

Improving Sara's quality of life: A 3D printed prosthetic hand

ABOUT

Enabling the Future association

The e-NABLE Community is an amazing group of individuals from all over the world who are using their 3D printers to create free 3D printed hands and arms for those in need of an upper limb assistive device.

They are people who have put aside their political, religious, cultural and personal differences – to come together and collaborate on ways to help improve the open source 3D printable designs for hands and arms for those who were born missing fingers or who have lost them due to war, disease or natural disaster.

The e-NABLE Community is made up of teachers, students, engineers, scientists, medical professionals, tinkerers, designers, parents, children, scout troops, artists, philanthropists, dreamers, coders, makers and every day people who just want to make a difference and help to "Give The World A Helping Hand."

COMPANY

Enabling the Future association

INDUSTRY

Healthcare, Education

APPLICATION

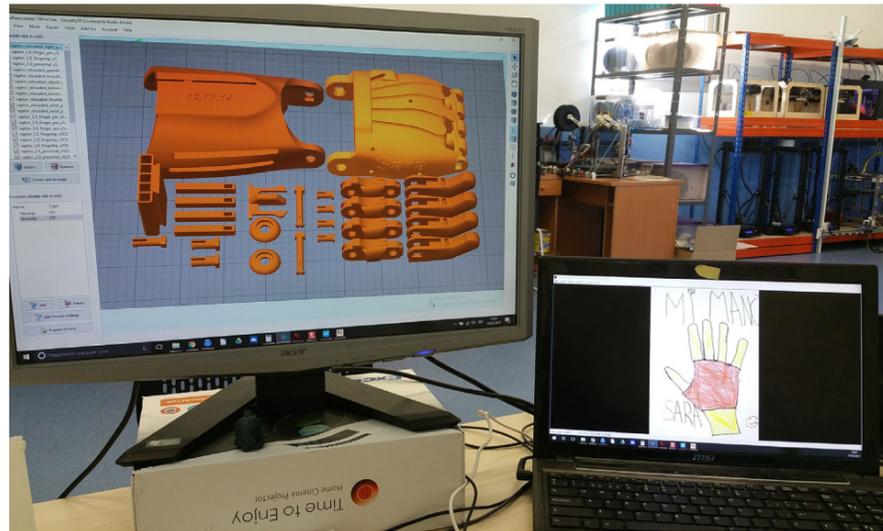
Functional Parts: End-use parts



CHALLENGE

When we think about quality of life, we imagine us sunbathing on a tropical beach or just taking a breath in a relaxed atmosphere on the other side of the world. We usually think big. However, sometimes small things can absolutely change someone's quality of life. And this is the case of Sara.

Sara is a girl from Spain who was born with a malformation on her right hand which doesn't allow her to use it properly.



SOLUTION

In March this year, Spanish television program "El árbol de los deseos" from RTVE, visited Sara at her school with an important gift for her. A fully 3D printed prosthetic hand.

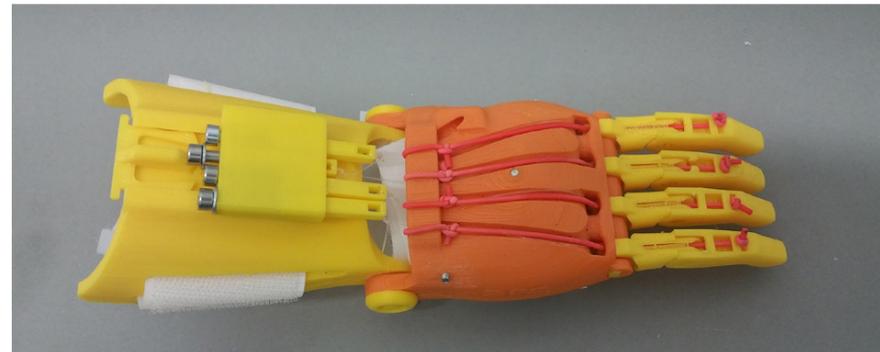
A few months earlier, RTVE contacted Koldo, manager of DomoTek, and asked him to develop a fully 3D printed prosthetic hand for Sara. Domotek is a company that offers 3D printing machines and services and is really interested in social changing projects. Furthermore, Domotek is part of an association called "Enabling the Future", exclusively dedicated to making open source 3D printed prosthetic hands.

RESULT

Koldo managed the whole project and thanks to the BCN3D Sigma and the "Enabling the future" association, the project was a great success. The BCN3D Sigma, thanks to its dual extruder system that can print with two colors or materials at the same time, was able to print the entire piece in the exact colors that Sara wanted. So not only solving the problem but also improving it as well.

Nowadays Sara is enjoying her prosthetic 3D printed hand as a little-big change in her life. This has been possible thanks to RTVE, DomoTek and "Enabling the future", a non-profit association that is improving someone's quality of life every day thanks to its Open Source philosophy.

So is there where society has to put its energies, understanding that disruptive technologies like 3D printing can help to improve our lives. Understand from the oldest to the youngest, that the constant development of 3D printing technology it's just the beginning of a new way to live better.



COSTS

While a standard prosthetic hand for Sara may cost thousands of euros, using 3D printing technology roughly costs a few euros in material cost. Enable the Future together with Domotek allowed Sara to have a personalized prosthesis.

In addition, as Sara will be older each year, it is likely that it will be necessary to print bigger prostheses. Thanks to the use of additive technology as a manufacturing method, the cost will be very low.



About BCN3D technologies

BCN3D Technologies is one of the leading manufacturers of desktop FFF 3D printers worldwide. Based in Barcelona, the activity of BCN3D began in 2012 and its aim is to help innovators and creatives to change the world, by offering them the best possible experience to materialize their unique ideas.

<https://www.bcn3dtechnologies.com>

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