Boks

Overview
Boks is a support system currently in development for the “Green-2-Go” initiative taking place in campus dining commons. Led by Penn State students, new structural and software based designs were needed to meet criteria set by campus dining commons. Database management, point of sale systems, mechanical receiver systems, and structural design all needed review for an effective system.

Objectives
- Redesign current prototype
- Create code for campus integration
- Create practical, deployable, and complete system
- Focus on efficiency and marketability to multiple campuses including those outside Penn State’s network

Approach
- Met with Boks representatives, gathered information on requirements.
- Set up multiple communication channels between members and Bok representatives
- Generated possible concepts
- Review competition’s methods for possible patent infringement
- Selected best concepts based on goals and availability of resources
- Create Test code for software and hardware integration evaluation
- Create CAD model
- Create Prototype
- Test Prototype for functionality
- If any functionality errors fix problems repeat process
- Verify full functionality of model and software including server integration

Outcomes
- Scanning system added for “Green-2-Go” box tracking
- New database management with more secure storage
- More astatically pleasing, and rugged structural design
- Test models created for future software development and integration
- Higher quality code for all aspects of database and point of sale services, well commented for future development
- New power management system with improved organization