

Regulations And Rubrics



Organization

Teams will have to plan, uphold, and execute one or multiple marketing strategies as part of the business section of the competition. In order to do this, it is important to stay organized and assume responsibilities.

For this, teams will be judged based on their ability to:

- Schedule (rough timeline) and plan different stages in their strategy
- Distribute roles equally to every member
- Communicate as a team
- Keep track of different accomplishments

☐ Created a rough timeline that includes goals, deadlines, and strategies and in a format that is presentable

☐ Gave every member a role
→ E.g. Marketing specialist, CAD and CFD Engineers (2 people), Visual Communicator

☐ Made sure that everybody is on the same page, and not left out in any way

☐ Created a diary, log, etc. to keep track of every accomplishment, strategy, and thought (useful for the presentation)

Organization

	Exceeding	Meeting Standard	Not meeting Standard	No result
Display a clear and effective plan, strategy of goals and rough timeline	Provide judges with a clear and effective plan, strategy, and rough timeline when asked for ☐ 25 points	Provide a plan, and strategy as to how the team is going to approach different steps of the competition ☐ 15 points	Provide somewhat of a plan to judges when asked for ☐ 5 points	No evidence of any plan, strategy, or timeline ☐ 0 points
Every member has a unique role that contributed to the team	Every member has a unique and specific role ☐ 25 points	Every member has a what could be counted as a role ☐ 15 points	Most members have a role ☐ 5 points	No roles were assigned ☐ 0 points
Communication within team (check-ins, to see if every member is on the same page)	Team members effectively communicate with every member numerous and show proof of this to judges ☐ 25 points	Team members communicate amongst each other and show proof of this to judges when asked for ☐ 15 points	Some team members communicate with each other, and somewhat show weak proof of this when asked for by judges ☐ 5 points	No form of communication within team can be found ☐ 0 points
Have a diary, log, etc. keeping track of all of their accomplishments and thinking	Provide a diary, log, etc. when asked for proof that the team is following its timeline and is on track. ☐ 25 points	Provide a proof that the team has been working on track, however not formally, when asked for by judges ☐ 15 points	Provide proof of staying on track, however aren't behind. ☐ 5 points	Provide no proof of staying on task, or task management ☐ 0 points

Total: _____

Business

In this part of the competition, teams are expected to create a team identity. This includes a clear brand, logo, social media, and theme throughout the entirety of their product. Teams will be assessed on ability to:

- Create a unique and insightful brand that reflects certain characteristics, motifs, themes, or topics
- Display the core values of this brand through a uniquely designed logo
- Market their brand creatively using social media
- Keep a common theme, focus, and design throughout all campaigns, posts, logos etc.

- ☐ Created a brand with thoughtful goals, characteristics, and themes to reflect its purpose
- ☐ Created a name that reflects this brand and sounds professional
- ☐ Created a social media account
- ☐ Created merchandise
- ☐ Actively posted on that social media, and made use of its features
- ☐ Created an aesthetic around the social media page that reflects the brand well
- ☐ Stayed consistent with colors, aesthetic, motifs, and themes of the brand throughout all aspects (presentation, social media page, car design etc.)

Business

	Exceeding	Meeting Standards	Not meeting Standards	No result
Has a clear and straightforward brand that reflects a specific characteristic, motif, theme, or topic presented through a name and overall design	Judges can envision clear purpose, aesthetic, theme, motif etc. in brand, in a way that can be described in clear words. ☐ 25 points	Judges see a certain set of characteristics, motifs, and topics represented in the brand ☐ 15 points	Judges recognize some aspects in the branding, however no clear direction ☐ 5 points	There is no clear brand and reason for made decisions ☐ 0 points
Creates a creative and unique logo that is well designed and professional	Presents a visually pleasing, creative, and professional logo, with a sleek design that represents the brand, theme and aesthetic of the company ☐ 25 points	Presents a logo that shows some sort of effort, intent, and creativity, with a design that slightly matches the overall brand ☐ 15 points	Present a logo that has some sort of direction ☐ 5 points	There is no logo to be found ☐ 0 points
Creates a social media account that shares posts and stories about their progress and overall team creatively and in correlation to their brand Designs merchandise (T-shirts, Hoodies, etc.)	Created a social media account that actively shares posts, stories, and highlights of the overall group effort and competition, using various tools the platform provides, including highlights, and reels. The social media page reflects the aesthetic, purpose, theme, and motif of the brand. Account has more than 15 followers, and more than 30 total likes. Designed merchandise that is creative, and visually appealing ☐ 25 points	Created a social media account that shares numerous posts, stories, and highlights throughout the day. Account has more than 9 followers, and a total of 23 likes or more. Designed merchandise ☐ 15 points	Created a social media account that shares a few posts, and stories of only a few team members. Account has more than 2 followers and a total of 5 likes. Didn't design merchandise ☐ 5 points	No social media account was created. Didn't design merchandise ☐ 0 points
Same brand, theme, colors etc. used throughout all processes	Team presented consistency in all aspects of their Start-Up, including color, theme, motif, and topic throughout social media, car design, and logo ☐ 25 points	Team presented some consistency throughout their Start-Up, especially Social Media, and Logo ☐ 15 points	Team barely presented any consistency throughout brand, except a few color choices, or motifs ☐ 5 points	No consistency throughout the brand was shown ☐ 0 points

Total: _____

Engineering

Students are expected to plan, visualize, simulate, manufacture, and produce an F1 in Schools race car using several tools, including Fusion360 CAD, CFD, and _____ (Block material)

Students must use critical thinking, as well as trial and error to design a car using CAD, and simulate its effectiveness using CFD, and provide a technical report to provide insight into their strategy, and thinking

Students must provide detailed instructions, including measurements, and diagrams, to manufacture and develop their car, such that it accurately matches the CAD design

Students must customize the car in a way that it matches their brand, including placing the F1 in Schools sticker somewhere on the car's body

- ☐ Created a car through CAD using the given instructions
- ☐ Simulated the CAD design in CFD
- ☐ Made adjustments based on the simulation results
- ☐ Sent instructions to car manufacturer in correct format
- ☐ Assembled car according to instructions
- ☐ Placed Sticker Logo on car
- ☐ Customized car according to brand

Engineering

	Exceeding	Meeting Standards	Not meeting Standards	No result
Closely and successfully follow provided CAD design instructions with appropriate measurements and dimensions according to regulations given	Group designs own and unique race car according to instructions given, with dimensions and measurements according to regulations provided in guide ☐ 25 points	Design race car identical to the one provided in the instructions, however have correct dimensions and measurements ☐ 15 points	Design a race car with dimensions and measurements violating the regulations ☐ 5 points	Group does not create a CAD car design ☐ 0 points
Simulate created CAD design using CFD according to instructions provided Make a conclusion based on the result, and adjust car accordingly Best drag coefficient	Take CAD design, and simulate it successfully Make conclusions based on CFD results, and adjust car accordingly Run multiple trials to get the overall best result Top 3 Teams with the best drag coefficient ☐ 25 points	Take CAD design and simulate it successfully Make conclusions based on CFD results, and adjust accordingly Following two teams based on drag coefficient ☐ 15 points	Take CAD design and attempt to simulate it, however unsuccessfully OR Don't make any conclusions based on results Following 2 teams based on drag coefficient ☐ 5 points	No attempt of any simulation was made ☐ 0 points
Provide correct instructions used to manufacture the car according to instructions given Manufactured car is as accurate as possible to actual design	Team provides correct format of instructions needed for the manufacturing of the car, in a way that works well and smoothly End product resembles given CAD design ☐ 25 points	Team provides correct format of instructions needed for the manufacturing of the car End product doesn't resemble given CAD design ☐ 15 points	Team doesn't provide correct format of instructions needed for the manufacturing of the car ☐ 5 points	CAD design was provided for the manufacturing of the car ☐ 0 points
Car is correctly assembled Logo Sticker is placed on car Car is customized	Team precisely, and attentively assemble car, with no mistakes or imbalances Logo Sticker is placed thoughtfully on car Car is customized creatively, matching the created brand ☐ 25 points	Team assembles car with a few imbalances, however no serious mistakes Logo Sticker is placed on the car Car is customized, matching the brand ☐ 15 points	Team assembles car with imbalances and noticeable mistakes Logo sticker is placed on car Car is not customized matching the brand ☐ 5 points	Team does not assemble car OR Logo Sticker isn't placed on car OR Car isn't customized ☐ 0 points

Total: _____

Verbal Presentation

In order to complete and demonstrate all of the work done, students are required to prepare a 4 minute long presentation addressing all aspects of the competition. This includes:

- Initial strategies, and how those turned out
 - Organizational methods
 - Challenges faced in both Business and Engineering departments
 - Social Media results
 - Improvements made throughout the competition
 - And expectations vs. reality
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- ☐ Presented the brand name, logo, aesthetic, and theme, and thinking behind it
 - ☐ Presented Social Media strategy
 - ☐ Show both front and back of merchandise
 - ☐ Showed final number of followers and likes
 - ☐ Demonstrated organizational methods
 - ☐ Included CAD designs and certain thought processes
 - ☐ Included CFD conclusions and adjustment made accordingly
 - ☐ (Optional) Any additional important facts/processes/challenges/accomplishments etc.

Verbal Presentation

	Exceeding	Meeting Standards	Not meeting Standard	No result
Presents the Brand name, logo, aesthetic, and theme with clear intent, and purpose; explain thinking behind made decisions. Present Social Media Strategy, and numerical value of total followers and likes Present merchandise	The team effectively manages to include all aspects related to <i>branding</i> into their presentation, and provide data from their Social Media accounts Present merchandise both front and back ☐ 25 points	The team includes the majority of aspects regarding <i>branding</i> in their presentation, and provide data of their Social Media accounts Present merchandise only front/back ☐ 15 points	The team insufficiently provides aspects regarding <i>branding</i> in their presentation, and doesn't include any data regarding social media accounts OR only provides data regarding social media accounts. Don't present merchandise ☐ 5 points	No section regarding branding can be found in the presentation ☐ 0 points
Presents organizational method used, as well as designated responsibilities	Team included a diagram of the created timeline, as well as a chart of every member's assigned roles. Team also includes struggles and challenges faced, and achievements made. ☐ 25 points	Team included a diagram of the created timeline, as well as a chart of every member's assigned roles. ☐ 15 points	Team only presents either a timeline diagram of events, OR a chart of assigned roles. ☐ 5 points	No section regarding organizational method was found. ☐ 0 points
Show multiple CAD designs, including initial and final ones, with labels, and measurements. Explain the thought process behind every alteration shown at the presentation.	Group presents at least 3 different CAD designs from throughout the process of designing that are correctly labeled and have assigned measurements accurate to the actual finished product. Group thoroughly explains the intentions behind alterations. ☐ 25 points	Group presents 1-2 different CAD designs that are labeled with measurements and descriptions. Group explains the intentions behind any alterations made. ☐ 15 points	Group presents 1 CAD design and any intentions behind its design. ☐ 5 points	No CAD designs and/or explanations were provided ☐ 0 points
Groups present CFD results, and corresponding conclusions made, and how those are transferred to the CAD design to make a unique, and fast car. Present the finished product physically and digitally in the presentation.	Team demonstrates visuals of CFD procedure, and results, and continues to explain certain decisions regarding the car design based on those conclusions. Team also shows both digitally in the presentation, and physically, their finished car design. ☐ 25 points	Team presents CFD results, and continues to explain how those results were used in bettering the car design. Team also shows the final car design only physically OR digitally. ☐ 15 points	Team presents CFD results. Team also shows the final car design only physically or digitally. ☐ 5 points	No CFD results or final car designs were presented. ☐ 0 points

*Additional 5 point reductions happen when:

- ☐ Not every member speaks during the presentation
- ☐ The presentation lacks a crucial part
- ☐ There is a lack of organization, planning, and effort put into the presentation
- ☐ Students present longer than 3 minutes

*Additional 5 points are added when:

- ☐ The presentation is astoundingly creative, and visually pleasing
- ☐ The order in which information is presented is logical
- ☐ Every member speaks loudly, and clearly, as well as in almost equal amounts
- ☐ Additional meaningful information, that isn't a requirement, is provided

Total: _____

Racing

We will be conducting time trials of each car on our track. Ranking is based on the speed of the car. Each team will conduct two trials, with the result being the average of the two recorded times.

This section will put together all of the engineering work you have done so far, as well as a prime opportunity for social media content. Point distribution for the races are as following:

- 1st Place = 100 points
- 2nd Place = 80 points
- 3rd Place = 65 points
- 4th Place = 50 points
- 5th Place = 40 points
- 6th Place = 25 points
- 7th Place = 25 points

Scoring

- 40% - Racing
- 20% - Branding
- 20% - Engineering
- 10% - Verbal Presentation
- 10% - Organization