Simple Solar Cooker

We have used the basic Cookit design to make a simpler version without complex curves etc. The construction is also shown in pictures in a second leaflet and in a YouTube video.

The commercial version is easy to copy round on to cardboard - if you can obtain one - but the shape is not so easy to draw on to cardboard if working from the plan shown in the Wikia – see below.
So we have produced a simplified version that is easy to draw with all the correct angles etc but leaving the final touches, like rounding corners, to be decided by the client.
We recommend that a better material than short-life cardboard is used, if possible, but full instructions for fixing foil to cardboard, cooking, etc are found at
http://solarcooking.wikia.com/wiki/CooKit

But the simple plan shown there is NOT correct!

How to Use Our Plan
We assume you will be making more than one cooker and will therefore first make a former around which you will then later mark the outline of the cooker shapes – see below. We suggest this former is made of ply – more durable than cardboard.

A larger plan can be sent as a pdf if you are unable to enlarge the plan below.

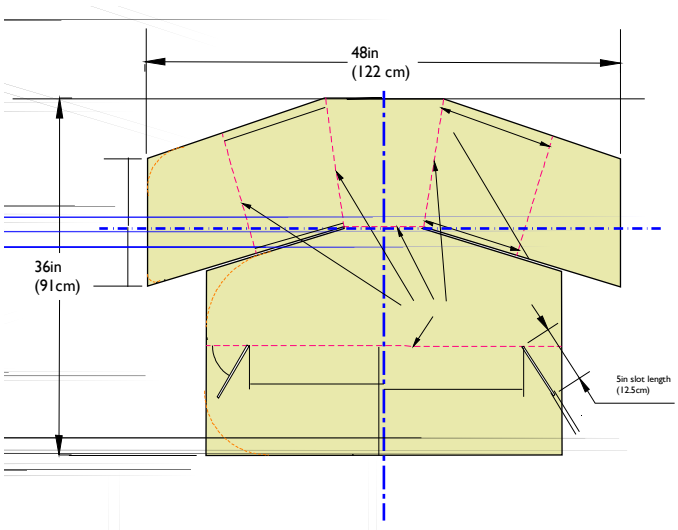
Note the vertical centre line and a similar horizontal line in green.
Most dimensions start from these lines.

Mark them first near the centre of your sheet of cardboard (many materials are better but this is the cheapest).

From the central lines mark out other lines that are near to them ending up with the two slots whose width is governed by the thickness of the cardboard normally used for the cookers.
Fold lines (shown here in blue) will have to be marked on the cooker cardboard by first making a mark each end.

After a few prototypes have been made it can be decided where best to remove some corners as indicated with dashed coral lines. However be sure to allow surplus material where weights can be placed to stabilise the cooker in a breeze.

Using cardboard
In places where large sheets are not obtainable it may be necessary to use several small ones butted together as shown with reinforcing strips glued on the opposite side to the foil.
See below.
Cardboard can be made to resist damp and softening etc if it is moistened with EVA adhesive diluted with water and brushed on and dried.



Foil
Although kitchen foil is the cheapest reflective covering, Mylar – metallised polyester – is much better and can cost as little as £1-50 per sq. metre and we can post it quite cheaply.
It can be attached using most glues but PVA is probably the best. It is only needed in numerous spots and not all over.

Long Life Cardboard
If you have covered cardboard with Mylar it makes sense to make the cardboard last a long time!
This is best done by 'painting' on a solution of EVA adhesive. Dilute the EVA with 2 parts of water to 1 part EVA and brush the carboard all over.
When dry a second treatment adds to the protection against softening from damp.

Cooking
In the Solar Cooking Wikia pdf instructions, no mention is made of black plastic bags! If you are just cooking rice (or 'boiling' any food), it can be done more quickly and easily in a bag if black – no need for pot etc.
When using a pot it is best not only to put it inside a transparent bag but raise it above the Cookit base.
This can be done with netting/wire reducing the heat loss to the ground.
An important point if cooking time is long.

Cone Cooker

We are designing an improved cone cooker based on the Anahat.
It will be ready in a few weeks.
It will enable more rapid cooking which can be important where sunshine is not continuous