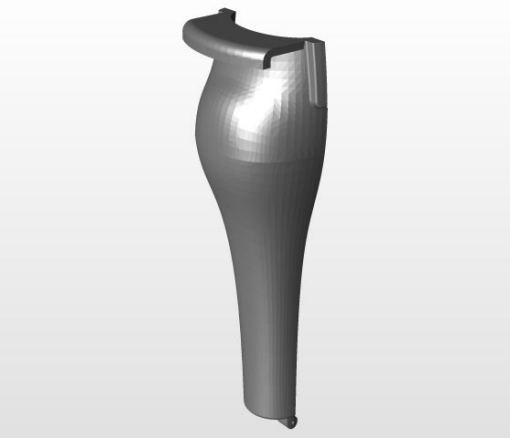
How to Make Your Own



GrabCAD

To find the printable files, visit the GrabCAD link below:

https://grabcad.com/library/three-delivered-models-1

Instructions

To find detailed instructions on the entire manufacturing process, visit the document link below:

https://docs.google.com/document/d/1vOJbtJthMxedzTAqX_CjRb0yQ4h8q5V9H6cVFIfigFg/edit?usp=sharing

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Liftware's New Handle

Assistive Technology Project

Problem Statement

People with tremors sometimes have difficulty filling a spoon and transporting food to the mouth. It can be frustrating, embarrassing, and challenging to have to ask for help with activities you want to perform on your own. Imagine if you could see your meal but needed someone to feed it to you; you would probably become frustrated relatively quickly.

Existing assistive technologies, like Liftware utensils, have helped many of these people regain meal-time independence. However, one local woman is having some difficulty using the Liftware spoon. The Liftware handle is too short for her grip. A new assistive device is needed.

Design Process

MakerBot

SOLIDWORKS

PRUSA RESEARCH by JOSEF PRUSA

With limited prior knowledge of Computer Aided Design, two members needed to learn how to use Solidworks. This program was used to model the unusual shape of the Liftware handle, then to design a new handle to fit around the existing one.

Rapid prototyping was used to iterate and improve our designs. The MakerBot was primarily used to print in PLA for non-essential prototypes. The Prusa was used to print the delivered items in PETG, a food-safe material.

Final Product

The team had very little direct communication with the client, so two designs were delivered to give the client options to choose from.

The first design features a guard that can be used to open the handle.

The second design features tabs that can be used to open the handle.