

Zipper Alarm

Blue A Sketch Model Review

PROBLEM

Frequent travelers do not have a **convenient** and **universal** method of protecting their valuables from theft.



Pickpocketing in Urban Areas

- Despite high recorded pickpocketing incidents, most incidents go unreported.
 - **NYC:** 3,000 reported pickpocket incidents a month [1]
 - **Barcelona:** 6,000 pickpocket incidents every day [2]
- 33% of all UK travel insurance claims are for items that have been lost or stolen [3]

GLOBAL LUGGAGE MARKET VALUE

21bn USD

LUGGAGE AND BAGS MARKET REVENUE IN THE U.S.

24.4bn USD

TRAVEL SHARE OF LUGGAGE MARKET

44.4%

[1] http://www.nyc.gov/html/nypd/downloads/pdf/crime_statistics/cscity.pdf

[2] <http://bobarno.com/thiefhunters/barcelona-pickpocket-problem/>

[3] <https://visual.ly/community/infographic/travel/travelling-uninsured-are-you-brave-enough-take-risk>

[4] <https://www.statista.com/topics/1320/luggage-market-worldwide/>

Design Process

What is the most **convenient** and **universal** solution to prevent theft?

Zipper Brake

Built in lock
on zipper

- Complexity
- +Security
- Reliability

Detachable Pulls

Pulls can be made
ungraspable

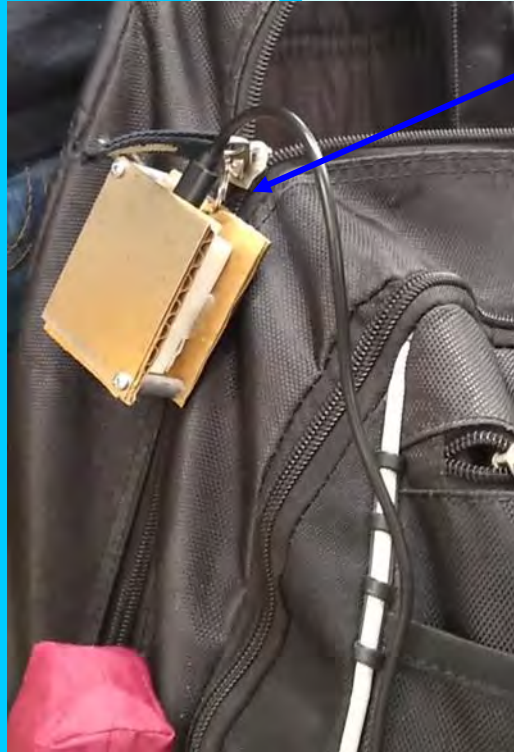
- Universality
- Security
- +Convenience

Zipper Alarm

Blares alarm
when touched

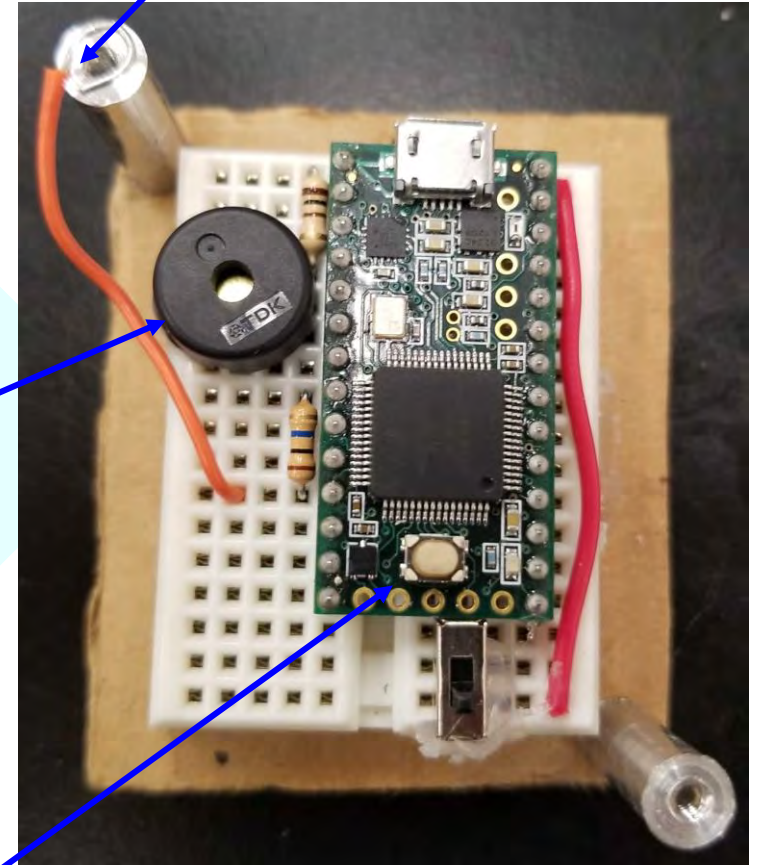
- +Universality
- +Security
- +Convenience

Zipper Alarm



Universal
Attachment

Capacitive Touch
Sensor



Alarm

Disarmament
Button

Benchmark Analysis

Convenience



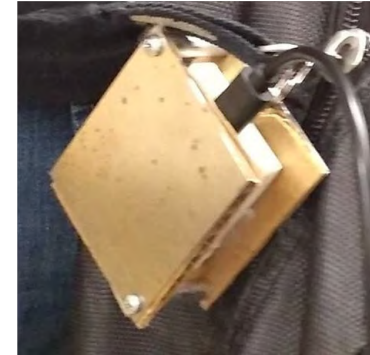
Dedicated Zipper Sensor



Hidden Zippers



Bluetooth Bag Alarm



Zipper Alarm



Locking Zipper Pulls

Universality

Zipper Alarm



Universal

Convenient

Toggle
Modes



Next Steps

- **Better + More Universal Form Factor**
 - Smaller
 - More subtle
 - For storage of valuables, not only zippers
- **Increased Reliability + Accuracy**
 - False Positives: If someone's arm brushes by
 - Undetected Negatives: If someone is wearing gloves