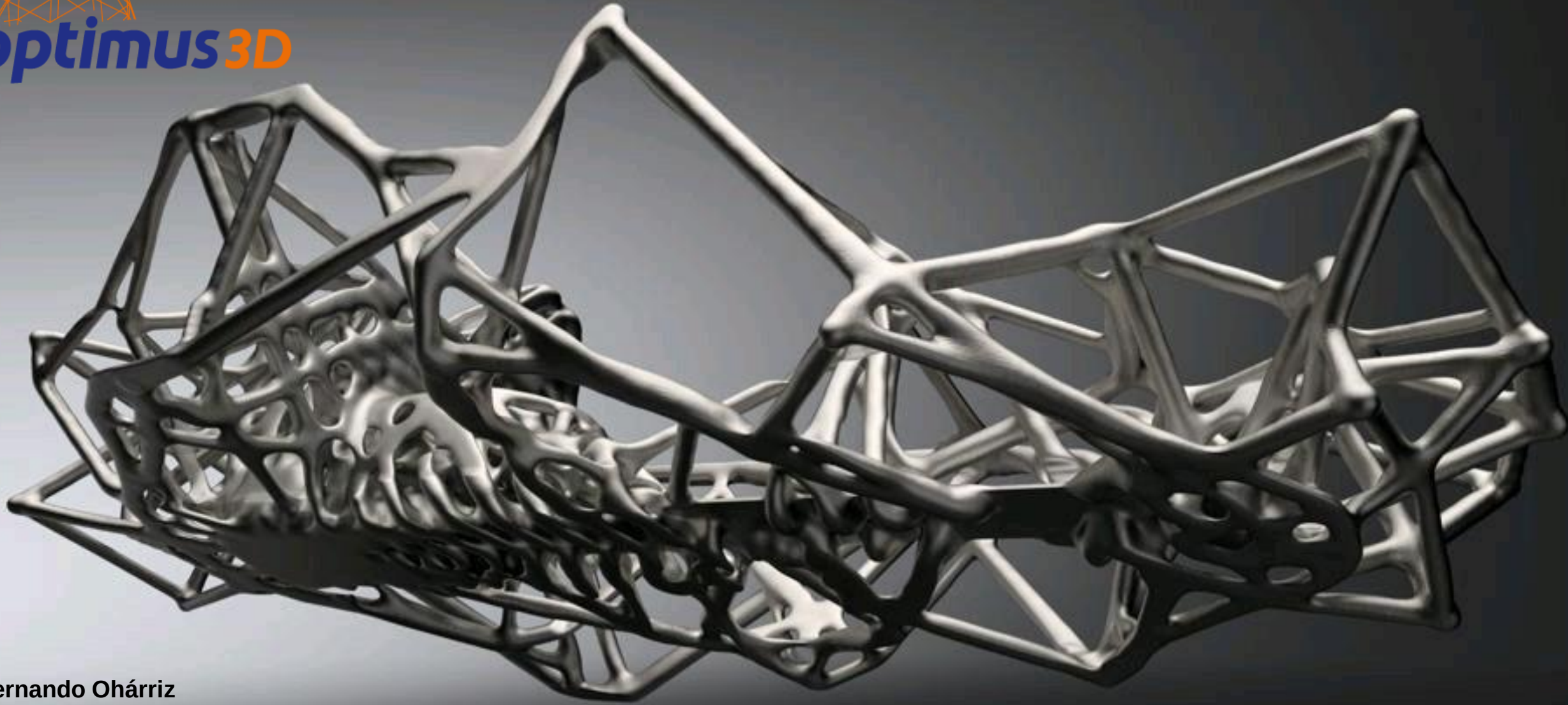




Fernando Ohárriz
Diciembre 2019

Your Additive solutions partner

conócenos

Optimus 3D fundada en 2014 es un equipo de ingenieros con capacidades de diseño basado en tecnologías aditivas y con equipos de última generación para aportar soluciones óptimas a las necesidades de cada cliente.



RPK forma parte de optimus3D

La empresa multinacional del sector automoción **RPK**, forma parte del capital y permite a su ingeniería el aportar las soluciones aditivas de Optimus3d en todo el mundo, y Optimus integra los servicios avanzados de su centro tecnológico y de cálculo como recursos propios.

“Fabrica de soluciones aditivas”

Acompañamos a nuestros clientes en todo el proceso, desde el diseño, hasta la producción final, pasando por la realización de ensayos en laboratorio.

 **optimus3D**

Diseño de
productos

Business
engineering
partner

Laboratorio
ensayos

Escáner +
Ingeniería
inversa

Almacén
virtual

PARQUE MAQUINAS PROPIO



SLM



MJF / SLS



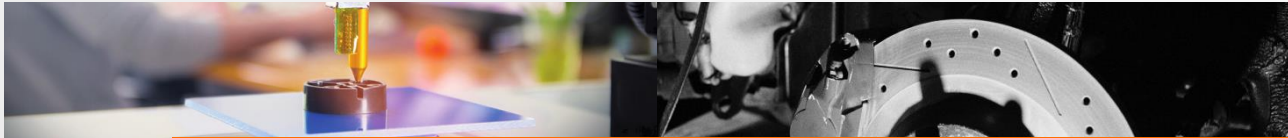
SLA



FDM

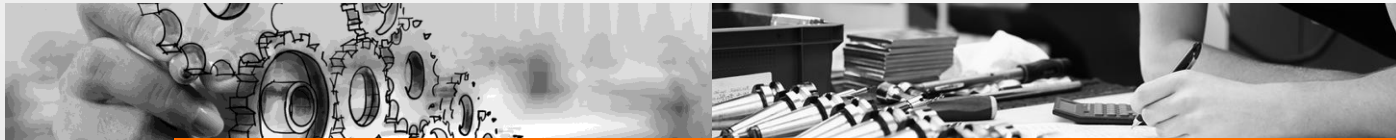


Polyjet

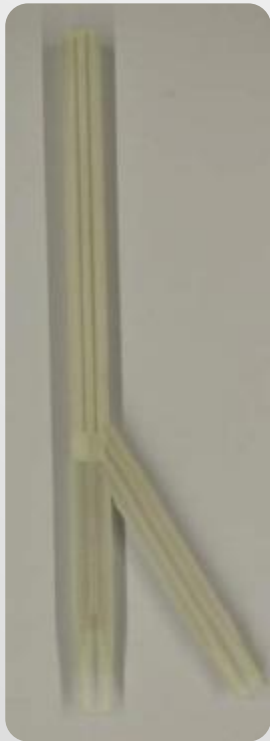


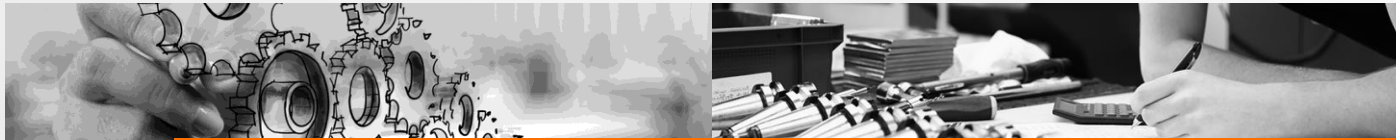
Bioengineering projects: CT reproduction



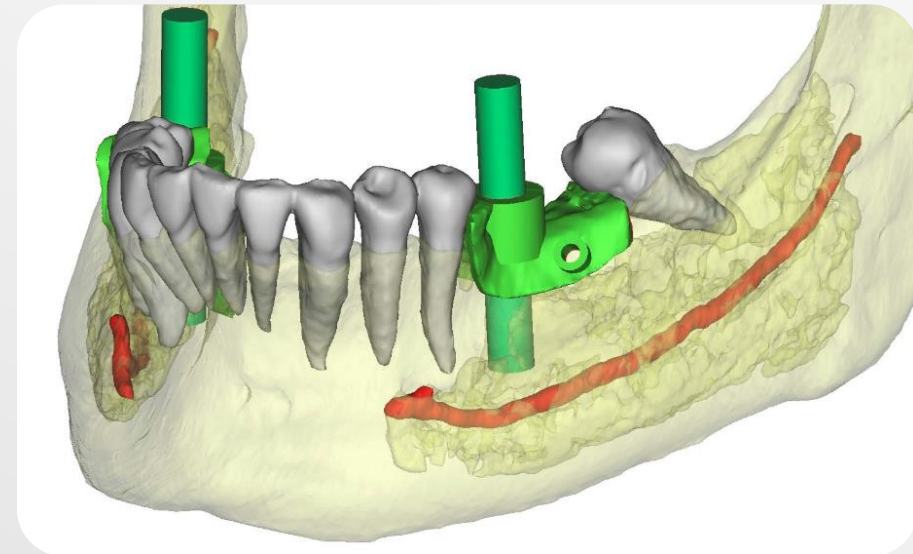


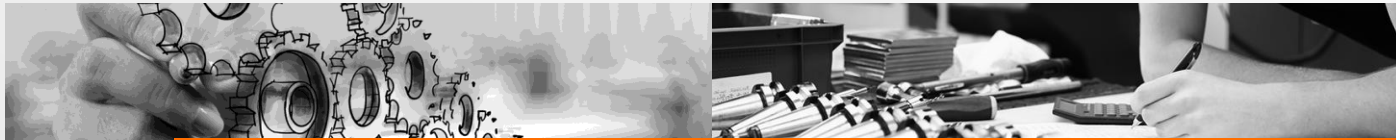
Bioengineering projects : NEBULIZER FOR NEWBORNS





Bioengineering projects : SURGICAL GUIDES

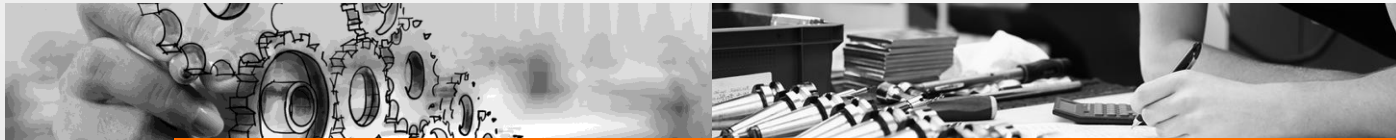




Bioengineering projects : METAL MODELS

Customized prosthesis





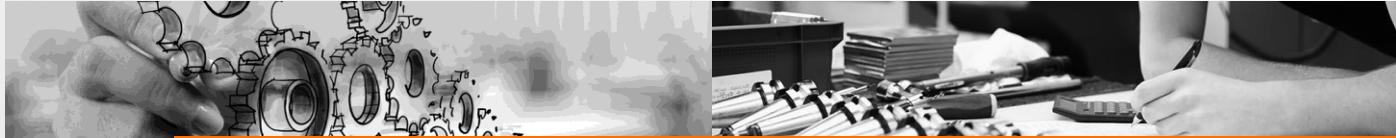
Bioengineering projects : METAL MODELS

Customized prosthesis

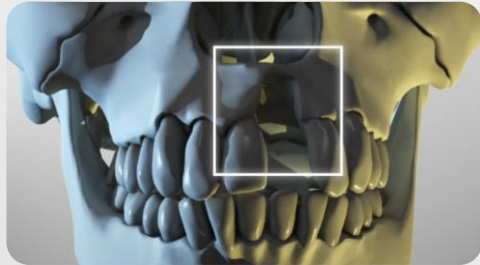


¿Cómo fabrico en FA metálica?



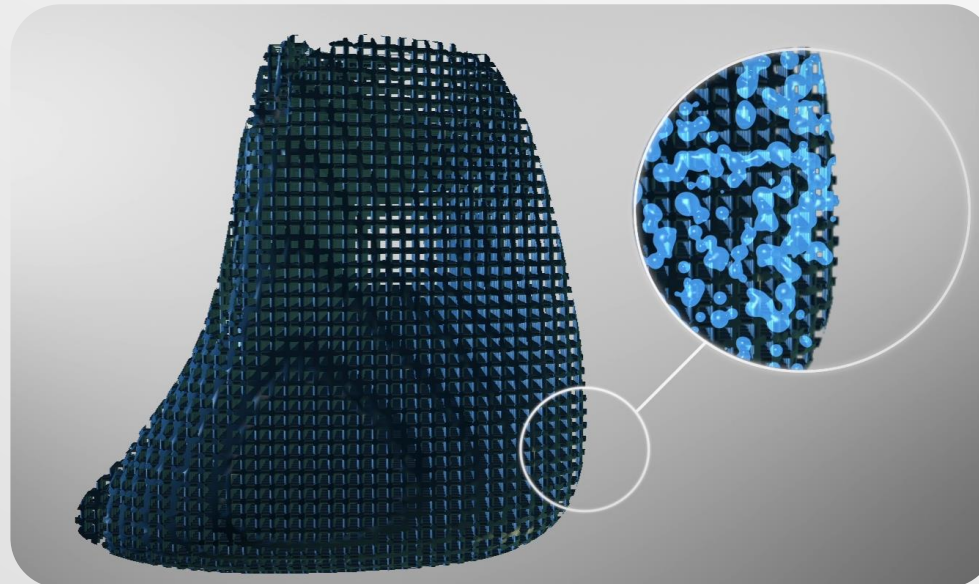


Bioengineering projects : OSEUS

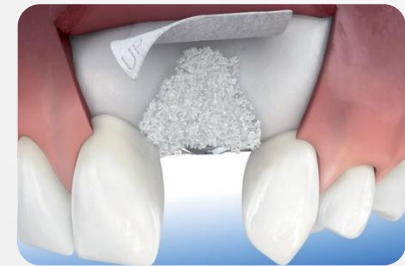


Biocompatible
PLLA

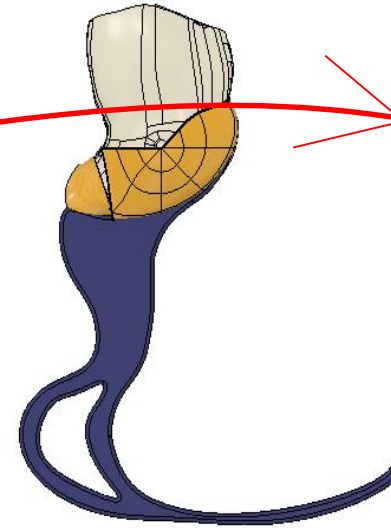
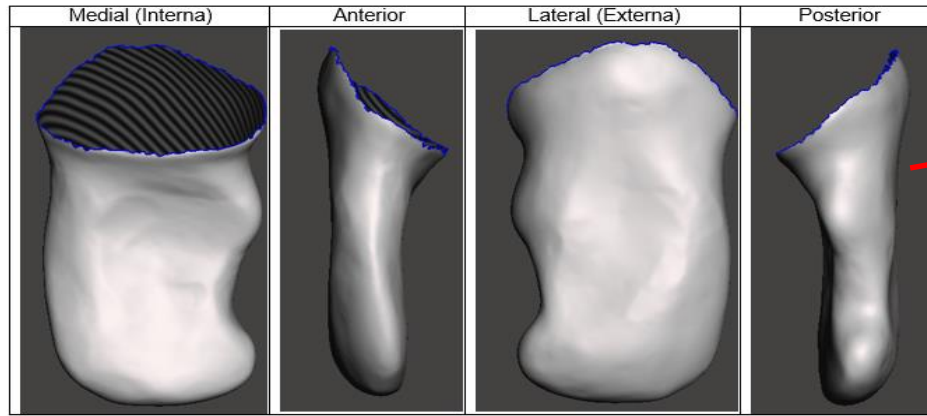
Guided bone regeneration



Bone regeneration
BMP2 growth
factors



DISEÑO Y FABRICACION DE PRÓTESIS PATA TRASERA DCHA. "Brave"



Factores a tener en cuenta:

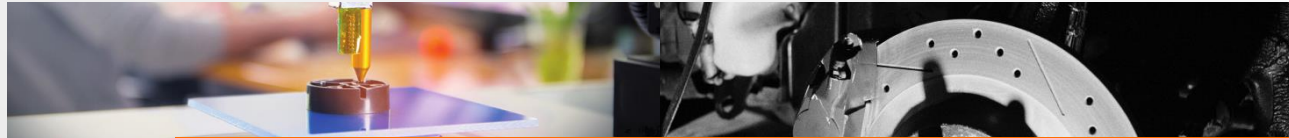
- Apoyo sobre la zona superior del femur en posición de flexión.
- Libertad de la articulación femur-tibia
- Sensibilidad del extremo del muñón; sangrado habitual.





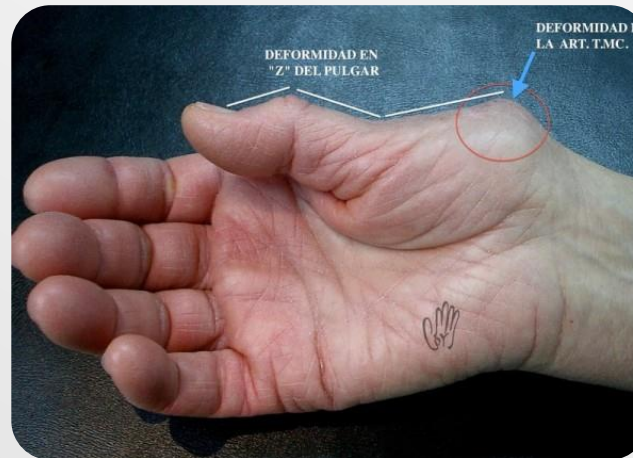
www.optimus3d.es



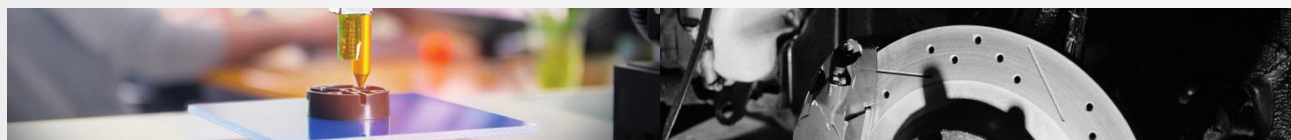


Bioengineering projects : 3D ORTHOSIS-context

The hand arthrosis (**RHISARTROSIS**) is a chronic joint disease that affects fingers' joints and it is an important cause of disability. This disease is one of the main causes of hand pain medical consultations.



I, II and III stages treatment is based on pharmacological and rehabilitation actions, including orthosis wear.



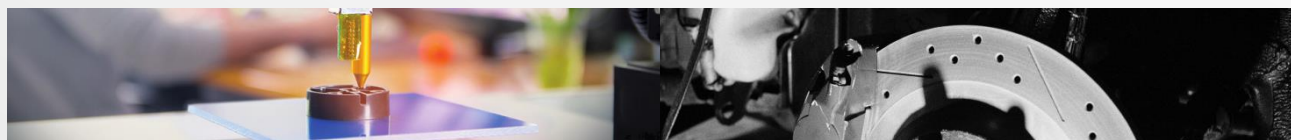
Bioengineering projects : 3D ORTHOSIS-context

Conventional orthosis limits:

- Standar sizes
- Low perspiration materials
- Too much Immobilization
- Uncomfortable designs
- ...



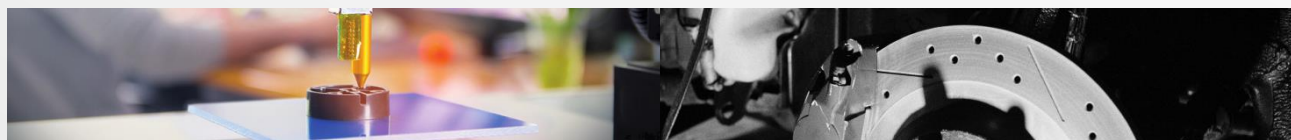
Optimus 3D develops a totally customized orthosis using 3D scanner and additive manufacturing technologies in order to improve the conventional ones limitations.



Bioengineering projects : 3D ORTHOSIS-3D scanner

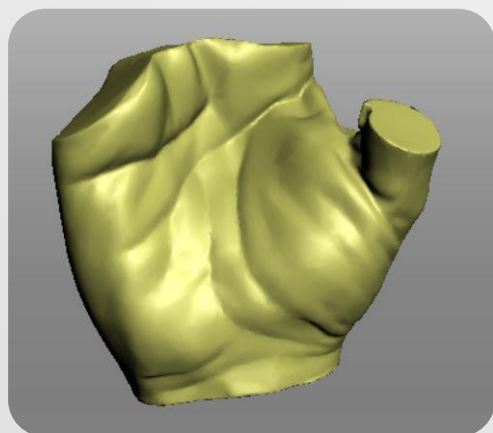
Thanks to the structured light 3D scanner, we obtain the patient's anatomical 3D mesh.

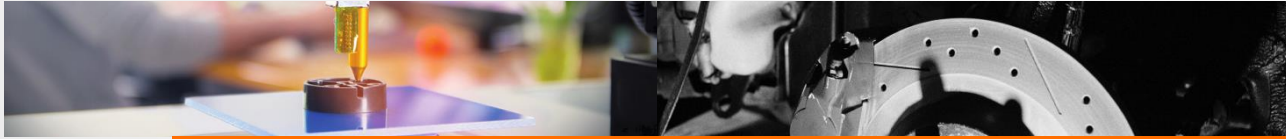




Bioengineering projects : 3D ORTHOSIS-3d design

Based on the scanned 3D anatomical model, we design a totally customized splint for each patient. We create a light geometry in order to improve the confort, the correct immobilization and the perspiration.





Bioengineering projects : 3D ORTHOSIS-Clinical study

3D printed orthosis advantages:

- Totally customized orthosis/customized immobilization**
- Comfortable and ergonomical designs**
- Lighten designs (perspiration)**
- PA12 biocompatible material**
- PA12 pleasant surface finish**
- Durability**
- Easy cleaning**
- ...**





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Parque Tecnológico de Álava
Edificio BIC Araba

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