Hexayurt project / Schematics

All hexayurts are cut neatly from 4’ x 8’ sheets, the standard size for most construction goods.

The large sizes require only one kind of cut - diagonal cutting straight across six boards to form the roof triangles. Six 4’x8’ boards are cut along the diagonal, three right-to-left, and three left-to-right. From these twelve right-angled triangles, six isosceles triangles are formed, making the roof cone. The vertical walls are formed from whole 4’x8’ sheets.

The smaller sizes require a somewhat more complex cutting pattern for efficiency but all details are below.

If you are cutting angles (mitering your panels):

- the angle between vertical boards and other vertical boards at the corners is 60° so you cut 30° on each edge.
- the angle between the vertical boards and the roof is also 60°.
- the angle between the boards on the roof cone is 29.5° so you might as well cut a 15° angle on each board.
- all boards which meet flat should have no angle cut on them at all, of course.

Angle cutting is not required for a perfectly good hexayurt of any size, as long as one is using wide enough tape. 3” will do, 6” is better.
The schematics below describe the smaller 6’ hexayurts. The larger, and now more commonly used designs are compared here, with links to instructions.

**The Six Foot Hexayurt**

The 6’ Hexayurt is good for one person, although very cramped for two.
Six Foot Stretch Hexayurt

The 6' Stretch is cozy for two, but provides little storage or room for people to socialize in your cool, dust-free place. A 6 foot stretch with an additional 2 feet added to the walls becomes more attractive.

the 6 foot hexayurts can easily be assembled with one person, which is pretty awesome. Here's a photo of a rather nice one.
Proof that your 6’ stretch hexayurt can (with a little wasted tape) be assembled as semi folding with just one whole person!!

Here's a diagram showing how to construct a semi-folding 6’ Stretch hexayurt using Camp Danger hinges. [1] The goal is to connect as many parts together as possible with hinges that each allow the minimum amount of flexibility required for the connection. Corey McGuire's hinge tutorial [2] and tutorial on hinge placement [3]
Materials Total for Large Hexayurt

The larger hexayurt (18 sheets of 4x8 panels) requires 150 feet of tape for the edges.