

PEAK_{OF} FLIGHT

NEWSLETTER

ISSUE 582 / SEPT 13TH 2022

IN THIS ISSUE

***HOW TO GROW
THE HOBBY OF
MODEL ROCKETRY***



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How to Grow the Hobby of Model Rocketry

By Casey Willett

You have been an avid enthusiast for the model rocketry hobby/sport/science for numerous years. No one in your inner circle can question your support and loyalty for the craft. Perhaps you have been a loyal customer and supporter of specialty rocketry shops as well. But is that enough to grow the hobby? Furthermore, should you even be concerned about the growth of the hobby? In short, yes, you should be concerned about the longevity of your hobby.

Researchers found working longer hours, having less disposable income, and social media distractions mean fewer of us are able to take time out and enjoy traditional pastimes. The same survey found about 75% of us DO have at least one hobby we take partake in regularly. The study commissioned by online casino Casumo.com found some hobbies, once considered fashionable and cool, have fallen out of the lime light (stamp collecting or model train assembly anyone?).



So why should we put any of our focus into growing the hobby? First, bringing new people to the hobby will eventually lead to more money flowing into the industry via the purchases of kits, supplies, and accessories. This, in turn, creates more demand for the manufacturers to make more of their goods, which effects the economies of scale because it would drive down the manufacturers price per unit once these goods are produced in larger quantities. Or the manufacturers could keep their prices static and reinvest the company profits into research and development for newer products, designs, or even marketing and advertising to bring even more people into the hobby.

Then there is the possibility of increased innovation, designs, and better ways of doing things because you are embracing diversity and inclusion to bring in other experiences and perspectives to advance the hobby as a whole. Also, there would be a wider community of people that share our hobby so maybe you would not have to drive half an hour to meet that one person in your county that shares your interest. Lastly, and perhaps the most important reason of all is to keep the hobby alive for the next generation. Seriously, I doubt anyone back the 50's and 60's ever thought that stamp collecting and model trains would ever fall to the wayside. As a child of the 80's I also never thought I would grow up to pay almost two bucks for a bottle of water, but here we are, so anything is possible and nothing should be assumed.

Now that we know the importance of growing the hobby, let's take a look at what hobbies are currently thriving, why are they thriving, and does model rocketry share any of these characteristics. We will take a look at two industries in particular that are seeing off the chart rapid growth, table top board gaming and fantasy sports.

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Newsletter Staff

Writer: Casey Willett
Cover & Layout: Derek Villar
Proofreader: Michelle Mason

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According to Statista, the tabletop game industry had an estimated market of approximately 7.2 billion U.S. dollars in 2017, 11.95 billion in 2018 and is forecasted to have a compound annual growth rate of 8.7% through the forecasted period up to 2025.



Meanwhile, fantasy football enthusiasts will see phenomenal forecasted compound annual growth rates (CAGR) of 10% year over year through 2024 with incremental revenue growths of almost 10 billion dollars in a very short 5 year period!

But enough of the Wall Street jargon, let's move into what traits these hobbies have that have helped them to thrive and see if our hobby shares any of them.

There are 5 key characteristics these hobbies share and it is by pure coincidence that all of these traits just so happen to start with the letter "C".

- **Camaraderie** – the friendships and bonds formed by sharing and exploring a mutual interest. Have you ever been in an office on a Monday morning during football season and most of the office conversation is dominated by fantasy football team performance discussions? The same is true of table top gaming, the epic wins, come backs, lucky rolls, good moves, etc. Although I am rather new to the hobby of model rocketry, I have no doubt that there is a strong sense of fellowship and camaraderie in the hobby.



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- **Competition** – both of these thriving hobbies inherently bring about competition. Rocketry shares this as well with national rocketry competitions but there is absolutely nothing preventing any of us doing this on a smaller scale without the nationwide recognition. (More on this later)
- **Collecting** – the majority of fantasy sports enthusiasts are also drawn to the collection of sports paraphernalia, or at the very least the showcasing of their virtual or physical fantasy league championship trophies. Boardgame lovers take pride in their collection of highly sought-after games that are no longer in print. Though I have read a few rocketry forums where people have an original rocket that is no longer produced this is perhaps an area our hobby can explore. If there are any rocket manufacturers out there reading, what is preventing us from doing a limited series, special run, only 500 produced and individually numbered kind of thing? Not sure, but an idea worth taking a look into at least.

- **Creating** – Fantasy sports is at its very essence the creation of dream team. Table top games have forums with multiple variants for just about every game made which is the addition or omission of “house rules” and such to improve the game as they see fit. FUN FACT: Did you know that only 1 out of 3 people that have ever played Monopoly have actually played by the original rules as the game was intended to be played by the creator? Rocketry is full of creation from home brewed designs to kits that scale to every level so we share this trait as well.
- **Campaigns** – Specifically, a longer goal, achievement to work towards, a milestone to obtain, or the continuation of the story, a reason to keep you coming back for more. Fantasy sports have “keeper leagues” where you can retain a certain number of players on your roster for the next year. Board gaming has incorporated campaigns and achievement systems into many of their games which are now meant to tell a story over a longer period of time and over multiple sessions instead of a single night of gaming...and no I am not just talking about role playing games like Dungeons & Dragons, trust me, table top gaming has evolved into something very similar to video games with levels that scale in difficulty with each play. Rocketry too shares this trait with the NARTEK program, HPR certifications, and Science achievement awards.

Clearly rocketry shares many of the same traits as other thriving hobbies yet the hobby does not have tens of millions or hundreds of millions of advocates

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throughout the globe. So, what is missing? What is the secret sauce that we have yet to utilize? Well, I am sure we all have our own opinions and theories on this and I am certain most of them could be a factor. But from my early observation what I see missing is the “gateway experience”.

Though there is no official definition of “gateway experience”, in many thriving hobbies it is basically a way for someone to sample a hobby with little time or monetary investment to see if it is something they would have an interest in, and if so, explore further. The “experience” was the “gateway” into a new hobby or discovered interest. Before you doubt this theory take into consideration the recent introduction of “daily fantasy leagues” in fantasy sports. You can actually get a sample of fantasy sports for a day with as little as a 10 cent investment to try it out. In table top gaming, the industry literally has a term called “gateway games” which are games that are easy to teach and quick to play with the objective being to educate the public that games have evolved into so much more than the games we grew up on such as Clue, Sorry, and Uno.

We as a community have plenty of opportunities to create gateway experiences to introduce new people to the hobby but before exploring these ideas, let's lay out a couple of quick guidelines that should be obvious.

#1 Be Friendly. Be kind, considerate, and open. After all you are an ambassador to the hobby and more than likely the first person in this hobby they are interacting with so don't act like you are superior or an elitist. It is okay to be proud of your hobby, just don't make someone feel

like they are not worthy to explore this hobby as well. This should be a given but the reason this was worth a mention was because of guideline #2

#2 Accept whatever it is that draws them into the hobby. Keep in mind that whatever it is that they are interested in or drew them in, those interests might not align with yours and that is okay. Maybe you enjoy the hobby because of the math, the science, the careful planning and precision of it all. Others might enjoy something as simple as the smell of an exhausted engine or the adventure in trying to find where their rocket landed when it gets carried away in the wind. Whatever it is, be okay with it (as long as it safe). If you see someone crumpling up a parachute like a spitball and shoving it into the tube of their rocket, try to refrain from quarterbacking their experience. Be there to offer help if they need it, or even offer it, but don't shove your knowledge down their throat. Let them decide what their journey looks like.

Now that the guidelines are out of the way, let us now take a look into the different ways we can create “gateway experiences” to bring new people into the hobby.

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Scouting

Both the Boy and Girl Scouts of America have a badge dedicated to rocketry. As a former Boy Scout myself, I know that in order to obtain Eagle Scout you must accumulate roughly 20+ merit badges. The merit badge for Boy Scouts named "Space Exploration" has a requirement that they build, launch, and recover a model rocket. Though I could not find any details for the Girl Scouts criteria, I would assume they would follow suit and the requirements would be very closely matched.

The "gateway experience" here is to find the Scouting program in your area and locate the troop leader. Then offer to come in as a subject matter expert to educate the scouts on rocketry. Many troops have dues and such that they pay to help fund camping trips and group outings or activities. If so, and again this is very common, you can advise the troop leader to obtain an educator bulk pack of


similar rockets (<https://www.apogeerockets.com/Rocket-Kits/Bulk-Rocket-Packs>) and engines. You would supply the launching equipment & training. If you have a child or grandchild already in a scouting program then your foot is already halfway in the door.

During the program be sure to advocate for model rocketry and educate them on all the programs and events that model rocketry offers.

Competitive Stock Rocket League

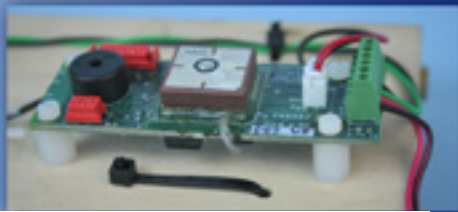
Here is a new idea, gather up a list of co-workers or friends that would potentially be interested in a Rocket League. The premise here is sort of like NASCAR in that everyone gets a "stock rocket" so everyone is more or less on the same playing field. I think the 12 pack of Estes Vikings (<https://www.apogeerockets.com/Rocket-Kits/Skill-Level-1-Model-Rocket-Kits/Viking-12-pack>) would be a good "league stock rocket" as everyone gets the same hardware but has a little room for customization with the various fin configurations. The price point per unit would be roughly \$8 a person just for the rocket. You should supply the launch pad and controller. Additionally, the Viking is versatile in the number of engines it could use. Then you set a league schedule! For example, Week 1 Class A Engine Duration, Week 2 Class B Engine Duration, Week 3 Class C Altitude, etc. This gives the league time to obtain their rocket engines and have a little freedom of choice to experiment with different engines within a class. An example of weekly point distribution could be 1st place = 15 points, 2nd place = 14 points all the way down to 12th place which would get 4

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points. The length of the season and frequency of meets could be decided as a group if you run some numbers to see what the overall cost would be for the season. Maybe even have an awards dinner and a championship trophy at the end of the season. Also, be there to offer help and answer questions as needed.



Company Team Builder Events

Similar to above, if your company/team does team builders or is constantly looking for new ideas for team builders then offer a half day or day of model rocket building and launching. Again, you will be supplying the launching equipment and your team can get a bulk pack of ready to fly rockets or something that requires a little bit of assembly but without too much skill. I know companies (mine is one of them) that will set aside a \$100 budget per head on team

building events which would more than cover the kits and engines for a single flight. Additional funds per head could be used to get some basic assembly tools if needed. This is an excellent and low cost way to deliver a new experience to your next team building event and introduce them to the hobby of model rocketry. This works best if the team building event is less than 20 people. Be sure to educate the primary decision maker on the event about the safety code and precautionary measures that will be taken to ensure everyone's safety. It is just like any other team builder event (axe throwing, zip lining, etc.) There is always some risk which is why rules are in place to mitigate this risk as much as possible. Do not discount or overlook this idea. I know the company I work for is literally begging for new team builder ideas. Our last one was making friendship bracelets...

Create a Meetup.com group

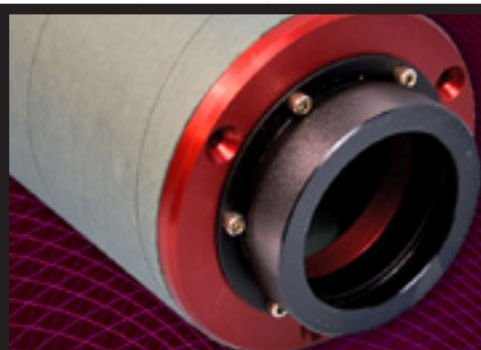
If you are feeling a little bit more adventurous and have some disposable income, consider starting up a Model Rocketry Meetup.com group. Meetup has over 44 million users and as an organizer you can determine if you want your group events to be free or fee based, virtual or live event, and the content can be pretty much anything you decide. I would probably start with something simple like an introduction to model rocketry, safety code, types of kits that cater to various skill levels, even tell your story on how you got started and how long you have been in the hobby. Once your group starts to grow and they are wanting something a little more hands on then you can start scheduling events and the cost of the event which would probably cover a kit and engine if you are going to supply those. Meetup groups are \$30 per month as "The Organizer" of the group but

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again, you decide how much it would cost for someone to attend your event, free, \$1, \$5, etc. It would probably be a good idea to keep the price point to your event low while you are trying to get up interest and momentum to your group, then move the group off the platform if you wish once the site has served its purpose.

Create a Twitch channel/stream

If you have a video camera and can set it up in your hobby work area then consider starting a Twitch channel stream. You can do anything on your channel that you wish to do. For example, talk about model rocketry, build rockets, paint rockets, launch rockets, unboxing rockets, the possibilities are endless. It helps if you can have a broadcast schedule as to when you will be building, painting, launching, unboxing etc. and it would not be a bad idea to also include "what" you will be building, painting, launching, discussing so that as you gain followers they will know when to tune in. Here is the best part, you do NOT have to be good at your craft, you do NOT have to be a subject matter expert in your hobby, you just have to do it. Regardless of if you are new or tenured someone can learn just by watching you, even if it is simply learning by your mistakes as you make them. Also, interact with the people that log in to watch your show. Answer questions, take their advice, make it fun and interactive. There is a market on twitch for roughly anything you can think of. I know of a few people that do nothing but paint miniature game pieces to popular boardgames and they make well over 6 figures a year just from the people that subscribe or donate to their twitch channel. Yes, people will start to donate to your feed when you gain a following and they like your content because they want you to KEEP DOING IT. I

am not advocating for you to profiteer off of your hobby, but if a few bucks come your way while advocating for model rocketry then maybe you can sponsor a scouting troop to get their rocketry badge or one of the ideas mentioned above. Maybe your stock rocket league can go live on twitch. Again, the possibilities are endless. Just don't expect to quit your day job overnight expecting your twitch channel to take off.

Create a Youtube channel

If going "live" on camera is not something you are particularly fond of then you can always create a Youtube channel instead by uploading your created content. The content can still be pretty much the same as mentioned above (unboxing, assembly, painting, launching, discussions, showing how to use programs, history of modeling and NAR, launches, etc.) If you keep the content semi frequent, engaging (telling people to comment below), and interesting then it won't be long before you will start to get subscribers to your content. I would like to reiterate again that you do not have to be a subject matter expert to create content worth viewing so don't let fear of "I don't know it all" persuade you from not starting a channel. 14 years ago a man by the name of Tom Vassel started a Youtube channel with the simple purpose of creating videos that gave reviews of boardgames. The videos were simple, they gave you an overview of how to play the game, showed off some of the pieces and the board, then he gave his opinion on whether he liked the game or not and who might enjoy this game. Now, Tom Vassel has over 300 thousand subscribers to his channel and reviews

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boardgames full time, his estimated net worth from this hobby venture is 1.6 million. Was he good at the time, were the videos good, was the content good? In most cases, no, BUT, he was the first to bring this to Youtube consistently.

This is just the tip of the iceberg on various new ideas you can do to help grow the hobby of model rocketry. In closing, keep in mind that different people get different things out of a hobby and that is okay. Remember that introducing rocketry to others doesn't have to be limited to just friends in your inner circle and immediate family. Rocketry can, and should be introduced to everyone! The key is to give them a gateway experience so they can sample the hobby without a significant time or monetary investment. We already have many of the traits that other top hobbies share, our task now is to play the role of an ambassador to rocketry and open this new world to others. Good luck!



About the author

Casey Willett is a business development advisor with a leading global IT company in their Learning & Development division. He has over fifteen years of experience in business growth, development, and retention. He holds a B.A. degree in Computer Science from Louisiana State University. He first started playing fantasy sports in the early 90's when it was a play-by-mail system that typically only drew in stat junkies and has witnessed the evolution and trends of the hobby over the years. Another hobby, table top gaming, has been a mainstay throughout his life and over the past 10 years he has designed, created, and self-published two titles that have sold in over 32 countries thanks to crowd funding platforms. Although new to the hobby of model rocketry, he foresees this as a new mainstay as he has been looking for something that holds all the characteristics and challenges of his other hobbies, with the added benefit of getting him outdoors more often.



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Friendly Phantasm Rocket Plan

Friendly Phantasm Parts List

10100 – (1) 24mm/18" Body Tube (BT-50)
10198 – (1) 66mm/18" Body Tube (BT-80)
13037 – (1) Centering Ring 24mm to 29mm
13045 – (1) AC-66A (BT-80) Coupler
13057 – (1) ¼" Launch Lug
14099 – (2) ⅛"x3"x18" Balsa Sheet
14812 – (1) 66mm TARC Foam Nose Cone
15028 – (1) Centering Ring 24mm to 66mm
(BT-80) Cardstock Sheet (2 Rings)
29126 – (1) 12"/15"/18" Cut-To-Size Plastic
Parachute
30326 – (8) Kevlar Cord 300#

Order parts at:

https://www.apogeerockets.com/Quick_Order

Recommend Motors

(Altitudes calculated at empty weight of 125g)

Estes C11-3 292' (89m)
Estes D12-3 624' (190m)
Quest D22-4 727' (221m)
Aerotech D15-4 742' (226m)
Cesaroni E22SS-5 870' (265m)
Aerotech F12J-5 1456' (444m)
Apogee E6-4 1607' (490m)

Friendly Phantasm

By Martin Jay McKee

About the Design

This Friendly Phantasm (which, of course, is of no relation to any other amiable spirit whose intellectual property rights may be owned by Dreamworks Studios), is a fun holiday themed rocket that's still a real flier! With five fins and a mildly squat appearance, this is a perfectly fiendish base for a festive sport rocket that can still be flown all year round. Based on a BT-80 body tube and sporting a 24mm motor mount, the Friendly Phantasm will fly beautifully on an Estes C11 or D12, but will also fly nicely on larger – low-thrust – 24mm motors such as the Aerotech F12J or Apogee E6 (which will take it to over 1600').

Construction is generally simple except for two things. First, for stability, the parachute is pushed way up to the front. This leads to a relatively small compartment for the recovery system. It is plenty large, but not spacious. It also led to a somewhat atypical construction where the nose cone is glued into a short upper tube and the coupler is glued to the lower section. Secondly, with five fins, standard alignment gauges simply aren't an option. Either making a custom gauge to help with alignment or simply eyeballing alignment are still options, of course.

Have fun finishing your own Friendly Phantasm with a simple paint job in pearl paints, or even glow-in-the-dark. Add a unique face and whatever other markings seem appropriate. Then enjoy its spooky performance!

Download the **RockSim** design file for the Friendly Phantasm at:

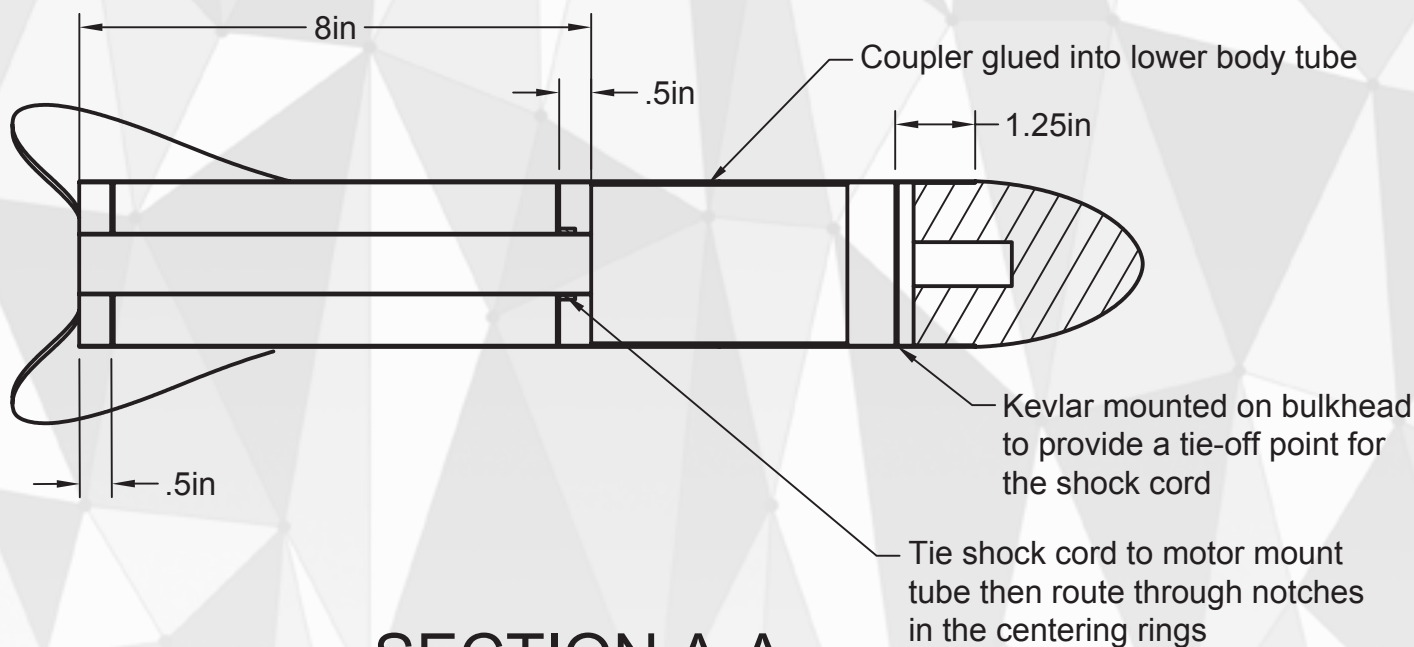
<https://www.apogeerockets.com/Peak-of-Flight-Rocket-Plans>



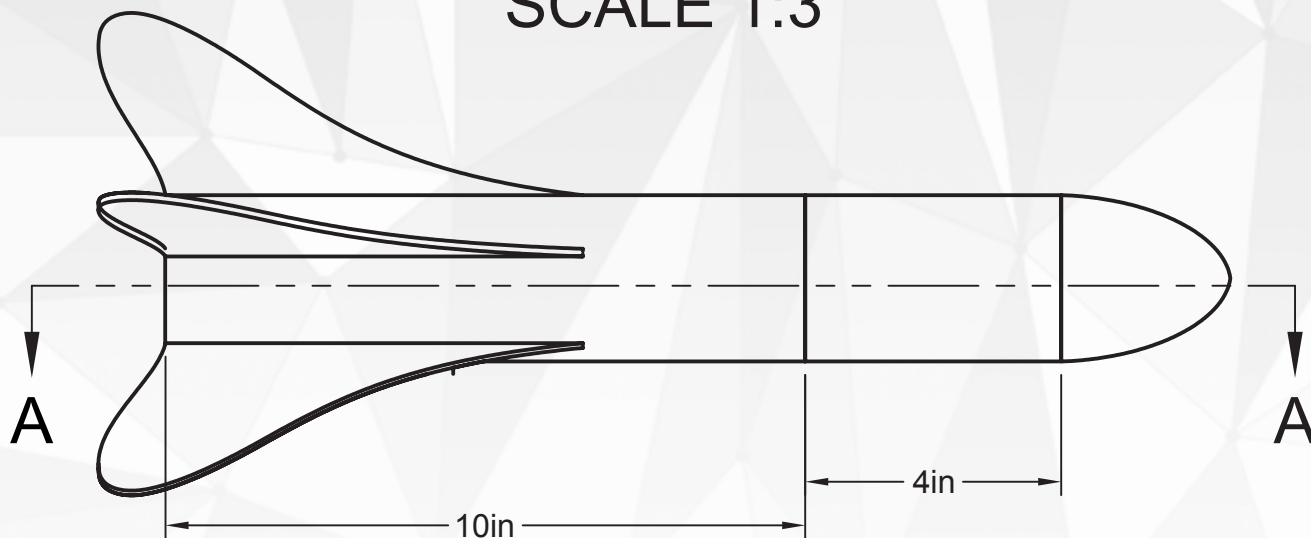
Continued on page 11

Friendly Phantasm Rocket Plan

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SECTION A-A SCALE 1:3

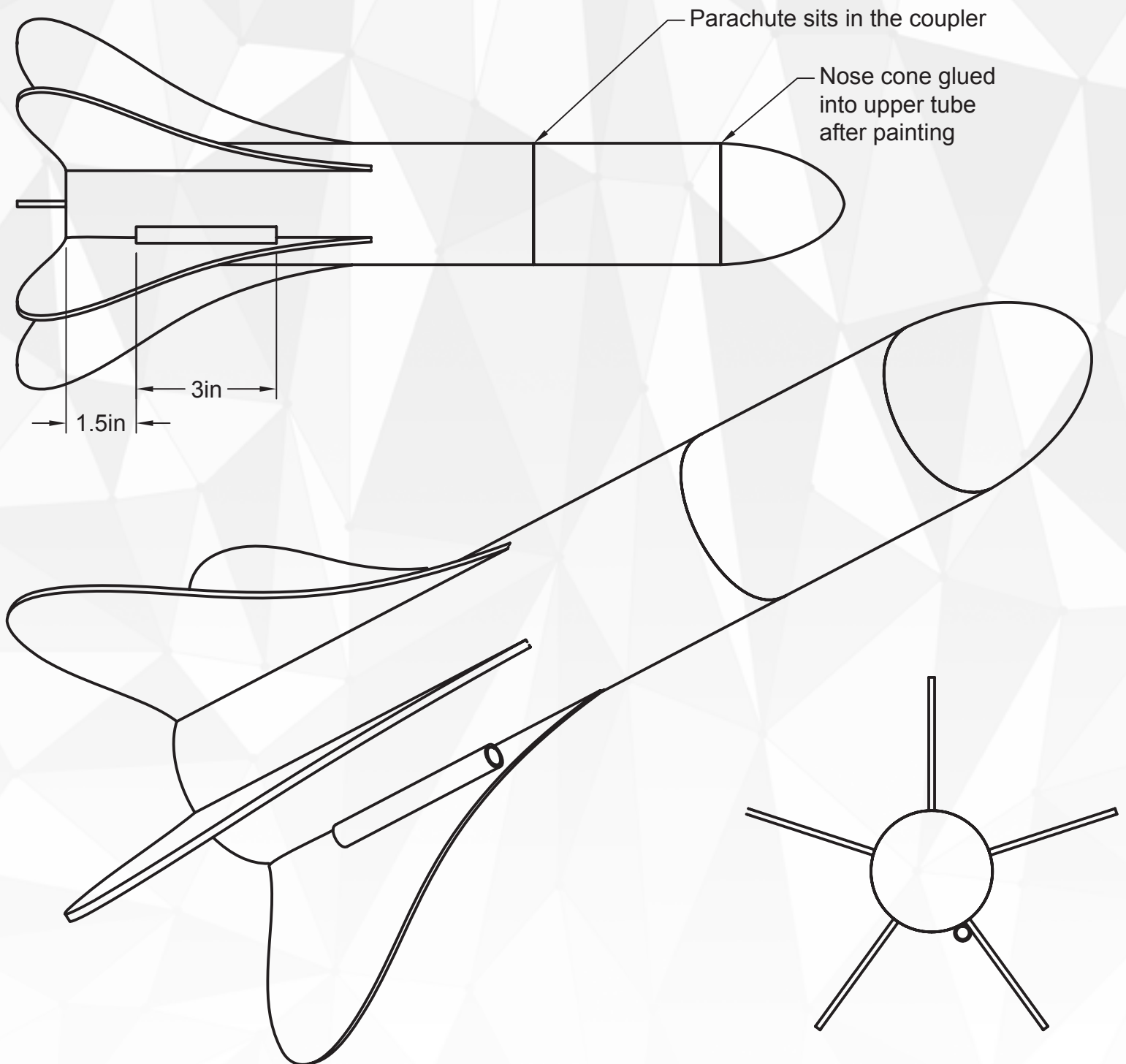


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Friendly Phantasm Rocket Plan

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Friendly Phantasm Rocket Plan

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Notes on painting the nose cone:

The flexible foam nose cone is not easy to paint smoothly, but decent coverage can be achieved with some care. Most importantly, the surface of the nose cone should be left as received and not sanded. It can be cleaned with some rubbing alcohol however. Additionally, only minimal filling should be done (and only if absolutely necessary) to avoid disturbing the surface. Finally, because the surface will bend, it is preferable to use as light a coat of paint as possible to prevent chipping due to rigidity of the paint surface. As such, the nose cone can be painted separate from the remainder of the rocket and attached only when all other finishing is completed.

