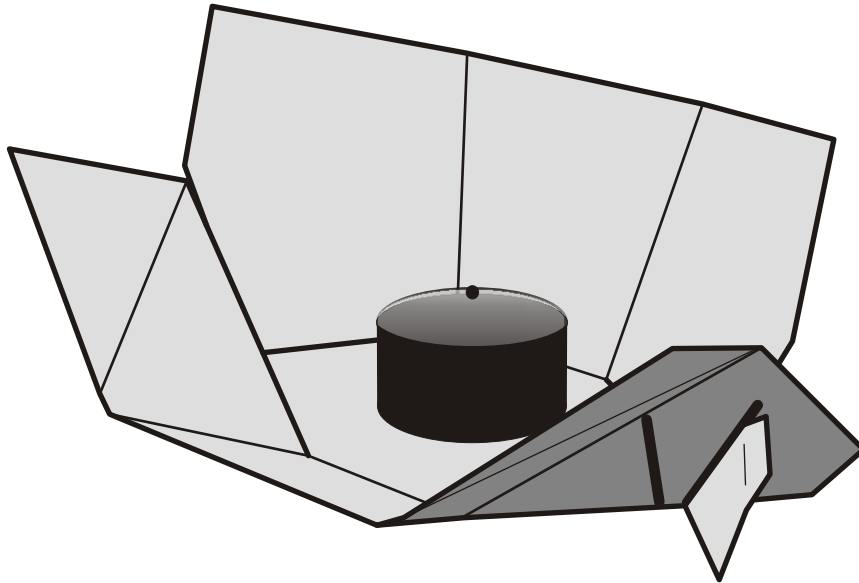


The Modified CookIt



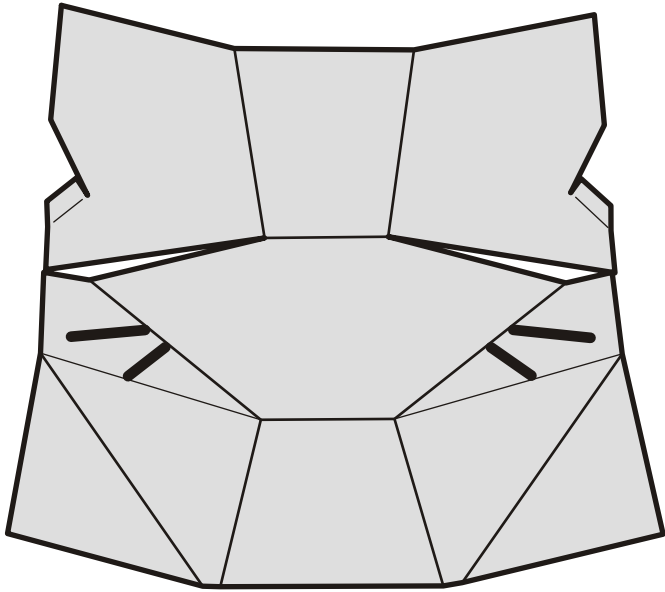
The CookIt solar cooker is the most popular cardboard solar cooker in the world today. It was developed by a volunteer group of engineers and solar cooks associated with Solar Cookers International using Roger Bernard's Solar Panel Cooker design and Barbara Kerr's idea of a plastic oven bag as a greenhouse enclosure. The CookIt has been around for many years and the cooker's design has remained very much the same as when it was first introduced in 1994. Obviously the design has worked well and it will continue to serve its intended purpose, which is to provide an easy and low cost solution for everyone to cook using the abundant sunshine that is available to us.

Several improvement ideas for the CookIt came to me recently. Firstly, the size of the cooker can be reduced so that more cookers can be made from the same amount of construction material. Secondly, the panel locking feature can be relocated so that the two sides of the front reflector can be tilted to reflect more sunlight towards the desired direction.

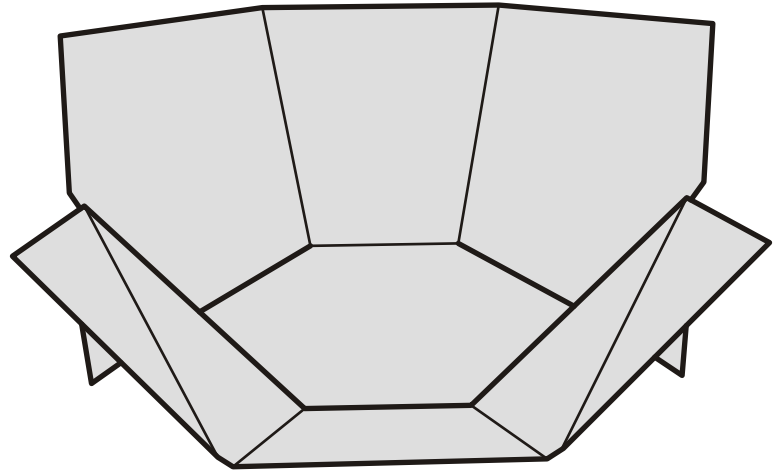
The modified CookIt is structurally more robust. It can be positioned upside down to cook when the sun angle is low. The cooking pot receives more reflected sunlight under the normal operating range of the cooker. The modified CookIt can be folded down into a small package for easy transportation and storage just like the original design.

The following pages provide the plans and diagrams for the construction and use of the modified CookIt which I hope will be useful and practical.

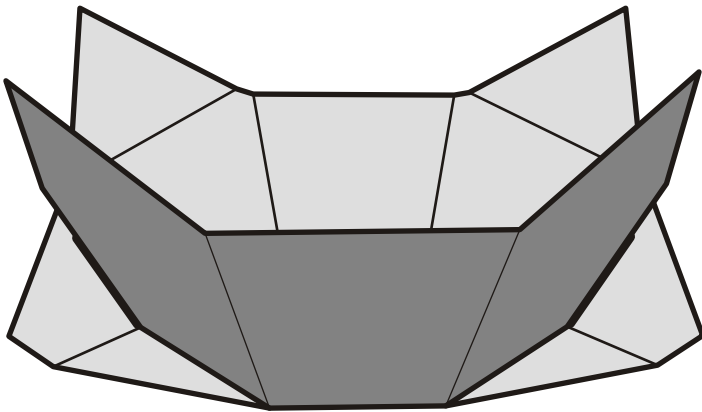
Teong H Tan
Nov 22, 2011



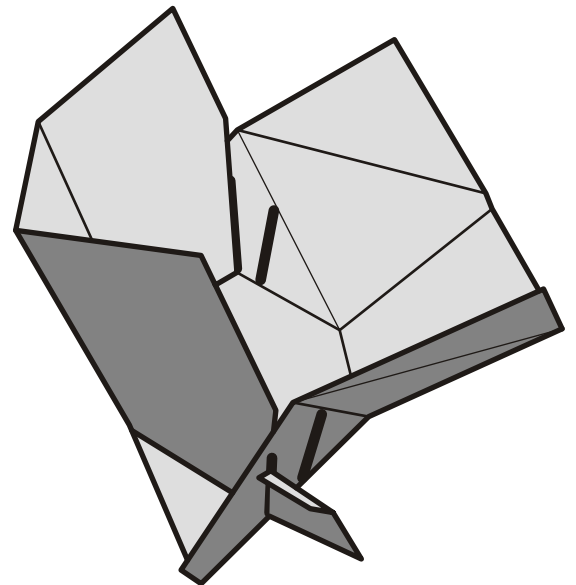
Modified-CooKit unfolded



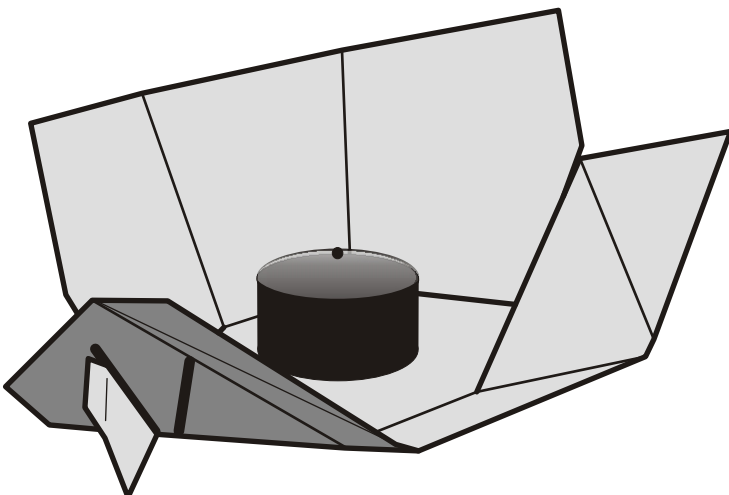
Modified-CooKit front view



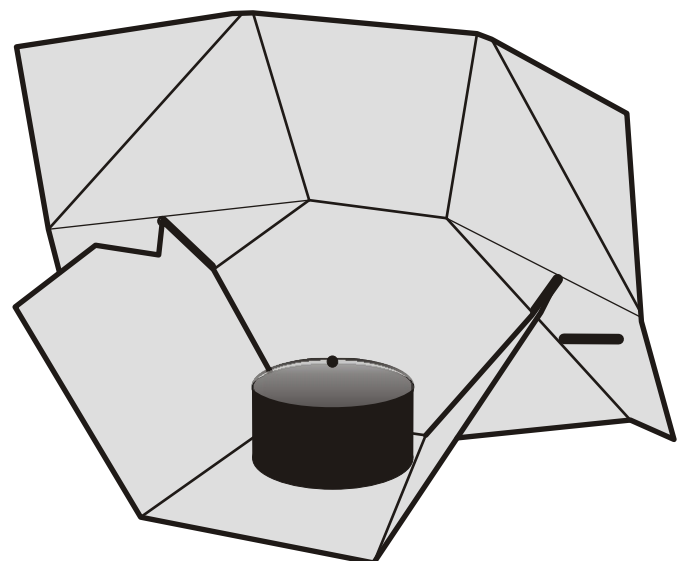
Modified-CooKit back view



Modified-CooKit side view

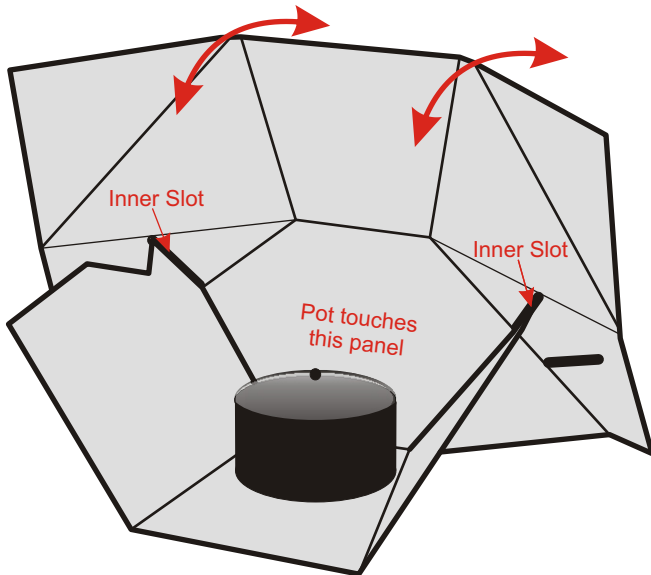


Normal cooking position



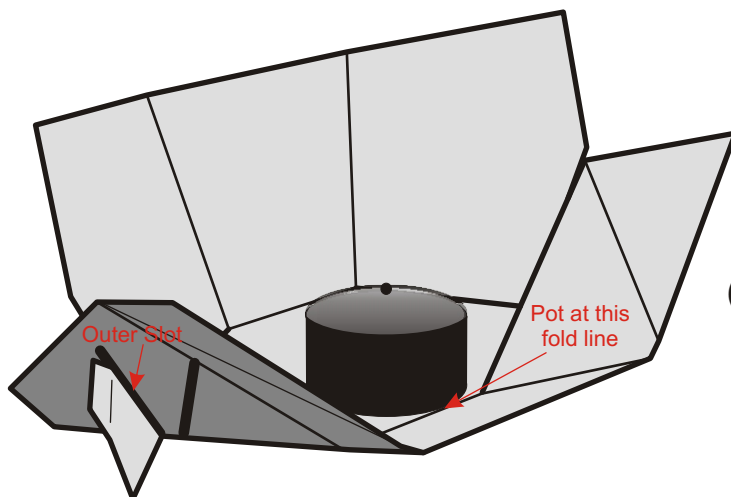
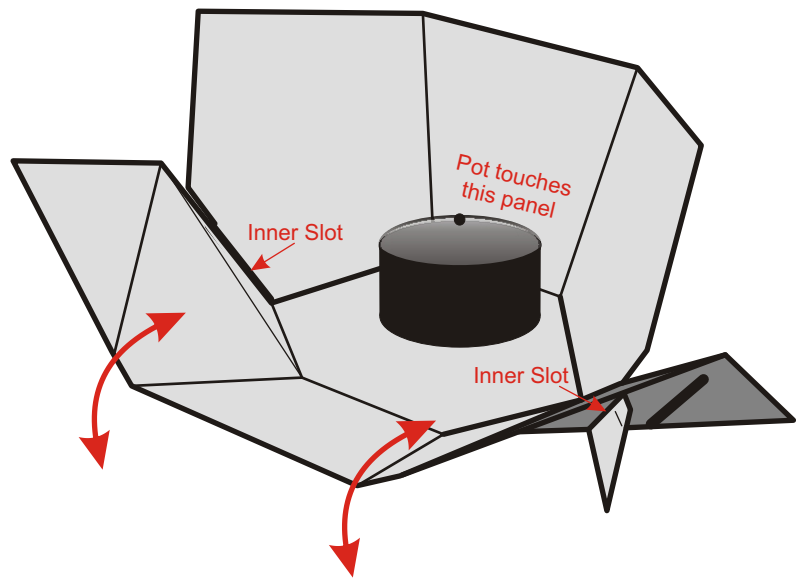
Low sun-angle cooking position

Diagrams below illustrate the best cooker's configurations and pot's positions for optimum cooking at different sun angles



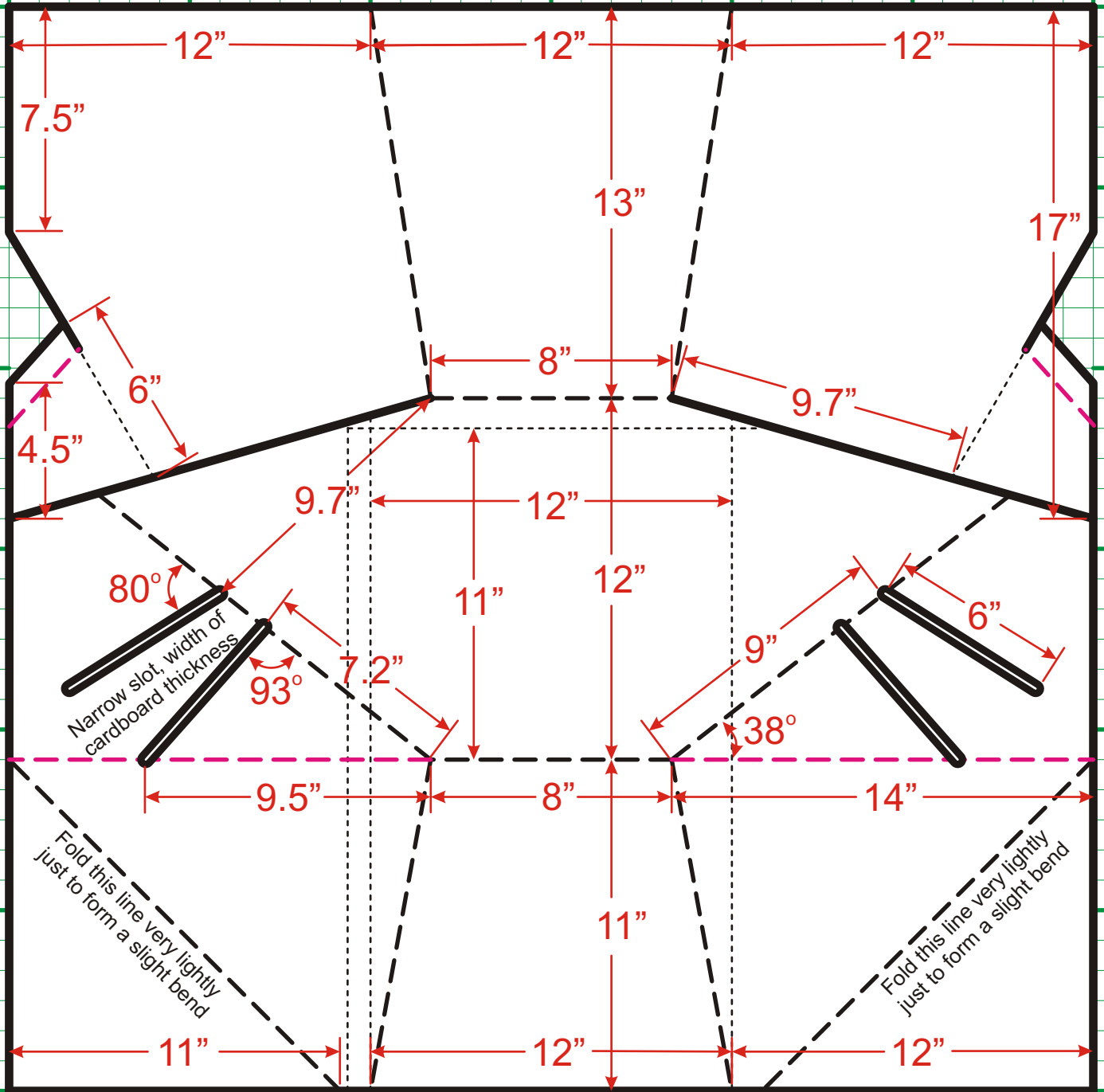
Low sun-angle (30° - 50°)
(Pot touches the vertical panel.
The panels at the top can be adjusted
to better capture the sunlight)

Medium sun-angle (50° - 70°)
(Pot touches the vertical panel.
The panels at the front can be adjusted
to better capture the sunlight)



High sun-angle (70° - 90°)
(Pot touches the front edge of the base.
Cooker is locked in the two outer slots)

Modified CooKit



--- Mountain fold line

— Cut line

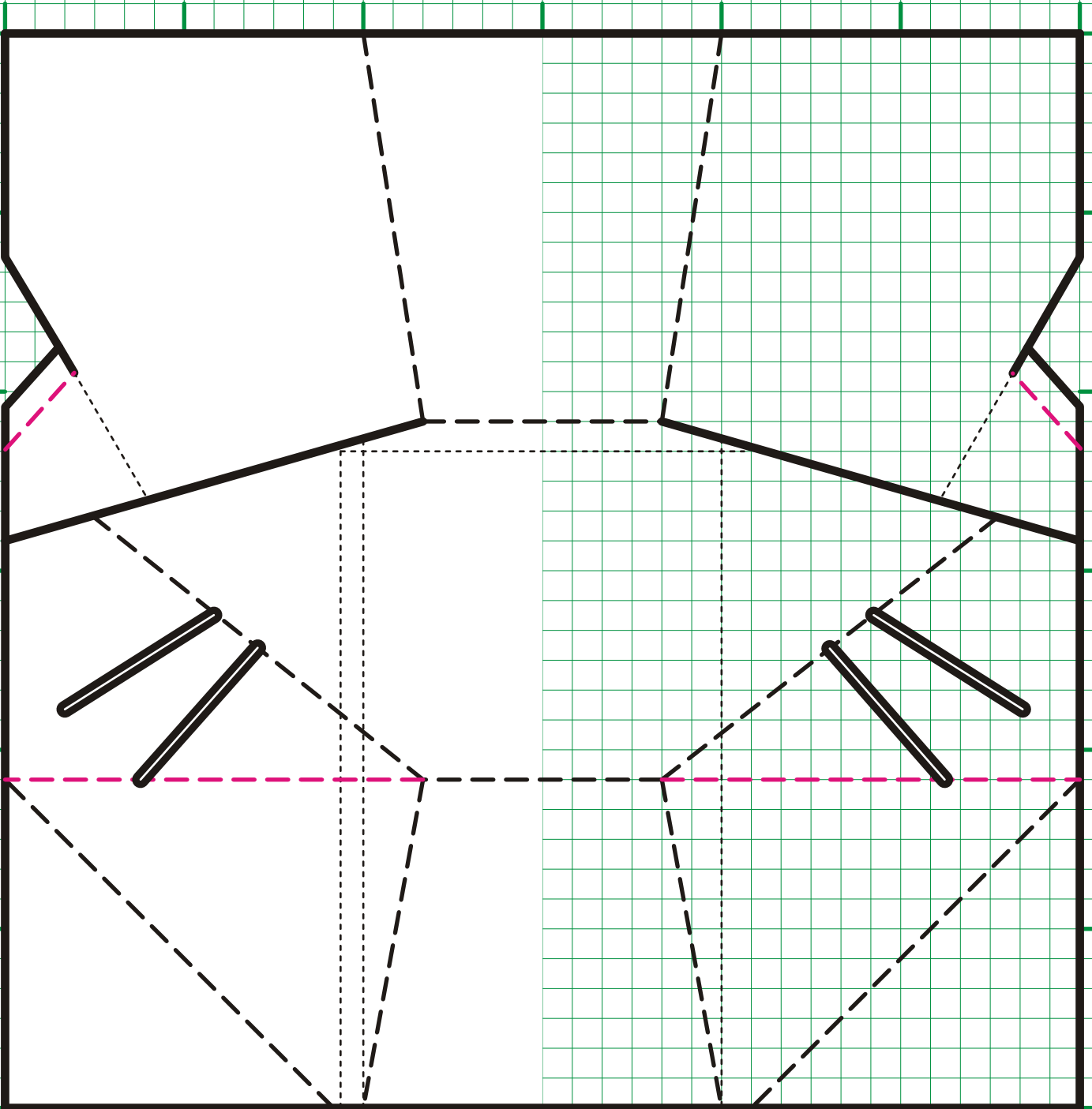
⤵ Degree angle

- - - Valley fold line

|| Dimension line

⋯ Fold line for storage use

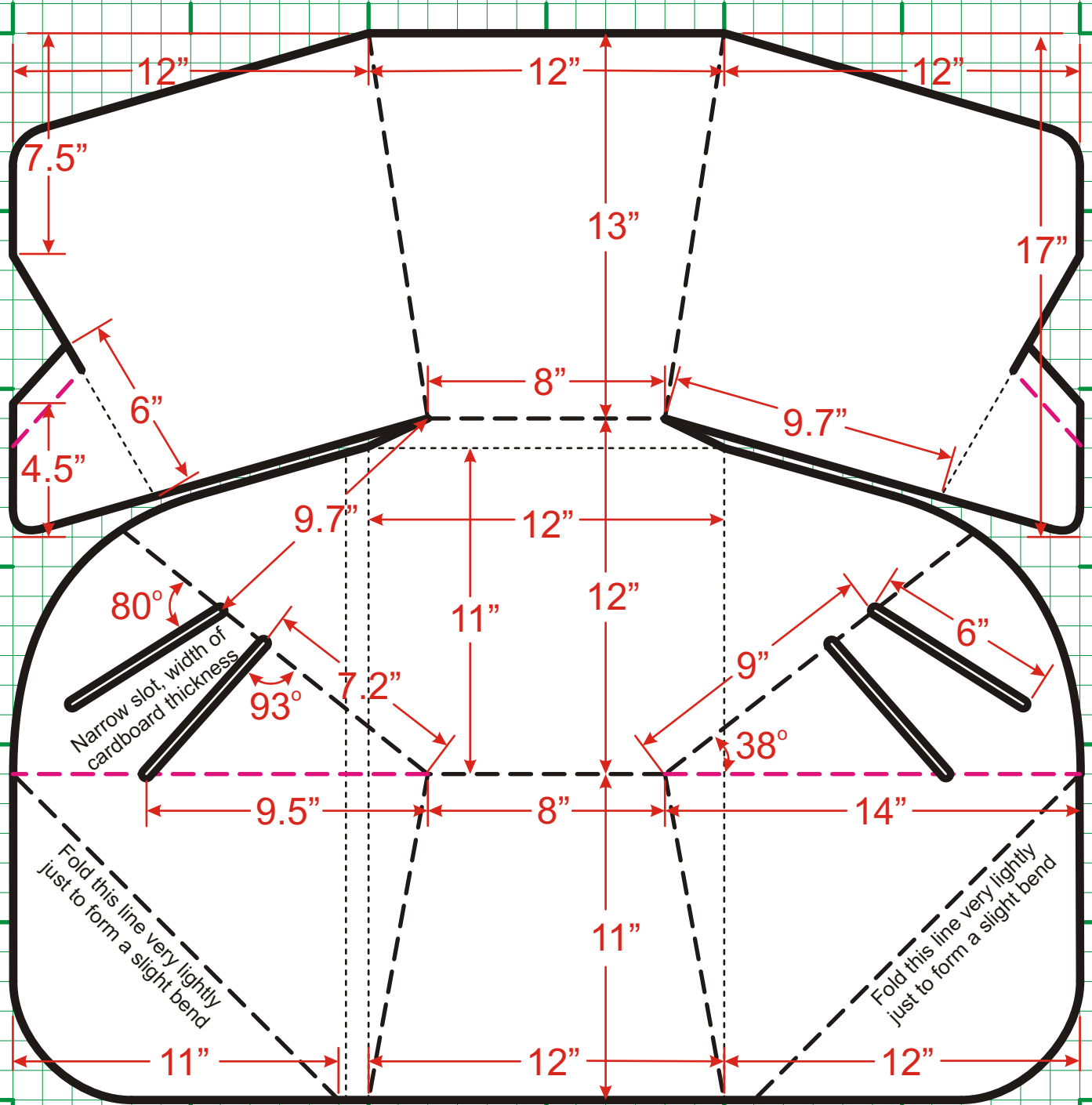
Modified CooKit



- Mountain fold line
- Valley fold line
- Cut line
- Fold line for storage use

Modified CookKit

(with round corners)



--- Mountain fold line

— Cut line

⤵ Degree angle

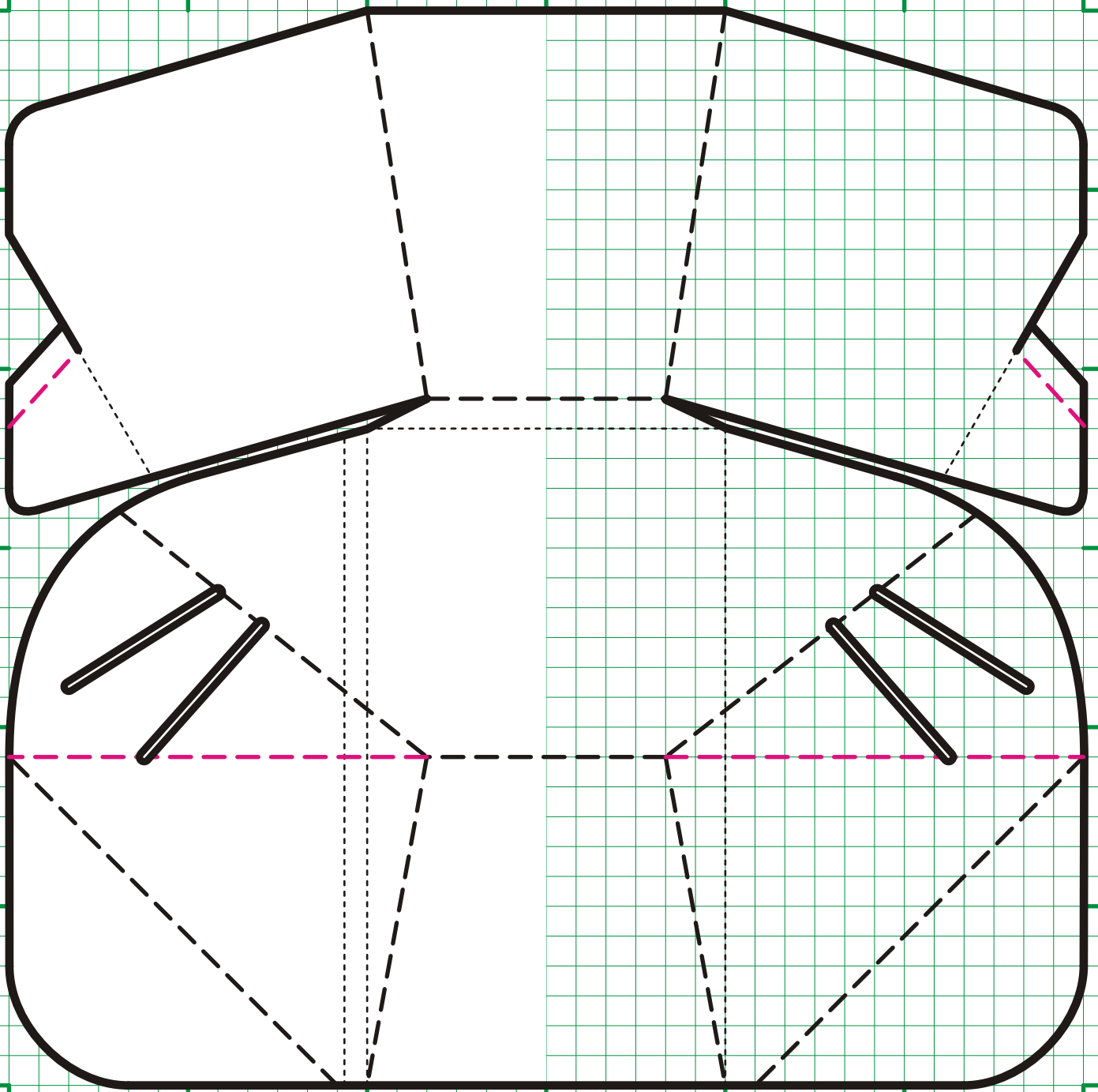
- - - Valley fold line

⤵ Dimension line

⋯ Fold line for storage use

Modified CookKit

(with round corners)



- Mountain fold line
- Valley fold line
- Cut line
- Fold line for storage use