

## Needs Identification

**Client:** Tali Cahill

**Client Needs:**

- Accurate (No false alarms)
- Send & receive signals (in under 3 min)
- Low cost (\$100 budget)
- Wearable (Does not block hands/fingers)
- Long-lasting battery (at least 24 hours)
- Comfortable
- Discrete (doesn't identify the person as an opioid user)
- Can resist daily functions (durability)
- Visually appealing
- Fail-safe detection

Criteria	Needs	Priority	Explanation
1. <b>Functionality</b>	<ul style="list-style-type: none"> <li>- Send &amp; receive signals (in under 3 min)</li> <li>- Accurate</li> <li>- Long-lasting battery</li> </ul>	1.	<ul style="list-style-type: none"> <li>- Functionality is our highest priority because the focus of our device is to be able to notify help quickly and effectively when someone is having an opioid overdose. With a person's life at risk, it is vital that the device works and</li> <li>- This refers to the accuracy of the device when detecting an overdose since users would not want to buy a product that alerts help without reason.</li> <li>- As well as a long battery life such that it can be worn throughout the entire day and ready for any emergency.</li> </ul>
2. <b>Design</b>	<ul style="list-style-type: none"> <li>- Discreet</li> <li>- Visually appealing</li> <li>- Comfortable</li> <li>- Wearable</li> </ul>	3.	<ul style="list-style-type: none"> <li>- Appearance is of importance because of the stigma attached to substance use.</li> <li>- We don't want our design to out the consumer as an opioid consumer.</li> </ul>

	- Durability (can resist daily functions)		<p>It must be a discrete design that is hidden or it may resemble an everyday object.</p> <p>-comfortable and non-invasive so people wear our device. It must not restrict the normal motion of the hands or body since people use their hands to inject and use opioids.</p> <p>-The design needs to be durable to be able to withstand everyday wear and tear, thus it must be fairly dirt and water-resistant.</p> <p>- The reason that the ‘design’ criteria is higher on the priority list than the ‘cost’ criteria is because of our target audience. Most of the people that would actually invest in a device like this are the people who are not seeking help for their opioid addiction because of the stigma surrounding opioid users. Because of this, we think it is more important that the design be discreet and desired than cheap.</p>
3. Cost-Efficient	- Around \$100	4.	-While the device cannot be too expensive that it deters people from buying it, it is more important that the device actually works and that people willingly want to wear it.
4. Safety	- Failsafe Detection	2.	<p>-It cannot harm the user.</p> <p>-It won’t go off if there is no overdose happening so that users do not receive unwanted naloxone.</p>

Problem Statement:

The goal is to come up with a device that opioid users can use to detect early signs of opioid overdose and alert a person of their choosing about it. The device must be accurate, non-invasive, discreet, and work in under three minutes.