

ROTATION PRIM CONSTRUCTION



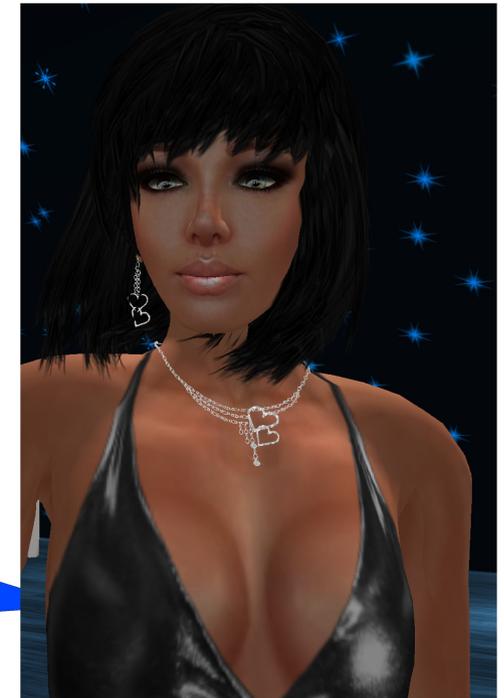
ROTATION PRIM CONSTRUCTION



How did you do that windmill

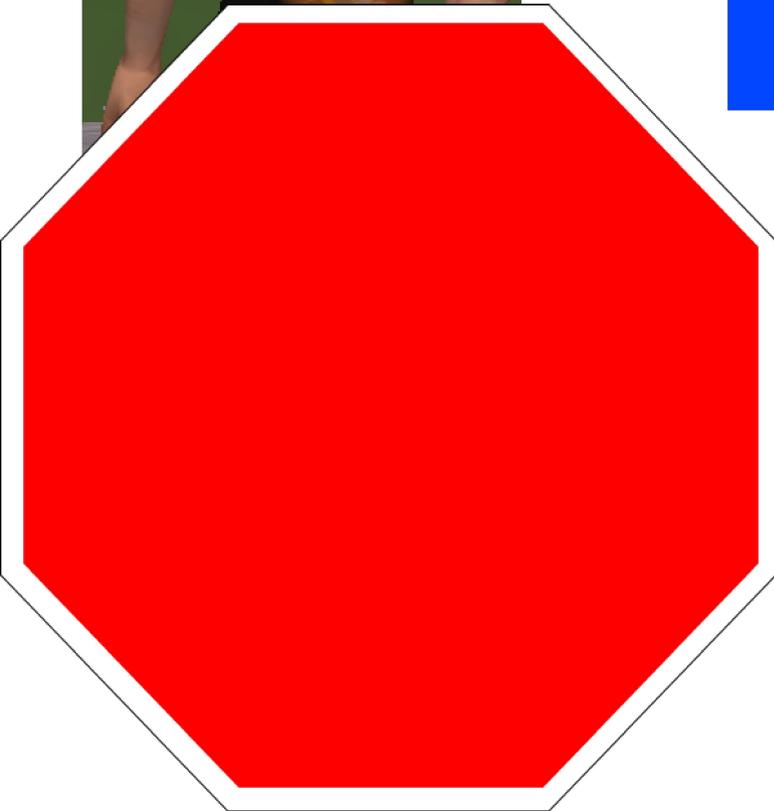
You mean an octogonal shape building?

You mean you did a building from a stop sign??



Well octogone, yes like a stop sign it has 8 sides

- Le rayon du cercle circonscrit à l'octogone est $R = \frac{a}{2 \sin \frac{\pi}{8}} = \frac{a}{\sqrt{2 - \sqrt{2}}} \simeq 1,3066a$.
- Le rayon du cercle inscrit à l'octogone est $r = \frac{(1 + 2 \cos(\frac{\pi}{4}))}{2} \times a = \frac{a}{2} \cot\left(\frac{\pi}{8}\right) \simeq 1,2071a$.
- Le périmètre de l'octogone est égal à $P = 8a$.
- L'aire de l'octogone est égale à $A = 2a^2 \cot \frac{\pi}{8} = 2(1 + \sqrt{2})a^2 \simeq 4,82843a^2$ (cot est ici la fon



ROTATION PRIM CONSTRUCTION

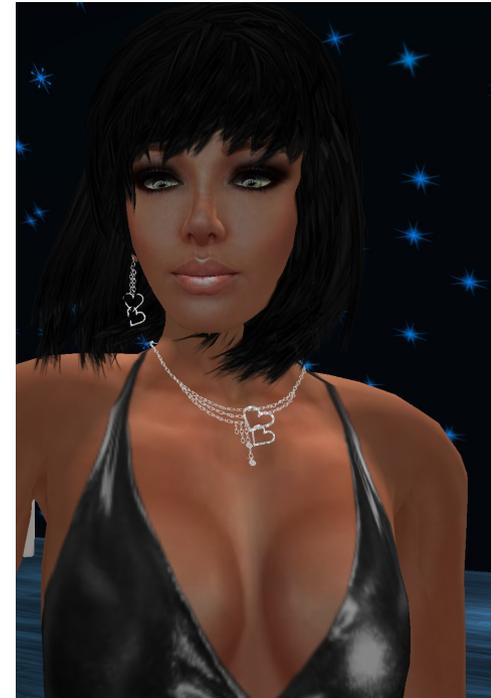


Might be I shall stick to square buildings?

The octogone is done using simple triangle rotation

Octogon, square, now triangle . Might be a shall be wyse and do a round windmill

You could make fun projet by rotating prim like. Look at this Chineese construction for instence.

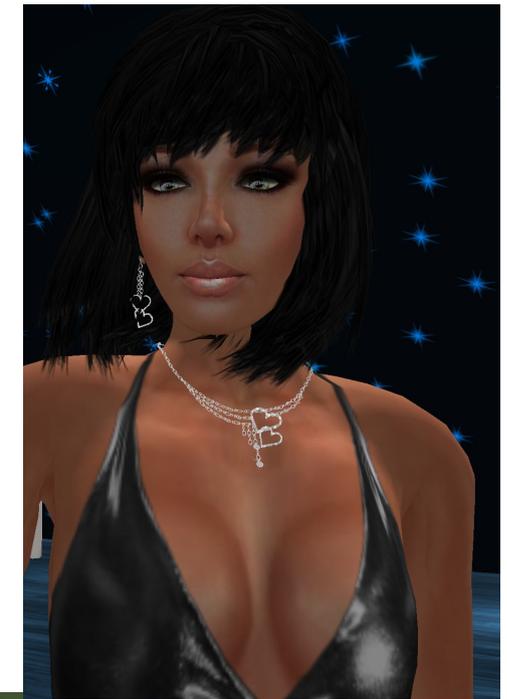




Ok show me what is this rotation prim about

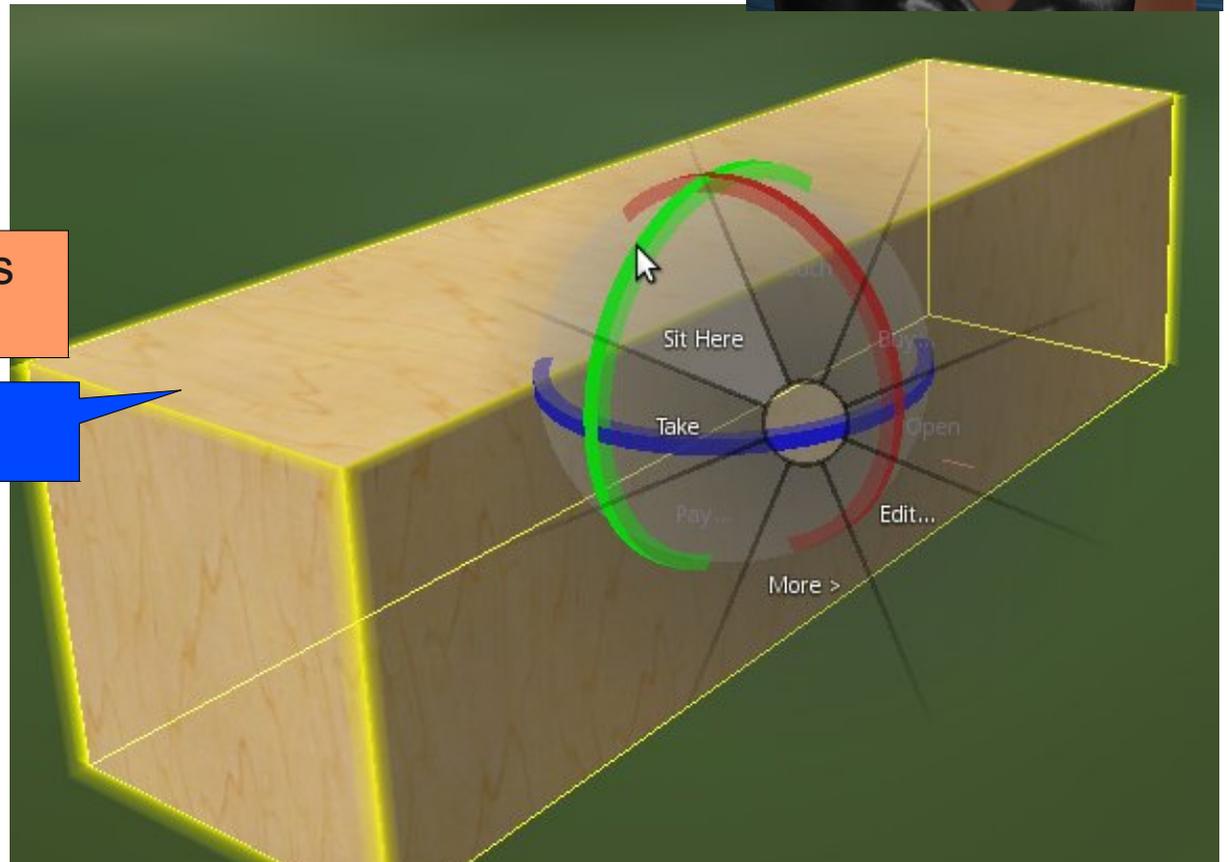
How do you rotate a prim usually?

I edit the prim then hold ctrl key while dragging the color cercles the way I want to rotate it



You notice that it rotate on its center

Yes true





You can also use the rotation parameter of the object in the tool

Yes for exemple I put 90 deg in Y axis rotation value and it will rotate my object on the Y axis by 90 deg



Align (Shift to Pack)

Edit linked parts

Link Unlink

Ruler: World

General Object Features

Edit Object Parameters:

Locked Build

Physical Build

Temporary Part

Phantom Build

Position (meters):

X 50.376 C

Y 124.675 P

Z 23.660 p

Size (meters):

X 1.741 C

Y 0.500 P

Z 0.500 p

Rotation (degrees):

X 0.00 C

Y 90.00 P

Z 0.00 p

Material: Wood

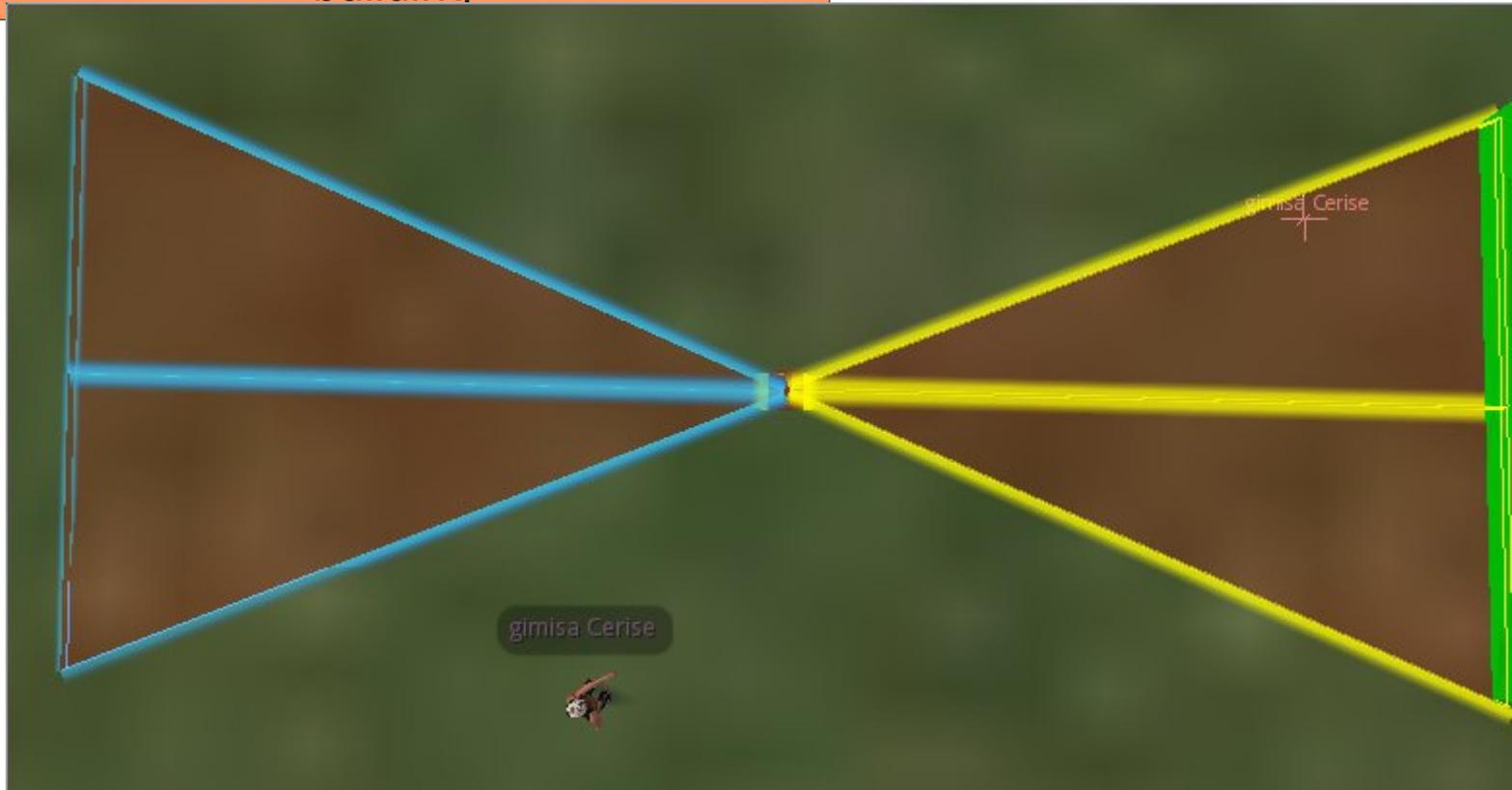
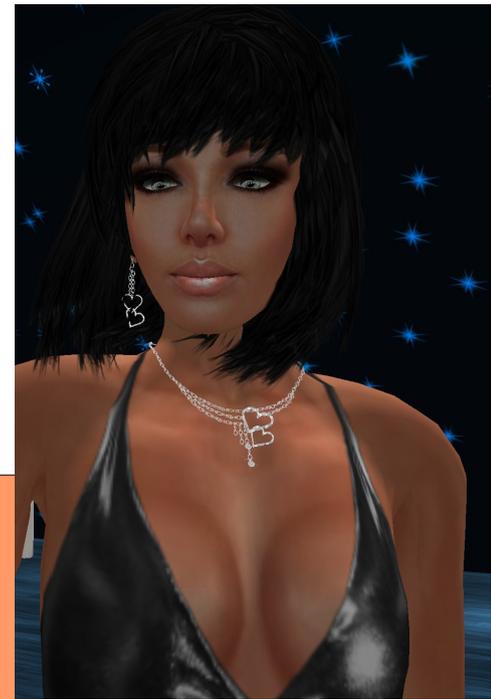
Again note that this is done from center.

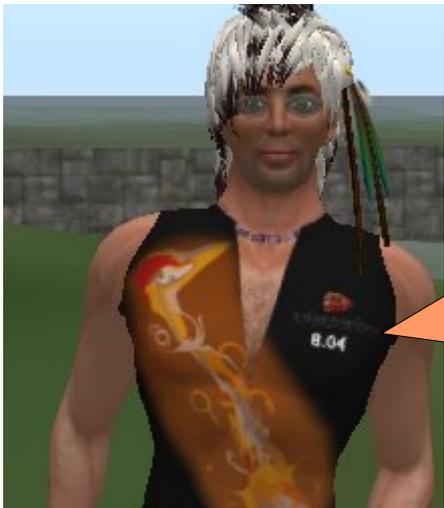


So what does it tell you that is rotating on the center a problem

No if my piece is symmetrical I can rotate it the way I like. For exemple if I had a basic tie shape for my stop sign I could just rotate it the usual way. Is it possible ?

Well to get there is the subject of this tuto. See its composed of 4 triangles. The triangle have $4.14 \times 10m$ as I wanted to do a 20m octogonal windmill building





What do you suggest to change the location of the rotation axis?

Use imprudence viewer and change grid option...See where the arrow is now I have put axis position to 0,0,0 of the prim

I have SL2 / 3 I dont have access to that option!!

Tools

- Position
- Rotate (Ctrl)
- Stretch (Ctrl-Shift)
- Select faces to texture
- Align (Shift to Pack)
- Edit linked parts

Stretch both sides

Stretch textures

Use grid

Build Options

Link Unlink Selected objects: 1 Primitives: 1

Ruler: World

General Object Features Texture Content

Edit Object Parameters: Build Math

- Locked
- Physical
- Temporary
- Phantom

Building block type: Box

Path Cut Begin and End: B 0.000 E 1.000

Position (meters): X 40.609 Y 128.582 Z 23.928

Hollow: 0.0

Hollow shape: Default

Size (meters): X 4.140 Y 0.220 Z 9.973

Twist Begin and End: B 0 E 0

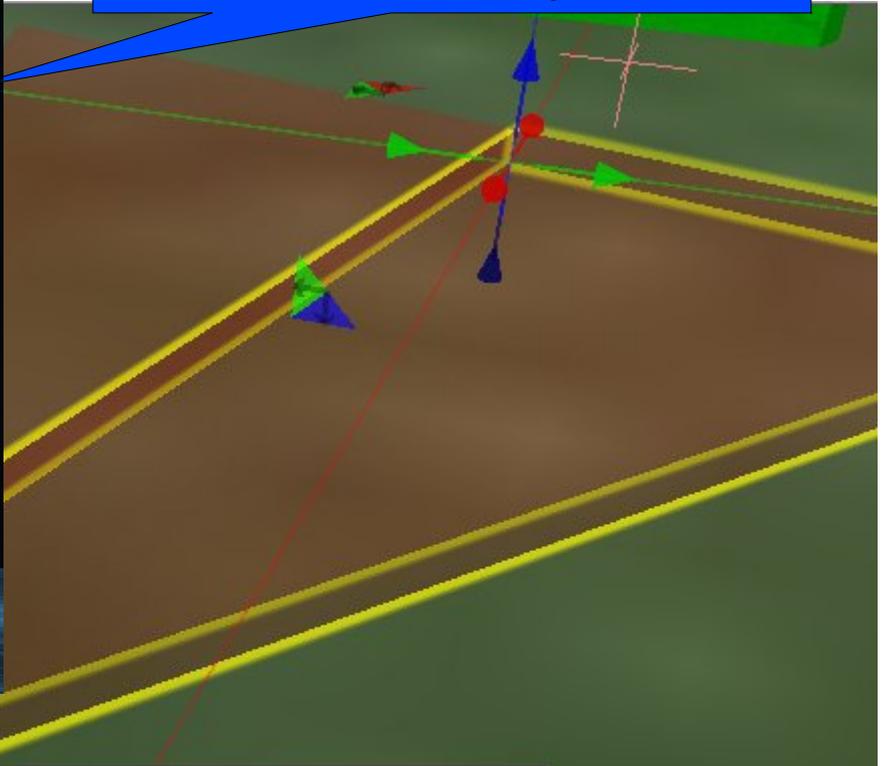
Taper: X 1.00 Y 0.00

Rotation (degrees): X 90.00 Y 77.00 Z 0.00

Top shear: X -0.50 Y 0.00

Slice Begin and End: B 0.000 E 1.000

Material: Wood



Advanced Build Options

Grid Options:

- Grid units (m): 0.500
- Grid extents (m): 12.0
- Sub-unit snapping
- Show cross sections
- Grid opacity: [Slider]

Axis Pivot Point:

- X pos: 0.00000
- Y pos: 0.00000
- Z pos: 0.00000
- Values are percent

- Show selection outlines
- Limit Select Distance
- Show axis on root prim
- Rez objects using land group

Object edit decimal places: 3



So I have to build rotation prim construction with imprudence

No there is an other way to do it. Notice below the cube that I have added to the triangle.

Yes just on its tip.

This is a reference point for the constuction.



Oh I see you will use it to rotate the shape wow !!

General Object Features Texture Content

Name: octo2

Description: (No Description)

Creator: gimisa Cerise (gimisa.cerise)

Owner: gimisa Cerise (gimisa.cerise)

Group: (none)

Share Deed

Click to: Touch (default)

For Sale: Copy

Price: L\$ 10

Show in search

GRID OPTIONS

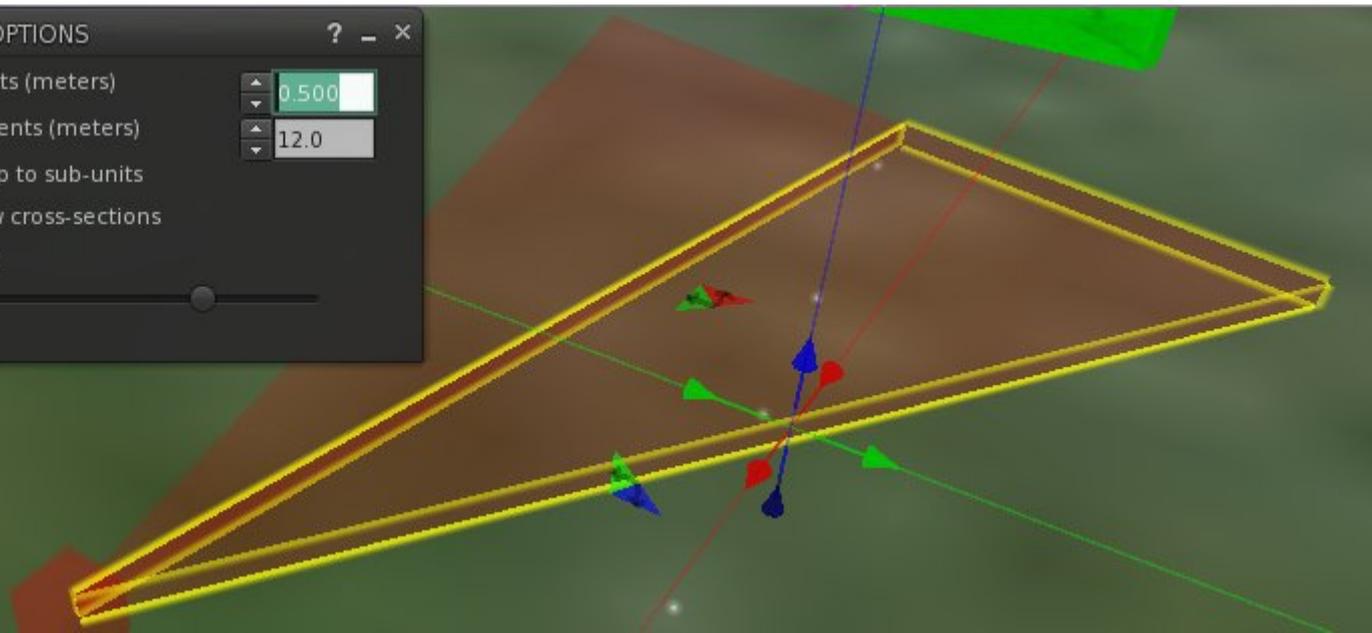
Grid Units (meters) 0.500

Grid Extents (meters) 12.0

Snap to sub-units

View cross-sections

Opacity:

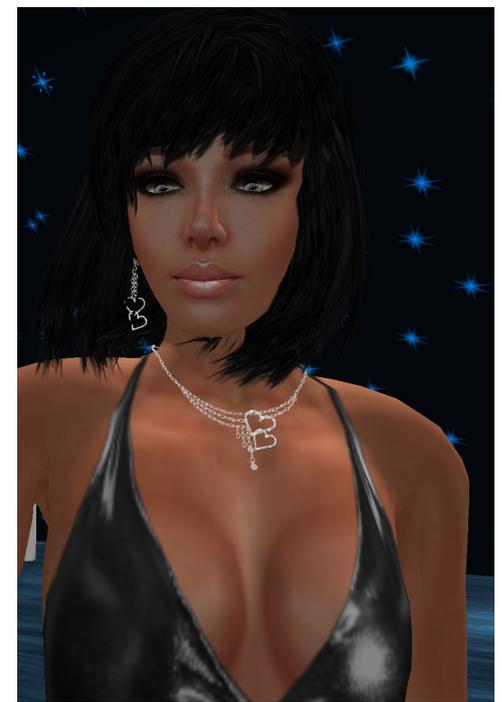




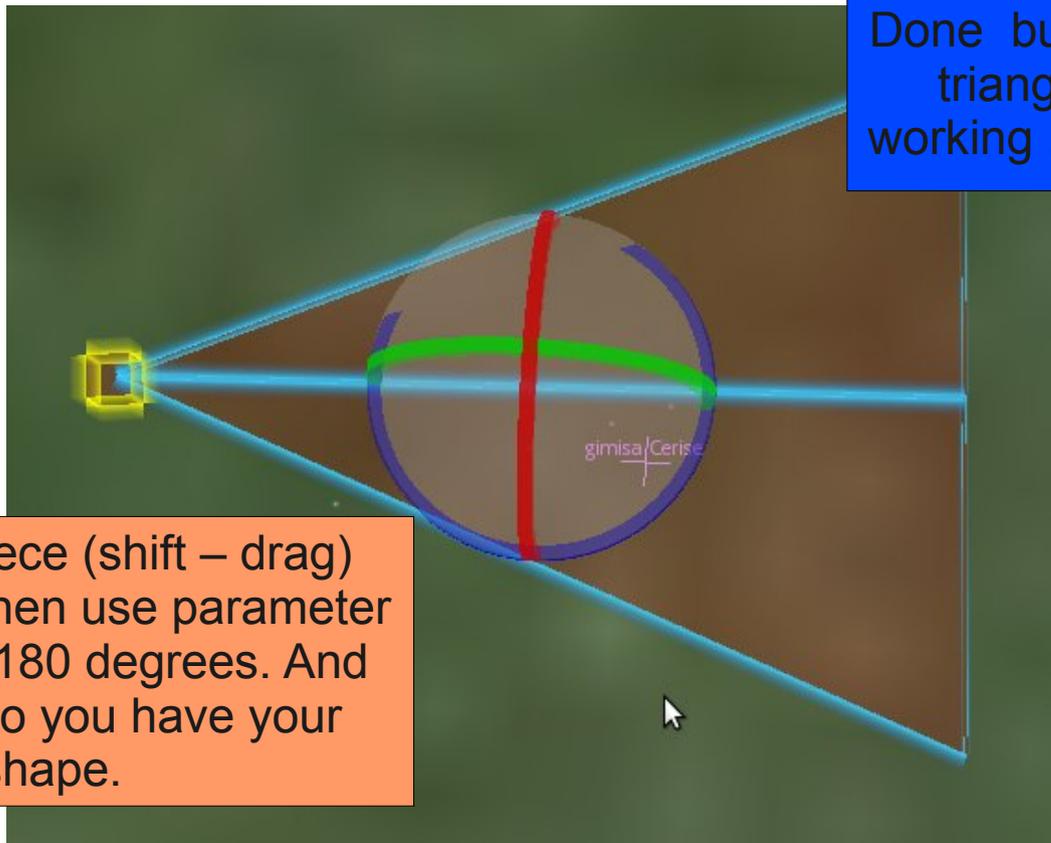
Hey and I can use this reference point anywhere not necessarily on the tip of the piece .

Yes reference point are very handy as much as imprudence viewer for builder

Put your cube center where your rotation center is. Make sure it had NO rotation and link the triangle to it.



Done but it shows center of my triangle as rotation its not working . What do I do wrong??

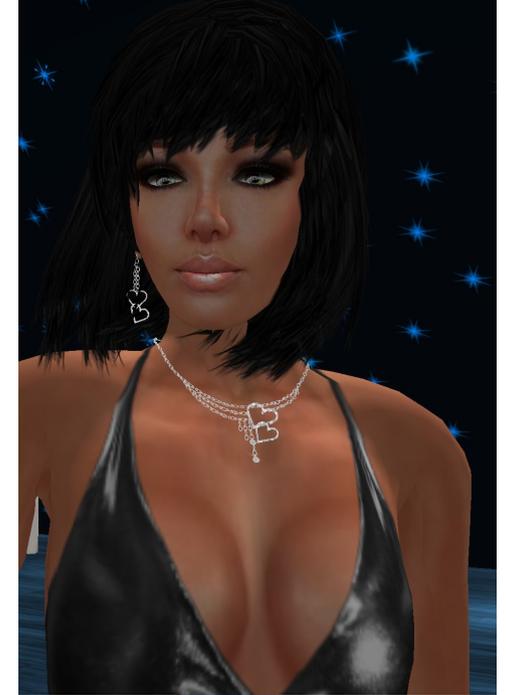


Copy the piece (shift – drag) then ctl -z . Then use parameter Z and enter 180 degrees. And there you go you have your shape.

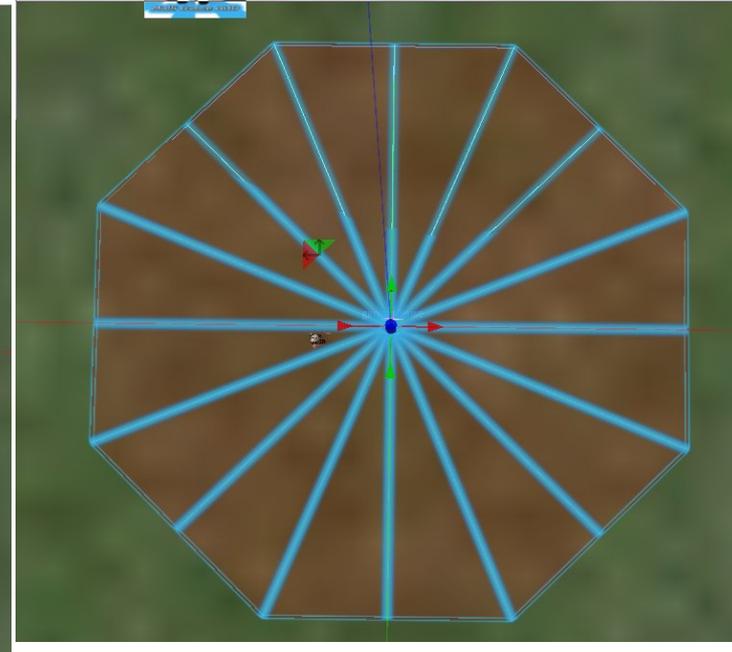
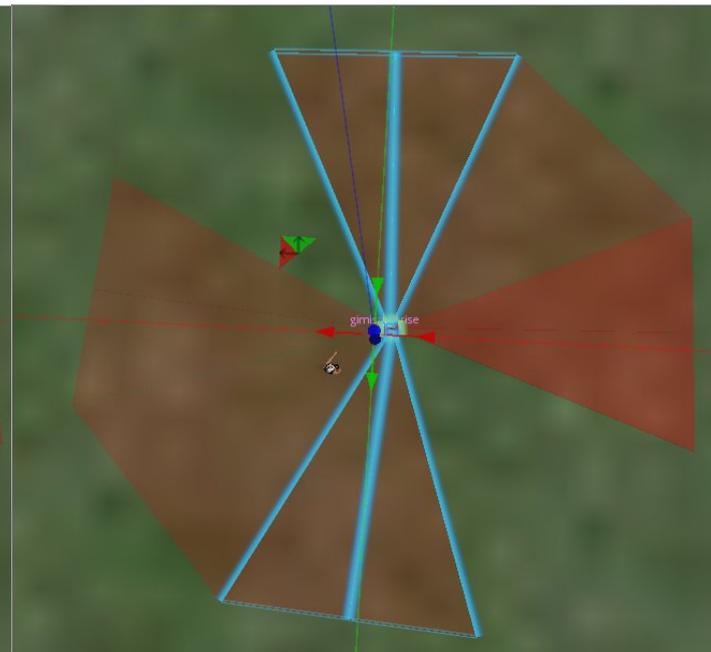
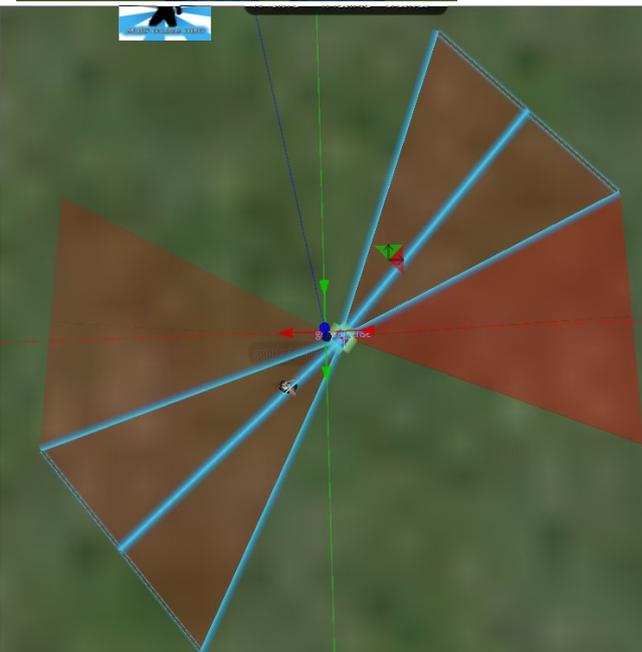


WOW using the parameter I rotated it and now I can link the pieces and rotate the thing normally.

Ya but why stop there. Use the new created piece. Link the rotated one with the original. Copy and ctl-z and use the cube to rotate the tie exactly 45 deg three time and you have your octogonal shape.



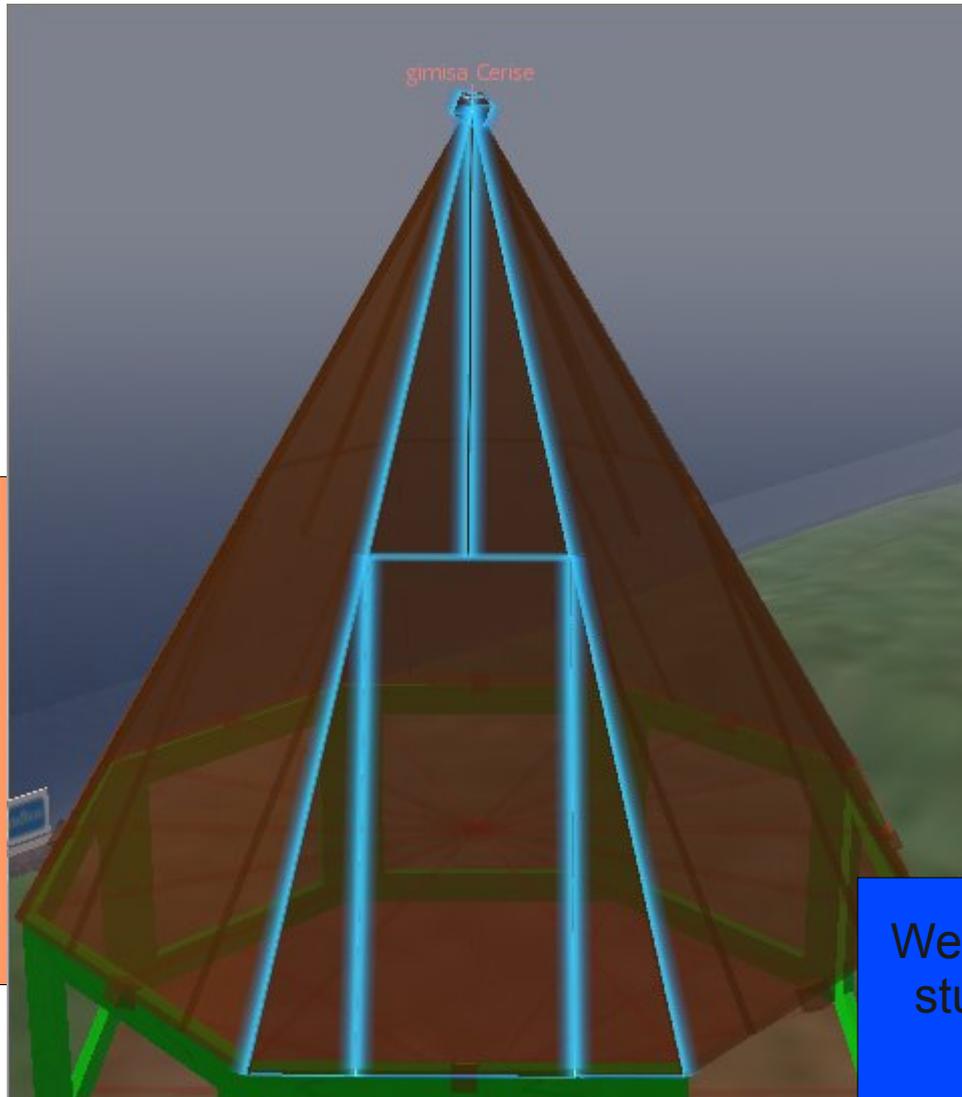
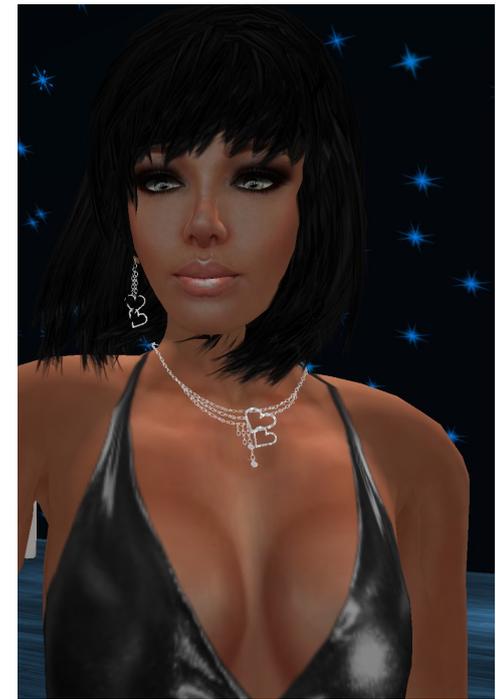
He He He neat and precise using the parameter.





The roof is the same idea but cause of the 10m limit on the SL prims it need more prim.

Can you not use mega-prim



You cant modify them.
But the idea is the same
use the top cube to turn
the prim set down then
copy ctrl-z and rotate 45
deg

Well wow, I can see all kind of
stuff I can do with that. Even
with scupty.

ROTATION PRIM CONSTRUCTION

- Add a cube to your prim.
- Position it where you want your centre of rotation to be.
- Make sure its rotation is 0,0,0 on the three axis
- Select and link all your prims including the cube as root prim.
- Dont use graphic rotation it will not work.
- Use parametric rotation and put value in the build tool.
- Copy (shift drag) and ctl-z (return to original location) and change the parameter of rotation the way you like.
- Repeat as necessary

I do that for fun, comment or questions are welcome gimisa@yahoo.fr