



# Ergonomic Wearable

## MIT 15.783 Product Design and Development

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# Mission Statement



## Mission Statement

Provide **preventative care** for people who have risks of developing chronic neck and back pain through engaging in repetitive actions and long hours of sitting by **developing healthy habits**.



## Customer Need

Young professionals who spend long hours seated at a desk.

### **Critical Customer Needs**

- A low-effort solution for improving posture
- A non-invasive, comfortable approach
- An aesthetically pleasing design

# Back Sensor

## Upright Go Pro Limitations

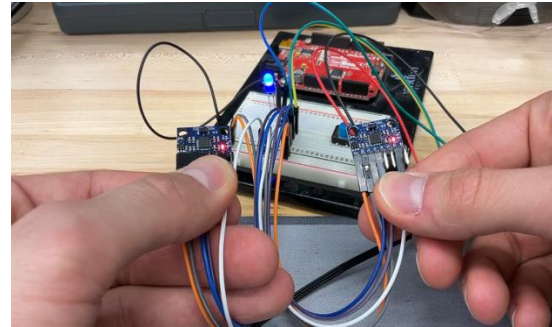
- Not sensitive enough to slouching movements
- Touching the skin

## Customer Needs

- Aesthetically-pleasing
- Habit-forming

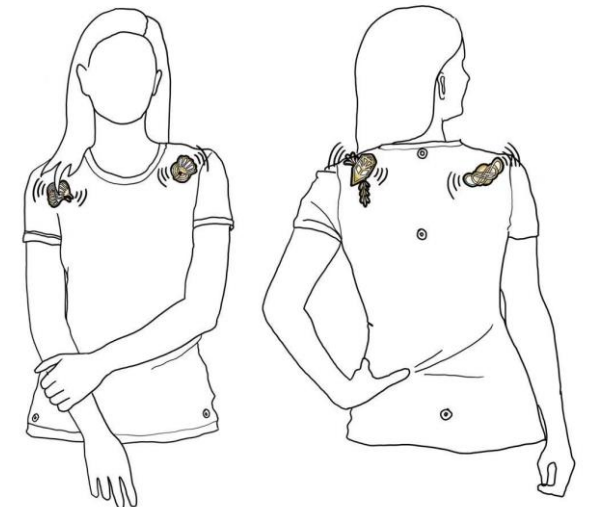
1

Works-like Prototyping: Testing out posture angle sensor



2

Fast Prototyping: Back Sensor shaped like charms and attachable to clothing



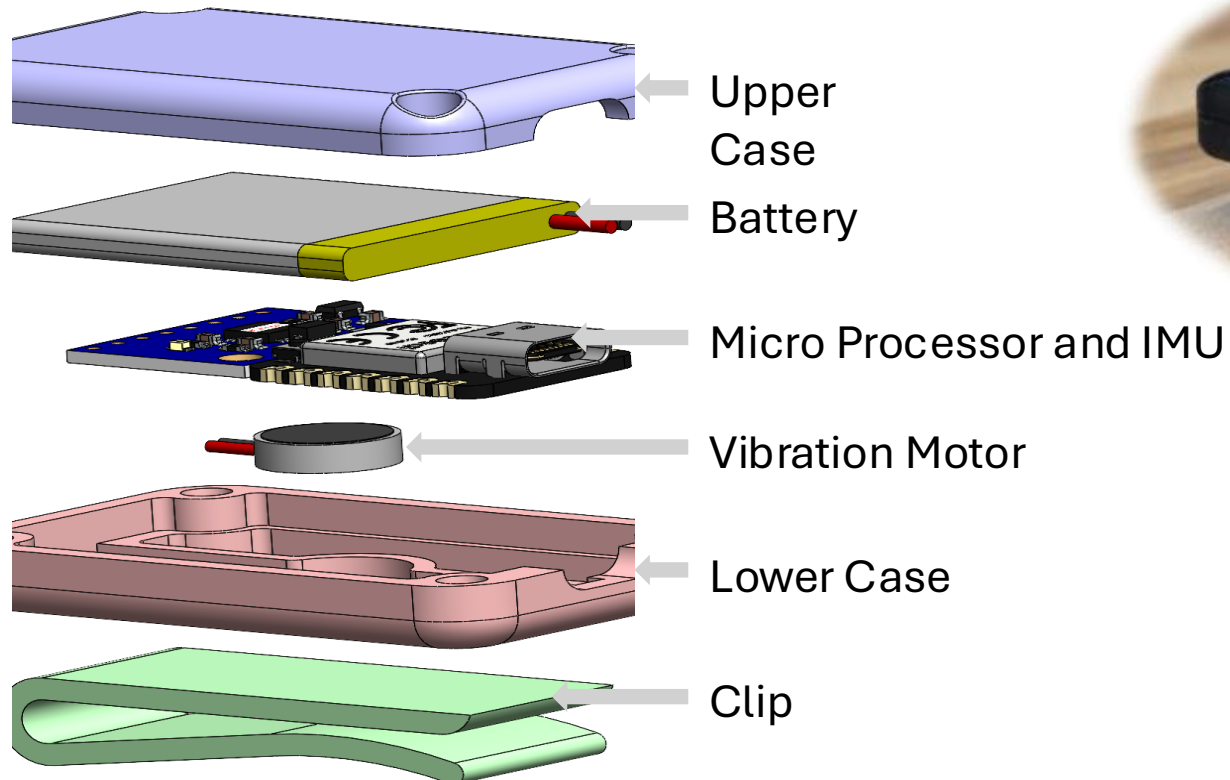
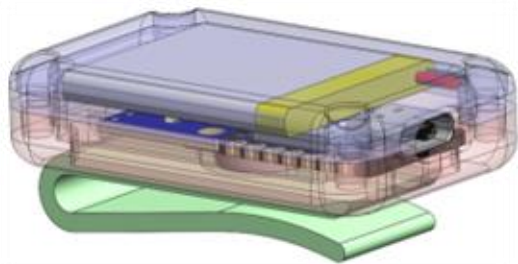
# Prototypes

## Sprint 4

- Advancing prototype by compressing components
- Designing charms to be gender neutral and aesthetically pleasing
- Testing wired prototype to get customer feedback

## Sprint 3 Prototype

*\*required USB cable*



# Technology Update

- Built new set of back sensors
- Eliminated wires by installing battery
- Added Bluetooth control functionality



Version 1



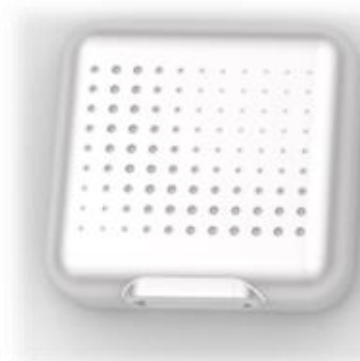
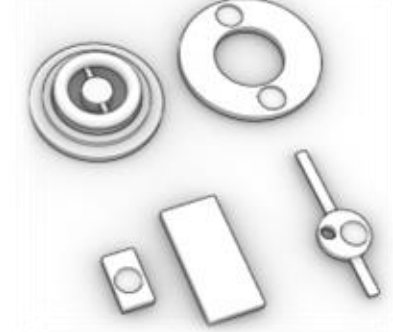
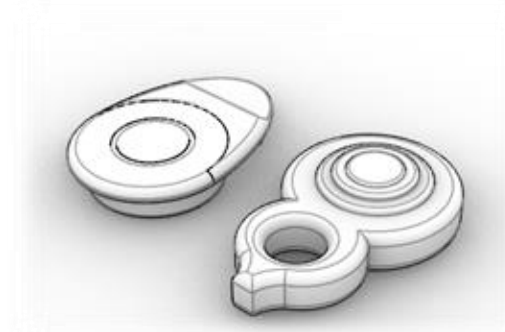
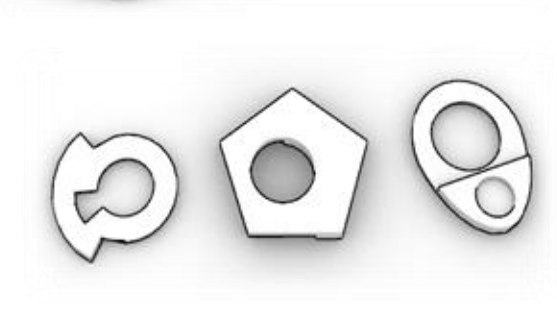
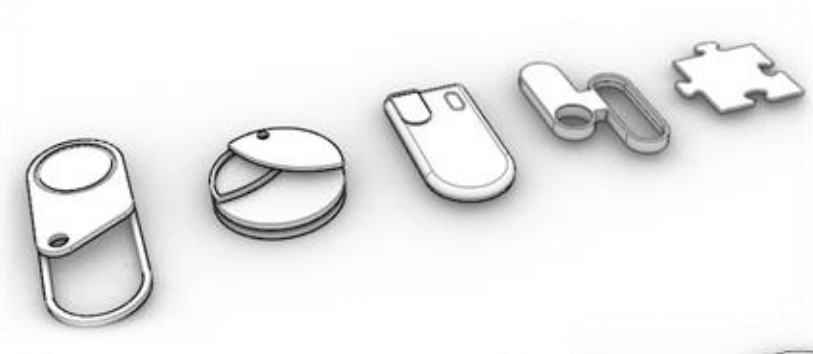
Version 2



Electronics layouts



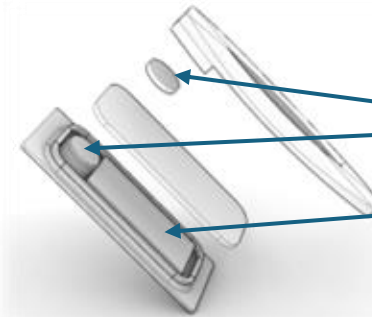
# Prototypes



# Prototypes



*\*Can also act like a clip*



*Magnet*

*Electronic Components*

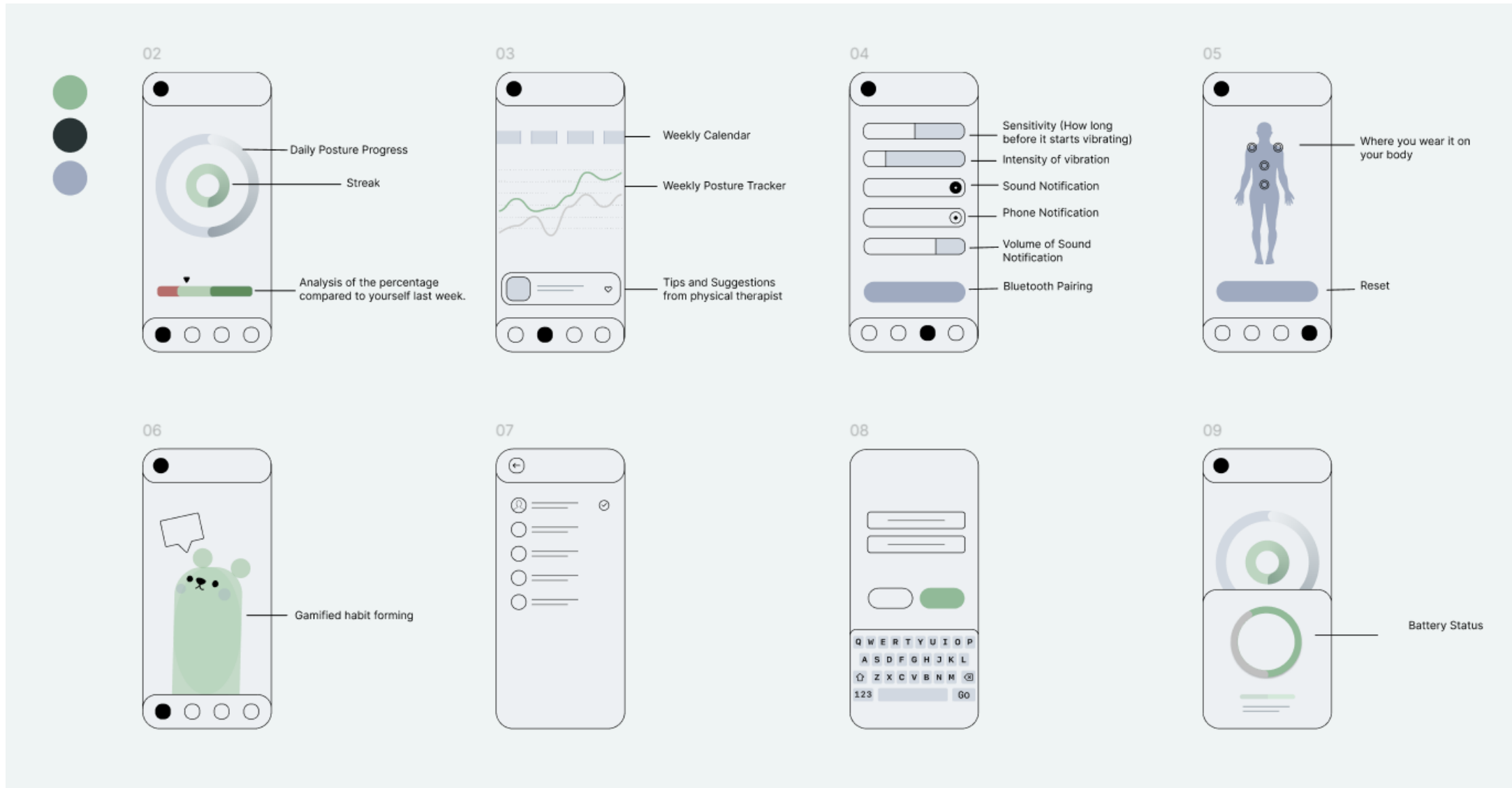
## Attachment Methods

- Easy, quick to be worn
- Does not damage clothing
- Not bulky
- Does not fall off



*\*Can only see the charm on the outside!*

# App Wireframe Prototypes



# Customer Feedback

