## **Building Spheres**

## Rounding square blocks

## Text and pictures by car\_mp

Although I didn't have a "dark age" as such, since I managed to buy at least one set every year even if it was small, it is true that after the launch of the Star Wars™ line, LEGO® once again became my number one hobby. From the MOCs of my early years I keep a special memory of a version of Pikachu that I designed for my niece. As I had no idea about SNOT techniques and all those things, its design was the typical brick on brick. Looking back now, I would undo the whole design and start over from scratch.

Soon after, by chance, looking for the best way to design a sphere for the Classic-Space symbol, I found the sphere called Bram's sphere, after its creator Bram Lambrecht. For me it meant a before and after, and it is largely responsible for my continuation in this hobby.

The Bram's sphere is based on the design of six faces that are placed on the sides of a cube shape to approximate a sphere. By building in the six directions of a cube, first of all the ability of "rounding" the figure is increased, allowing you to smooth changes of volume using plates, and on the other hand it





allows you to add details to the faces as there are studs in all directions. All this opened up a new world of possibilities in my designs.

You can find the Bram Lambrecht spheres generator online. It generates an LDraw file with the design of the six identical faces you have to build, depending on the diameter you want. You just have to build the internal cubic structure to place the faces. Normally you can use Bricks modified with studs in many faces depending on your need or design.

Its configuration allows easy development of the sphere to other volumes as a rugby ball, half spheres, etc ... Very useful for other designs.

Shortly after discovering the Bram Lambrecht sphere, I was looking for smaller designs and found the Lowell sphere. The main novelty of this sphere is the use of jumpers to get a better "smoothing" effect in smaller sizes, by introducing a half-stud offset at the ends.

Bruce Lowell himself summarizes the origin of his sphere:

"The story behind the sphere is actually not that exciting (in my opinion). Basically, I made a rounded engine tip for a Star Wars™ spaceship using the rough idea of the sphere, but it wasn't until two years later at a LEGO convention that there were "play bricks" on a floor that had a large amount of the pieces I used to make to the engine tip, so I tried expanding it to make a ball. Everyone at the convention loved it, and it was a few months after that I officially posted it on my website. The rest, I suppose, is history. :)"

This smaller design allowed me to work at a smaller scale, although I must say that the jumpers are a challenge in changing the design to change the sphere. In the Bram





Lambrecht sphere generator you also have the possibility to design the Lowell area if you enable the option of using jumpers.

Personally I can only show my appreciation to both for sharing their designs with the entire community.

Thanks to Bruce Lowell for letting us reproduce the instructions of his sphere.

## BRUCE LOWELL:

http://bruce.kus-numa.net/lego/ http://www.flickr.com/photos/bruceywan/ http://bruce.kus-numa.net/lego/miscellaneous/sphere68.html

BRAM LAMBRECHT:

http://lego.bldesign.org/sphere/ http://lego.bldesign.org/ #











