Success Metrics, CI Covers

Goals	S.No.	Possible Experiments	Metrics
Water resistance - rain and sweat	a.	Dummy CI - **Water resistance test**: Pour measurable quantities of water from different heights and physically observe if there are any water droplets inside the CI	Visual inspection
		Dummy CI - **Water bead test**: A good test on any type of waterproof gear is to see if water beads on the surface to form fine droplets. If droplets bead, this is a sign the gear is waterproofed and is repelling water. If gear doesn't bead but 'wets out', you will see darker patches where water is being absorbed through the surface.	Visual inspection
	c.	Dummy CI - **Qualitative observation**: Wear while sweating, walking in rain and inspect if any water goes inside.	Visual inspection
	d.	Paper towel, paper inside the cover - **Faucet experiment:** Take a piece of paper, paper towel or anything else that will show when it gets wet, and close it inside the case, place the cover under a faucet and see how much does the paper gets wet using a paper moisture meter.	Reading on the paper moisture meter
	e.	Using paper - **Submerging experiment**: Fully submerge the relevant parts of the covers inside the water for say 15 min and measure the wet paper using a paper moisture meter.	Reading on the paper moisture meter
Sound directionality		**Informed qualitative comparison:** Snap fingers, play a particular music tone at different angles and see if Kate answers to it both with CI covers and without	Visual inspection
	b.	**Uninformed qualitative comparison:** Call Kate's name, play a recorded voice from her behind in the middle of the conversation and see if she answers to it (Hard to design the experiment but is more on field). Compare it with both cases.	Visual inspection
	c.	Make Kate wear a **directional microphone** at her front and back to record the sounds. Play different tunes at different angles and see if Kate answers to them. Tabulate the amplitude results from microphone and Kate's responses	Comparison of visual inspection and amplitude measurement
	d.	Make a **bigger prototype** of the CI covers and place the directional microphone inside it. Record amplitude while playing the same tones at different angles in the space. (This would be more accurate, but only a prototype testing)	amplitude measurements at different angles

Intactness	a.	**Qualitative observation** – Compare wearing CI with covers with only wearing CI. Define different headshake positions and rate the usefulness of the cover for each head shake on the Likert Scale (1-10). Try to make the head shake consistent with every prototype we test.	Comparison of Likert scale responses