LAU Lebanese American University

Department of Industrial and Mechanical Engineering
Project I - Description

Project Name

Design of a parabolic solar cooker

Project Overview	
Tens of thousands of Syrian people who were forced to abandon their homes and their country cannot rely on traditional means of cooking due to economic hardship. Solar cooking offers a practical, affordable and sustainable alternative solution that can be used in refugee camps to alleviate this adversity. In this project students will design a solar parabolic cooker and build a small prototype that should also be capable of heating water when needed. Students will perform thermal computations to determine the necessary reflective surface area. They will optimize the cost by selecting low-grade material (can lids etc..) and reduce manufacturing complexity.	
Project Areas	**Project Constraints**
• ENERGY	• Priority will be given to students who took the MEE599 Solar Energy
Team Size and Majors needed	
MEE: 3 students	INE: 0 student
Project Deliverables	
Project should consist of the following: - selection of low-grade material/low cost - design a collector to focus the sun rays (on fluid/cooker) - build and characterize the performance of the system - ease of manufacturability/ mobility	

Advisor: Dr. Michel Khoury

Students:

Team 1	Bassel Haddad Jad Hrawi Amer yassine

Team 2	Karl El Khazen Elias Mhanna Ahmad Mroue