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EDSGN 100

Professor Kisenwether

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Personal CAD Project Summary

The name of my CAD project is Sweeney's Golf Cart. In order to complete my design accurately, I used a picture off of the internet to help me visualize the object. There were many options of sample golf carts to choose from, but I liked this one the best, because it is most similar to the standard cart you see at a country club.



Figure 1: Sample Golf Cart used as a reference photo (<http://www.wkvi.com/tag/golf-cart/>)

When I first learned of this project, I immediately thought of creating a car. Building a convertible would have been awesome. However, I knew trying to draw a car would have been very time-consuming and tedious. So, I stayed in the vehicle category and chose to create a golf cart. This is interesting to me as well, because playing golf is one of my hobbies. I am a member at my local golf club, Rock Manor. During the summer, I go to the course with my friends about three times a week. I also watch all of the major PGA tournaments throughout the year. In

addition to my interest for golf, driving golf carts is very fun. I don't have my own car at home, so in a way, this CAD project is representing my own vehicle.

While constructing the golf cart, there were several parts of the vehicle that were difficult to create. Constructing the lower body of the cart was hard, because I had to cut out the wheel wells accurately. It was challenging to find the correct radius needed for the wheels to fit. Constructing the arm rests for the front seats was tough as well, because I had to create several planes separate from the front plane to show the different surfaces. I also had some trouble drawing the steering wheel, because I needed to create it in different parts. I added the stem of the part to the cart body. Then, I connected the actual wheel part in the assembly, but I had trouble mating the two. To successfully connect them, I needed to move the component with a free drag and lock it into place. Overall, this golf cart was not overly difficult to construct.

By doing this project, I learned how to solve problems in the Solidworks software without help. It is beneficial to be able to use these functions as I move forward in my engineering career. I really enjoyed this CAD project. I felt as though the entire semester of CAD and Solidworks was fun. I took a computer drafting class in high school where I used CAD, and it was one of the main factors of my choice to be an engineering major. I am decent with the software and it is awesome to create things from scratch. Learning how to use these programs is definitely worthwhile.

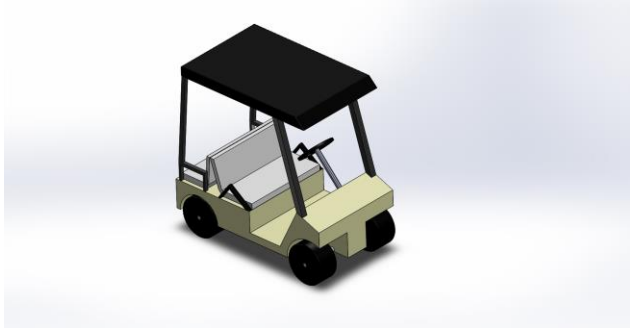


Figure 2: Golf cart looked upon from an isometric view



Figure 3: Golf cart looked upon from reverse angle

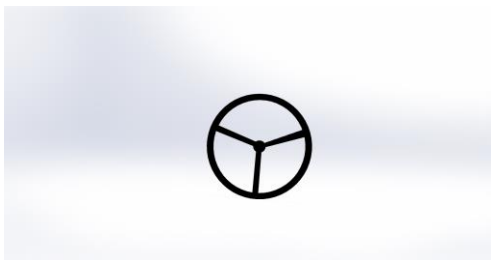


Figure 4: The steering wheel used in the golf cart

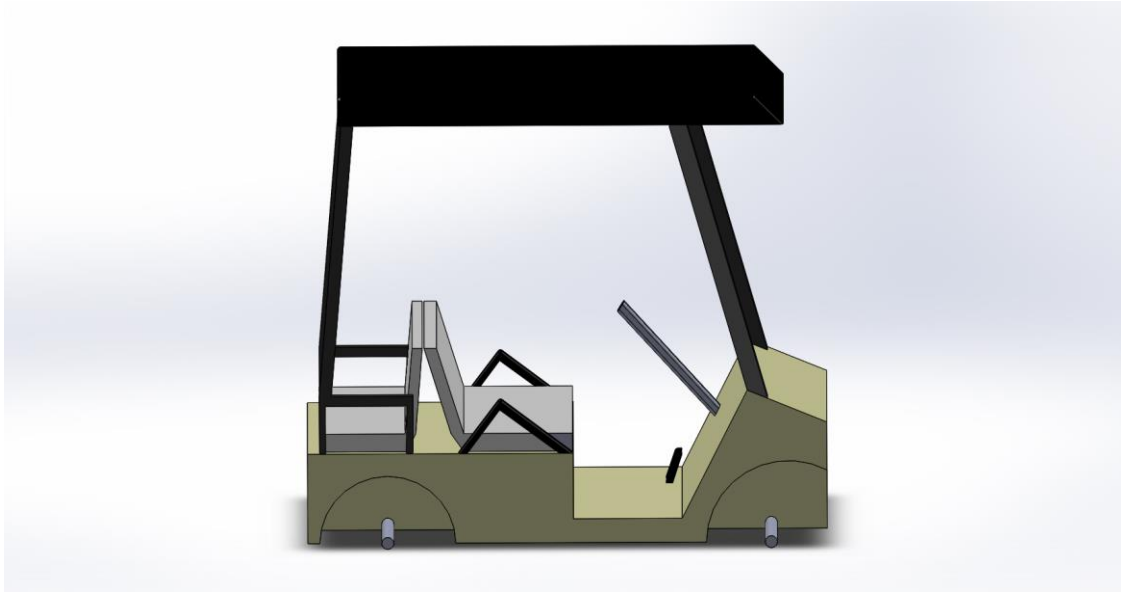


Figure 5: The body of the golf cart depicted from a side view, showing the cut out wheel wells