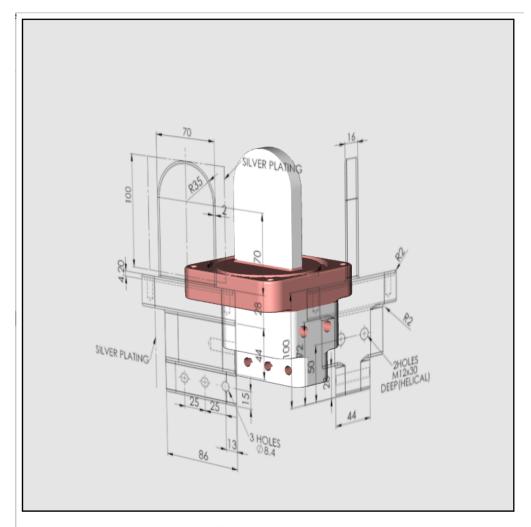
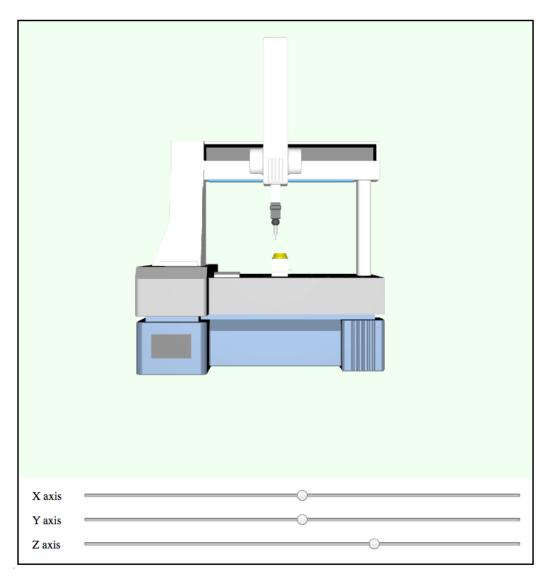
## Integrate 3D and 2D drawings



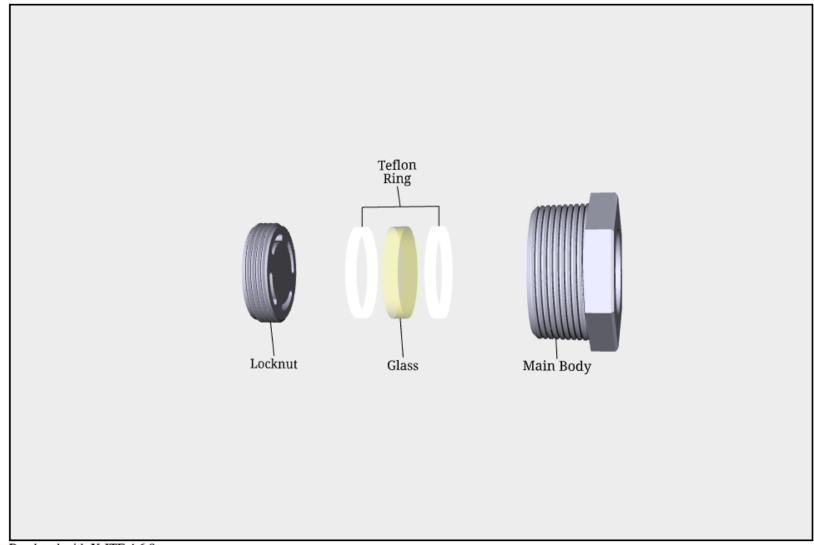
3D CAD model and 2D drawings courtesy of <u>Supreme Enterprises</u>.

### **Kinematic Animation**



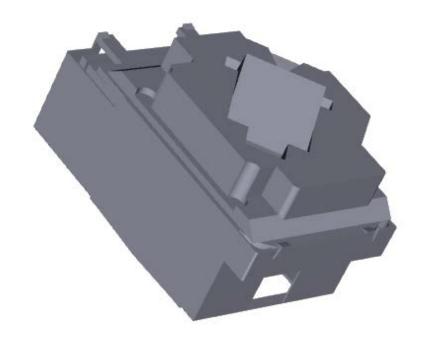
http://www.kshell.com/pages/cmmpoc/

# **Assembly Animation**



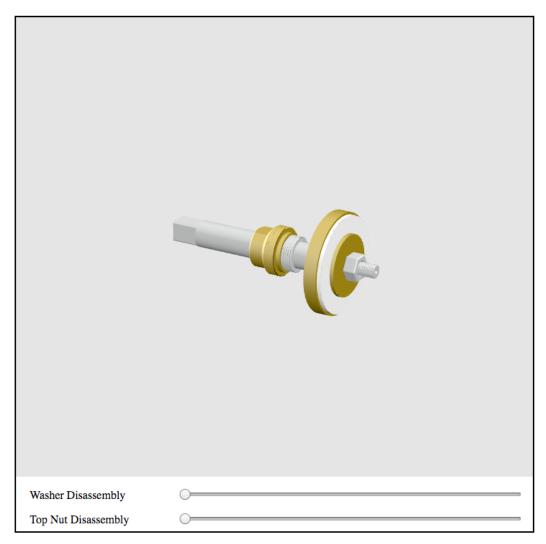
Rendered with X-ITE 4.6.8

# **Assembly Tree**





### **Controlled Motion**

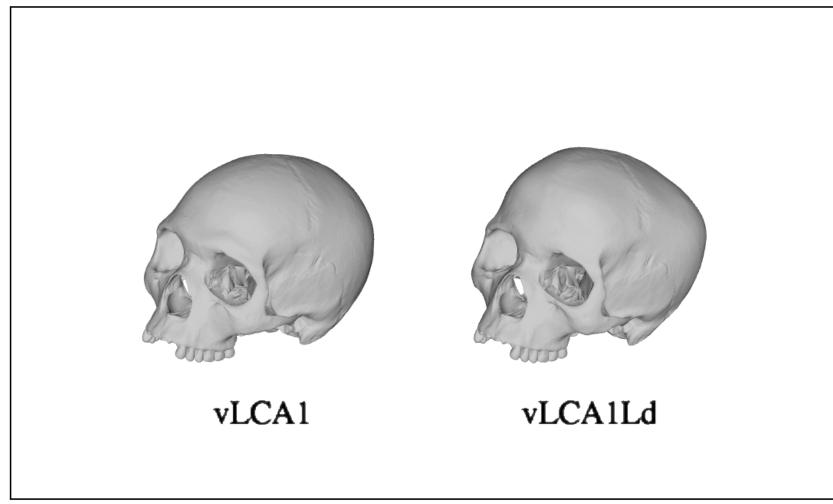


3D CAD models courtesy of Supreme Enterprises.

http://www.kshell.com/pages/web3d201811/motion/index.html

# **Smart Navigation**

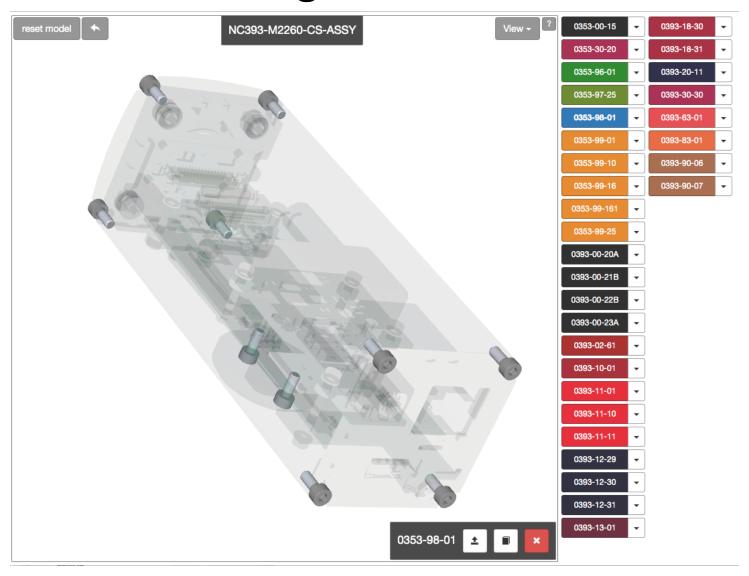
Side-by-Side comparison of virtual Latest Common Ancestor reconstructions



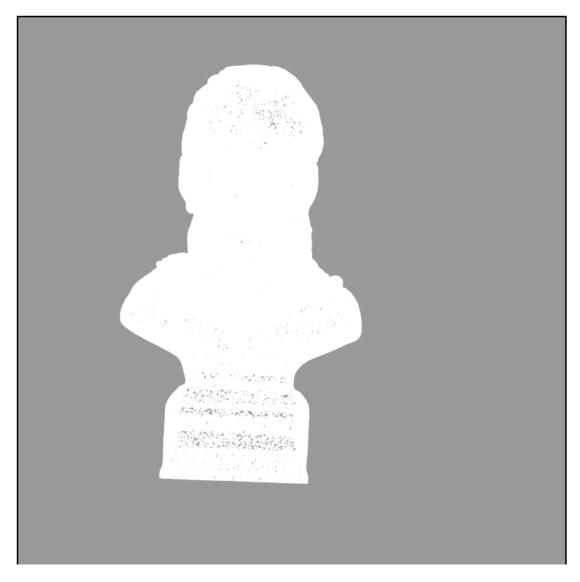
<u>Scientists Find the Skull of Humanity's Ancestor, on a Computer</u> nature COMMUNICATIONS article

http://www.kshell.com/pages/gemini/

## **Product Catalog**



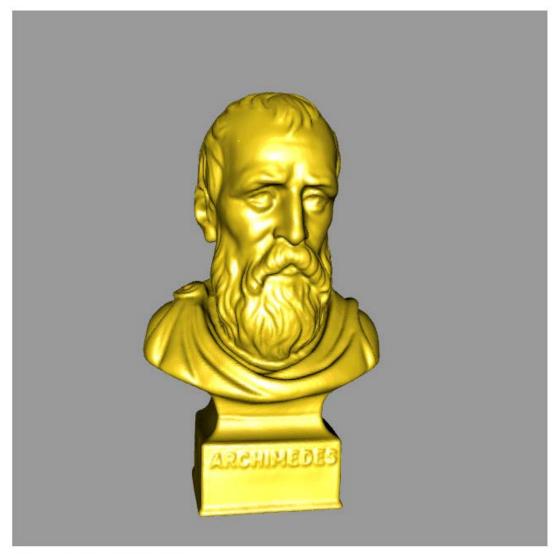
### **Point Cloud**



http://kshell.com/pages/archimedes/pointcloud/index\_x3dom\_349\_nc.html

Point cloud with 349K data points measured by optical scanner

### **Surface Reconstruction**



3D Scanning by Applications 3D

http://www.kshell.com/pages/archimedes/index8.html

Surface reconstructed from optical scan point cloud data. Color and reflectivity specified during X3D model creation and not determined by scan data.

## 3D Printing

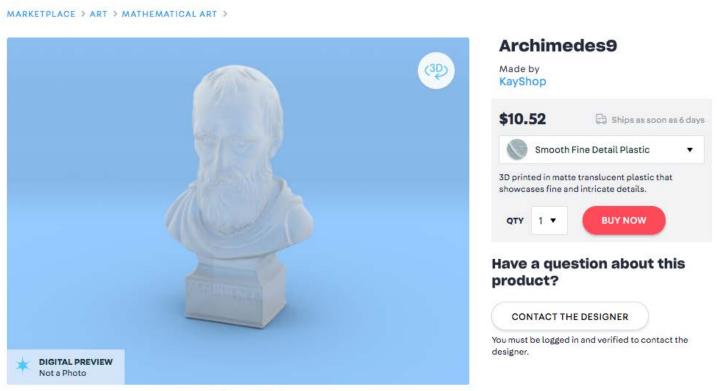




START MAKING

**BUSINESS SOLUTIONS** 

Uploaded to Shapeways 3D printing service as an X3D file.





Smooth Fine Detail Plastic

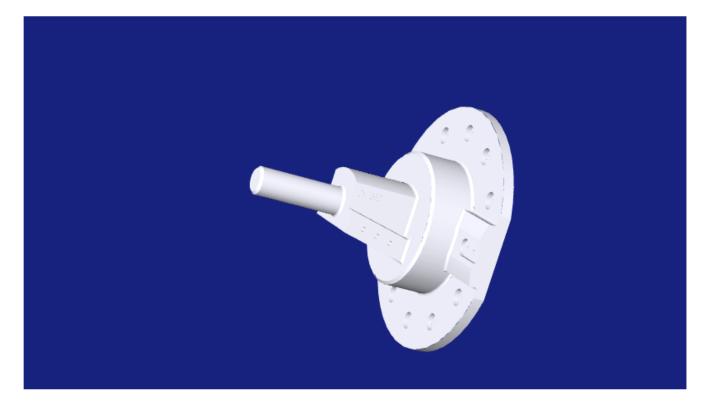
#### STEP to X3D

Zoom

NistCtc05Asme1Ap203Spri.x3d

( $\underline{x3d}$  scene,  $\underline{pretty}$ - $\underline{print}$  source,  $\Box$  statistics,  $\Box$  info & logs,  $\underline{X3DOM}$  Player

NIST Product and Manufacturing Information (PMI) Complex Test Case 5.



Generated from STEP file from the NIST Conformance Suite.

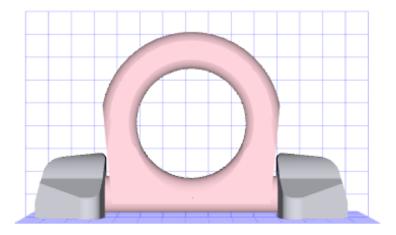
### **Product Demonstration**

Part: VRBS-4-t Welded Lifting Point

Manufacturer: RUD

STEP (AP203) CAD file obtained from PART Community online catalog.

X3D Download



Show 1 cm. grid

Show Swivel Freedom

Reset View

Model may be rotated by dragging with mouse