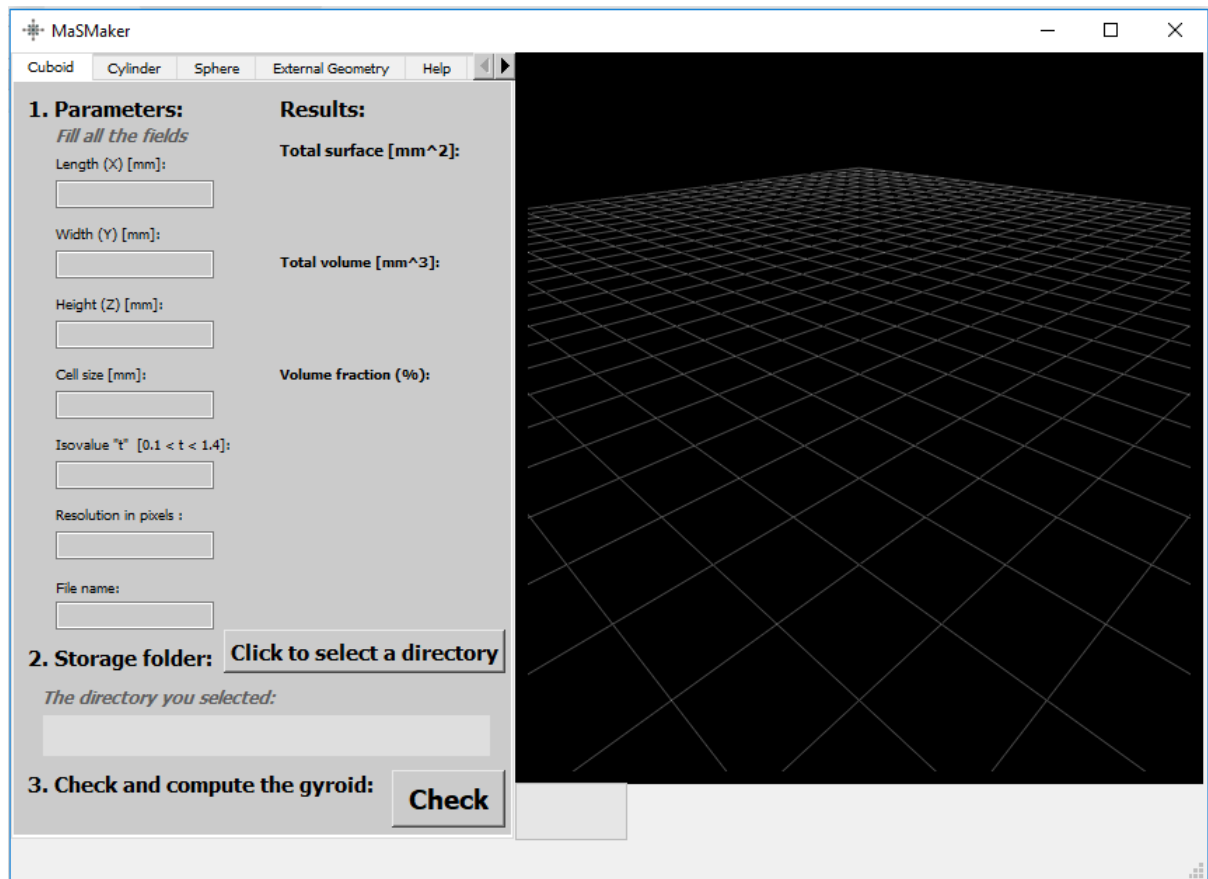


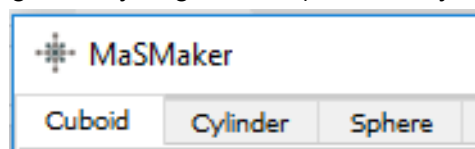
MaSMaker step-by-step tutorials

Tutorial 1. How to generate a basic geometry (Cuboid, Cylinder, Sphere) with gyroids integrated

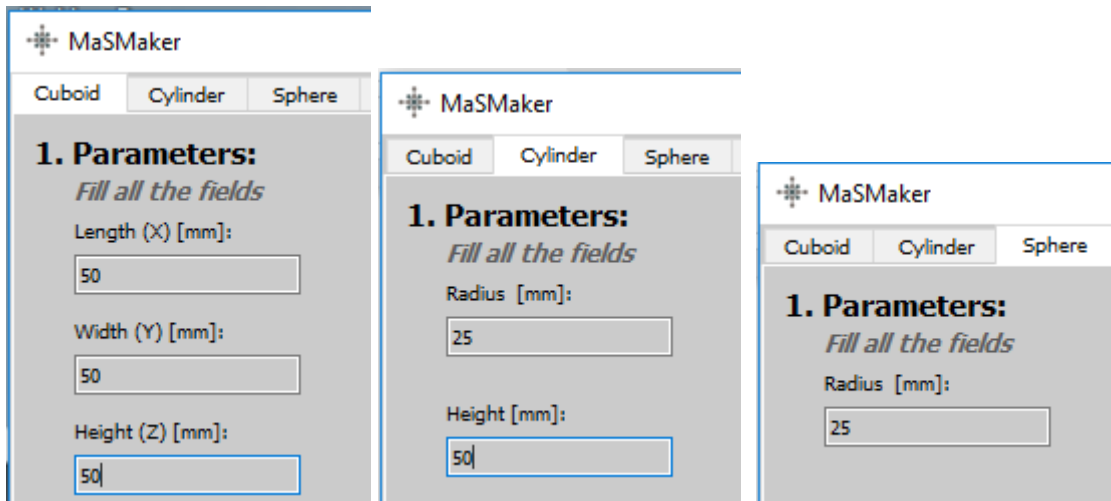
Launch MaSMaker to see the GUI. You will need to provide your registered email and associated license key to start working.



1. Select the tab of the geometry to generate (Cuboid, Cylinder, Sphere)

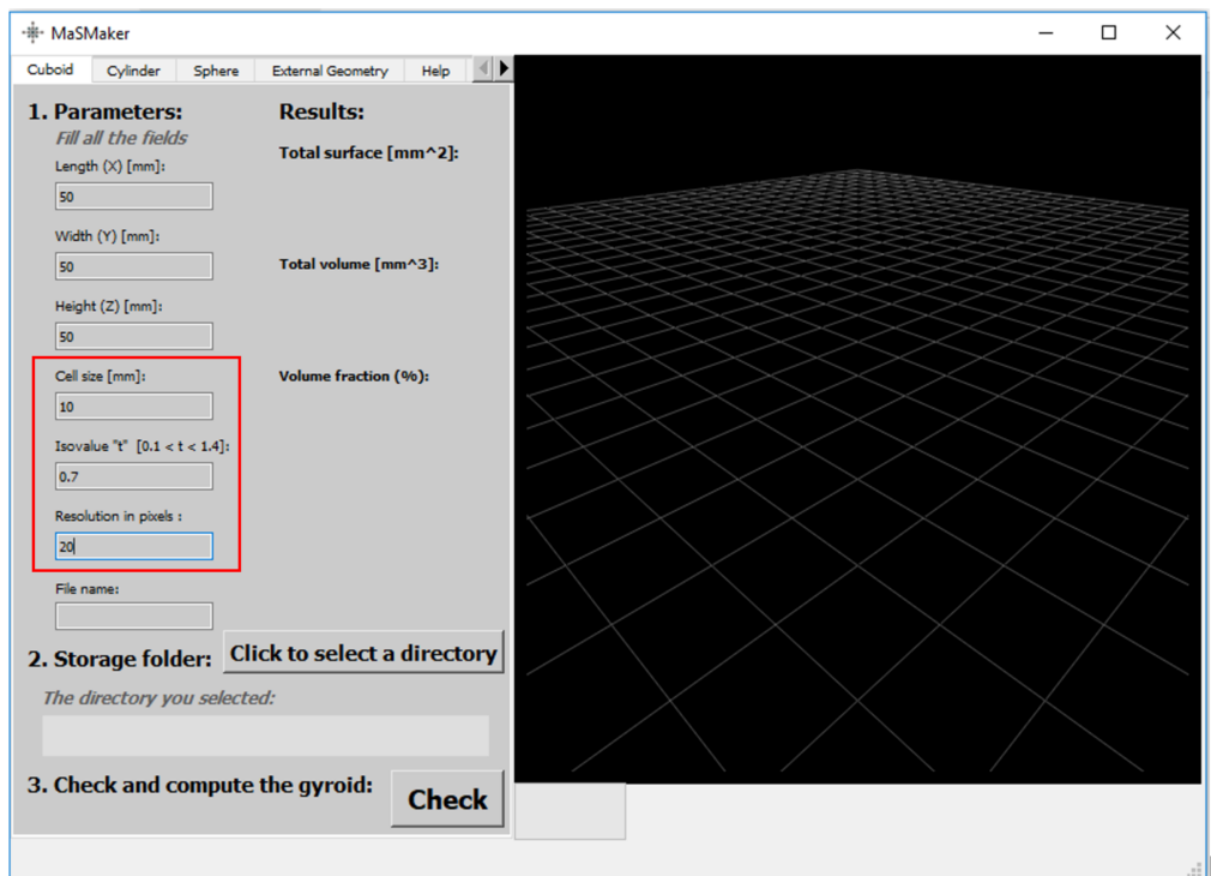


2. Input the geometry dimensions (in millimeters) according to the selected shape.



- Introduce the unit cell parameters: cell size (mm), isovalue ("t"), and resolution.

This screenshot shows a section of the MaSMaker interface for entering unit cell parameters. It includes three input fields: 'Cell size [mm]:' with the value 10, 'Isovalue "t" [0.1 < t < 1.4]:' with the value 0.7, and 'Resolution in pixels:' with the value 20. The 'Resolution in pixels' field is highlighted with a blue border.



- Type a filename and browse for a location to save the final STL file generated by the software.

File name:
Cuboid_example1

2. Storage folder: [Click to select a directory](#)

The directory you selected:
C:/Users/gomezar1/Documents/MaSMaker_Examples

MaSMaker

Cuboid Cylinder Sphere External Geometry Help

1. Parameters:
Fill all the fields

Length (X) [mm]:
50

Width (Y) [mm]:
50

Height (Z) [mm]:
50

Cell size [mm]:
10

Isovalue "t" [0.1 < t < 1.4]:
0.7

Resolution in pixels:
20

Results:

Total surface [mm²]:

Total volume [mm³]:

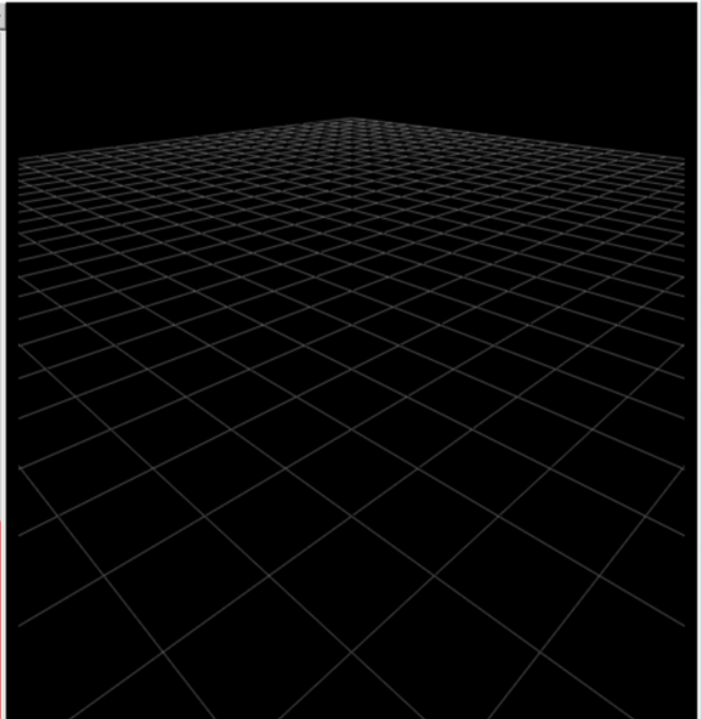
Volume fraction (%):

File name:
Cuboid_example1

2. Storage folder: [Click to select a directory](#)

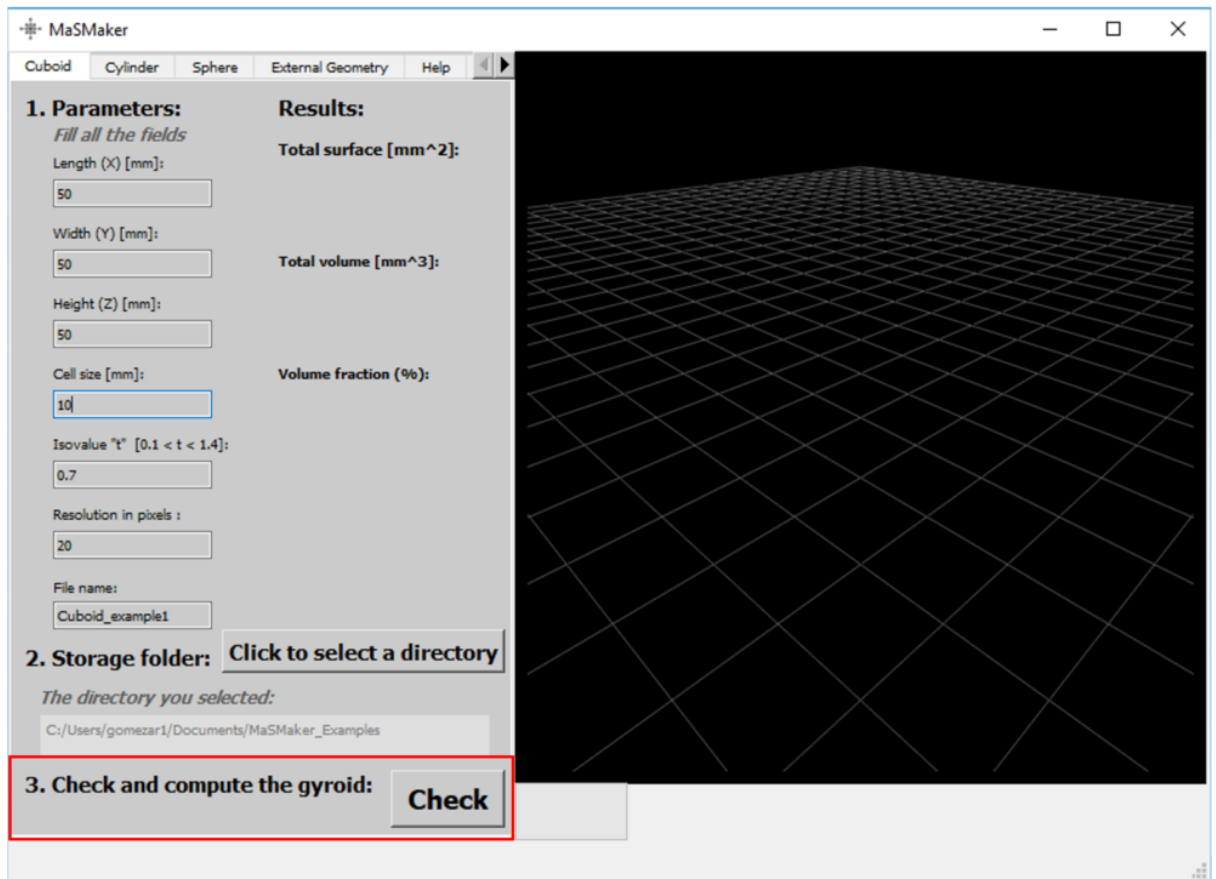
The directory you selected:
C:/Users/gomezar1/Documents/MaSMaker_Examples

3. Check and compute the gyroid: [Check](#)

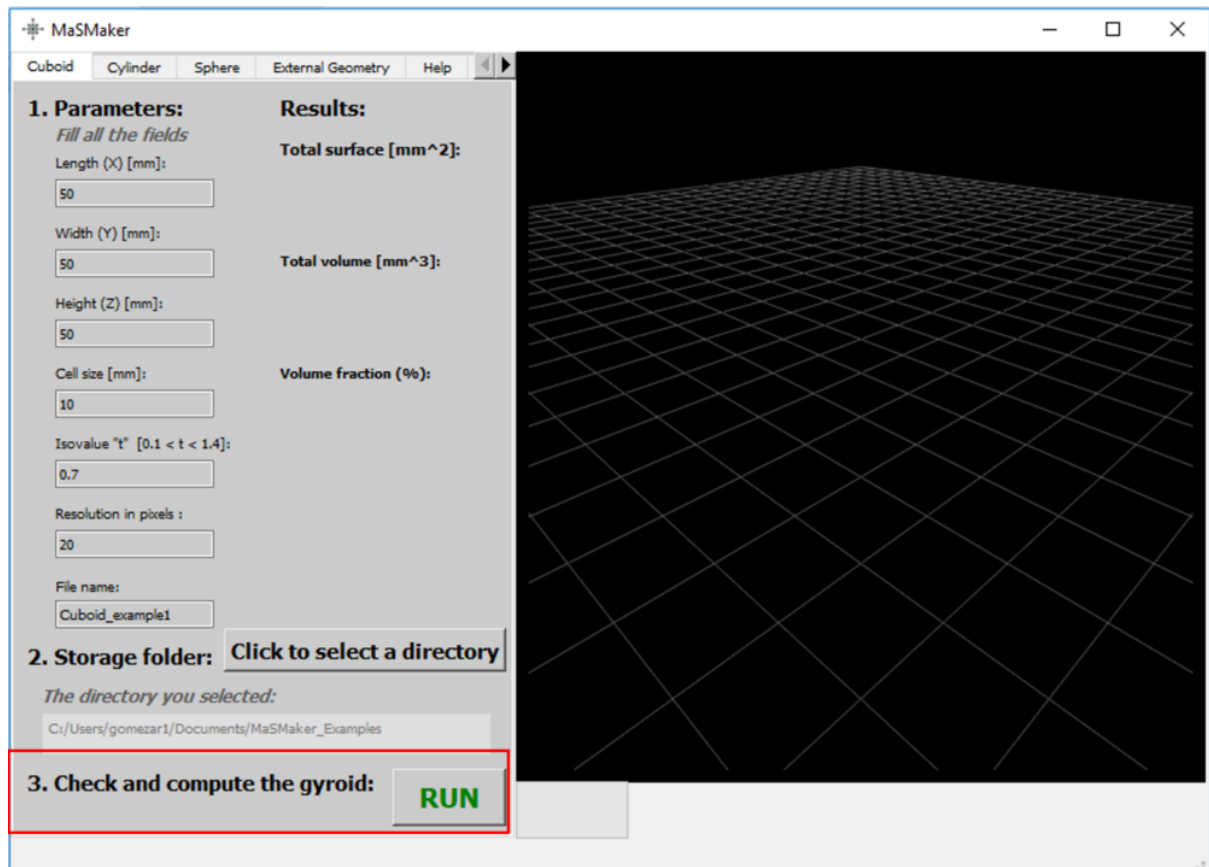


- Click on the "Check" button, if there is no missing information, or there is no other existing file with the same name, the button will change to "Run".

3. Check and compute the gyroid: [Check](#)



6. Click on "Run", a green bar will show you the creation progress.

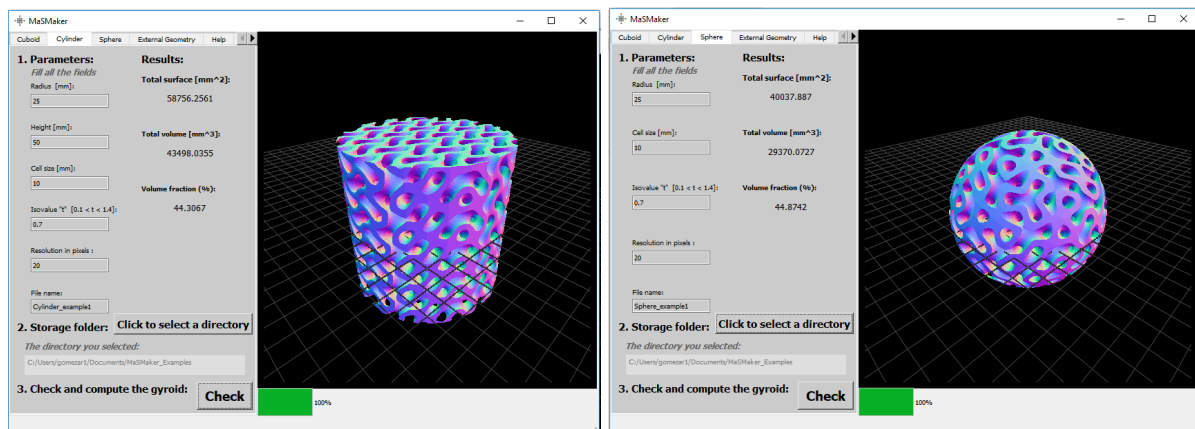
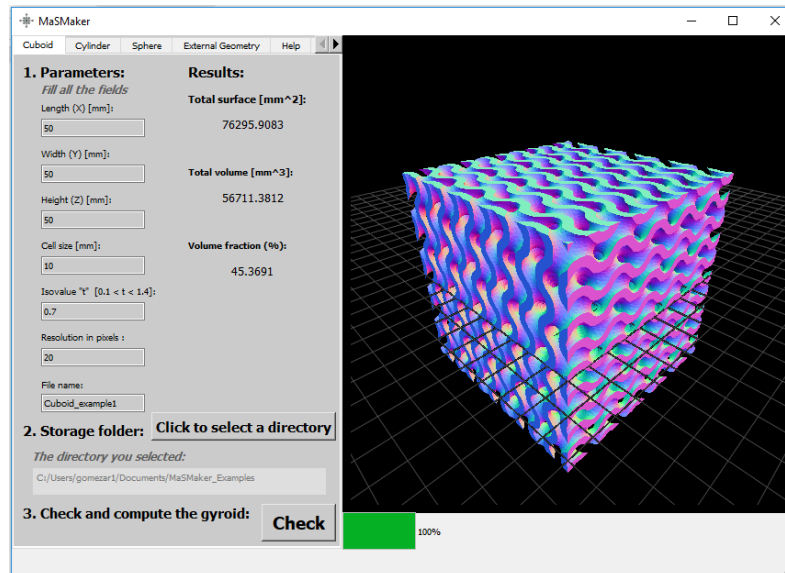


3. Check and compute the gyroid:

RUN

20%

7. Finally, you can visualize the final geometry in the interactive 3D viewport where common operations such as zoom in/out and rotations can be performed



8. You will find the STL file of the geometry in the selected location.

This PC > Documents > MaSMaker_Examples

Name

- Cuboid_example1.stl
- Cylinder_example1.stl
- Sphere_example1.stl