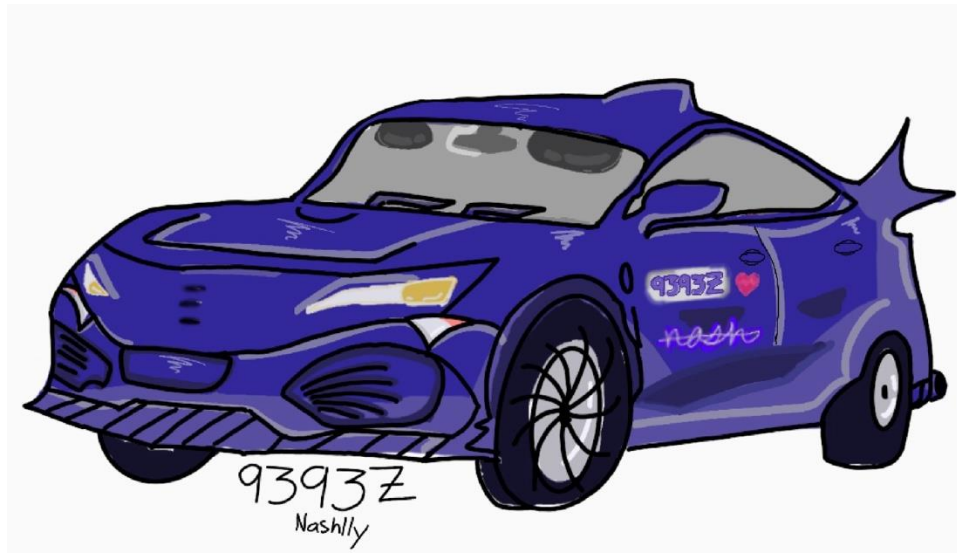


In the following paragraphs soon to be listed below will be explaining how and why we chose this company and how it compares to the engineering process. The listed questions will be answered sooner into this writing piece. One of these questions is how the engineering design process in robotics compared to HONDA? Also, why did we choose HONDA? And lastly, have you ever wondered how VEX Robotics might prepare and influence our upcoming careers? Now the moment you've all been waiting for, let's head on to the very first part of this reading.

First off, we'd like to talk about the engineering design process, which is a process in which you plan how to come up with a new creation. In both robotics and many worldwide companies' mechanics, no matter what type, can use the engineering design process to produce different mechanisms in which are most suitable for what they want to build and what would be more beneficial for their design. First, we make a planning Gantt Chart which we use to see what will be occurring when and where in the seasons time period. When the company HONDA is making their hybrids, they plan how much time it should take to complete each part of the design and the building process. The second part is defining the problem at hand and the obstacles, for example in the making of hybrid cars the problem in the world was that there was a lot of air pollution, and it was affecting people's health. Not only that but because of inflation the gas prizes were higher so people wouldn't buy as many cars as possible and just resort to a singular one, at least that's what happened to me and my family. So, when we got the hybrid HONDA it helped us a tone with the amount of money we were spending since it wastes less fuel.



I drew my car almost the same way it looks face to face, that's why it's blue. I know it's not a picture-perfect drawing, but I enjoyed expressing myself through it. I made the front of the car look like a face, and the back side look like it has a fin, because I thought it'd be a nice touch since I particularly love sharks. I also kind of incorporated the face because my teammates and I always like playing around with each other, and it was a nice little touch to incorporate everyone into this writing piece. Not only that, but we had the idea to put our team number on it to symbolize us team 9393Z! Now back on track we go, the third part of the procedure is seeing the constraints and the limits for the robot like the size and the materials you're using similarly in HONDA they had to make sure the car wasn't too wide and had to fit the legal terms of society. The fourth part is strategizing in robotics, we must strategize the fastest and most accurate ways we can receive points and in the company HONDA they had to strategize how the car could drive on its own. Then our team had to brainstorm different mechanisms and ideas for the season's challenge and in Honda, they produced different ideas to find the most efficient mechanisms for their design goal. Next, we begin researching our ideas for mechanisms and see how we could improve our idea, and, like the company Honda, they must see what other companies have to offer and see how they could make it different and better. We then move on to the design making matrix and set up a table with our improved brainstorming and see which design passes the given constraints, in HONDA they have to do the same, specially cause they have to find which ideas fit within the limits of the car. Then we move on to the prototyping and testing, after building the design we have 3 or more trials to

see if there are any problems if there is a problem, we produce a few solutions to iterate or redesign the prototype. After we are done testing and there are no problems, we attach it to the robot. HONDA must go through many test runs before ensuring that the car is safe to drive on its own. Then after competing we evaluate to see what we can improve until we get to our final design. As people continue to test out the car you can see how you can improve it and then when you are done evaluating HONDA can then begin selling the car. Also remember laws must be followed which also adds on to their general matrix. Like us in robotics, we remember we can excite the limitations and follow the roles in the game/challenge at hand. So, the car must follow the laws in the states they are built in and pay attention to detail to see if they're safe and compatible with the streets and environment.

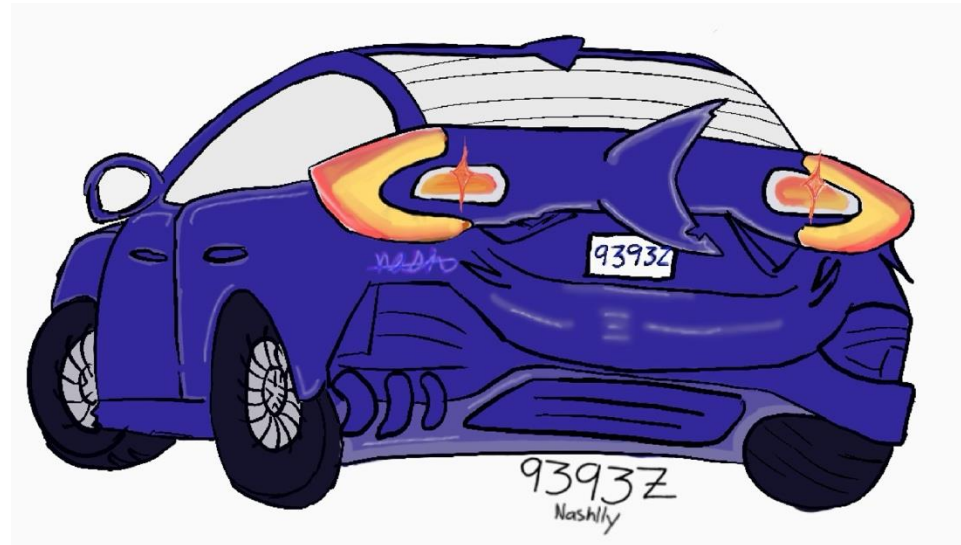
Now we writers would like to tell you why we chose the company HONDA for many reasons, especially since it is very comparable to the design of a robot and follows similar procedures. Honda can use the same procedures that we use to come up with mechanisms like manufacturing their cars. HONDAS hybrid cars can be compared to motors since they run on electricity and can also be compared to pneumatics as they can also run on fuel. We also chose a car company as it can compare to a robot because of the different mechanisms it consists of. Another reason we chose HONDA was because it is a STEAM company as they have science to find out the velocity and how much the car can travel per hour. They use technology to program the car to drive on its own and engineer the build of the car. HONDA can use math to calculate how many times a gear must turn as the car is accelerating and when the car is braking. HONDA has changed the design and build of their cars over time and has made many improvements to catch up with all the modern technology. Lastly, although there are many differences between a car company and robotics such as someone doesn't use a robot to drive them somewhere it is similar in the basics as both can transport something.

In this specific paragraph we'd like to answer the question of how Vex Robotics could prepare and influence our future careers. In robotics we have learned how to work with each other and compromise on our decisions on our design and the build of the robot. We also learn how to lead and be independent since we build, drive, and do the interview on our own. You also learn to come up with solutions

insanely fast if something malfunctions in the robot, especially if something in your robot fails during competition. By competing we have learned that when you work hard for something, and you put in all your effort, you will succeed. We have learned so much from being in vex that will help us have a good relationship with others and how to be independent and to work on your own and these skills will be very useful to us in any career path we choose. We are all so grateful for everything I have learned from joining robotics for all the experience, our friendships, and how we have learned many skills that will help me later in life. We also learn better communication skills, and better understanding of different peoples' personalities and how you can flow with one another's. We learn to accept everyone's differences no matter how they might be, or what might make them "different" because if you really think about it no one's really different. We're just all unique in our own incredible way. We learn that sometimes people don't have the same opinions as you might, but it's okay because that's the real world. We learn to incorporate everyone's personal ideas into our creation at hand. We learn to open our eyes to people's thoughts and interpretations. Lastly, we learn to care for one another, and never give up on each other. This is why Vex Robotics can help us with our future career choices and if you think about it, with life in general.

To really sum this up, this is why we chose HONDA, also how it compares to robotics and how robotics can prepare us for future careers. The engineering design process could be used by both HONDA and robotics as both follow similar procedures. Better yet, it's essential for HONDA and our robotics team. We chose HONDA for many reasons since we also knew a lot about their cars, as one of us owns one of their hybrids and is comparable to a robot. They are both really similar if you put thought into it. We have learned so much from getting to compete in vex as a team. We also can't wait to learn so much more that has to come. We'd like to state that we are two writers which have decided to work on this very important project together. We would like to say that it was a pleasure writing this, and we hope you all enjoyed it. We'd also like to tell you; the only reason we included the words "I" is because one of us was explaining a personal experience. Also, we have a little treat we'd like to show you all, it's the back part

of the car drawing. Hi, I'm the drawer, and I'd like to credit my partner in the fact that she did give me the ideas to some of the details on the car and the shading. Kudos to Catalina for helping me with the design idea.



Credits for the writers of this: Nashly & Catalina from team 9393Z

Illustrational drawings: Nashly

Designing help: Catalina & Nashly

Team: 9393Z ROCKBOTS!!!

***Teammates: Justin, Jonathan, Juliana, Daniel, Jose, Catalina, Jaden, and Nashly
this group comprises 7th & 8th graders***