10
"I try not to let others know that I have CI whenever I could."

Implanted before age 18 - response to the statement as a teenager & as an adult now

- Always
  - Teenager: 3
  - Adult: 1

- Occasionally
  - Teenager: 8
  - Adult: 6

- Seldom
  - Teenager: 5
  - Adult: 9

- Never
  - Teenager: 0
  - Adult: 11
"I worry about asking others to repeat themselves."

Implanted before age 18 - response to the statement above as a teenager & as an adult now

- **Always**
  - Teenager: 8
  - Adult: 2

- **Occasionally**
  - Teenager: 8
  - Adult: 8

- **Seldom**
  - Teenager: 4
  - Adult: 10

- **Never**
  - Teenager: 2
  - Adult: 2
"My CI makes me less presentable/less decent-looking."

Implanted before age 18 - response to the statement above as a teenager & as an adult now

- Always: Teenager 2, Adult 0
- Occasionally: Teenager 6, Adult 4
- Seldom: Teenager 6, Adult 6
- Never: Teenager 0, Adult 10
"I worry if I'll ever find someone who could see past my hearing loss/hearing needs and love me."

Implanted before age 18 - response to the statement above as a teenager & as an adult now

- **Always**
  - Teenager: 1
  - Adult: 2

- **Occasionally**
  - Teenager: 7
  - Adult: 6

- **Seldom**
  - Teenager: 6
  - Adult: 7

- **Never**
  - Teenager: 9
  - Adult: 9
"I like meeting new people but my hearing make me feel more cautious about meeting new people."

Implanted before age 18 - response to the statement as a teenager & as an adult now

- Always
- Occasionally
- Seldom
- Never
"I worry if my teachers/superiors/peers will question my competency when it comes to leadership in a class/organization."

Implanted before age 18 - response to the statement as a teenager & as an adult now

- **Always**
  - Teenager
  - Adult

- **Occasionally**
  - Teenager
  - Adult

- **Seldom**
  - Teenager
  - Adult

- **Never**
  - Teenager
  - Adult
"I feel like a burden to my family."

Implanted before age 18 - response to the statement as a teenager & as an adult now

- **Always**
  - Teenager: 2
  - Adult: 1

- **Occasionally**
  - Teenager: 5
  - Adult: 5

- **Seldom**
  - Teenager: 4
  - Adult: 2

- **Never**
  - Teenager: 10
  - Adult: 13
"I don't want to have any close contact with the deaf and hard-of-hearing community."

Implanted before age 18 - response to the statement as a teenager & as an adult now
What changed, what didn’t

**Changed**
(Frequency of the inner dialogue)

- “I think about how others would judge me because of my CI or hearing needs.”
  - Frequency of thought about the statement **reduces in adulthood**
- “I try not to let others know that I have CI whenever I could.”
  - Frequency of thought about the statement **reduces in adulthood**
- “I worry about asking others to repeat themselves.”
  - Frequency of thought about the statement **reduces in adulthood**
- (continued on the next slide)

**No change**
(Frequency of the inner dialogue)

- “I worry if I'll ever find someone who could see past my hearing loss/hearing needs and love me.”
- “I like meeting new people but my hearing make me feel more cautious about meeting new people.”
- “I don't want to have any close contact with the deaf and hard-of-hearing community.”
### Changed
*(Frequency of the inner dialogue)*

- “My CI makes me less presentable/less decent-looking.”
  - Frequency of thought about the statement **reduces in adulthood**
- “I worry if my teachers/peers will question my competency when it comes to leadership in a class/club.”
  - Frequency of thought about the statement **reduces in adulthood**
- “I feel like a burden to my family.”
  - Frequency of thought about the statement **reduces in adulthood**

### No change
*(Frequency of the inner dialogue)*

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Inter-Group Comparison

IMPLANTED AT AGE 18 OR BELOW
VS.
IMPLANTED AFTER 18

9 Inner-Discourse Statements
"I think about how others would judge me because of my CI (speech processor, surgical scar) or hearing needs."

<table>
<thead>
<tr>
<th>Frequency</th>
<th>ImPLanted between age 0 and 18</th>
<th>ImPLanted after age 18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>4.55%</td>
<td>7.69%</td>
</tr>
<tr>
<td>Occasionally</td>
<td>36.36%</td>
<td>30.77%</td>
</tr>
<tr>
<td>Seldom</td>
<td>36.36%</td>
<td>38.46%</td>
</tr>
<tr>
<td>Never</td>
<td>22.73%</td>
<td>23.08%</td>
</tr>
</tbody>
</table>
"I try not to let others know that I have CI whenever I could."

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Implanted between age 0 and 18</th>
<th>Implanted after age 18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>4.55%</td>
<td>0.00%</td>
</tr>
<tr>
<td>Occasionally</td>
<td>4.55%</td>
<td>7.69%</td>
</tr>
<tr>
<td>Seldom</td>
<td>40.91%</td>
<td>30.77%</td>
</tr>
<tr>
<td>Never</td>
<td>50.00%</td>
<td>61.54%</td>
</tr>
</tbody>
</table>
"I worry about asking others to repeat themselves."

- Implanted between age 0 and 18
- Implanted after age 18

- **Always**
  - Implanted between age 0 and 18: 0.00%
  - Implanted after age 18: 7.69%

- **Occasionally**
  - Implanted between age 0 and 18: 22.73%
  - Implanted after age 18: 7.69%

- **Seldom**
  - Implanted between age 0 and 18: 27.27%
  - Implanted after age 18: 30.77%

- **Never**
  - Implanted between age 0 and 18: 50.00%
  - Implanted after age 18: 53.85%
"My CI makes me less presentable/less decent-looking."

- **Always**
  - Implanted between age 0 and 18: 0.00%
  - Implanted after age 18: 7.69%

- **Occasionally**
  - Implanted between age 0 and 18: 22.73%
  - Implanted after age 18: 7.69%

- **Seldom**
  - Implanted between age 0 and 18: 27.27%
  - Implanted after age 18: 30.77%

- **Never**
  - Implanted between age 0 and 18: 50.00%
  - Implanted after age 18: 53.85%
"I worry if I'll ever find someone who could see past my hearing loss/hearing needs and love me."

- Implanted between age 0 and 18
- Implanted after age 18

- Always: 9.09% (implanted), 15.38% (not implanted)
- Occasionally: 27.27% (implanted), 15.38% (not implanted)
- Seldom: 22.73% (implanted), 38.46% (not implanted)
- Never: 40.91% (implanted), 30.77% (not implanted)
"I like meeting new people but my hearing make me feel more cautious about meeting new people."

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Implanted between age 0 and 18</th>
<th>Implanted after age 18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>22.73%</td>
<td>15.38%</td>
</tr>
<tr>
<td>Occasionally</td>
<td>18.18%</td>
<td>30.77%</td>
</tr>
<tr>
<td>Seldom</td>
<td>27.27%</td>
<td>38.46%</td>
</tr>
<tr>
<td>Never</td>
<td>31.82%</td>
<td>15.38%</td>
</tr>
</tbody>
</table>
"I worry if my teachers/superiors/peers will question my competency when it comes to leadership in a class/organization."

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Implanted between age 0 and 18</th>
<th>Implanted after age 18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>4.55%</td>
<td>15.38%</td>
</tr>
<tr>
<td>Occasionally</td>
<td>18.18%</td>
<td>46.15%</td>
</tr>
<tr>
<td>Seldom</td>
<td>36.36%</td>
<td>15.38%</td>
</tr>
<tr>
<td>Never</td>
<td>40.91%</td>
<td>23.08%</td>
</tr>
</tbody>
</table>
"I feel like a burden to my family."

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Implanted between age 0 and 18</th>
<th>Implanted after age 18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>4.55%</td>
<td>15.38%</td>
</tr>
<tr>
<td>Occasionally</td>
<td>22.73%</td>
<td>15.38%</td>
</tr>
<tr>
<td>Seldom</td>
<td>9.09%</td>
<td>15.38%</td>
</tr>
<tr>
<td>Never</td>
<td></td>
<td>53.85%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>63.64%</td>
</tr>
</tbody>
</table>
"I don't want to have any close contact with the deaf and hard-of-hearing community."

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Implanted between age 0 and 18</th>
<th>Implanted after age 18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>Occasionally</td>
<td>9.09%</td>
<td>7.69%</td>
</tr>
<tr>
<td>Seldom</td>
<td>4.55%</td>
<td>15.38%</td>
</tr>
<tr>
<td>Never</td>
<td>86.36%</td>
<td>76.92%</td>
</tr>
</tbody>
</table>
What’s similar, what’s not?

**Similar**  
*(Frequency of the inner dialogue)*

- “I think about how others would judge me because of my CI or hearing needs.”
- “I try not to let others know that I have CI whenever I could.”
- “I worry if I'll ever find someone who could see past my hearing loss/hearing needs and love me.”
- “I like meeting new people but my hearing make me feel more cautious about meeting new people.”
- “I feel like a burden to my family.”
- “I don't want to have any close contact with the deaf and hard-of-hearing community.”

**Not similar**  
*(Frequency of the inner dialogue)*

- “I worry about asking others to repeat themselves.”
  - The **Implanted between age 0 and 18** group has more frequent thought about this statement.
- “My CI makes me less presentable/less decent-looking.”
  - The **Implanted between age 0 and 18** group has more frequent thought about this statement.
- “I worry if my teachers/peers will question my competency when it comes to leadership in a class/club.”
  - The **Implanted after age 18** group has more frequent thought about this statement.
Inter-Group Comparison

MALE
VS.
FEMALE
9 Inner-Dialogue Statements
"I think about how others would judge me because of my CI (speech processor, surgical scar) or hearing needs."

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>7.69%</td>
<td>4.55%</td>
</tr>
<tr>
<td>Occasionally</td>
<td>30.77%</td>
<td>36.36%</td>
</tr>
<tr>
<td>Seldom</td>
<td>23.08%</td>
<td>45.45%</td>
</tr>
<tr>
<td>Never</td>
<td>38.46%</td>
<td>13.64%</td>
</tr>
</tbody>
</table>
"I try not to let others know that I have CI whenever I could."

- Always: Male 0.00%, Female 4.55%
- Occasionally: Male 7.69%, Female 4.55%
- Seldom: Male 23.08%, Female 45.45%
- Never: Male 69.23%, Female 45.45%
"I worry about asking others to repeat themselves."

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>15.38%</td>
<td>13.64%</td>
</tr>
<tr>
<td>Occasionally</td>
<td>23.08%</td>
<td>40.91%</td>
</tr>
<tr>
<td>Seldom</td>
<td>53.85%</td>
<td>36.36%</td>
</tr>
<tr>
<td>Never</td>
<td>7.69%</td>
<td>9.09%</td>
</tr>
</tbody>
</table>
"My CI makes me less presentable/less decent-looking."

- **Always**: Male 0.00%, Female 4.55%
- **Occasionally**: Male 15.38%, Female 18.18%
- **Seldom**: Male 30.77%, Female 27.27%
- **Never**: Male 53.85%, Female 50.00%
"I worry if I'll ever find someone who could see past my hearing loss/hearing needs and love me."

![Bar chart showing the percentage of male and female respondents for various frequency levels of worry.]

- Always: Male 30.77%, Female 0.00%
- Occasionally: Male 7.69%, Female 31.82%
- Seldom: Male 23.08%, Female 31.82%
- Never: Male 38.46%, Female 36.36%
"I like meeting new people but my hearing make me feel more cautious about meeting new people."

- Always: Male 30.77%, Female 13.64%
- Occasionally: Male 30.77%, Female 18.18%
- Seldom: Male 30.77%, Female 31.82%
- Never: Male 7.69%, Female 36.36%
"I worry if my teachers/superiors/peers will question my competency when it comes to leadership in a class/organization."
"I feel like a burden to my family."

- **Always**
  - Male: 7.69%
  - Female: 9.09%

- **Occasionally**
  - Male: 23.08%
  - Female: 18.18%

- **Seldom**
  - Male: 15.38%
  - Female: 9.09%

- **Never**
  - Male: 53.85%
  - Female: 63.64%
"I don't want to have any close contact with the deaf and hard-of-hearing community."
What’s similar, what’s not?

**Similar**  
*(Frequency of the inner dialogue)*

- “I think about how others would judge me because of my CI or hearing needs.”
- “I try not to let others know that I have CI whenever I could.”
- “I worry if my teachers/peers will question my competency when it comes to leadership in a class/club.”
- “I feel like a burden to my family.”

**Not similar**  
*(Frequency of the inner dialogue)*

- “I worry about asking others to repeat themselves.”
  - The **Female** group has more frequent thought about this statement
- “My CI makes me less presentable/less decent-looking.”
  - The **Female** group has more frequent thought about this statement
- “I worry if I'll ever find someone who could see past my hearing loss/hearing needs and love me.”
  - The **Male** group has more frequent thought about this statement
- (continued on the next slide)
What’s similar, what’s not? (cont.)

**Similar**  
(Frequency of the inner dialogue)

**Not similar**  
(Frequency of the inner dialogue)

- “I like meeting new people but my hearing make me feel more cautious about meeting new people.”
  - The Male group has more frequent thought about this statement
- “I don't want to have any close contact with the deaf and hard-of-hearing community.”
  - The Female group has more frequent thought about this statement
Inter-Group Comparison

*WESTERN CULTURE

VS.

*EASTERN CULTURE

9 Inner-Dialogue Statements

*Definition
Western culture: Australia, Canada, the UK, the US
Eastern culture: India, Malaysia, Singapore
"I think about how others would judge me because of my CI (speech processor, surgical scar) or hearing needs."

- **Always**
  - Western: 6.25%
  - Eastern: 5.56%

- **Occasionally**
  - Western: 31.25%
  - Eastern: 38.89%

- **Seldom**
  - Western: 37.50%
  - Eastern: 33.33%

- **Never**
  - Western: 25.00%
  - Eastern: 22.22%
"I try not to let others know that I have CI whenever I could."

- **Always**
  - Western: 0.00%
  - Eastern: 5.56%

- **Occasionally**
  - Western: 6.25%
  - Eastern: 5.56%

- **Seldom**
  - Western: 31.25%
  - Eastern: 44.44%

- **Never**
  - Western: 62.50%
  - Eastern: 44.44%
"I worry about asking others to repeat themselves."

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Western</th>
<th>Eastern</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>18.75%</td>
<td>11.11%</td>
</tr>
<tr>
<td>Occasionally</td>
<td>31.25%</td>
<td>38.89%</td>
</tr>
<tr>
<td>Seldom</td>
<td>43.75%</td>
<td>44.44%</td>
</tr>
<tr>
<td>Never</td>
<td>6.25%</td>
<td>5.56%</td>
</tr>
</tbody>
</table>
"My CI makes me less presentable/less decent-looking."

- Always: Western 0.00%, %Eastern 6.25%
- Occasionally: Western 0.00%, %Eastern 33.33%
- Seldom: Western 18.75%, %Eastern 38.89%
- Never: Western 75.00%, %Eastern 27.78%
"I worry if I'll ever find someone who could see past my hearing loss/hearing needs and love me."

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Western</th>
<th>Eastern</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>0.00%</td>
<td>22.22%</td>
</tr>
<tr>
<td>Occasionally</td>
<td>18.75%</td>
<td>22.22%</td>
</tr>
<tr>
<td>Seldom</td>
<td>25.00%</td>
<td>33.33%</td>
</tr>
<tr>
<td>Never</td>
<td>56.25%</td>
<td>22.22%</td>
</tr>
</tbody>
</table>
"I like meeting new people but my hearing make me feel more cautious about meeting new people."

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Western</th>
<th>Eastern</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>12.50%</td>
<td>27.78%</td>
</tr>
<tr>
<td>Occasionally</td>
<td>25.00%</td>
<td>16.67%</td>
</tr>
<tr>
<td>Seldom</td>
<td>25.00%</td>
<td>38.89%</td>
</tr>
<tr>
<td>Never</td>
<td>37.50%</td>
<td>16.67%</td>
</tr>
</tbody>
</table>
"I worry if my teachers/superiors/peers will question my competency when it comes to leadership in a class/organization."

- **Always**
  - Western: 6.25%
  - Eastern: 11.11%

- **Occasionally**
  - Western: 12.50%
  - Eastern: 44.44%

- **Seldom**
  - Western: 37.50%
  - Eastern: 22.22%

- **Never**
  - Western: 43.75%
  - Eastern: 22.22%
"I feel like a burden to my family."

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Western (%)</th>
<th>Eastern (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>12.50</td>
<td>5.56</td>
</tr>
<tr>
<td>Occasionally</td>
<td>12.50</td>
<td>27.78</td>
</tr>
<tr>
<td>Seldom</td>
<td>0.00</td>
<td>22.22</td>
</tr>
<tr>
<td>Never</td>
<td>75.00</td>
<td>44.44</td>
</tr>
</tbody>
</table>
"I don't want to have any close contact with the deaf and hard-of-hearing community."
## What’s similar, what’s not?

<table>
<thead>
<tr>
<th>Similar</th>
<th>Not similar</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Frequency of the inner dialogue)</td>
<td>(Frequency of the inner dialogue)</td>
</tr>
</tbody>
</table>

- “I worry about asking others to repeat themselves.”

- “I think about how others would judge me because of my CI or hearing needs.”
  - The **Eastern Culture** group has more frequent thought about this statement

- “I try not to let others know that I have CI whenever I could.”
  - The **Eastern Culture** group has more frequent thought about this statement

- “My CI makes me less presentable/less decent-looking.”
  - The **Eastern Culture** group has more frequent thought about this statement

- (continued on the next slide)
What’s similar, what’s not? (cont.)

**Similar**

(Frequency of the inner dialogue)

**Not similar**

(Frequency of the inner dialogue)

- “I worry if I'll ever find someone who could see past my hearing loss/hearing needs and love me.”
  - The **Eastern Culture** group has more frequent thought about this statement
- “I like meeting new people but my hearing make me feel more cautious about meeting new people.”
  - The **Eastern Culture** group has more frequent thought about this statement
- “I worry if my teachers/peers will question my competency when it comes to leadership in a class/club.”
  - The **Eastern Culture** group has more frequent thought about this statement
- (continued on the next slide)
**What’s similar, what’s not? (cont.)**

<table>
<thead>
<tr>
<th>Similar (Frequency of the inner dialogue)</th>
<th>Not similar (Frequency of the inner dialogue)</th>
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</table>

- “I feel like a burden to my family.”
  - The **Eastern Culture** group has more frequent thought about this statement
- “I don't want to have any close contact with the deaf and hard-of-hearing community.”
  - The **Eastern Culture** group has more frequent thought about this statement
Feedback for CI manufacturers
What CI manufacturers could do better?

Warranty
- Longer warranty validity period
- Broader warranty area of coverage
- Replace warranty parts with brand new ones not refurbished ones

Price
- Spare parts at affordable price
- Broader warranty area of coverage
- Lower the cost and work with medical insurance more effectively

Device
- Make the design look unique & practical
- Provide practical accessories technology
- Come out with a CROS system
- Develop a stronger magnet for the newest internal who newly implanted such as the Cochlear Kanso
- Backdate new processor models to 22 electrode recipients faster

App
- release an app for the phone control, provide users a timeline of when to expect new processors or updates instead of making it such a hidden mystery.
- Keep me updated on new, helpful CI things