Our Design - Innovation

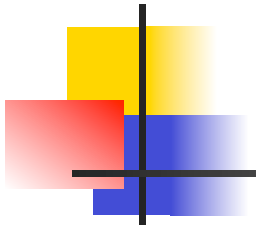
- Capable of peak production when properly focused
- With tracking system trough continuously focused on sun

Tracking Methods Options

- 4 ways to focus on Sun
  - 1-Manually adjust trough periodically
  - 2-Open loop system continually moving throughout day after initial start
  - 3-Using heat sensors connected to motors in a closed loop/feedback control system(electronic).
  - 4-Purely mechanical closed loop system

Fluid Phase Change Tracking System

- Passive purely mechanical system.
  - Easily maintained
  - Easily built
  - Closed loop control
  - No human interference required

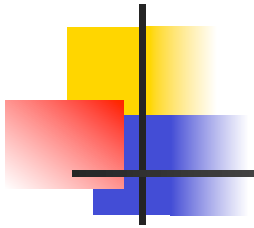


Technical Revelations

- Key concerns:
  - Two phase temperature versus ambient temperature
  - Mass shift per radiation intensity change
  - Trough inertia and rotational friction

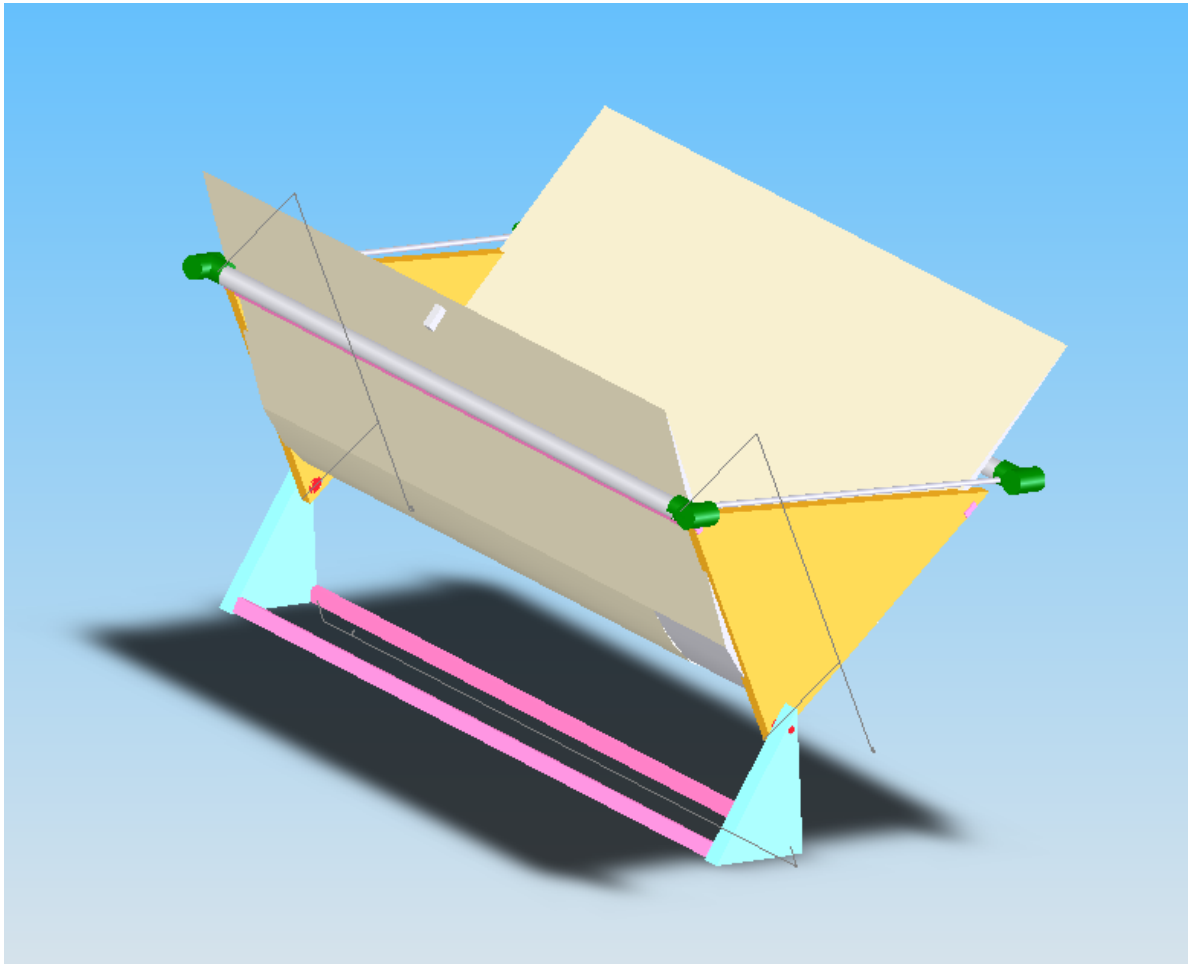
Sketch Model Revelations

- Need tracking system on outside of the trough
- Symmetry key to stability of system
- Controlling canister weight support and attachment will be significant load



Questions

Our Design



Lesotho Information

- Latitude: 28° to 31° south
- Typical winter min: -6.3° to 5.1°C
- Typical summer max: 20° to 32°C