

On September 14, we built commercial solar cookers to test efficacy in bringing water to boiling temperature.

One group assembled a box-shaped cooker, while my group assembled a large cooker. We didn't finish the assembly in time for the experiment due to a lackluster instruction manual, but we did get to the point of knowing where all the parts go and can likely go back and finish it for another experiment.

The experiment included the box cooker and a pre-assembled cooker. Water was poured into the cooking tube of the pre-assembled cooker, and a pot of water was placed in the center of the box cooker. Both set-ups had temperature probes put into the water to measure any temperature changes as time went on.

We took the two cookers outside at approximately 4:30 pm and recorded initial temps. I then took updated temp measurements in 5 minute intervals; the pre-assembled cooker appeared to heat up faster initially, but by the end of the experiment both cookers were at the same temperature. This discrepancy might have been due to the temp probes being displaced at some point during transport.

TEMP ( C ) - PRE-ASSEMBLED	TEMP ( C ) - BOX
23	23
26.5	24.2
31.7	29.1
38.2	43
42	46.9
47	39.9*

\*read after probe was moved back into the water