

# 9

CONGRESO CONJUNTO  
**AEA - SEROD**

9th JOINT AEA-SEROD CONGRESS

**MURCIA**

1, 2, 3 DE JUNIO | 2022



## Viejas cirugías-nuevas tecnologías

Papel de la impresión 3D en  
osteotomías alrededor de la rodilla

Joan Ferràs-Tarragó  
Alejandro Roselló-Añón  
Vicente Sanchis-Alfonso



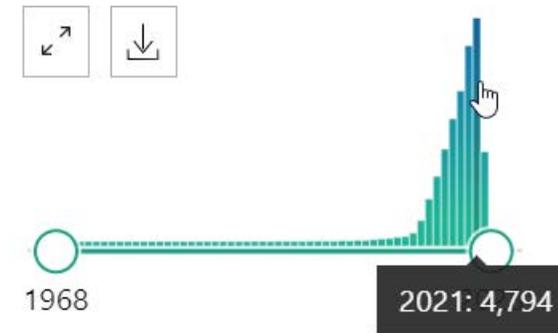
DEPARTAMENT DE SALUT VALÈNCIA  
ARNAU DE VILANOVA-LLÍRIA

# Papel de la impresión 3D en osteotomías alrededor de la rodilla

RESULTS BY YEAR

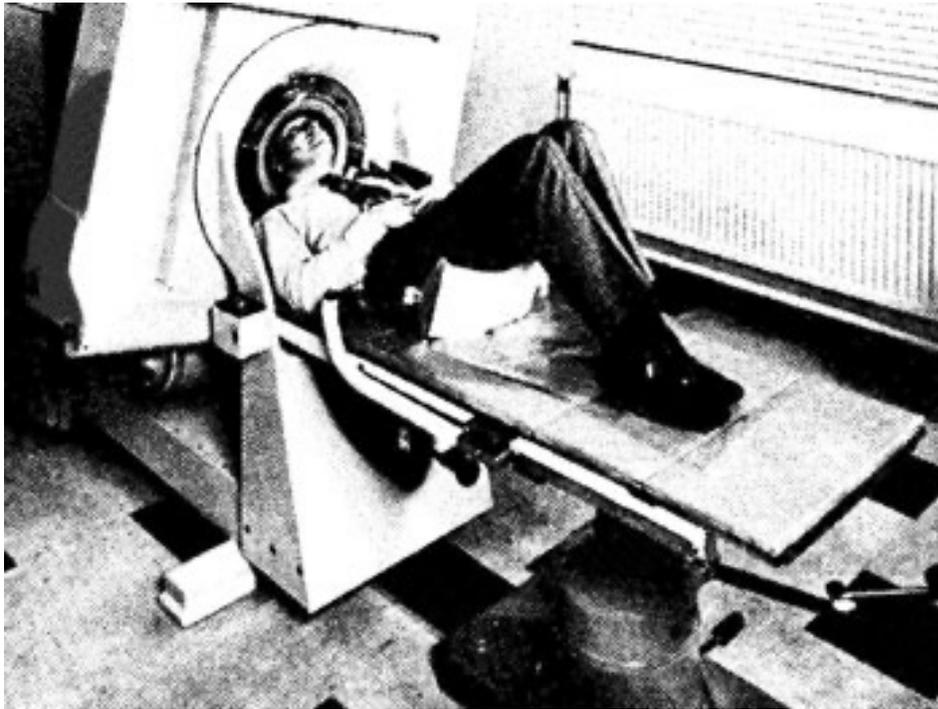


RESULTS BY YEAR

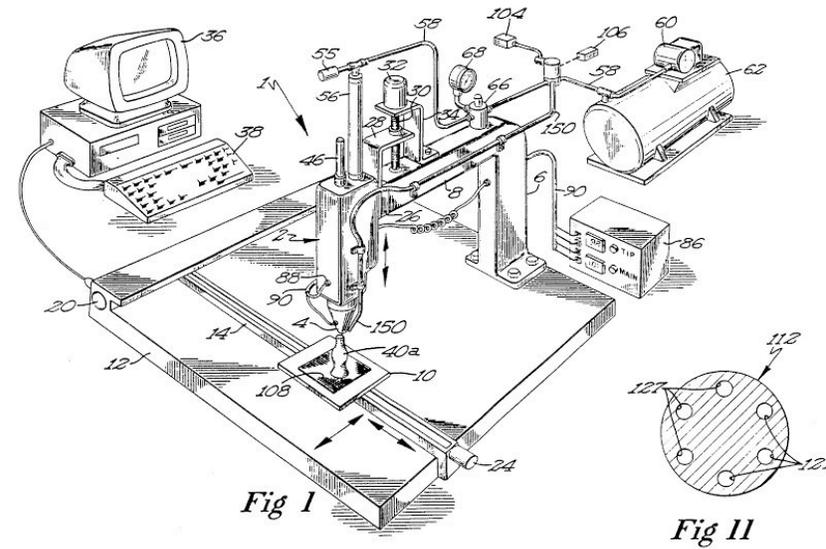


# Papel de la impresión 3D en osteotomías alrededor de la rodilla

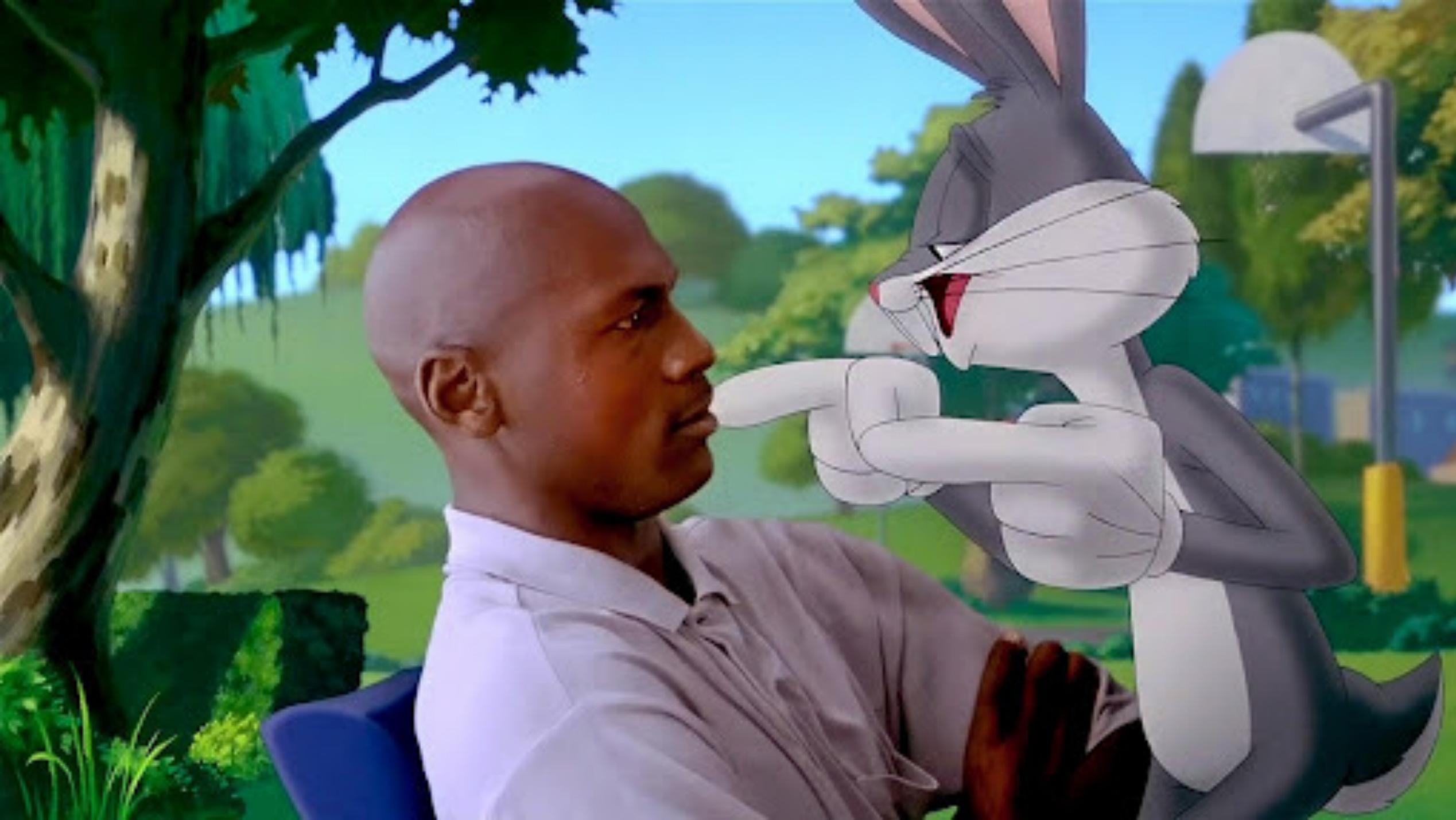
1972



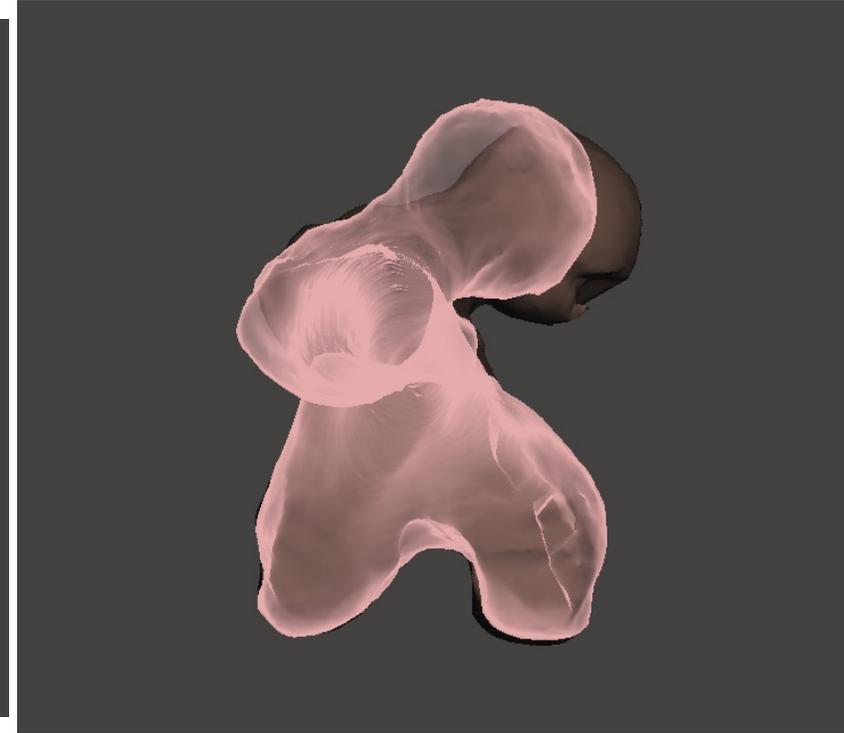
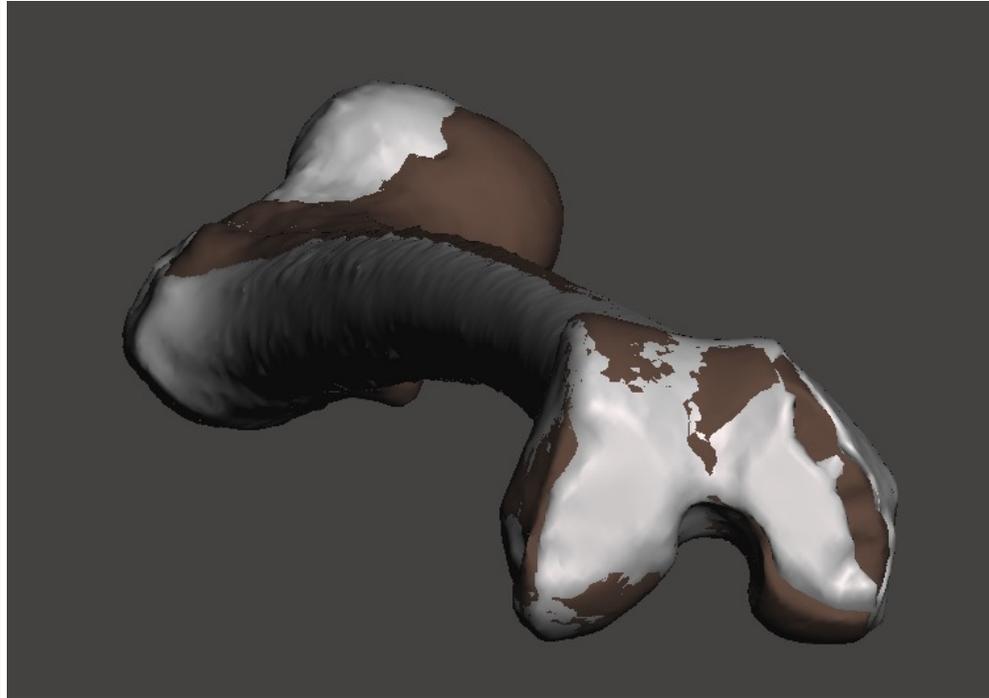
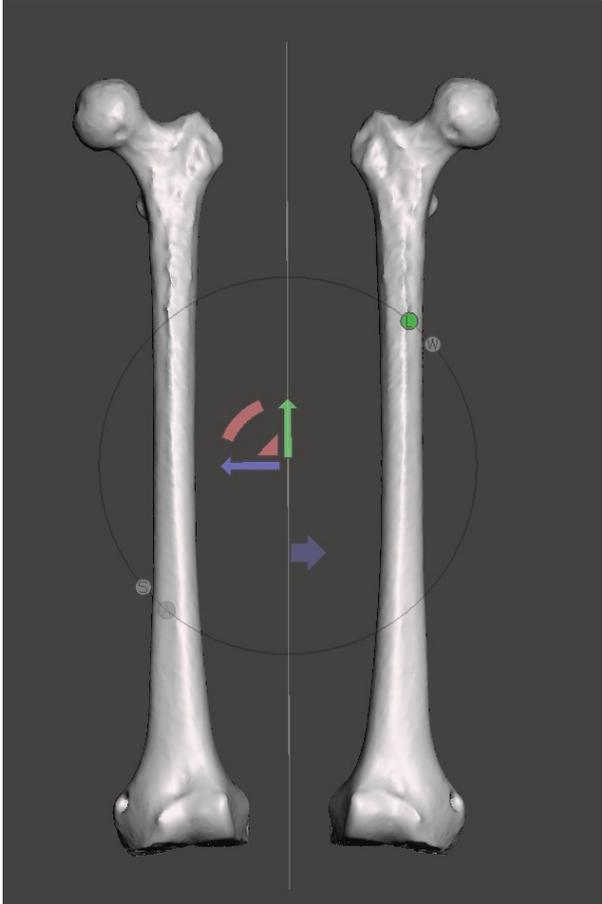
1992



U.S. Patent  
June 9, 1992  
Sheet 1 of 3  
5,121,329

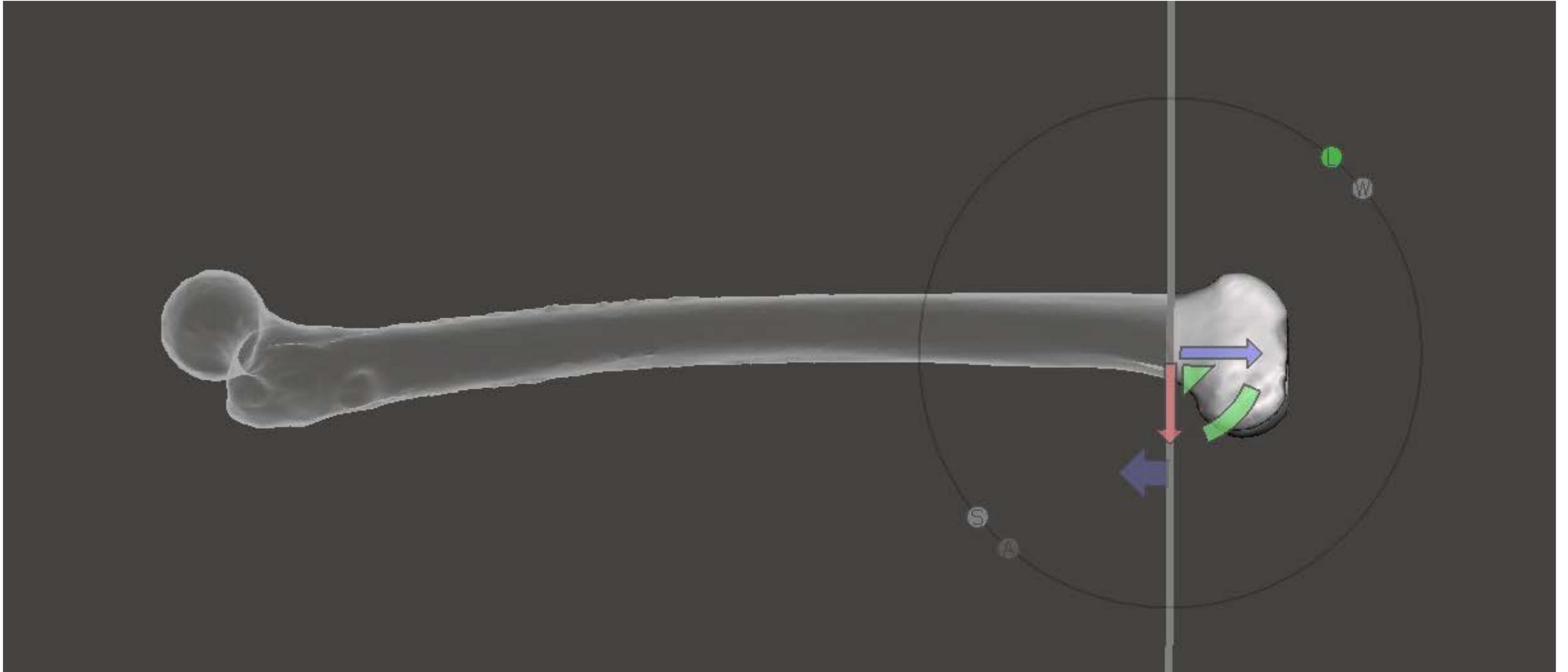


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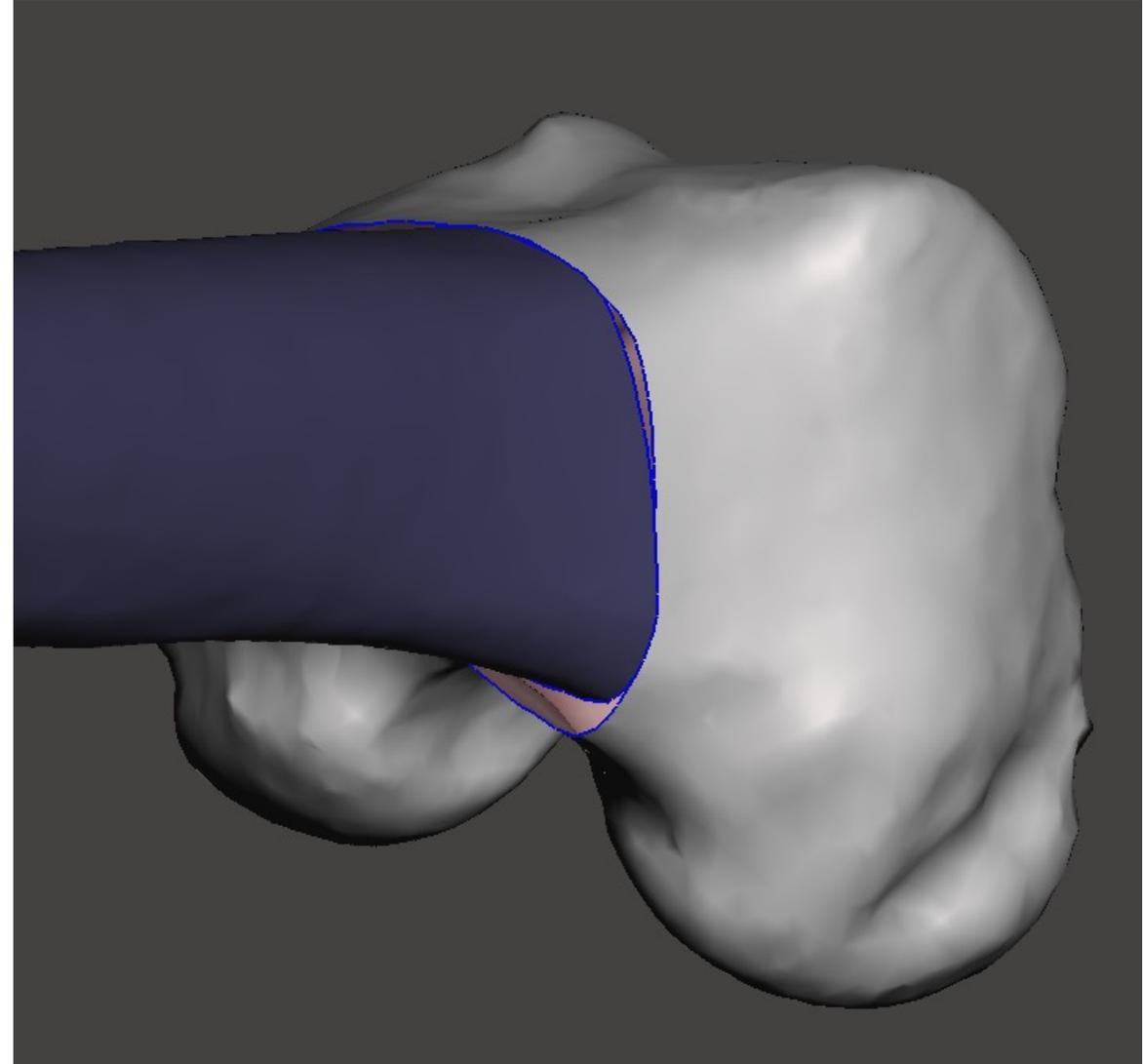
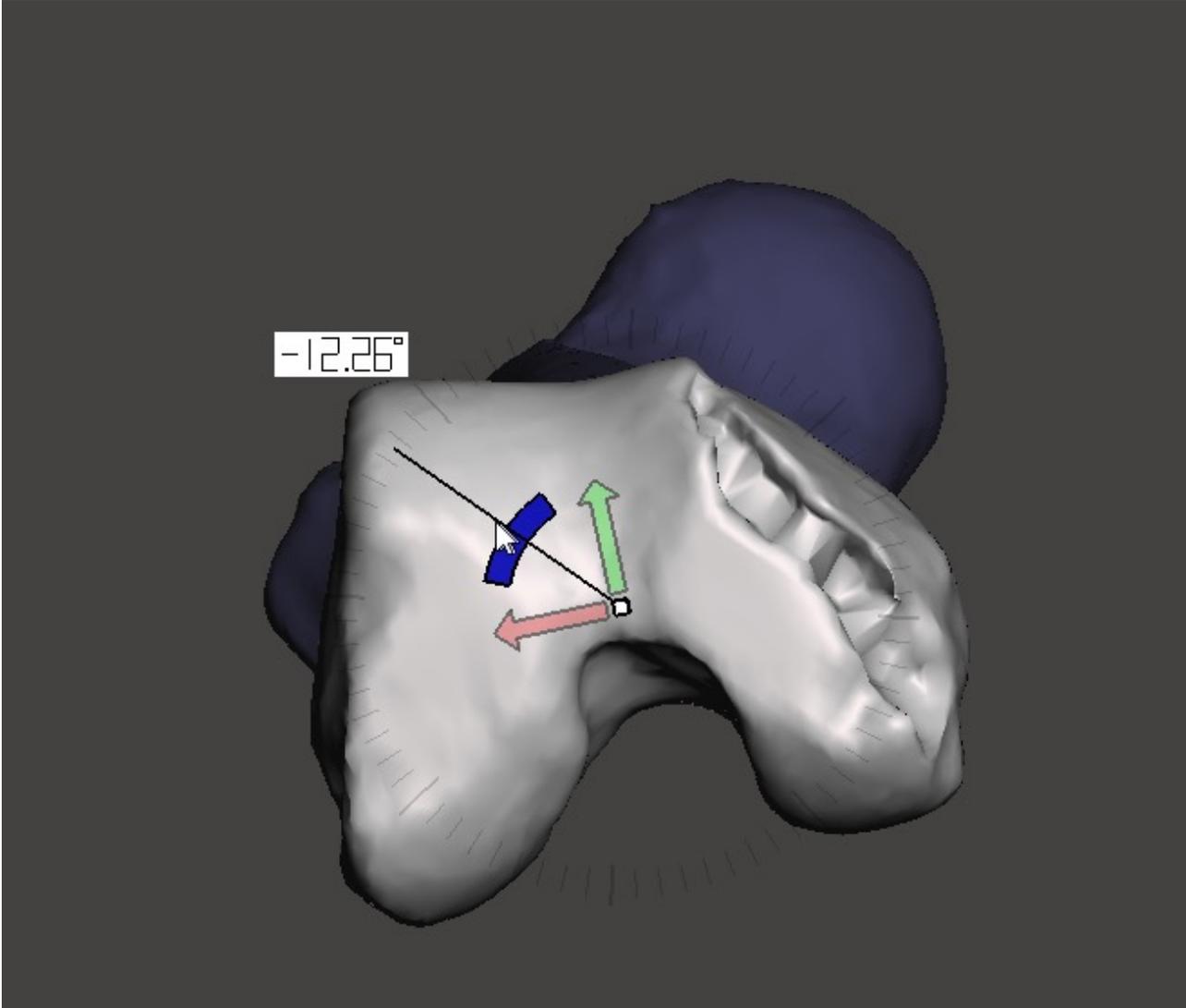


AUTODESK  
MESHMIXER

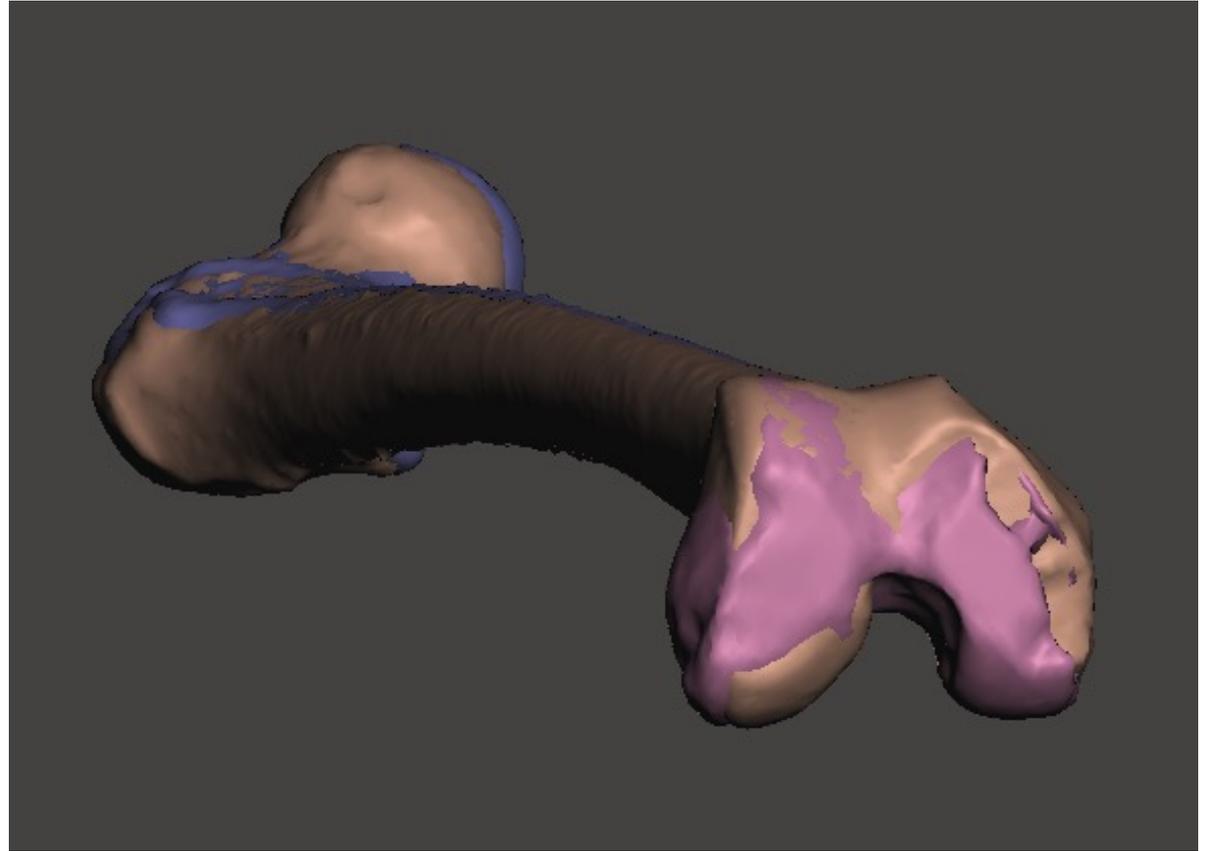
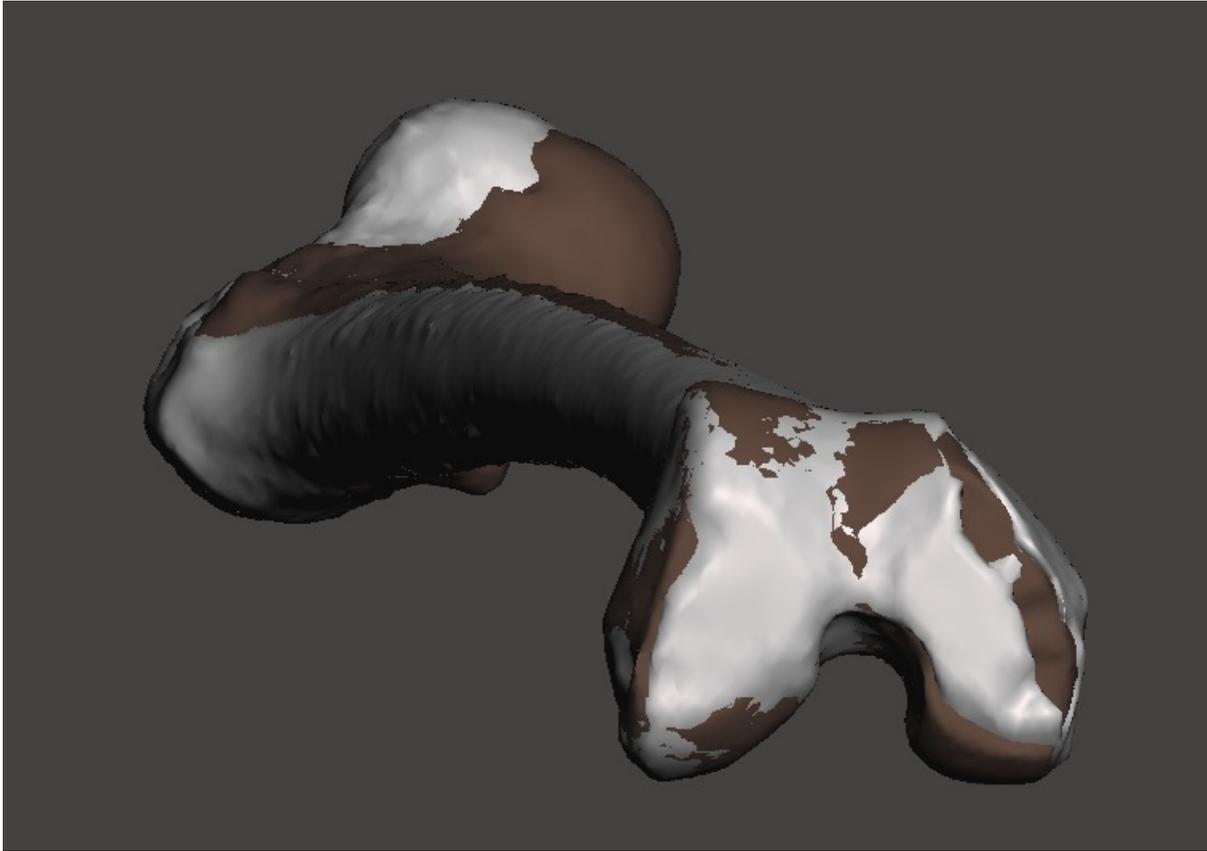
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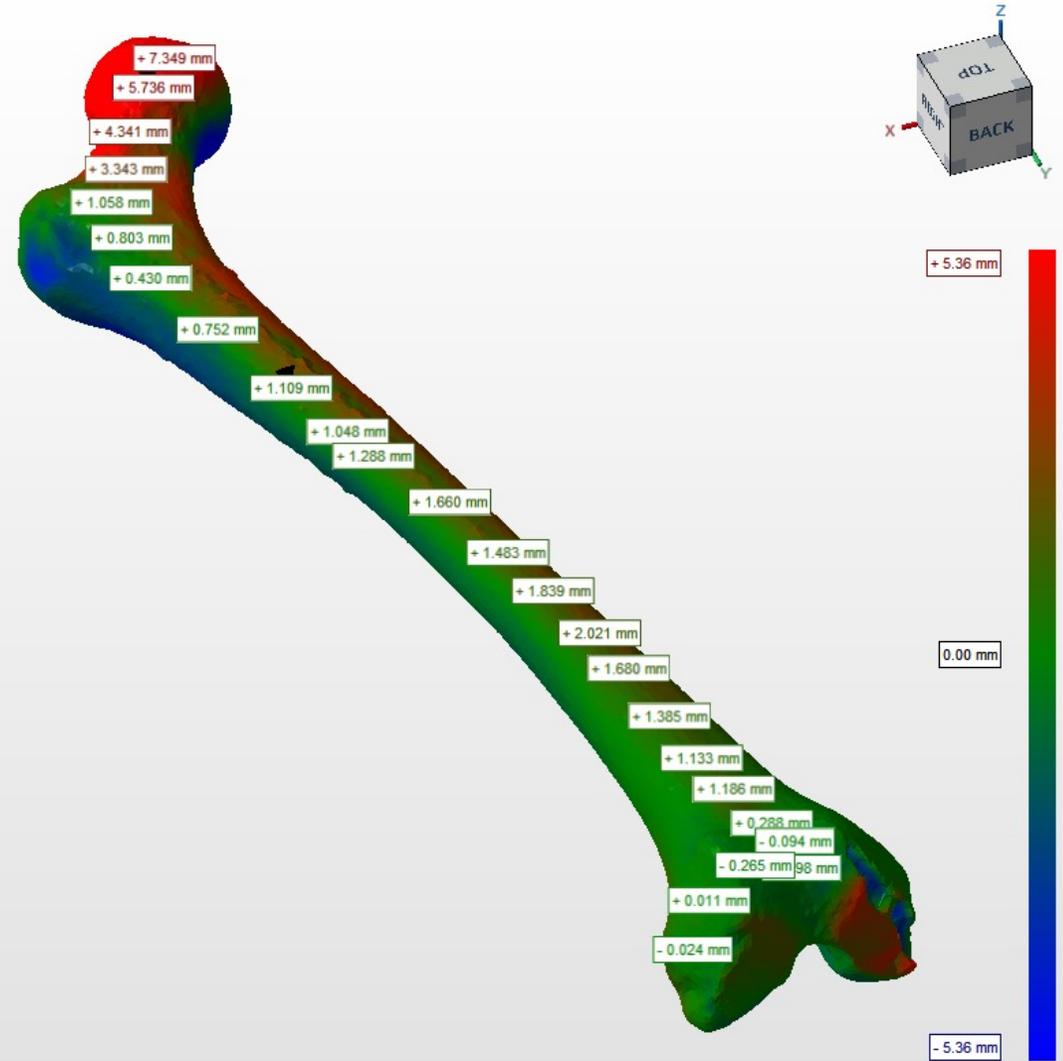
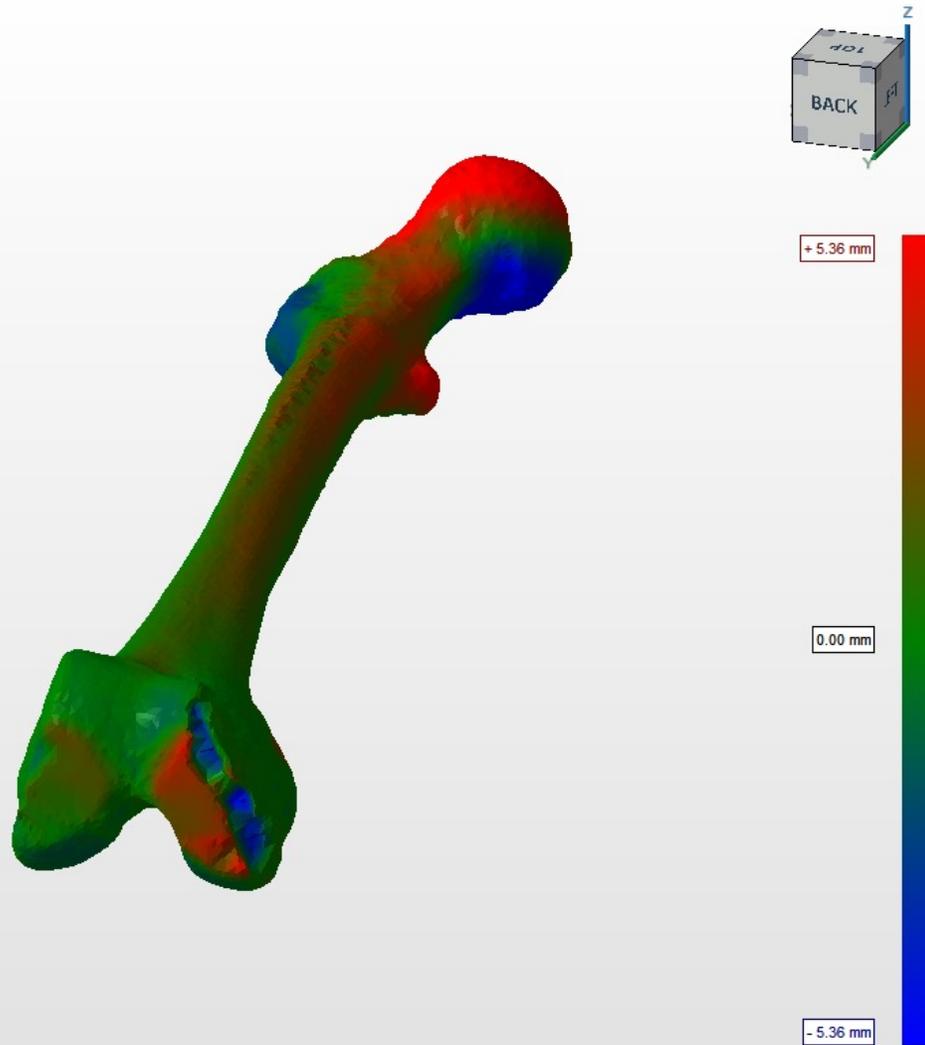
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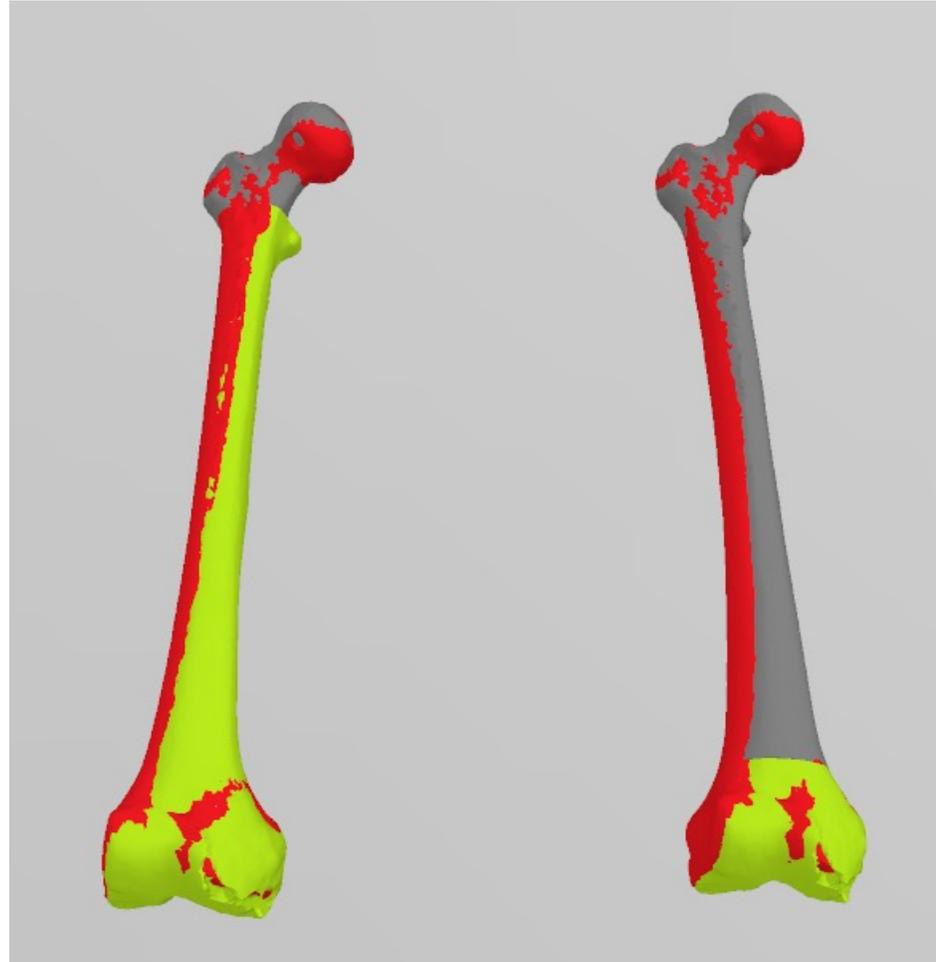
# Papel de la impresión 3D en osteotomías alrededor de la rodilla



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# Papel de la impresión 3D en osteotomías alrededor de la rodilla



## Supracondílea

49784 puntos medidos

Max error: 6.72

Min error: 0.000023

**Media 1.50**

## Intertrocantérea

49697 puntos medidos

Max error: 14,68

Min error: 0.000061

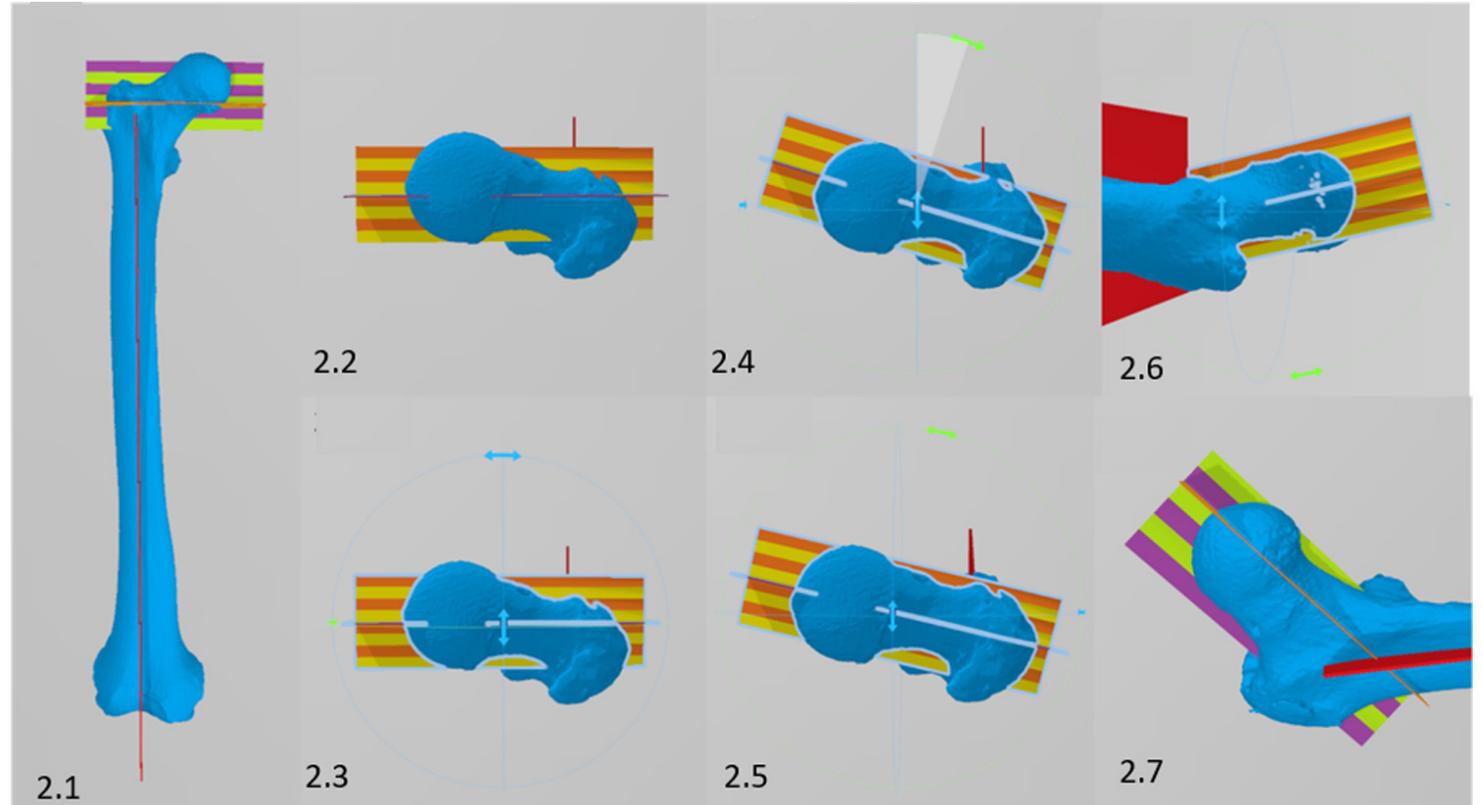
**Media 1.22**



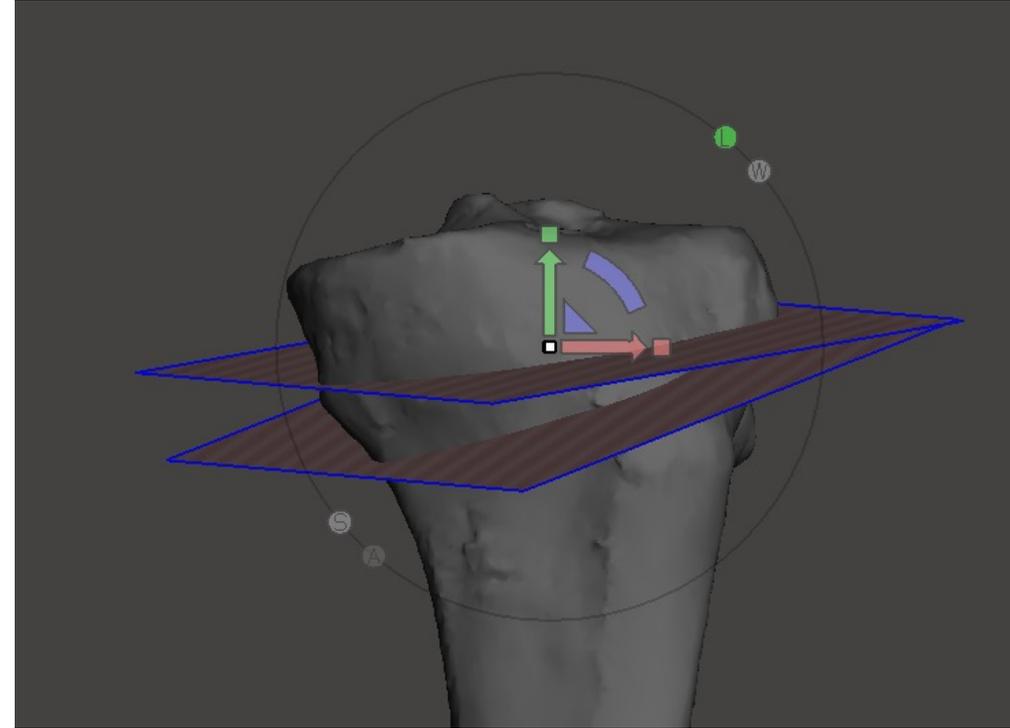
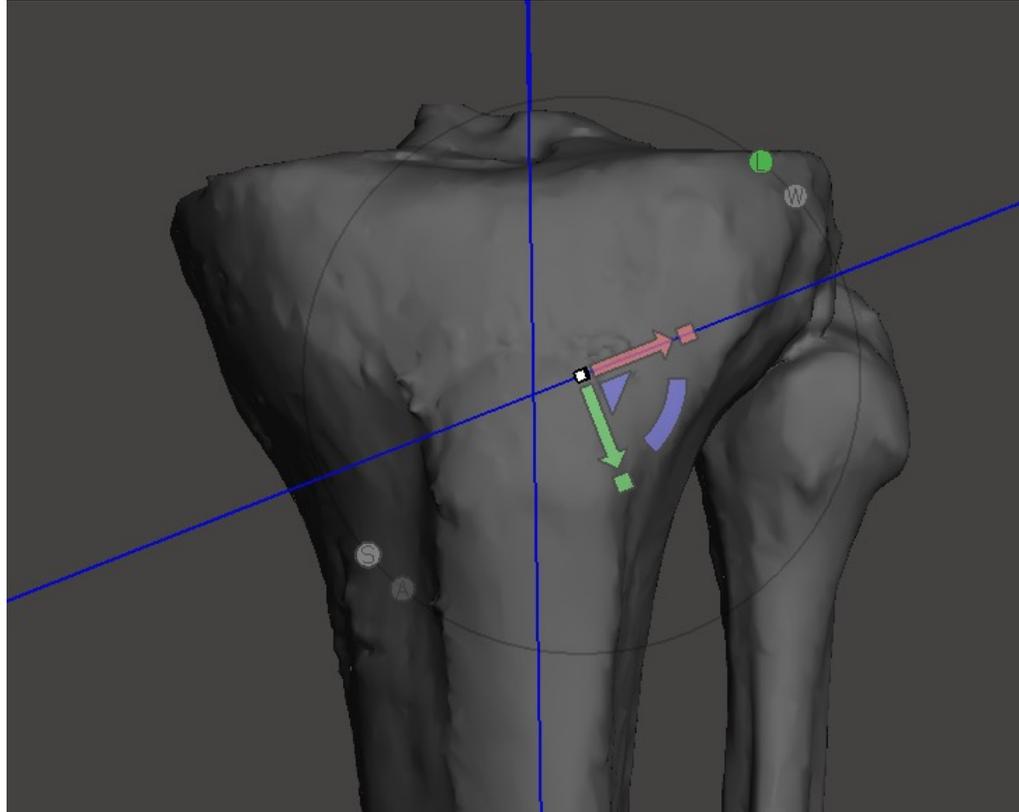
Original

Un método 3D para estimar el efecto de  
osteotomías desrotadoras sobre alteraciones  
torsionales de fémur

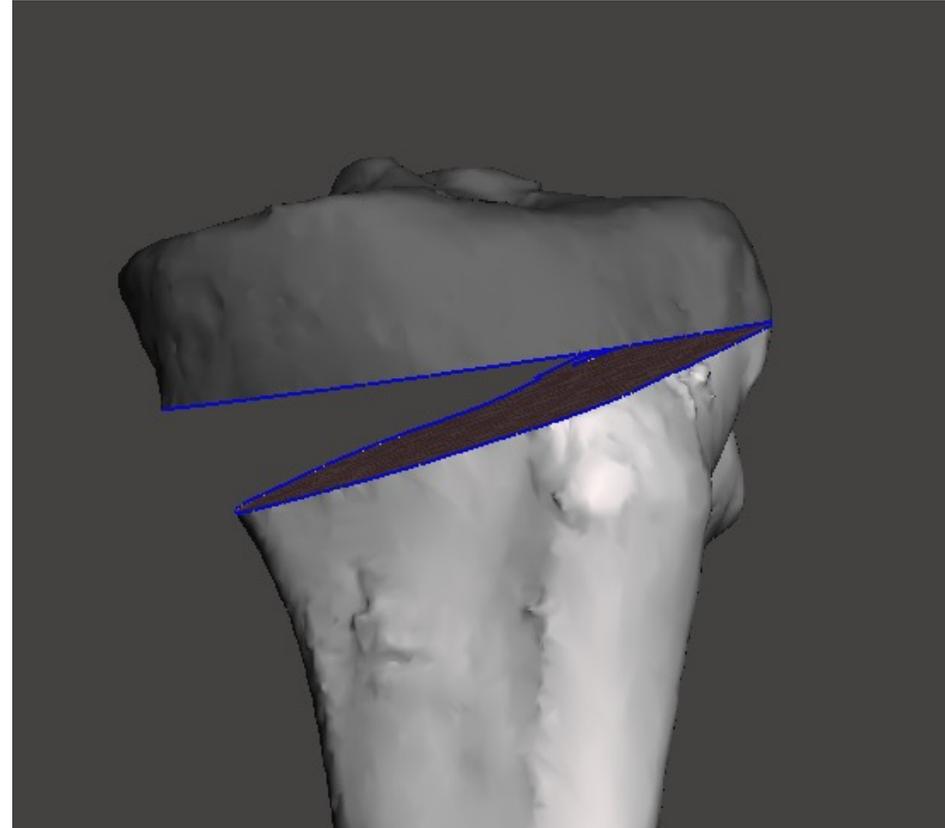
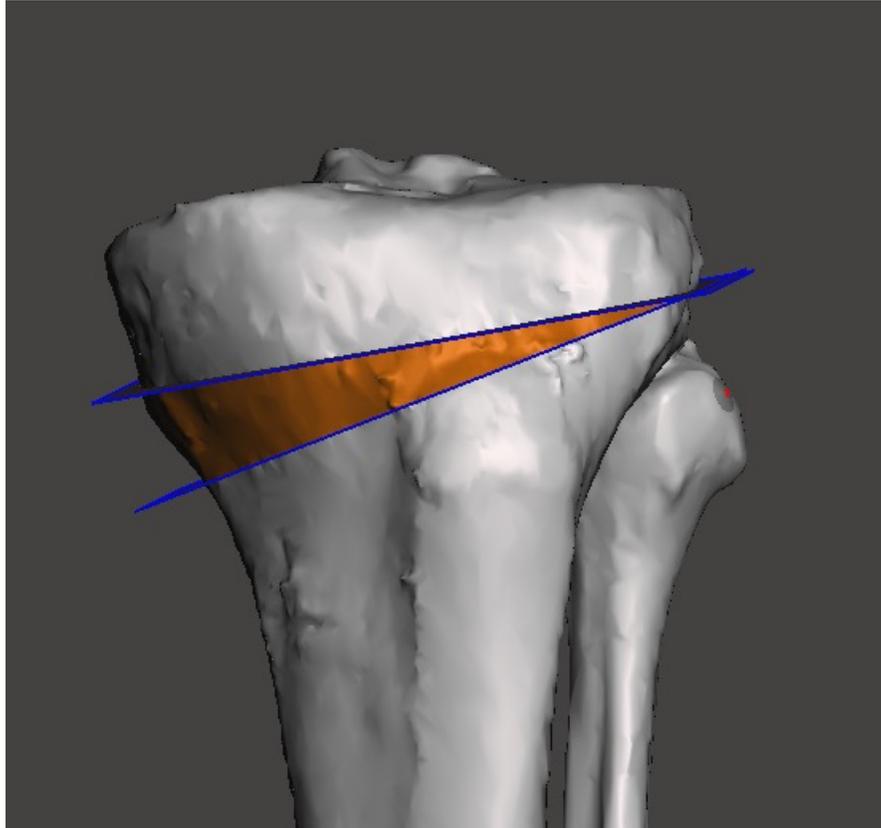
A 3D method to estimate the effect of derotational  
osteotomies over femoral maltorsion



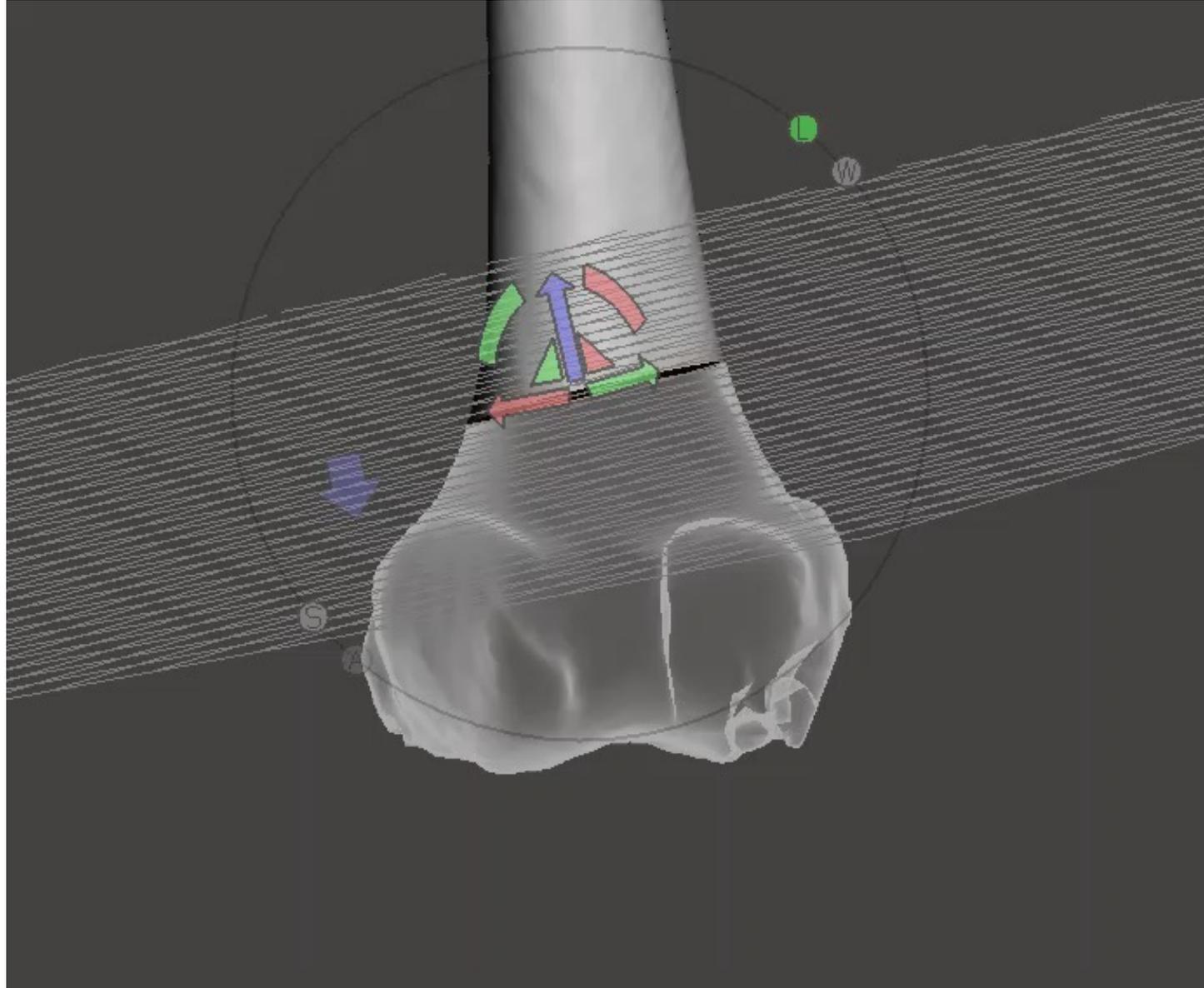
# Papel de la impresión 3D en osteotomías alrededor de la rodilla



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Ley 2017/745 Parlamento Europeo:

*Los centros sanitarios deben tener la posibilidad de fabricar, modificar y utilizar productos a nivel interno y atender así, a escala no industrial, las necesidades específicas de los grupos de pacientes destinatarios*

> [Eur J Trauma Emerg Surg. 2021 Jan 15. doi: 10.1007/s00068-020-01564-1. Online ahead of print.](#)

## Security of 3D-printed polylactide acid piece sterilization in the operating room: a sterility test

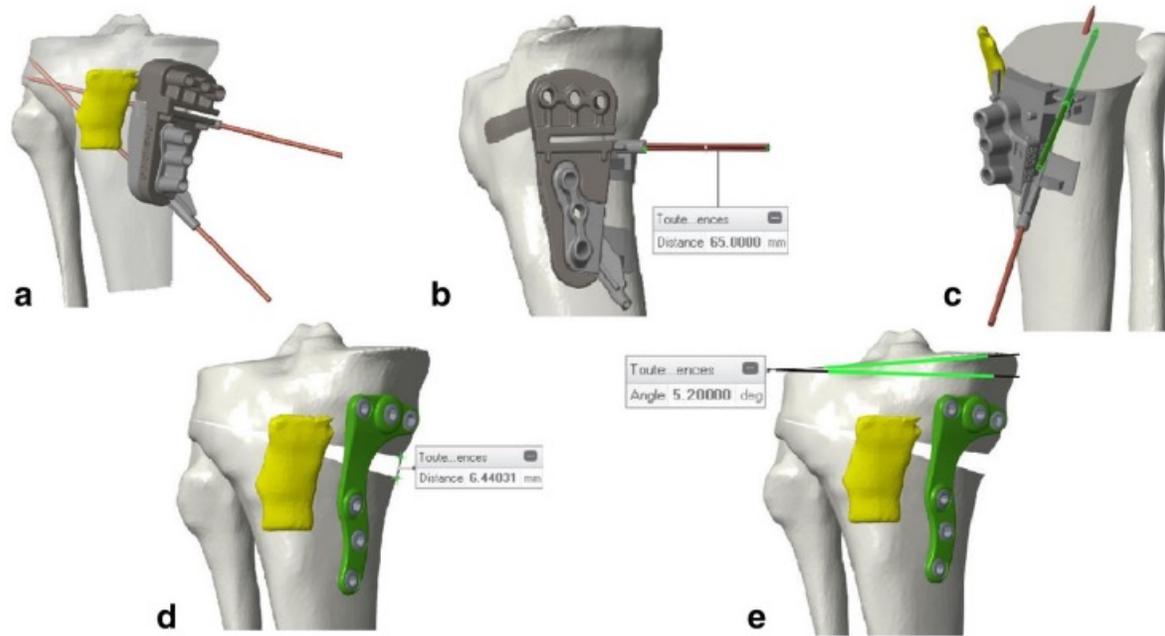
> [Eur J Trauma Emerg Surg. 2021 May 6. doi: 10.1007/s00068-021-01672-6. Online ahead of print.](#)

## Autoclave sterilization of an in-house 3D-printed polylactic acid piece: biological safety and heat- induced deformation

**Table 2** Description of the printing parameters defined in the protocol

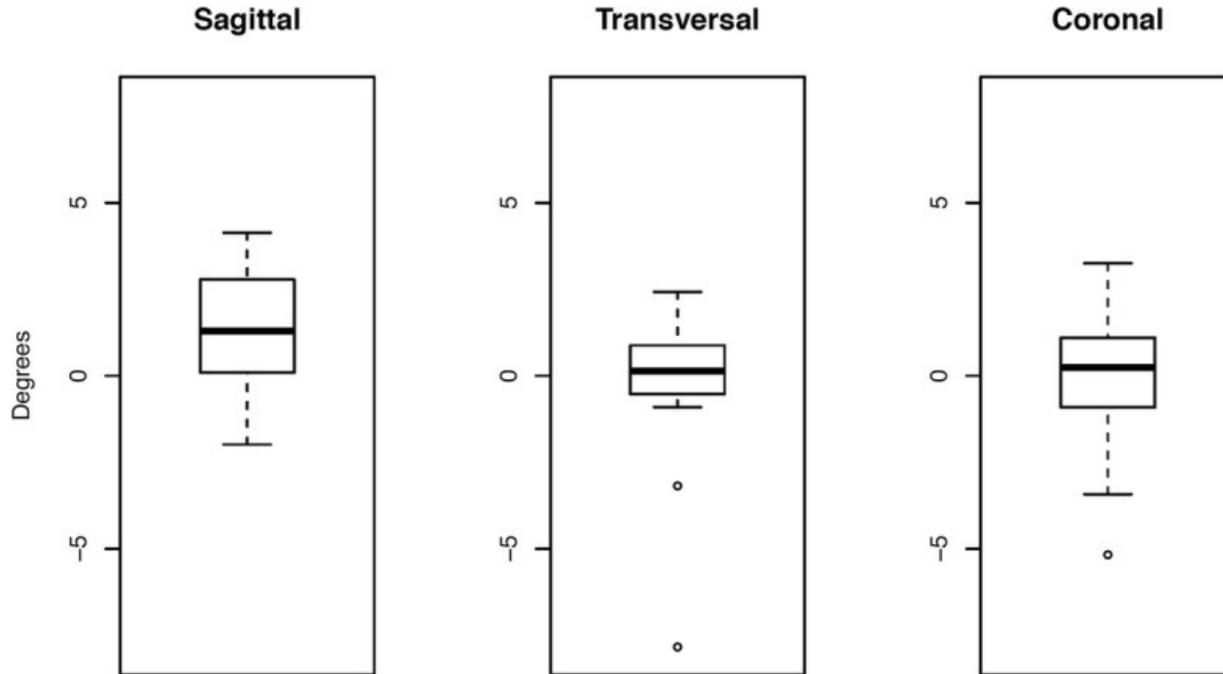
Parameter	Value
Layer height	0.3 mm
Wall thickness	0.8 mm
Wall line count	2
Top/bottom thickness	1.1 mm
Top/bottom layers	4
Nozzle diameter	0.4 mm
Temperature	220 °C
Print speed	50 mm/s
Horizontal expansión	0 mm
Infill density	5%–10%–15%– 20%–25%– 30%
Infill pattern	Gyroid

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**Error máximo: 2º**

# Papel de la impresión 3D en osteotomías alrededor de la rodilla



**Error máximo: 2,3º**

## BMJ Open Patient-specific instrumentation (PSI) Referencing High Tibial Osteotomy Technological Transfer and Education: protocol for a double-blind, randomised controlled trial (PROTECTED HTO Trial)

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Lawrence Chun Man Lau <sup>1,2</sup> Elvis Chun Sing Chui,<sup>1</sup> Jason Chi Ho Fan,<sup>3</sup>  
Gene Chi Wai Man <sup>1</sup> Yuk Wah Hung,<sup>3</sup> Kevin Ki Wai Ho <sup>1</sup> Kwong Yin Chung,<sup>2</sup>  
Samuel Yik Cheung Wan,<sup>3</sup> Jack Wai Wang Chau,<sup>1</sup> Patrick Shu Hang Yung,<sup>1</sup>  
Mohit Bhandari<sup>4</sup>

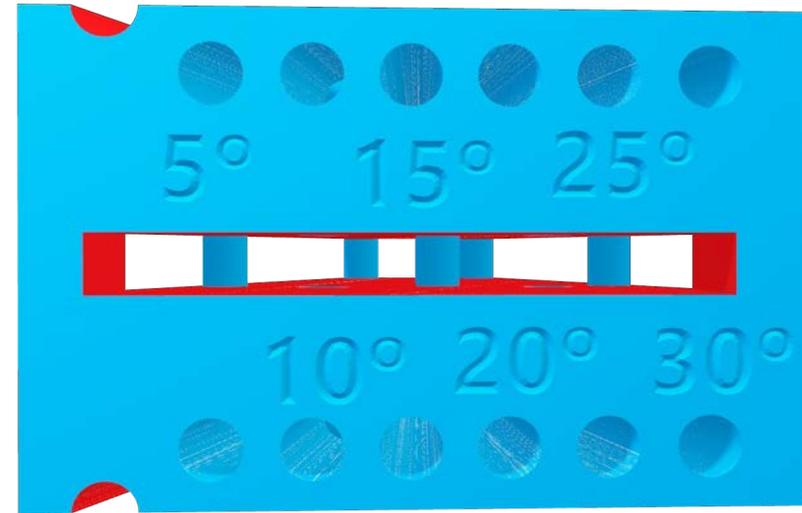
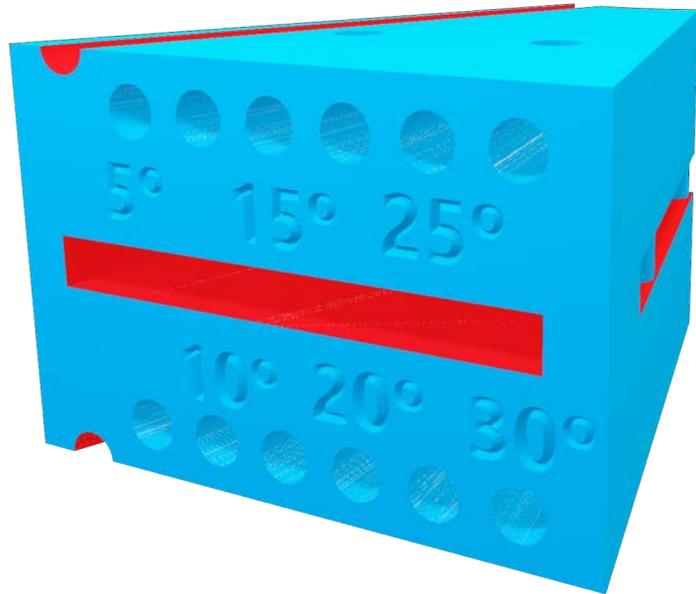
Lau LCM, Chui ECS, Fan JCH, Man GCW, Hung YW, Ho KKW, Chung KY, Wan SYC, Chau JWW, Yung PSH, Bhandari M. Patient-specific instrumentation (PSI) Referencing High Tibial Osteotomy Technrandomisedological Transfer and Education: protocol for a double-blind, controlled trial (PROTECTED HTO Trial). BMJ Open. 2021 Feb 5;11(2):e041129. doi: 10.1136/bmjopen-2020-041129. PMID: 33550239; PMCID: PMC7925873.



*Si puedes soñarlo, puedes hacerlo*

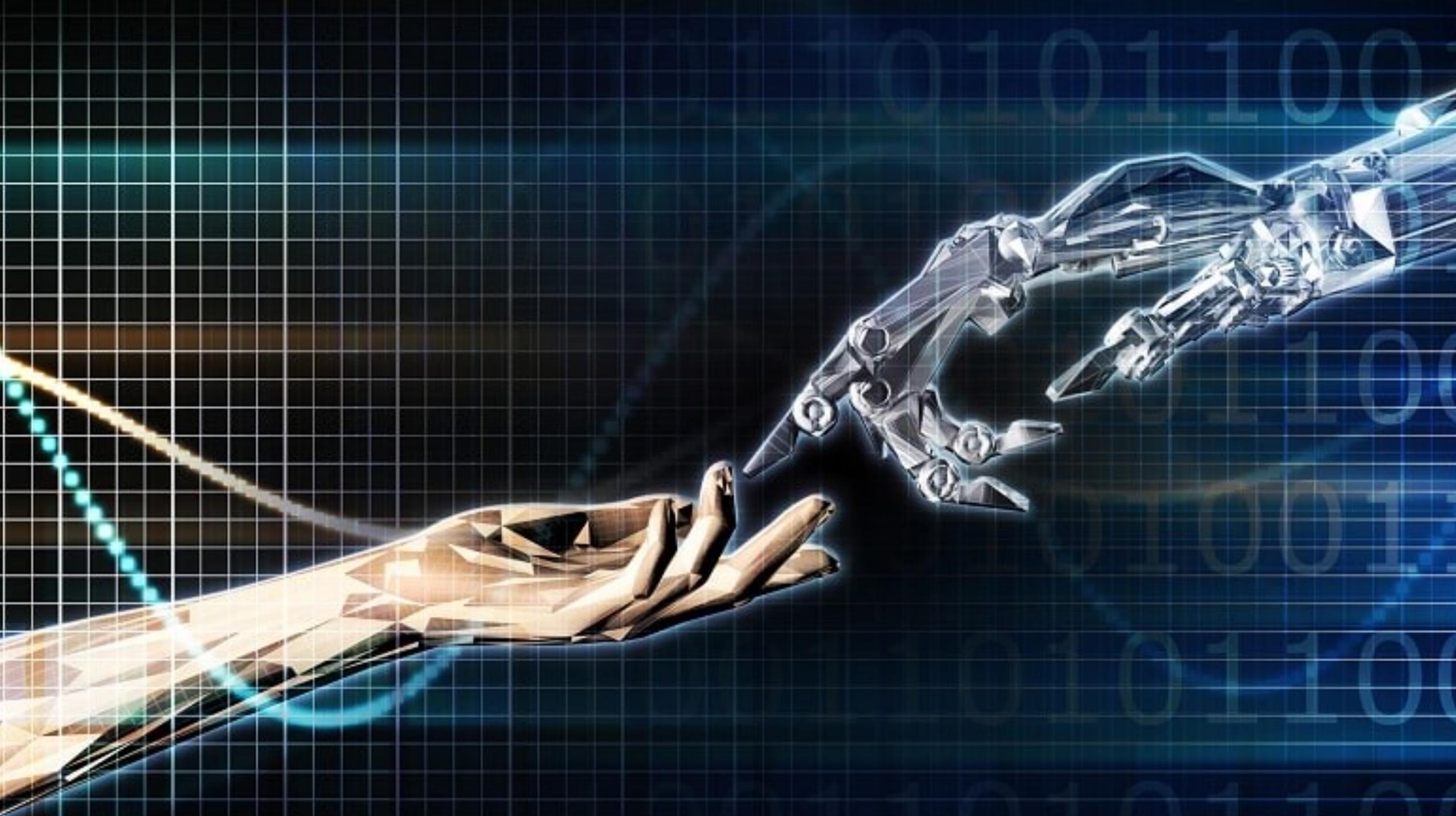
*Want Disney*

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Gracias



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