**Project Description:** With all the public gyms being closed due 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 storable enough to fit into a closet. With the total budget of this project being $600.

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**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.

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**Collapsibility Ideas**

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

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**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.

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**Fabrication**

Production of the bench and squat rack.