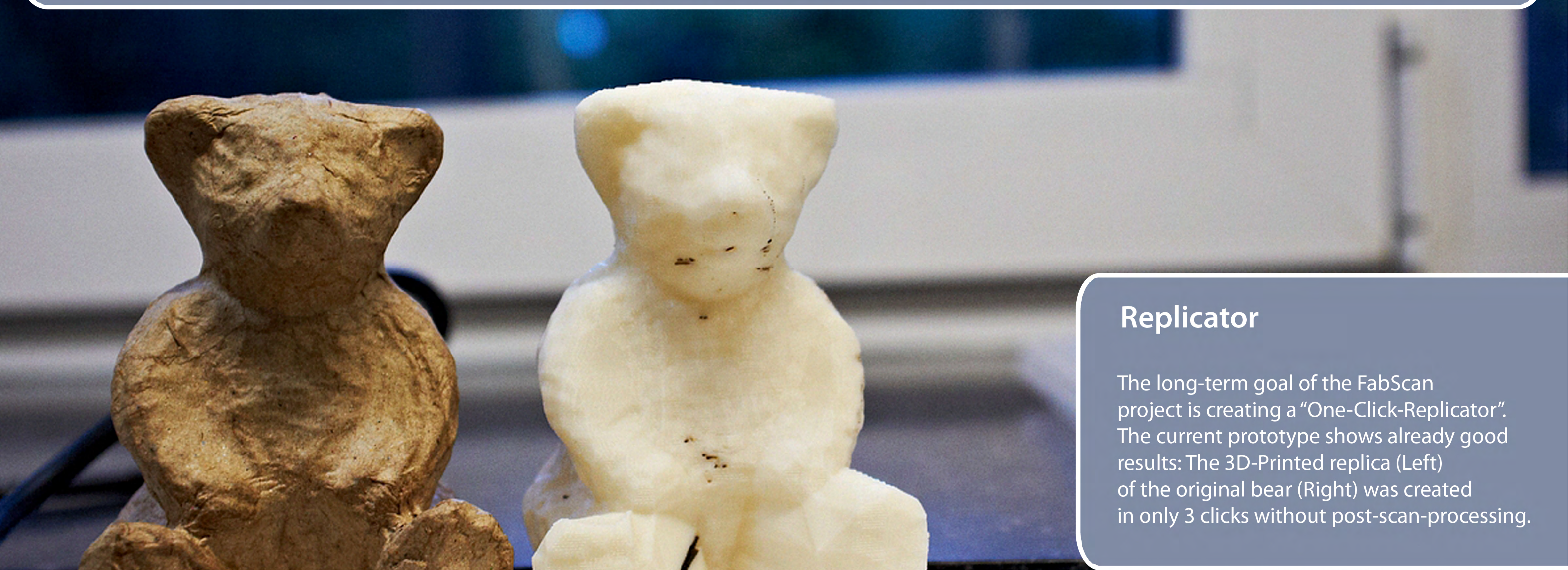


FabScan : Affordable 3D Laser Scanning of Physical Objects

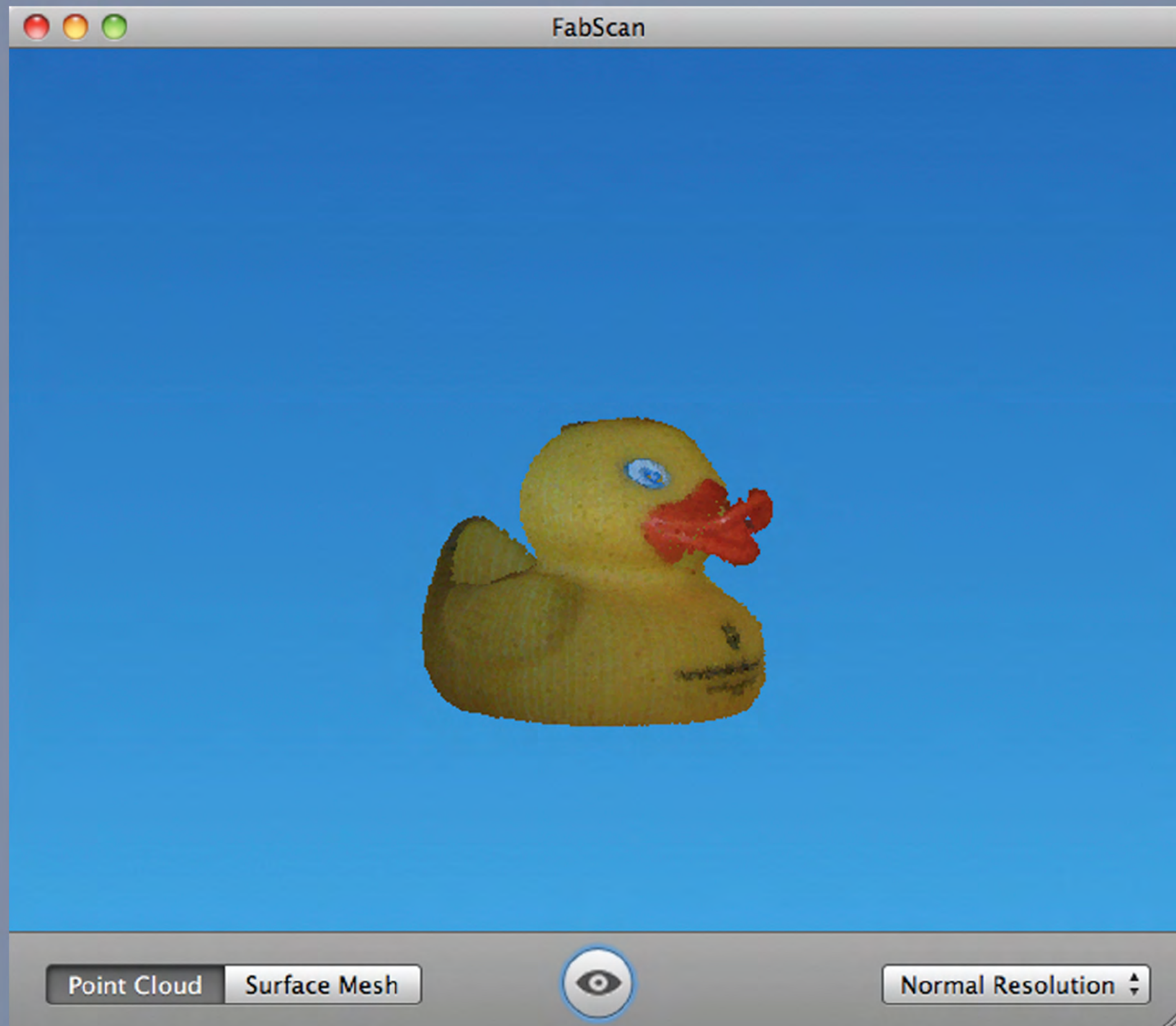
Francis Engelmann



Replicator

The long-term goal of the FabScan project is creating a "One-Click-Replicator". The current prototype shows already good results: The 3D-Printed replica (Left) of the original bear (Right) was created in only 3 clicks without post-scan-processing.

FabScan Software



The software is capable of mapping a colored point-cloud from the object, transforming the point-cloud into a surface-mesh and converting the surface-mesh into STL, which is a stereolithography file format used among others for 3D printing. Post processing with additional software, such as MeshLab, is no longer needed.



FabScan Hardware

The scanners works according to the triangulation principle: by inspecting the deviation of the laser line on the object as seen from the camera, the depth information can be reconstructed.