

# INSTRUCTIONS FOR LEONARDO DA VINCI'S SELF-SUPPORTING BRIDGE

1: Get enough dowels to make 15 lengths. All 15 pieces of dowel are to be cut to the same length. For the example I am making, I cut my dowels to 250mm from 12mm dowel.



2: Take 10 of the dowels. Then using a round rasp or round file, create three notches into each of the 10 dowels.

Create one notch on one side and two notches on the other side. The notch on the side with one notch is made at the halfway point. The two notches on the other side are made an equal length from the end.



3: Take two dowels without notches and lay them out like this:



4: Then take two pieces with notches and lay over the top:



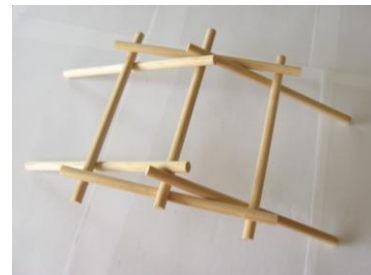
5: Then take another piece with no notches and lay over the top:



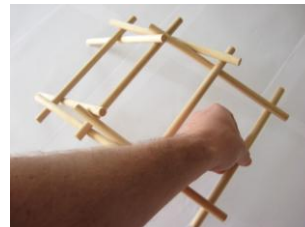
6: This next stage is a little more difficult, but with a little care can be done rather easily. First tip; make sure you keep the pieces of dowel close, so you don't have to stretch for pieces of the bridge. For this bit you need to take one of the outside dowels with no notches and left the bridge, and insert two notched dowels under the outside dowel and on top of the centre dowel, like this:



Then repeat for the other side, and it should now look like this:



7: For this part really shows why it is important to keep the other pieces of the bridge close. Take one of the dowels without notches and place it underneath and into the notches, like this:



Then lift up the bridge with that dowel.

Then like the last stage, take a notched piece and place it under the piece you holding, and on top of the next piece up. This should then look like this:

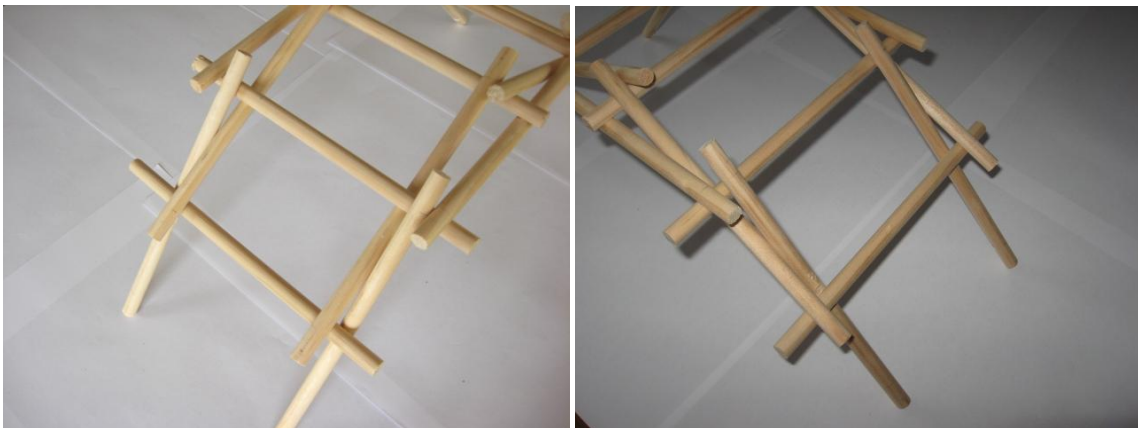


Then repeat for the other side.

8: This should leave you with a bridge looking like this:



For extra help here are some more photos to help show how the bridge goes together:



These are views of the different ends.

This is a view of one of the joins.

