Using your cooker

The model you are building today is called the Fun-Panel. There are construction plans for many other models on the Wiki. The Fun-Panel focuses fairly low in the sky and is especially good for cooking in the morning and even late into the afternoon. This also makes this a good design for Seattle where the sun is low in the sky even at noon during the spring and fall. You can cook on any clear day from the end of February to the end of October. When cooking near mid-day in the summer, you might need to tilt the cooker back away from the sun with a rock.

Point the cooker slightly ahead of the sun to lengthen the time that the sun shines onto the pot without turning the cooker. You can cook most things except beans without having to turn the cooker. On marginal days or when cooking early or late in the day, turning the cooker will improve the cooking power. See Intro.

Pots

The best pot is a light-weight, dark, metal pot with a dark (or clear) lid. You can also use dark ceramic pots or even cast iron, but the heavier the pot, the longer it takes it to heat up the food. Always cook with a lid, even when you are baking bread. Otherwise, the moisture will fog the inside of the oven bag and drip on the food.

It is advisable to lift the pot and bag up off the floor of the cooker by placing it on a low, clear glass bowl (or multiple smaller clear bowls). This allows the light to bounce into the bottom of the pot. See Pot props.

Plastic bags

Unless you are cooking under ideal conditions it is best to always place the pot inside a plastic bag. Oven cooking bags work best (found in any grocery store). Other plastic bags can be used if you create some sort of frame to keep the pot from touching and thus melting the bag (photos of such frames on Pot props page).

Solar Cookers International

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Fun-Panel Building Instructions

1. Placing your straightedge under the box to protect the table, cut down the central seam of the box, cutting all the way through so that you cut through both layers of cardboard.
2. You have enough cardboard to build two cookers. Open up one of the remaining pieces and divided it into two pieces by cutting along its central seam. You now have two square panels each with two flaps. Cut one of the flaps off each of these.
3. By folding a sheet of paper you can easily make the template to use to draw the 15° angles needed for the folds on the cooker. First fold the paper diagonally to create a 45° angle. Then fold this angle in on itself forming three equal sections. Each of these will be the 15° angle.
4. Place one of the panels in front of you with its flap on the right-hand side. Place the paper that you folded onto the bottom right corner of the square panel (not on the flap).
5. Using a straightedge, draw lines from the bottom right corner of the square panel along each of the folds on your paper until the line reaches the edge of the cardboard. Only draw lines for the upper two folds and the bottom two folds (there is no line drawn to the upper-left corner).
6. Using the straightedge as a guide score along each of these lines using a key or other pointed object.
7. Use the straightedge to help you fold the cardboard inward along each of the lines that you scored.
8. Complete the same steps with the other piece of cardboard.
9. Make sure that the square panels are exactly square. If not, it will be necessary to cut off the extra cardboard from the longer dimension on each panel.
10. Place the two pieces of cardboard next to each other as shown below. Tape these together using paper tape (if no paper tape is available, glue a strip of strong paper along the seam to hold the two pieces of cardboard together).
11. Take a bit of white glue and mix it 50/50 with water. Apply this mixture onto the inside surface of the cardboard using a brush or roller. Then roll the foil onto the cardboard covering to cover it completely. Allow the glue to dry for a few moments.

Connect edge A with edge B.
12. Fold the cooker into its final shape attaching the left edge (A) to the bottom right edge with a piece of tape (either clear or foil tape).