

I PRO 325

Team Problem:

3 billion people live on less than \$2 per day. This leaves nearly half the world's population without access to basic amenities.

Team Objective:

Develop effective and attainable solutions for improved quality of life in rural third world areas.

Team Constraints:

All solutions must cost less than \$5.
Solutions must be easy to construct without verbal or written instruction



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Daniel Ferguson
Jim Braband

Subteam Members:
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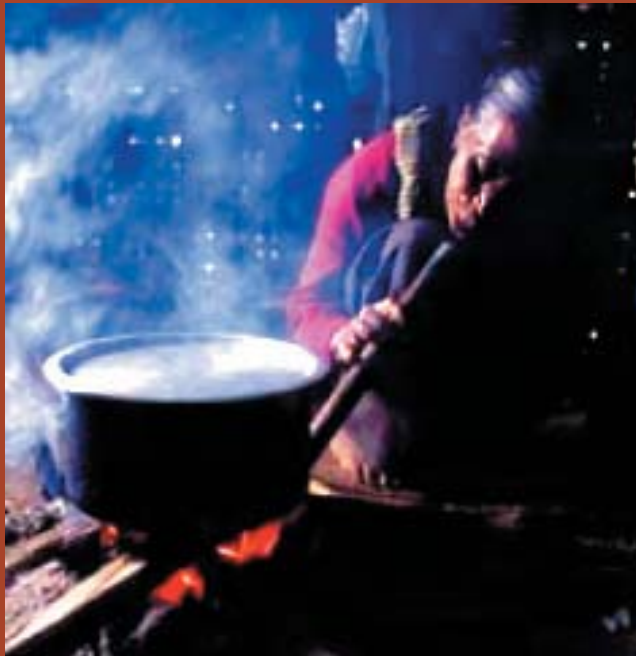
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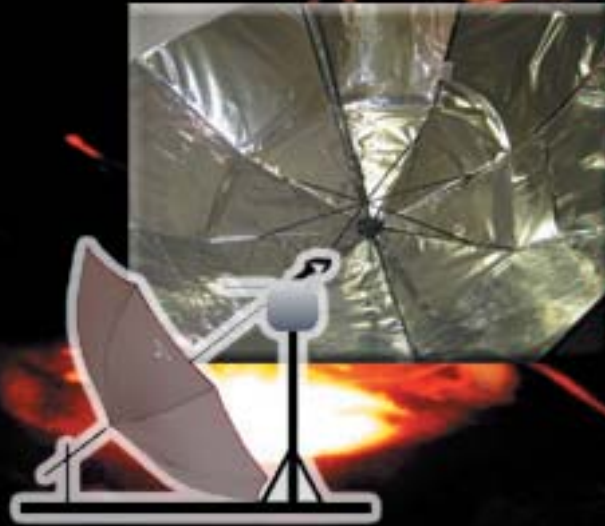
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[cooking]

Cooking Subgroup



Parabolic Solar Cooker



Rocket Stove

Subgroup Problem:

Limited to no access to clean and efficient cooking methods causes health, social and economic problems for the rural poor.

Subgroup Objective:

Design, Build and Test 3 affordable, energy efficient, and healthier solutions.

- Clay-Core Rocket Stove
- Metal-Core Rocket Stove
- Parabolic Solar Cooker

Accomplishments:

Constructed and tested prototypes using locally available, recyclable materials for a total cost of less than \$5 USD.

Critical Barriers:

- Difficulty collecting information about rural poor areas.
- Availability of testing equipment.
- Design within \$5 USD constraint.

Conclusions:

Testing of Rocket Stoves proved validity in ability to boil 2L of water in 15 min. or less. Preliminary testing results of Parabolic solar cooker has given design modification ideas.

The Next Step:

A representative of the cooking subgroup will be going to Nicaragua this January to begin field testing and implementaion. The IPRO will be continuing in Spring 2008, and we are recruiting new members.