



Developing A Solar Cooker



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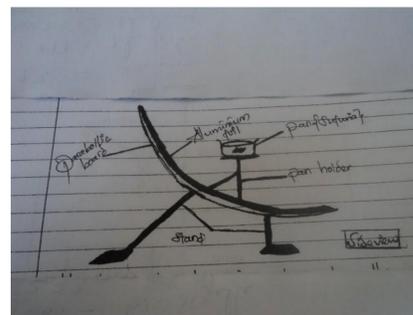
Introduction:

Ever since man discovered fire, in the middle stone age, there have been a lot of cookers. Wonderful enough fire has been the main source of heat, light and energy. In most countries and cookers. But we forgot that the sun is one among the greatest sources of heat and light on the earth, the sun's solar energy can be used for different purposes such as dying (clothes and foods), source of vitamin D, formation of coal, biogas (natural etc. the same applied, it can be used for cooking. By using the sun's rays, we came up with an ideal of making a solar cooker. A solar cooker is a kind of cooker which uses sunrays to cook and boil foods. As we both know the problem of global warming causes by destruction of ozone layer, by cutting down trees the carbon dioxide formed by our industries has caused many problem in our society such as Asthma and many more.



Methods:

Cardboard pizza box (the kind delivered pizza comes in)
Box knife or scissors
Aluminum foil
Clear tape
Plastic wrap (a heavy-duty or freezer zip lock bag will also work)
Black construction paper
Newspapers
Ruler, or wooden spoon



We thought that by using solar cookers the problem of global warming can be solved as illustrated above. The sun rays bounce on the aluminum sheet/foil which is folded around the parabolic structure made up of any materials e.g. wood, metal, bricks etc. The bounced sunrays are then reflected to the vessel placed on a metal stand and food is heated ready to be cooked and placed on the dining ready for eating.

Results:

99% of the cooker was able to boil the water. If the cooker was able to boil the water at 80°C , then it is able to cook any kind of food example ugali, rice, beans, banana etc. the boiled water appeared sufficient for drinking and cooking food. If the water was able to boil up to 80°C then is able to cook many kinds of food since many food are cooked ---- the water is about 50°C to 80°C , so that food can be cooked. After 45 minutes the water will be ready boiled for cooking purposes and domestic uses.

And therefore after about forty five to one hour the water seemed to be boiling at 80°C and at angle of forty five degree each. The ---- seemed to be reflected at the ninety degree angle by aluminum foil where the vessel was settled by using a tripod stand made up of iron/metal. This can be used during day and get stored until ensuring without getting spilt/destroyed. If the vessel or pan is painted black it can boil the water faster than 45 minutes since the black colour has a characteristics of absorbing heat faster than any other color.

Line the bottom of the box with black construction paper - black absorbs heat. The black surface is where your food will be set to cook.

To insulate your oven so it holds in more heat, roll up sheets of newspaper and place them on the bottom of the box. Tape them down so that they form a border around the cooking area. The newspaper rolls should make it so that the lid can still close, but there is a seal inside of the box, so air cannot escape.

The best hours to set up your solar oven are when the sun is high overhead - from 11 am to 3 pm.



Conclusions: Our project succeeded and the water boiled. Many can ask why and how did it work, but the main reason to answer that according to the physics principles that when the rays of sun are reflected at the angled forty five degrees each will be reflected to the 90° angle, and that was the point we used while doing that. The parabolic shape made up of woods and sticks is placed at angle of 45° each and the pan is placed at 90° as angle that is why the water got boiled. The result are encouraging and interesting that the food was cooked because the sun rays in the day are so hot and are effectively reflected to heat the ----/pan the top of the tripod stand.

In real life the project about the solar cooker is applicable in any places since the problem of global warming is everywhere. The project has a closer relevance to the situation in new ward ... it can be used to solve many local problems that is can't solve. The cooker can be used in any situation where the sun is available and can be used by both low quality and ... people because it is cheap to afford and 700 of the cooker is made up of natural surroundings i.e. Sticks, woods, this shows that it is --- relevant to the of a real world.

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Further information:

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