PSU DIGI-NET

Overview
To create a scalable low-cost system to virtually connect distributed design and fabrication spaces on campus. This system must work on the Penn State network, be easy to use and secure. Each node cannot cost more than $500.

Objectives
Enhance team collaboration across Penn State and beyond so that it is no longer a major shortcoming of engineering projects.

Approach
- Determined project requirements
- Determined collaboration needs through interviews and testing
- Selected Adobe Connect as base collaboration software
- Selected Microsoft Kinect for 3-D image generation.
- Developed PSU network and Adobe Connect meeting login script
- Developed Graphical User Interface to filter and process 3-D images
- Developed Adobe Connect 3-D viewing pod
- Developed snapshot image viewing pod
- Documented SOW, DSR and Final Report
- Performed usability testing
- Determined future considerations

Outcomes
- Ability to collaborate in an engineering setting which did not otherwise exist.
- 3-D image in Adobe Connect Pod
- Ability to take snapshot image during meeting.
- Perform a low cost 3-D scan.
- Join meeting with nothing more than PSU login.
- Completely expandable solution.