PRINTING PROJECT STAVROPOLEOS CHURCH

Stavropoleos church is considered one of the most important monuments in the city of Bucharest, Romania.

In the beginning, this church was a hostel and a monastery created by the Abbot Ioenichie, archbishop of Stavropoleos in the future. This building was an economic pillar, due to that it could be finished in 1724.

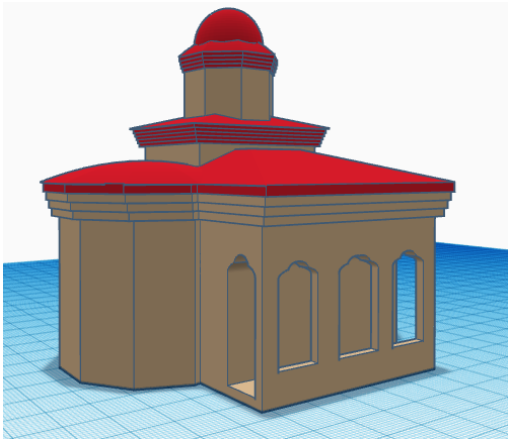
Stavropoleos has deteriorated because of several factors, to such an extent that only the church remained. Due to that, its demolition was scheduled but it did not carry out and, starting the 20th century, the famous Romanian architect Ion Mincu was told to restore the church and it lasts nowadays.

We would like to highlight the religious iconography of this church, we can find its frescoes, this is the reason why it is the most visited church in Romania.

Objectives

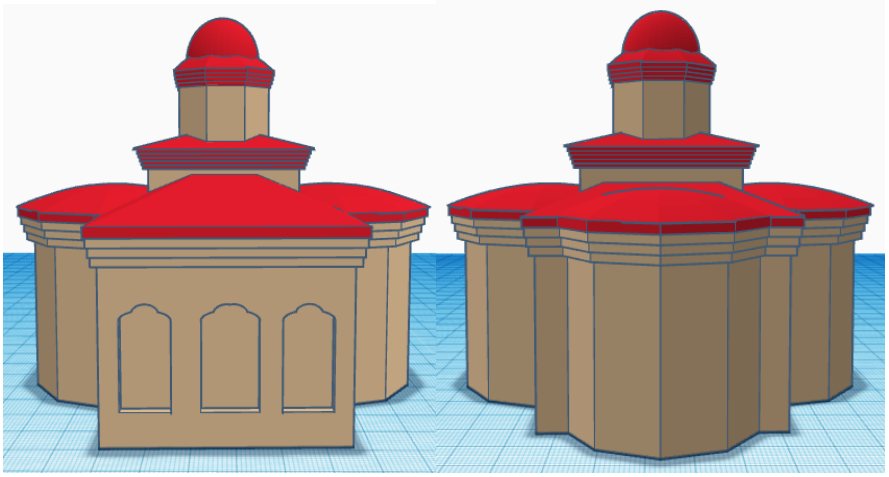
- Control the work plane in order to model with different perspectives in an easy way.
- Replicate a model as realistic as possible.
- Master the use of basic tools.
- Control the use of empty shapes to create holes.

Reference model designed with Tinkercad

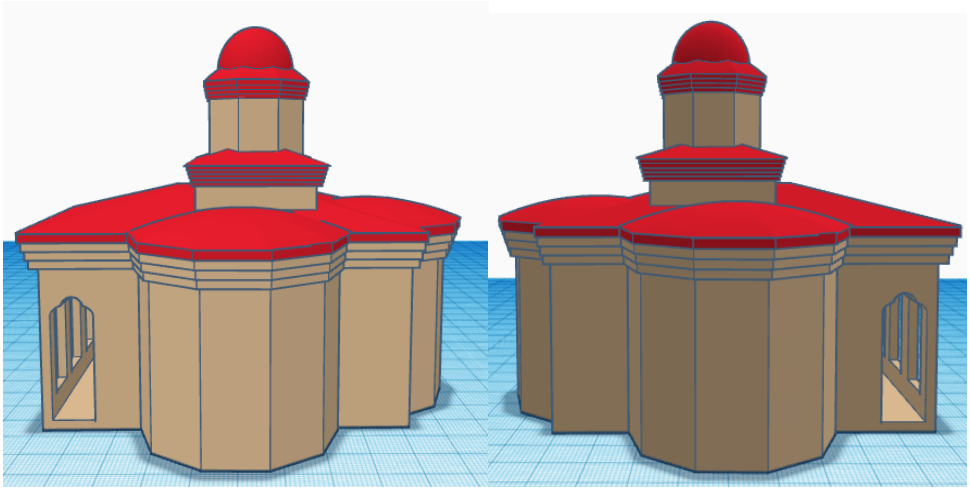


Front view

Rear view



Lateral view



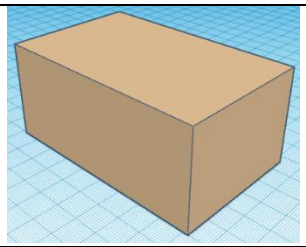
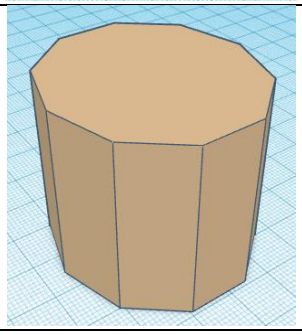
Model features

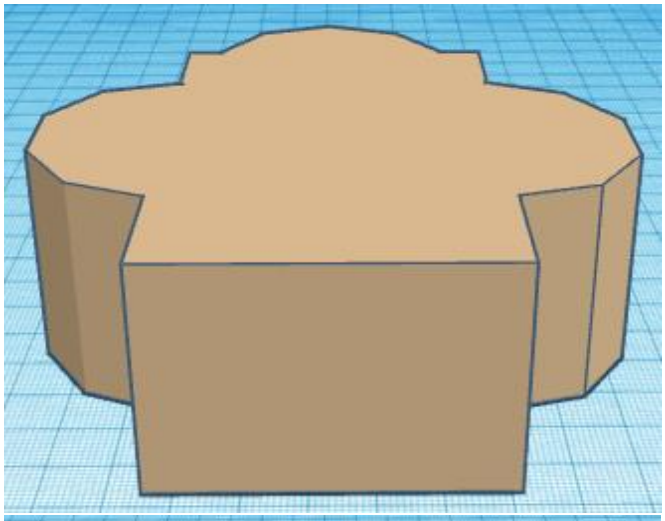
This model has been designed using basic shapes on Tinkercad, we can use in the end different type of 3D objects.

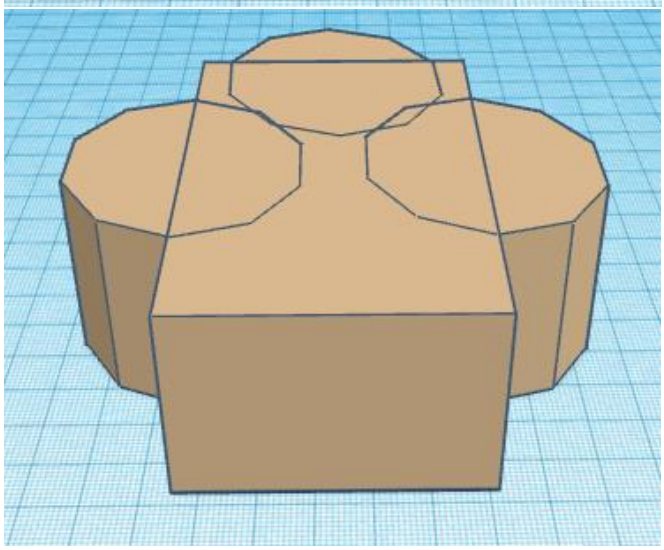
The project is divided into 4 parts:

- Main structure.
- Roofs.
- Central tower.
- Facade details.

Structure

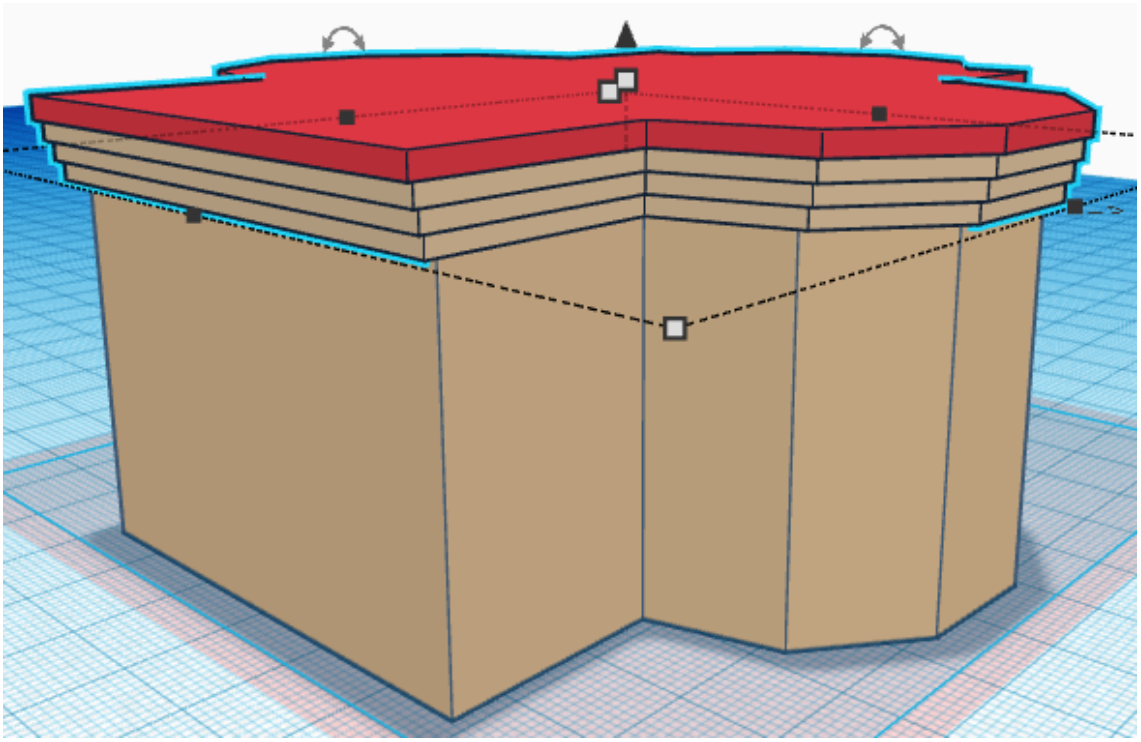
3D Object	Size	Picture
Box	90mm wide x 56mm long x 40mm high	
Polygon x3	10 sides x 48mm wide x 45mm long x 40mm high	





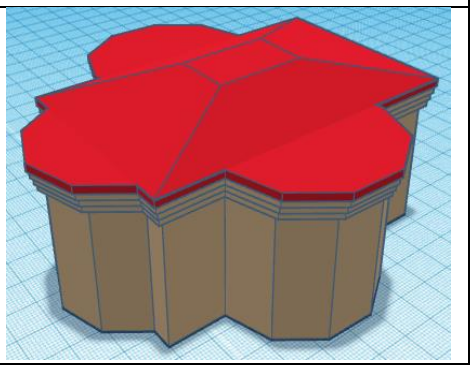
We group the objects this way in order to create the base of the church.

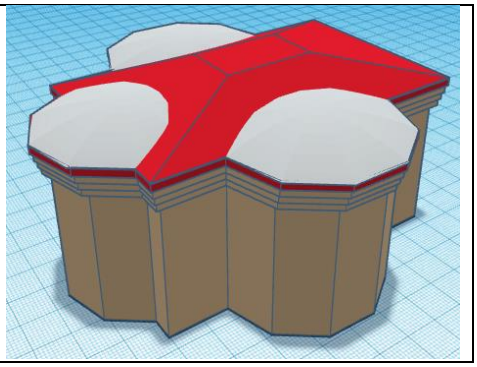
After that, we will create the roof. We start duplicating the previous shape, enlarge it and repeating this action 4 times.



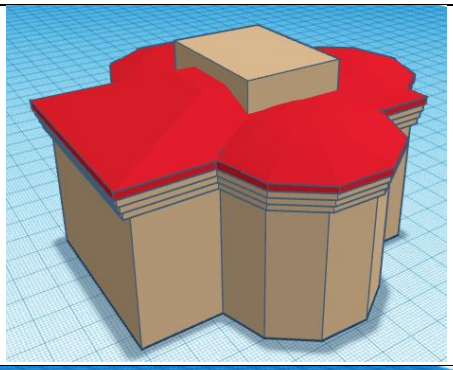
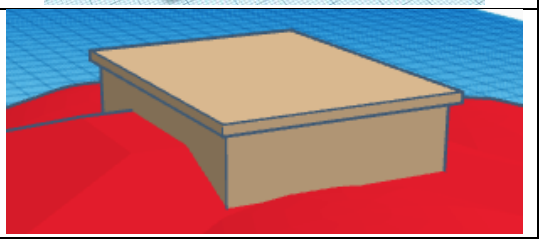
Let´s start with the upper roofs.

Roofs

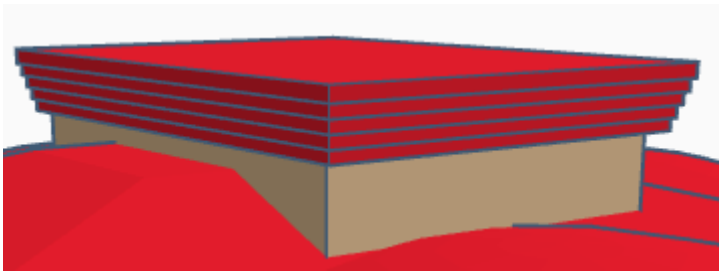
3D object	Size	Picture
Cone	4 x side / Top radius: 2.87mm 60.70mm wide x 97.40mm long x 8.70mm high	

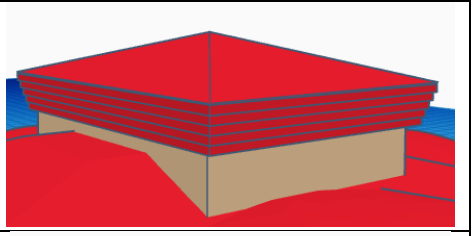
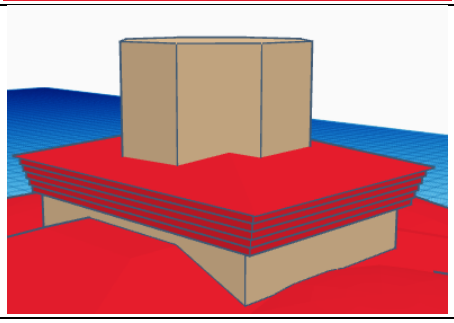
Paraboloid x3	10 pasos x 52.40mm wide x50mm long x 5.50mm high	

Central tower.

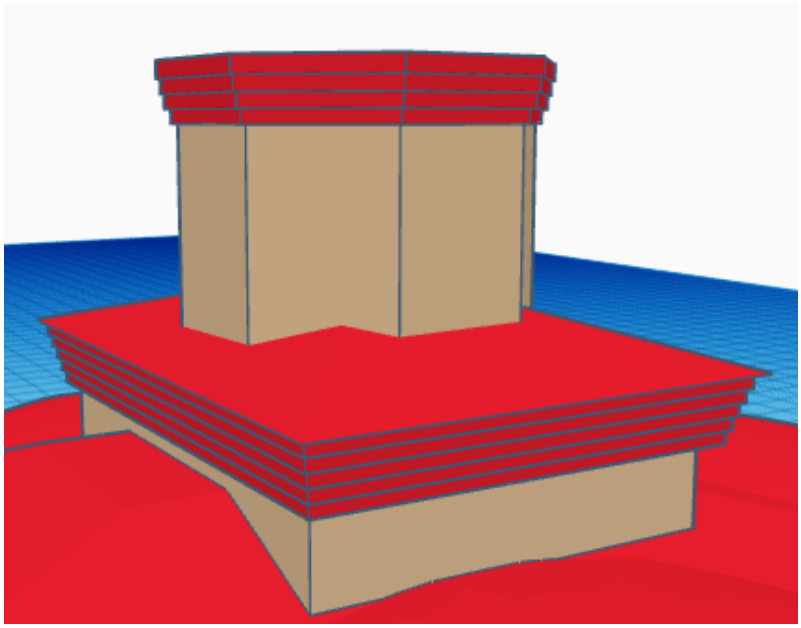
3D Object	Size	Picture
Box	30mm wide x 40mm long x 20mm high	
Box	32.05mm wide x 42.70mm long x 1mm high	

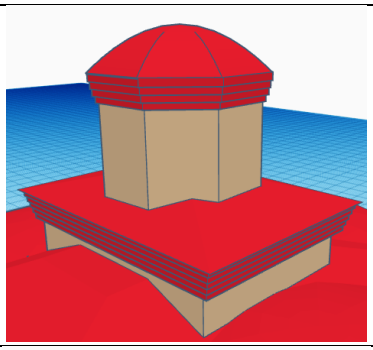
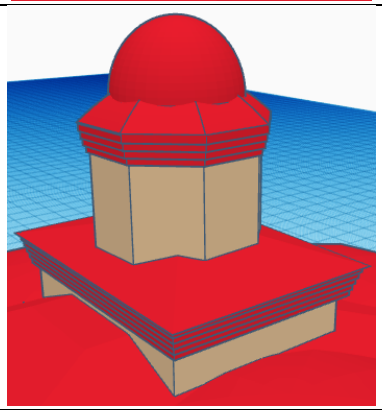
We duplicate the cube 4 times, so it enlarges the same proportion and change them to red.



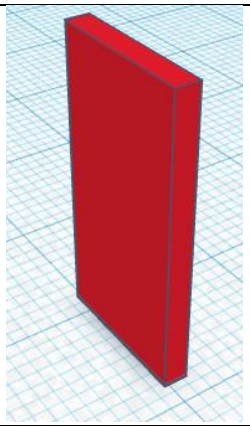
3D Object	Size	Picture
Pyramid	44.8mm wide x 34.1mm long x 5.8mm high	
Polygon	8 sides. 25mm wide x 25mm long x 26mm high	

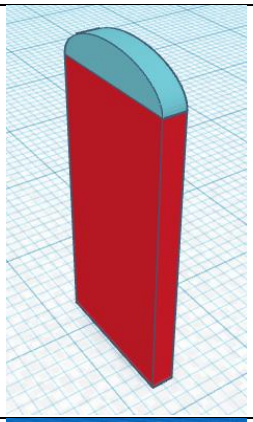
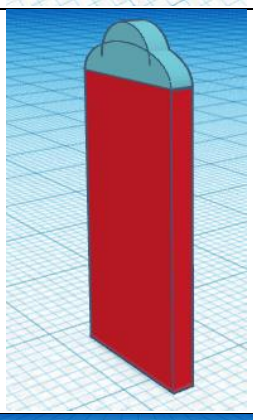
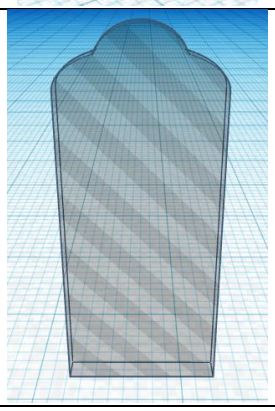
We duplicate the previous shape setting 1 mm high and we enlarge it a little, as we did before. Once we got the first copy, we duplicate it 3 times saving the proportion.



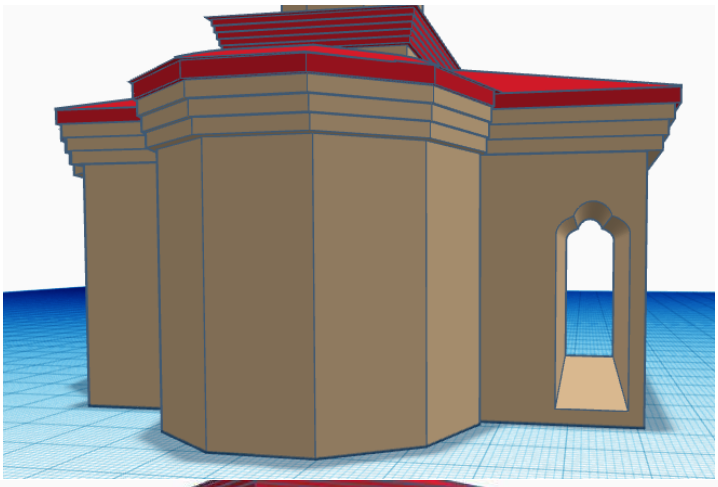
3D Object	Size	Picture
Paraboloid	8 pasos. 28.80mm wide x 28.80mm long x 7mm high	
Half sphere	20mm wide x 20mm long x 11.40mm high	

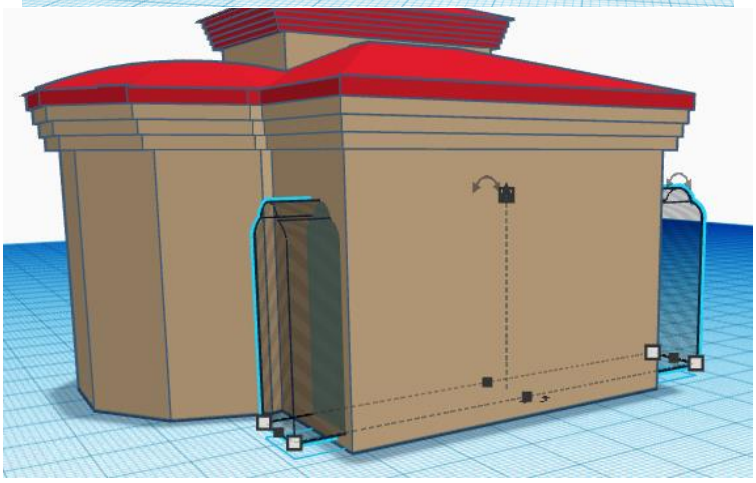
Facade details

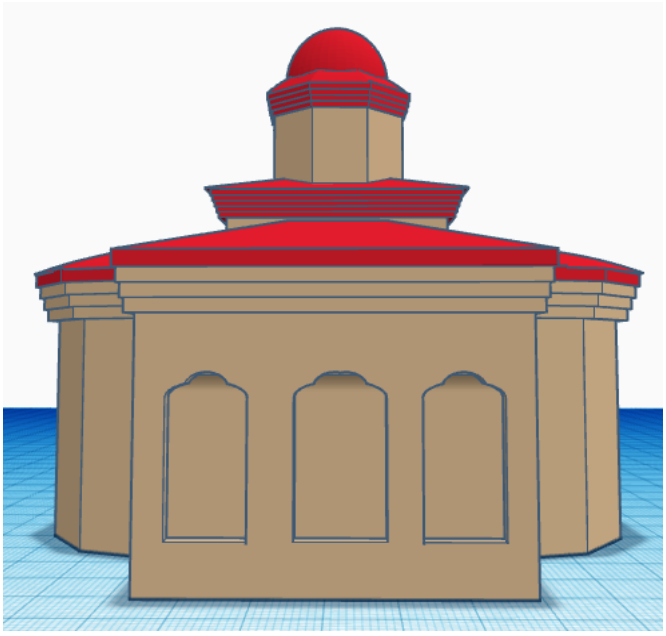
3D Object	Size	Picture
Box	10mm wide x 1.50mm long x 20mm high	

Round roof	5.50mm wide x 1.50mm long x 2.40mm high	
Round roof	10mm wide x 1.5mm long x 2.40mm high x 21.30mm high	
Box and Round roof link	Group and empty the shapes	

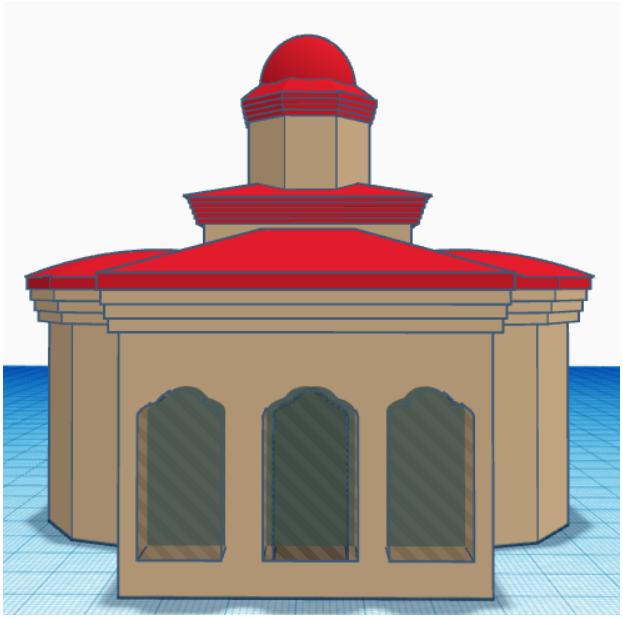
With these arches it is time to create the holes on the front side of the building. We place it this wat and we enlarge it 10.80mm wide x 75.30mm long x 30.8mm high.



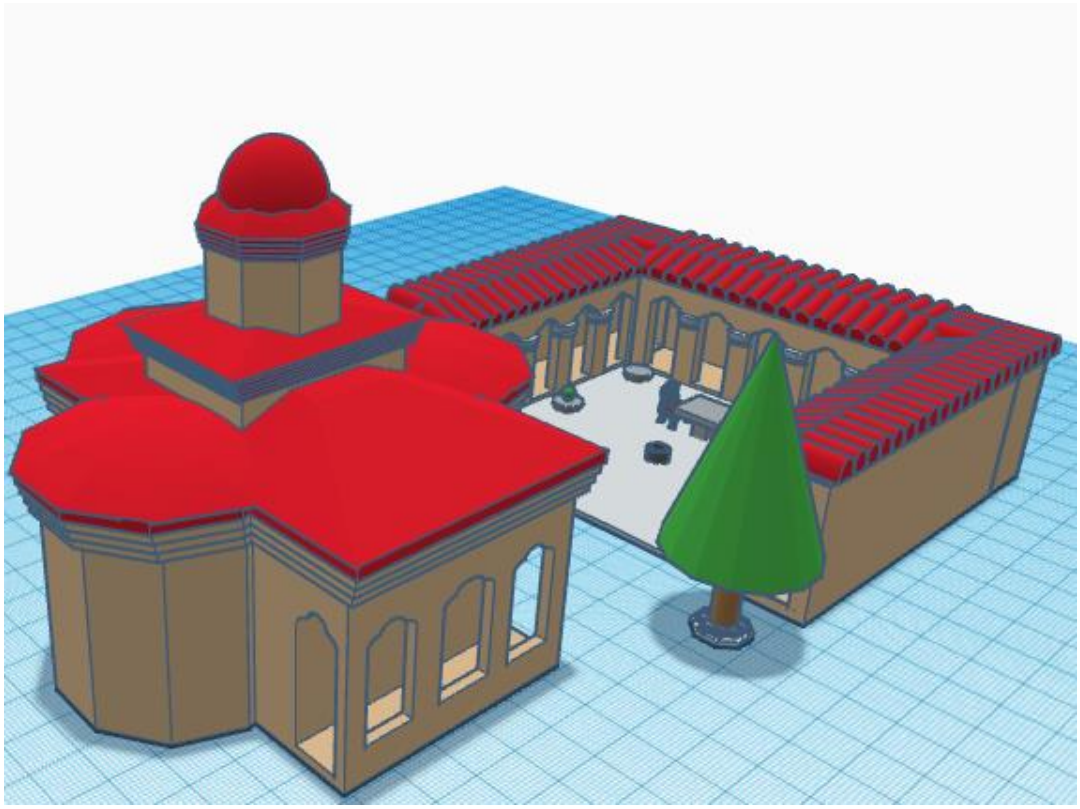


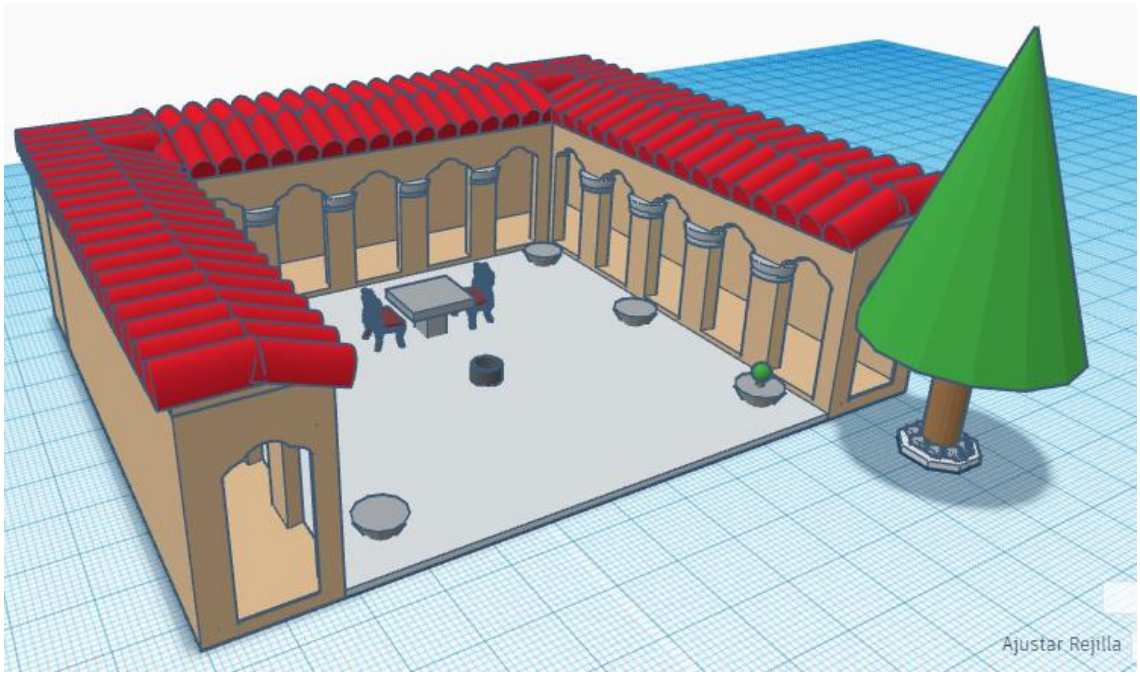


Once we reach this point, we are going to modify the size of the arches in order to create the last frontal holes with the following measures: 11.88mm wide x 12.7mm long x 23.9mm high.



Now it is time to decorate and design the surroundings or keep detailing the church as we want. For example, we include the square in order to decorate our design.

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