

Convertible Home Gym Apparatus

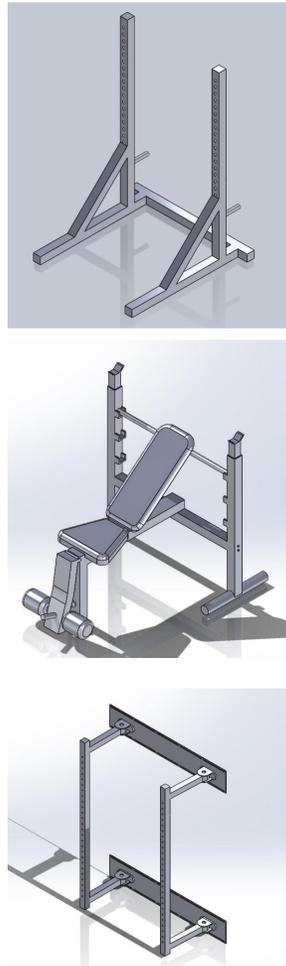
Team Members:
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Noah Bledsoe
Jackson Nix

Capstone Instructor: Dr. Amir A. Farajian
Project Advisor: Dr. Nathan Klingbeil

Project Description: With all the public gyms being closed do to the Covid-19 pandemic there came a need for a low-cost convertible home gym that could leverage every main muscle group

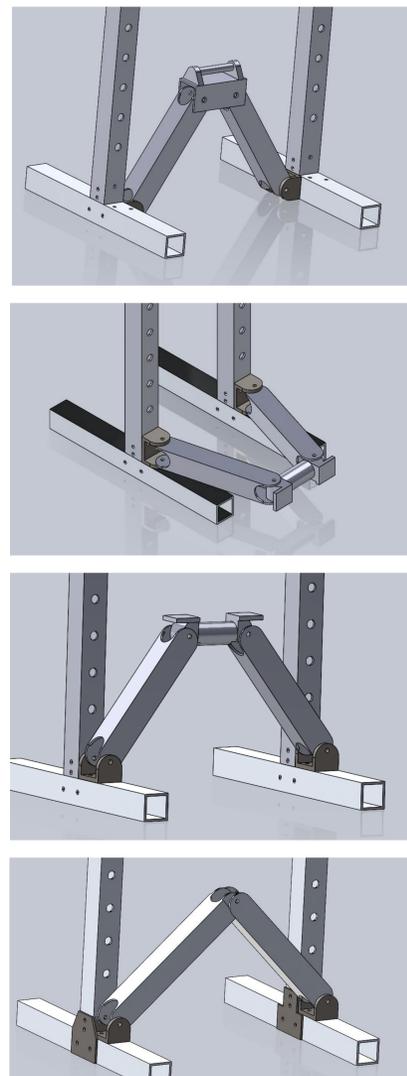
Design Requirement: Low cost compared to commercial equipment, Convertible while still hitting main muscle groups, Lightweight to be easily manipulated, Portable enough to fit in a car, and stowable enough to fit into a closet. With the total budget of this project being \$600.

Preliminary Ideas



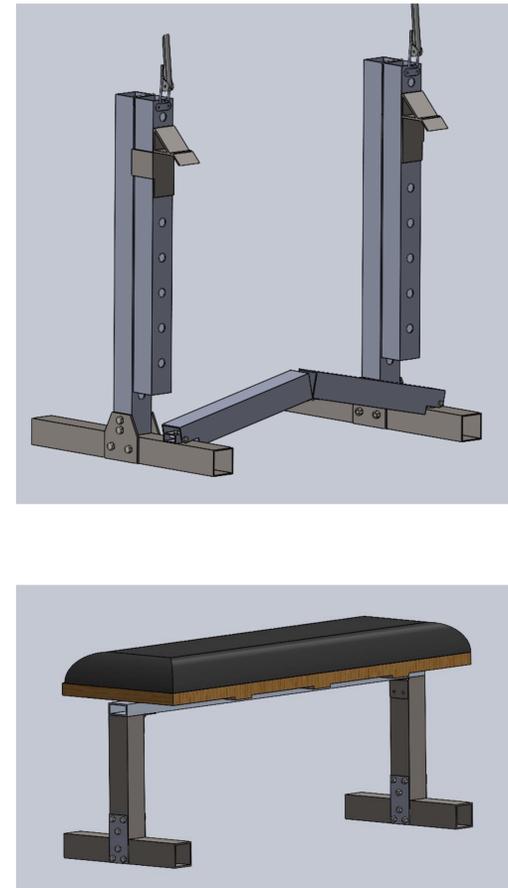
Three initial ideas that each team member thought could be a good starting point for this project. They eventually went with the top design to start with.

Collapsibility Ideas



A few main ideas on how to get the squat rack to collapse down to fit project requirements.

Final Design



The two designs that were chosen to be the final product that fit all the design requirements and would fit within the budget.

Fabrication



Production of the bench and squat rack