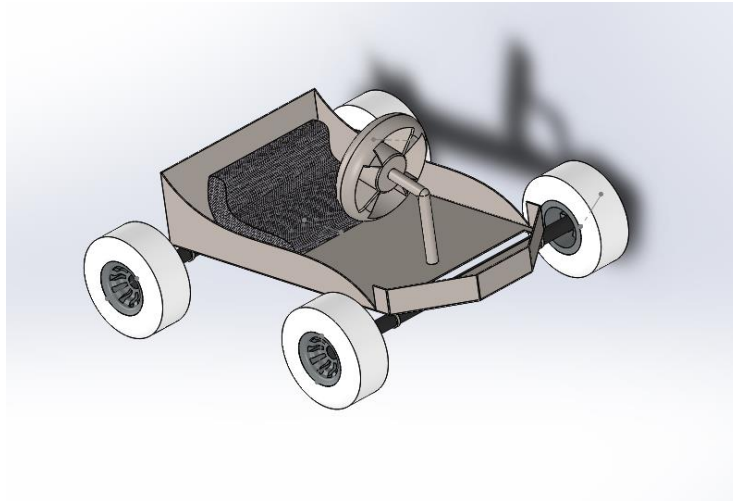


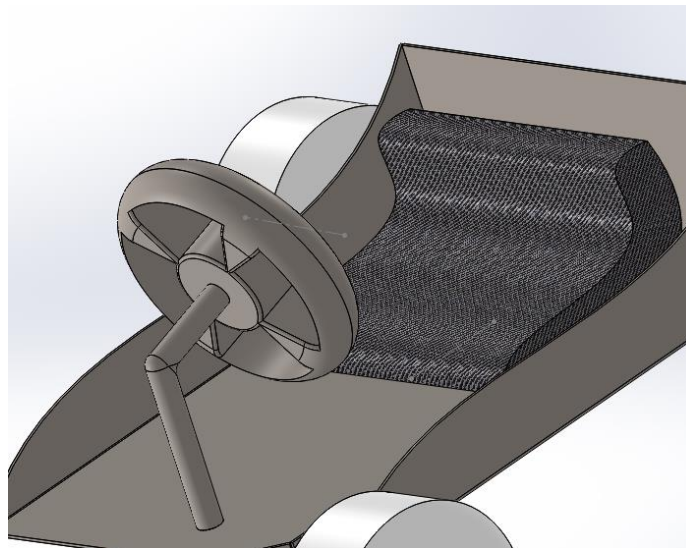
Jessica Parrish  
Personal CAD Project: Go-cart

I decided to create a go-cart for children because it would be less expensive and also a simpler design. It was important that the go-cart could withstand the elements as it would probably be outside. The go-cart needed to be sturdy enough to go over certain terrain and would be cheap and recyclable as opposed to expensive and nice looking. This is mainly because the children will outgrow the go-cart in a few years and it does not need to last long.



Isometric view of go-cart

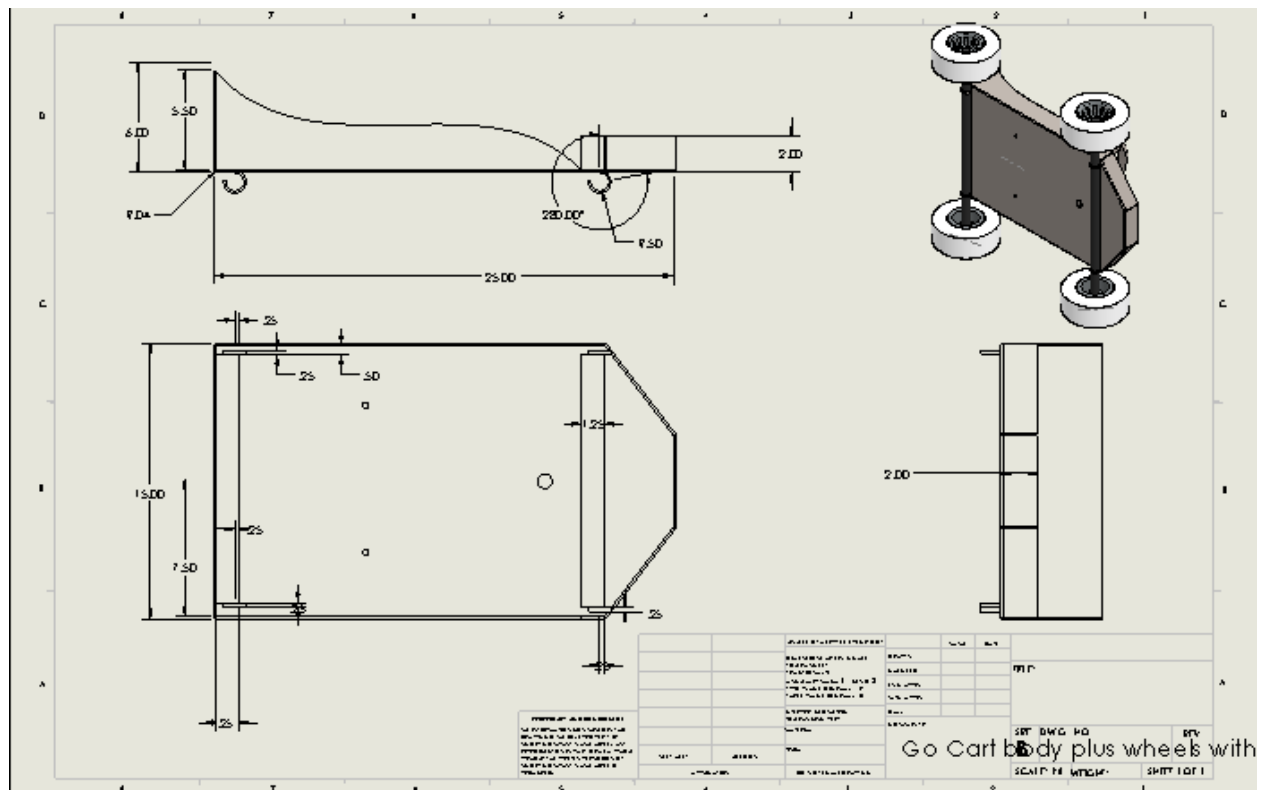
Above is a picture of the go-cart from an isometric viewpoint. The two things that I added to my go-cart was a seat and a steering wheel. I decided to add seats to the metal body because it is practical to have seats in a go-cart and more comfortable as well. I also went in and added a steering wheel so there would be something to hold onto as the go-cart moved forward.



Closer view of steering wheel and seat

I thought that the trickiest aspect of this project was using the sweep feature to move a solid base along a path. This is one of the reasons I made a steering wheel so I could try using that option again and get better at it (it is the bent pole connecting the wheel to the base of the go-cart body). It turns out it was not complicated the second time around. This is a great example of one of the many things that I learned in this EDSGN 100 class.

Along with learning some of SolidWorks' features, I also learned the best way to decide what materials would be best for a child's go-cart. The materials selection feature helped me decide what materials would be used based on percentage of recycled materials and price. The tires are made out of SBR rubber because they need to be elastic and able to go over terrain. This was also the most recycled rubber it seemed. The body is made out of stainless steel (ferritic) because that is a metal that is cheap but also sturdy enough to hold the weight of a child. It is also recyclable which made it the perfect material. The wheel itself and the steering wheel were also made of stainless steel (ferritic). The axel was made out of gray cast iron for the same reasons.



Drawings of go-cart body with dimensions

This project is very relevant for students studying engineering because it shows the actual design part of the design process. It helped me learn to properly use dimensions as well as the importance of them. It showed me the importance of material selecting, as the practicality of materials need to be considered in real-life situations so products can be used to their expected lifespan as well as withstand forces that it may come in contact with. This was a very fun project that I enjoyed while also learning a lot about the program SolidWorks as well as how to visualize a given set of dimensions or photographs of something that can be turned into a 3-D model.