Scuola di Robotica

Co-funded by the
Erasmus+ Programme
of the European Union

Seminar Mâna e-Nable IoT in Education – We are the Makers!

Emanuele Micheli e Michela Bogliolo,

Scuola di Robotica

2017-1-DE03-KA201-035615

We are the IoT Makers

Co-funded by the
Erasmus+ Programme
of the European Union

Agenda

- Stadiul actual
- Plastice
- Mâini protetice 3d
- Particularizarea mânii e-Nable
- Senzori și motoare

Scuola di Robotica

Co-funded by the
Erasmus+ Programme
of the European Union

O2 și O3: Mâna e-Nable 3d

Descoperă

2017-1-DE03-KA201-035615

We are the Makers

Scuola di Robotica

Co-funded by the
Erasmus+ Programme
of the European Union

Mâini protetice 3d

Studiu de piață

2017-1-DE03-KA201-035615

We are the Makers

Co-funded by the
Erasmus+ Programme
ropean Union

Pe piață

BeBionic, Ottobock, € 40000

i-Limb Quantum, Ossur, $ 60000

Handiii, Exii, $ 40000

Hannes, INAIL și IIT, € 10000

Co-funded by the
Erasmus+ Programme
of the European Union

Evoluție

Scuola di Robotica

Co-funded by the
Erasmus+ Programme
of the European Union

Scuola di Robotica

Co-funded by the
Erasmus+ Programme
of the European Union

Imprimanta 3d

Ce plastice?

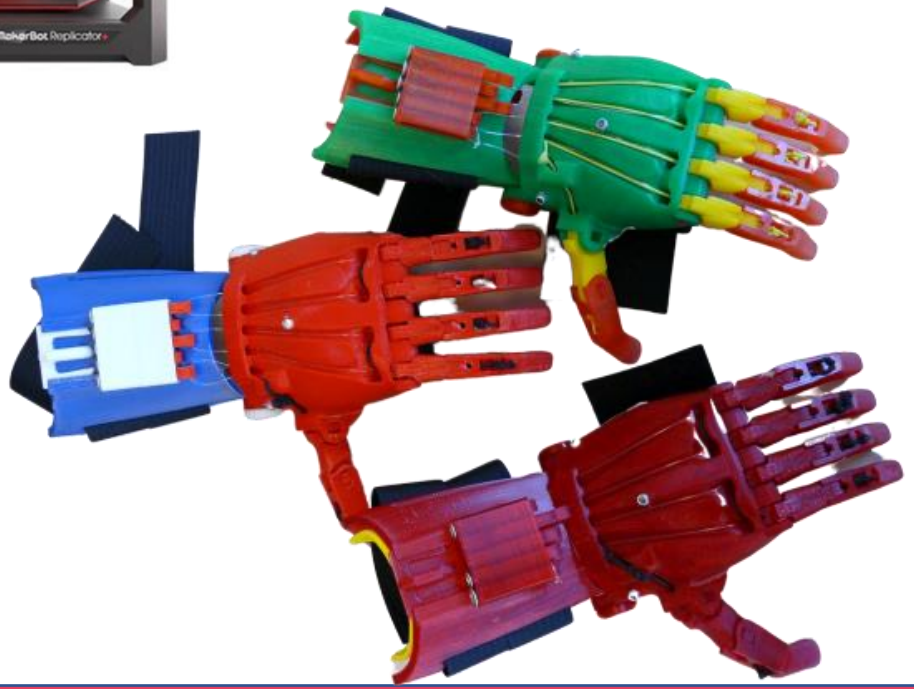
2017-1-DE03-KA201-035615

We are the Makers

Scuola di Robotica

Co-funded by the Erasmus+ Programme of the European Union

Reciclare



We are the Makers

Scuola di Robotica

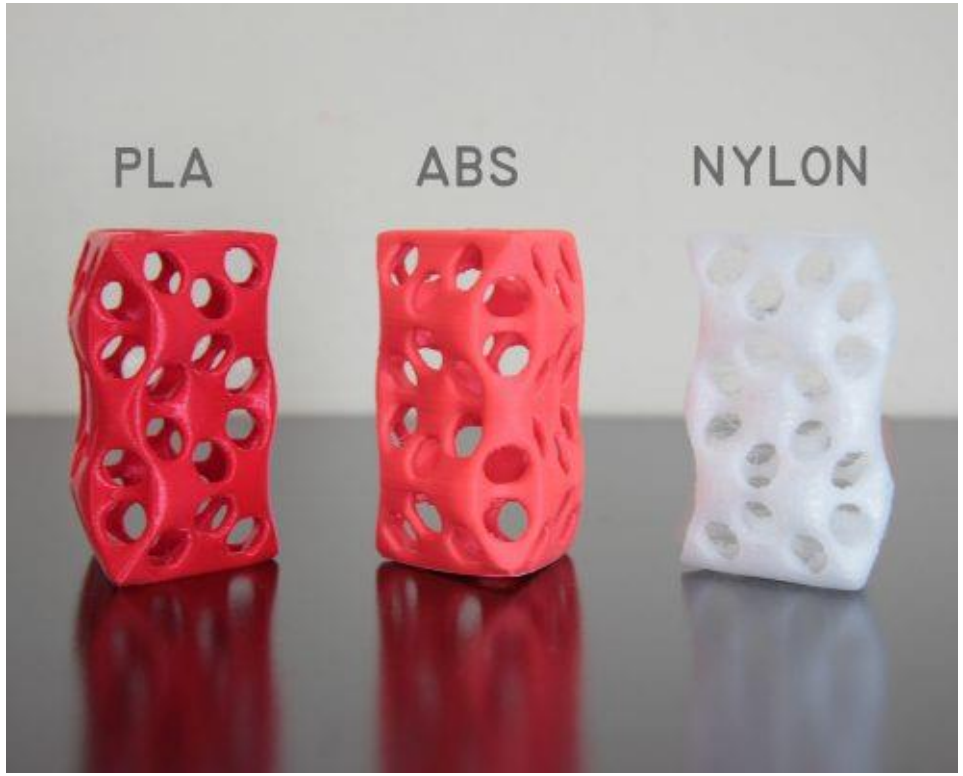
Co-funded by the
Erasmus+ Programme
of the European Union

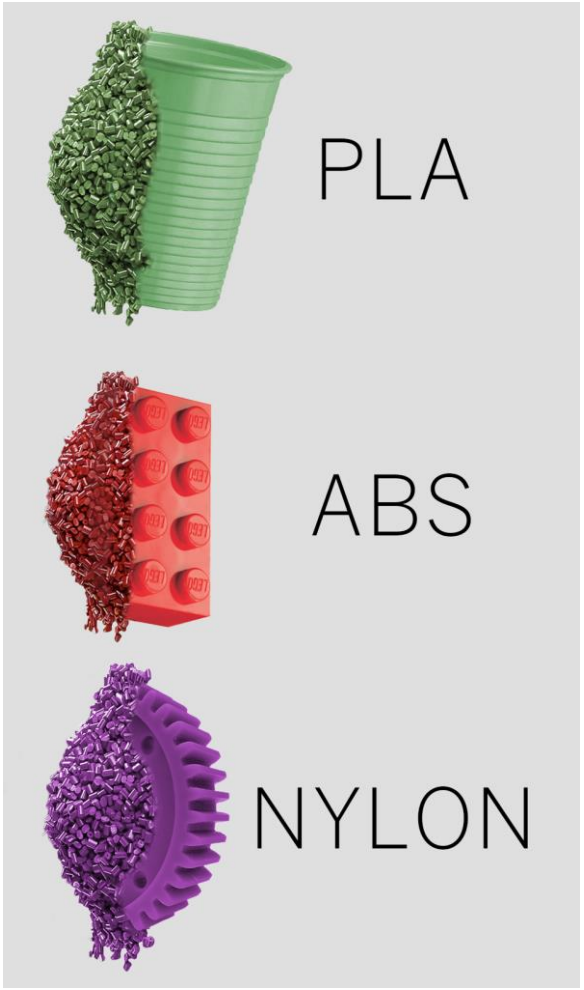
Reciclare

We are the Makers

Co-funded by the
Erasmus+ Programme
of the European Union

Plastice





60° C
180-210° C

90° C
240-260° C

240°

Scuola di Robotica

Co-funded by the
Erasmus+ Programme
of the European Union

Mâini protetice 3d

Etape

2017-1-DE03-KA201-035615

We are the Makers

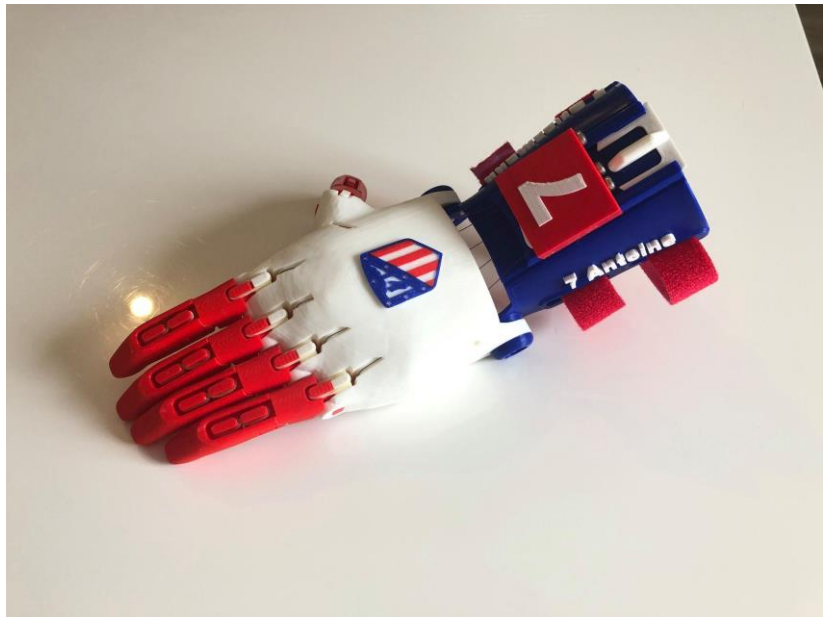
Co-funded by the
Erasmus+ Programme
of the European Union

Proteze 3d

Toate mâinile protetice sunt dezvoltate de Enable Models!

Co-funded by the
Erasmus+ Programme
of the European Union

Alege modelul



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

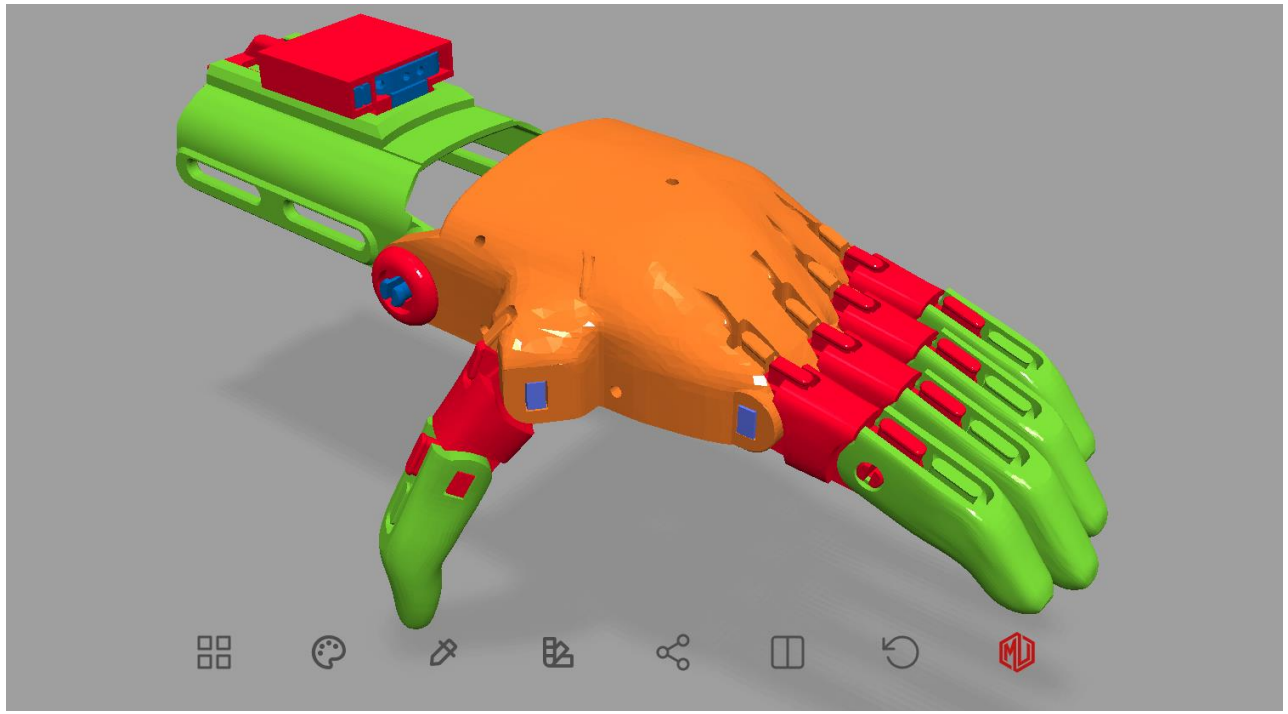
Scuola di Robotica

Co-funded by the
Erasmus+ Programme
of the European Union

Particularizează

Co-funded by the
Erasmus+ Programme
of the European Union

Cum să ...



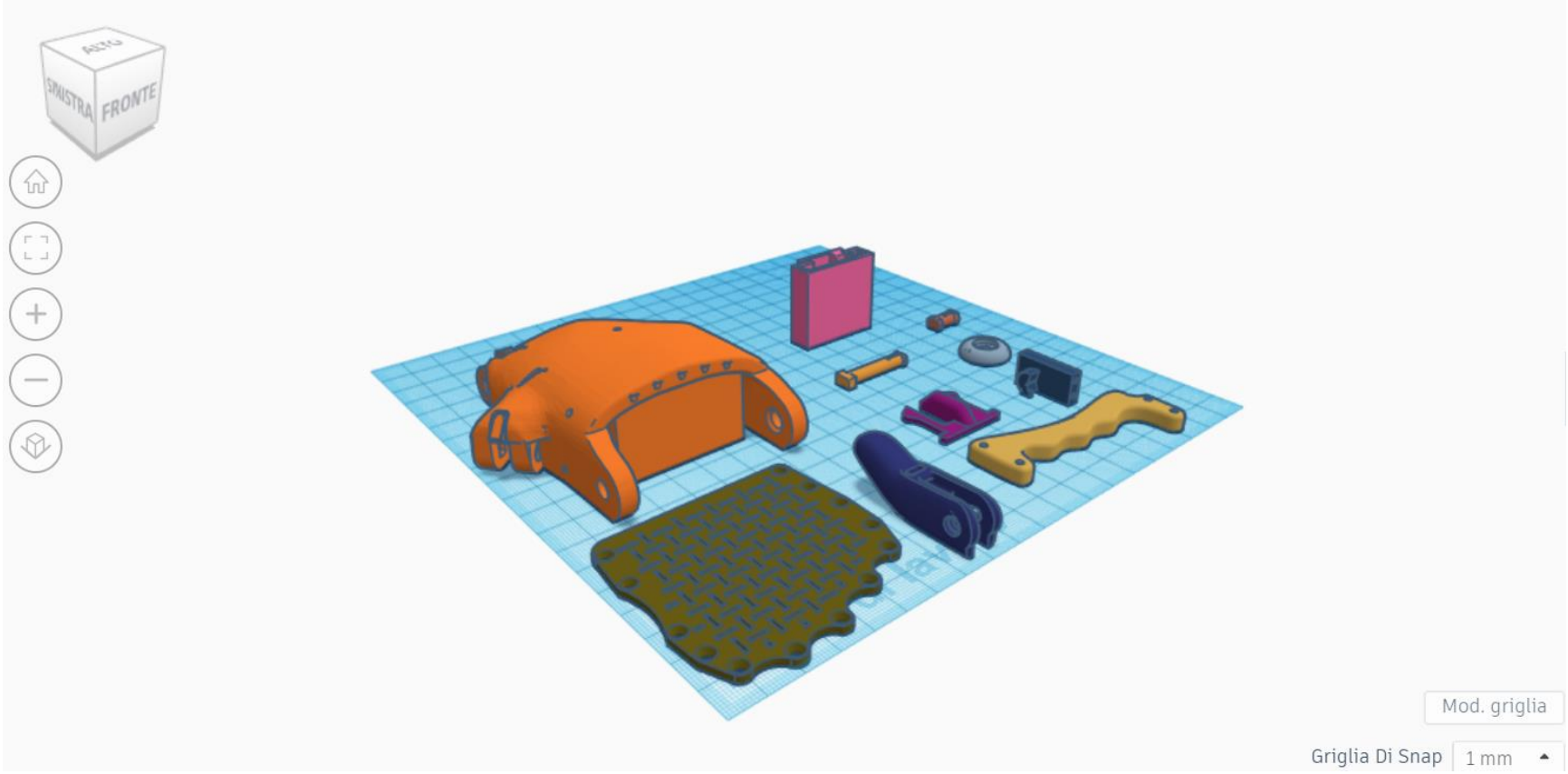
Link: https://bymu.eu/customizer/?device=enable-phoenix-hand-v2

Scuola di Robotica

Co-funded by the Erasmus+ Programme of the European Union

Proiectare în Tinkercad

Particularizează mâna cu Tinkercad

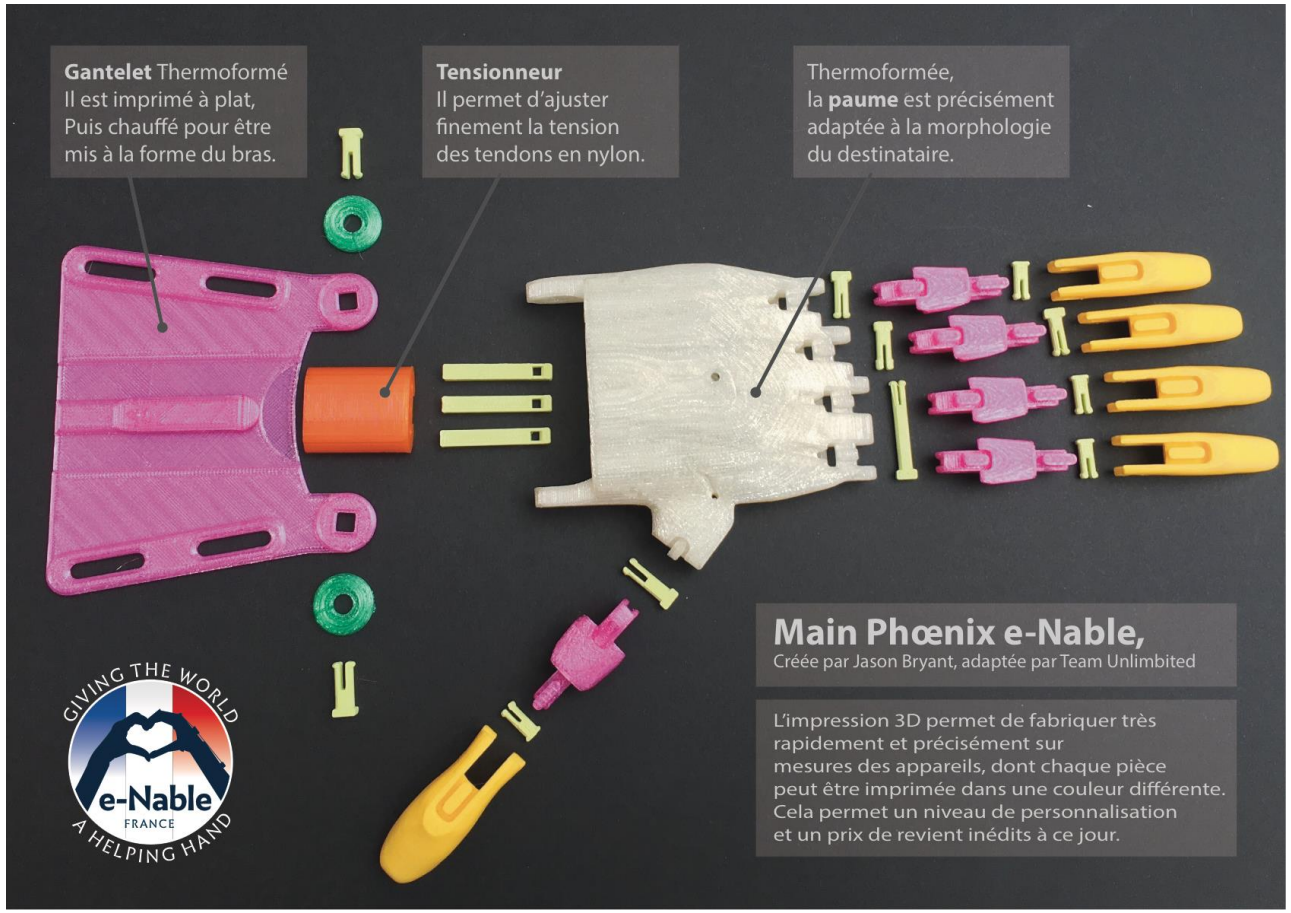


We are the Makers

Scuola di Robotica

Co-funded by the Erasmus+ Programme of the European Union

Asamblarea



We are the Makers

Scuola di Robotica

Co-funded by the
Erasmus+ Programme
of the European Union

Proiectează propria mână protetică!

Particularizează

2017-1-DE03-KA201-035615

We are the Makers

Co-funded by the
Erasmus+ Programme
of the European Union

Procesul de proiectare

- Alege modelul
- Modifică culoarea cu Software-ul Enable
- Modifică dimensiunea
- Personalizează!

Scuola di Robotica

Co-funded by the
Erasmus+ Programme
of the European Union

Mâini protetice 3d cu motoare și senzori

Descoperă senzorii și motoarele

2017-1-DE03-KA201-035615

We are the Makers

Co-funded by the
Erasmus+ Programme
of the European Union

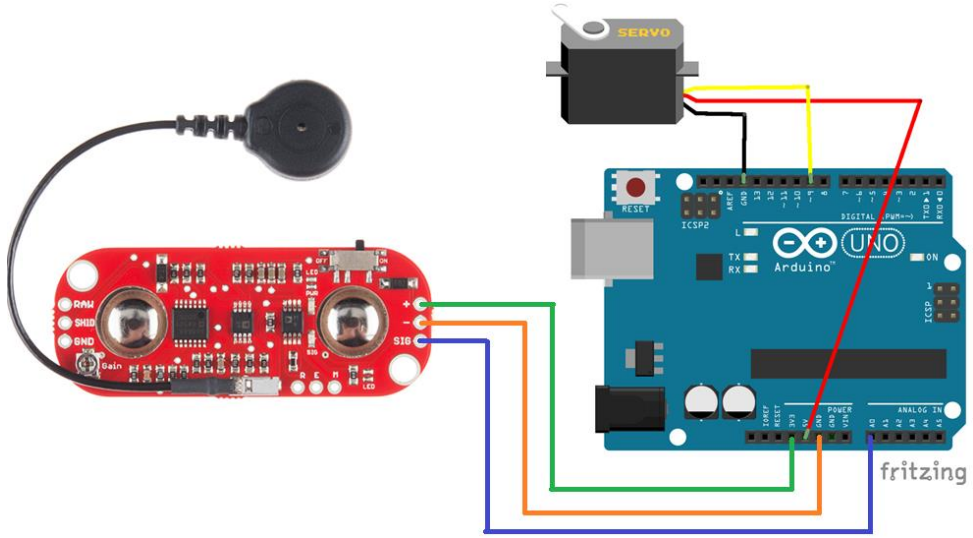
Mioelectrozi

MioElectrografia se bazează pe mișcare.

Co-funded by the
Erasmus+ Programme
of the European Union

Electrozi și motoare

Folosind Ide Arduino putem programa Arduino să citească schimbarea electricității cauzate de mișcare.



Co-funded by the
Erasmus+ Programme
of the European Union

Rezultat