

- WHAT WAS YOUR FIRST NEED?

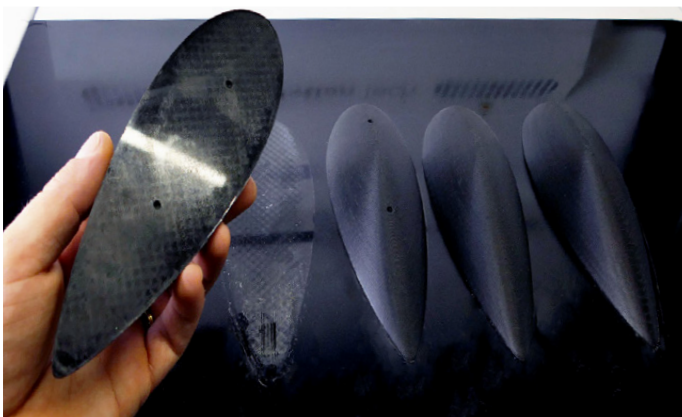
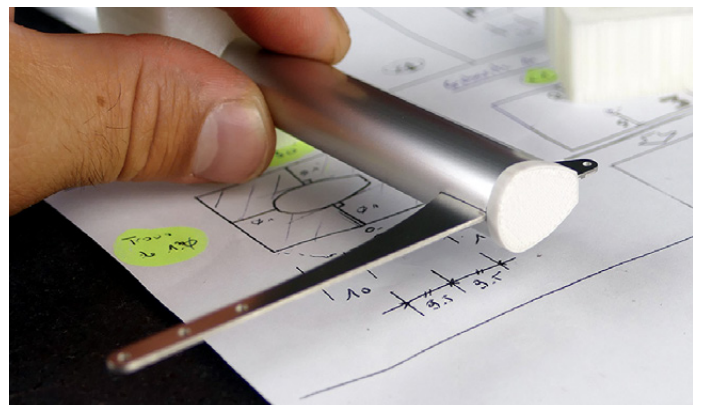
I wanted to create tools to help me intervene more precisely on certain parts of the model I was creating. I first considered making drilling and sawing jigs and/or guides for the pasts, then I soon realised that 3D printing would be useful in many other ways.

Later, I also used the Strateo3D to make various finishing parts and cabochons of all kinds.

Finally, in view of the very convincing results I had obtained, I also decided to print the two half-edges constituting the keel of the boat in order to make two plaster moulds and pour lead into them.

- HOW DID YOU MODEL THIS TOOL (SOFTWARE) ?

All parts were modelled using Rhinoceros software based on manually produced 1:1 scale drawings.



- WHAT MATERIAL WAS USED TO PRINT THE TOOL, AND FOR WHICH REASON?

**PLA was used to print these different parts because the uses did not require specific mechanical properties or resistances but were more related to precision.**

- HOW DID YOU DETERMINE THE VARIOUS MANUFACTURING SETTINGS (LAYER THICKNESS, POSITIONNING, FILL RATE, ETC...)?

**I had complete confidence in eMotion-Tech for the production of these plastic parts and they adapted the settings according to the different expectations I had.**

- DID THE PART HAVE TO BE PRINTED IN SEVERAL PARTS ? IF SO, HOW MANY? WAS IT PRINTED ALL AT ONCE ON THE SAME BED OR SEVERAL PRINTS ?

**All the parts were printed at the same time on the same bed because their dimensions allowed it.**

- HOW MUCH TIME DID THE PRINT LAST ?

**The printing of all the drilling and sawing tools took a dozen hours, while all the finishing parts were produced in half a day, and it took 18 hours to produce the four half-edges intended for moulding.**

- WHAT BENEFITS DID YOU SEE IN USING THE STRATEO3D TO PRINT THIS PART ?

**I was totally amazed by the precision of the parts that the machine was able to produce, by its speed of execution and by the ease with which one could obtain a part via this process.**

- COULD YOU COMPARE IT WITH ANOTHER MANUFACTURING METHOD (TIME, COST, ETC...)?

**It would have taken me about 15 hours to make the wooden ogive by superimposing about 30 layers of wood which I would then have sanded to get a smooth and regular surface, whereas the whole set of parts was modelled in only 4 hours.**

**Furthermore, concerning the finishing pieces and the drilling and sawing guides, I doubt that I could have obtained the same degree of precision if I had had to make them by hand.**

- ARE YOU CONSIDERING OTHER USES OF THE MACHINE/REQUEST TO THE PRINTING SERVICE?

**Obviously, it was very useful in the development of this boat model and I will certainly have many other ideas and/or projects that will require the use of 3D printing in the future.**

Jérôme PETIT

