

BACKGROUND

- There are 463,634 victims (age 12 or older) of rape and sexual assault each year in the US.
- Muehlenhard, Charlene L et al. "Evaluating the One-in-Five Statistic: Women's Risk of Sexual Assault While in College." The Journal of sex research 54.4-5 (2017): 549—576. Web.

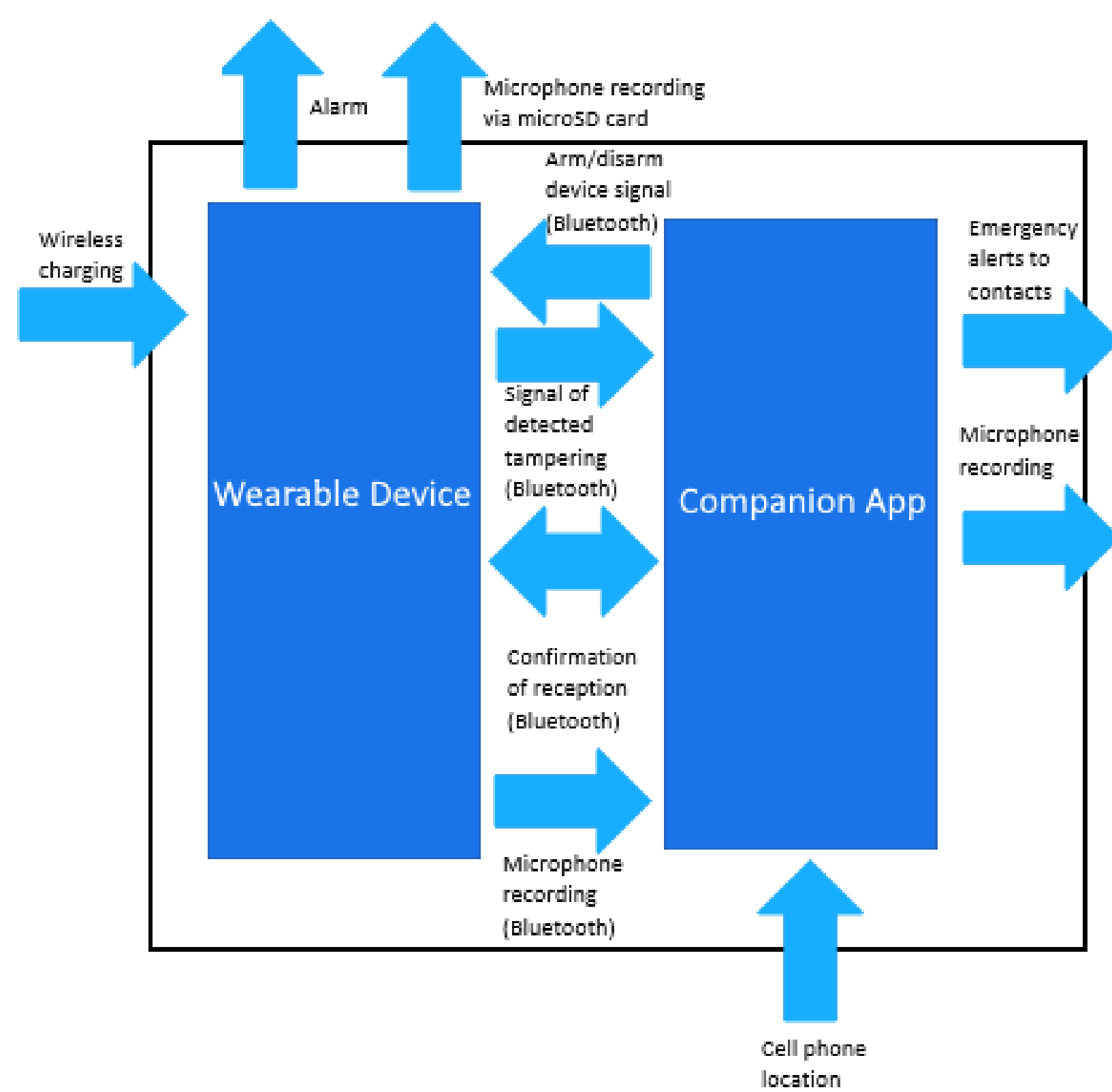
ABSTRACT

A wearable device that will protect the user from sexual assault and itself from tampering that will build evidence and support the user. This is accomplished through the Magnet-Sheet Metal and Wired Waistband Trigger System. Once the item is tampered through these methods, a speaker will notify the attacker, a microphone will record and back up to SD card. The companion app will store this data and notify emergency contacts with the user's location.

PROJECT SCOPE

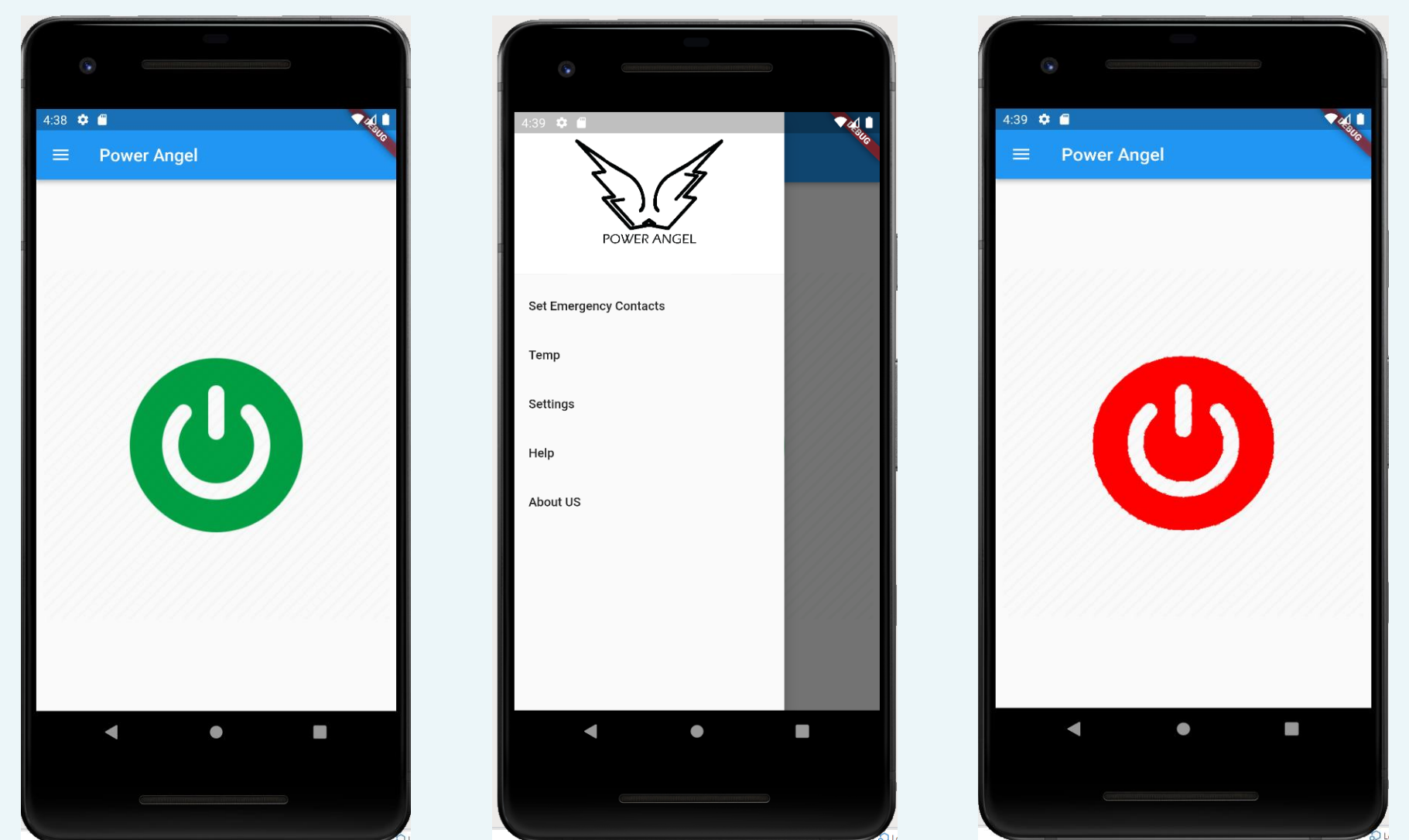
The idea, a wearable device to prevent sexual assault and support the user should they be a victim to a crime. We are marketing to everyone and assume that they will have their smartphone device near them. The goal of this device is to prevent the attacker from pursuing the victim, build a case for legal action, to be comfortable, sleek and not easily tampered with

BLOCK DIAGRAM

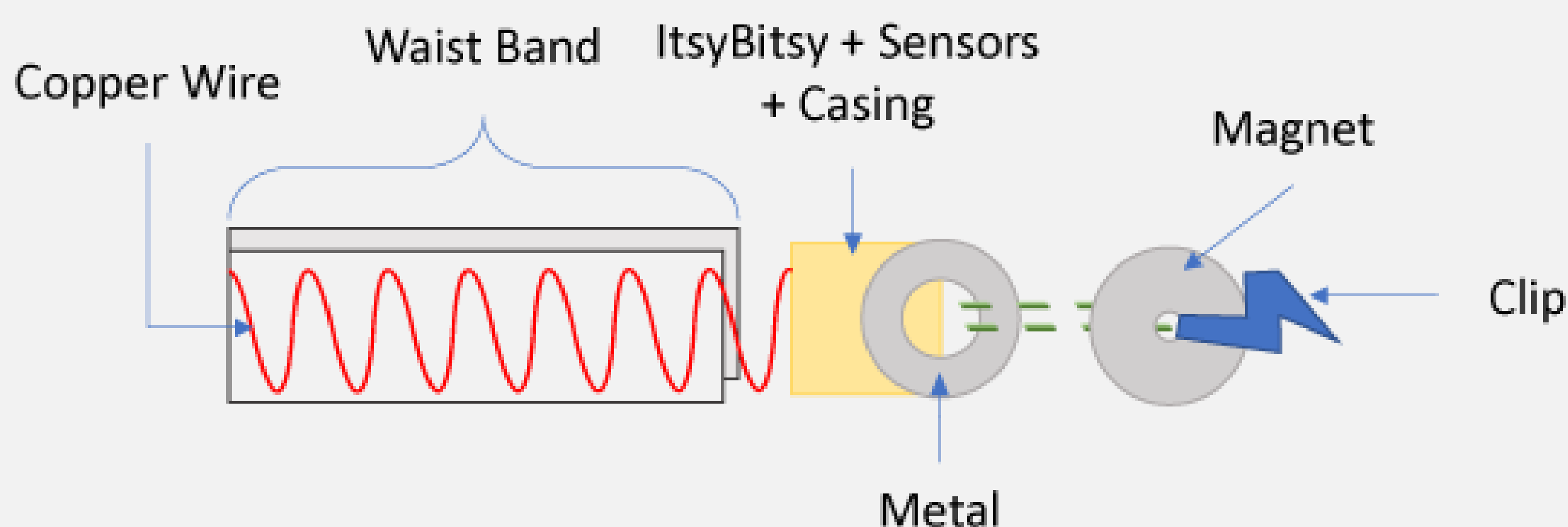


APP DEVELOPMENT

- Send emergency alerts to contacts when the device is triggered.
- Arm/disarm device.
- Provide mental health help to users.



PRELIMINARY DESIGN



CONCLUSION

- Our project is split into two parts: a wearable device and companion app.
- The device detects when the user's underwear is removed.
- The app alerts emergency contacts when the device is triggered.