3D Scanning Rig

Documentation and User Guide

Overview

The 3D scanning rig is an open sourced design that uses multiple cameras to take pictures simultaneously to produce 3D models. The rig is designed with taking 3D scans of live subjects that move while taking pictures. Using a traditional rotating plate does not work well with moving objects.

To achieve simultaneous capture of the object we have created a spherical rig that holds multiple cameras in place. This document provides all the design and software used to make this work. Included will be schematics of all the physical components including the electrical and mechanics. As well as software descriptions with links to access the source code.

Introduction

This document covers every aspect of the 3D scanning rig. It will cover the entire hardware, electrical and software characteristics. We also provide a users manual to help you get started with using the rig.

Contact

If you have questions that are not answered in this document feel free to consult the following individuals according to their respective contributions to the project.

Jed Johnson

Role: *Manager*

Contributions:

Ross

Role: *Mechanical Engineer*

Contributions:

- Designed physical construction

Ben Brenkman

Role: *Computer Engineer*

Contributions:

- Worked on hardware during final stages of development.
- Wrote software for the hardware
- Designed and wrote software for the camera control system(VCCS)

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This is the hardware subsection.

2 Electrical

This is the electrical subsection.

3 Software

This is the software subsection.