

# The Hexayurt Refugee Shelter System



## What is it?

The Hexayurt is a refugee shelter system based on work done at the Rocky Mountain Institute. It uses an approach based on "Autonomous Building" to provide not just shelter, but a complete infrastructure package including drinking water, toilets, fuel-efficient stoves, solar electric lighting and so forth.

## Costs

Shelter: \$200 - \$500+ per single family unit depending on climate and use duration  
Infrastructure Package: around \$100 per adult

## Materials

Permanent use: Thermax HD, from Dow  
Temporary use: laminated hexacomb cardboard  
On site fabrication: Super Tuff R (common building supply material)

## Units

There are three shelter sizes, of which the middle size is shown.

Stretch: Around \$100 per unit, 6' high, 72 sq ft.  
8 foot: Around \$200 per unit, 8' high, 166 sq ft.  
12' foot: Around \$300 per unit, 12', 166 sq ft, all over 8' high. This unit looks like a space age cabin.

## Assembly

Units take a team of three people around an hour to assemble. They are held together with a 6" wide, 600+ lb tape, and anchored to the ground like tents. For permanent use, UV-proof foil is applied.

## Manufacture

Any wood shop or packaging factory can be taught to make units in an afternoon. In emergencies, units can be cut with hand tools in half an hour each (only six cuts are required for each unit.)

## Infrastructure Package

1 Wood Gasification Stove (burns wood for cooking, 3x more efficient than clay stoves)  
2 Cold Cathode / LED Flashlights (energy efficient area lighting)  
1 Composting Toilet (model depends on location and we are still researching options)  
1 Water Purifier (type depends on location)  
Rechargeable AA batteries (for stove, lights, radios etc), for use in solar charging stations.

## Availability

The buildings have undergone extensive prototyping and are ready for mass manufacture.

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PS: the ball is a satellite dish from <http://www.gatr.com>