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.

Faculty Advisors:
Dr. Ken Schug
Daniel Ferguson
Jim Braband

Subteam Members:
John Sullivan
Amber Heinz
Shreyas Dole
Phillip Korol
Eliza Bober
Bryan Murrillo

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Heling Shi, Eliza Bober, Nicholas Przybysz, Ashley Ono, Bryan Murrillo, Dole Shreyas, Phil Korol, Jaime McClain,
(back row) Amber Heinz, Curt Aubry, Ryan Witthans, Ian Seagren, Dave Curtin, Ernest Dogbe, Brian Schiller

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IPRO 325
Developing Affordable Solutions for the World’s Rural Poor
Fall 2007
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 implementation. The IPRO will be continuing in Spring 2008, and we are recruiting new members.