

Future Developments

Testing

Performance Testing

Further testing is required to ensure that the bracelet is both safe and effective in real-world scenarios. Testing should be conducted under various conditions, especially in public transportation, to simulate realistic situations where users may need to defend themselves. Safety is our top priority, which is why the bracelet must be released quickly without posing a risk to the user.

Additional testing will include:

- Quick deployment
- Withstanding impacts
- Ensuring the steel rod remains securely attached during use and does not cause unintended injuries

Improvements to Design

Currently, the bracelet is bulky and visually unappealing, which conflicts with our goal of making the product subtle and comfortable.

Materials

The steel rod is heavy, making the bracelet difficult to carry around. In our future iterations of the bracelet, we hope to find lighter and possibly more durable materials that can deliver the same amount of force (e.g., high-strength composite). We also want to explore alternatives to the epoxy. The epoxy is not the most visually appealing material, and a stronger connection between the string and the block can increase user confidence with the bracelet. Although cost is not a crucial factor, it is still a priority, so we can use cost-effective materials to deliver this bracelet to more people for a low price.

Aesthetics

Our current prototype is not the most visually appealing bracelet on the market. It features magnets, a black nylon string, a rubber stopper, and zip ties that make it look like a prototype rather than a finished product. Moving forward, we want to create a design that resonates with a wide range of users. Although our user group is for ages 18-60, some specific designs for specific user groups include:

- Older asian woman: For this group, we plan to incorporate traditional elements like jade-inspired materials to show a sense of familiarity, elegance, and protection. A self-defense bracelet that resembles a jade bangle would seamlessly blend into their everyday attire while serving a functional purpose.

- College students: for this group, the bracelet should look like modern jewelry, so it can prioritize style while also being minimalist. Colors like silver, gold, or black would appeal to students.
- Working class (late-night shifts): for users who work late hours, practicality and comfort are key. We want to ensure that the bracelet is lightweight with a professional look. We can consider using leather with a subtle metallic accent so it is suitable for the workplace while still being functional.

Most importantly, we want the design to be a more muted, wearable piece that feels like jewelry rather than a weapon that also does not compromise the product's functionality.