



My alternative models

In this page you will see the photos of my actual models. These models were the experiments background of my featured tutorial techniques. See that the available data that I used to make these models was not as good as I dream, since some scale and or detail similarity were not very well matched in the available 3-view drawings. At now, with the support of internet provided material, I have some better drawings, but it will be necessary to research a lot more to get truly reliable data.

By analyzing these pictures, you will note that each of my models have different structural frameworks than the others ones. These differences around my models demonstrate a clear technical evolution of my construction methods.

I tried to achieve scale approximation to reproduce the form of the real airplanes in my own models. That was not totally possible due to the drawings and technical background limitations. The results, although got progressively better with time... Unfortunately, at now, I can't paint my models like the originals of the second world war. Actually I still have not so much privacy with airbrush painting. I'm still trying to develop new painting techniques and the results get better and better, but I still need to move my feet on that road...

By the way, these are the models I've already mounted:

P40 Curtis

This is my first model, but see that I've only finished it after my Focke Wulf Fw-190 model. I remodeled it and corrected some miss made pieces of it, in a way to closer approach to the real airplane. In that model I used oil painting techniques, trying to match the basis of the original painting schema of the flying tigers. Unfortunately, my poor knowledge on how to mix the colors and the lack of informative material, among others technical problems I have at that moment, hindered my possibilities to get a paint schema that at least worthy resembled the original one. In the reality, I got a magazine poster from "Top Gun magazine" that a school colleague of mine provided to me. I've just copied-out the contour of the airplane drawing with silk paper, without signs, nor colors representation. After that, I returned the magazine to my friend. Being this a poor material to start with, I could only count on my own memories to start painting... The painting results were not very satisfactory.

You may observe that the construction techniques were very simple until that time.

Click on the thumbnails to show a big picture!



For the assemblage of this model I have used the following materials:

- Low and large thickness cardboards for the model's structure
- Brown paper for carpeting the models surfaces
- Aluminum wire for making the landing gears structure
- A piece of a broomstick was used to make the propeller spinner
- The remaining wooden portions of the model, like the propeller, were made with [imbuia](#).

I employed the following techniques when I mounted this model:

- For the structure: basic solid forms. The wings extremities thickness does not match the correct scale factor. The wings volume was achieved by overlapping large thickness cardboard sheets and by folding thin cardboard sheets over the previous structure. The thin cardboard coincides their borders ones with the others in the finest border of the wing.
- To make the propeller's spinner, I get help from my father, who tilt-carved a piece of broomstick for me. With the aid of a carving tool I did orifices in the wooden cone, where I fixed the helix shovels of the propeller.
- To make the helix shovels I carved some pieces of imbuia with a knife tool, with a mountain range that approach the form that I desired. I finished this work using sandpapers.
- To make the landing gears I rolled paper around a aluminum wire piece, that I just used to produce the main connecting rod of the landing gear. Using fast glue, I glued the rolled paper in a way it gets the form of a tube. Soon later I punctured a transversal hole in the abutment of the paper tube, using a fine drill. The hole in the abutment of the paper tube allows you to spin that tube around a base axis. By this way, the paper tube served of a mobile basement to the landing gear main rod, providing it with two movements, one in their abutment to the wing and another one in the main connecting rod. The rubber wheels would turn later on their axle. These axles correspond to the folded extremity of

the main connecting rod. That landing gear set is very simple, but it can be collected as the real landing gear of the P-40

FW-190 Focke Wulf

This is my second made model. As I already said, that model was finished before my first one, and consequently it becomes not so good as the first one. In it I used oil painting techniques, but I did not match the colors like I just imagined. What a stranger appearance I get here!

The employed construction techniques was the same I used in my first model, and they had not allowed one better reproduction of the real airplane. See that the scale approach problems were not a techniques fault, but my own fault. Actually, I have repaired that model, in a way it fits better the scale approach it needs. More info can be found at the tutorial papers page, on how to restore damaged alternative models.

Click on the thumbnails to show a big picture!



For the assemblage of this model I have used the following materials:

- Wood + low and large thickness cardboards for the model's structure.
- Brown paper for carpeting the model's surfaces.
- Wood, metal, cloth and ribbon for making the landing gears structure.
- A piece of a broomstick was used to make the propeller spinner.
- The remaining wooden portions of the model, like the propeller, were made with [imbuia](#).

I employed the following techniques when I mounted this model:

- For the structure: basic solid forms. The wings extremities thickness does not match the correct scale factor. The wings volume was achieved by overlapping large thickness cardboard sheets and by folding thin cardboard sheets over the

previous structure. The thin cardboard coincides their borders ones with the others in the finest border of the wing. The basis for the radial engine was made with a wooden cylinder.

- To make the propeller's spinner, I get help from my father, who tilt-carved a piece of broomstick for me. With the aid of a carving tool I did orifices in the wooden cone, where I fixed the helix shovels of the propeller.
- To make the helix shovels I carved some pieces of imbuia with a knife tool, with a mountain range that approach the form that I desired. I finished this work using sandpapers.
- To make the landing gears, I cut a wooden fine strap that would serve of main connecting rod. In the abutment of the main connecting rod, I glued a narrow folded metal strap, that serves as a axle basement to the main connecting rod. It provides the ability to collect te landing gear set into the wing. Also, with wood and cloth I made an auxiliary connecting rod that joints to the middle of the main landing gear rod, to serve as a support to the landing gear position, when the airplane was at ground. For the axles of the wheels, I fixed a wire piece in the bottom of the main connecting rod. That complex structure of the FW-190 landing gear revealed itself coarse, little resistant and little functionary. Even so, was possible to collect it, to simulate flight situation... After the restoration of this model, a much simpler, beautiful and stronger landing gear replaced the old one.

P51 Mustang

This was my third model, and the first in with I tried to reproduce a glassed cockpit with control panel instruments (still a little primitive at that moment). The employed techniques were similar to the ones I used when I started to make my models, with little differences. One of the major evolutions was the use of a primitive articulated joint for the ailerons. In the generality it was reasonable, as the third airplane that I mounted. The result was a decent model, even so with some imperfections in the scale approach. I used oil painting techniques to paint this model.

Click on the thumbnails to show a big picture!



For the assemblage of this model I have used the following materials:

- Low and large thickness cardboards for the model's structure.
- Brown paper for carpeting the model's surfaces.
- Wood and steel wire for making the landing gears structure.
- A piece of a broomstick was used to make the propeller spinner.
- The remaining wooden portions of the model, like the propeller, were made with [imbuia](#).

I employed the following techniques when I mounted this model:

- For the structure: basic solid forms. The wings extremities thickness does not match the correct scale factor. The wings volume was achieved by overlapping large thickness cardboard sheets and by rolling thin cardboard sheets over the previous structure, without any fold. The thin cardboard coincides their borders ones with the others in the finest border of the wing.
- To make the propeller's spinner, I carved a piece of broomstick with a knife tool - not a recommended method, due to their difficulties and dangerous nature. With the aid of a carving tool I did orifices in the wooden cone, where I fixed the helix shovels of the propeller.
- To make the helix shovels I carved some pieces of imbuia with a knife tool, with a mountain range that approach the form that I desired. I finished this work using sandpapers.
- To make the landing gears, I cut a wooden fine strap that would serve of main connecting rod. In the abutment of the main connecting rod, I punctured a transversal hole, that serves as basis for a axle to the collecting movement. For the axles of the wheels, I fixed a wire piece in the bottom of the main connecting rod. That simple wood structure of the P-51 landing gear revealed itself beautiful, but little resistant and little functionary, since the lack of a auxiliary support connecting rod made difficult to use that landing gears. Even so, was possible to collect it, to simulate flight situation...
- For ailerons, rudder and other airfoils, I improvised a cardboard hinge to a wire axle. The hinge is based in a few wing places, in a way that the control sets doesn't get so much firm.

Beech

When I start to make this model, I faced the most inadequate data availability and conditions among all the previous models. I had only two photos of that airplane, taken off of different positions and perspective. I need therefore to imagine the remaining portion of the airplane that I can't see. I discovered later that I committed some errors, but at the end of this history the airplane keeps some similarity with the Real one. I believe the real name of this airplane is Beech Bee, used by the U.S.A.F. as an transporter, at the side of the Electras. I used aerosol ink spray to paint this model. The

cockpit has transparent windows, but the control panel has no instruments. This is the bigger airplane that I made, and the construction techniques are a little better than the ones I used in the previous models.

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For the assemblage of this model I have used the following materials:

- Wood + low and large thickness cardboards for the model's structure.
- Brown paper for the propeller's spinner.
- Wood and steel wire for making the landing gears structure.
- Beer can to make the helix shovels and structure of the propellers.

I employed the following techniques when I mounted this model:

- For the fuselage structure, I mounted a heavy cardboard box, in which I fixed some thin cardboard sheets to model the final form. The nose of the airplane was made with a cross cardboard sheet structure in with holes I filled-in with filling-in wood and glue mass. The wings volume was achieved by overlapping large thickness cardboard sheets and by rolling thin cardboard sheets over the previous structure, without any fold. The thin cardboard coincides their borders one with the other in the finest border of the wing. The basis for the radial engine was made with a wooden cylinder. The junction technique used to assemble the distinct parts of the wings (in distinct angles) is described in the tutorial page.
- To make the propeller's spinner I used the mould technique, described in the tutorial page.
- For the helix I made an assembly in beer can around one rivet that serve as axle. This technique also is described in the tutorial page.
- For ailerons, rudder and other airfoils, I used the same techniques I used in the first two models.
- To make the landing gears, I used a wires structure, that I glued with fast glue, reinforced with white glue and a thick resin.

Spitfire

This is the fifth airplane that I finished, and was made with the same construction techniques used in the previous one. (It was during this model construction I developed the majority of the tutorial techniques. I painted the model only with aerosol ink spray. I just leave this method away, when I perceive that signs and small details were not very well reproduced. I started to use a mix of oil and spray techniques after this... I recently bought an airbrush, and may leave the aerosol alone.

The represented version of Spitfire was not series produced. It's a prototype. According to news article of Top-Gun magazine, the performance of that model were decreased by their huge floats, what disappointed the English Real Navy.

It's important to note that its floats probably do not match the correct scale and form of the Real ones, since I used the MK1 3-view spitfire drawing, that I adapt through two pics of this model, that I found later on the Top Gun magazine.

The original airplane did not arrive to be painted, at least until the moment of photographs. Since It, I painted it as I like in that moment... What a strange visual! Actually the model doesn't seems like this, due to their restoration.

Click on the thumbnails to show a big picture!



For the assemblage of this model I have used the following materials:

- Wood + low and large thickness cardboards for the model's structure.
- Wood for the propeller's spinner.
- Beer can to make the helix shovels and structure of the propellers.
- Transparent plastic to glass the cockpit.

I employed the following techniques when I mounted this model:

- For the main structure and wing I used a cross scaffold, as described in the tutorial page. The setting of the wings was made with the aid of constraints (wood straps) that were glued with fast glue, after their adjustment at their final positions. At this moment, the fuselage and the wings were already finished and coated.
- To make the propeller I used the tutorial featured technique, however, the spinner still was wooden hollow to hold the set of the beer can helix.
- The cockpit was assembled outside of the airplane, and later inserted into the fuselage
- All the used techniques are available in the tutorial page.

FW-190

The incomplete airplane in the photographs is another Fw-190 that I mounted almost entirely with the techniques demonstrated in this site. Despite of some errors I do, as the incorrect position of the landing gears, the model looks good, matching the original one in some aspects. This is my sixth finished airplane, and so far, what more faithful represents the original model, but I still have work to do...

Click on the thumbnails to show a big picture!



For the assemblage of this model I have used the following materials:

- Wood + low and large thickness cardboards for the model's structure.
- Paper and filling-in wood and glue mass for the propeller's spinner.
- Beer can to make the helix shovels and structure of the propellers.

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- Transparent plastic to glass the cockpit.
- Beer can, steel wire and cardboard for ailerons, rudder and other airfoils.
- Beer can for the landing gears structure and wheels.
- EVA for the tires.

I employed the following techniques when I mounted this model:

- For the main structure and wing I used a cross scaffold, as described in the tutorial page. The setting of the wings was made with the aid of constraints (wood straps) that were glued with fast glue, after their adjustment at their final positions. At this moment, the fuselage and the wings were already finished and coated. As base for the radial engine I used a wood cylinder.
- To make the propeller I used the tutorial featured technique, however, the spinner is not hollow, and is made of a combination of cross scaffold and filling-in mass. The helix shovels had still received a hot glue coating to gain resistance and volume (what the beer can helix did not provide)
- To make the landing gears I used beer can, at the same process I describe in the tutorial page.
- The cockpit was assembled outside of the airplane, and later inserted into the fuselage.
- All the used techniques are available in the tutorial page.

Hawker Hurricane

The incomplete airplane in photographs is the Hawker Hurricane that I am currently mounting. In it, I'm employing new advanced techniques, materials and tools I have not presented in the Tutorial at now, but I intend to explain in a step by step way, all the techniques and materials used in its construction.

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For the assemblage of this model I have used the following materials:

- Wood + low and large thickness cardboards + cork oak for the model's structure
- Beer can to make the helix shovels and structure of the propeller.
- Transparent plastic to glass the cockpit.
- Beer can, steel wire and cardboard for ailerons, rudder and other airfoils.
- Beer can for the landing gears structure and wheels.
- EVA for the tires and spinner construction.
- Some commercial plastic modeling mass.

The employed techniques had been the following ones:

- For the main structure and wing I used a cross scaffold, as described in the tutorial page. The setting of the wings was made with the aid of constraints (wood straps) that were glued with fast glue, after their adjustment at their final positions. At this moment, the fuselage and the wings were already finished and coated. As base for the engine I used a cork oak.
- The cockpit was assembled outside of the airplane, and later inserted into the fuselage
- For the tail of the airplane I tried to simulate the wood / canvas structure. For it, I used a wire scaffolding, that I coated with paper and glue. The idea was to tense the paper in its position. After the drying, the paper had tensed, simulating the canvas. The final effect unfortunately did not match my dreams requirements, but it works similarly to it.
- * To make the propeller I used the tutorial featured technique, however, the spinner is not wooden or paper molded, but a E.V.A structure. To made this structure, were needed some advanced tools. It will be explained latter.
- To make the landing gears I used beer can, at the same process I describe in the tutorial page, but the major innovation was the use of Vaseline to oil the wells.
- All the used techniques are available in the tutorial page.

In case you mount your own model using some of the techniques described in this site, please, tell me! If you can, send a picture of your alternative model so that I see. This is very important for me! If it's possible, and if you like, I may show your work on my website.

Please, remember to contact me before to sending any file! The picture must be in .jpg format, and must to have a reasonable size: Better less than 200Kb.