

Meeting with George Notes:

Design Challenge

- Standing to sitting versus sitting to standing
 - Pre-emptive and future proof
 - Armpit support → instantaneously goes away with the push of a button?
 - Easily adjustable
 - Health concern - what is the health impact of taking out the need for physical activity?
 - Facilitating - feature to support movement, not replace it
 - How important is speed?
 - Potential design spec → ask Carolee!

Potential Solutions

- Mechanism of gas spring → adjustable strength
 - Compressor → somehow controlling the pressure
 - Piston with two ends, control air that goes in/fluid
 - 1 inch diameter and 2 inch diameter for the force
- [Hydraulic press](#) -- motorized solution
 - Complications: noisy, heavy, costly, complicated
 - Perks: feasible, as materials can be purchased off the shelf
- Switch/proximity weight
 - Costs less than \$100
 - Could be used with a (or multiple) remote control(s)
 - Touch switches - about \$6
 - Allows activation of device via touch?
- Prototyping
 - Proof of concept models, miniature version, show concept (like a toy)
 - Can utilize cheap materials: straw, paper, etc.
- [Linear actuator](#)
 - Inside in a rotating motor
 - materials/product from company called [Firgelli](#) (good service!)
 - Can still run without electricity!
- Harness - velcro or buckle
 - Can be uncomfortable/painful → can use padding and must be easy to take off
 - Should be adjustable to users of all sizes