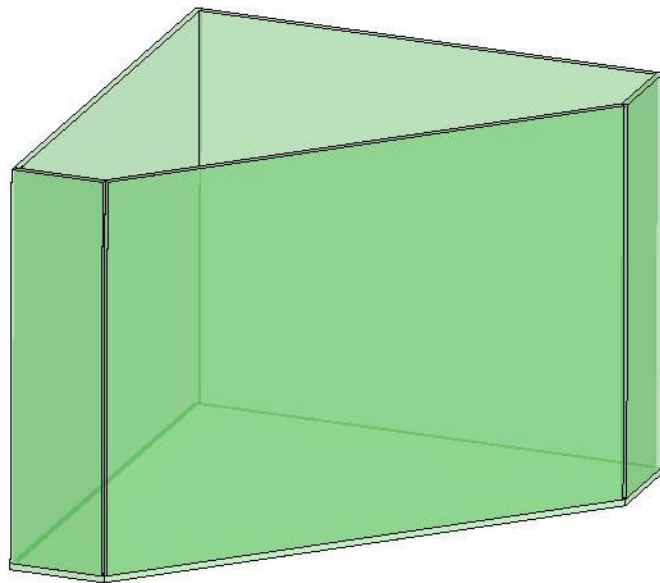
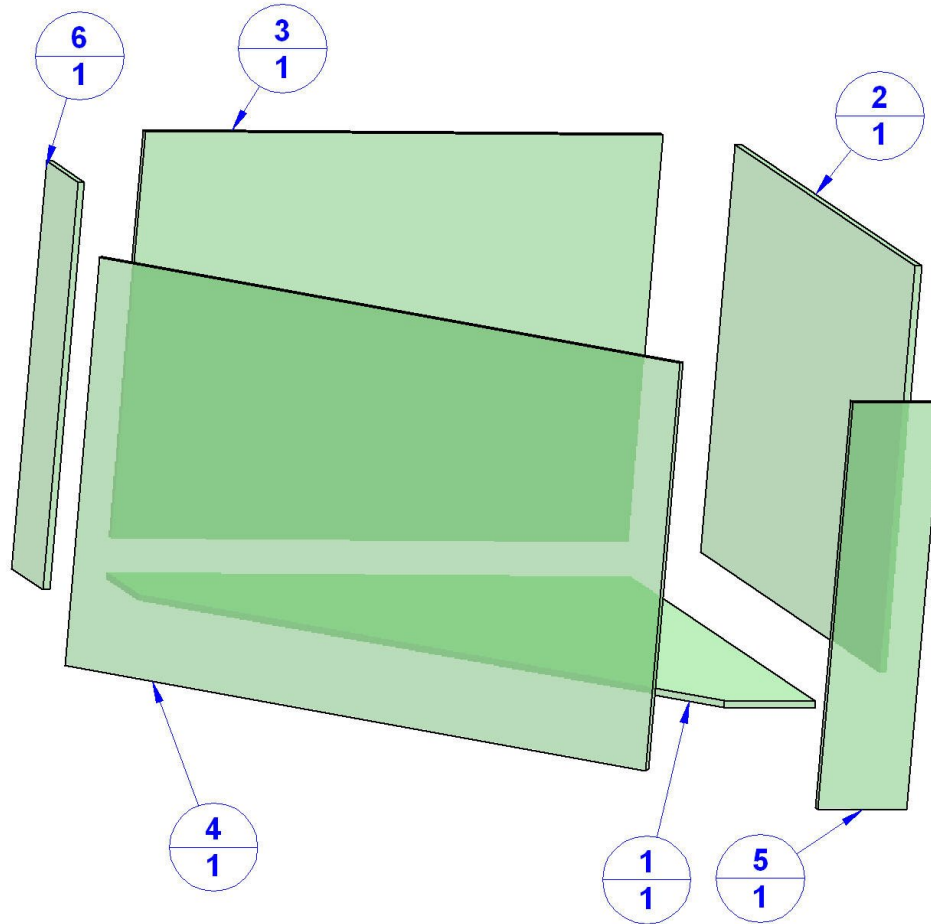


## Aquarium plan - Pentagon 110l (29 Gallon)



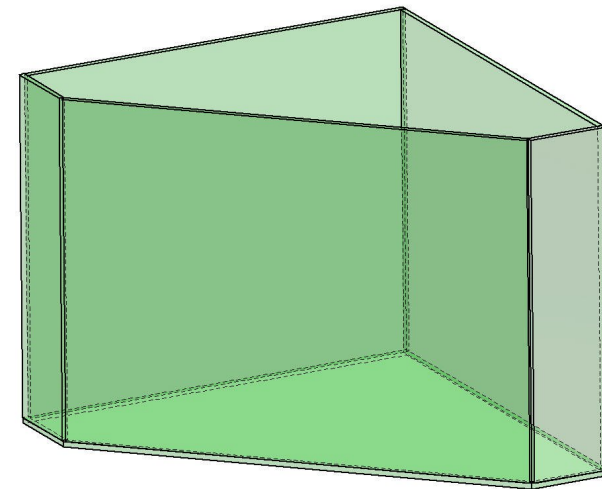
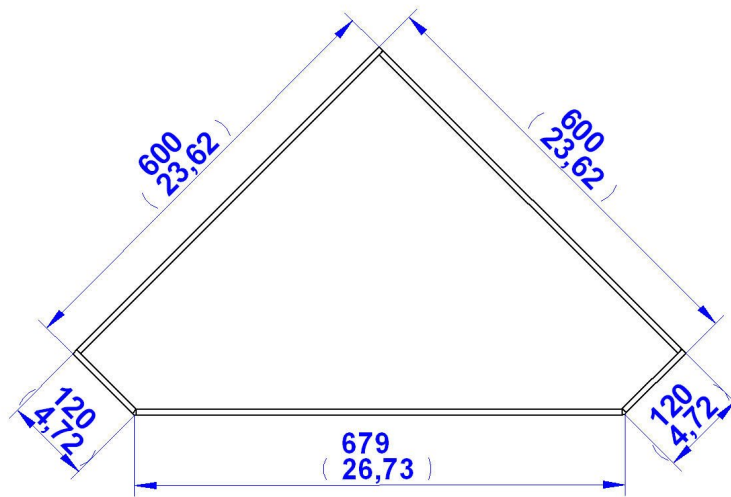
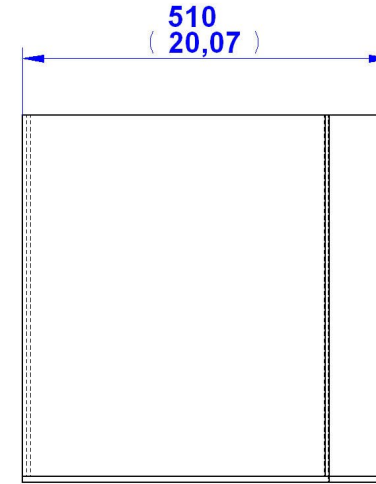
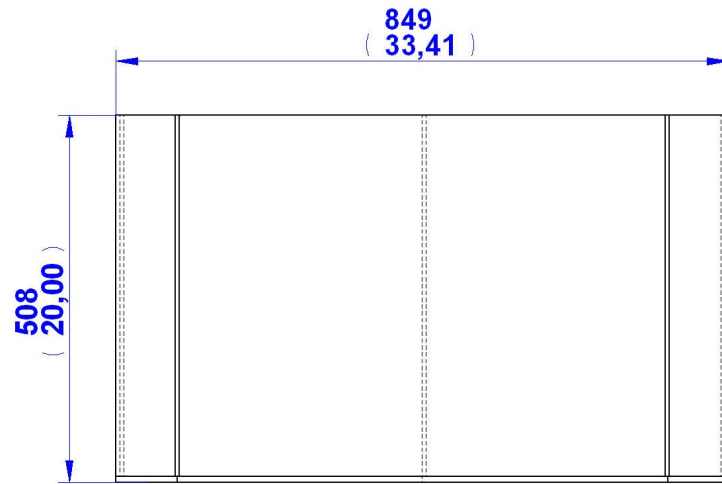
For setting up this model, you will need 8mm thick glass panes as shown on the Parts List, which need to be cut by the measurements given in 2D documentation. It would be best if you pay a professional glazier to cut the glass panes for you, following the measurements given in 2D documentation. Do not forget to mention that the edges should be well-sanded. When the glass panes have been cut, you can start gluing them together. Before using the glass, make sure that the edges have been well-sanded. It is recommended to wear protective goggles, so the small glass parts can't hurt your eyes. There should be no children near or around the place where the aquarium is being built. have the types of fish that jump out of the aquarium!

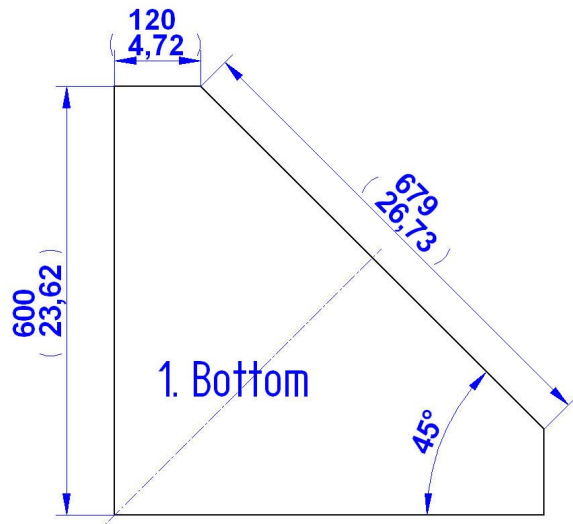
## Parts List



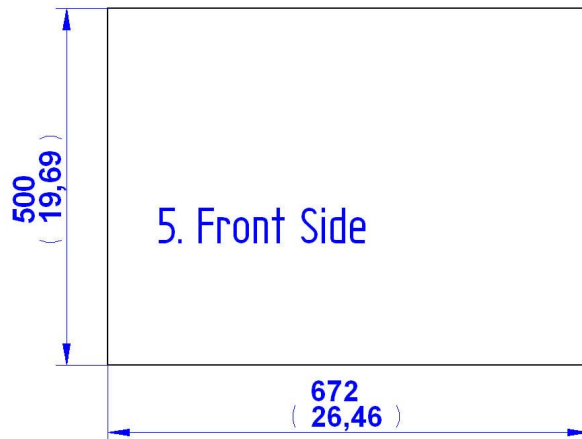
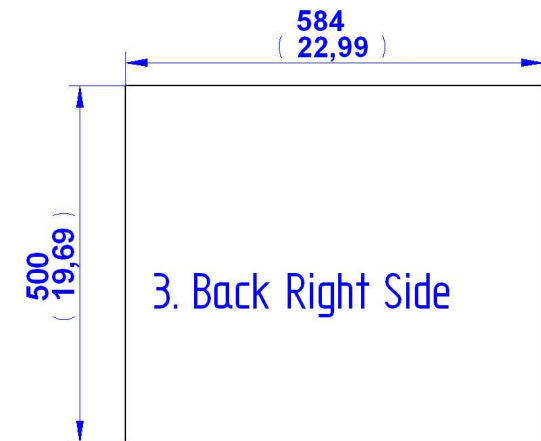
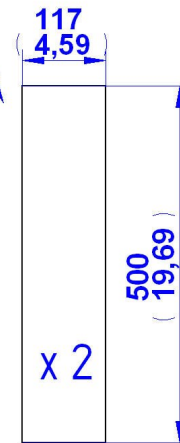
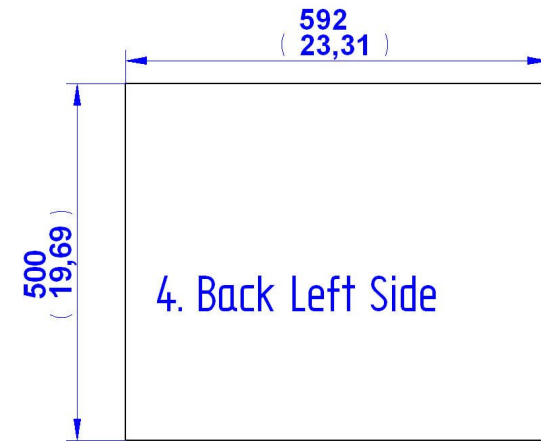
Item Number	Title	Material	Quantity
1	bottom	Glass	1
2	back right side	Glass	1
3	back left side	Glass	1
4	front side	Glass	1
5	front right side	Glass	1
6	front left side	Glass	1

## 2D Documentation





2. Front Left Side  
+  
6. Front Right Side



Glass Thickness = 8 mm (0,314 inches)

Before using the glass, make sure that the edges have been well sanded. It is recommended to wear protective goggles, so the small glass parts can't hurt your eyes.

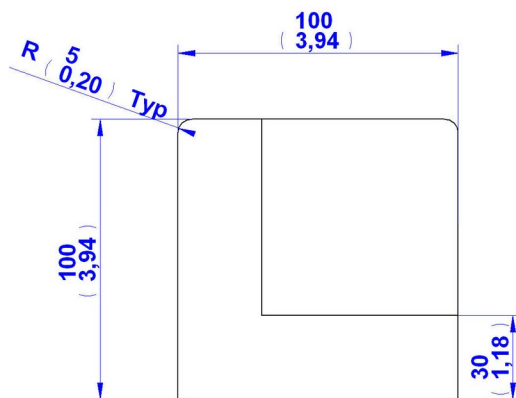
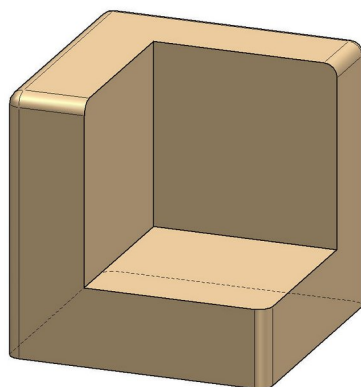
It is not recommended to have children near the place where the aquarium is being built.

Use only a non-toxic 100% silicone sealant appropriate for aquarium use.

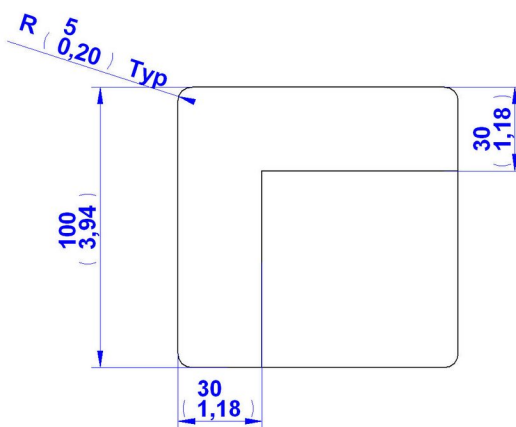
When building the aquarium, it is recommended to have an assistant, who will hold the glass panes and pass the material and tools to you.

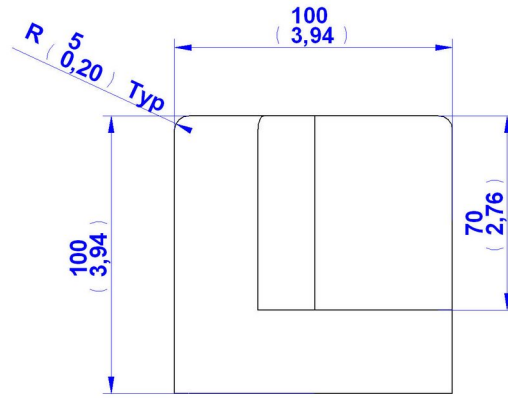
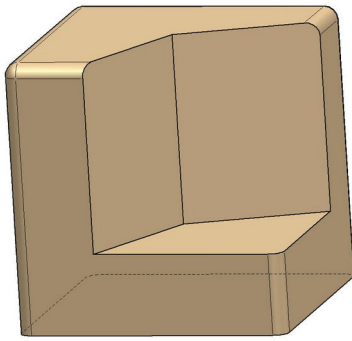
Before you start gluing, be sure to have prepared a flat working surface for building the aquarium, some silicone - both transparent and black, a silicone gun, some duct tape of a wider width, plenty of cloths or paper towels to wipe the silicone off your hands, glass, and assemblage tools (1,2,3).

You can make the assemblage tools by yourself, by following the drawings.

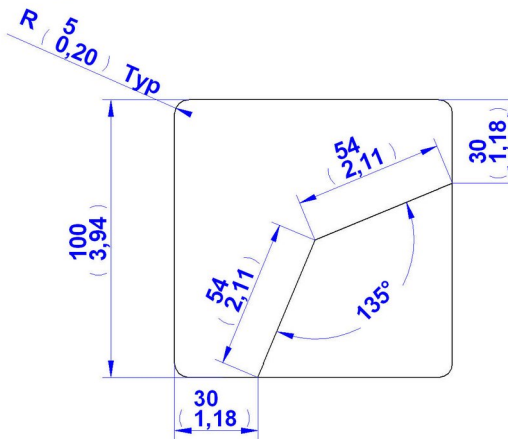


Assemblage tool 1.

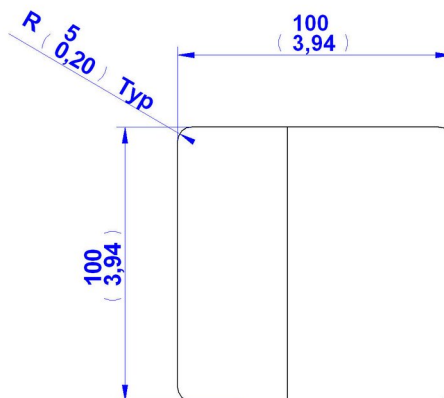
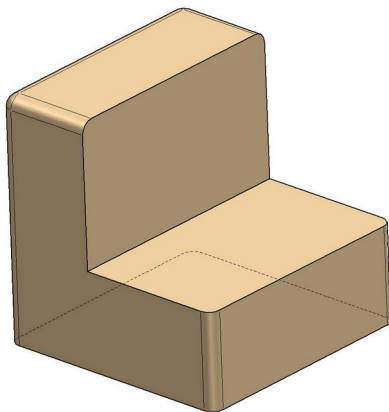




Assemblage tool 2.

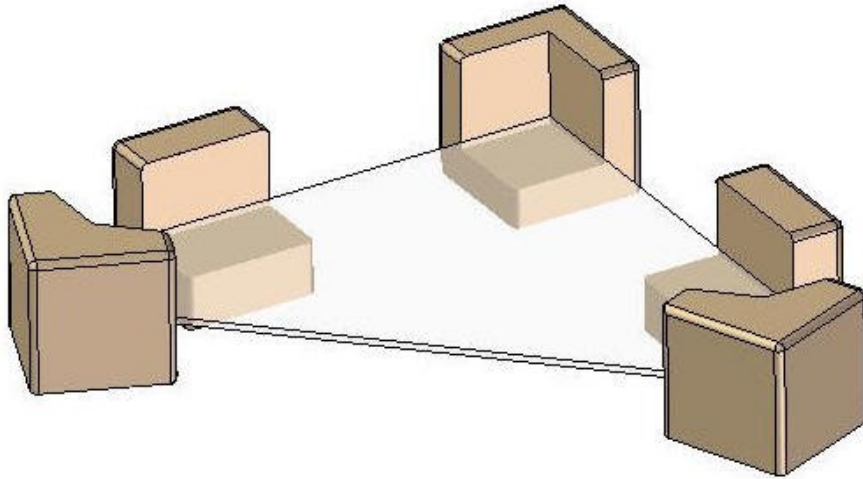


Assemblage tool 3.



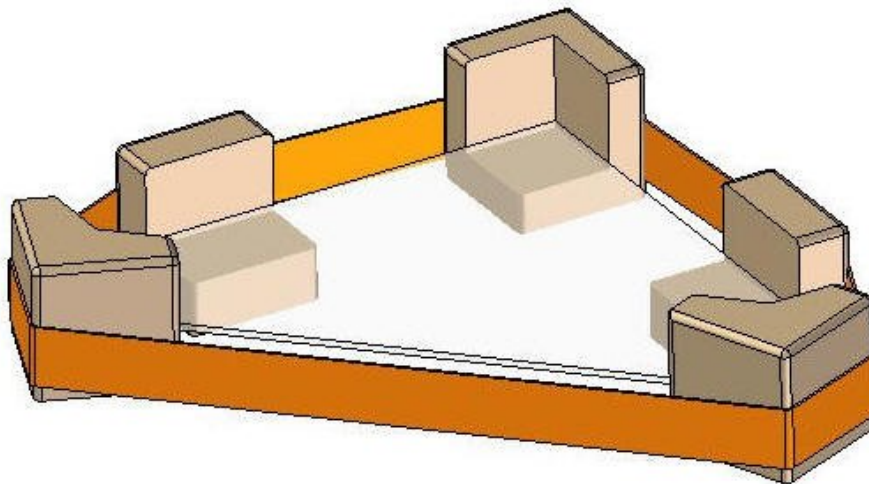
## Assemblage Instructions

At first, position the bottom and the assemblage tools as shown in the picture below.

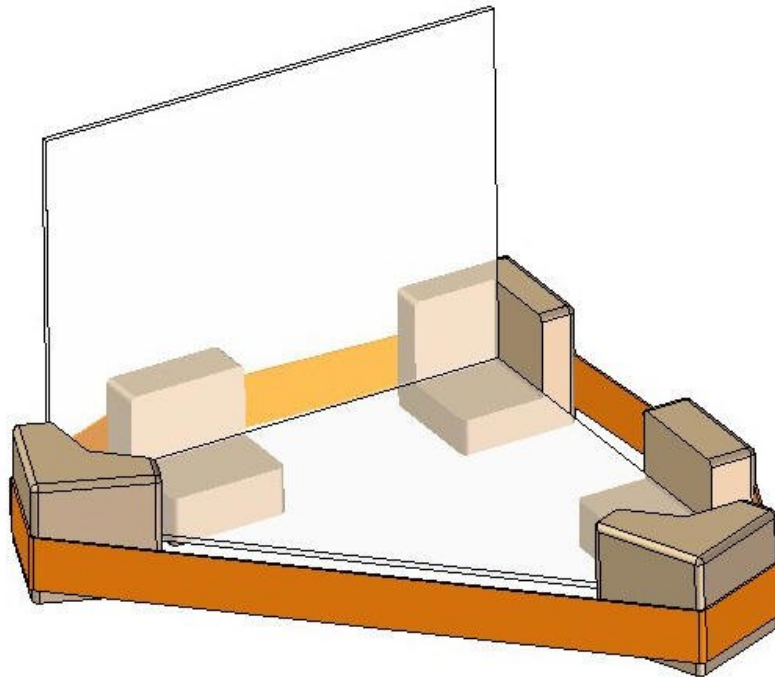


In places where the silicone will be in contact with the surfaces of the assemblage tools, it is recommended to put thin cellophane that will prevent glass from getting glued to the assemblage tools. The cellophane can be easily removed after the silicone gets dry.

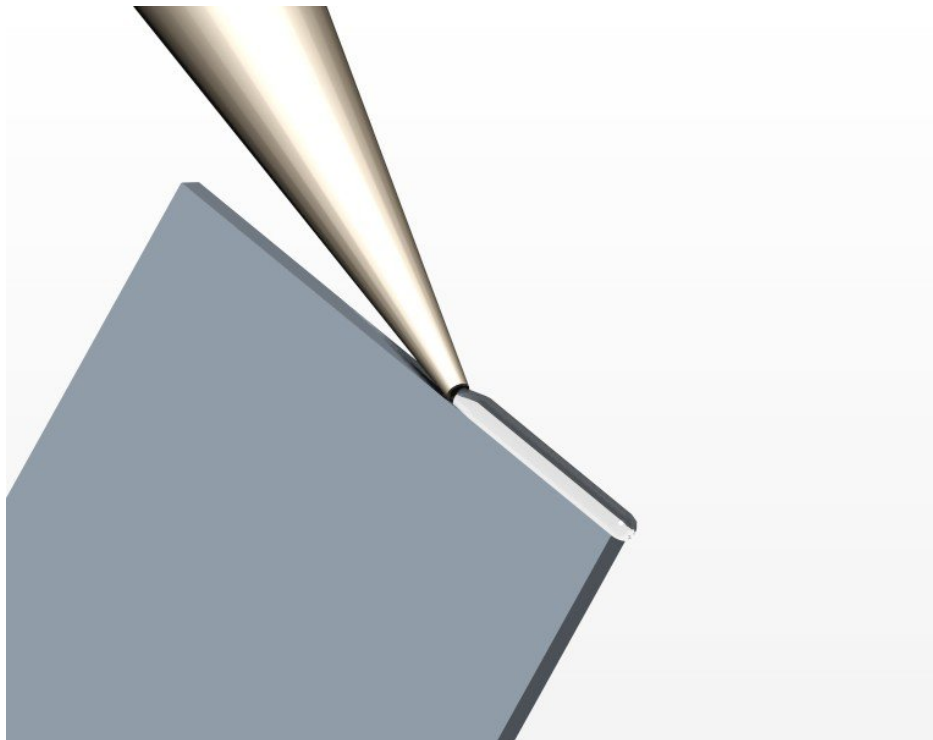
Next, tighten the assemblage tools and the bottom with some wider duct tape as shown in the picture.



Now it is time to glue the walls of the aquarium. First glue the backside, as shown in the picture.

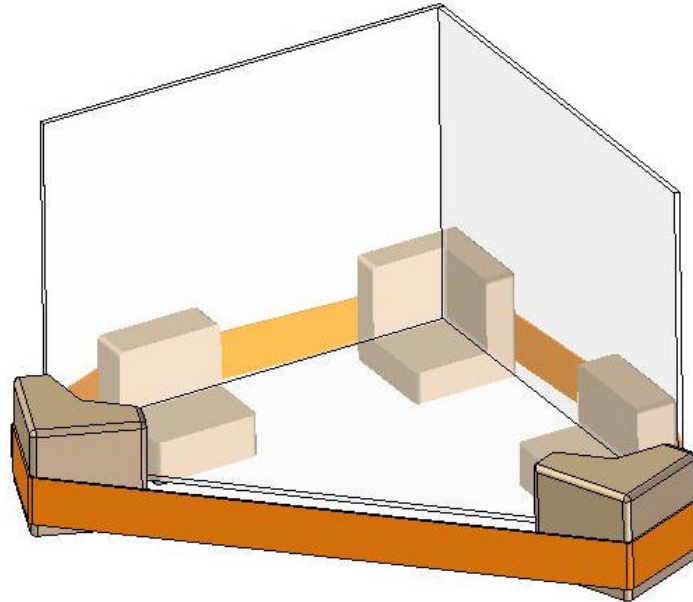


Apply the silicone to the lower side of the glass pane, and then glue it. The procedure is shown in the next picture.

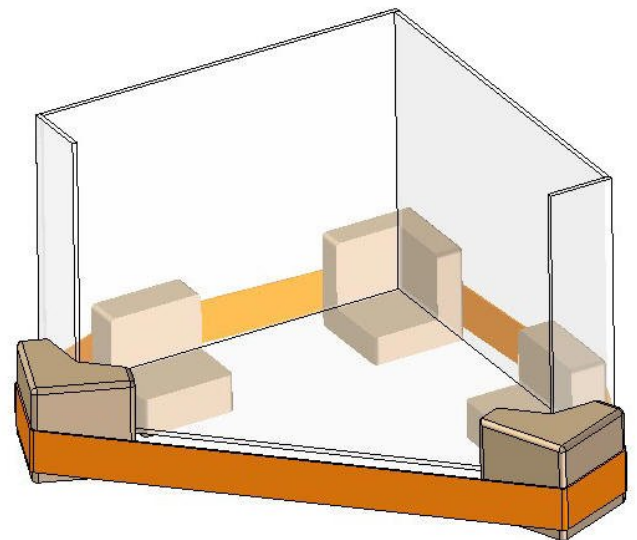
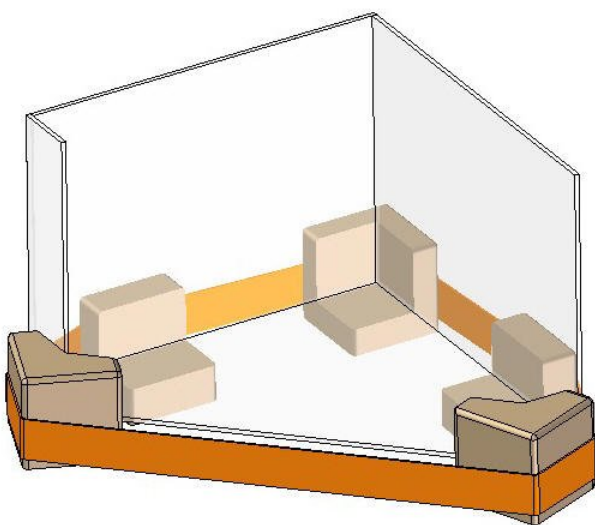




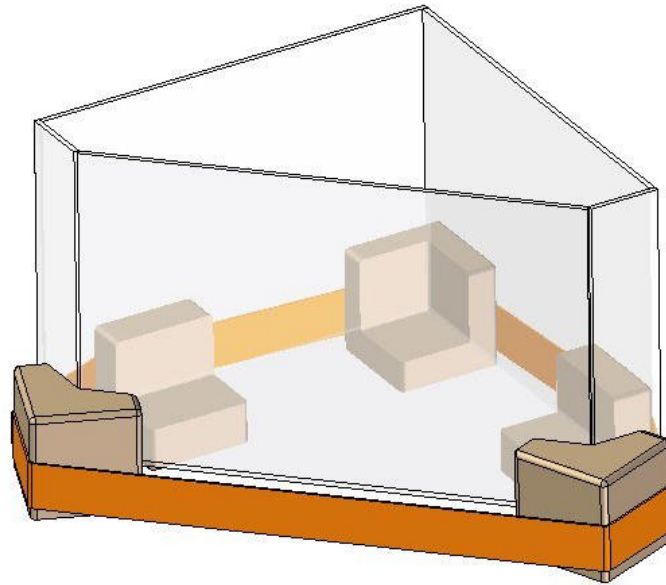
While your assistant is holding the backside, apply the silicone on the edges of the second backside, which should be fixed to the bottom and the first backside. Then fix it as shown in the picture.



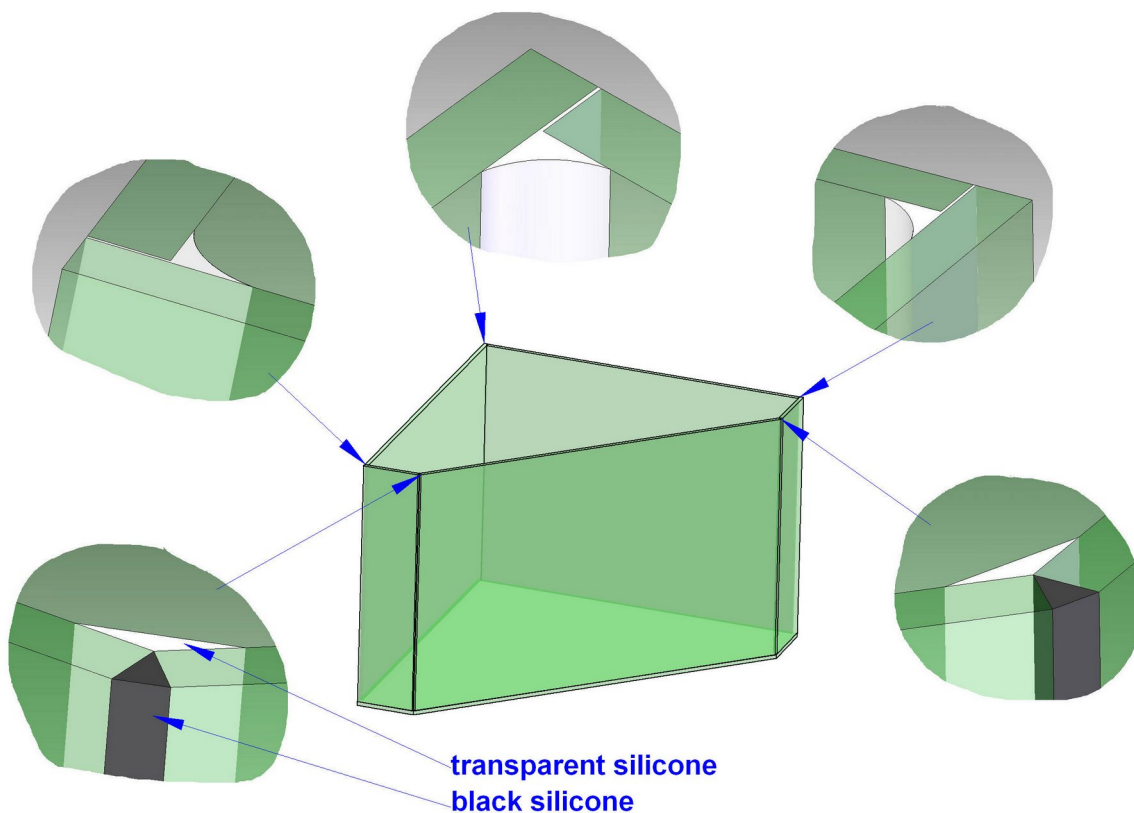
Now you can use a duct tape to connect the left backside and right backside. Repeat the same procedure on the left and right side.



The next step is to glue the front glass pane.



So far, you have used only transparent silicone. For gluing the front glass pane you should combine transparent and black silicone. The instructions for using these two types of silicone are shown in the picture below.



The use of a black silicone is not necessary, but it looks much better on the front glass pane. When you glue the front side, be sure to check all the glued connections and level the edges on all the sides of the aquarium (until the silicone is dried out, you can still fix the glass panes precisely). Then fix all the sides with duct tape and put the silicone into the inner corners; the silicone should be about 4 - 5mm thick (0.2 in). Then wet your fingers with water and impress the silicone into the corners, shaping them at the same time.

After that, put away the aquarium for at least 24 hours, so the silicone can properly dry out. Then clean the remaining silicone off the aquarium. You can easily do that by using a razor blade. When you finish cleaning the aquarium, it is ready to be filled with aquarium water and aquascaped.

It is not recommended to put the aquarium on various vitrines, tables, shelves or similar parts of furniture, because aquariums are quite heavy to stand on standard furniture. The aquarium needs some very stable stand.

When you make all these items, you should to put it on some nice place in your house (be careful no to put aquarium on place where it would be exposed to direct sunlight!). It is required to level the stand horizontally, so the hydrostatic pressure of the water would be equal in every point of the aquarium. Put the aquarium on the stand and you can start with its forming.

## Forming the aquarium

Forming the aquarium is one of the most fun and most interesting things about aquaristics. Before you start forming and arranging your aquarium, you have to provide/purchase the following things: gravel or sand (or a combination thereof) to cover the bottom of the aquarium; water that was allowed to stand at room temperature for 24 hours; a few stones for decoration; a piece of mangrove wood, perhaps, which has positive influence on the chemical structure of water and gives that exotic look to the aquarium; a few selected aquarium plants; some peat (best if granulated); the basic aquarium equipment like water filter, heater, air pump, air pump valve, thermometer and rubber tubes for air supply; and if you are going to put some decorative stones on top of each other, or to paste the stone blocks on the inner backside of the aquarium, you will also need some silicone (only a non-toxic 100% silicone sealant appropriate for aquarium use).

When all of the above items have been purchased, it's time to start forming the aquarium.

If you have decided to paste the stone blocks to the inner backside of the aquarium, this should be the first step to do. In your natural surroundings, you will find some bigger stone that you can split with a hammer (for this reason, limestone can't be used). Split it carefully into thin blocks. Then lay the aquarium on its backside and paste the stone blocks with silicone. You should paste the stone blocks in a way to resemble the natural environment. Leave the silicone to dry out for 24 hours.

After that, choose some suitable place in your home to put the aquarium. Put a 1-2cm thick layer of sand or gravel on the tank bottom. We recommend purchasing this material in an aqua store, and wash it a few times in clean water prior to use. If you choose to take the sand or gravel directly from nature, it is very important to disinfect it with preparation or to boil it in water.

Scatter the peat on top of the sand layer. Do not exaggerate with it, it is enough to put 4 – 5 granules on 5 cm<sup>2</sup>. Then put another layer of gravel/sand on top of it. This layer should be thinner in the front part of the aquarium (approx. 5 cm) and thicker on the back of the aquarium (approx. 10 cm). Add some decorative stones and a piece of mangrove wood in the tank, and try to achieve a design similar to the bottom of a tropical lake or river.

If you have decided to put decorative stones on top of each other, join them together lightly with silicone. When the silicone dries, fill one third of the aquarium with water. The best way to do this is to pour water into the aquarium by using a bucket and a tube/hose based on the siphon principle (a tube running from the liquid in a vessel to a lower level outside the vessel, so that atmospheric pressure forces the liquid through the tube), or you could pour water in the tank manually, but you need to avoid stirring the layers of sand and soil. This is done by putting a plate in the middle of the aquarium and slowly pouring water on it. This way the sand will stay unstirred.

When you have filled one third of the aquarium with water, you should plant the plants. At first remove all damaged or dry leaves; it is also important to cut down one third of each plant's roots using sharp scissors. Then gently take the plant by the root, carefully push it into the sand (gravel) and level the surface. Follow this procedure with all your plants, but be careful to plant the bigger and fast-growing ones in the back, and the smaller and low-growing ones in the front of your aquarium.

In order to achieve the appearance of a real tropical aquarium, grow various aqua plants, but keep in mind that some plants grow faster than the others. However, it is better to have some more plants, as it could happen that some will wither. Some other plants will be tasty food for the fish. If the plants start to overgrow, it is easy to thin them out.

After you have planted the plants, you should fill the aquarium with additional water (up to two thirds of the tank) and set up all the necessary equipment (filters, heaters, air pumps, etc.) in places where they will be less noticeable. Then pour the rest of the water, so the water level is 2 – 3 cm lower than the glass edge. Then activate the equipment. Set the heater at approx. 20 - 25 °C. The temperature level in the aquarium depends on the type(s) of fish you have planned to keep. You will need to top up the water level from time to time. All the water that you pour into the aquarium has to be previously prepared and left to stand for 24 hours.

And remember to unplug ALL the wires before you do anything in or around the tank!

When you do the things described, your aquarium is ready to welcome its inhabitants.

You have to pay special attention when choosing the fish. Every fish you buy has to be healthy, perky and lively. When buying them, consult the store assistants about which types of fish can live together in your aquarium, because there are species that do not tolerate the presence of some other species. Once you have purchased the fish and brought them home, do not introduce them into the aquarium right away. At first, float the unopened transport bag holding your fish into the aquarium for about 15 minutes, i.e., until the water temperature in the bag adjusts to the water temperature in the aquarium. Thus you will allow the fish to get acclimated and avoid causing a big shock to them.

It is also recommended to purchase some disinfective preparation that prevents fish diseases and put it into the water.

When all these things have been done as described, it is finally time for you to sit in front of your aquarium and enjoy the wonderful little piece of nature that you have brought into your home.

Aquariums are not recommended to be kept on standard furniture pieces such as various cabinets, tables, shelves or the like, because they are quite heavy and need very stable stands.

In order to prevent excessive water evaporation in the aquarium, you will need a proper lid/cover for it. The lid is also suitable for installing LED lights, and it is good for aesthetic reasons as well.

The lid is necessary if you have the types of fish that jump out of the aquarium!