PSU EDesign

Overview
Our team has been presented with the challenge of determining whether a Makerspace would be feasible to implement in State College. A Makerspace combines manufacturing equipment, community, and education for the purpose of enabling community members to design, prototype, and create manufactured works that wouldn’t be possible to create with the resources available to individuals working alone. Through the completion of the project, we were challenged with proving that the space would be financially feasible by creating a business model for the space.

Objectives
• Determining possible locations for the facility
• Interviewing a variety of Community and Student members of the Entrepreneurship community
• Conducting surveys among various student groups and community crafters
• Deciding on machinery to be included in the facility
• Computing potential costs of machinery
• Developing a sustainable business model

Approach
• Benchmarked costing and machinery based on other Makerspaces such as TechShop Pittsburgh and NextFab in Philadelphia
• Conducted interviews of local entrepreneurial figures
• Surveyed the Penn State student population as well as the local community
• Determined machinery by benchmarking against makerspaces throughout the country
• Investigated local areas available for rent
• Created a cash flow analysis for 3 possible business models
• Created a Microsoft Visio layout of the space after selecting an ideal location
• Fabricated a three dimensional model of this layout
• The team determined that the space is feasible given a monetary donation of $133,000 and a business model outlined in our report.

Outcomes
• The sponsor now has evidence that a makerspace would be possible to implement and sustain in State College.
• With an initial donation of $133,000
• Student memberships under $15 per month
• Monthly revenue of $2,000 per month generated from extra classes and amenities of the space