Abstract

The goal of this project is to build a 3D scanner device that will stitch together data collected from different perspectives of an object into a 3D model. The implementation will involve either a laser or camera setup that rotates around a small object and uses graphics algorithms (structure from motion, stereo reconstruction, etc., depending on the hardware setup we decide to use) to reconstruct depth information from the 2D data. If this is successful, we'd hope to implement functionality for the user to interact virtually with the 3D model -- stretching, rotating, and folding it as desired.