

Specific Problem Statement

Our ES100 class has come up with the project of building an environmentally friendly solar cooker in order to reduce the burning of fuel that increases global warming.

The goal for this project is to design a functioning solar cooker.

This solar cooker must be able to boil 1 cup of water (in a specific pot) that will then be used to cook a hot dog.

The final time will be from 10 am to 12 pm on Friday May 9, 2008.

The cooker must be effective in all but extreme weather.

All energy must come from the sun with no previous charged energy storage devices.

The solar energy can be converted into electrical energy, however batteries are not allowed (unless they are solar batteries charged during the 2 hours of the demonstration).

Our budget is \$45 refundable from the college (you must have receipts).

We are able to use whatever materials that we find, but must account for their estimated cost in the \$45 limit.

We must use at least one part that we have designed using the Pro E program and the 3-D printer.

We may use any outside resources for ideas as long as we make appropriate credit and reference to the originators.

Our solar cooker must be able to be tested the week before the final presentation.

The cooker must be portable to some degree as it will not be stored at the campus.

The cooker should be easy to move from one place to another, as well as safe and aesthetically pleasing.

The project's target audience is the ES100 students of Montgomery College. Hence, the design should be easy to understand and use for any of them.