Trash to Penn State Accessories

Overview
The PSU MNE Green Team’s main objective is to find an innovative solution to reduce waste, and reuse recyclable materials. The end goal is to have products that will be geared to a Penn State theme and be available to Penn State students and staff on a semi-mass produced level.

Objectives
Our design demonstrated multiple uses of waste material to reduce the amount of pre-manufactured goods that are thrown away here at Penn State. We had various designs that will use a variety of manufacturing techniques to create three types of souvenirs for students at Penn State, which included: magnets, puzzles and Aluminium plates.

Approach
- Existing environmentally friendly products that were already on the market were benchmarked.
- Concepts were generated.
- Three souvenirs chosen to be produced were Penn State magnets, puzzles, and license plates.
- Solidworks designs were developed.
- Manufacturing process were tested and researched.
- 300 magnets were made from recycled bottle caps.
- 30 sets of puzzles were laser cut from recycled capstone posters. Photos were taken.
- 5 license plates were sand casted using recycled aluminium.
- The products were be given away to Penn State students and Professors.

Outcomes
- The products were all made to be given away to Penn State students at the end of the Spring 2014 semester.
- The project was environmentally friendly, creative, and satisfied all customer needs while staying significantly under the given budget of $1000.
- Wasted Materials including aluminium cans, poster boards and bottle caps were utilized.
- This design provides Penn State Green teams a solution to recycle wastes.