

Team Blitz Falcon 6 Racing Enterprise Portfolio

About The Team

Sara Sehgal (The Team Manager): Sara is a focused member of the team who is always approachable by the other team members. She monitored team and individual progress well by making timelines, setting deadlines and guiding every individual throughout the process. She ensured keeping the spirits of the entire team high through several interpersonal skills like encouragement and motivation. She is a confident member who explores herself as a leader through several ways. Moreover, she makes a good leader by being a good listener and speaker at the same time. She organized several team meetings to club ideas, worked on portfolios like the enterprise, assisted other team members in their tasks, finalized the work of each team member and so on. She takes keen interest in STEM related events, programs and activities; hence, she is so eager to take this journey way ahead by going beyond, thinking out of the box and making a unique identity.

Aastik Khandelwal (Resource and Finance Manager): Aastik, a motivated individual with excellent communication and negotiation skills, acted as a link between the team and the outside world by acquiring resources while at the same time keeping in mind the team finances. He made 3 budget plans for the team in total which included the best scenario, the optimum scenario and lastly the worst scenario. He also had to collaborate with other team members especially the marketing manager to discuss sponsorships, team manager to give overall updates, design and manufacturing engineer to understand which resources are required for which he can work on their procurement. He also found the best strategies to allocate funds for the team and suggested ideas of crowdfunding and possible sponsorships.

Saranya Gupta (The Graphic Designer): Saranya is an innovative member of the team with excellent Information Technology (IT) and Digital Designing skills. She made layouts for all portfolios including: Enterprise, Design and Marketing. She also designed the team uniform and worked with the other members of the team to make the pit display. Other than her design skills, she also has an extensive imagination and creativity which allows her mind to wander and think of creative designs. Lastly, she ensured maintaining all documents, medias, videos etc. to have a consistent colour scheme and format to maintain the team identity and ensure consistency.



Shaurya Aggarwal (The Marketing Head): Three qualities that perfectly describe Shaurya are: Adaptability, Sales-mindedness and boundless enthusiasm. Talking about adaptability, Shaurya is very well able to adapt to

several issues and solve problems through marketing with different strata of the community. He is also a great salesperson as he is able to sell his product as in market with people to get sponsorships while ensuring their return on investment. Finally, he never loses his enthusiasm and continues to market his brand, his team and his identity, Team Blitz Falcon 6. He never missed onto the bigger picture and always put the overall goals of the team at the top of his mind which has helped the team a lot in several ways.

Yajvin Bhalla (The Manufacturing Engineer): Just like every other member of the team, Yajvin is unique in his own way. Yajvin is a multitalented member who has not only done his part of the job but has also helped each and every other member of the team in their tasks. He has extended his hand especially to the graphic designer and the design manager and helped in making this team a real team of collective members who are ready to put their heart and soul into not only theirs, but also each other's work. Another prominent quality that he displays is finding a solution to every single problem (be it a temporary or a permanent solution), no matter where the problem comes from. Yajvin has a great exposure in product designing and has knowledge about several tools and machines including the CNC machine and so on. He also collaborated with the resource manager, team manager and the design engineer to give life to the Blitz Falcon 6 vision.

Shaurya Panwar (The Design Engineer): Shaurya is a person who would explore and exploit his resources and hands-on learning experience onto several things and increase his exposure. He loves to research and fiddle around with softwares especially related to design to enhance his knowledge about the same. Even in his daily life, he uses specific and scientific jargon to interact and communicate with others. He takes keen interest in learning more about the Formula One. Other than that, Shaurya also has a great understanding of various physics concepts and has learnt a lot through this journey like fluid dynamics, surface pressure and much more. Lastly, just like every other team member, he displays a sense of teamwork and collaboration even in times of confusion and conflict.

Team Identity

Team Identity was a very salient component of this project as it helped us develop our own brand, Blitz Falcon 6.

Team Name: Blitz stands for lightning, resembling the quick and powerful attacks of the German aircraft. Falcon is symbolic to the fastest bird, which can travel at a speeds higher than 390km/h. 6 stands for the 6 team members of our team.

Team Logo: Our team logo was very simple yet unique. It comprised of our team colours which are blue, orange and white. It has a peregrine falcon which represents the 6 falcons in our team, the 6 team members, the fastest birds.

Brand Identity: We made and distributed business cards which had our logo, our car, our social media handles, and the school and competition.

Team Car Identity: We displayed our identity even through our car. It included our basic colour scheme.

Team Uniforms: Our team uniform incorporated the logo of our team, the logo of all the sponsors (the positions are based on the type and amount of sponsorship they have given. It also includes names of individual team members.









Management and Communication



Project Management

Project Management was a key aspect of this journey as it was essential for us to develop an efficient plan to approach and manage our tasks while still communicating effectively with the on-going pandemic. As we prepared for the Virtual Nationals, this had to be inclusive of all aspects of the program: car designing and manufacturing, sponsorships, availability of resources, pit-display, portfolios, and finally, the verbal presentation. We effectively managed to complete this project through efficient communication and collaboration among the team members. These past few months have been a hard time for everyone in this world. Despite the crisis at-hand, we communicated using social media platforms such as instagram and facebook. Along with that, we also had regular meetings using several online calling platforms such as Microsoft Teams, Cisco Webex and Zoom.

We also set strict deadlines for all tasks assigned, tracking our progress along the way, and therefore, effectively managing time and overcoming the disadvantages of not being able to connect face-to-face, as we were connected virtually.

Scope

Once we qualified for the Nationals, we deeply analysed the areas of improvement for our next step in this challenge. We had to take into consideration the areas where we lost the most points in the Regional Round, further examining our strengths and weaknesses so that we could focus on fields that need more attention. This way, we determined our scope for our journey ahead.

Time Management - Gantt Chart

We created a Gantt Chart to illustrate the project schedule and the status. Right from the beginning, we kept track of our progress through this Gantt Chart, which determined our accomplishments (successfully completing tasks on time) and delays (deadlines that were not met). The chart was divided into several major tasks with short-term goals highlighted under them.

The Gantt Chart conspicuously focuses on the 6 major and critical targets we had to accomplish and further segregated into minor targets that were set to plan, coordinate, and track specific tasks as well as create momentum. The Gantt Chart was a helpful way to monitor the progress of our tasks because it helped us avoid delays and meet deadlines.

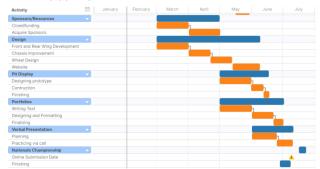
For example, the heading "Car" included car development, manufacturing, and varnishing, which were certain smaller steps that led to the completion of making our car. We had Zoom meetings twice a week to coordinate and update this chart, to follow our progress and set further deadlines. Here, there are 2 Gantt Charts showcasing our initial journey, which is the timeline that includes the deadlines we set before starting, and our actual journey, which is the timeline that demonstrates when we actually completed the tasks assigned compared to the priorly drawn out initial plan.

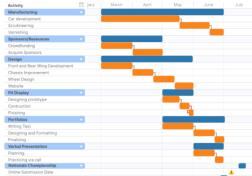
Communication

Effective communication is key in teamwork and all the processes that take place within. It bridges the gap and avoids any misconceptions that may lead to unfortunate events. Communication, serving as such an integral part in our journey, has to be effectively done but amid the pandemic, it was difficult to meet each other.

Hence, we connected virtually through the various media that today's technology has provided us with. Calling platforms, like Zoom, were used to fix weekly meetings to discuss updates and our progress. Other than scheduled meetings, we were also connected via group chats on social media platforms like Instagram and Whatsapp. where important work-related communications happened. All these platforms bridged the difficulties we faced due to the pandemic.

Actual Plan:





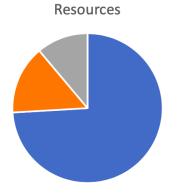
Initial Plan:

Due to the pandemic as well as other difficulties and delays along the way, our journey did not exactly go as we planned (initial plan). For example, we were unable to manufacture our car.

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Finance Management and Resources

Finance Management: Our team prepared multiple budget plans, which included the estimated and the actual amount funds we raised and their allocations, so we that we have an amount of money we are aiming to raise (minimum) amount. While making the budget plan we included all the costs including aspects like marketing, pit booth, manufacturing, uniform merchandise, testing and other small requirements, we also listed the items which we will be targeting with kind sponsorships. To summarize, in order to meet requirements, we relied on our funds from crowd funding and sponsorships along with the resource we received through kind sponsorship. The pie chart below sums up how we acquired our resources.



Crowd funding

Kind sponsershipSponsership

Crowdfunding: We raised over a lac rupee (1,25,750 rupees) through crowd funding which we did online through a professional crowd funding website called "fuel a dream". In order to make this a success, we had to attend 2 workshops for the same, where we were taught the procedure and were given tips and tricks so that we can raise a high amount of money even though we couldn't completely achieve the target due to the economic impacts of the pandemic but we managed to raise a fair amount of money and achieve the optimum budget plan. People from around the globe could read about our team and give donations to us. The event also helped us market F1 in schools and our team on a global platform. People could donate through online wallets and their bank accounts getting us a more practical and comfortable approach.

Resources: We used the funds that we raised to buy the finest resources possible so that the quality isn't sacrificed at any point. We divided the funds for different aspects like pit booth, marketing, manufacturing, merchandise, registration and testing. As we already had an estimated budget plan, so we already had the items we are going to need for every aspect looking at the amount we just had to improvise on the existing one.

Pitbooth: We planned to invest almost 40,000 rupees in pit booth which will would have included all the items we need for it like tires, vertical plant stands, posters, racks, display stands, poster, table etc.

Testing: We planned to invest 15,000 rupees for testing which will include the track which will including track for a day and almost 50 cartridges.

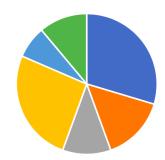
Manufacturing: We decided to invest almost 35,000 rupees in manufacturing which will include all the cost from printing to material.

Marketing: We decided to invest around 20,000 rupees for marketing which included shout outs from social media influencers, funding a small event, posters, running a campaign and articles which will promote both F1 and our team and it will be one of our ROI schemes for our sponsors.

Team Identity: We decided to lay out around 10,000 rupees which included our competitive and working uniform, visiting cards etc to make our team identity more prominent.



Resource Funds



■ Pit booth

Marketing

■ Testing

Manufacturing

■ Team identity and uniform ■ Extras

All in all, we followed a simple process like timeline for finance management and collection of resources. We started with making several budget plans after which we identified various ways to collect funds, analysed the pros and cons for each and finalised the best one for our team which was crowdfunding and hence, we proceeded with it. After collecting as many funds as possible, we allocated the resources required for the entire project which included manufacturing, pitbooth and so on. Finally, we used the resources we could but we couldn't completely follow our plans due to the changes the competition(Complete Lockdown).

Finance Management: Budget Plan



Best Case Scenario

		Item		Total	
Category	Item name	price(₹)	Quantity	price(₹)	
Manufacturing	material	10,000	NA	10,000	
	printing	8,000	NA	8,000	
	Scrutineering	2,000	NA	2,000	
	Bearings	2,000	12	24,000	
	Kit	5,000	3	15,000	
	Axle	700	12	8,400	
	Body	2000	6	12,000	
	Front wing	1,000	6	6,000	
	Painting	5,000	NA	5,000	
	Back wing	1,000	6	6,000	
Testing	Track	10,000	1	10,000	
	Cartridge	100	30	3,000	
	Transportation	2,500	NA	2,500	
Pit Booth	Tyre	3,500	6	21,000	
	Planters	300	6	1,800	
	standing				
	banner	2,000	2	4,000	
	Flex Poster	1,500	2	3,000	
	Plants	100	10	1,000	
	planting pots	150	2	300	
	TV	4,500	1	4,500	
	Car display				
	(magnetic)	7,000	1	7,000	
	Racks	3.500	2	7.000	
	Table	5,000	1	5,000	
	Lights	500	5	2,500	
	Glass cabinet	2,000	2	4,000	
	mannequin	2,000	1	2,000	
Uniform	Casual	800	6	4,800	
	official	1,500	6	9,000	
Merchandise	T-shirts	500	10	5,000	
	Pens	17	100	1,700	
	Caps	400	20	8,000	
	Power bank	700	10	7,000	
	Bottles	750	5	3,750	
1	Notepads	150	10	1,500	

	Paid shout			
Marketing	outs	2,000	10	20,000
	Posters (A3)	10	20	200
	Standing			
	banner	2,000	3	6,000
	Campaign	15,000	2	30,000
	Articles	10,000	2	20,000
	Graphic			
	designer	5,000	1	5,000
Registration	Entry	1,000	6	6,000
			Total	3,02,950

Optimum Scenario

Category	Item name	Item Price	Quantity	Total
				Price
Car	Material	INR 5,000	3d printed	INR
			(quantity	5,000
			might vary)	
	Axles	INR 300	12 pieces	INR
				3,600
	Body	INR 2,000	6 blocks	INR
				12,000
	Front wing	INR 450	3 pieces	INR
				1,350
	Back wing	INR 450	3 pieces	INR
				1,350
	Manufacturing	INR 4,000	Na	INR
				4,000
Testing	Track	INR 10,000	1 track (for	INR
		(transportation	a day)	10,000
		not included)		
	Cartridge	INR 100	10	INR
			cartridges	1,000
Pit booth	Tyres	INR 2000	6 pieces	INR
				12,000
	Racks	INR 3500	2 pieces	INR
				7,000
	Posters	INR 1200	4 posters	INR
				4,800
	Brochures	INR 20	50 pieces	INR
				1,000
	Lighting	INR 3,000	Na	INR
				3,000

	1		1
Car display	INR 1500	2 pieces	INR
			3,000
Flag	INR 800	1 piece	INR
			800
Table	INR 3500	1 piece	INR
			3500
uniform	INR 2500	6 pieces	INR
			15,000
Posters	INR 15	30 pieces	INR
			450
Visiting cards	INR 4	100 pieces	INR
			400
Caps	INR 150	20 pieces	INR
			3,000
Mugs	INR 200	10 pieces	INR
			2,000
T-shirts	INR 250	15 pieces	INR
			3750
	Flag Table uniform Posters Visiting cards Caps Mugs	Flag INR 800 Table INR 3500 uniform INR 2500 Posters INR 15 Visiting cards INR 4 Caps INR 150 Mugs INR 200	Flag INR 800 1 piece Table INR 3500 1 piece uniform INR 2500 6 pieces Posters INR 15 30 pieces Visiting cards INR 4 100 pieces Caps INR 150 20 pieces Mugs INR 200 10 pieces

Total: INR 98.000

Worst Case Scenario

Category	Item name	Item price	Quantity	Total
				price
Car	Material	INR 4,000	Might	INR
			vary	4,000
	Axles	INR 300	12 pieces	INR
				3,600
	Body	INR 2,000	3 blocks	INR
	1			6,000
	Front wing	INR 450	3 pieces	INR
			_	1,350
	Back wing	INR 450	3 pieces	INR
			_	1,350
	Manufacturing	INR 4,000	Na	INR
				4,000
Testing	Track	INR 10,000	1 track	INR
		(transportation	(for a	10,000
		not included)	day)	
	Cartridge	INR 100	10	INR
			cartridges	1,000
Pit booth	Tyres	INR 2000	6 pieces	INR
	-		_	12,000
	Racks	INR 3500	2 pieces	INR
				7,000

				,
	Brochures	INR 20	50 pieces	INR 1,000
	Lighting	INR 3,000	Na	INR 3,000
	Table	INR 3500	1 piece	INR 3500
Team dentity	Uniform	INR 1500	6 pieces	INR 9,000
	Posters	INR 15	30 pieces	INR 450
	Business cards	INR 4	100 pieces	INR 400
Merchandise	Caps	INR 150	20 pieces	INR 3,000
	Mugs	INR 200	10 pieces	INR 2,000
			Total	INR 72,650

We made three budget plans as shown above: one was for the best case scenario wherein the team successfully collect a high amount of funds through sponsorships and crowdfunding, the other was for an optimum situation wherein we collect not to much and not too less amount of funds, and lastly the third one was the worst case scenario wherein due to some circumstances if we were unable to collect funds we would have used that budget plan.

In the end, we were able to collect funds more than what was mentioned in the optimum scenario through crowdfunding which was our main focus of funding during the national finals as the team saw it as one of the best options to raise a high amount of funds for the betterment of the team and for the allocation of resources using these funds.

Graphic Designing and Marketing



Pitbooth Elements: Our pitbooth design was a very simple design as it had an equal balance of pictures and content. We kept the theme simple which was black and white as the background colours as they were the basic ones. The other colours were orange and blue, our main colours. We had several elements like introducing the team, 6 falcons; about our car, Peregrine Falcon V2; our sponsors.

Falcon 6 (Our Team): The left panel of our pitbooth introduced our team. We also had our uniform design in the background to improve the aesthetics and to portray our team identity.

Our Sponsors: The right panel of our pitbooth consisted of the logo of all our sponsors. This was made on a white background. We have 10 sponsors in total with majority of them providing us with kind sponsorship.

OUR SPONSORS



















Our car (Peregrine Falcon V2): This was our main panel which included details about our car. We included pictures of our concept cars which helped us in the designing of our main car. We also included the basic details such as the weight, speed, drag coefficient and a brief about our design. We also briefly explained how our car body was inspired by a rocket's design.





Sponsorships



















We would like to thank all our sponsors.

Newspaper article: Dainik Jagran, an Indian Hindi language daily newspaper, published an article about our team, Blitz Falcon 6, and emphasized on how we are participating in F1 in Schools. This allowed us to have a larger audience and further helped us get more sponsors.

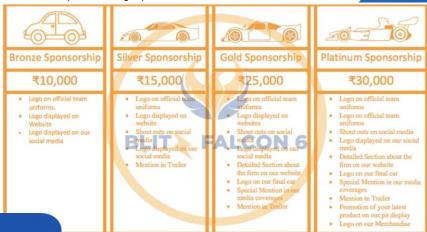
Social networking/Website: Our website, blitzfalcon6r.com, contains all the information about our team, car, sponsors etc. It has several hyperlinks that lead to our social media platforms as well as promoting the sponsors. This website is regularly updated with all the new knowledge and information about our team.

Supporting sponsors through promotions: We regularly put stories and posts on our social media platforms, thank our sponsors for everything they have provided us with. Their logos were also printed on our team uniforms and our final car.

Securing sponsorships: We designed different plans for our sponsors - bronze, silver, gold and platinum. Communication was made via phone calls and text messages on platforms such as WhatsApp etc.

Ensuring ROI: Our sponsorship plans included a return on investment scheme wherein our sponsors got advantages based on the level of sponsorship they chose. Examples include: logo on t-shirt sleeve/front/back based on level.

Crowdfunding: Rather than considering sponsorships as our first option for funding, we considered public funding as our top most viable option. We had a timeline attached to it which we had to follow. Even though, we couldn't allocate the amount of funds we aimed for as the covid-19 pandemic emerged and economies took a downfall, we could collect funds more than our optimum budget plan.



Collaboration



Team collaboration

The F1 in schools challenge was all about team collaboration as this challenge pushed us harder and harder each day to work in a team, collaborate, divide the work amongst each team member equally and lastly cooperate with each other.

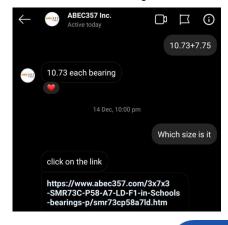
For the national finals, the team mainly collaborated virtually as there were national lockdowns due to the coronavirus pandemic. We used platforms like Zoom, WhatsApp, Instagram, Facebook and Cisco Webex.



Sponsors

Due to the pandemic, most of our collaboration with our sponsors was virtual. Through mails, calls, and social media platforms such as Instagram, we communicated all the important information required for us.

While crowdfunding helped us in raising funds, our sponsors helped us gain popularity and promote our corporate. Sponsorships were given in both formskind and cash sponsorships. For example, our sponsor, Dainik Jagran, published a newspaper article about F1 in schools and how are team took part in this challenge. This helped us get familiarised between a larger audience.





Fuel A Dream - Crowdfunding Collaboration

Fuel A Dream is an online crowdfunding website in India that helps people raise funds for ideas, social causes, charity events and so on. First, they taught us all about how the crowdfunding works and how we can obtain the maximum profit and make the biggest impact. They explained the whole procedure and how to go about raising funds.

They helped us establish a crowdfunding campaign through which we were able to raise money for the National Championship - the resources required, pit booth etc.

TEAM BLITZ FALCON 6





Educational Collaboration

Our school, Pathways, being one of our sponsors as well, supported us throughout and gave us all the resources and supplies that we required. For instance, we were given access to the Product Design lab where the Design and Manufacturing Engineer used machines and other resources for designing the car and other subsequent things. Our school also allowed us to have the F1 in Schools introductory classes on campus because all of the team members were boarders and it was difficult for us to have classes anywhere else. We also put up a stall in the PWS carnival to collect funds.



Project Evaluation

Sara Sehgal: My F1 is Schools journey will not only stay with me for a lifetime as I was able to develop my personality as a whole and enhance my leadership skills to a large extent. I can say this on the whole team's behalf that F1 is schools taught us a range of skills and techniques like how to effectively research, design, create, communicate, persuade, acquire resources and work effectively as a team. More than anything, it encouraged us to learn how to build a team, an identity, a brand, our embodiment, Blitz Falcon 6.

As a team manager, I coordinated with each and every member of the team while setting deadlines and making the enterprise portfolio. Through this, I was personally able to understand where the team lies which helped me lay out the pros and cons for further improvements of every task. Lastly, I learnt that the spirits should be high in order to achieve something substantial.

Shaurya Aggarwal: F1 in Schools was a wonderful yet tiring journey. I had learnt and enhanced many soft skills and techniques, which will be used further. We as a team, had constructed a brand in the school, through various events of marketing, which required team work, collaborating, persuading and also developed more confidence. As the marketing manager, I also gained more knowledge about digital marketing and strategies.

Aastik Khandelwal: Encapsulating what F1 in schools has taught me in just a few words is a tough task. Not only have my skills improved from the perspective of Science, I have also learnt a great deal about digital marketing, establishing your own identity, attracting sponsors, collecting funds and all the necessary resources.

Being a Finance Manager, I learnt how to make a proper budget plan and how to effectively allocate funds. I had to collaborate with the Manufacturing Engineer and the Marketing Head in order to discuss things like the resources required so that I could further look for vendors and make a rough budget plan, for example.

Shaurya Panwar: My F1 journey has been rewarding yet stressful, simultaneously bringing out the best of us, as a team. Through this competition I developed a lot of skills, which will not only help me score well in my exams but also help me in the future. I learnt how to work in a "team", making tasks easier and even though we disagreed time and again, in the end, it was all worth the effort and the outcome was fruitful.

As the design engineer, I was able to increase my knowledge about physics, especially in fluid dynamics and surface pressure. I was also able to explore methods and create designs that improved the aerodynamics of the car. In retrospect, F1 in schools has given me a opportunity to increase my knowledge of science and marketing.

Saranya Gupta: As the Graphic Designer, I had the opportunity to design the team uniforms, format the portfolios and at the same time, learn about a subject



that has always intrigued me: car manufacturing. But, honestly, F1 in Schools is much more than just designing the fastest car. It involves so many other aspects from the "real world" such as appealing for sponsors, negotiating with vendors, raising funds and effectively allocating them. The list goes on and on.

To put it in one sentence, F1 in Schools is like a 3-tier rainbow cake; it may look like one, big "dish" but as you "cut through" it, it reveals the multiple "layers" it entails. Overall, this challenge has helped me develop and grow upon skills like designing, photo-editing, creativity, and innovation. Working with a team and having fixed deadlines also aided me to have better time management and organisational skills.

Yajvin Bhalla: F1 in schools was an amazing journey, a journey which has taught me something new on every corner down the road. The competition provided me with the perfect opportunity to learn about design and gave me a very important insight on the physics involved in the task. This sharpened my knowledge of the subject. And most of all taught me about the virtue of teamwork.

Being the manufacturing engineer was a very important role for me as it was a very crucial part of the challenge as it revolved around a physical car design to be raced with, and for me to play this very significant role; I had to connect with the design engineer and the resource manager to give life to the Blitz Falcon 6 vision.