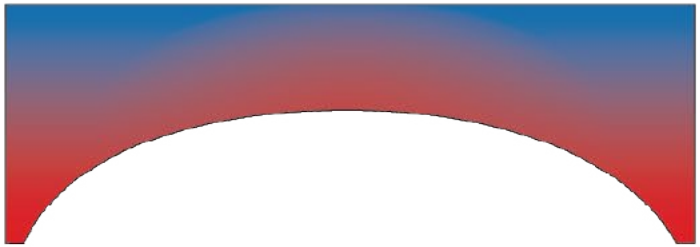
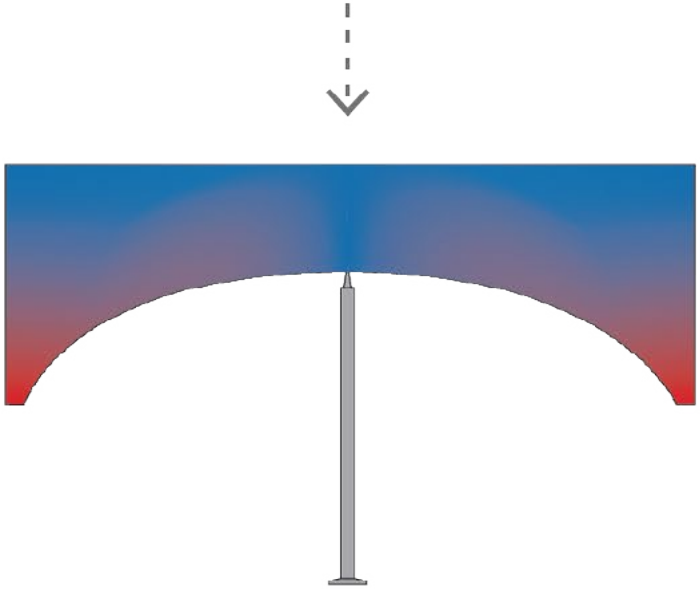
MAKEX
TECHNOLOGY

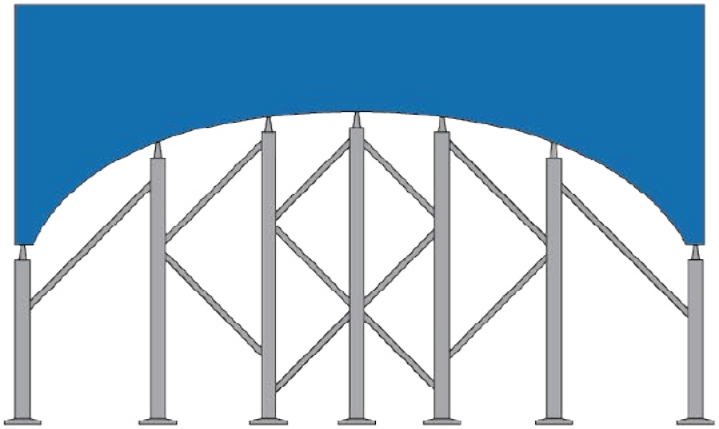
Supports Guidance for SLA 3D Printer

Support Structure Analysis Diagram

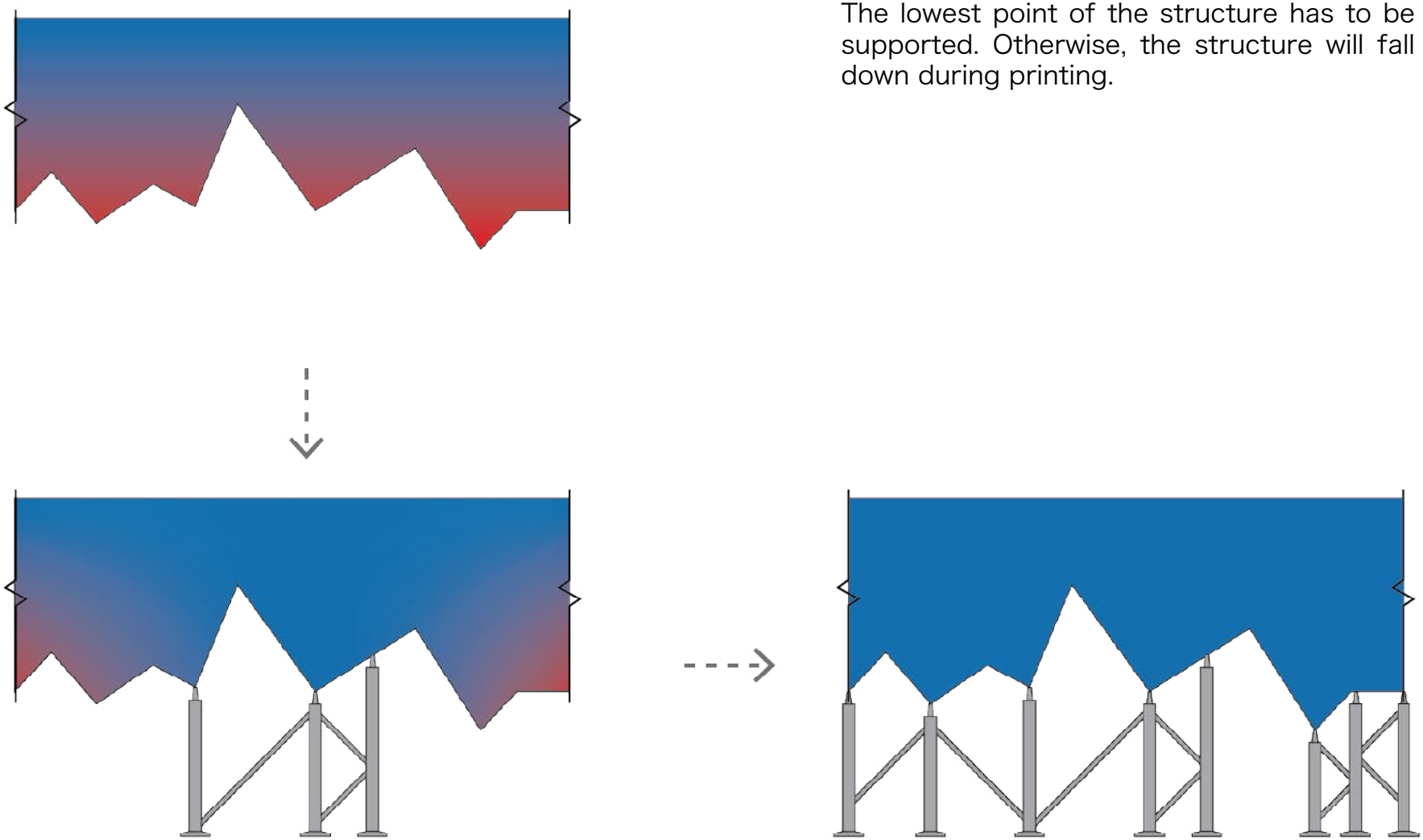


Attention should be paid to the bridge structure. If the span of bridge is large, we need support it in the middle.



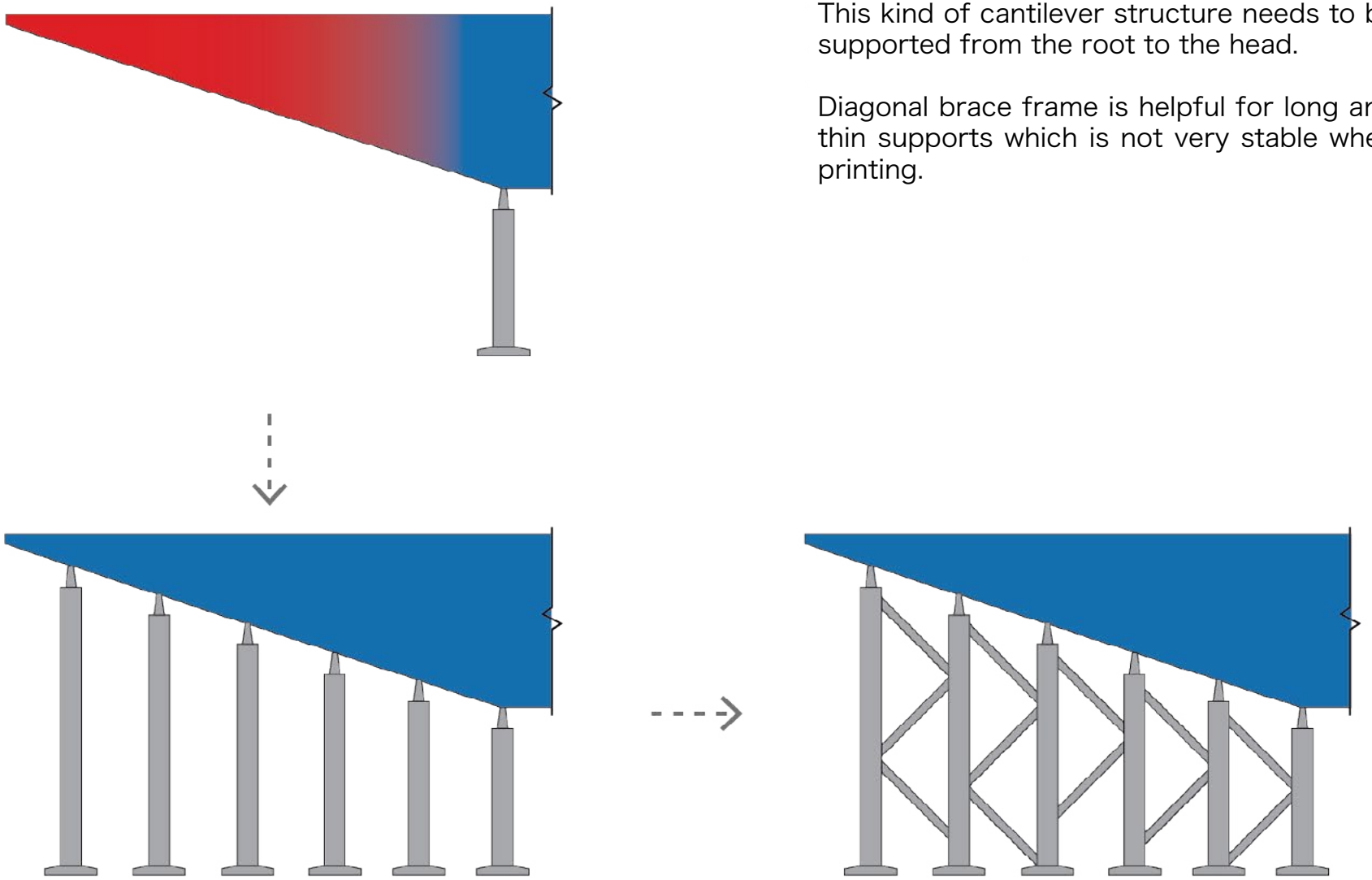


Support Structure Analysis Diagram



The lowest point of the structure has to be supported. Otherwise, the structure will fall down during printing.

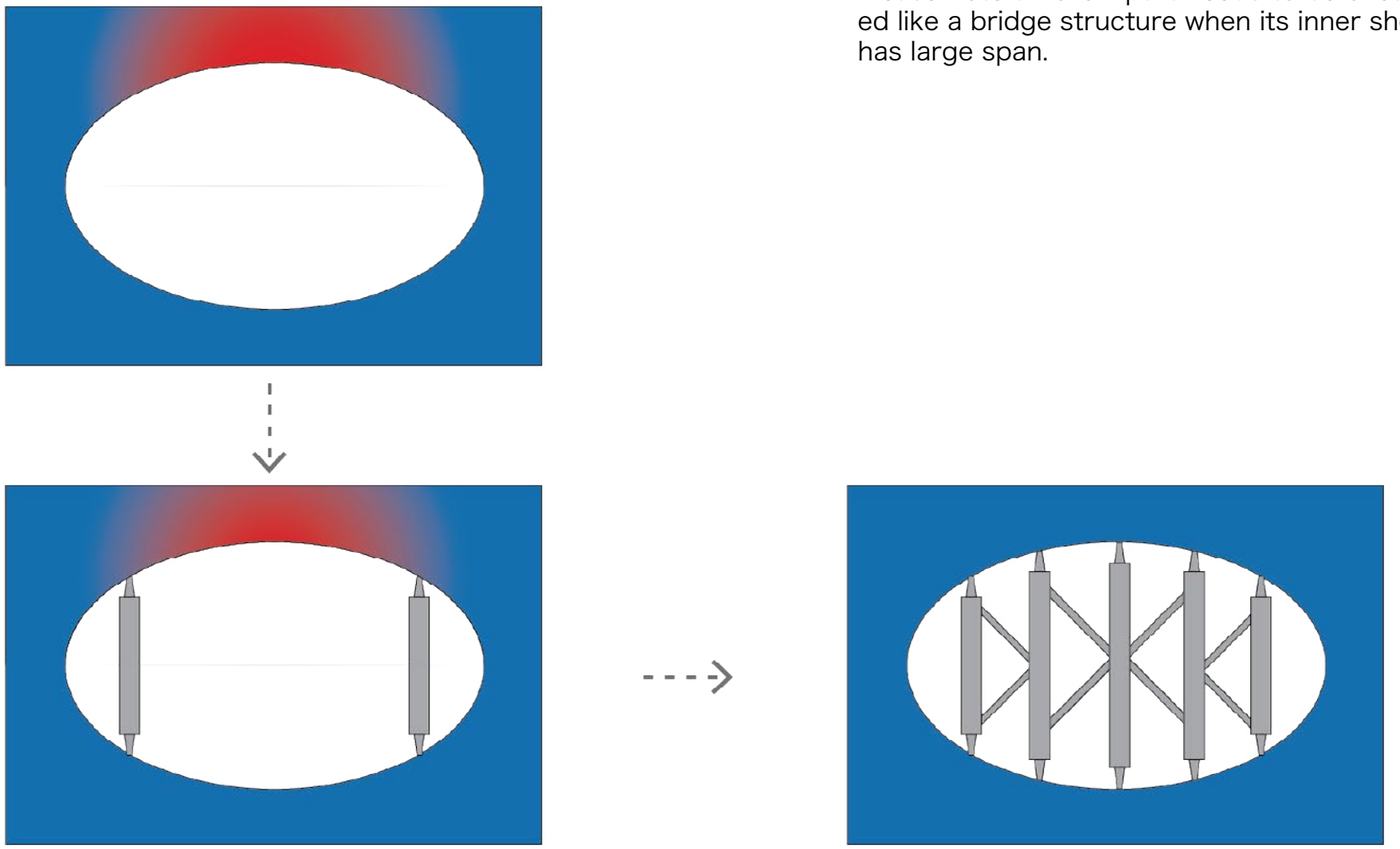
Support Structure Analysis Diagram



This kind of cantilever structure needs to be supported from the root to the head.

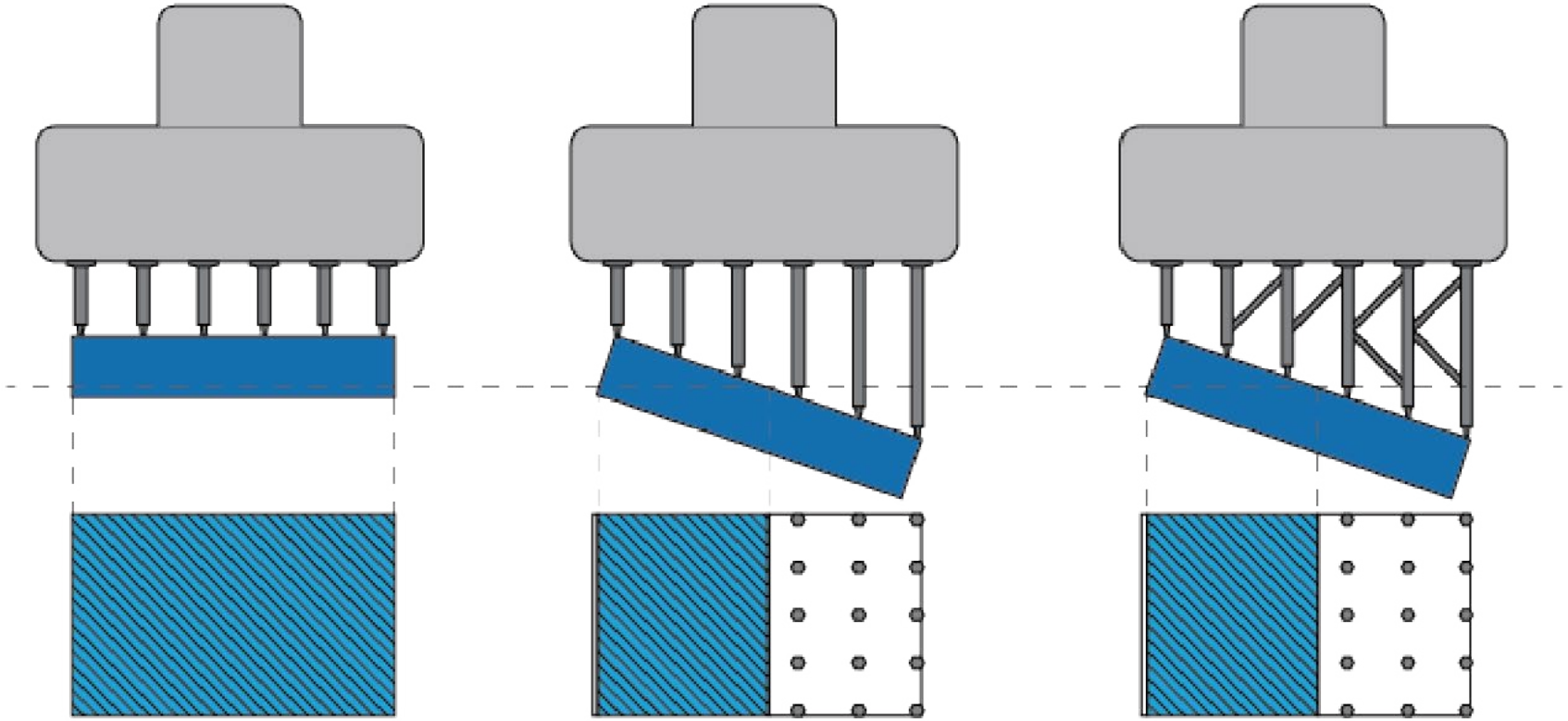
Diagonal brace frame is helpful for long and thin supports which is not very stable when printing.

Support Structure Analysis Diagram



Please note a hollow part needs to be cheated like a bridge structure when its inner shell has large span.

Common Structure Diagram

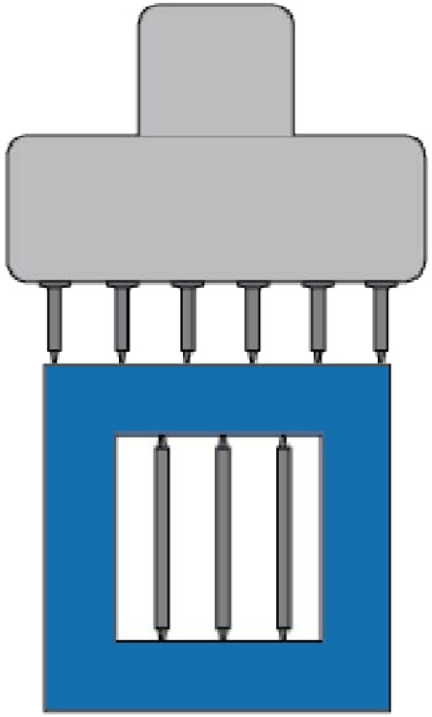


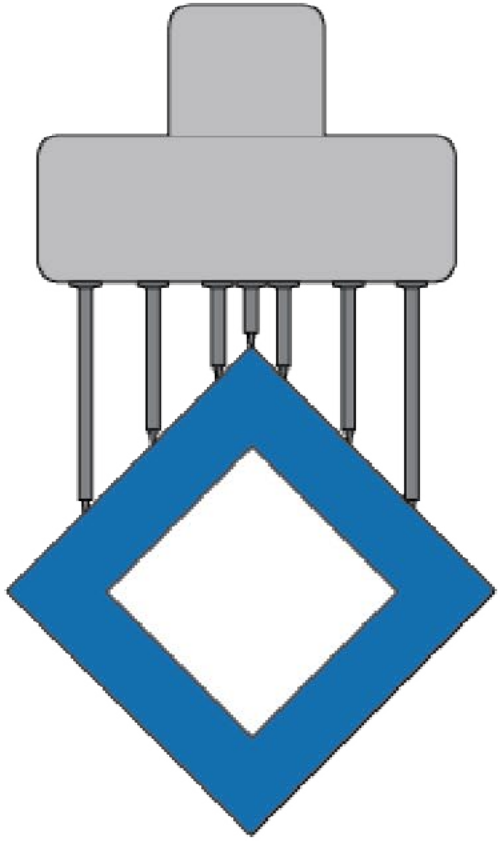
Models with big section is not suitable for printing, which probably damage the vat.

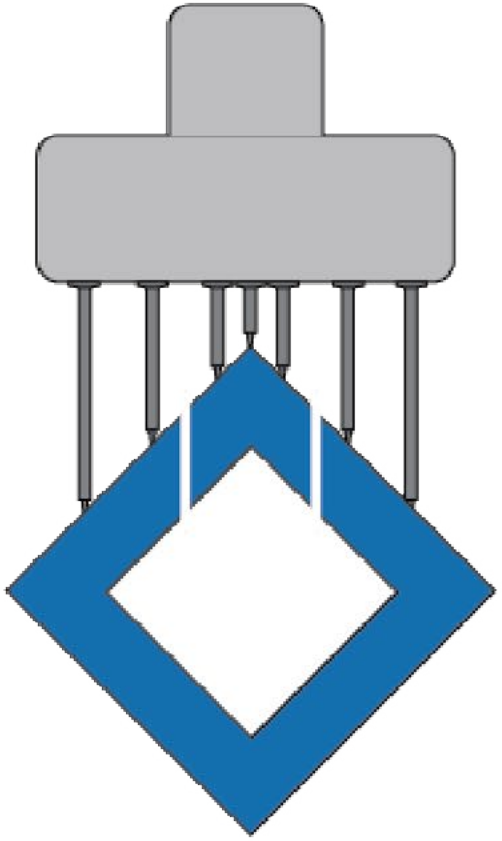
Please lean the model to one direction in some degree to reduce the section.

Add the diagonal bracing for long supports to make it more stable.

Common Structure Diagram





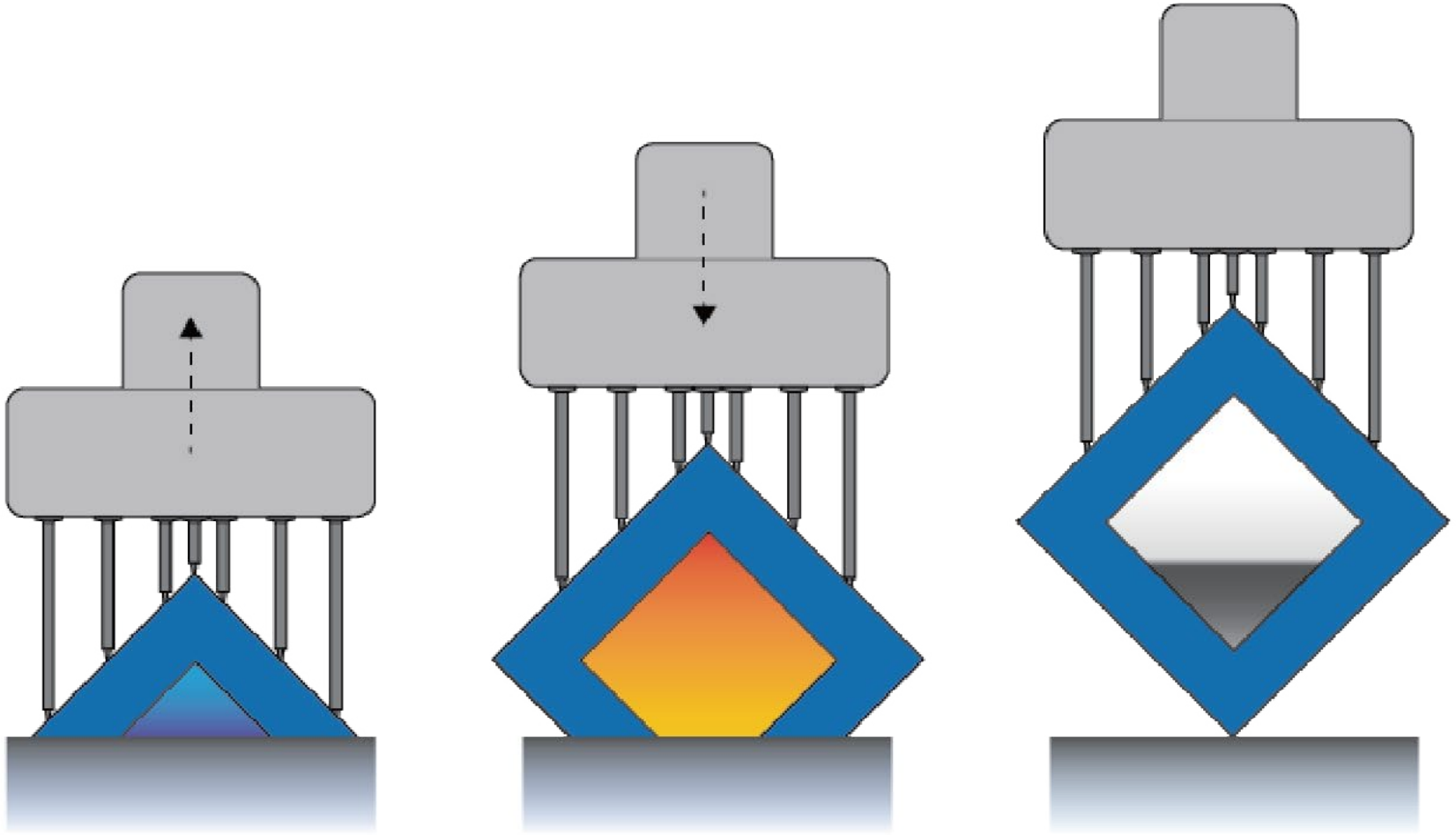


Models with big section in its top and bottom and excessive flat inside need to be added lots of supports.

Please lean the model to one direction in some degree to reduce the section,so we can add less supports for the model.

Add a hole on the bottom of the model to make sure stable air pressure and liquid can drain out.

Common Structure Diagram

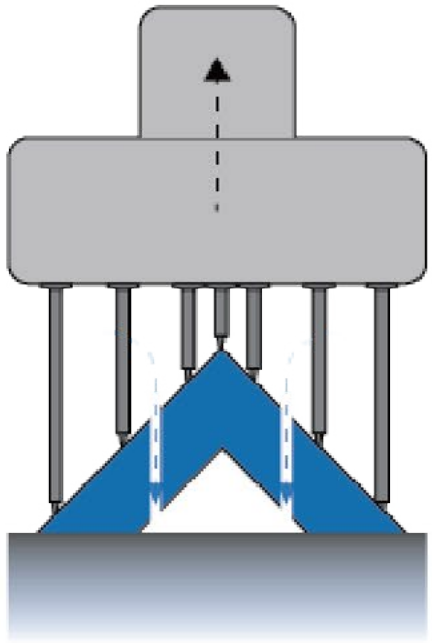


When the platform goes up, its inner air pressure will be reduced. In this way, the suction will grown so large that make it difficult to demold.

Please lean the model to one direction in some degree to reduce the section as well as less supports will be needed.

Add a hole on the bottom of the model to make sure liquid can be poured out and the stable air pressure.

Common Structure Diagram



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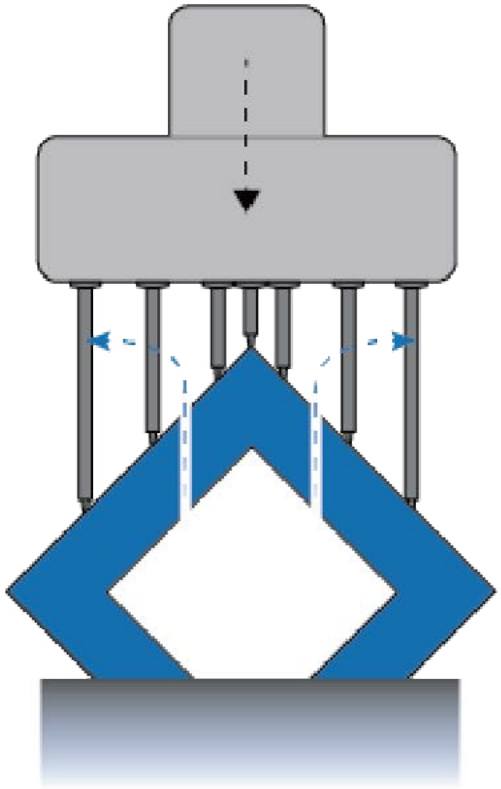
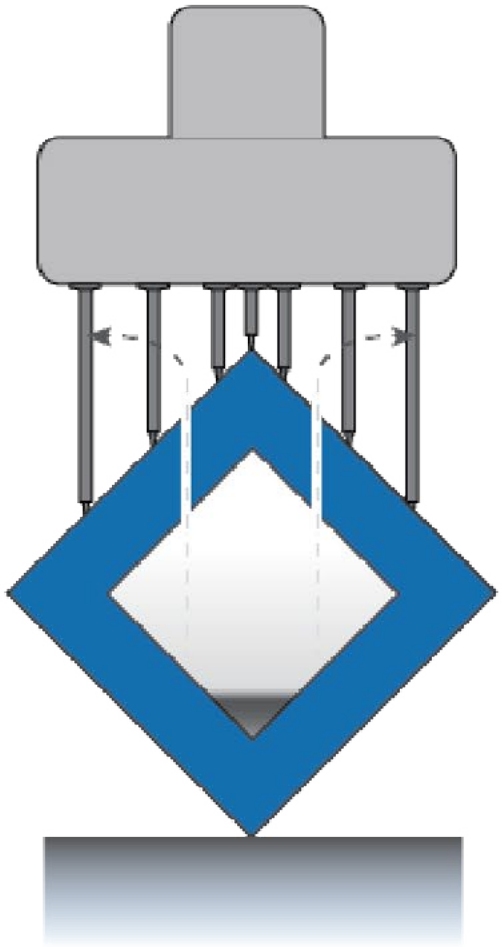
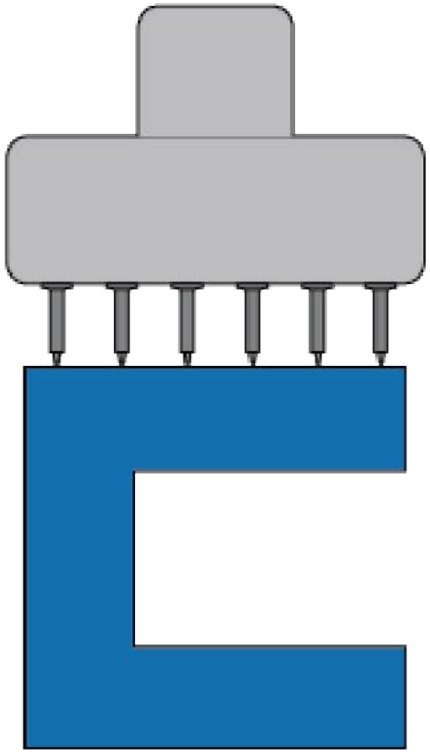


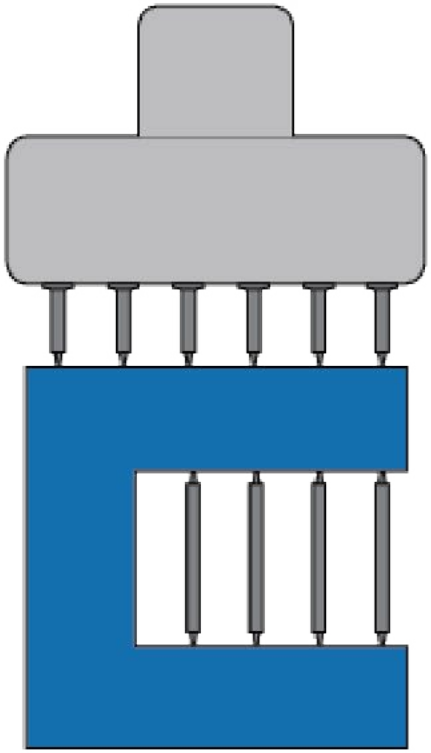
Please lean the model to one direction in some degree to reduce the section as well as less supports will be needed.

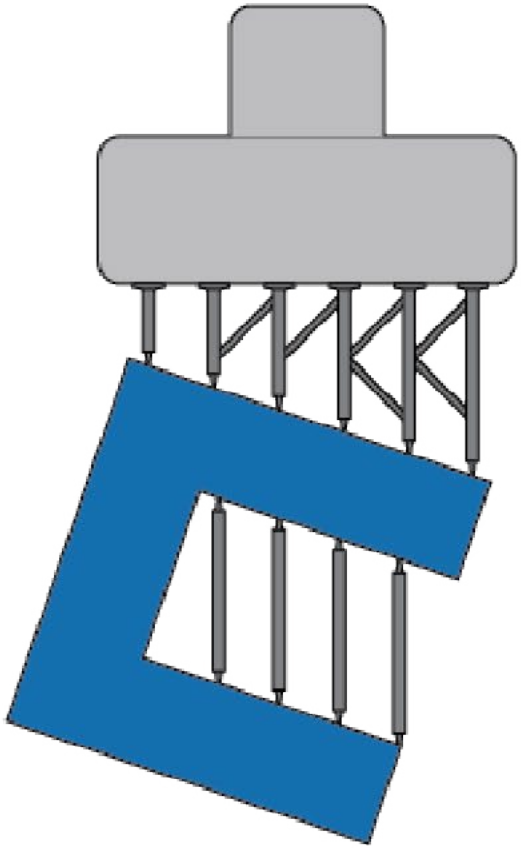


Add a hole on the bottom of the model to make sure liquid can be poured out and the stable air pressure.

Common Structure Diagram





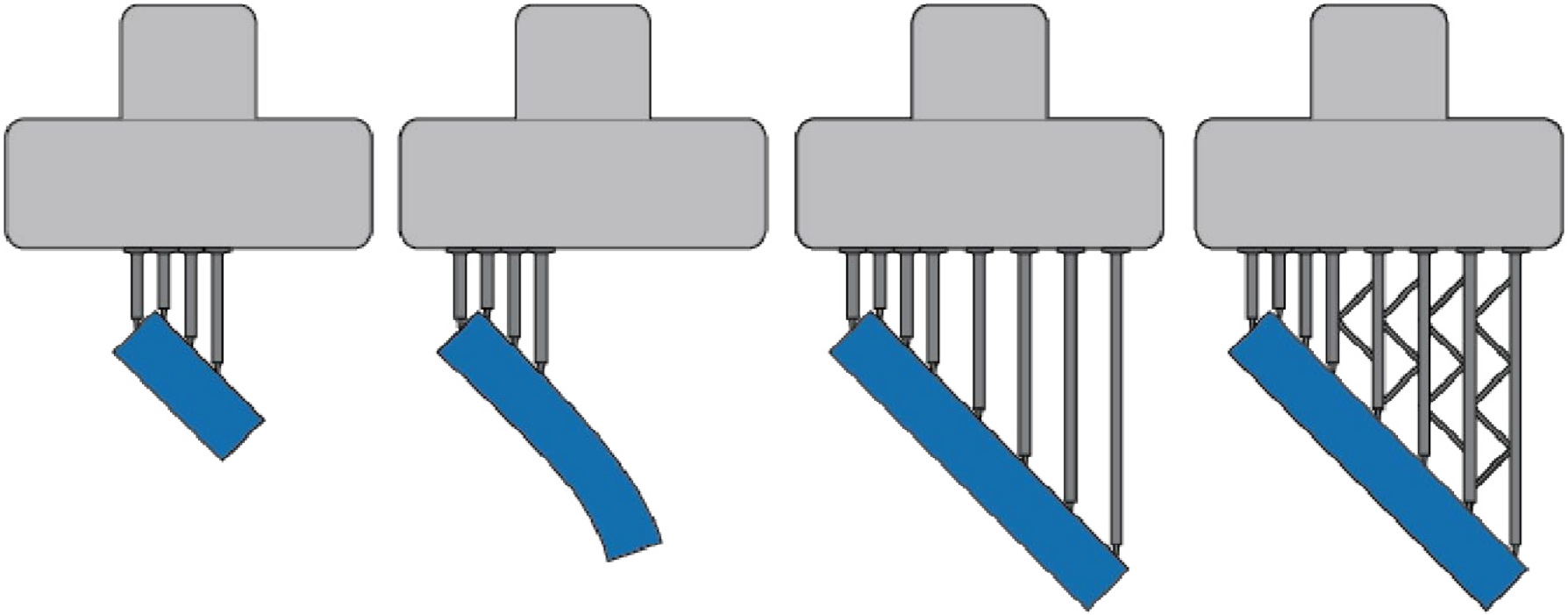


It is likely to lead to deformation in case of suspended structure without supports.

Since the area of the model base is large, its section will be corresponding big and as we said above models with big section is not good for printing.

Please lean the model to one direction in some degree to decrease the section. Meanwhile, less supports will be needed.

Common Structure Diagram



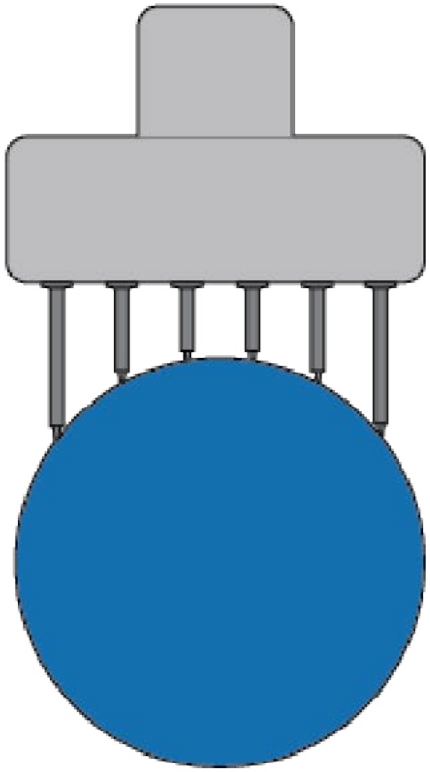
Slight slanted models need to be supported as well.

For models in long structure need to be supported in both sides or it is likely to generate deformation because of gravity.

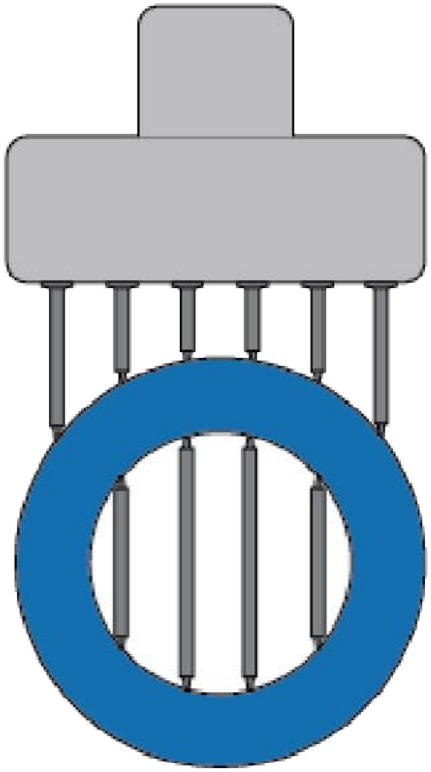
And please make sure the supports have been added evenly.

Add the diagonal bracing for long supports.

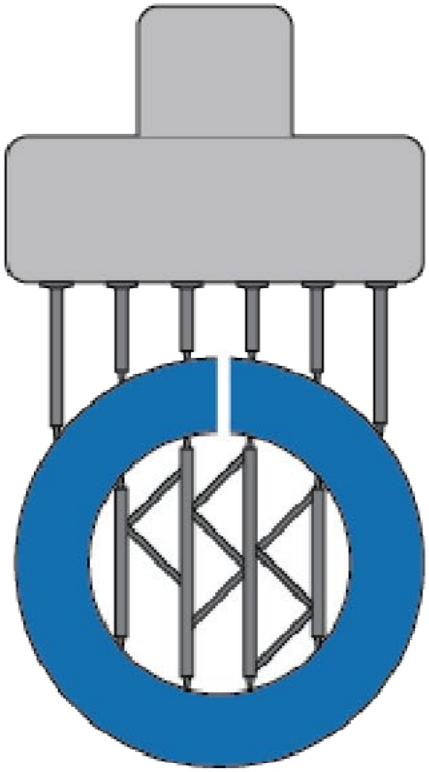
Common Structure Diagram



Solid models with large section will lead to printing failure.

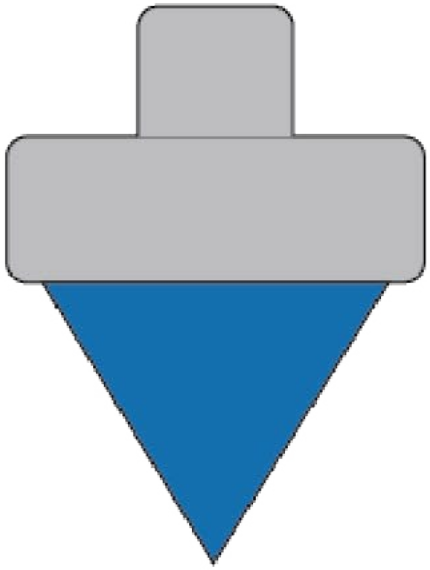


While the hollow models have a higher print success rate. Please remember to add supports for its inner shell as well.

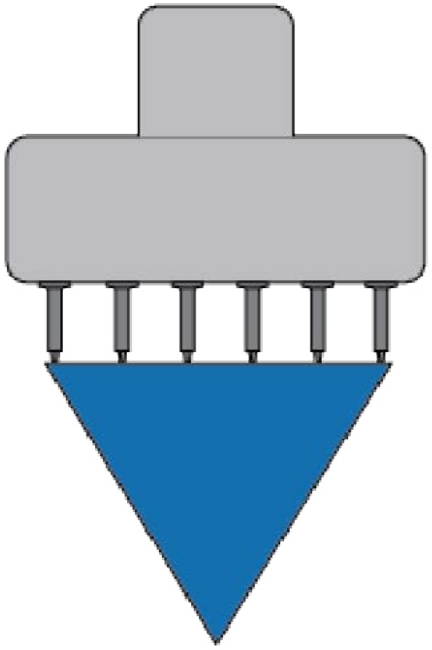


Add a hole in the top to make it easier to pour out the liquid from inside.

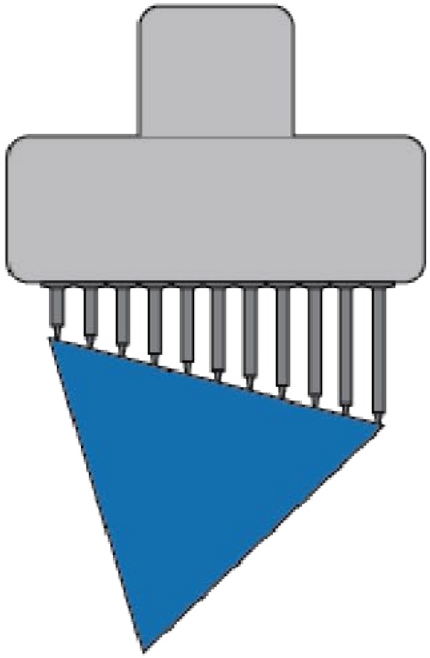
Common Structure Diagram



Models with flat bottom would be better to be printed after adding supports and base.



It will be easier to take the model from platform and increase success rate greatly for models with base and supports



Place the model at an appropriate angle to improve the success rate. Please note to add the supports evenly as well.