

PROMOTION

A modern approach to the crutch for those on the go. It provides a lightweight, adjustable and modular design for a wide range of users.

OBJECTIVE

To design and develop a crutch for a rehabilitation center that improves the mobility and dexterity of users to allow them to perform everyday tasks with greater ease.

SOLUTION

A complete redesign of how a crutch is worn and used. An arm-press fit design that incorporates modular attachments and a high level of height adjustability.





MY ROLE

I led the design and manufacturing effort, as well as designing and producing renders to showcase our design using Blender. I selected PVC as our main material to produce a functional, aesthetic and low-cost prototype. I designed a custom jig to manufacture the height-slots and led the manufacturing of the overal body and 3D printed the modular bottle attachment.

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ADJUSTABLE HEIGHT Slots.

Design accomodates 5th percentile females to 95th percentile males through anthropometric data analysis.



3D PRINTED TPU HIGH-GRIP FOOT.

