



FIREBALL XL5 Jr.

6.5" (165mm) 3D Printable Parts



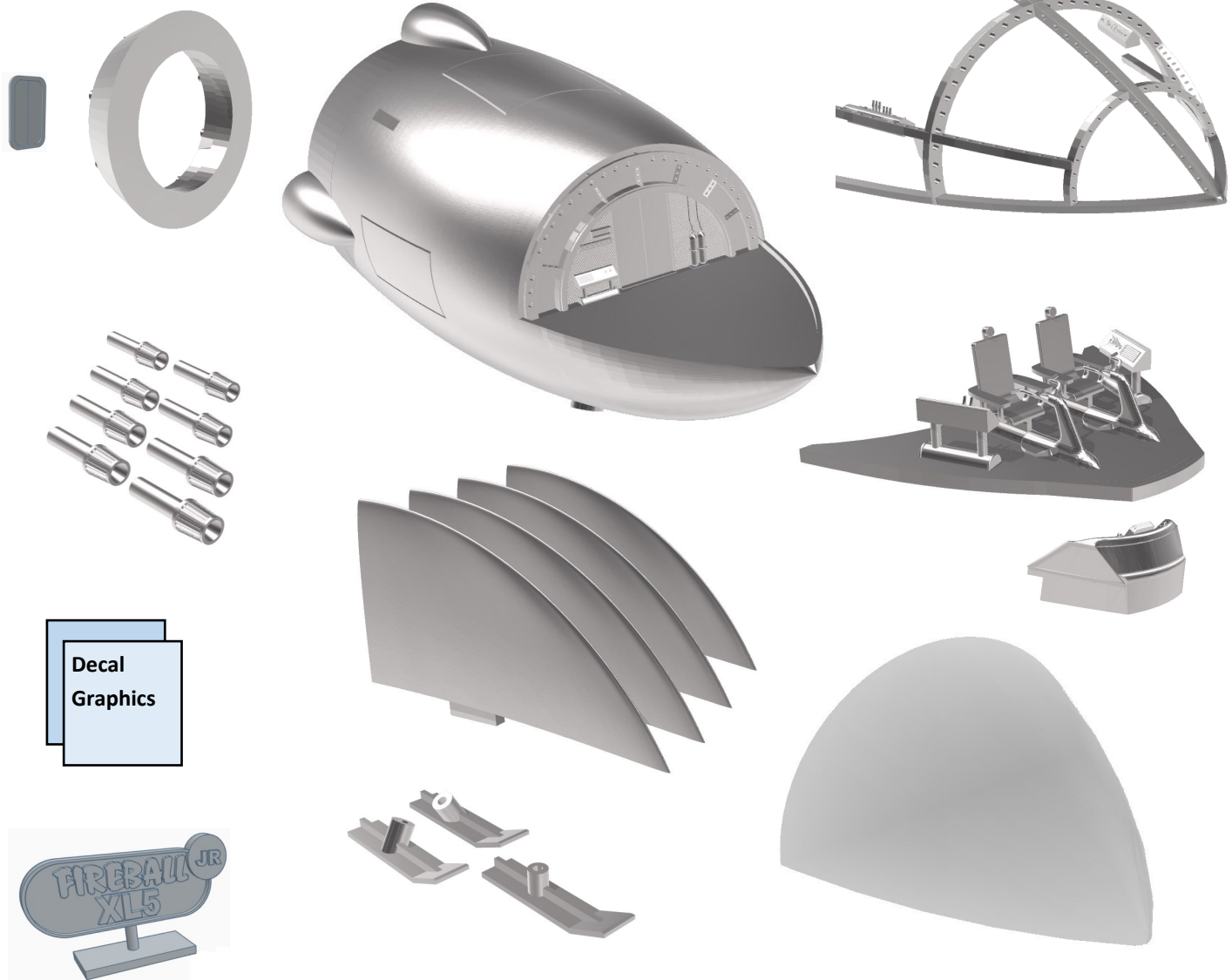
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by Gary Reign

www.reign.com/3dprint.html

These parts are designed to be printed by an experienced 3D modeler. You will need to properly orient the models and add supports where needed to ensure successful prints. Because of the varieties of printers and resins available, I have not included any instructions for printing the models. Use your experience in printing these as I have successfully printed all of them so I know it can be done.

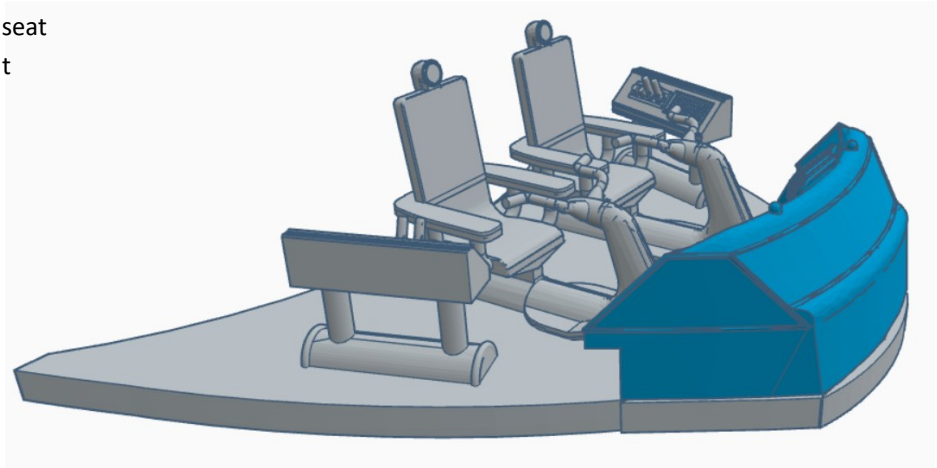
Verify that you have printed all the stl files of the following parts. You will need to print multiple copies of the fins (4) and thrusters (8).



These files were designed to be printed these using an resin (MSLA) type printer. They were not designed to be printed using a Filament (FDM) type printer. You may have to modify some of the smaller details if you wish to try using that instead.

Assembly is fairly straight forward as shown by the photos on the next page. I recommend painting the subassemblies before completing assembly.

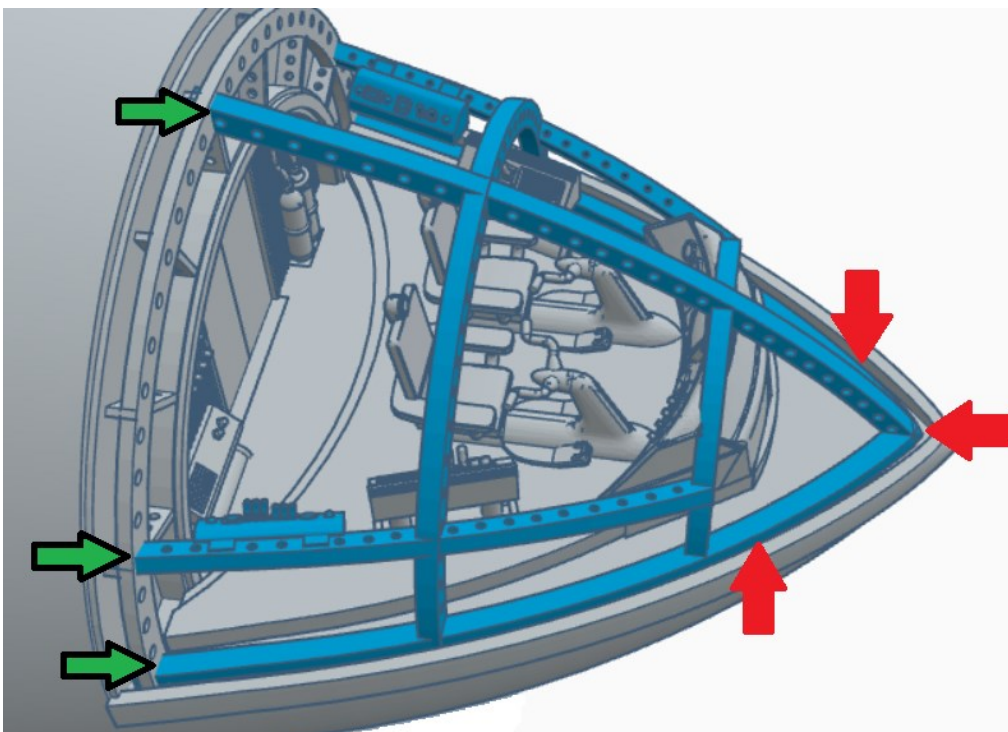
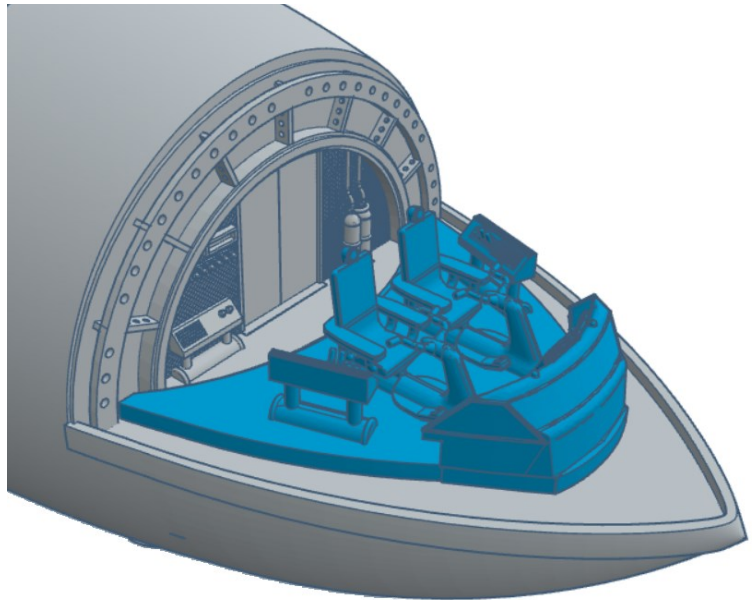
Glue the control console (blue) to the seat assembly making it flush with the front and sides as shown.



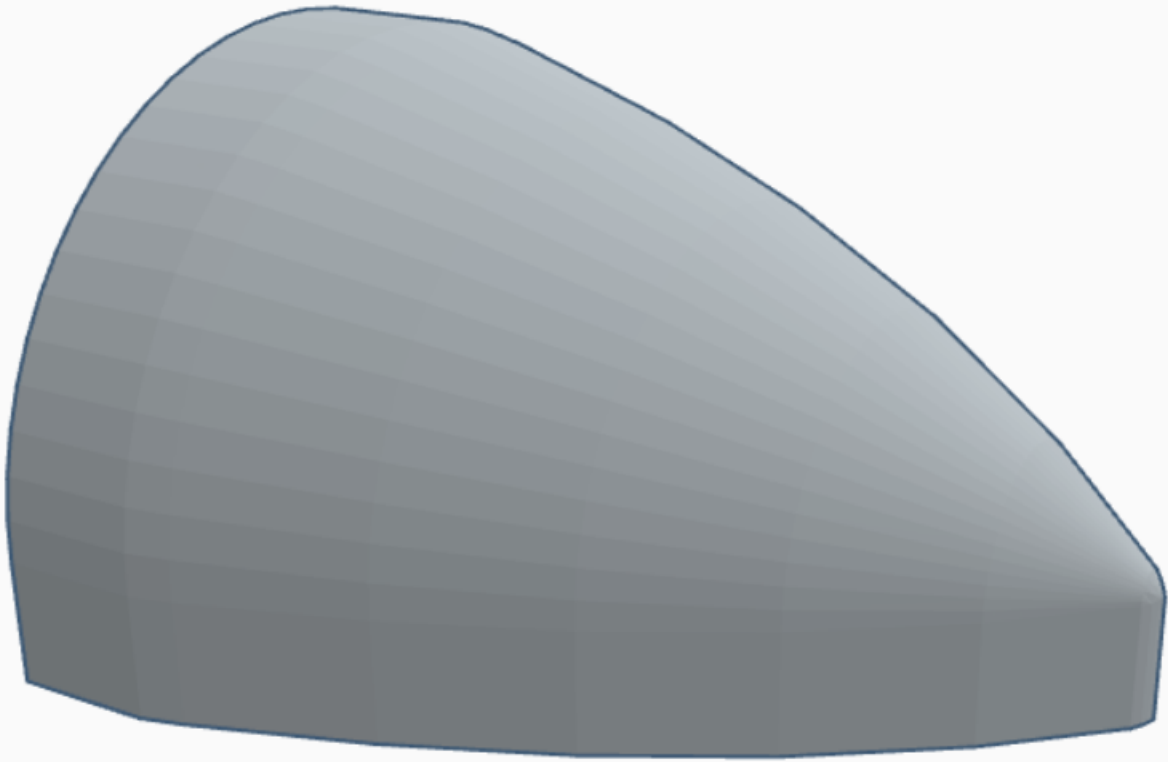
Glue the seat assembly to the cockpit opening, making sure it is fully back against the rear wall and centered side to side. Test fit the canopy frame to make sure it clears the console. If not, remove some material at the back of the seat assembly so everything fits.

Glue the cockpit frame into the cockpit opening. BE SURE TO LEAVE A SMALL GAP BETWEEN THE FRAME AND THE SIDES (SEE RED ARROWS) TO ALLOW FOR THE CLEAR CANOPIY TO FIT INBETWEEN.

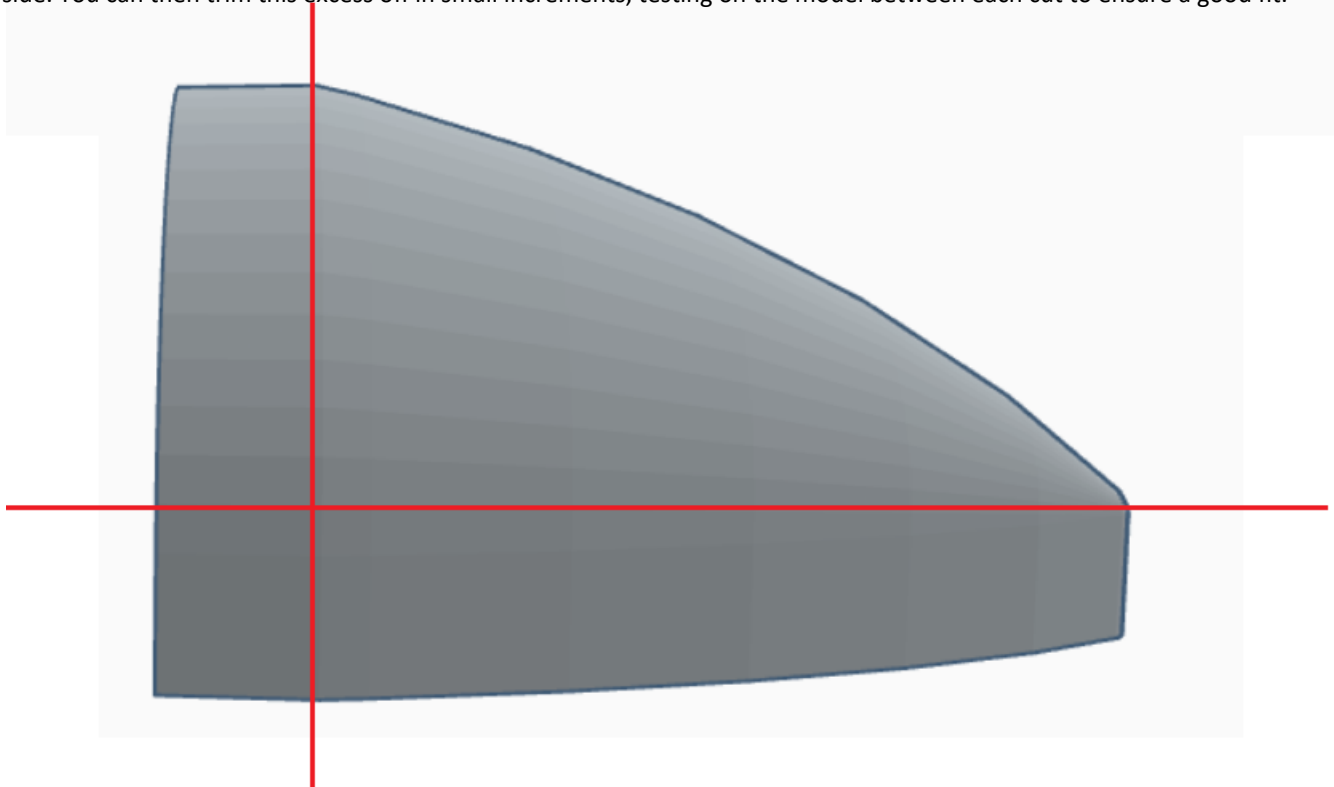
There is extra length provided on the rear of the frame (see green arrows) so you can sand them to make a snug fit against the rear wall.



To make a clear canopy, you will need a vacuum forming machine. A file is provided for a plug for use in vacuum forming the canopy. The plug should be test printed and sized to ensure it will produce a canopy of the exact size needed to fit the model. This may require some trial and error. When you have the plug sized, make sure the surface is as smooth as possible as any CAD or print lines will be visible when pulled. Also, the plug should be printed in something that is resistant to heat as the heat from the vacuum forming process could distort it. If necessary, paint the canopy plug with heat resistant paint to improve the surface and ensure it doesn't melt.



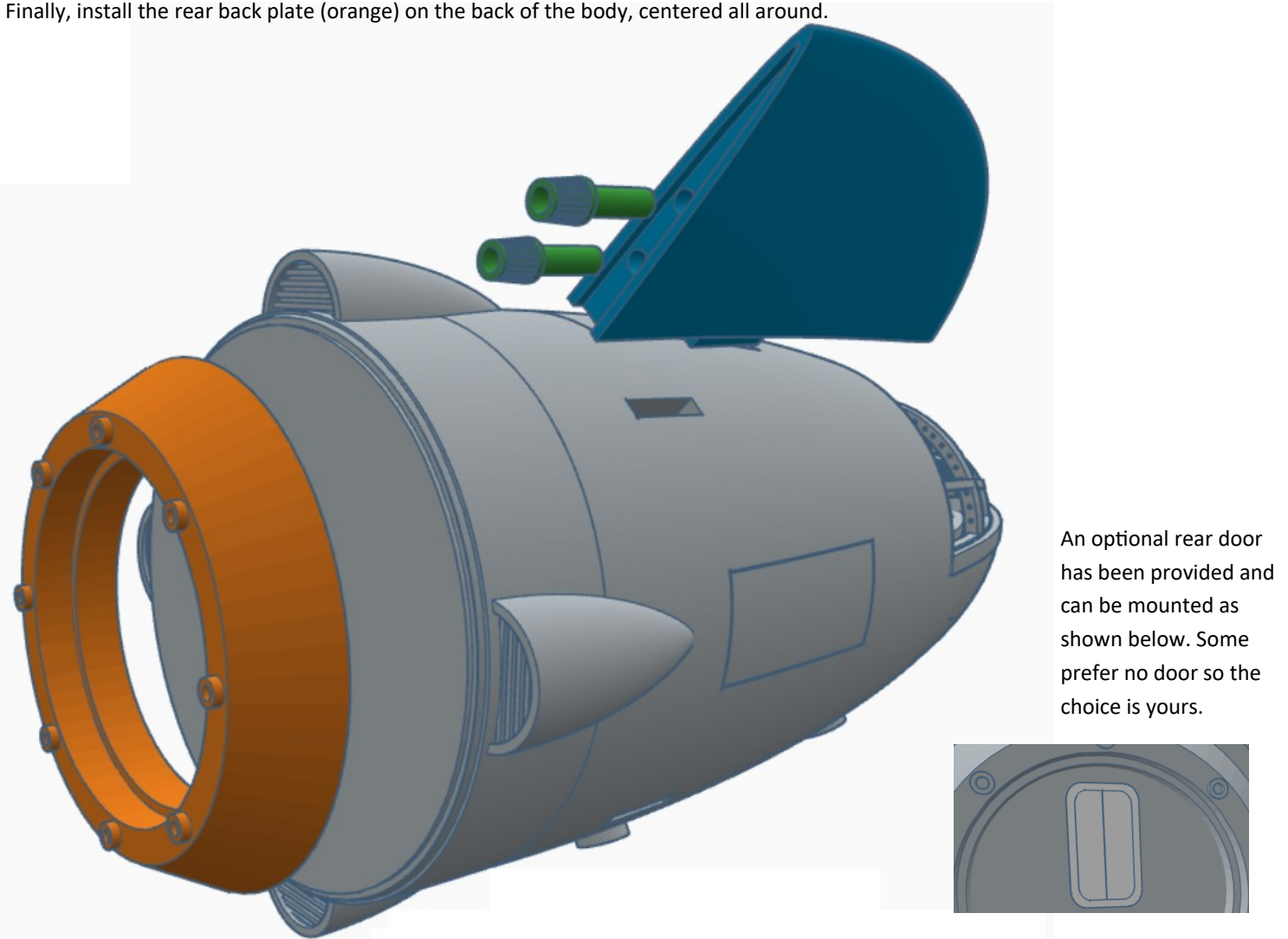
The canopy plug has extra length and width (indicated by the red lines) so the vacuum formed part will have extra material on each side. You can then trim this excess off in small increments, testing on the model between each cut to ensure a good fit.



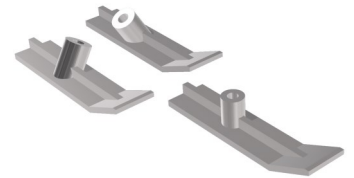
Insert the four fins (blue) into the slots around the body of the Jr. You may need to sand them to fit snug in the slots and against the body.

Add the two thruster nozzles (green) by inserting them into the holes on each of the fins. Refer to the prototype for how far they should extend from the back of the fin.

Finally, install the rear back plate (orange) on the back of the body, centered all around.



This completes the main assembly of the model. Landing feet are provided and holes are already included in the model should you wish to add them. There is a left, right and center foot. Use some brass rod/tubing to make the leg supports. Refer to prototype photos for specifics on how they should look. Also provided is a Fireball XL5 Jr plaque you can position as you desire.



A pdf file is included with the graphics for the large XL5 Logo on the body and the smaller Fireball logo. These will need to be sized appropriately for your model. Refer to prototype photos for sizing information. Print the graphics on Inkjet decal paper. Since it is not possible to print white using inkjet printers, there are two version of the Fireball logo, one is a solid black, the other is an outline. Use which ever one you prefer or send the files to a professional decal maker who could have them printed in white.

Enjoy your new Fireball XL5 Jr!

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