

Project's Rotary Club San Isidro Este 2021-2022

Orthopedic Hands

Título del proyecto

Provide custom orthopedic hands

Resumen

Provide 20 personalized orthopedic hands with digital technology for people with low resources.

Descripción detallada

Enzo Romero, a young mechatronics engineer, who was born without a hand, decided to make his own orthopedic hand and for this reason he founded LAT Bionics, an institution dedicated to the manufacture and customization of orthopedic hands.

Enzo and his team have understood that potential candidates for an orthopedic hand need to be emotionally and physically prepared to receive this new part for their body.

After having passed this process, the candidate, through a process of measuring lengths and mass of the amputated limb using digital manufacturing technology for each of the parts of the prosthesis to be built in 3D printed and adapt them to the candidate for their use.

Once the candidate has the personalized prosthesis, he receives an accompaniment with emotional health professionals and therapists who ensure the best possible adaptation to the prosthesis.

Evaluación de las necesidades de la comunidad ¿Cómo identificaste las necesidades de la comunidad?

According to the World Health Organization, in developing countries, there are more than 2.4 million people who have suffered an upper limb amputation due to congenital and accidental causes.

In Peru, this number reaches 12,600 people, and every month there are 40 new cases of work accidents as reported by the Ministry of Labor.

Considering that, in Peru, 70% of the population is part of the informal economy and earns a minimum wage of S / 900.00 per month (US \$ 236.84) per month and the costs of a prosthesis reach S / 5,000.00 to S / 25,000.00 (US \$ 6,369.43). This makes a person who suffers from this situation see the payment impossible.

The goal of the Rotary Club San Isidro Este is to help 20 people get a personalized hand prosthesis, who have already been previously evaluated as candidates by LAT Bionics for whom a personalized hand prosthesis that is durable over time would be manufactured.

Impacto del proyecto: ¿Cómo ayudará el proyecto a la comunidad una vez finalizado este?

People who receive their orthopedic hand will receive training and psychological help in order to substantially improve their emotional health, which will allow them to reintegrate into the labor market, achieving better conditions for their physical health.

This project is friendly to the environment because the use of ABS and rPET polymer filaments (filament made from plastic bottles) directly impacts the circular economy policies proposed by the United Nations established in the Sustainable Development Goals for recovery of plastic in order to turn it into value-added products.

This project builds an increasingly inclusive society in favor of people with disabilities through the use of assistive technologies.

Sostenibilidad: ¿Cómo se mantendrán los beneficios del proyecto una vez finalizado este?

After completing the delivery of the prostheses, each of the users becomes part of the members of the LAT Bionics program. In this sense, they have a one year of guarantee that covers any type of incident that has occurred on the prosthesis. It also has the support of the occupational therapy and psychology section for limb improvement sessions and dynamics groups in order to work on one's self-esteem completely free of charge. The prostheses have a life span of 15 years.

On the other hand, upper limb prostheses represent a positive impact on users at an economic and social level. In the first place, because it once again gives you a tool with which you can join the labor market and once again contribute to the family economy. At a social level, each user becomes an ambassador of the project who through the use of his prosthesis generates a different view from society in favor of assistive technologies.

Financiamiento

S/ 65,400 FX 3.925

US\$ 16,662.42

Concept	Amount US\$
Contribution of the RC Club San Isidro Este	1,000.00
Financing another Rotary club	15,662.42
Total	16,662.42