

## OBJECTIVES

### PRIMARY

- Provide **decontamination** from CCCAs.
- Facilitate **communication** channels between activists.
- Aid prevailing **medical, mental, and legal challenges**.
- Promote **Safety**.

### SECONDARY

- Generate an **automatic** stream of saline solution that is scientifically proven to remove CCCA effects from skin and eyes.
- Use a **cloud-based** Posting Network to ensure users can access app functions from any device.
- Connect users to **hospitals, helplines, and lawyers guilds** to aid CCCA after-effects.
- Share the **historical and medical impact** of CCCAs.

## USER REQUIREMENTS

### EXPLICIT

Our design should be...

### ACCESSIBLE

1

Function automatically in low visibility situations.

### COMMUNITY ORIENTED

2

Share updates on current safety conditions to other activists.

### RESPONSIVE

3

Provide emergency relief and connect to other support hubs.

### REUSABLE

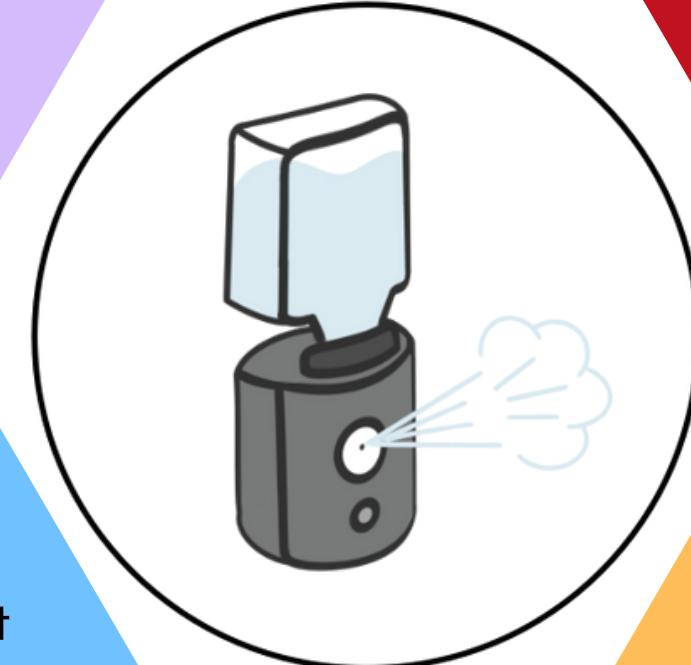
4

Be refilled with saline solution by simply detaching bottle

## DESIGN

### FINALIZATION

Revised iterations based on ongoing **User Feedback** (RR & Denis P.). Updated app graphics to enhance user interface.



### INEQUITY IDENTIFICATION

Identified protest safety as a key inequity in our politically active community (Bay Area), chose to focus on CCCAs after analyzing current events.

## PROCESS

### DATA-DRIVEN RESEARCH

Surveyed org. Reimagine Richmond (RR) and Denis P., a multimedia journalist and CCCA victim. Researched effects of CCCAs + current impact and history.

### IDEA DEVELOPMENT

Developed a emergency decontamination device ensuring rapid response to CCCA exposure. Designed an app to enhance community mobilization.

**RESULTS**

- Short-term symptoms from CCCA exposure are alleviated and **long-term health issues are prevented**.
- Broader awareness and **faster community support/response** during protest emergencies through the Posting Network.
- A greater sense of **security empowers** users to protest, fostering an **equitable safety climate**.

**CONCLUSION + REFINEMENTS**

- Decon's two part, rapid response system effectively addresses protestor needs by relieving CCCA related symptoms and building community mobilization.
- Future improvements include adding a device specific audio element, enabling in-app replies, integrating the app into iOS devices, and expanding support hub resources internationally.

### IMPLEMENTATION

- To implement Decon **locally and globally**, we'll begin by partnering with Bay Area manufacturers to produce and distribute the device to grassroots protest networks.
- Once refined and tested, we aim to scale through collaborating with international organizations, **ensuring equitable access to all protestors**.

## CITATIONS

- P, Denis, January 20, 2025, Personal Interview
- U.S. Centers for Disease Control and Prevention (CDC), September 6, 2024, "Riot Control Agents", [www.cdc.gov/chemical-emergencies/chemical-fact-sheets/riot-control-agents](http://www.cdc.gov/chemical-emergencies/chemical-fact-sheets/riot-control-agents)
- Bay City News, June 2, 2021, "Multiple Oakland Officers Disciplined for Misuse of Tear Gas Last Year", [www.nbcbayarea.com/news/local/east-bay/multiple-oakland-officers-disciplined-for-misuse-of-tear-gas-last-year](http://www.nbcbayarea.com/news/local/east-bay/multiple-oakland-officers-disciplined-for-misuse-of-tear-gas-last-year)

# DECON

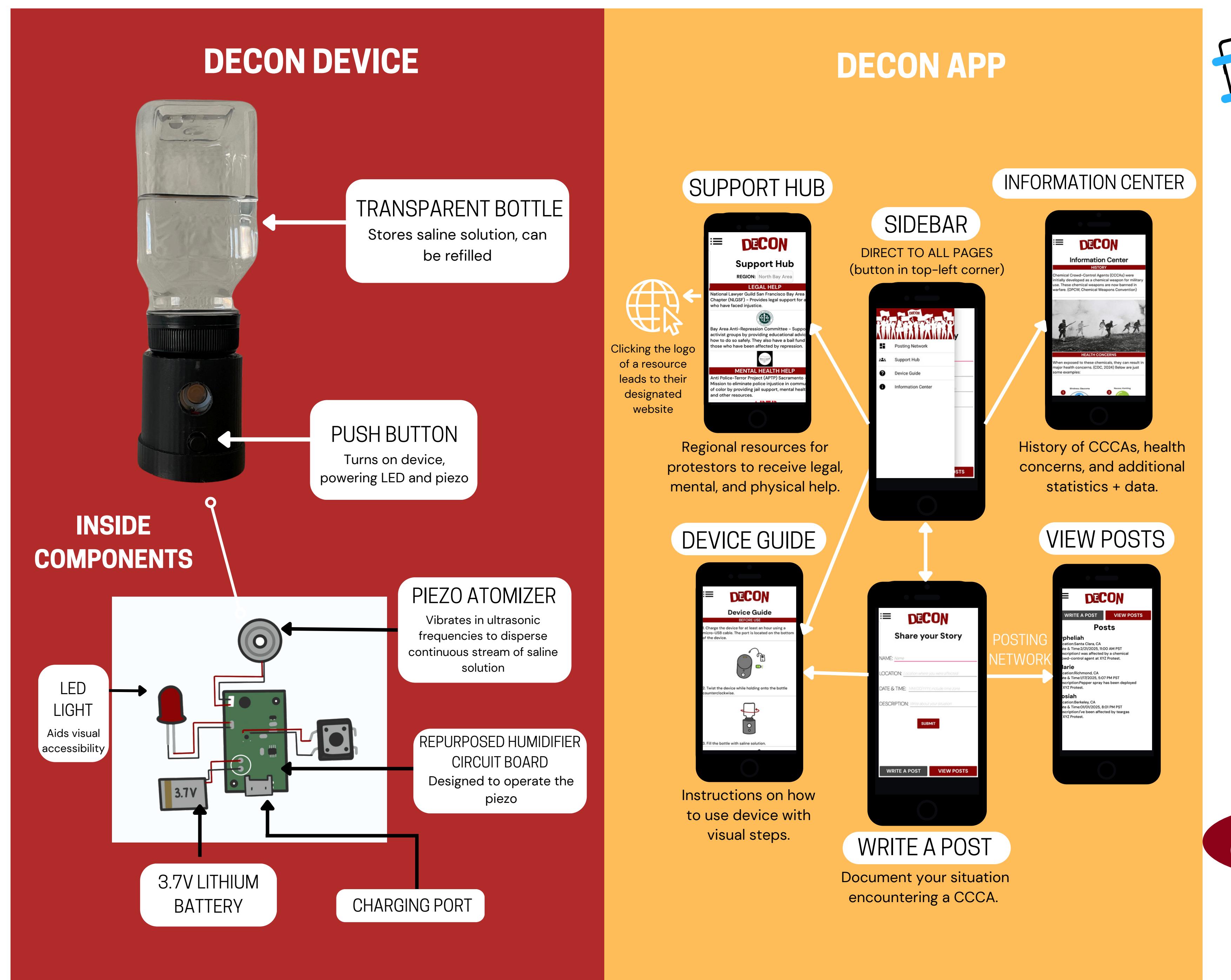
## CHEMICAL CROWD CONTROL AGENT (CCCA) DECONTAMINATION MEETS PROTESTOR MOBILIZATION

### PROBLEM STATEMENT

From California to global movements, protestors face violence and speech suppression from CCCA deployment, causing long-term health issues. They lack emergency response tactics hindering peace, justice, and strong institutions (UNSDG-16).



### PROTOTYPE GRAPHIC



## TESTING PROCESS

### APP

### DEVICE

We simulated a CCCA exposure using a mannequin and paint, evaluating device's range of effectiveness (results on Data #2 & QR Code). Our user, Denis also tested the device, recreating its use in a protest scenario (SCAN QR CODE!).

### DEVICE TESTING FOOTAGE + USER TESTIMONY



The **Posting Network** was tested across different (OS) devices. Posts were able to be viewed from every device!

USER FEEDBACK

Survey results + interviews with Denis provided valuable guidance in product design and user needs. Each **iteration** incorporated their feedback, improving device accessibility and app outreach to ensure Decon is user-friendly and widely available.



### FINAL ITERATION

#### PROS

Expanded Support Hub access:

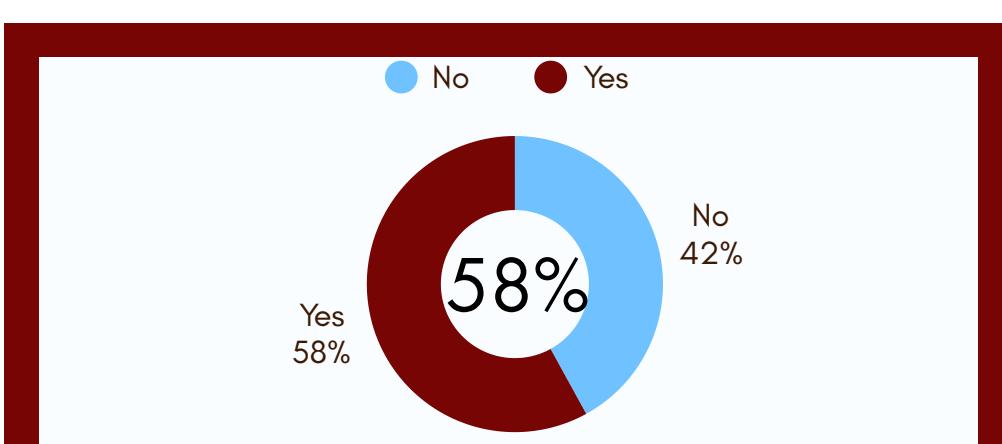
Bay Area-wide (Regionals) & statewide (California)

Bottle Fill Line: Keeps the user informed about the remaining device usage for accessibility

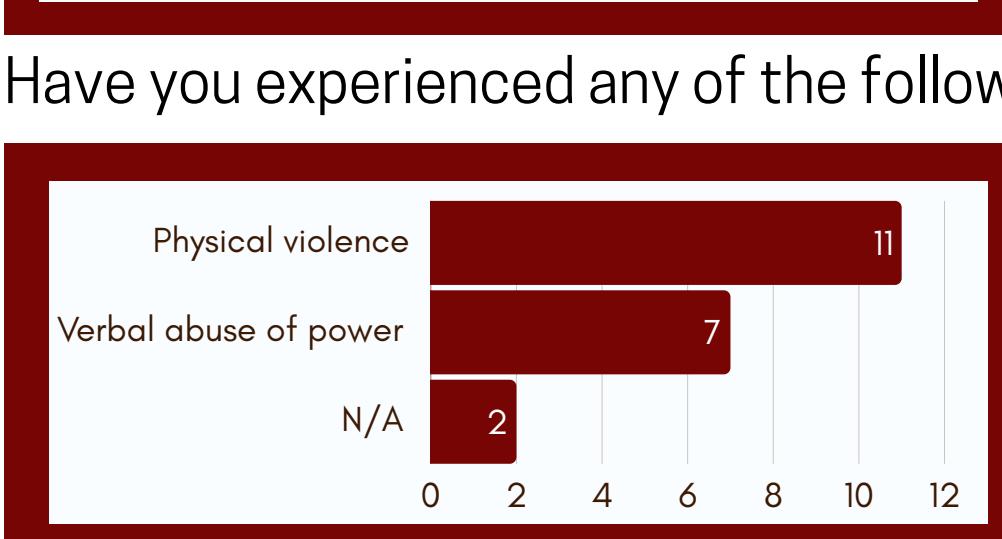
### VISUAL DATA #1

We surveyed a **focus group of 12 activists and protestors**, gathering insights on the current protest safety climate and their experiences.

Have you been affected by chemical crowd control agents?



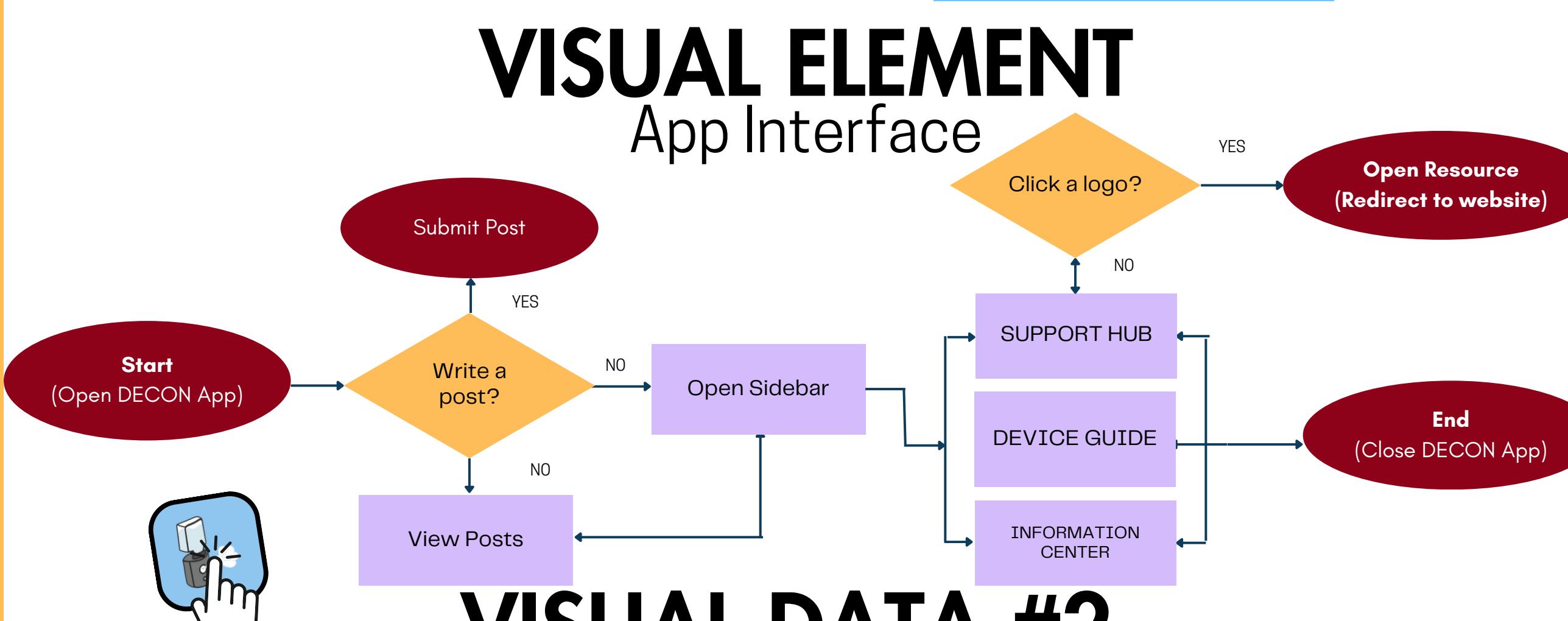
With majority answering yes, this shows that there is a need for a device which addresses CCCA exposure in the market.



Most have experienced some form of violence, highlighting the poor state of protestor safety.

### VISUAL ELEMENT

App Interface



### VISUAL DATA #2

