

PORTAbell TOWER



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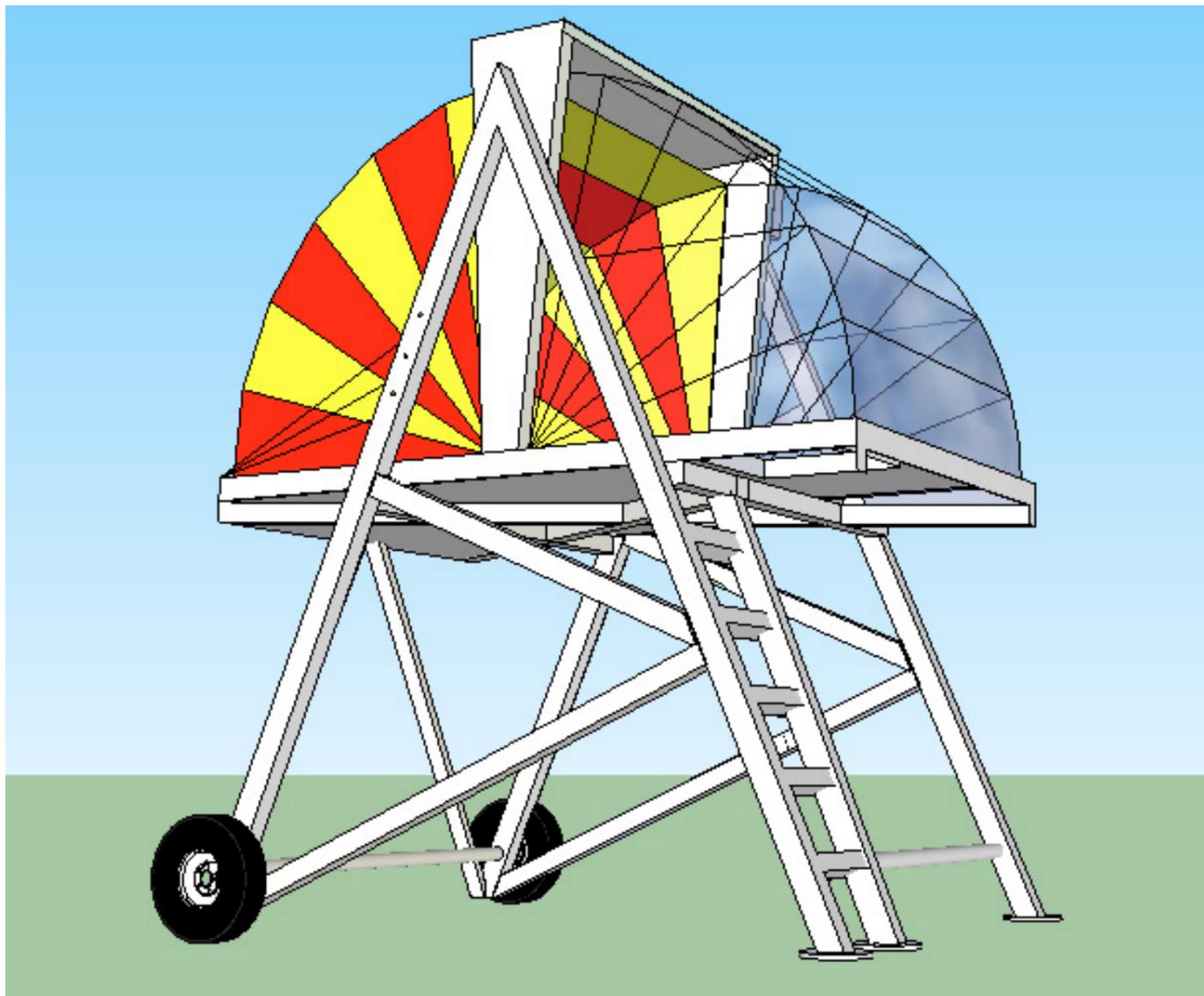
Portable life saving unit

The key design need is for the unit to sit off the ground to function as a Life-saving tower. This design sits 2m above the ground, is portable, and can be anchored to the ground using metal cables and KELTY sand pegs.

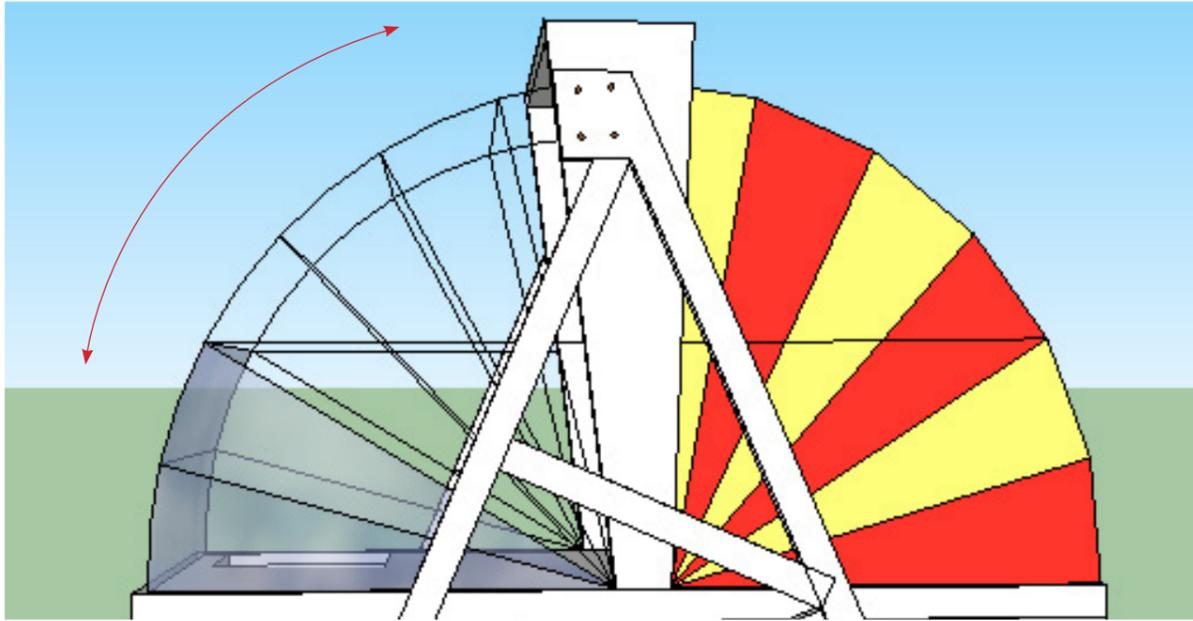
The unit has a waterproof covering, 1 half which is red and yellow giving the unit identity and the other half transparent for beach watch.

The canvas frame uses 30 x 4 flat alloy bar connected by nut + bolt to pivot simply allowing the transparent covering to fold, beneficial for scenarios where there may be a breeze or rain.

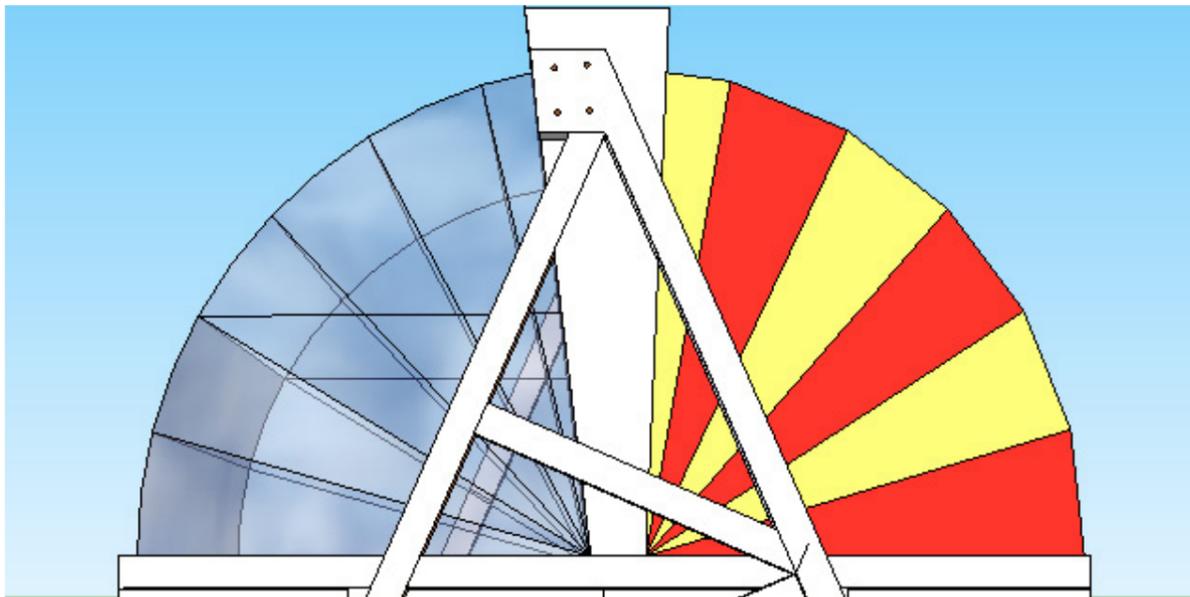
The A-frame is constructed with Macrocarpa (100 x 50mm) using mortise and tennon joins.



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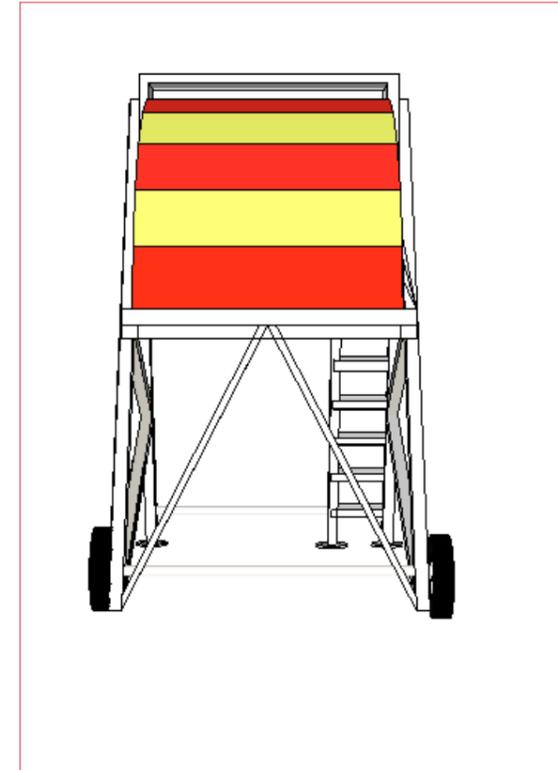


Transparent shelter folds down to 1m creating balustrade.



Closes to create shelter in windy weather or protect from harsh sun.

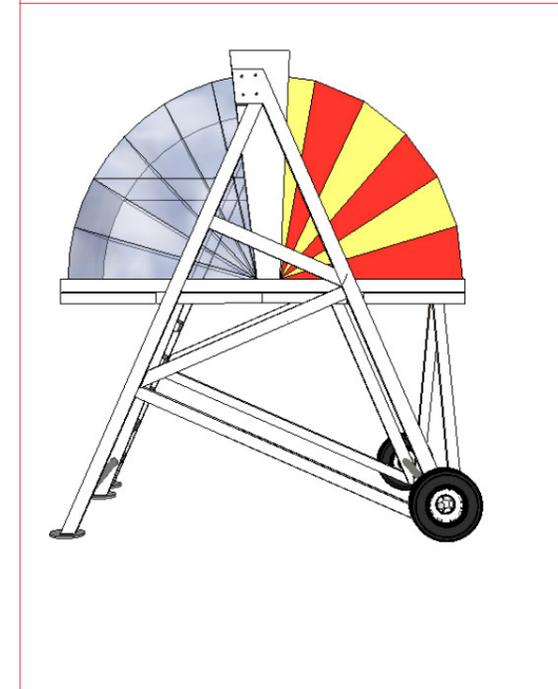
BACK



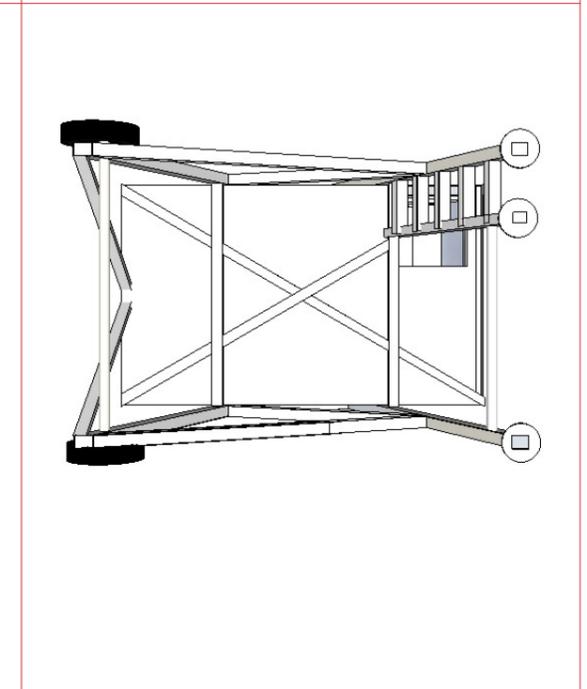
FRONT



SIDE



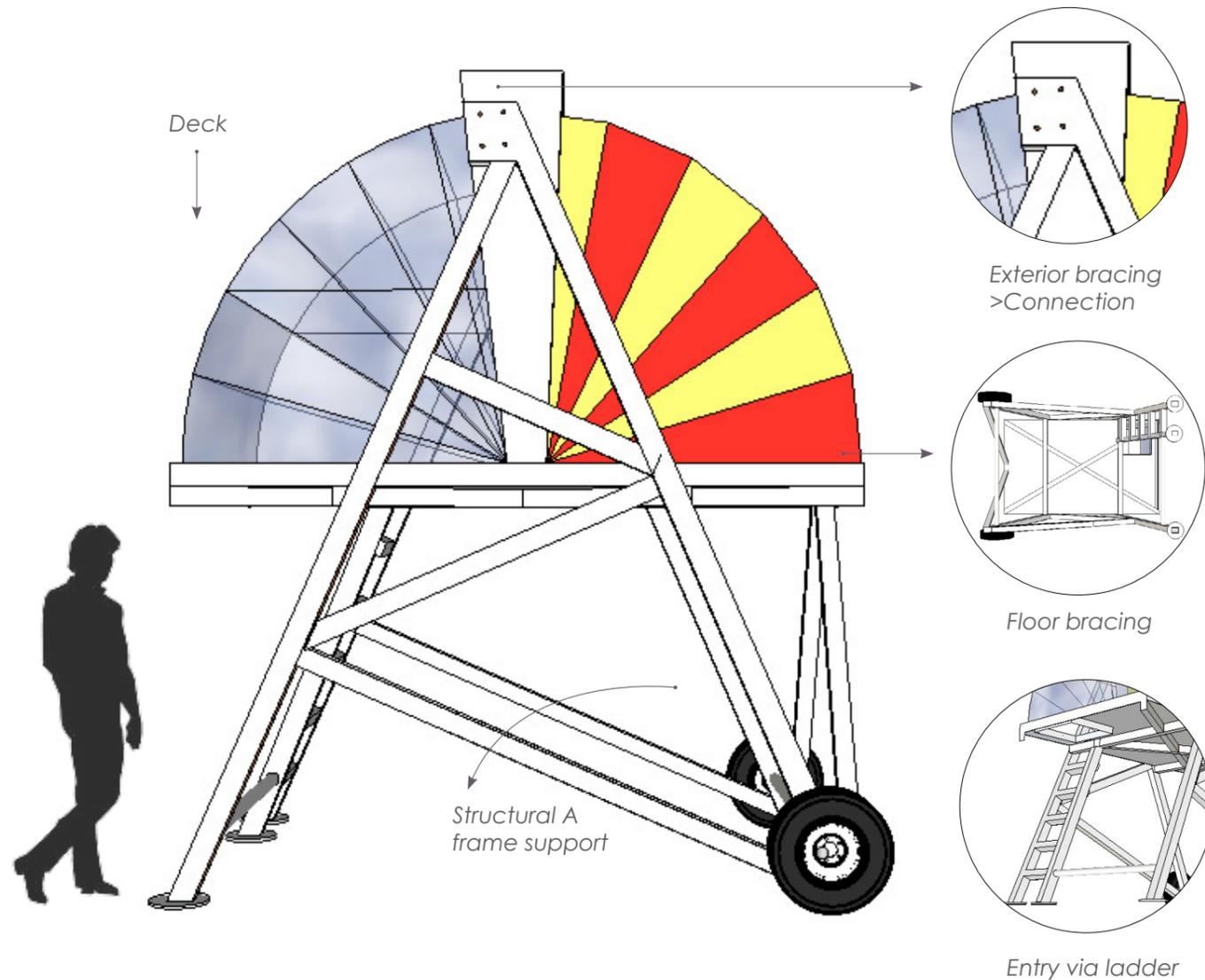
BOTTOM



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STRUCTURAL COMPONENTS

The unit can be self-supported. Like tents, the cables attached at the top of the A-frame can be inserted into sand using metal pegs. This will provide extra stability.

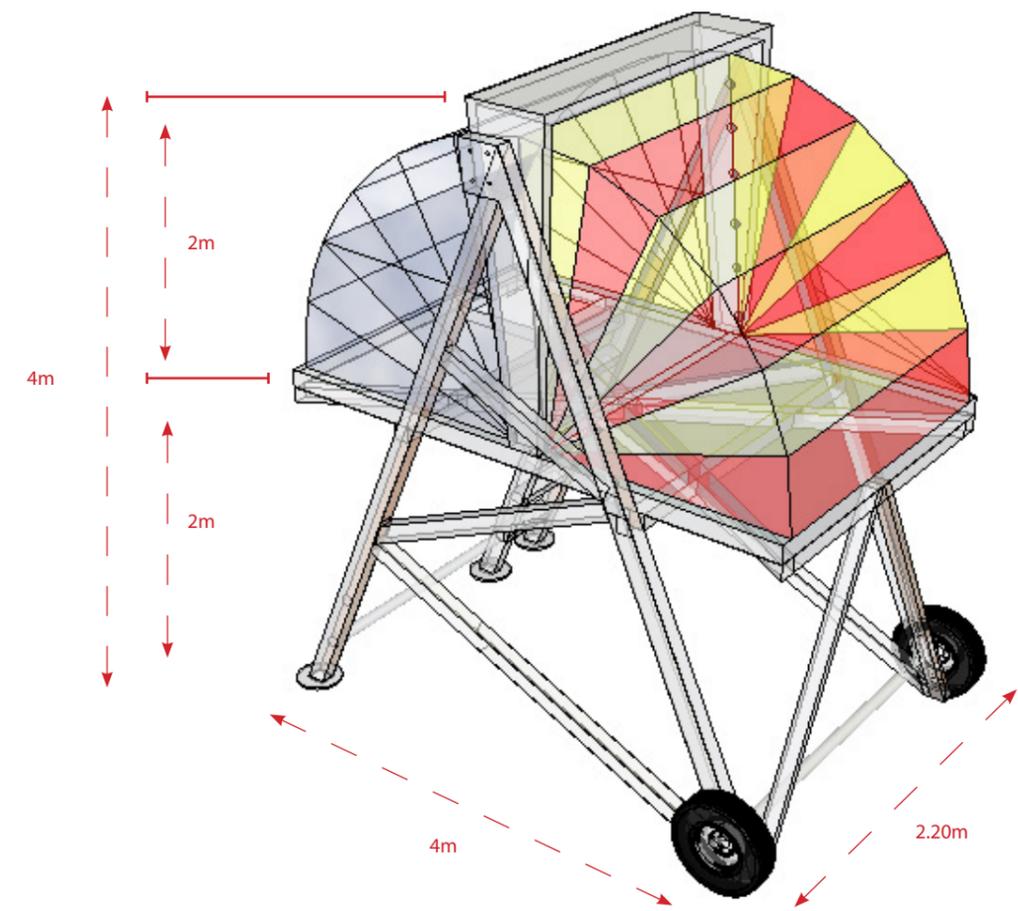


DIMENSIONS

Floor space = $8m^2$

The size and material choice ensures it is light enough to manoeuvre. This portable unit is under $10m^2$ and reduces consent and permits needed for larger construction.

Under 10m²
NO PERMITS

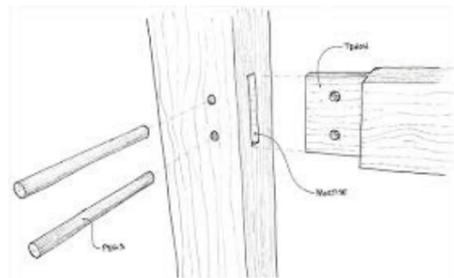


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Central wooden hub for canvas tent structure to connect to.

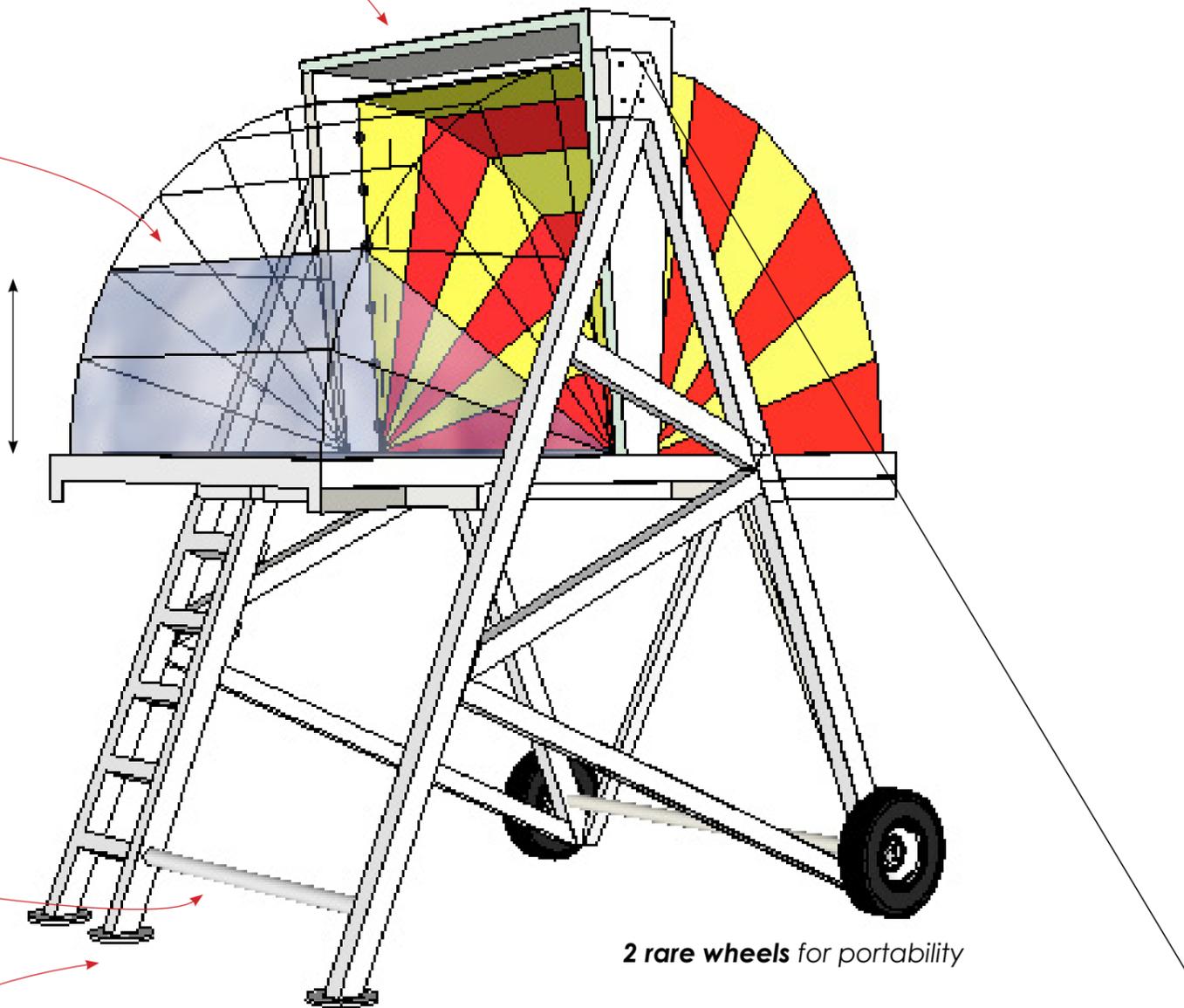
Canvas framing:
30 x 4 flat alloy bar.
Connect by a simple nut + bolt to pivot.

Mortise and tennon
construction joins



Tubular pole: Users can pick up the front of unit and wheel it to different locations.

Flat feet so beams dont sink into sand.



2 rare wheels for portability

MATERIAL COSTING

Macrocarpa 100 x 50mm

\$6.50 per meter



Canvas and transparent

\$35 per meter



H3 treated ply 21mm

\$100 per sheet (2.4 x 1.2)



Cables placed into the sand using KELTY sand pegs

1/16 by 250-Foot 7 by 7 Cable , Stainless Steel

\$31



Stainless steel coach bolts + screws (for A-frame/cable connection)

\$6.50 each



Canvas canopy connects to clips attached to wooden frame

\$2.60 each

