

 PROJECT #2 PROPOSAL

**Name(s): Davey W & Justin M**

**Project: STREAMLINED 3D PRINTED PROSTHETIC HAND**

**Part A: Brainstorming...**

* **describe your project idea(s) - We want to 3D print a prosthetic hand that has strings inside the hand that makes the fingers move.**
* **List your learning objectives – We want to learn how to 3D print using tinker cad**
* **State the goal(s) of your project – We want to make the hand fully functional and also very smooth.**

**Part B: Electronic Resources…List active hyperlinks to any relevant online resources**

[**http://www.instructables.com/id/Streamlined-3D-Printed-Prosthetic-Hand/**](http://www.instructables.com/id/Streamlined-3D-Printed-Prosthetic-Hand/)

[**https://shop3duniverse.com/collections/3d-printable-kits/products/gel-grips**](https://shop3duniverse.com/collections/3d-printable-kits/products/gel-grips)

**Part C: Planning…**

* **Materials list [NOTE: if we do not have it, include link to purchase from Amazon.ca]**

**Seattle Sports 1/2" Bulk Foam with Adhesive, Grey**

**Jaybird and Mais 30/31 Adhesive Foam: 1/4" x 5" x 2 yards**

**https://shop3duniverse.com/collections/3d-printabl...(I chose these over the ones on Amazon because they are all clear colored, great for maintaining the clean aesthetic I wanted. Same price, too. Check them out!)**

**MagicShield 500M 100LB Super Dyneema Strong Braided Fishing Line**

**Screws (refer to "Scaling the Prosthetic" step)**

**All screws are the same thread as what is dictated on the scaling chart (i.e. the default prosthetic only uses 6-32 screws)**

**Screws for fastening the lower palm to the upper hand (length on scaling chart)**

**Screws for fastening buckle clips to the inner forearm (0.25" long for default prosthetic scaled by a factor of 1.00)**

**Screws for tensioner pins (1-1.25" long for default prosthetic scaled by a factor of 1.00)**

**To find approximate lengths of tensioner pin and buckle screws for other scaling factors, multiply the length by the scaling factor.**

**Dowel pins (size dictated on chart)**

**PLA filament**

**1.75 mm flexible filament (i.e. Verbatim Primalloy, NinjaFlex, etc.)**

**Tools: 3D Printer, scissors, files, sandpaper, screwdriver, Allen keys, hot glue gun, super glue**

**Optional but very helpful tools: drill press/hand drill, soldering iron**

* **Designs…Include any sketches/pictures and/or links to videos**

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