## Designing Domes

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## Pictures by Jero and Arthur Gugick

There is a large variety of software tools that can help us design our MOCs and many of them are well known and much used, like for example LDD and MLCAD. But there are also other less know tools, which are no less useful, like Brickin by Ignacio Lorenzo or the one I will tell you about now.
Dome Creator was created byArthur Gugick, a US AFOL and professor of mathematics who has used his knowledge in the field to create this tool that helps you design domes and towers.
The software is easy to use. Based on data like the type of construction, the diameter and/or the shape of the base and the height, it indicated the amount of plates that are necessary to in each column to achieve the desired shape. It is especially recommended for big constructions since in smaller ones the pixel effect is quite obvious.
The data is introduced in a single screen and the calculations appear right next to it. You can see it in photo 1.


The following information is required:

- Base: Circular or Polygon. This serves to determine the shape of the base.
- Dome: Spherical, Elliptical or Planar. To indicate the shape of the dome.
- Diameter: You need to enter the diameter (in studs) of the circle or the diagonal length in case of of a polygon.
- Height: To establish the height in bricks.
- Sides: If the base is not circular you need to indicate the number of sides..

After introducing this data and clicking on «Run» a series of numbers will appear, forming a square These numbers indicate the height of each column that is necessary to create the desired shape. Remember the height is indicated in plates. There are no
building instructions and the only available information is the number of plates that is necessary at each location. In the following examples you'll get a better idea of what this means. These are medium sized designs and the pixel effect is noticeable although for smaller designs it is much more evident.


The white dome was built with the following data:

- Base: Circular
- Dome: Spherical
- Diameter: 16
- Height: 12
- Sides:

You can also see some designs by the author of the program, which are are of a larger scale and the pixel effect is much less noticeable.


If you are interested in getting a copy of this application you can request it from the author at: arthur@gugick.com. We would like to thank him for his collaboration in the preparation of this article.

