1:72 Biplane Jig

Construction Instructions

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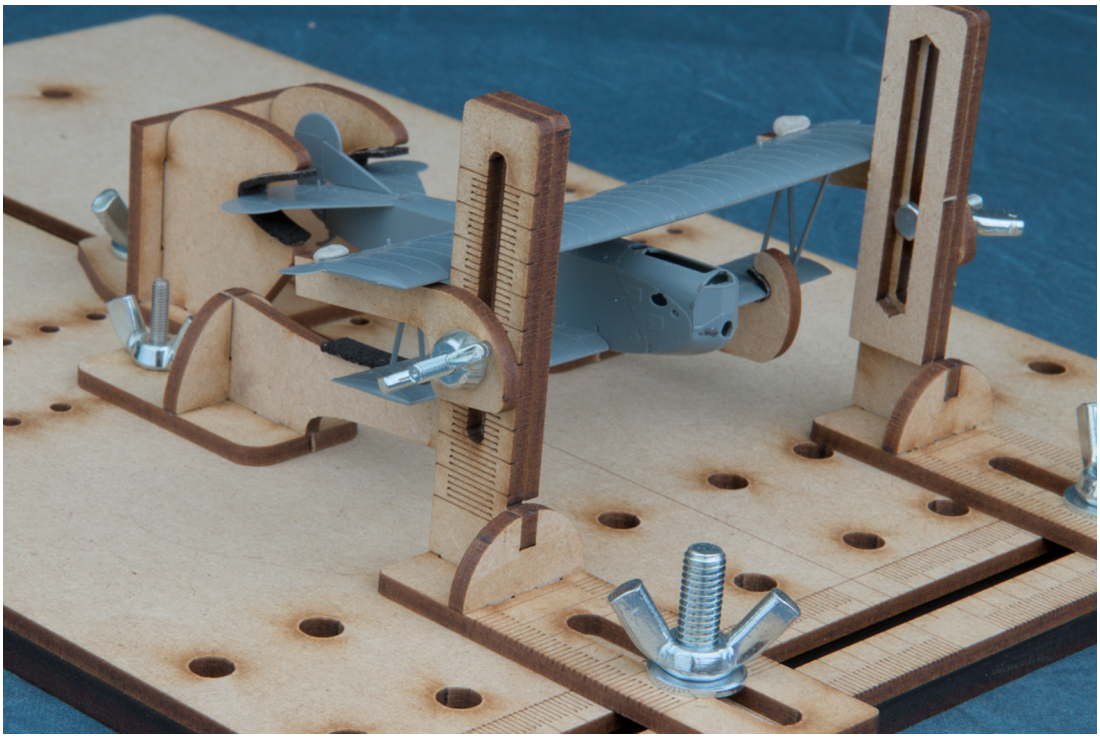


Introduction

The EBMA Biplane Jig is produced in a combination of 3mm and 6mm MDF. As such normal DIY woodwork procedures can be applied to them. The parts are cut by a laser cutter which results in smoke marks on the surface of the wood. One side of the wood will have slight marks and the other will be more pronounced. Some parts are symmetrical and you are therefore able to choose the visual effect you wish. For asymmetrical parts if you wish to remove the smoke marks then fine sandpaper may be used (use a sanding block, not just the paper on its own).

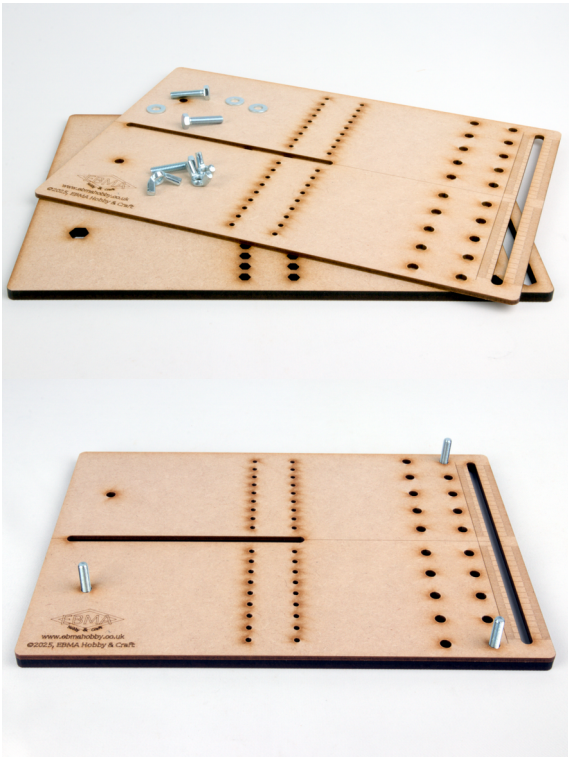
Where glue is required during assembly a good quality wood glue (PVA) should be used. When wiping the excess away wherever possible wipe it towards the burnt edge as this marks less.

Dry fitting components prior to gluing is highly recommended, i.e. compulsory! You should also use an engineers' square during construction to ensure that everything goes together absolutely square.

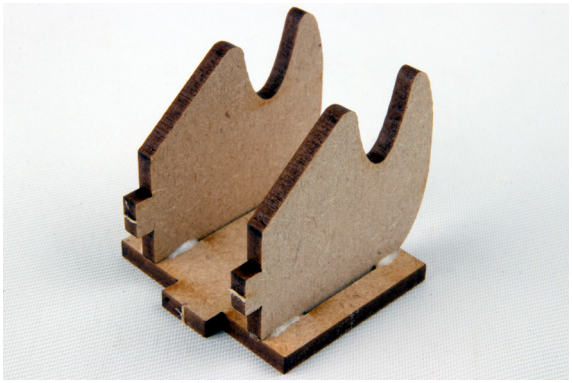
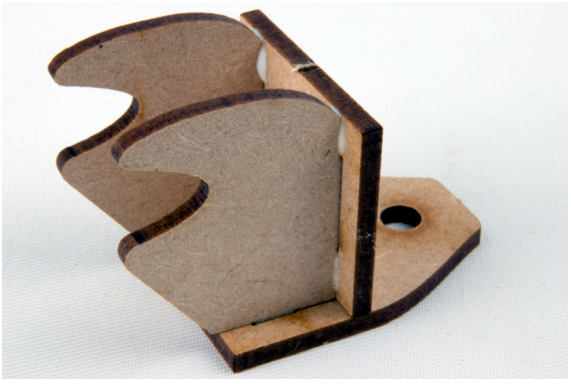
Whilst parts are drying it can be handy to hold them in place with masking tape. This can be used to help keep gaps closed.

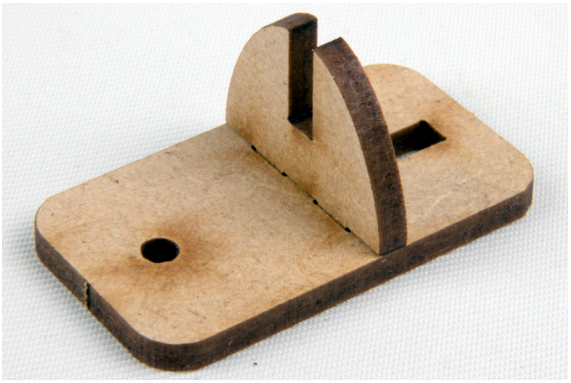
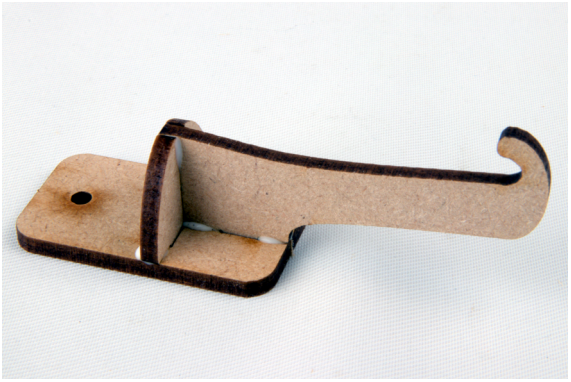
Construction

Base

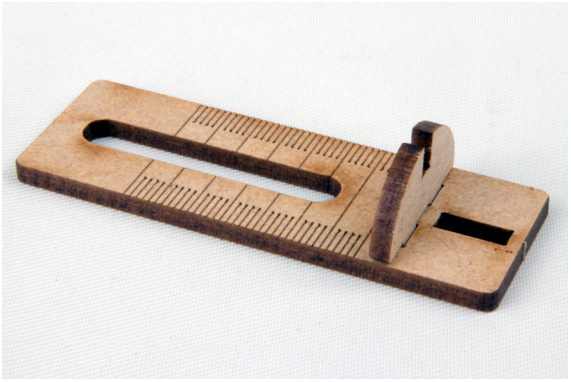
1. Glue the 3mm and 6mm bases together using two of the bolts to align them. Ensure that both pieces are fully closed together, use clamps if necessary.	

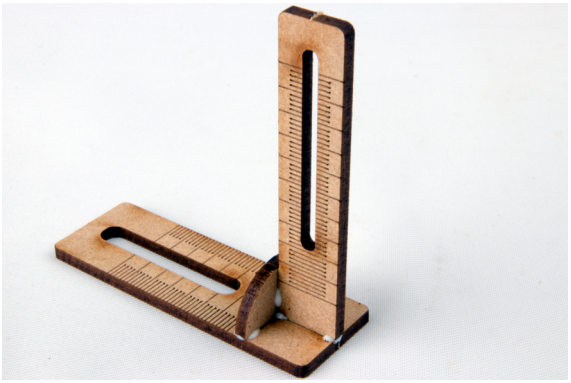
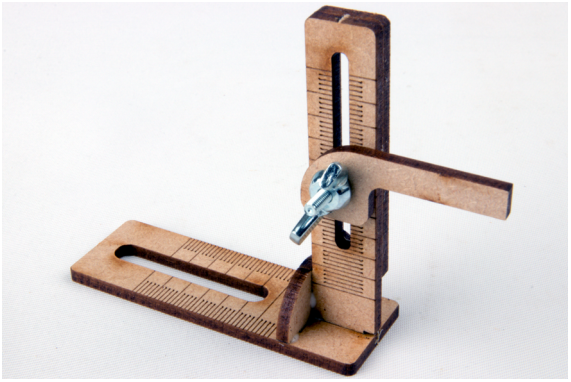
Wing Clamps

1. For the tail clamp glue the two curved supports into the rear upright. Do not allow the glue to set completely before moving to step two.	
2. Glue the curved supports and rear upright into the base.	

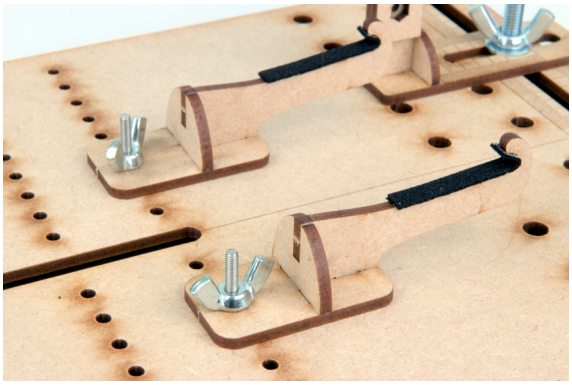
3. For the two main wing clamps glue the uprights into the base.	
4. Glue and insert the extended arm piece into the upright and base. Ensure that everything is fully home and square and also that both supports match each other.	
5. Cut the neoprene into four strips 3-5mm wide. Carefully position each into place on a clamp.	

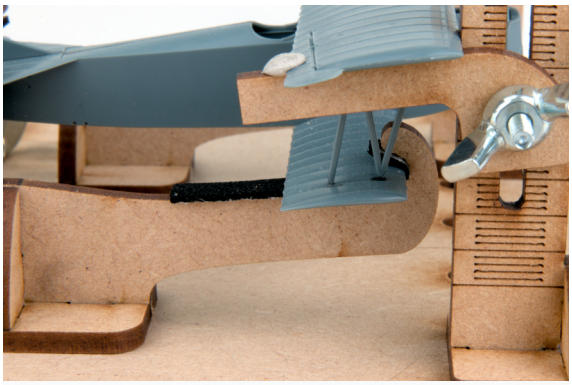
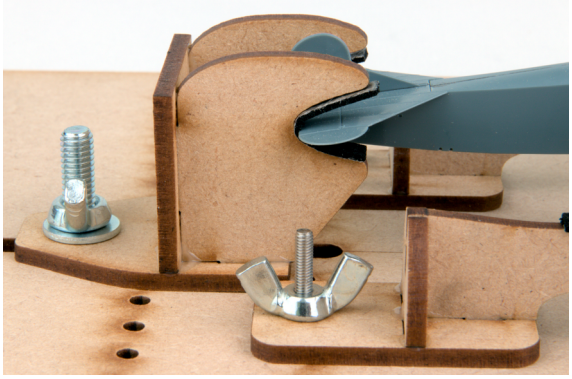
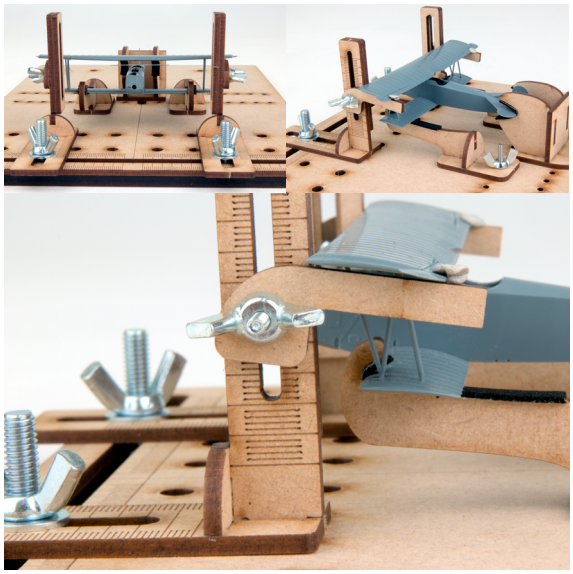
Upper Wing Supports

1. Glue the uprights into the graduated bases.	

2. Glue the graduated uprights into the bases. Note that two uprights are mirror images of each other.	
3. Using two pairs of nuts and bolts for alignment glue the plain slotted piece to the non-graduated side of the upright. Ensure that no glue is present in the slot. This piece prevents the bolt head from spinning annoyingly when adjusting the wing support.	
4. The L shaped wing supports bolt onto the uprights with the supports against the graduated face. Do not overtighten the nuts as the wood will distort.	

Final Assembly

1. The two rows of 3mm bolt holes in the middle of the jig are for the main plane clamps. Bolt the clamps through a suitable pair of holes dependent upon the layout of the model's wings. Do not overtighten the nuts.	

2. The tail plane clamp locates into the long slot at the opposite end of the jig. With the model located against the main plane clamps slide the tail plane clamp up to the tail plane so that the aircraft is held in position. The clamps do not have to be pushed together hard.	 
3. The upper wing supports locate into the remaining long slot. Set one of the supports to hold the wing in the required location and then use the graduation markings to set the second support up to match it. It is probably worth using white tack to gently attach the upper wing to the supports.	

Extension (Optional)

The extension increases the length of fuselage that the jig is able to cater for. The extension can be attached either way around depending on just how long the fuselage is that you have.

1. Glue the 3mm and 6mm parts of the base together using two of the bolts to aid alignment.	
2. The extension is attached to the main base by four nuts and bolts and the two smaller pieces of mdf. The extension may be attached either way around depending on the length of the fuselage.