

# 3D Models

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October 26, 2017

## 1 PRIORITIZING THE IMPLEMENTATION

A Need / Want / Nice to have list was created to scope the project and to prioritize essential features for the evaluation. The needs in this list constitutes to the minimum implementation requirements and contains the most important features and functionalities to test the system qualitatively and quantitatively.

**Need Want Nice to have**

## 2 TOOLS USED

Various programs were used to recreate the operating theatre in 3D. The scene layout was created in Unreal Engine 4 from the physical model described in Section ???. Unreal Engine 4 was chosen over Unity as implementation of multi-player in virtual reality proved easier. The 3D models in the scene was created using Autodesk Maya and 3DS Max. These programs support box modelling which was used to shape all the objects. Materials were added later when each of the objects were imported to Unreal Engine 4. They were kept simple to improve performance and visual simplicity.



Figure 2.1: Logos of the tools used

### 3 DA VINCI ROBOT

How the da Vinci robot was made and how the IK handles was implemented

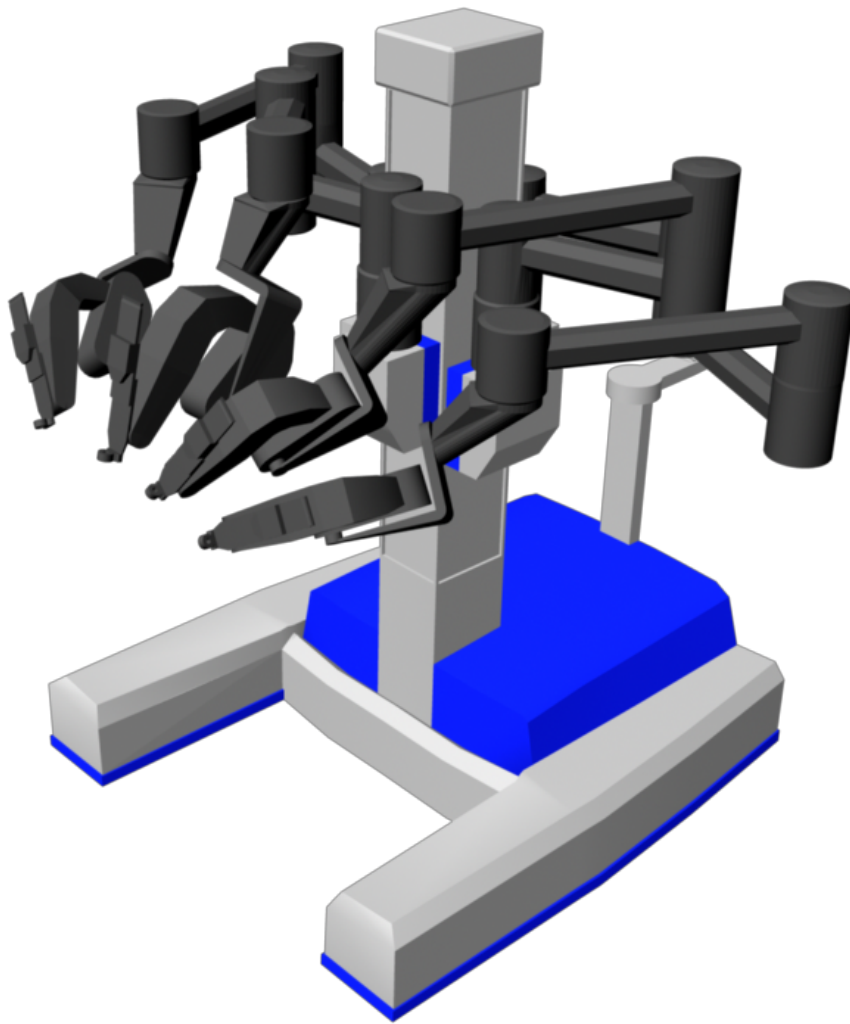


Figure 3.1: The da Vinci Robot made in 3Ds Max

#### 4 OPERATING THEATRE IN VIRTUAL REALITY

Insert screenshots and write about the final room in the scene.

#### 5 PROBLEMS ENCOUNTERED

IK handles in UNREAL ENGINE.