DEJA VU

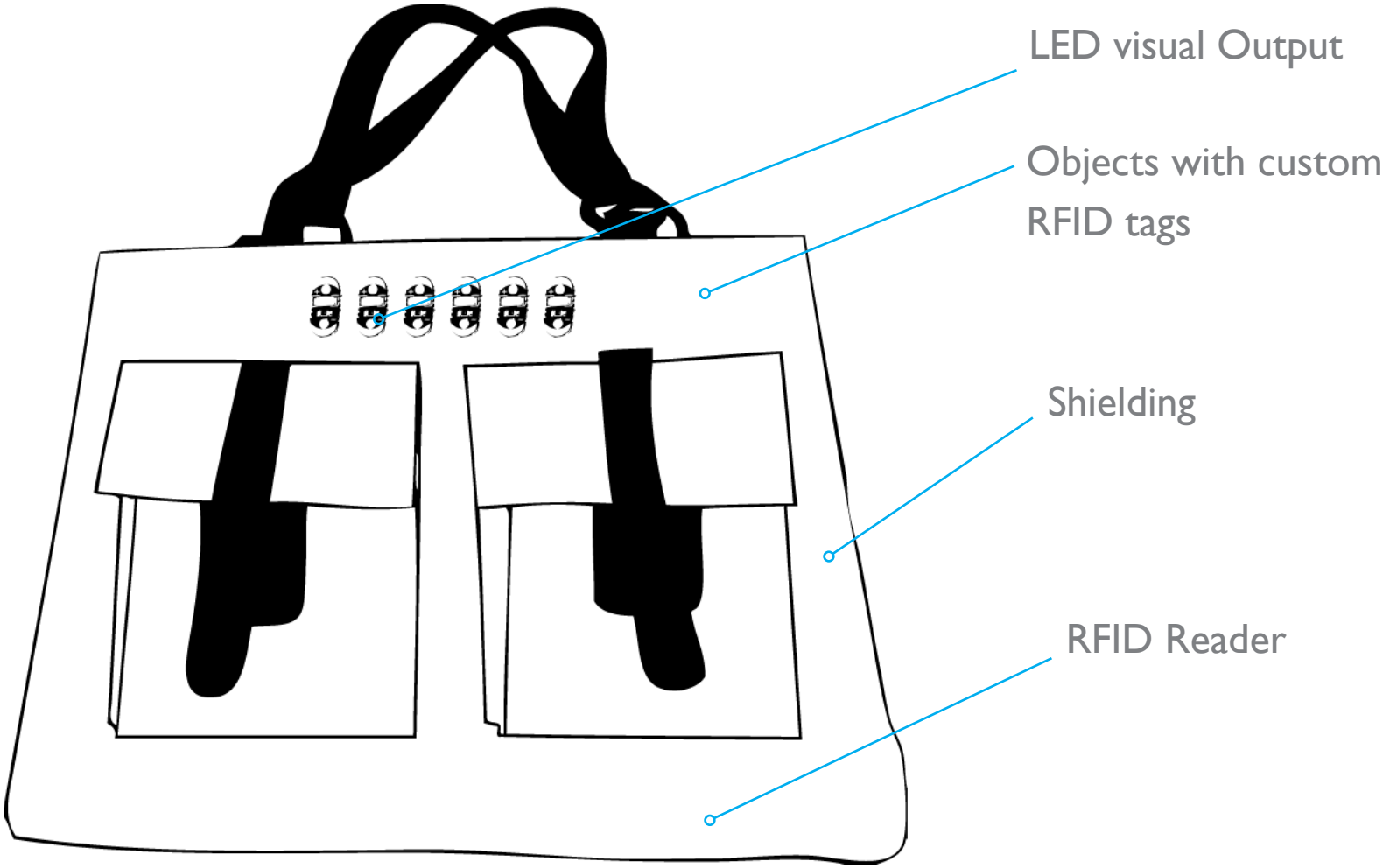
Heidi Chen & Nicole Tariverdian • *5 10. 2011*

Déjà vu: *French pronunciation: literally "already seen"is the experience of feeling sure that one has already witnessed or experienced a current situation, even though the exact circumstances of the previous encounter are uncertain and were perhaps imagined.*

DESIGN IDEAS Proposal

To build an intelligent bag that will sense if the users "important" objects are present, through the use of RFIDs and a visual output, signaling when each object is present.

DESIGN IDEAS



FINAL DESIGN

RFID Reader, Circuitry, Arduino, and power source inside the bag.

LED visual output system and Button for checking.

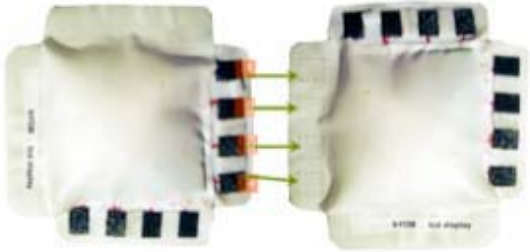
Objects with custom RFID tags

INFLUENCES Key Finder

INFLUENCES Nanda Gauri: *Build Your Own Bag*

[Fabric Blocks]

bYOB is a prototype network integrated into a set of fabric blocks that can be configured into familiar garments and accessories that borrow and share sensory data. The system is designed to afford anyone the ability to build, rip apart and reconfigure intelligent objects.



[Connectors]

Conductive Velcro is used to join peaces together and enable power and data to be tranmitted throughout the object that is built. Because the user is able to "accessorize" as desired, digital behaviors can always be changed to meet individual evolving needs. bYOB can be used to build "reminders" inside fabric

[Future]

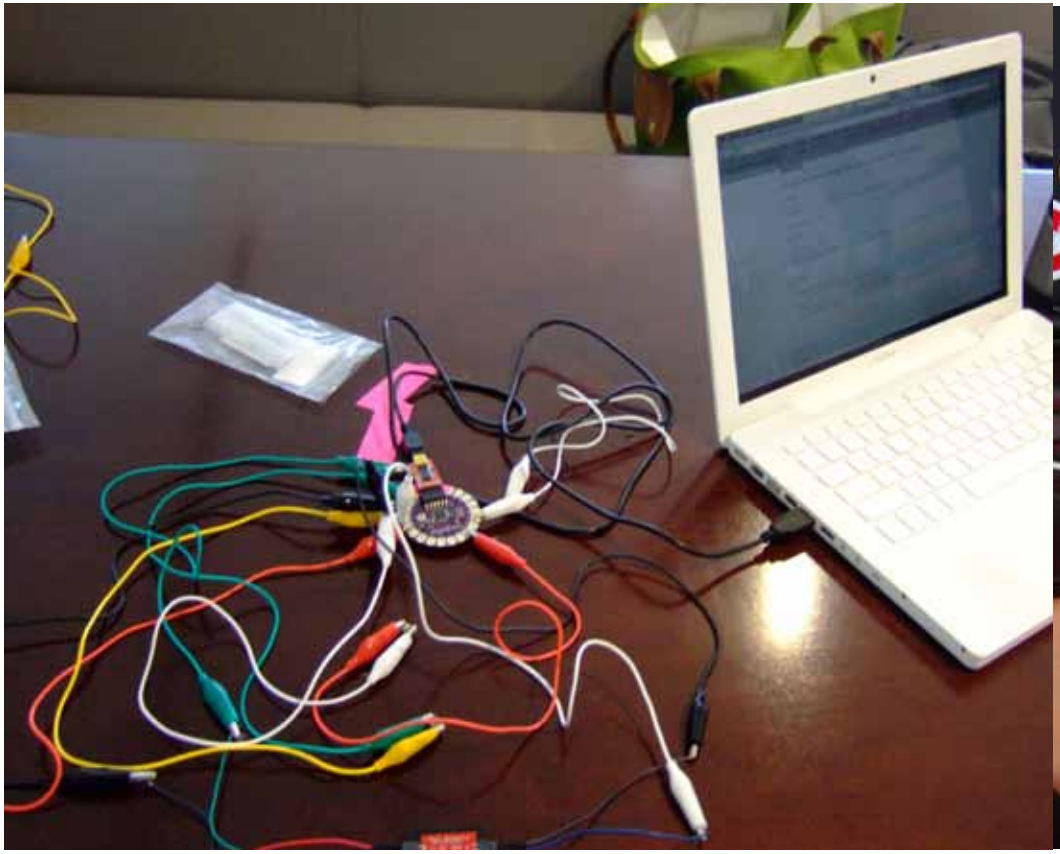
Future applications of bYOB may allow users to "Google"inside of their physical personal belongings.

INFLUENCES Kalani Craig: *Know It All Bag*

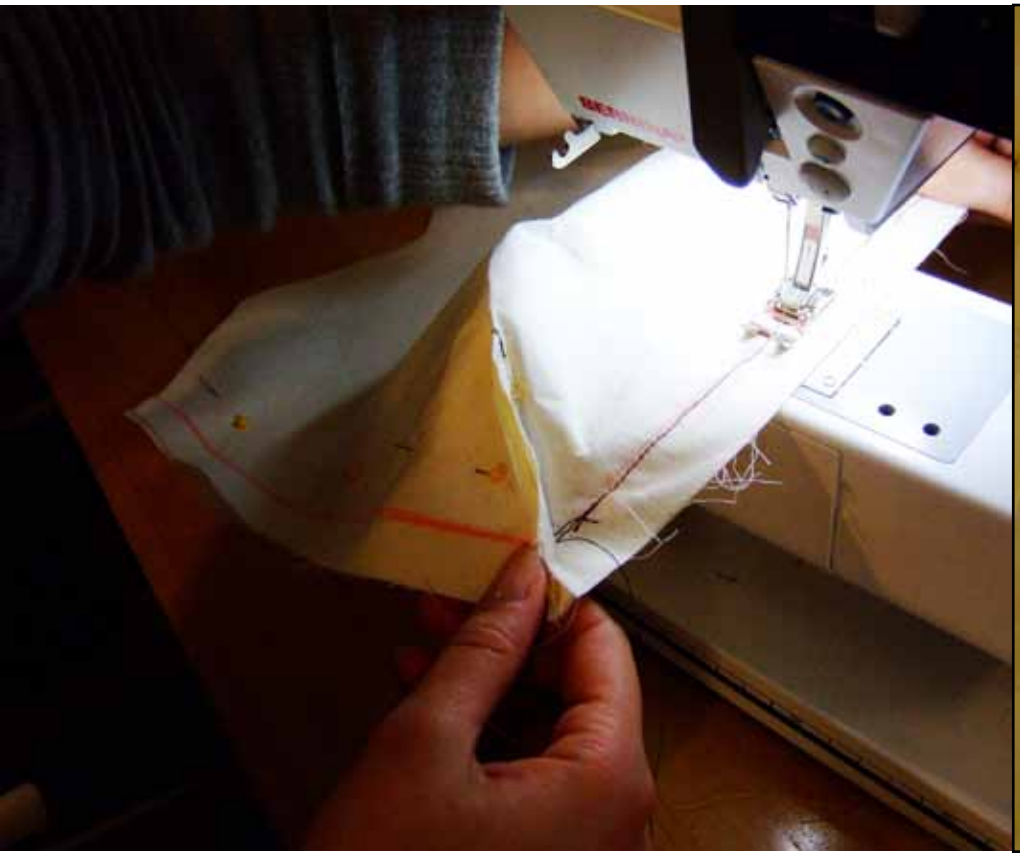
INFLUENCES Becky Stern: Designed RFID Tags

PROCESS

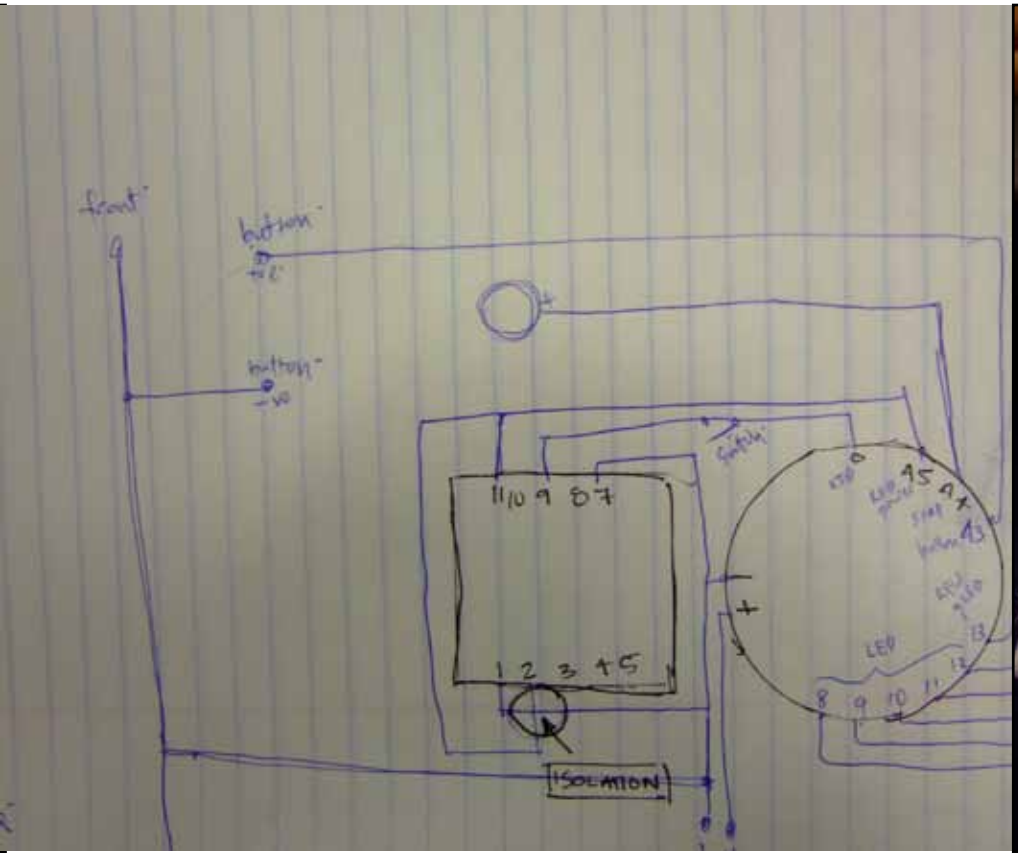
PROCESS

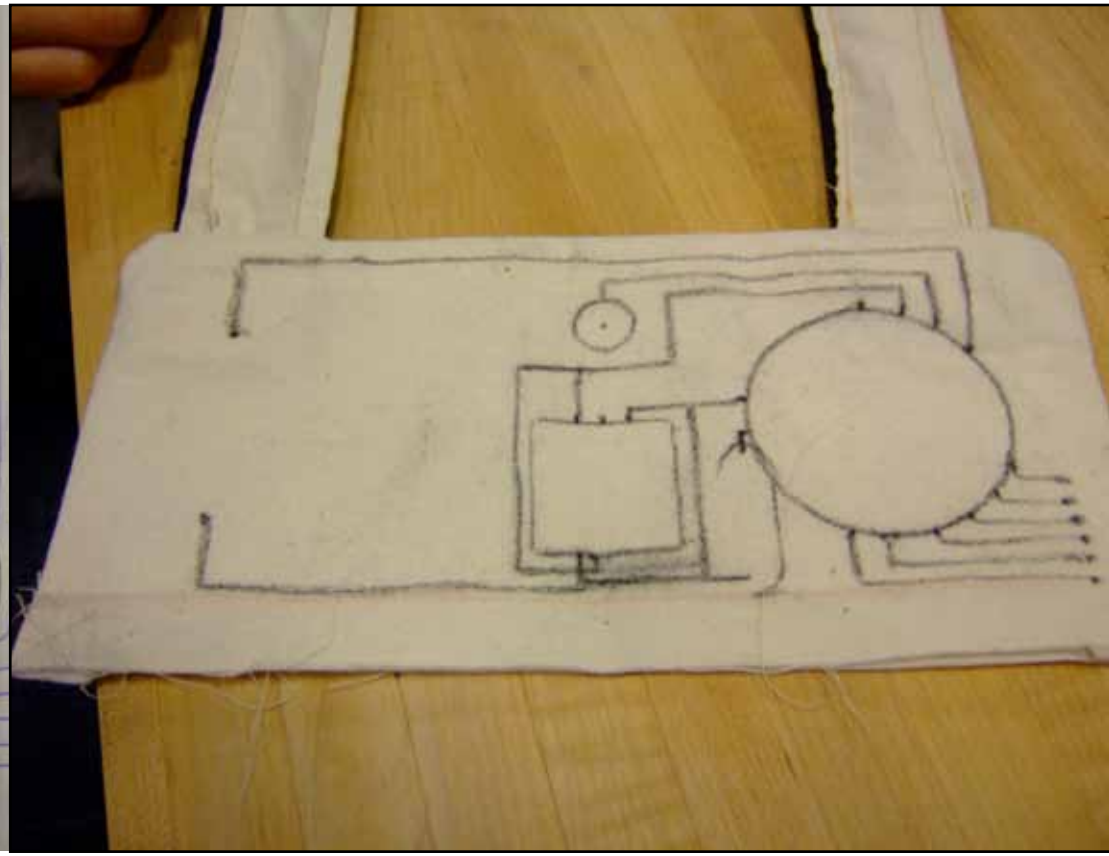


PROCESS

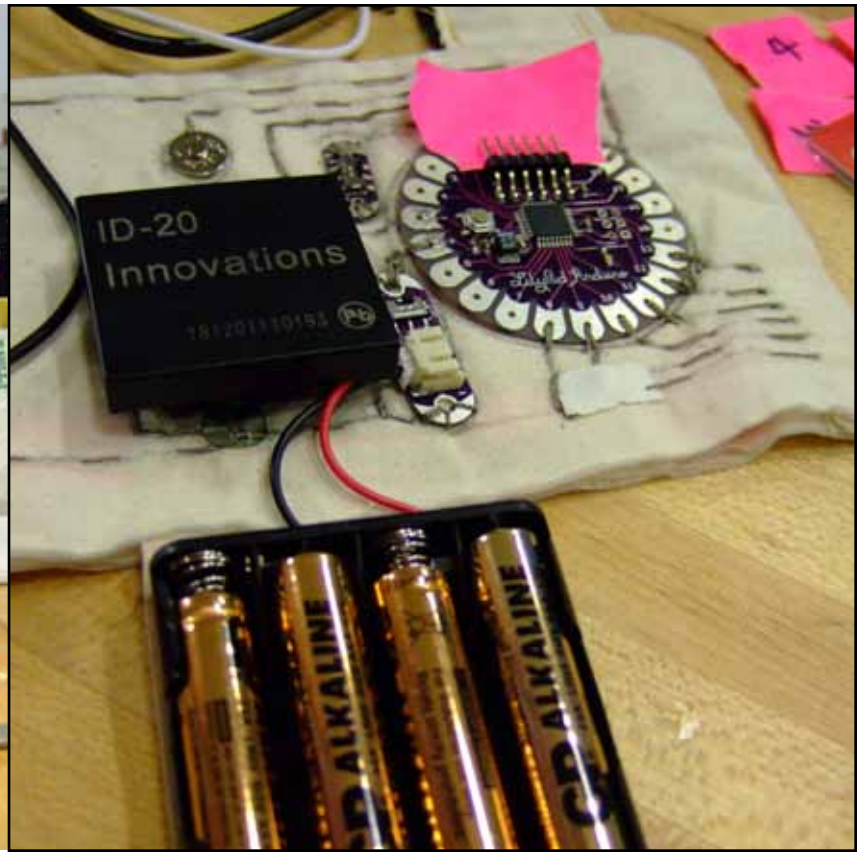


PROCESS

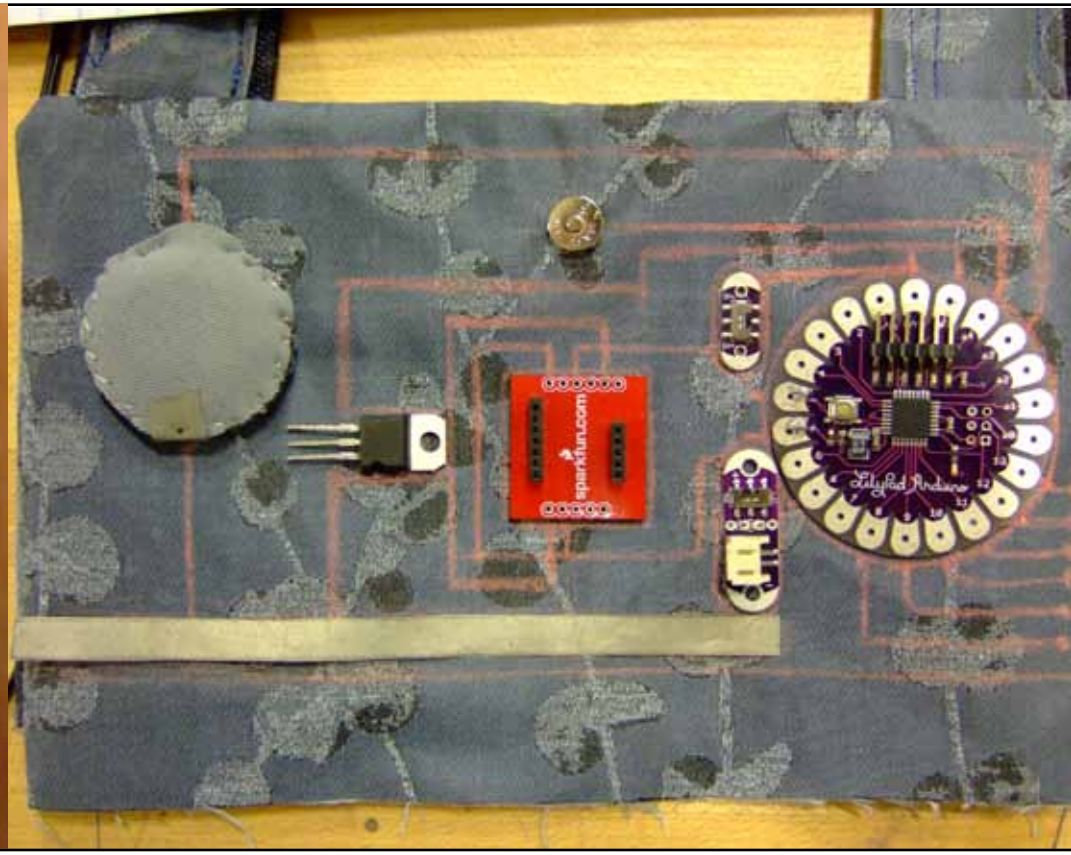

front
button
+ve
button
-ve
11 10 9 8 7
1 2 3 4 5
LED
8 9 10 11 12
ISOLATION



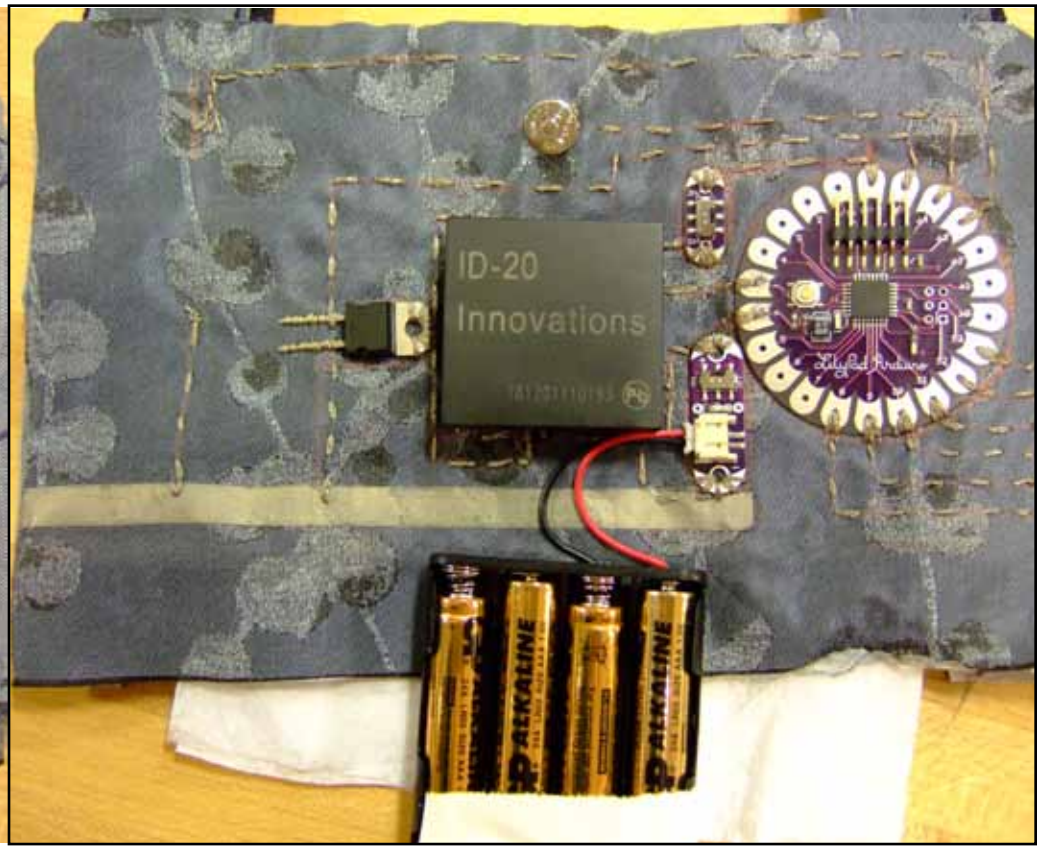
PROCESS



PROCESS



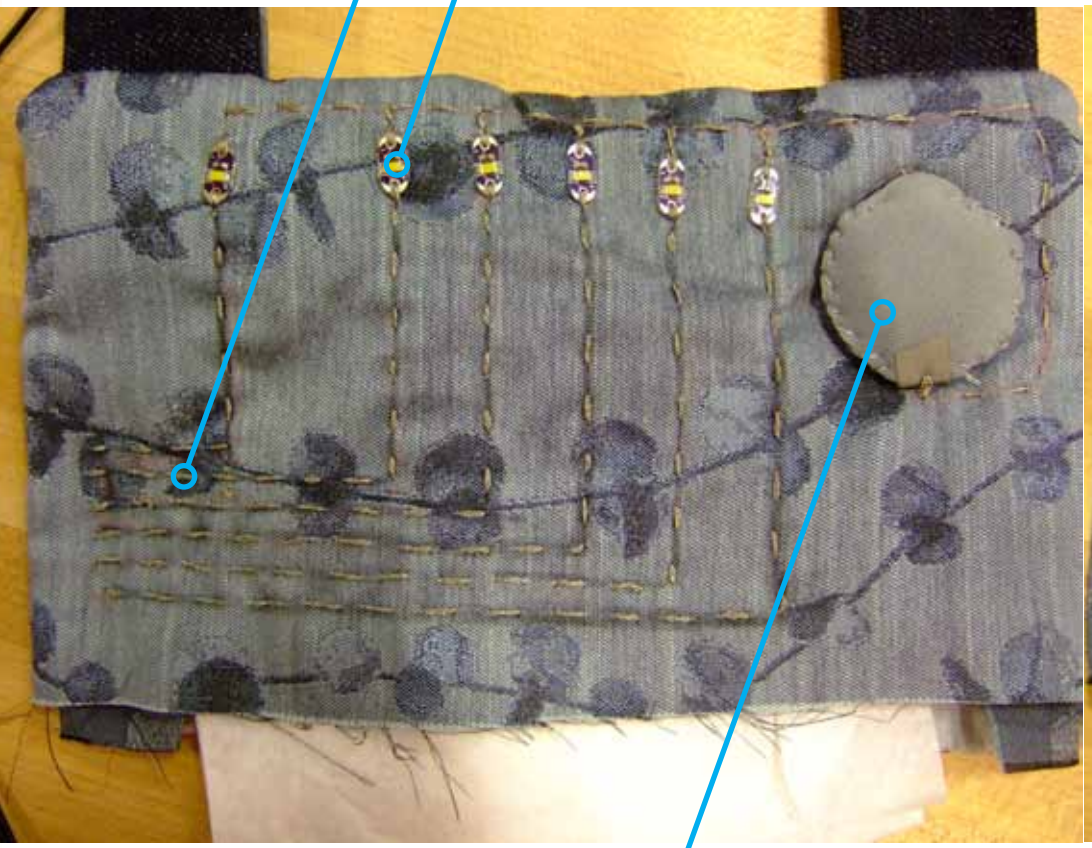
PROCESS



PROCESS

DEMONSTRATION

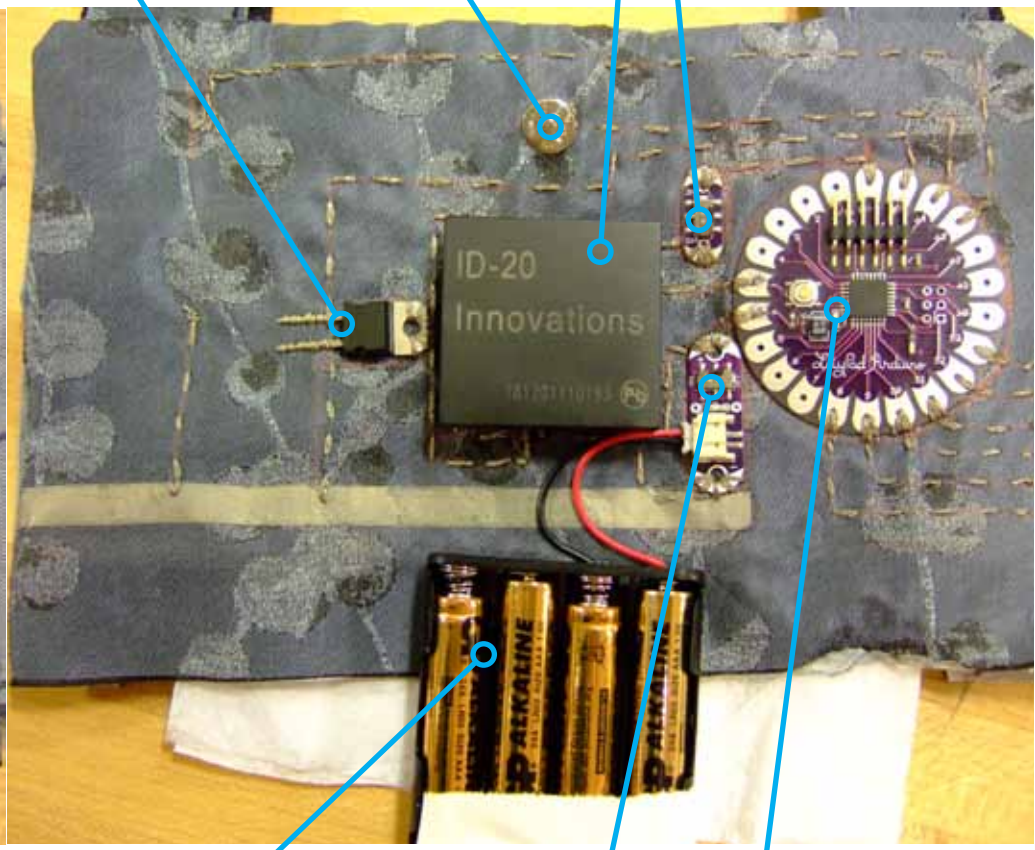
DEMONSTRATION



Conductive thread

LED's

Fabric Button



RFID reader switch

MOSFET

RFID reader (ID20)

Switch for RX pin

LilyPad

Switch for power

Battery pack
(4 AA's 7 Volts)

CHALLENGES

1. Designing the pattern
2. RFID technology limitations
3. Mapping the Circuitry
4. Soldering
5. Power Supply

POSSIBLE IMPROVEMENTS

1. Waterproofing.
2. Shielding
3. Padding for electronic components
4. "Memory"? (if possible)
5. Incorporate LEDs into the bag
6. Better user feedback with button

THANK YOU!