



PEAK OF FLIGHT

N E W S L E T T E R

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Inspiration for New Rocketry Designs Where to Get Some Creative Ideas

By Chris Michielssen

Okay, you've built a dozen kits, all designed by other people.

The day comes when you know it's time to branch out and come up with a scratch built rocket design.

I've seen quite a few forum posts where somebody has "designed" their own model. The design turns out to be a BT-60 based model with Alpha style fins - Nothing new, nothing original.

This article could help inspire an original design or send you in a new direction for ideas. Not just another three fin, nose cone model, but something that'll turn heads at the next club launch.

We'll be covering a lot of bases here - color, schemes, type fonts, rocket names and fin designs. Many of these points aren't considered by a first time designer.

FINDING FOOD FOR THOUGHT

Do a web search under "Model Rocket Plans", then click on images.

You'll find many ideas for new builds, upscales, downscales, patents, decals and parts patterns.

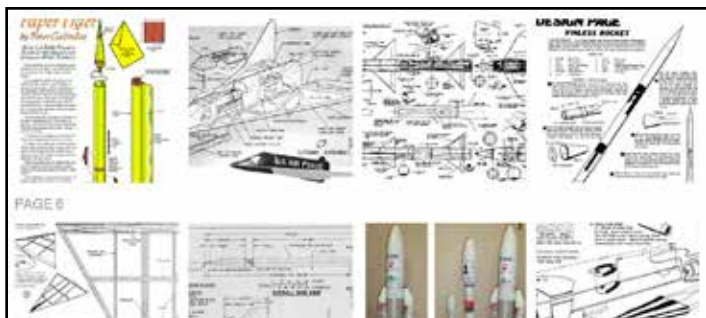


Image 1: Image search results for "Model Rocket Plans"

Searching this way brings up plans from many different sources. You won't be just looking at Estes kits, but new and old plans from everywhere at one time.

Explore the Apogee website and check out the ShroX designs under the Dyna-Star name. These are striking designs - new, original and workable.
https://www.apogeerockets.com/index.php?main_page=freebies&pg=education

DESIGN AND ROCKET NAME INSPIRATION

Visit www.1001freefonts.com for some free downloadable fonts and great rocketry names.

Some of the font names alone can inspire a rocket name and design.

PICKING THE RIGHT NAME FONT

Most fonts will work and can be easily read as home-printed decals or cut vinyl. Look for a bold font that can be easily read from 15 feet away.

One of the rules I learned while working on a headline typesetting machine was to "Never Set a Script Font in ALL CAPS".

Scripts look like hand written fonts. Some of the most popular are the "Brush" fonts.



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About this Newsletter

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Inspiration for New Rocketry Designs

Wrong:

SPACE SPEEDER

Right:

Space Speeder

Wrong:

SPACE SPEEDER

Right:

Space Speeder

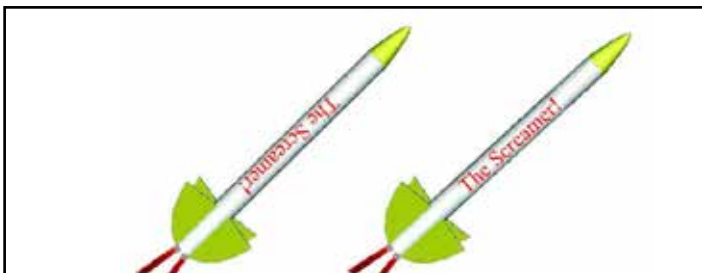


Image 3: Example of font direction

Image 2: Right and wrong capitalization examples

A “Brush” style font looks like someone wrote the words using ink and a brush. A common mistake is setting a Brush font in all caps.

In Image 2 on the left is all caps, to the right is the correct upper and lower setting. Which is easier to read? The same goes for “Old English” or “Wedding” fonts.

I’ve even seen people with tattoos drawn in an Old English font, all caps! It’s difficult to read and they are stuck with it for life.

It all comes down to -

1. What type font best reflects the name and purpose of the rocket?

2. Which font is easy to read at a quick glance?

Think about how the name should be set. Should it read “up” or “down”?

On sport models I prefer the name to read “UP”, or the direction the model will be traveling. Also, think about how the type will photograph on the launcher.

Not all rocket names read “upwards”. On some scale models the type reads up on one side, and down on the other.

And a TIP:

Italicized type (set with a forward slant) gives the illusion of movement and speed!

WHAT ABOUT A NAME FOR YOUR ROCKET?

In five minutes of driving, I read some business and street signs. If you take the time to look, rocket names are everywhere!

Here’s a few names that I could see down the side of a rocket body:

Horizon

Endeavor

Strider

Caliente

Dynasty

Combat

Celebrate

Vita

Empire

Infinity

Power _____ (insert your name here)

King _____

The Smiling _____

_____ Bound

_____ Racer

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Sure, some of these names could have already been used by a rocket manufacturer. Where do you think the vendors come up with names? They are all around you.

When in doubt, you could always go with letters and numbers, like the S-21, XK-52 or SR-73. It's pretty generic but says nothing about the rocket or its designer. But, it's worked for car manufacturers for years!

ROCKET COLOR CHOICES

When I was in college I took some art classes. The infamous "Color Wheel" was brought up as a resource for picking compatible color combinations.

I never quite understood the "Rules Of The Color Wheel"

However, using colors directly opposite each other, or the "Complementary Colors" you might end up with this:

Yellow and Purple? Some may like this combination. To me, it's not very attractive.

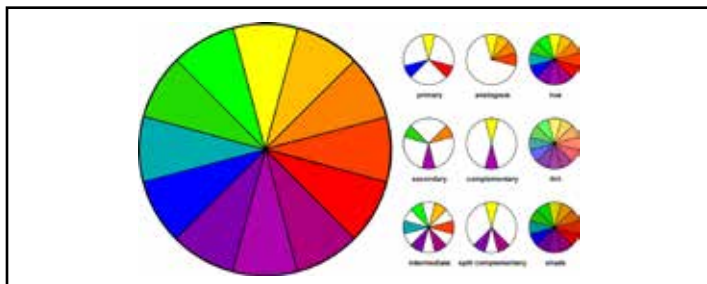


Image 4: The Color Wheel

WHAT COLORS ARE BEST?

Look through old catalogs online for inspiration and



Image 5: Using complementary colors on a rocket

color combinations. Keep a file on favorite color combinations for future reference.

A good rule of thumb?

THREE COLORS

- Your base (lighter color) color covers 2/3 of the model.
- A secondary color on the remaining 1/3 (fins or nose cone)
- Trim lines in a third darker color or chrome! Kit supplied decals can be considered the third trim color.
- Think of some older car colors. There was a major color, a secondary color and some chrome trim.



Image 6: The Color Wheel.. on wheels

WRONG!

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An advertisement for Scale Kits. It features a white rocket model on the left. The background is a blue gradient with a white arc. The text "SCALE KITS" is in large, bold, white letters. Below it, "More than 60 choices" is in smaller white letters. At the bottom, the website "www.apogeeroockets.com/Rocket_Kits/Scale_Rockets" is listed in white.

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Image 7: Lamborghini color example

This is how it should be done!

Three colors, 2/3 Silver, 1/3 orange with some black trim.

FIN DESIGN IDEAS

As mentioned earlier, too many posted "original" designs look like variations of Estes Alpha fins. There is nothing wrong with this clipped Delta shape. Make a few tweaks and be original!

Some interesting shapes can be found in car tail lights.



Image 8: Tail light examples

Using the third tail light picture, I came up with the fins I'll be using on an Estes Laser Lance kitbash.

Why not use the stock, supplied fins? They look as if they would crack off on a hard landing.

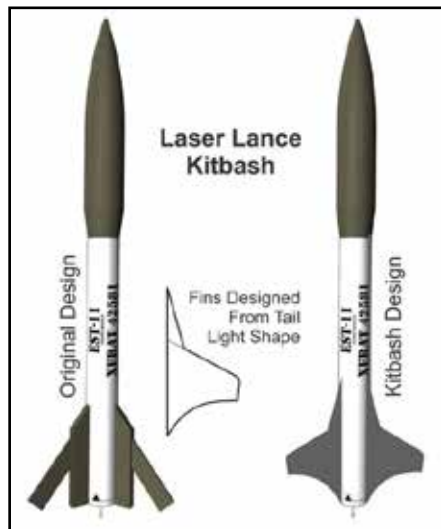


Image 9: Kitbash Fin

I like the size and big payload of the Laser Lance but was concerned with the missile "Flip out" styled fins. The new fin design doesn't trail beyond the back end of the rocket - less chance of a break.

I hope this article has provided some new directions for that next scratch build or kitbash.

Be sure and run any new design through RockSim to check stability, and to pick the correct engine and length of delay before ejection.

About the author:

Chris Michielssen is an avid builder and flyer of low power model rockets. He produces Odd'l Rockets and accessories, available from Apogee Rockets.

His building blog: www.modelrocketbuilding.blogspot.com is followed by 1,750 people each day worldwide.

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