

# [Solar heated grill](https://assignbuster.com/solar-heated-grill/)

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Solar Heated Grill ABSTRACT This study aimed to find out if an old shoebox and a thick tin foil can be converted to amore useful piece of cooking equipment. The feasibility of reflective solar heated grillthat is built from a cardboard box, tin foil, and posterboard as an alternative cookingequipment was studied in this research project. The cardboard box was cut andshaped. the tin foil is settled in the middle making it looks like a slide. we go outside inthe heat of the sun. the barbeque sticks were placed in the spot where reflection of thesunlight focuses on the hotdog . just like a real skewer the hotdog were cooked therefor minutes. asted it. and voila. real hotdogs on stick just like mom used to cook. General Objective: This study thru physics aims to find out if an old shoe carton box can be useful to makean alternative cooking machine. Materials/Equipment: 1. Two pieces of heavy cardboard (like the side of a cardboard carton). The first piecemust be at least ten inches squareand the second smaller piece must be at least four inches by five inches. 2. A piece of light posterboard eight inches wide and sixteen inches long. 3. Twelve-inch wide aluminum foil. (You will use about 32 inches of the material. ) 4. Some masking tape. You may experiment with other types of tape. ) 5. Nine inch long sticks about 1/16 inch in diameter. You may also use lengths of heavywire. Procedure Select a long narrow box; the longer the box the more heat collection is possible. Choose a focal length between 5" and 10" and design a parabolic curve as seenin the picture. One template could be used for all the cookers. Trace the curve onthe open end of the box so that it is centered and straight2. Cut out the curve with a utility knife. Stressthe importance of being exact. Measure and cut a piece of posterboard that will fix flush against the opening tothe box.

Attach this with tape beginning at the center and working toward toedges. Cover the curve with white glue and apply aluminum foil shiny side out. Start inthe middle and smooth toward the edges. Try not to wrinkle or fold the foil; youwant it as smooth as possible Use two scraps of cardboard taped to each side as supports. Using the sun or aprojector light, test the focal point. There should be a bright spot where light isconcentrated; mark this spot and punch a hole for the skewer. Use a section of acoat hanger from which the paint has been removed for a skewer