

Improved Hand Controls

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Agenda

- The Problem with Current Controls
- Goals
- Design Ideas
- Prototypes













Problems with Current Controls

- 5 minutes to clamp onto brake and accelerator
- 3 minutes to strap to steering column
- 1.5 minutes to disassemble
- (Note all of these times are for an individual who has used them before)

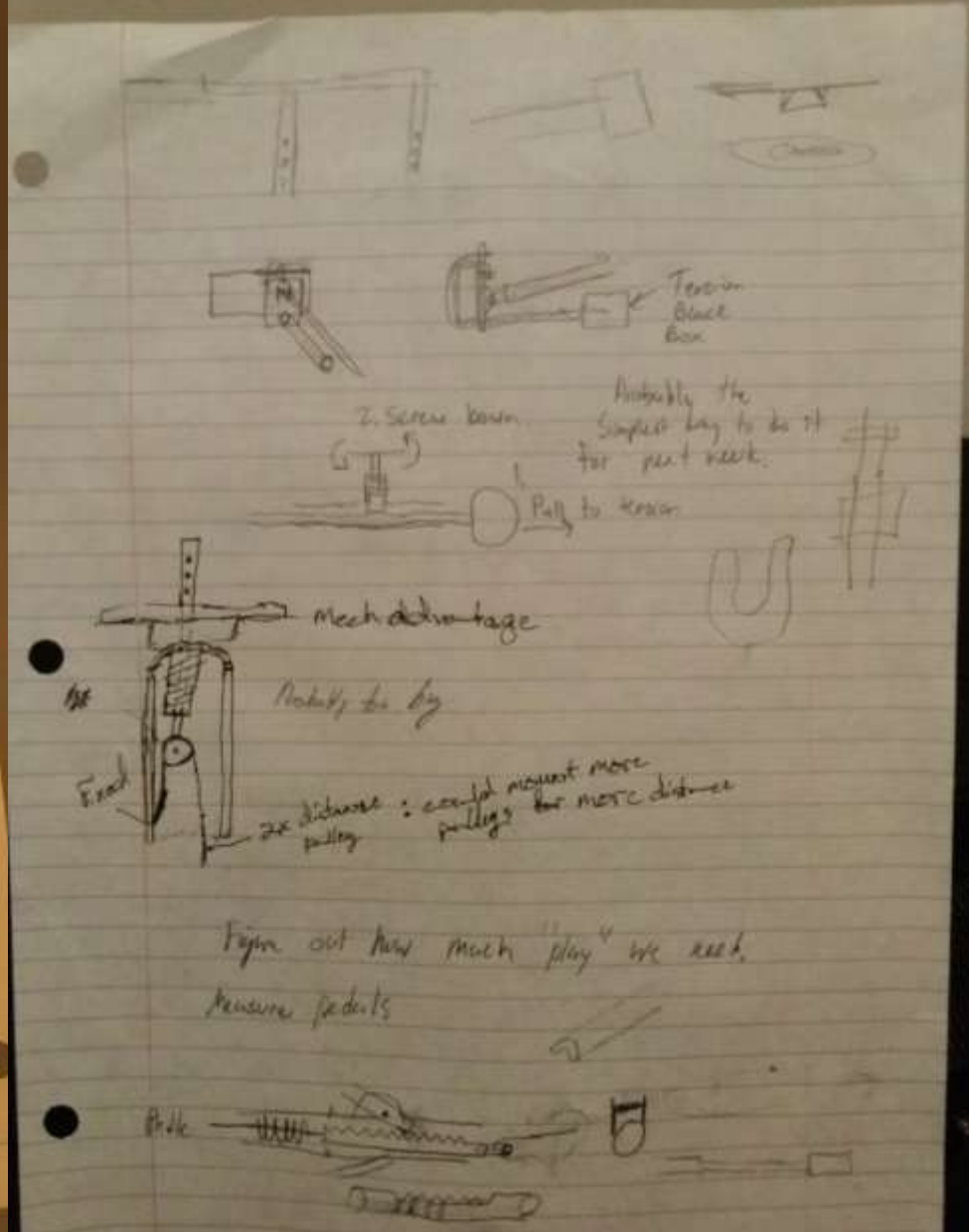
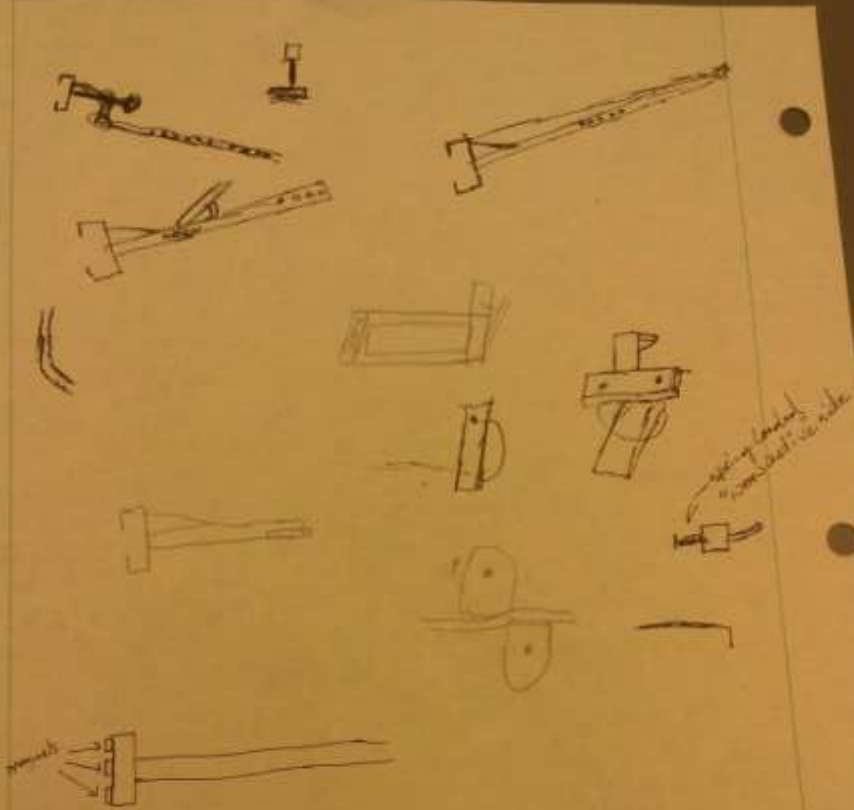
Problems with Current Controls

- To assemble them, a person has to get on their knees outside of the car and stick their head under the steering wheel
- Not universal? (So far golf carts and Audi R8 confirmed)

Goals for Improvement

- Primary:
 - Reduce time required to assemble and disassemble
 - Allow tightening from seated position in car
 - Universal design (works on any car)
- Secondary:
 - Retain extendable length and collapsible design for easy transport
 - Does not require fine motor skill

Brainstorm





Rough Prototype



Prototype Beginnings









Video



Moving Forward

- Plan A: Attempt to mount ratchet on main shaft
- Plan B: Create new foot with channel to attach tensioning rod with shoulder screws
- Test out tensioning mechanism
- Refine design
- Add Dycem[®]

