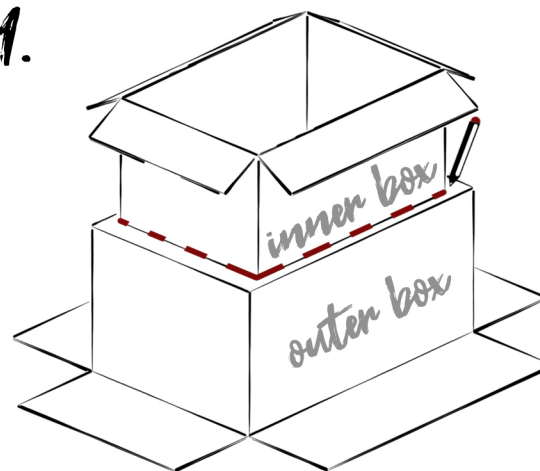# MAKING A SOLAR BOX COOKER

YOU WILL NEED:
- 2 cardboard boxes (50x35x30cm) & (60x40x30cm)
- cardboard sheet (70x50cm) & extra cardboard pieces
- metal sheet (50x35cm)
- plexiglass (aprox. 54x38cm)
- piece of wire (d:1.5-2mm, l:aprox. 30cm)
- aluminium foil
- non-toxic glue
- heat resistant silicone

TOOLS:
- cutter
- paint brush (to apply glue)
- ruler/ measuring tape
- scissors
- oven thermometer (to test temperature)
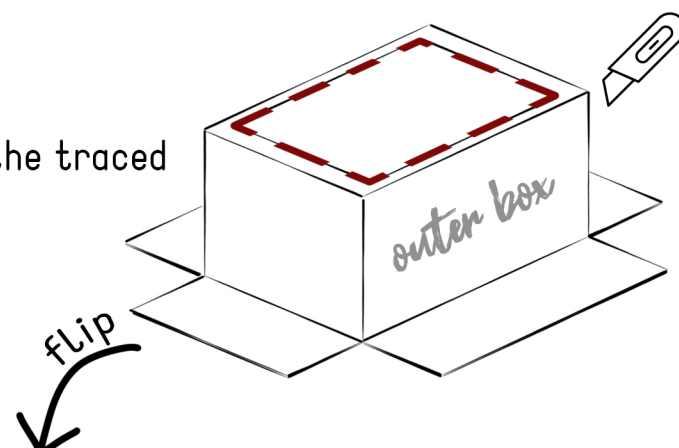
MAKING THE BASE

1.

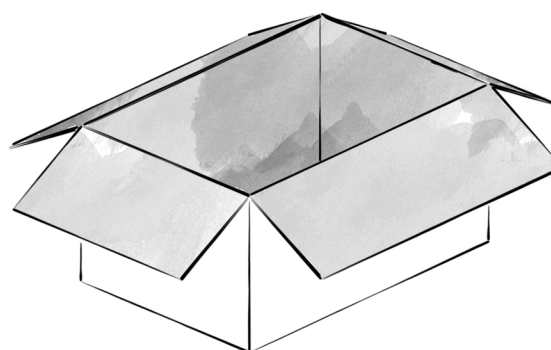Close the top side of the outer box and place inner box on top.

Trace the outline of the inner box on the top off the outer box.
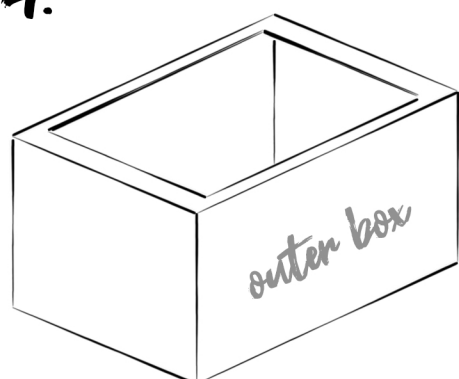
2.

Cut along the traced outline.

flip

3.

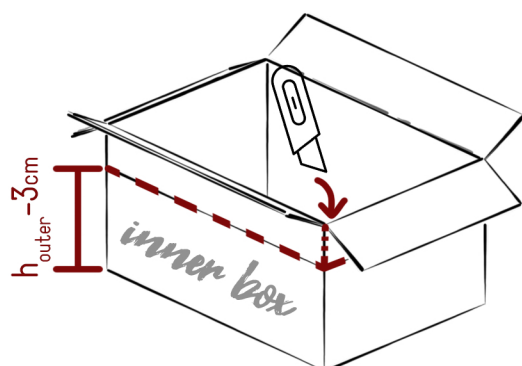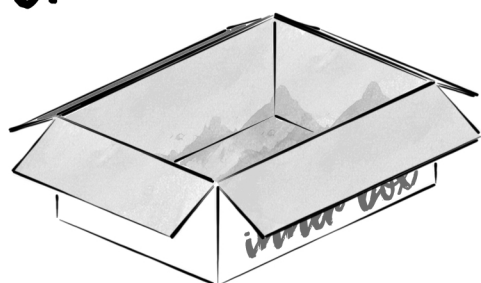Glue aluminium foil on the inside of the box.

4.

Fold the flaps closed (do not glue them!) And put the outer box on the side.

5.

Mark the perimeter of the inner box at the level that fits into the outer box minus 3cm (space for inbetween insulation).
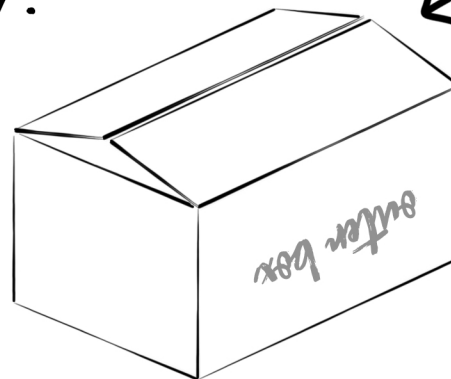

$h_{outer} - 3cm$

6.

Glue aluminium foil in the inside of the box. Make sure inside surfaces are nicely cover with foil as this side will be visible when the oven is finished.
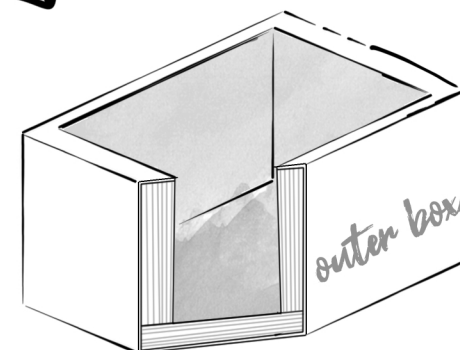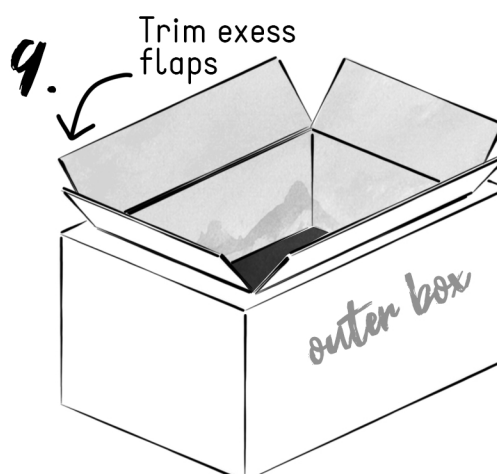
7.

Glue bottom flaps shut.

flip

8.

Make pieces of foiled cardboard the same size as the oven sides and bottom (aprox. 3cm) and place these in the wall & bottom spaces.
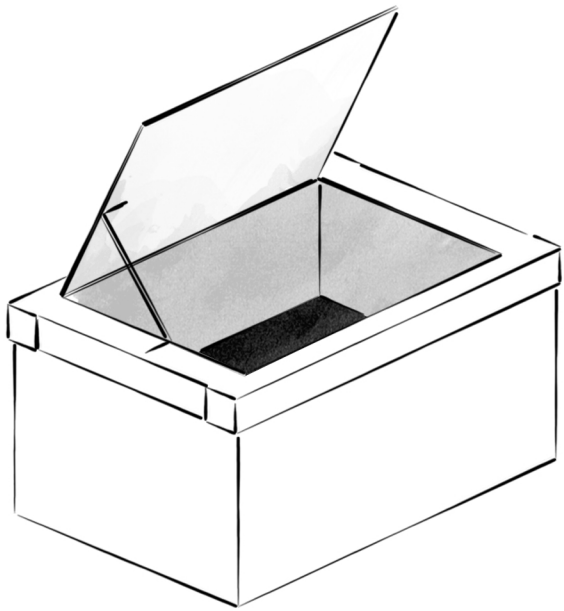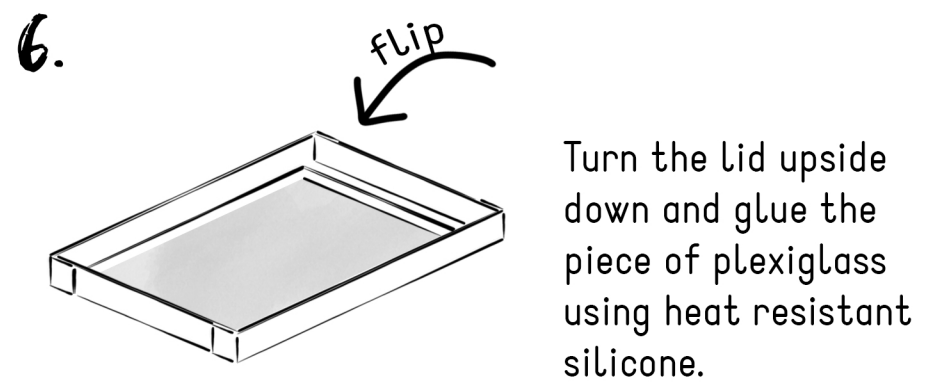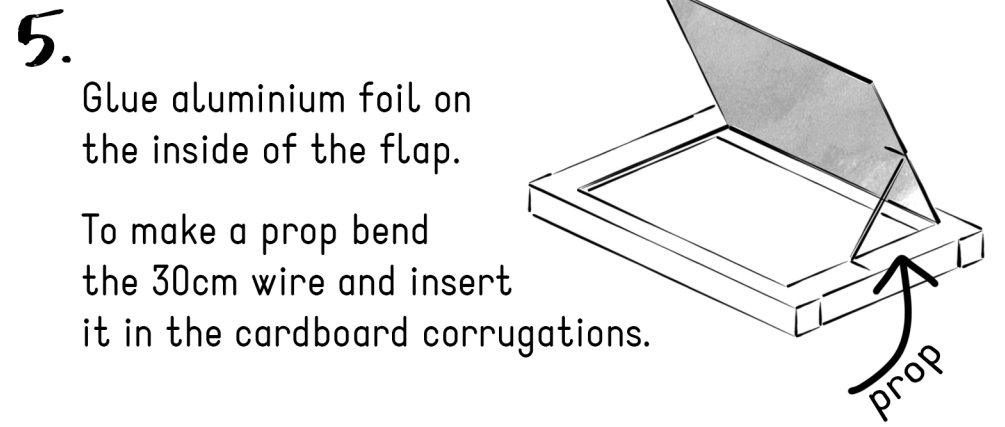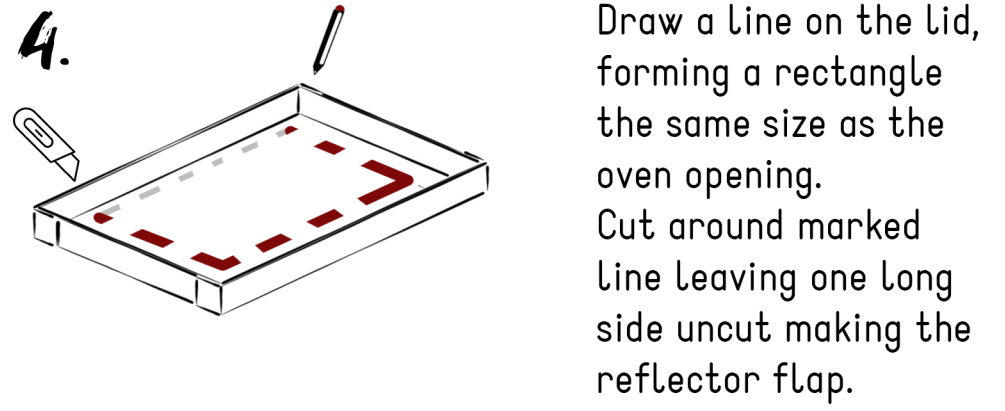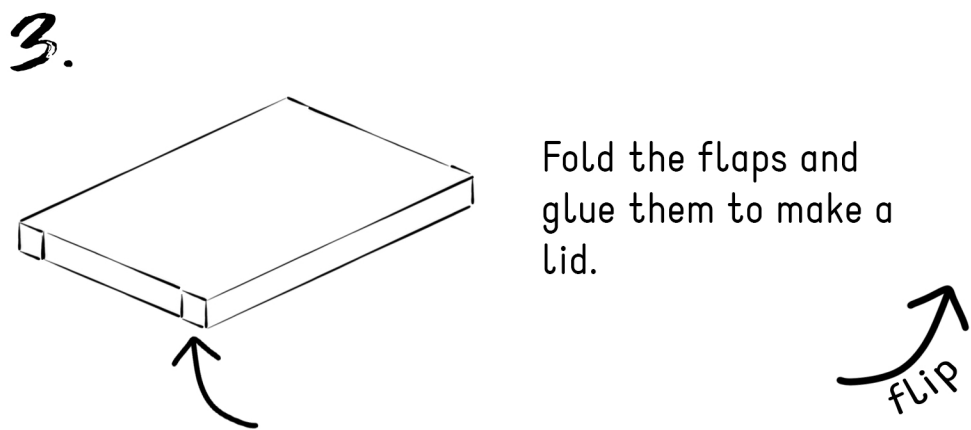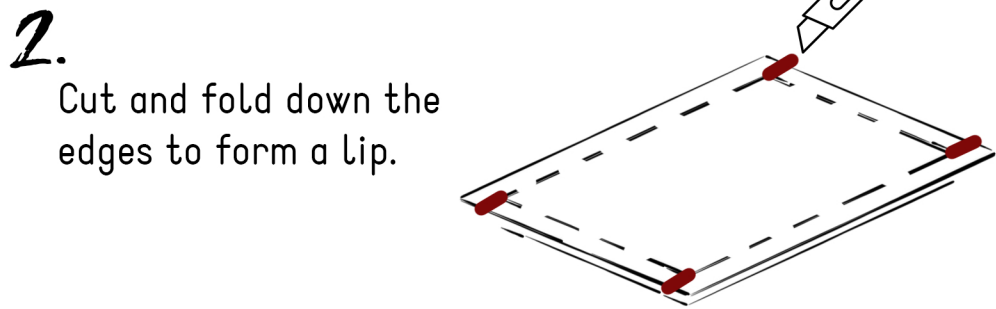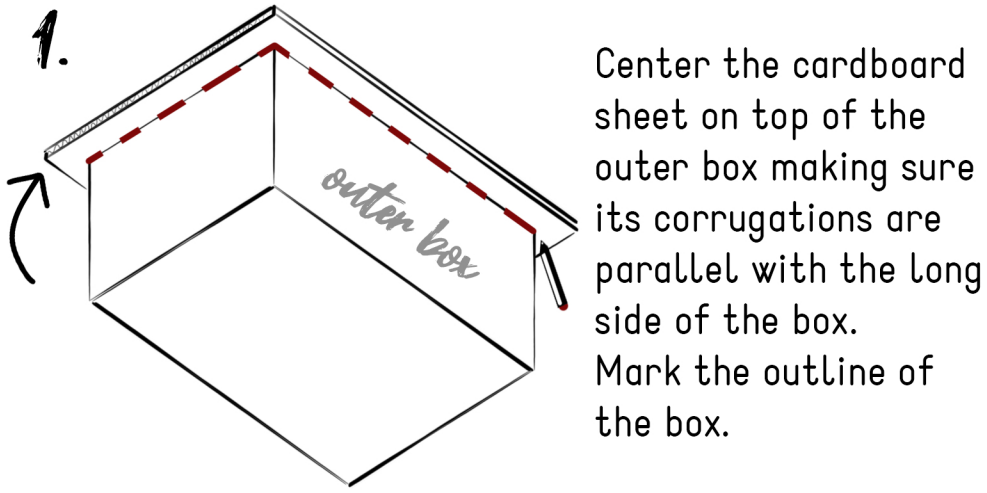

9.

Trim exess flaps

Place inner box inside outer box.
Place aluminium sheet painted with black heat resistant paint in the botton of the inner box..

THE BASE IS FINISHED!

MAKING THE LID.

1.

Center the cardboard sheet on top of the outer box making sure its corrugations are parallel with the long side of the box.
Mark the outline of the box.

2.

Cut and fold down the edges to form a lip.

3.

Fold the flaps and glue them to make a lid.

flip

4.

Draw a line on the lid, forming a rectangle the same size as the oven opening.
Cut around marked line leaving one long side uncut making the reflector flap.

5.

Glue aluminium foil on the inside of the flap.

To make a prop bend the 30cm wire and insert it in the cardboard corrugations.

prop

6.

flip

Turn the lid upside down and glue the piece of plexiglass using heat resistant silicone.

Place the lid on the box and your Solar Box Cooker is ready to go

Enjoy!

SUSTAINABLE ENERGY
YOUTH NETWORK

Illustrations by Katerina Anastasiadi