



XRAY RX8'16

Interview

Red RC: XRAY is known for annual updates of their competition car kits, however the RX8 - introduced in 2011 - received its last change ahead of the 2014 season. Did it fall in importance behind the 1/10th electric touring and 1/8th off-road markets, or did the 2014 model perform so well that there was no need for an update for 2015?

Martin Hudy: Actually, quite the opposite, I'm afraid. With the new tire rules, the RX8 platform was badly in need of an update. I have worked very hard on it, but the fact is that in the end we missed our release deadline to introduce a new car in time for the 2015 season. I have told my story in detail in "Making of RX8" [Part 1](#) and [Part 2](#) where you will find out all the challenges I faced, the decisions we had to make, and the reasons why (for the first time) we have missed out on releasing a new car for the season.

Red RC: Would you say that you failed in your job as a designer?

Martin Hudy: Hmm... that's a good question. Tough, but good. To be self-critical but honest, I accept that I certainly played a major role in that story since I was the project manager responsible for the RX8 platform. But at the end it was a mixture of various factors and coincidences, some of which were completely out of my control. And maybe some of the decisions we made were not the best. But it is impossible to judge whether decisions were right or wrong, since I do not know what would have happened if I had done things differently.

At a certain point I could have released the design into production and the RX8 would have surely been great, a big improvement on the previous model... but with my pursuit of

perfection (which my father Juraj Hudy taught me), I wanted the new car to be not only good... but GREAT. It was this fundamental decision to strive for perfection that resulted in delays; I started to face new problems and issues that could be neither easily nor quickly resolved; fixing everything on time for a release at deadline was simply not possible. So in the end we made the tough decision to skip the new season release and focus our resources to come back with full force for the 2016 season. And this is what I did.

Red RC: Was there any sort of punishment for you?

Martin Hudy: Luckily no physical punishment and I still have all fingers :) But of course I was broken and disappointed how all the coincidences ended up. But at the same time this experience has taught me a lot of new things, especially and most importantly it taught me to accept that sometimes no matter how hard you try, some things beyond your control may destroy your goal... and you have to live with that. I took all the positives from this experience and am stronger for it, I know how to better focus next time, and what things I need to improve. Take all the good and learn from the bad. Now we move onward.

Red RC: How did the team and public react when they found out that there would not be a new car for the new season... when everyone knows and expects XRAY to do that?

Martin Hudy: The team was covered, as we had around 20 team cars up & running for big races (and testing testing testing) around the world. Not surprisingly, the distributors and customers were not happy at all. Some customers changed to another brand for the 2015 season, while others continued to race with the previous car. When meeting drivers and customers at races, their first question was always, "When will the new RX8 will be available?" It was not easy or pleasant to give them the answer.

Red RC: The design of 1/8th on-road cars – often seen as the “pinnacle of RC car racing” – hasn’t changed that much over the last decade or two. This has led to very subtle evolutions rather than revolutions in the construction. Why?

Martin Hudy: As a designer and as a company, you always have a limited amount of resources, time and money, which sets the boundaries of where you can and cannot go because you do not have the necessary time and are limited by budget. So while some engineers make some leaps every now and then, nobody pretends that can reinvent the wheel; instead of draining resources, everyone works on fine tuning the things that work well to make them work even better.

The strong, fast, and robust cars that end up in the Winners Circle and tops of podiums are those that have had their smallest details worked out. This class, like few others, has developed and evolved for many decades, with many different brands and their designs being continuously improved year-by-year. To come up with something unique and have it work well right away is highly impossible. These cars are so finely responsive to tuning that even changing small shims here or there makes the car handle completely differently. I expect that this class, like many others, will continue to evolve in step-by-step increments.

Red RC: So you do not plan for any major innovative changes? Are you staying with a conventional design?

Martin Hudy: Particularly for the new release of the RX8, this time it was a very large design update & upgrade with almost all parts being all new. I tried to build everything around the previous RX8 platform so as to keep parts interchangeable. However, despite the new RX8 being all-new, the design could still be considered as “conventional.”

Red RC: From your “Making Of” story we know you have changed to aluminum bulkheads due to the new rules for hard tires. Why?

Martin Hudy: It is all about the flex. The composite bulkheads had to be mounted to the chassis in more locations and thus created a more solid frame which made the car flex less. Now with the aluminum bulkheads I could play with flex exactly as I wished! The aluminum bulkheads are mounted with fewer mounting points, allowing the car to flex more which generates to more traction to accommodate the hard tires. Also, the aluminum bulkheads give us more flexibility in further development because we eliminate the hugely expensive costs of moulds.

Red RC: When designing a new car or improving a current one, do you focus on maximum track performance at the expense of ease of adjustability, or do you try and make the vehicle both fast & easy to adjust at the same time?

Martin Hudy: Any cars coming from XRAY are designed to have full adjustability, great performance/traction/steering, easy handling, predictability, robustness, and they MUST be easy to work on. Of course, achieving 100% on all of these features and aspects is extremely challenging for a designer. You always have to work at achieving an optimal balance of all these features. And of course you need to consider that the car will be run by professional drivers as well as regular customers, two different spectrums which you need to cover with one design.

Red RC: Speaking of product development in a more general way: do you rely mainly on input from your team drivers and your own impressions, or do you also hand over cars to less experienced racers to see how they do with the same products?

Martin Hudy: We follow pretty much the same process with all our platforms where we already have an existing car and work only on new season improvements. We start the season with “standard” cars out of the box or with standard available options. During the season I am at the most important races with the team, observing everything on my own and experiencing the car on the tracks for myself. Of course I also talk with regular customers who run our standard car, collecting feedback & experiences from them. Typically during the season I design some new parts which are first made in very small quantities for the core team to test out.

It is very important to me that the car be easy to drive by both professional racers as well as regular customers, and therefore we provide test parts to less experienced drivers who will test the parts' durability and lifespan. They provide me with their feedback about their impressions about the parts, and how the parts changed the handling of their car. From this I compare against with my own experiences as well as feedback from the team. For example, it may happen that some new part will increase the steering for top drivers but make the car too difficult to drive for regular drivers. As such the key importance for me as a designer is to ensure that new parts are an improvement for drivers of all levels.

If a part is seen as an improvement by everyone, depending on the time of the season we either make it available to the rest of the team, make it available immediately as an option part, or simply keep it hidden away for the next version of the car. So usually we can say that the public always gets the car that the team has worked on the previous season.

Red RC: Are race results important for commercial success of a car?

Martin Hudy: We are in the high-competition racing market, so of course the race results are important but they are not everything like some others may think. We do our very best to have the best performing car, a great team with proper balance, and we travel to the most important races to do our best. However winning races is not everything... we care first & foremost that the car has the best performance but is also easy to drive by regular customers. The cars must also be very durable and able to withstand the rigors of racing. And of course we continue to improve our service & support. We do promote all our hard work and the good results we achieve, but if we do not win we take it easy and focus on our work even more to be better next time. There are plenty of other brands and teams out there, and only one driver can win at the end, so we just continue to see this as the hobby it is and have fun.

Red RC: What is your experience with the different classes' popularity and development?

Martin Hudy: We have lots and lots of sales statistics, race statistics, and we take regular surveys and analyses as we are living daily within the RC world. So yes, we have a fairly good feel for how the different classes evolve.

It is no surprise that electric-powered classes have increased in popularity, while the contrary is true for nitro. Nitro touring has overall decreased, but 1/8 on-road has slightly increased. Pan cars are pretty much the same as the electric touring class. The 1/10 off-road classes are increasing, 1/8 nitro off-road have decreased, and 1/8 electric off-road has increased. These are the current trends, and as a manufacturer we follow market development and trends.

Red RC: What is your priority class and why?

Martin Hudy: I think that for every company there is a different class priority for various reasons, sometimes I do not understand some of them but I make my own choices. There are teams that invest heavily in one class as being it their favorite. The decisions made for particular classes is many times based on passion for that class, which in many cases exceeds reasonable & feasible market opportunity.

For the most part, we always try to follow the customers and try to do what they want. The racing market also nicely copies the trends as well. Probably the most races are in the electric touring class, which confirms it is the strongest market and so that is where our customers are... and where we try to be as well. So before each season we align our priorities, plan the races, plan the spending, and plan to be at as many events as possible, in all the classes. But of course we need to make compromises and be selective, as there are so many classes and it is impossible to be everywhere at the same time. That's where our excellent national and regional teams come into game.

Red RC: What is next you have been working on?

Martin Hudy: Sorry, but that's a secret you will have to wait for! But I will tell you that we are busily working on several new projects. We have all the main classes covered, and now we are going after some smaller "niche" classes but we also still need to dedicate sufficient amounts of time and finances for development of the current platforms. So I am in a constant loop with XRAY on-road platforms including T4, X1, X10, X12, NT1, and RX8.