

# Introduction to Engineering Design Fall 2010

## CAD Project- Florida Sailboat

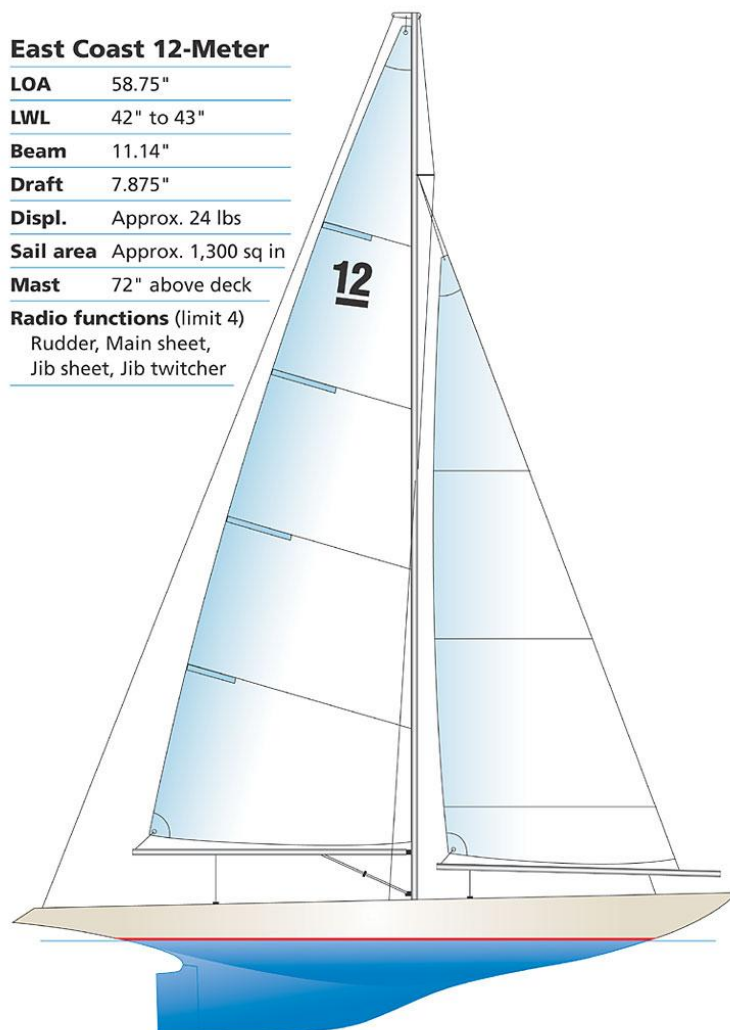
Samantha Summers

### SUMMARY

#### The Boat

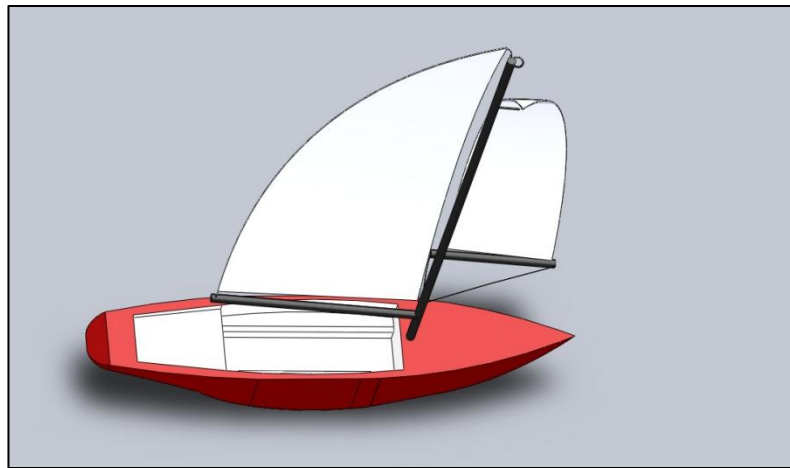
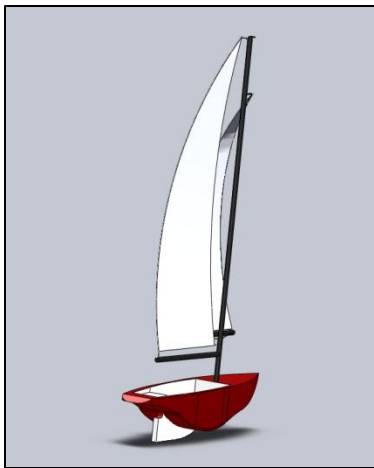
Name of CAD Project: Florida Sailboat

Reference: I obtained an image off the internet from an article that contains guidelines for building a toy sailboat. The image has a few dimensions, which I applied into my CAD Project:

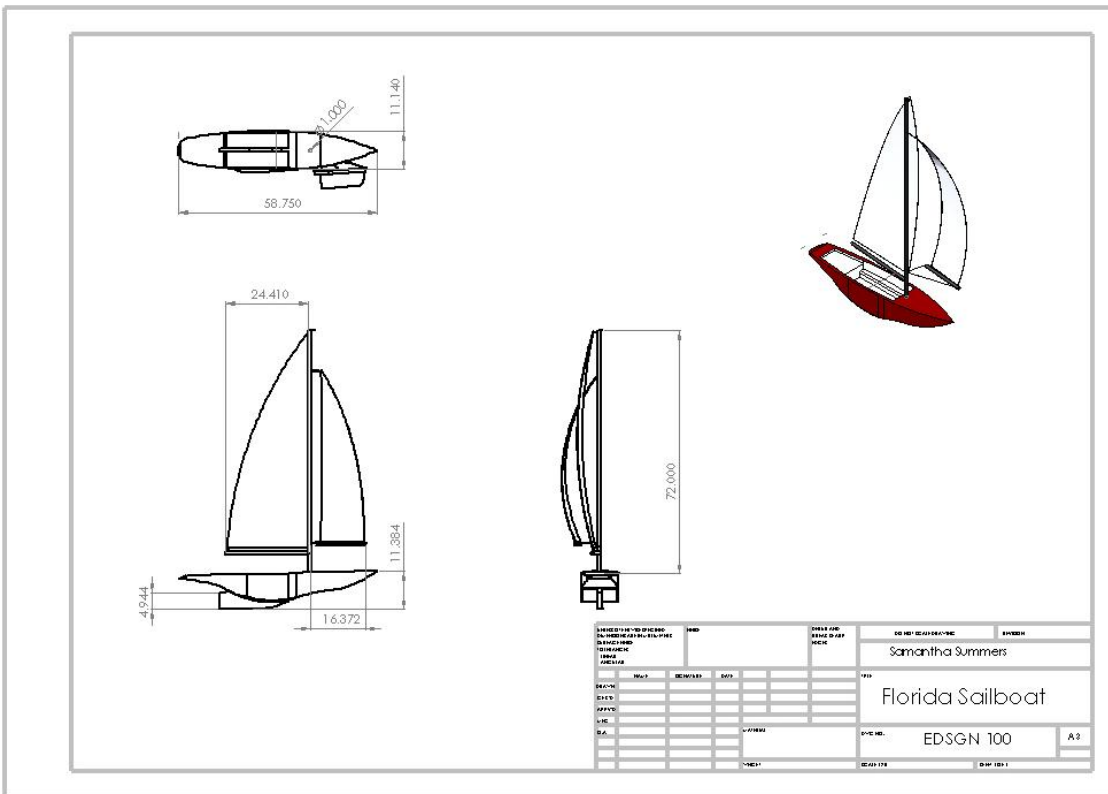


<http://www.floridaec12.com/about.html>

## Florida Sailboat Solidworks Images



## Florida Sailboat Drawing



### Narrative

There was nothing that interested my Dad more than sailboats when he was in grade-school. Whenever high school is referenced in a conversation, he always reminisces on how when he was in high school in St. Petersburg, Florida, he would get out of school before noon and go sailing. Racing sailboats, sailing for leisure, and even building his own sailboat—these were his hobbies. I took my first sailing lesson with my best friend when I was in Hilton Head, NC. We were put in pairs on Sunfish sailboats (they only had one sail) and were taught as much as possible in three hours. This is when my love of sailing began. Granted, I haven't had many opportunities at all, but there is nothing that I find more relaxing than going out on a sailboat on a warm, summer day with my family or close friends. When we were assigned a Solidworks project for EDSGN 100, I knew almost from the beginning what I wanted to make—a sailboat. I just wasn't sure how I'd make it.

This project from the beginning, no matter what my object, was a difficult one. Coming into EDSGN 100 this semester was the first time I'd ever used a PC computer in depth (I'm a Mac person), let alone learned to use Solidworks. The most difficult part of the project for me was probably just overcoming the frustration of moving slower than others in my class. Specifically on this project, one of the most difficult parts for me was shaping the hull, since it has different curves in the front, top, and side views. The next difficult part was creating the flex in the sails and then getting them to line up with the mast and boom. Lastly, I had trouble creating the ropes attaching the main sail and the jib sheet. I still don't

have nearly as many ropes as I wanted to have in my final project, because I couldn't find a way to make lines that run through completely separate planes.

This project was personally satisfying for me because I think sailboats are very aesthetically pleasing, and just looking at one takes me to the summer. Also, I know it will make my Dad proud to see that I, too, learned to "make my own sailboat". Hopefully I can actually build one of my own someday with him.

From this project I learned a lot about different features in Solidworks. Despite the tutorials, there was still quite a bit I had to teach myself. If I started this project with the knowledge I have now, it would've probably taken one-tenth of the time.

This project was a lot of fun for me once I got the hang of it. Towards the beginning I was frustrated because I spent so much more time on simple features than my classmates did. However, once I got the hang of it, I came to like what I built. I appreciate my model, even if I couldn't get down all the details the way I wanted, because it actually has significance for me, and I know it will for my Dad too.