

Therapy Chair

DESIGN RATIONALE

Introduction

ATP's, PT's, and OT's working with children with physical disabilities often need an appropriate seating system to provide support to enable the kiddo to engage with their environment and participate in strengthening exercises. In the past each child was measured, and a chair built, usually out of Tri-Wall, to their size to ensure a good fit. A customizable therapy chair that can be adjusted in minutes, rather than built in days, would be a helpful tool to have.

Research

After research, it was found that therapy chairs are commonly custom built to the measurements of each child. This requires the therapist to take measurements and design a custom chair for each new patient. There is a distinct lack of any ready made, adjustable chairs that can accommodate patients of various sizes.

Requirements

Goals

G01	Create an adjustable therapy chair that is durable and easy to clean.
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Functional Requirements

F01	Chair must be easy to adjust to the child
F02	Chair must be durable
F03	Chair must be able to hold the child securely

Non-functional Requirement

NF01	Chair must be easy to build
NF02	Chair must be easy to clean
NF03	Chair must not have sharp edges or be able to injure the child

Constraints

C01	Chair must be made of commonly available parts
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Opportunities for Improvement

Side panels could be updated so that they can be manufactured without the use of a CNC router