

## Technology Offer

### BoneTrack3D - target system for immediate evaluation of precise positioning of fixation elements in 3D-printed models

#### Introduction

Evaluating the exact positioning of a guide wire in a 3D-printed training model, e.g. placement of a K-wire in reverse shoulder arthroplasty (RSA), is often very complicated and requires complex methods such as CT imaging, which are time-consuming and expensive. The aim of the inventors was to develop a 3D-printable three-dimensional target system for training purposes, which enables a quick and resource-saving evaluation of the exact positioning in 3D-printed models.

#### Invention

With the invention a method of providing modified model data of an object is provided, comprising: obtaining model data of the object; positioning at least one processing line through the object, wherein the processing line represents a trajectory of a tool to be introduced into the object; positioning a first target disk and a second target disk, spaced apart from one another, in the object, along the processing line; defining an exchange volume comprising the first target disk, the second target disk, a portion of a surface of the object surrounding the intersection of the processing line with the surface of the object, wherein the exchange volume is configured for attachment to the object; and obtaining the modified model data for the manufacture of a modified object, wherein the modified model data comprises model data for the exchange volume and model data for the remaining part of the object.

#### Advantages of the invention

We provide a time and resource-saving method that can be used in the training of surgeons or by companies to demonstrate the usability of their own navigation systems and new surgical methods including new instruments. It's possible to adapt the application in numerous medical fields but also other areas are conceivable.

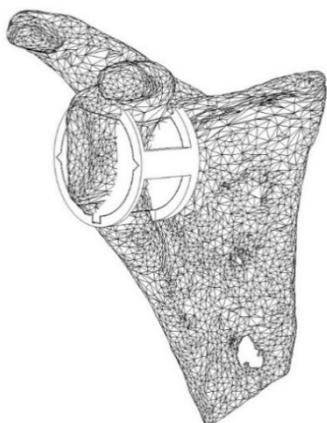


Figure 1: A modified object including a main body and an exchange volume configured for attachment to the main body, wherein the exchange volume comprises a first target disk and a second target disk, spaced apart from one another.

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**Areas of application**  
surgical training, object positioning

#### Keywords

surgical training, 3D-printed training model, 3D target system

#### Development Status

Prototype

#### Commercial Opportunity

The technology is offered for in-licensing and co-development

#### Patent Status

Application filed in Europe

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