

Third International Conference **CONSOLFOOD2020**
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INSTITUTE OF ENGINEERING; UNIVERSITY OF ALGARVE; CAMPUS DA PENHA; FARO-PORTUGAL

**PANELBOLIC – AN HYBRID DIY PROJECT OF PANEL AND
PARABOLIC SOLAR COOKER**

Prof. Elmo Dutra Filho, MSc

Sunny Cooking Fogões Solares – Porto Alegre – RS – South Brazil

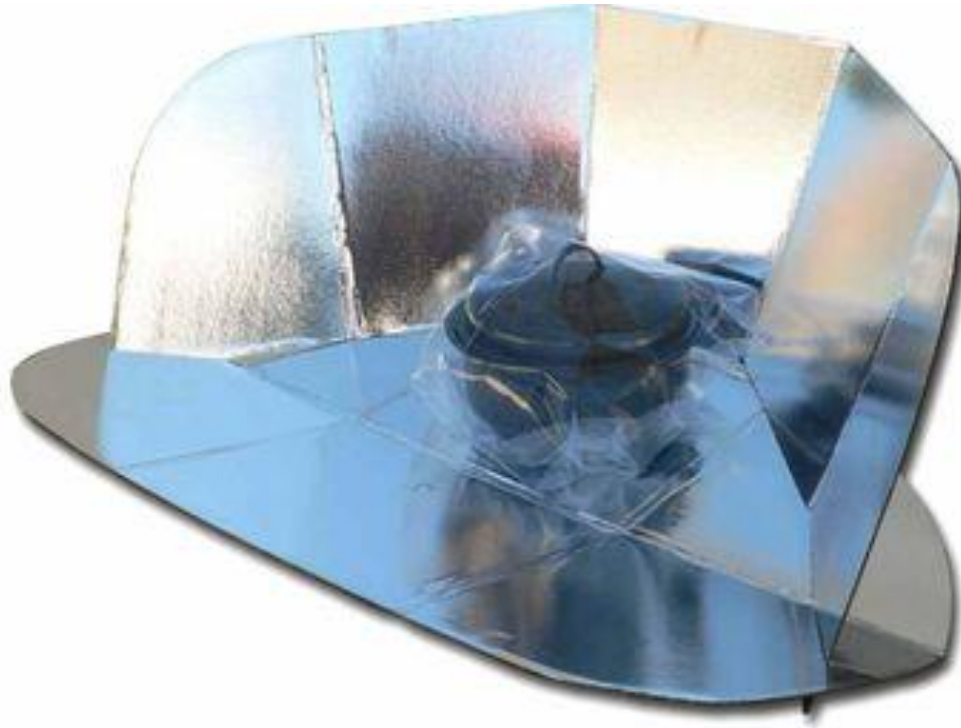
Where I live... Porto Alegre City – Rio Grande do Sul state – South Brasil



Twenty years ago... I was caught by a virus... Solar Cooking...



**Twenty years ago... I was caught by a virus... Solar Cooking...
The first Cookit ... we never forget!**



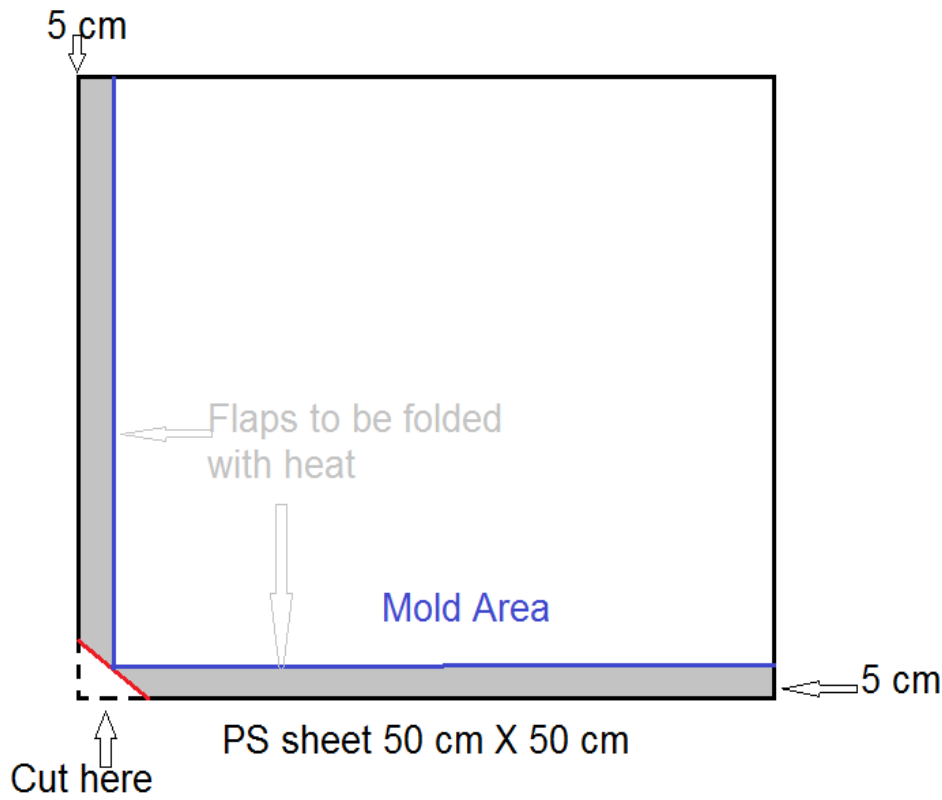
First attempt in parabolic solar cooker – thermo molded PS sheets



First attempt in parabolic solar cooker – thermo molded PS sheets



First attempt in parabolic solar cooker – thermo molded 2mm PS sheets



Second attempt in parabolic SC – 6 petals satellite dish, Mylar covered



Third attempt in parabolic SC – plannifying parabolas – panelbolic SC!



A light parabolic SC – just 2 kg!



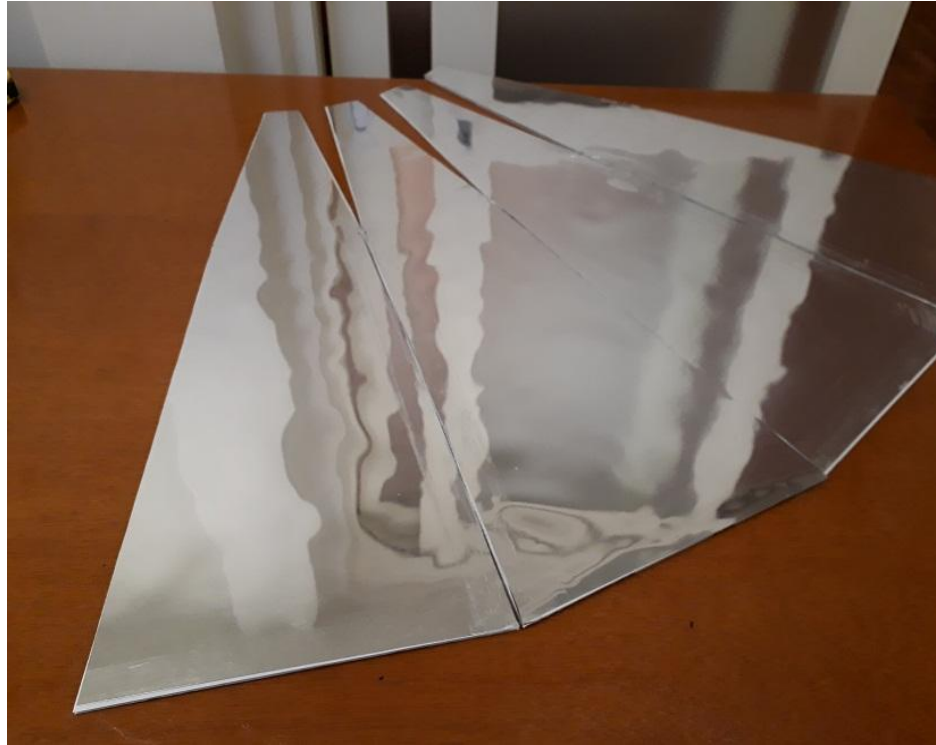
A light parabolic SC – just 2 kg!



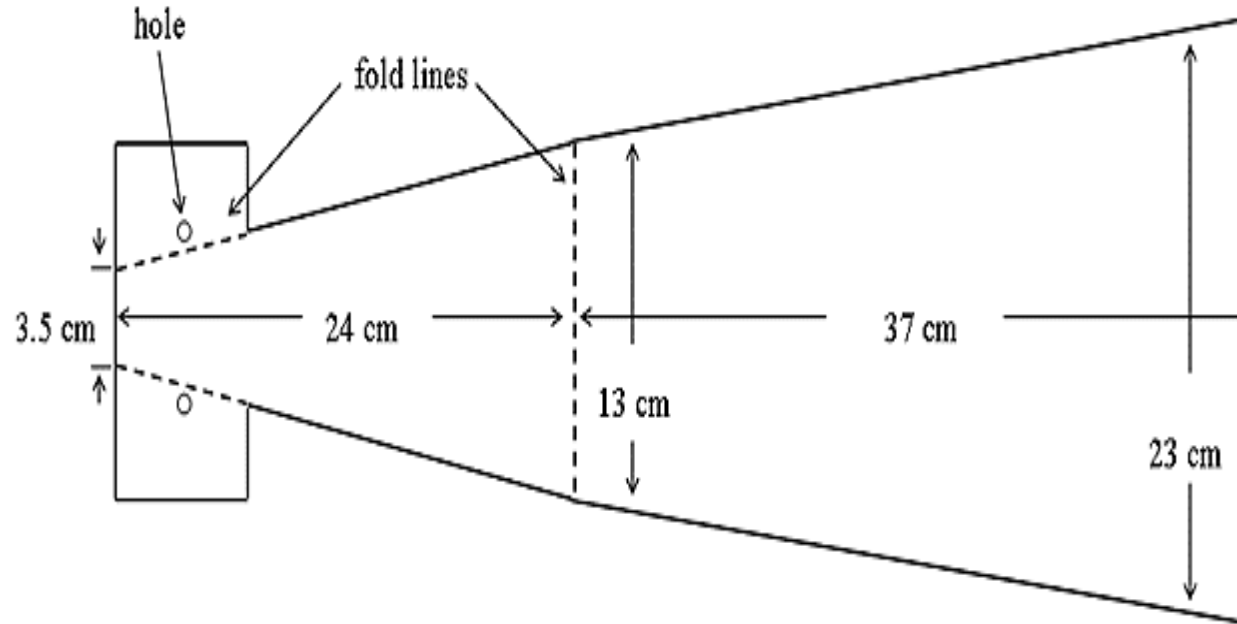
My DATS version – Dual Angle Twelve sided



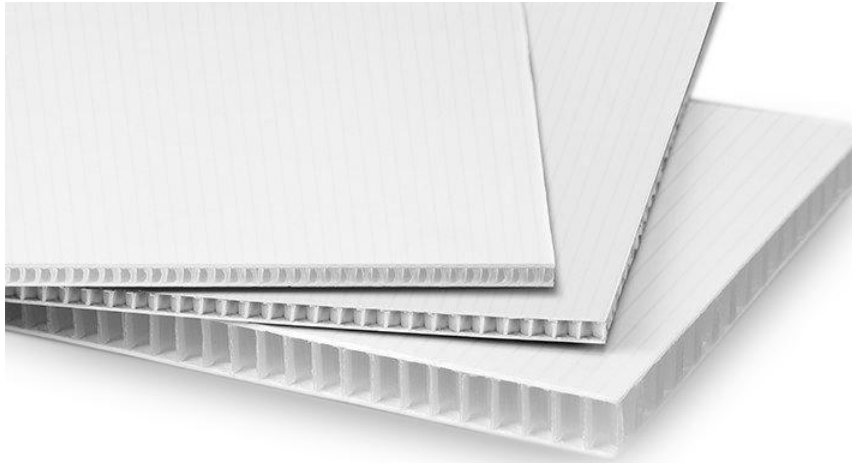
Four petals of DATS parabolic SC



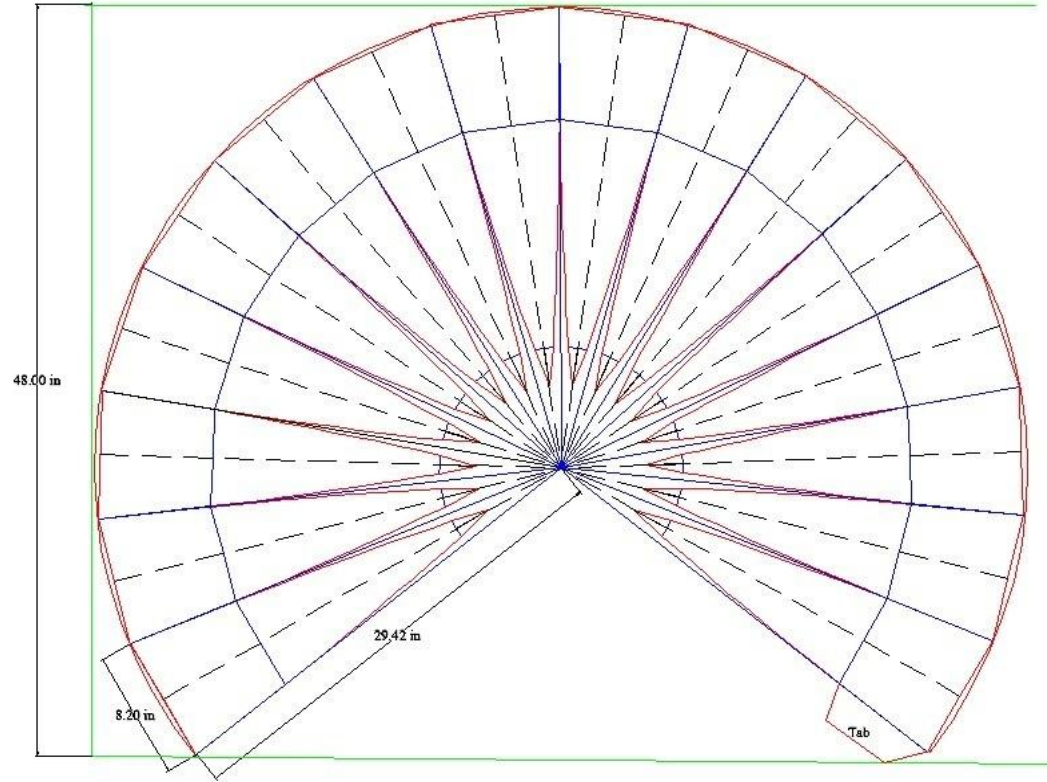
DATS pattern – 12 petals like that!



Materials I use: plastic alveolar PP sheets (Coroplast) and poliester film

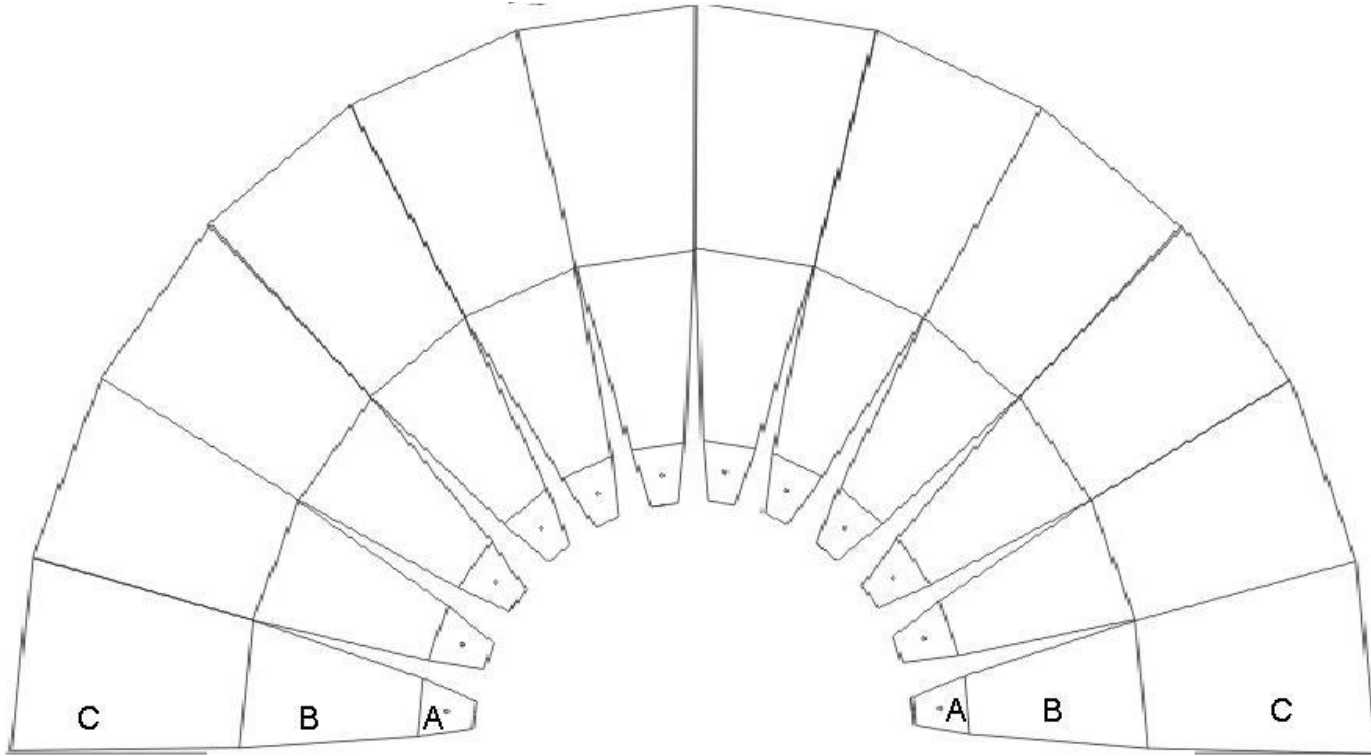


How to planify a parabola?



Layout of EB Hypar 42 Cooker Reflector - <https://www.earthboundtech.com/eb-hypar-cooker>

How to planify a parabola?



<http://www.angelfire.com/80s/shobhapardeshi/twelvesided.html>

How to planify a parabola?





Thank you!!! Ask me my card!

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