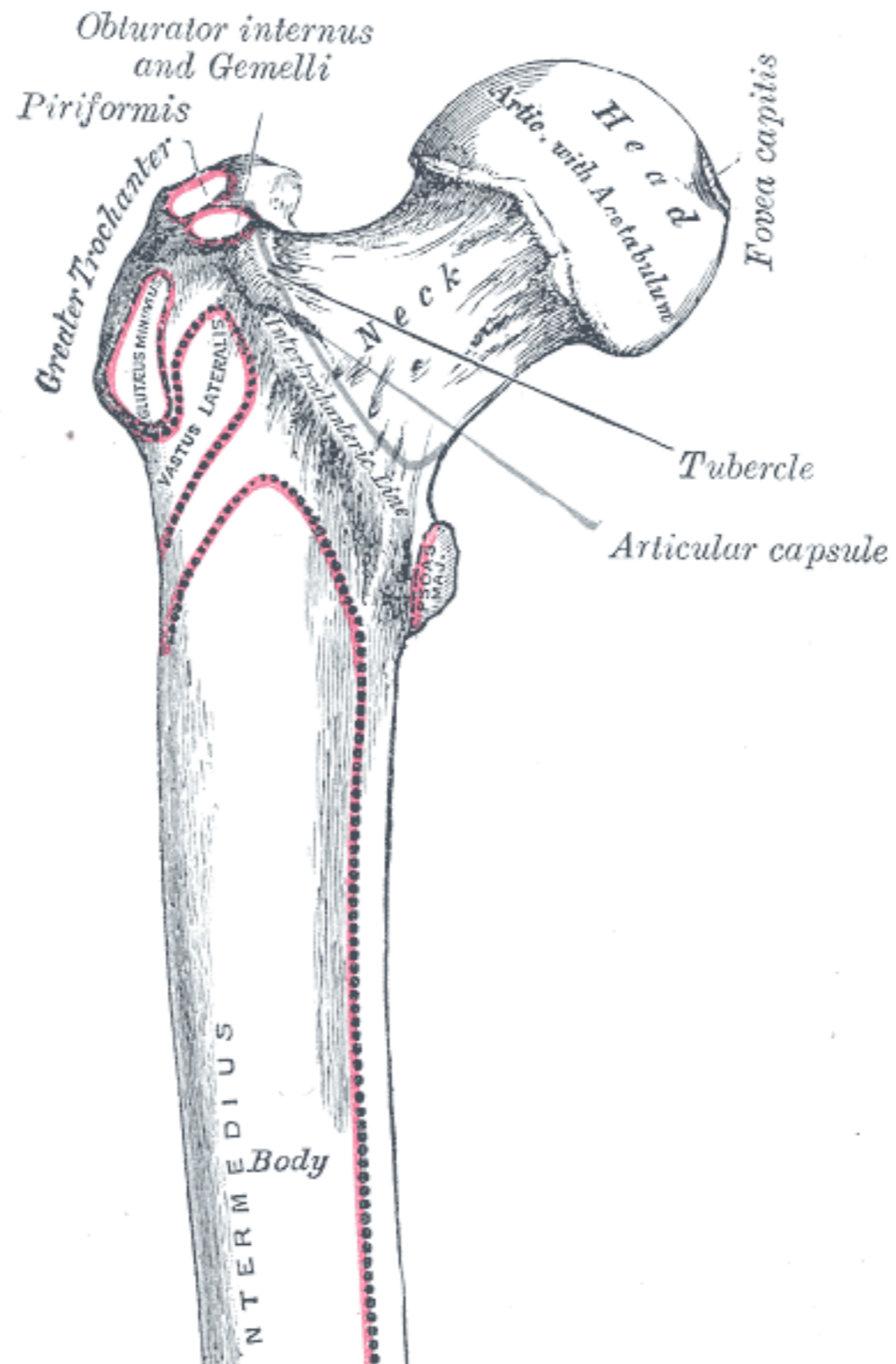
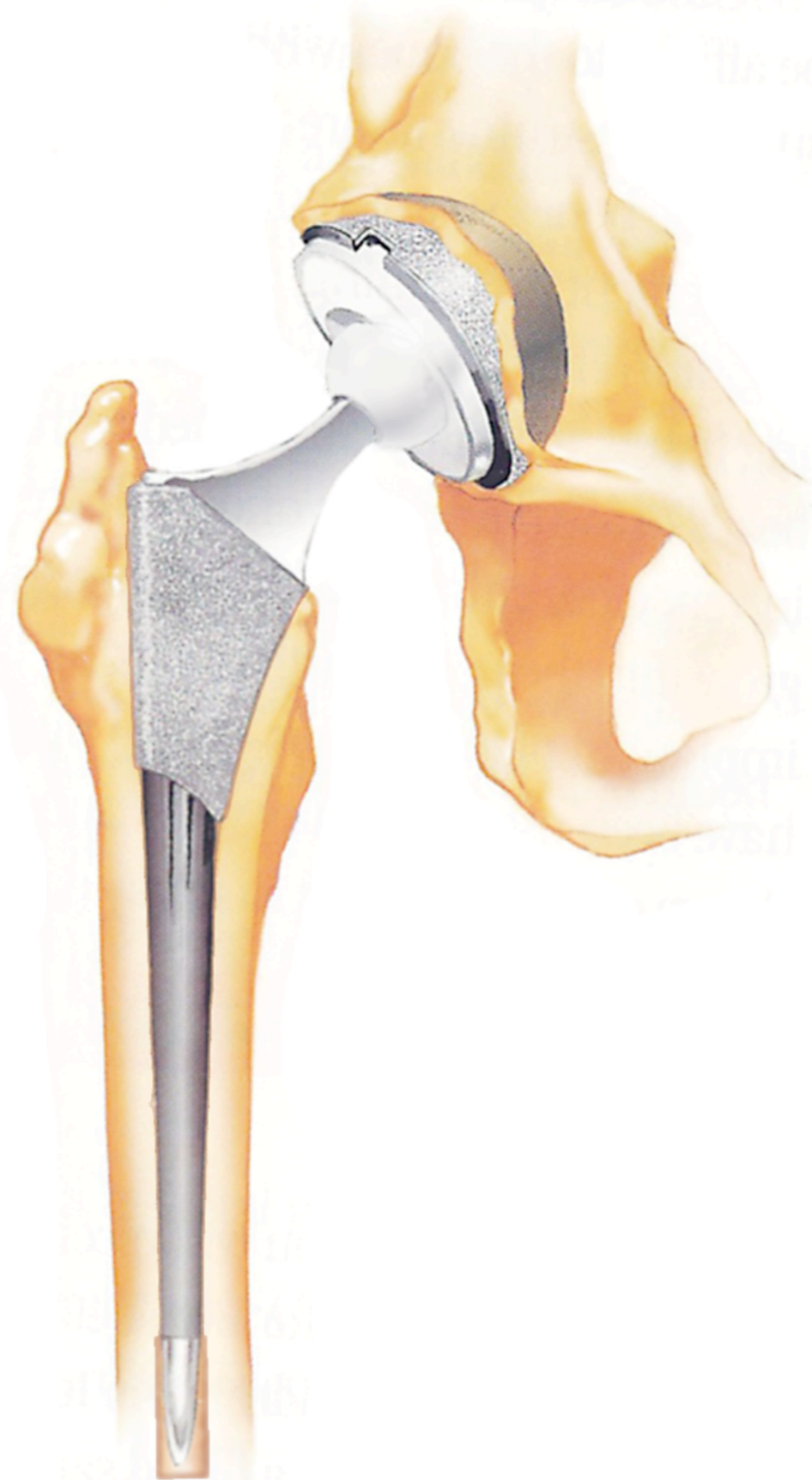
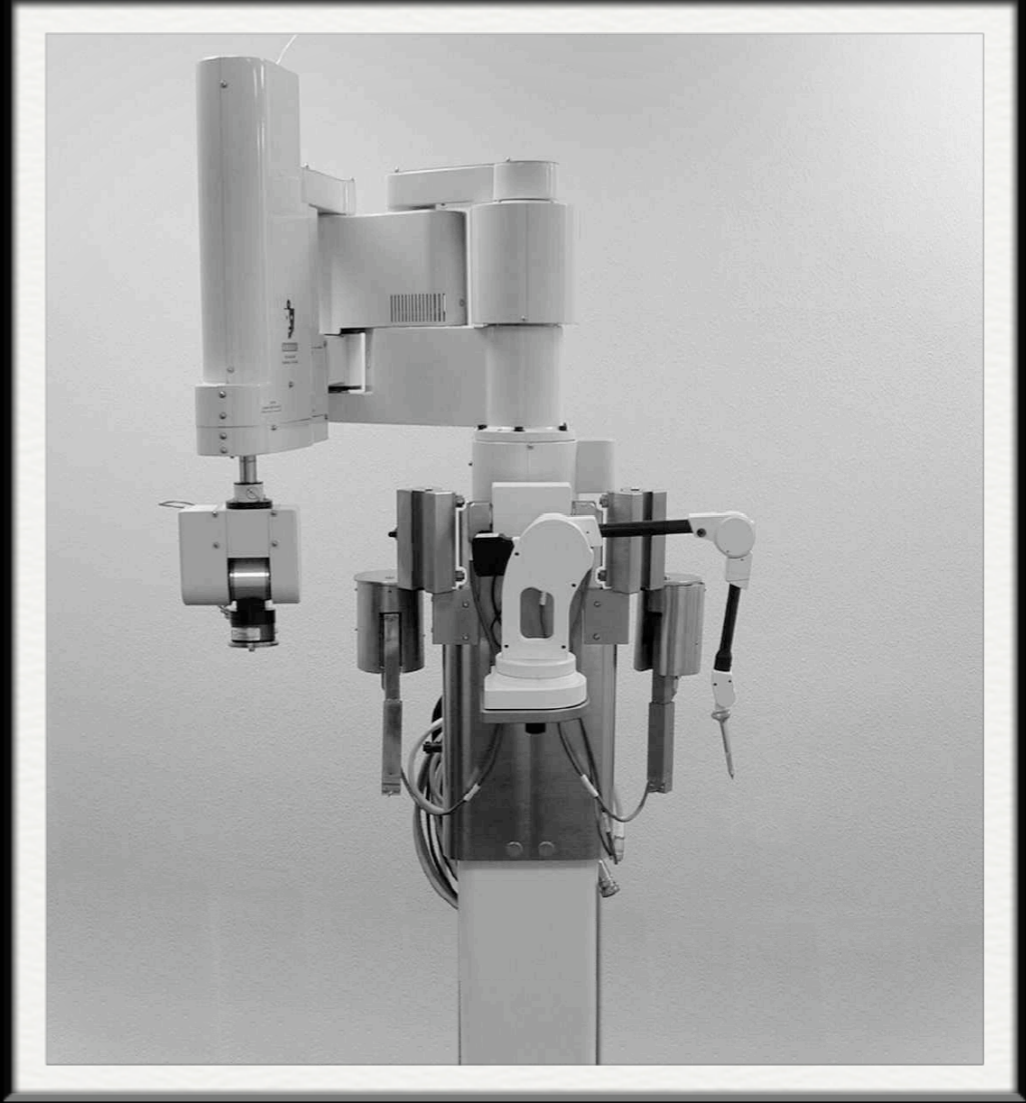
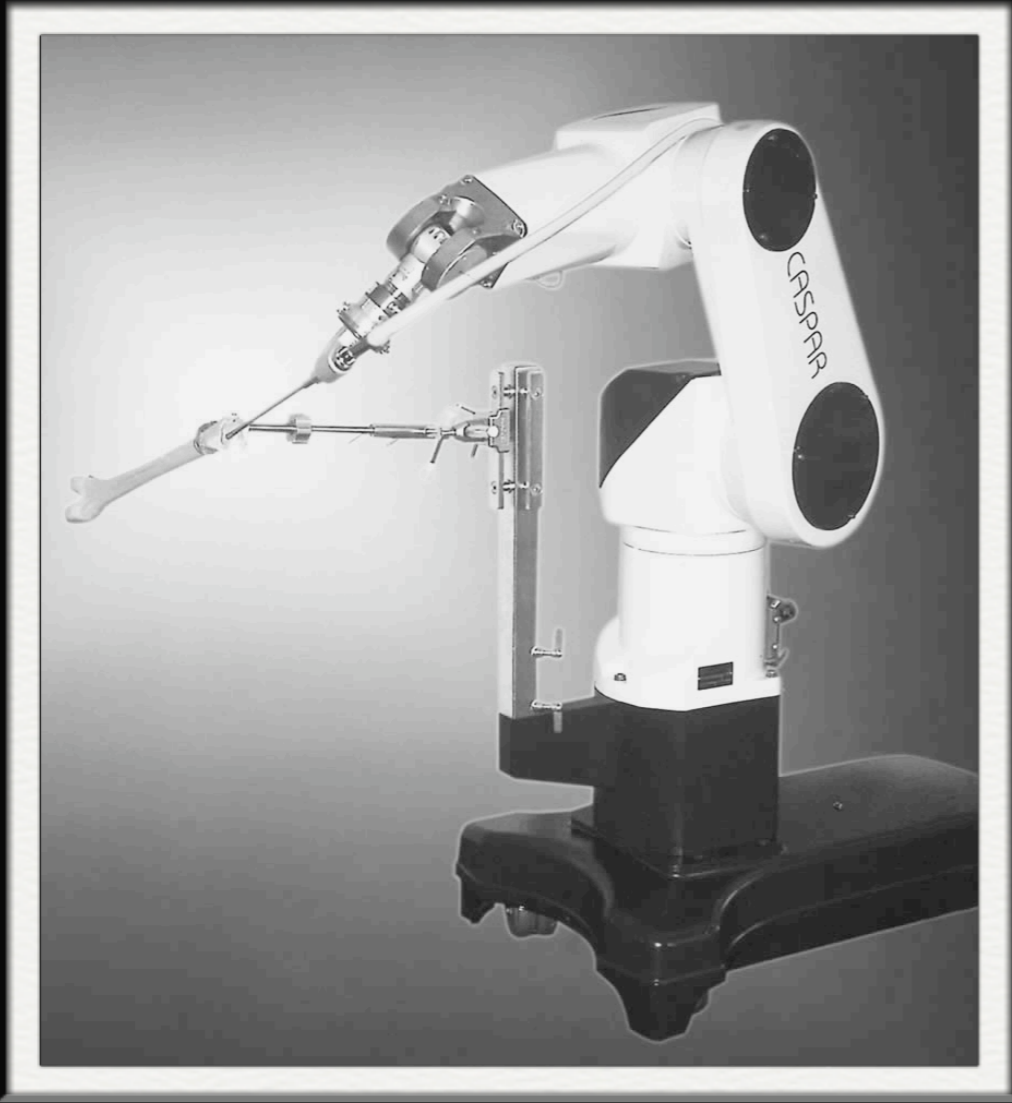


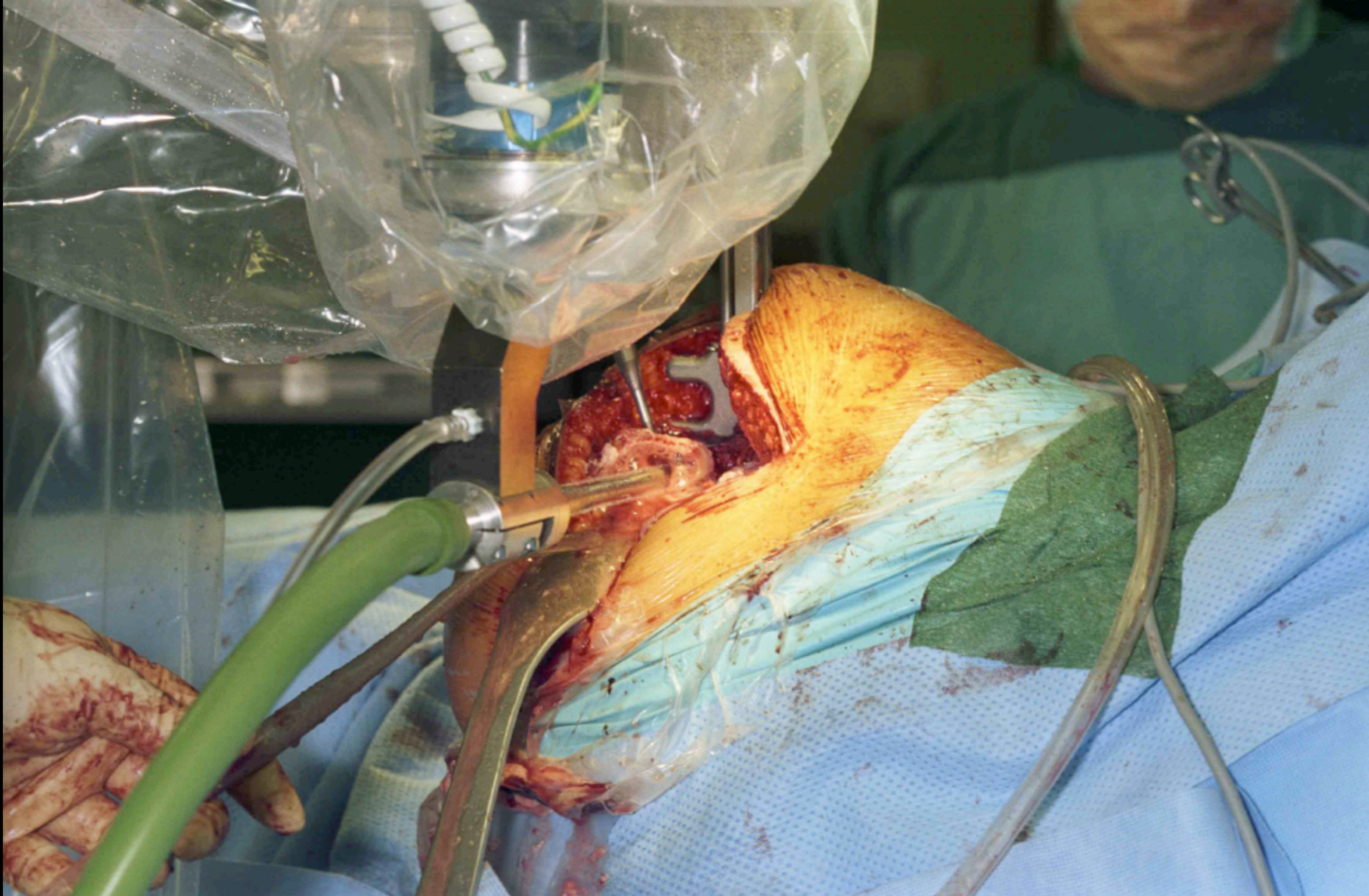
150.000 Operations / year











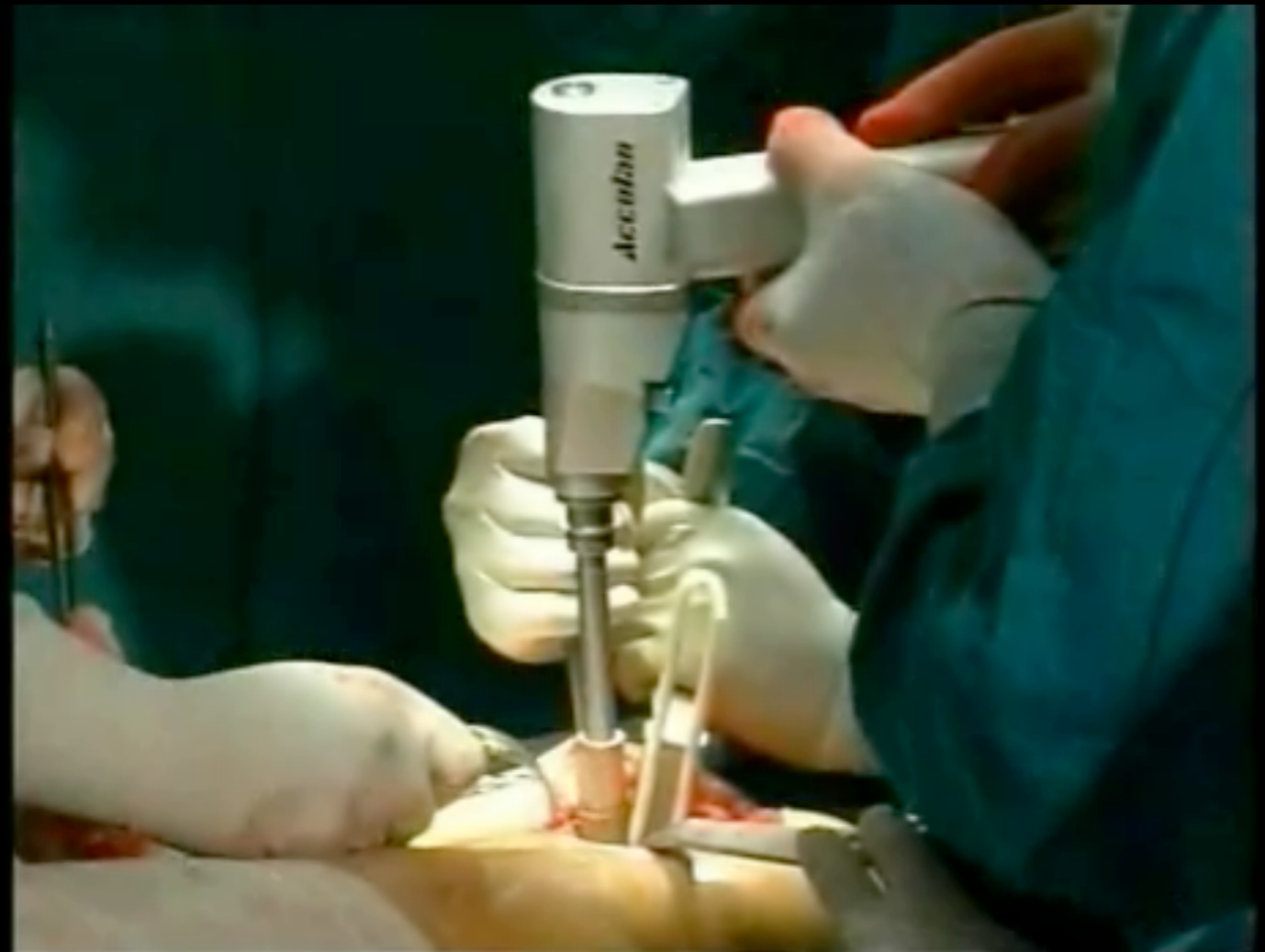
Standardized hip operation

incision

force

tools

precision



Video from Aesculap, surgeon Prof. F. Pipino

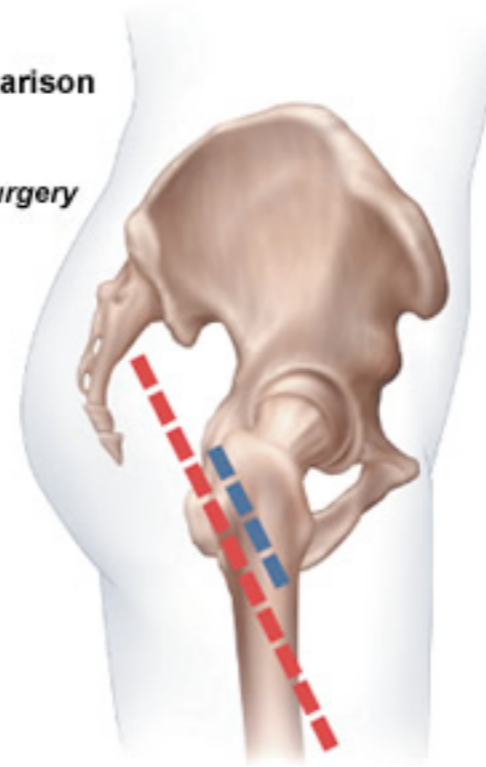
Hip Replacement Incision Comparison

Zimmer MIS™ Mini-Incision

Hip Replacement Vs. Traditional Surgery

■ Mini-Incision procedure
(2½ to 3½ inches)

■ Traditional surgery
(10 to 12 inches)



Minimal invasive



Automatisierte Werkzeuge
auf Roboterbasis

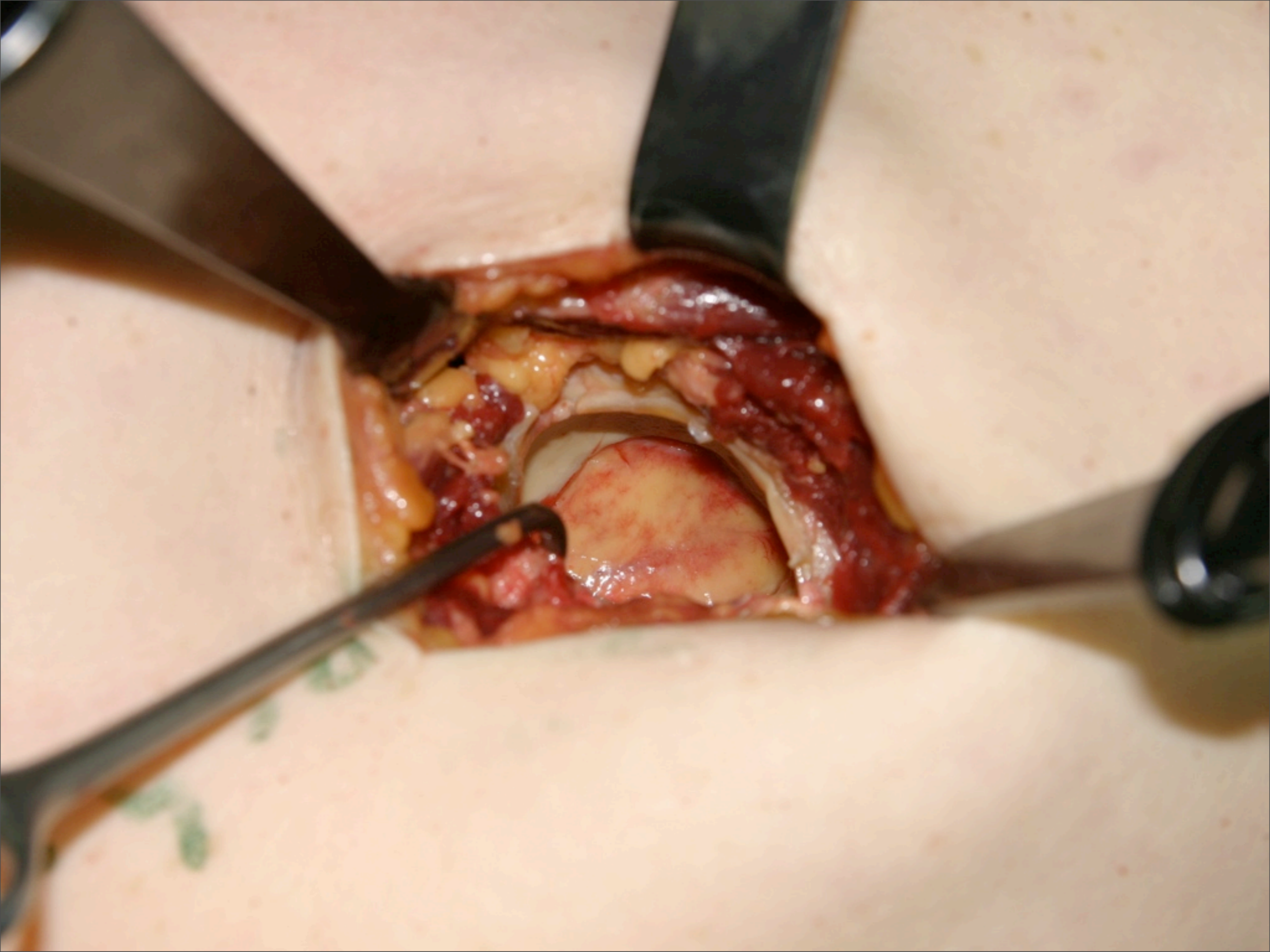
+



Minimalinvasiver
Zugang

Project aim

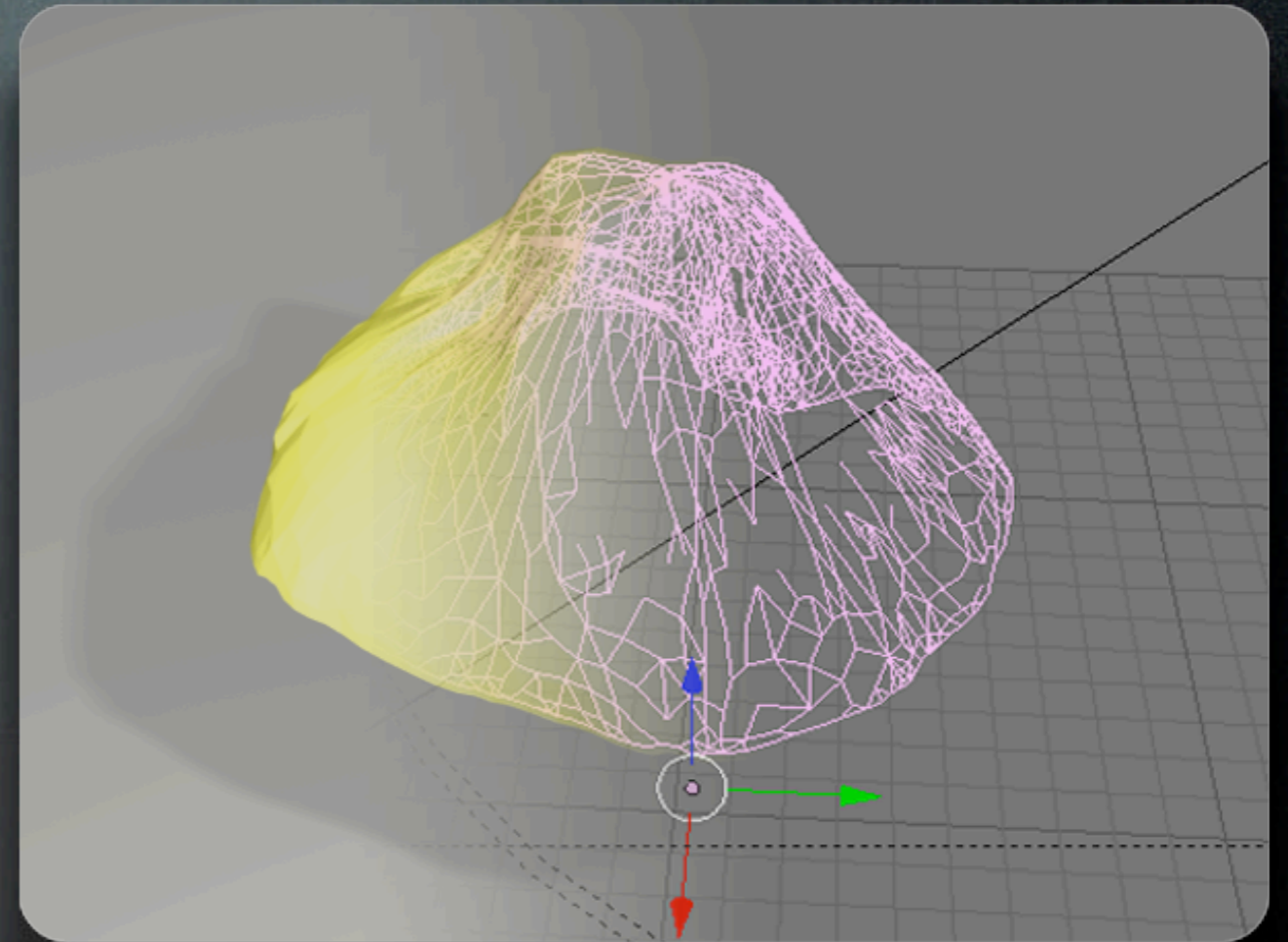


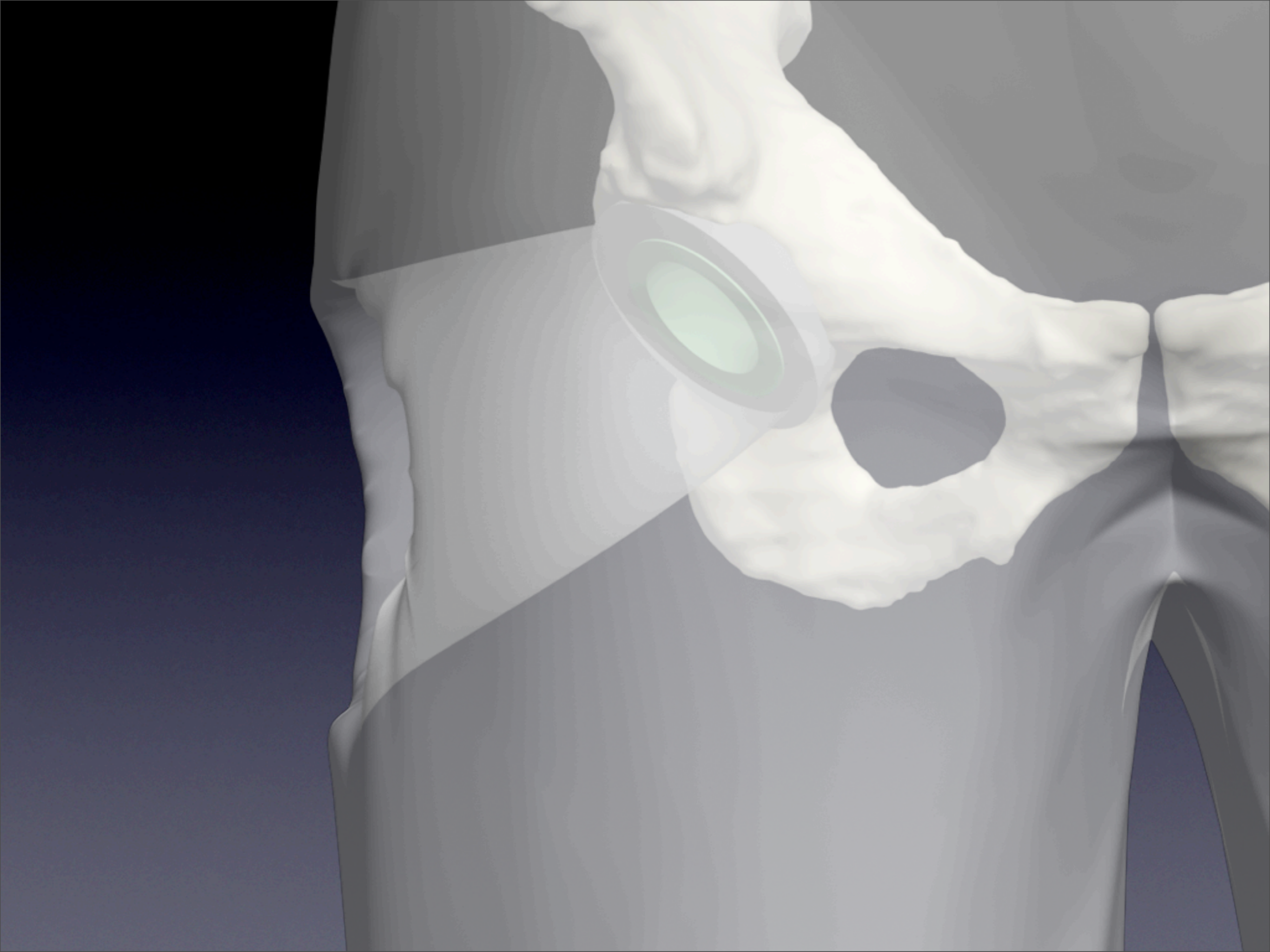


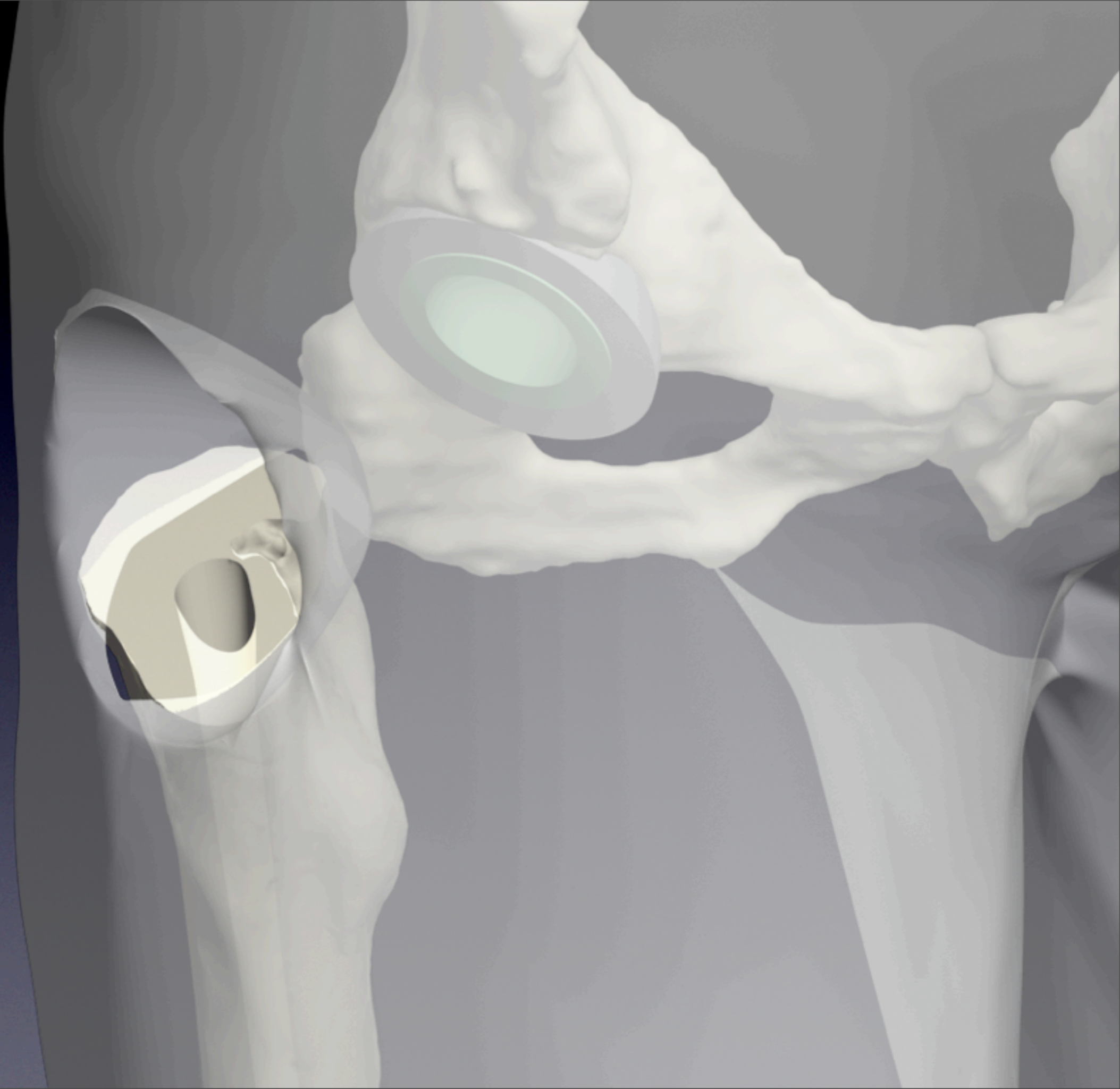
Volume model of access

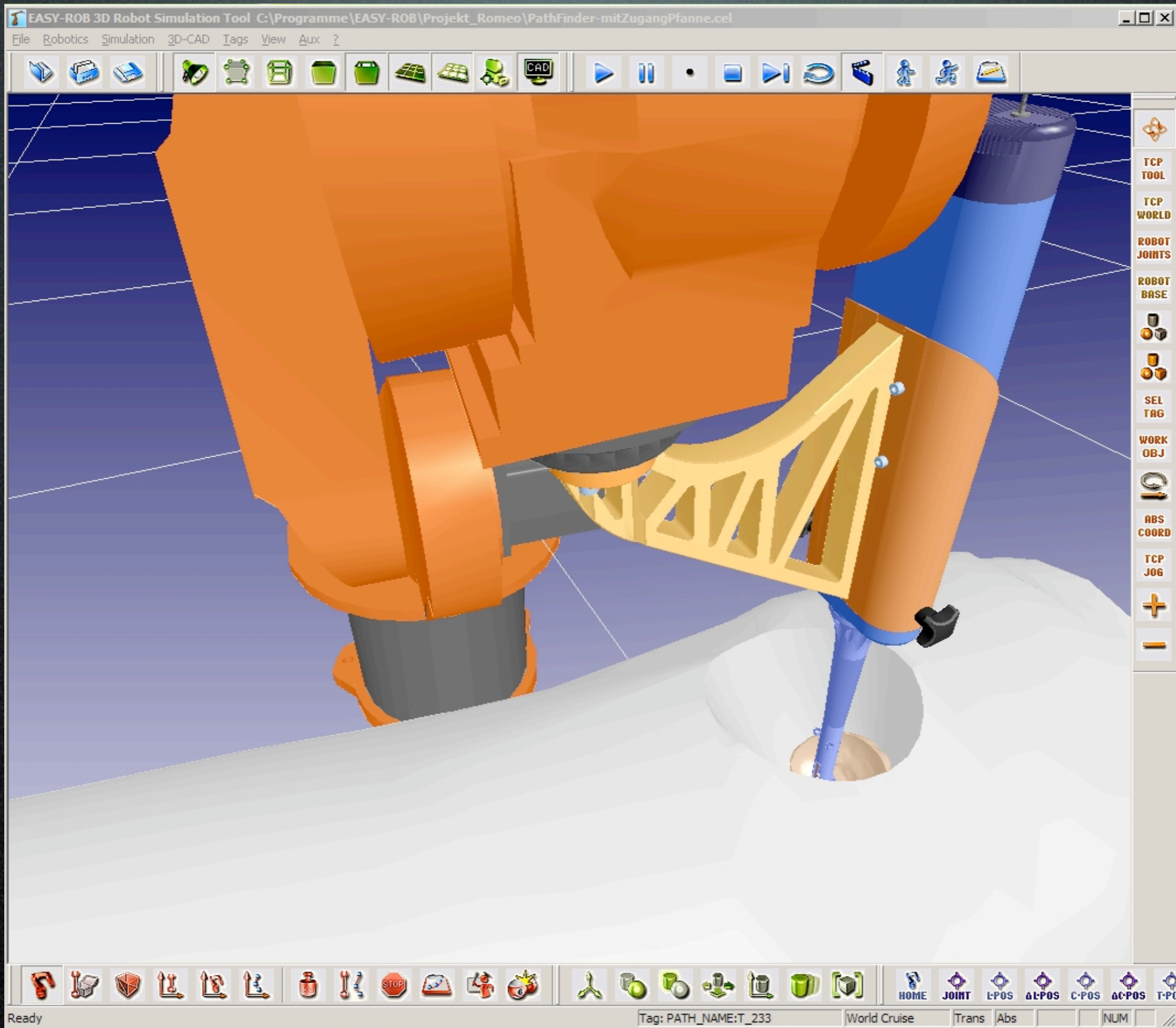


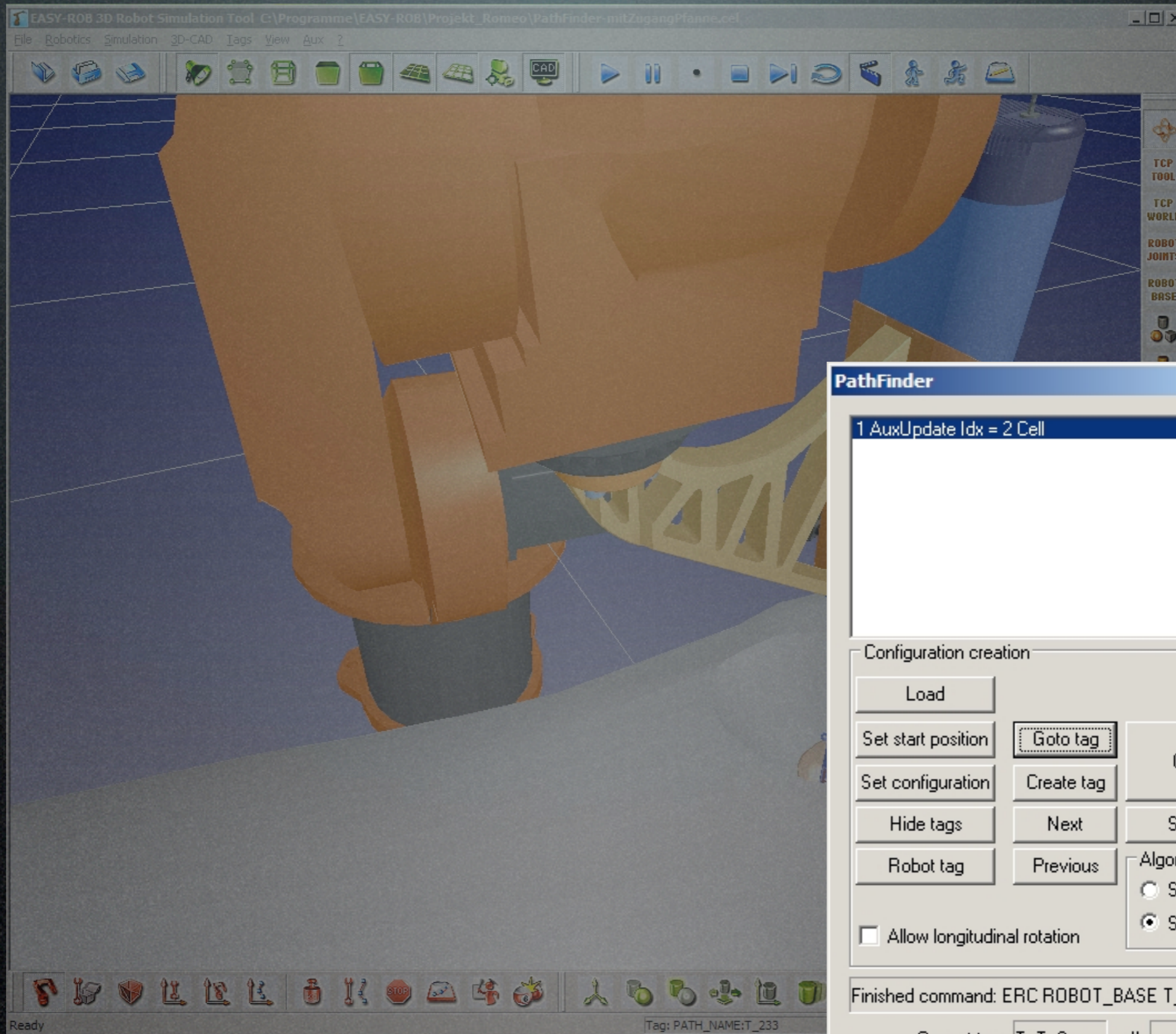
Digitised model







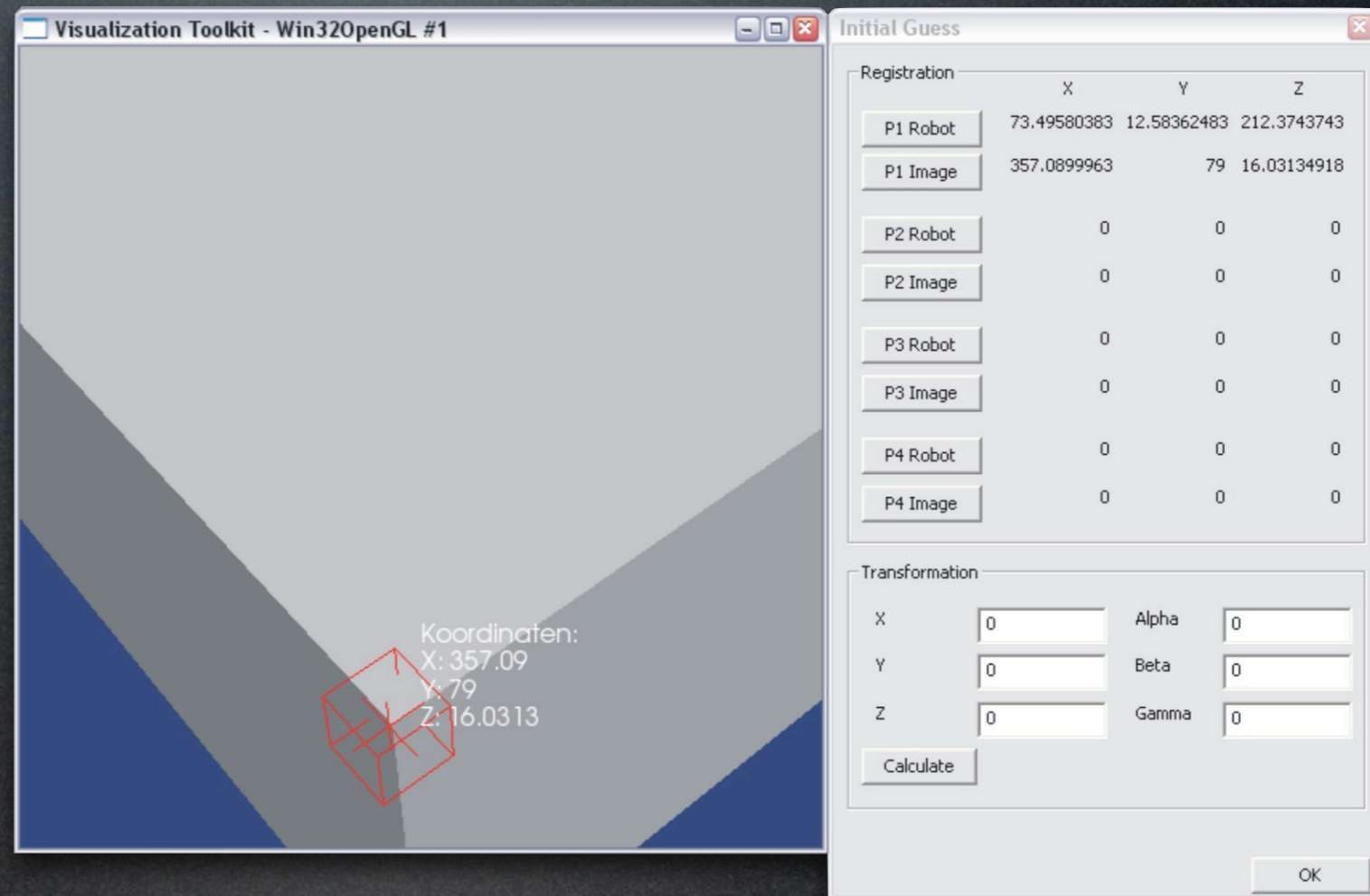




Planning and registration

VTK

ITK



PLC

Sensors

Actuator

