Scuola di Robotica

Co-funded by the
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Enable Hand Workshop IoT in Education – We are the Makers!

Emanuele Micheli e Michela Bogliolo,

Scuola di Robotica

2017-1-DE03-KA201-035615

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Agenda

- State of the art
- Plastics
- 3d Prosthetic hand
- Customize the Enable Hand
- Sensors and motors

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O2 and O3: 3d Enable Hand

Discover

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3d Prosthetic hand

Market survey

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Market

BeBionic di Ottobock € 40000

i-Limb Quantum di Ossur $ 60000

Exii di Handiii $ 40000

Hannes di INAIL e IIT da € 10000

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Evolution

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3d Printer

Which Plastics?

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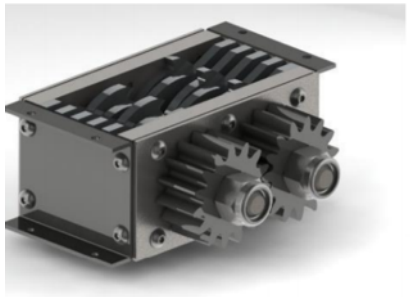
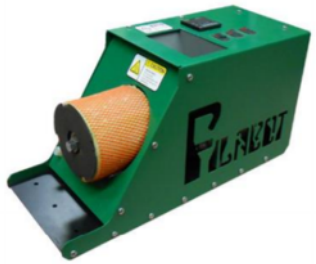
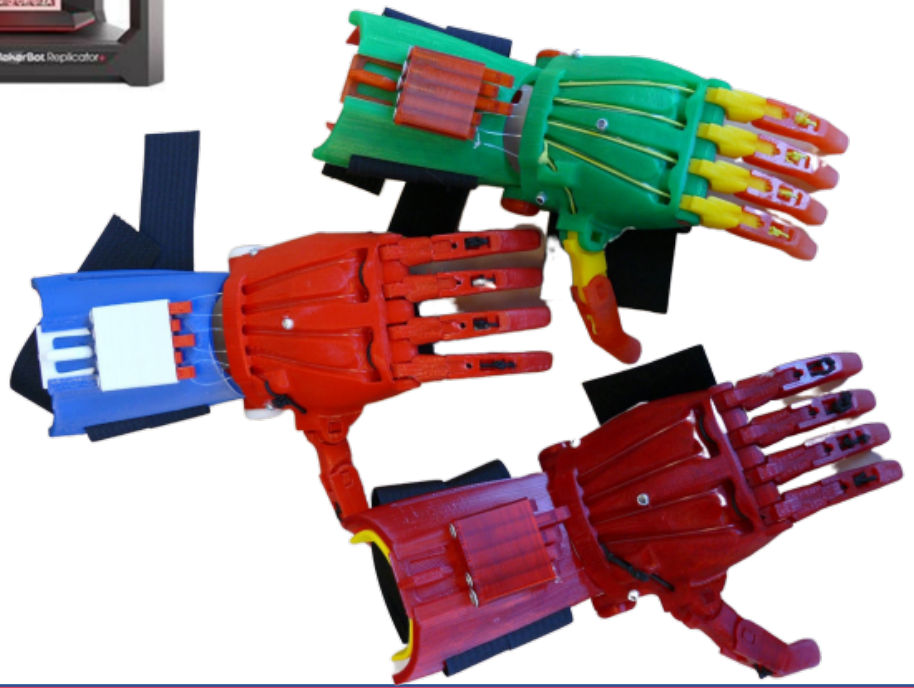
Recycle







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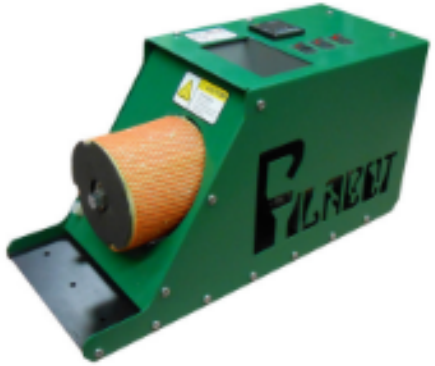
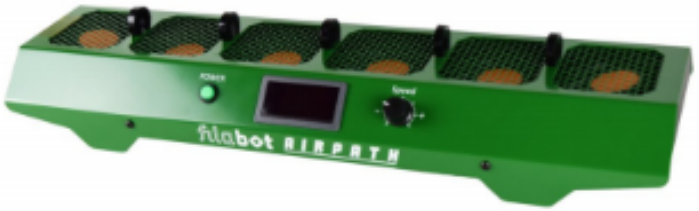
Recycle





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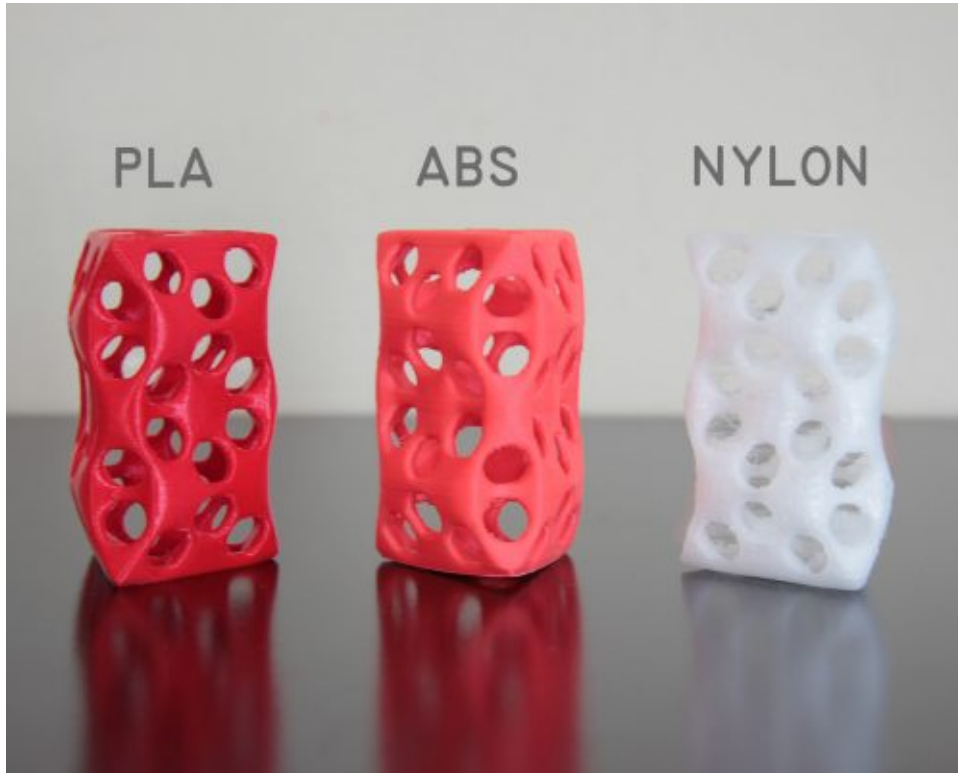
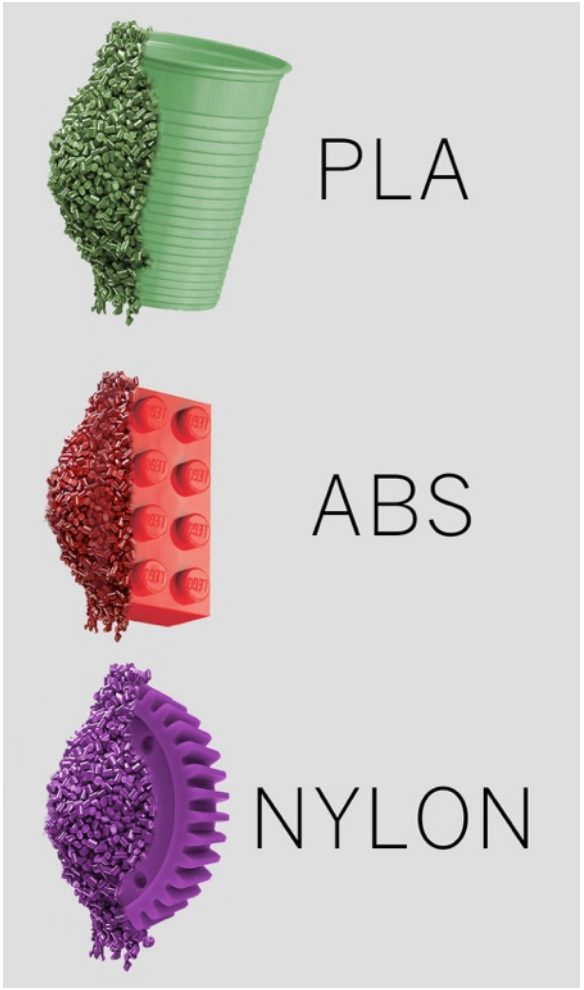
Plastics





60° C
180-210° C

90° C
240-260° C

240°

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3d Prosthetics hand

Phases

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3d Prosthetics

All the prosthetics hand are developed by Enable Models!

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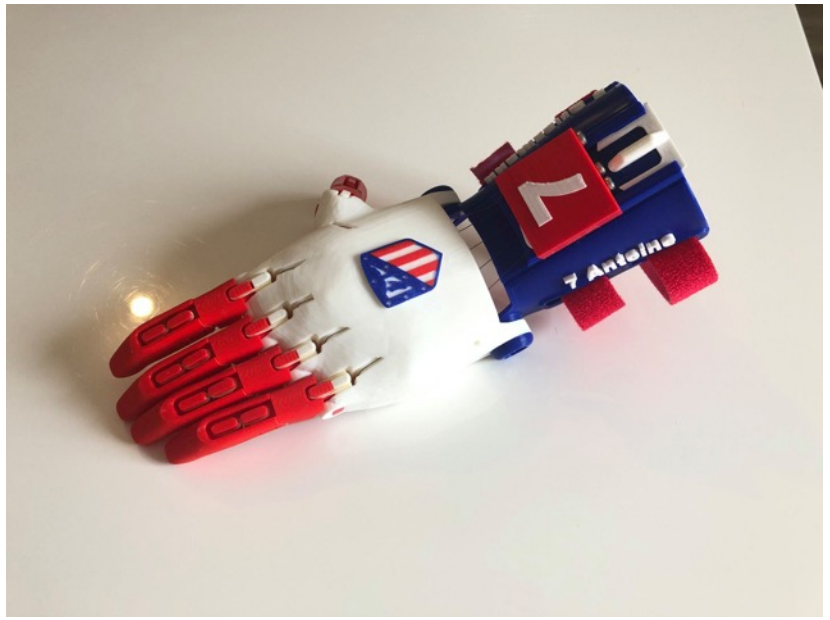
Choice the model



http://enablingthefuture.org/e-nable-devices/

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Customization

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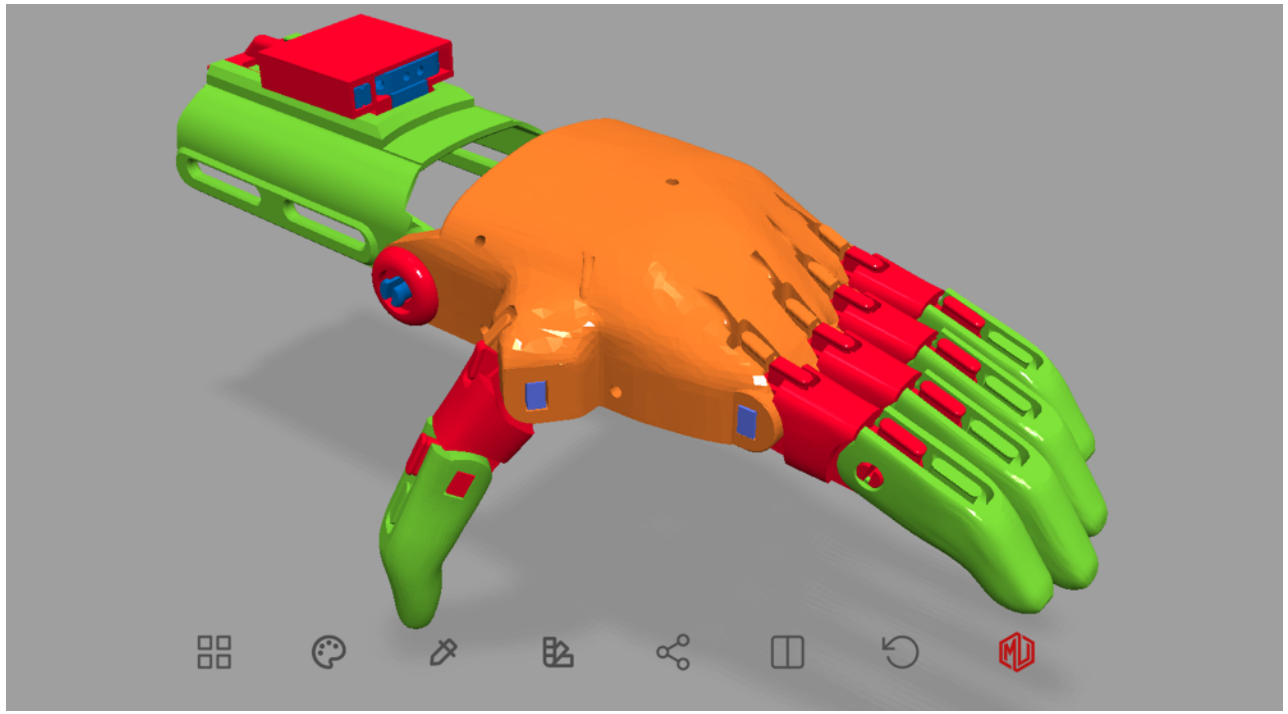
How To…



Link per personalizzazione: https://bymu.eu/customizer/?device=enable-phoenix-hand-v2

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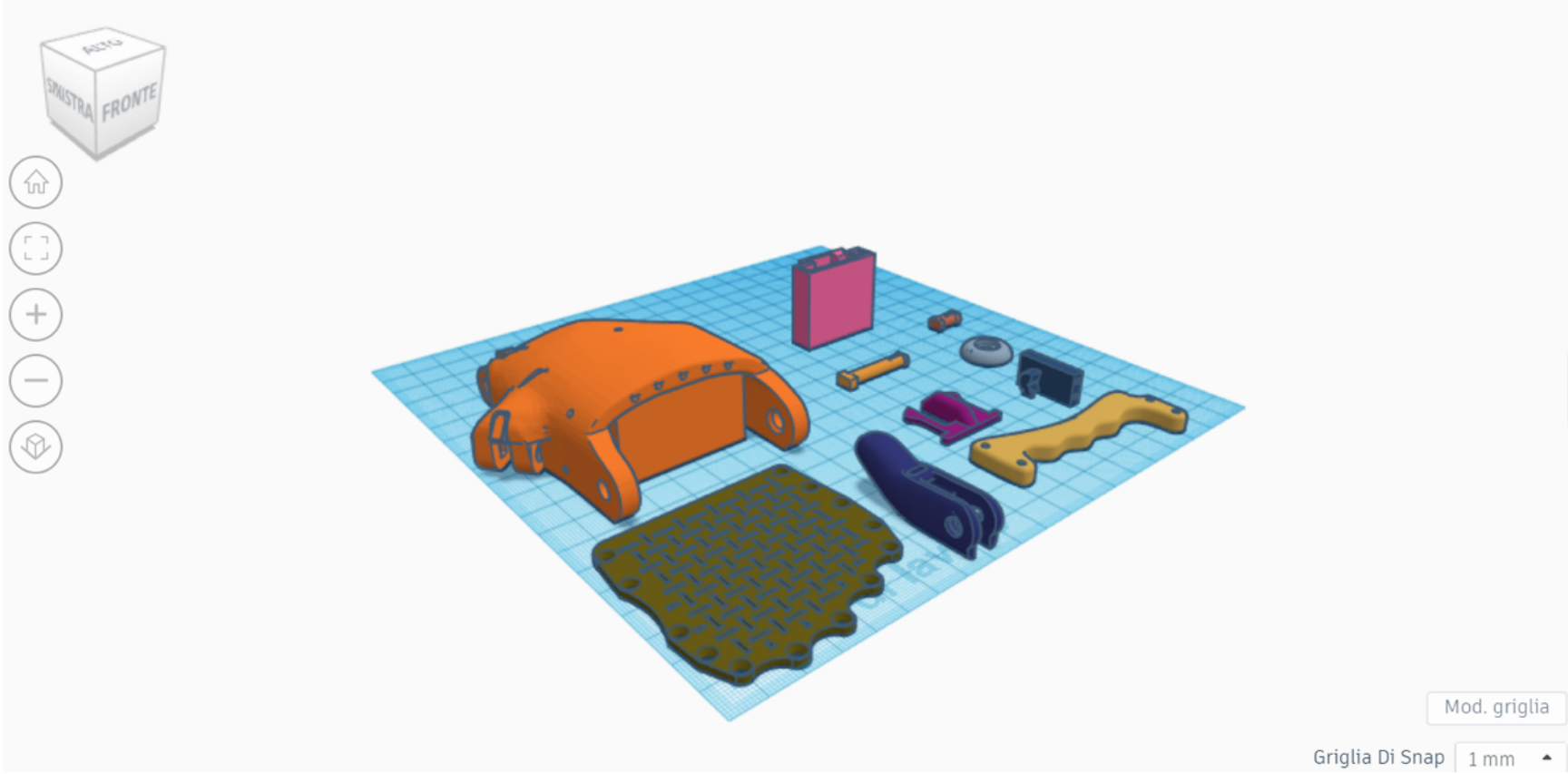
Design on Tinkercad

Custimize the Hand with tinkercad



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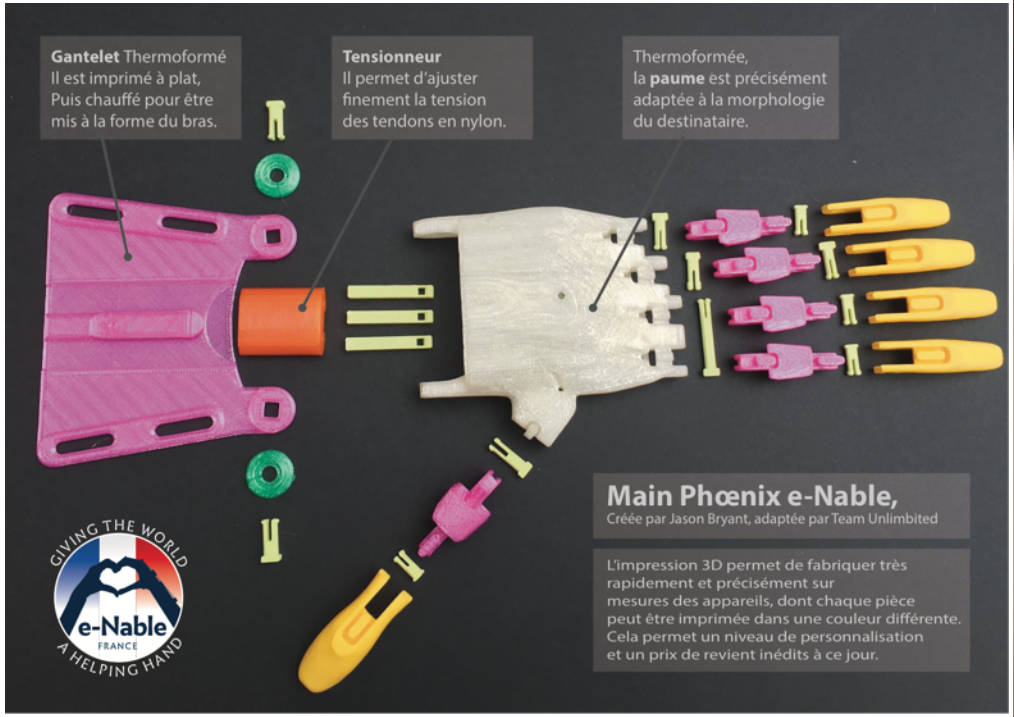
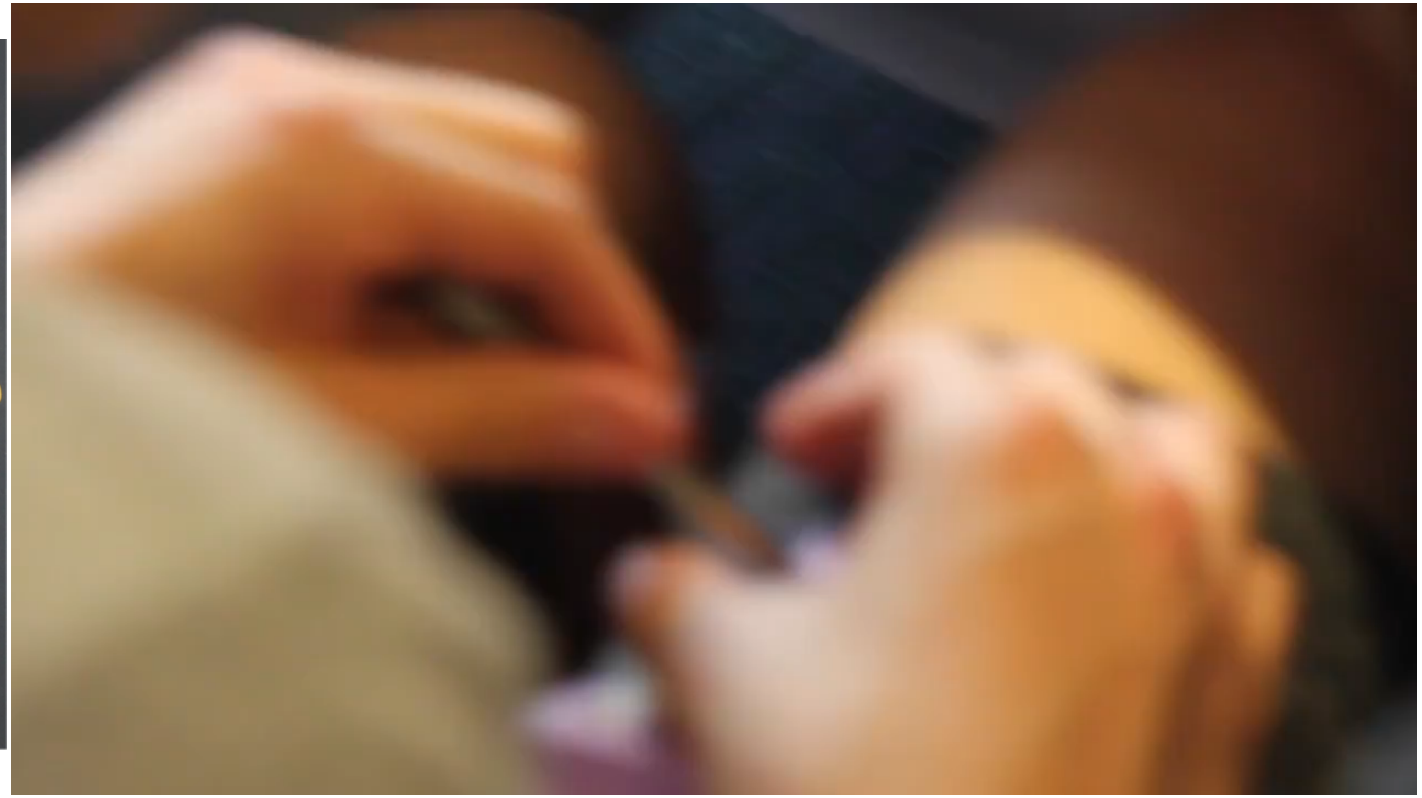
Assembling





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Design our prosthetics hand!

Customize it

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Design Process

- Choose the model
- Change the color with Enable Software
- Change the size
- Build the personalization!

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3d Prosthetics hand with motors and sensors

Discovers sensors and motors

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Myoelectrodes

MyoElectrograhy is based on the movement.

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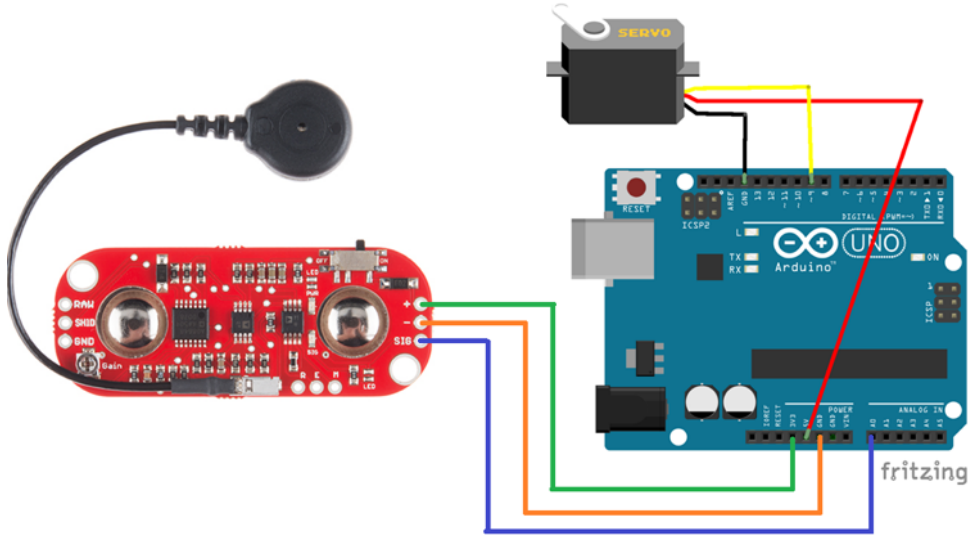
Elecctrodes and Motors

Using the Ide of Arduino, we can program Arduino to read the change of electricity caused by the movement.



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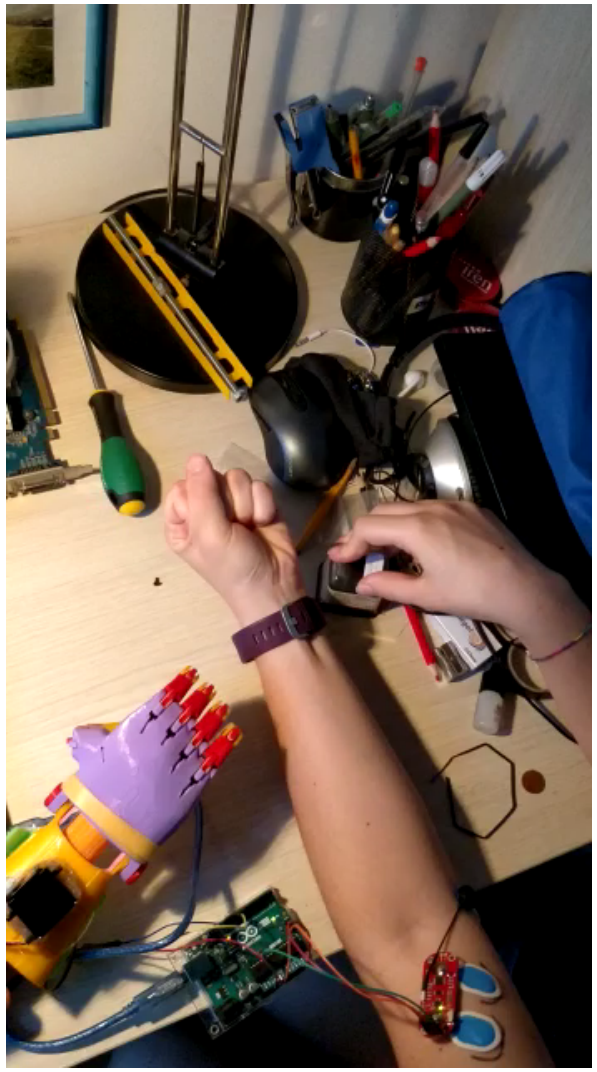
Result