

SOLAR COOKER FOR RURAL INDIA

MIND TO MARKET EXPLAINED

The client brief can be summarised as 'to design a Solar Cooker to cook rotis targeting the Rural Indian population and also aid charging of small electronic gadgets like cellphones.



1 RESEARCH

The research for the project was involved experimentations to find efficiency values of existing cookers, heat requirements for cooking different foods, factors affecting cooker performance and user requirements. An extensive research and testing was done on possible materials for reflection and structure.

2 INDUSTRIAL DESIGN

The key factor in Industrial Design was user comfort and ease of operation for rural women. The transportability of the structure and storage inside a hut were features incorporated in the product.

3 ENGINEERING

Geometrical solution of reflection from the parabolic reflector and placement of the vessel were the engineering start points. Weight reduction of the structure for transportation and tracking operations of the reflector were areas of major intervention.

4 PROTOTYPE

The biggest challenge of the phase was creating a geometrically correct parabola through conventional processes. The assembly of the reflector with the frame and aligning the focus was key to fine performance of the product.