In our CAD lab, I learned a great deal about our 3D design software, Solidworks. I learned how to use fillets, planes, sketches, extrusions and cuts, and many other options to create parts of objects. When I completed all the parts, I also learned how to assemble the parts using the “assembly” function in Solidworks using mates to connect the parts. Furthermore, I was able to make digital drawings of any part or the whole assembly to accompany my project, which includes a multi-view drawing, sheet format, and dimensions.

Here is a sample of my final CAD project, which is made to resemble the Volvo Ocean 65 boats that are currently in a race around the world (my project did not include the sails).

Additionally, here is a sample of an engine I built for an assignment. The piston moves up and down as I crank the handle.