Opportunity and Significance

The development of this portable can crusher is going to help the environment great. This product will increase recycling and the best part about this, is it doesn't have a motor completely mechanical.

Technical Objectives

This project is to design, develop, and test a portable can crusher of aluminum cans. The objective is to make it efficient, compact, and environmentally friendly to use with low maintenance.

Related Work and State of Practice

Kadhim: Fabrication
Jaffer: Reports and Testing
Ben: Modeling and Fabrication

Technical Approach, Accomplishments and Results

- We have looked at many different patents to get a better clearer understanding of how to go about this project.
- Came up with 3 different concept designs
- Did a Pugh analysis to find the best design that fits are criteria.
- Made some calculations
- CAD modeling
- Bill of Material
- Built prototype of can crusher from both wood and metal.
- Design Validation

Next Steps for Development and Test

- Testing of Steel/Aluminum prototype is in progress
- Any reworking from now will be complete by the end of this week
- A special and cheaper prototype is currently in the making
- This special prototpye satisfies a enviromentally friendly criteria and also makes the overoall prototpye cheaper
- The special prototpye will be revealed during our presentations

References

There were Several similar ideas we used from other portable can crushers on the market. We've integraed those into our design. These patents are as follows:

- US Patent #8448570
- US Patent #3,062,130
- US Patent #4345520
- US Patent #4,570,536

-Funding from WSU Engineering for first prototype