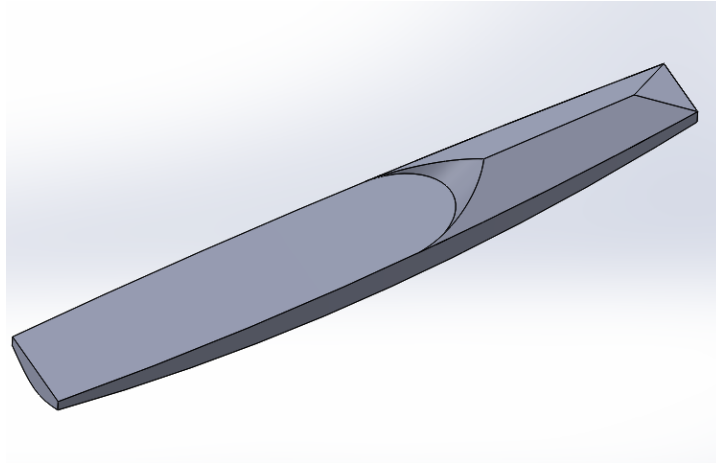


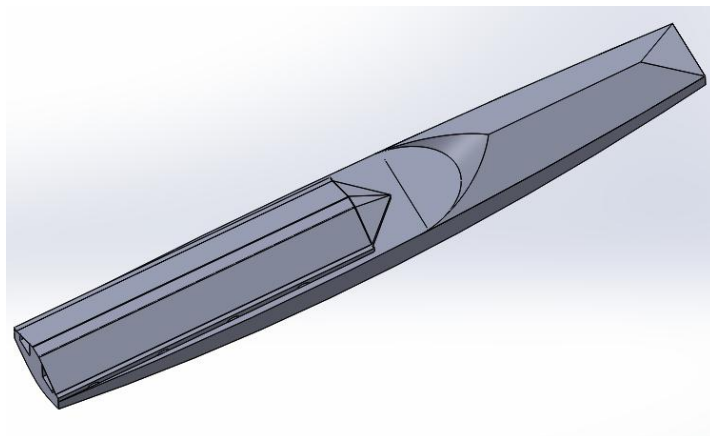
General Deck Design

By Eric Wang, UBC SailBot Mechanical Team

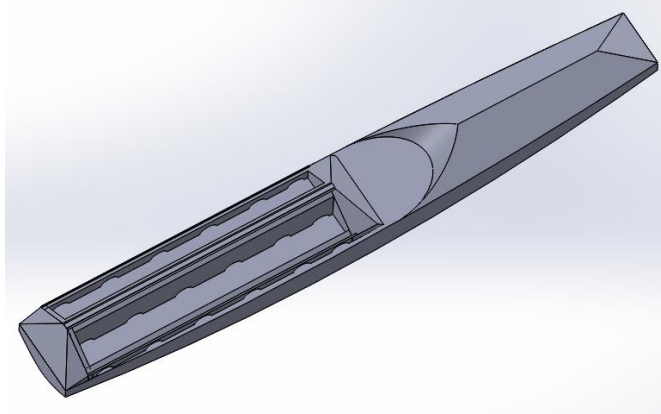
SolidWorks was a great tool that allowed the deck sub team to explore different design possibilities. Having a 3-dimension model helped us to clearly show case our concepts to other team mates and gather feedback. SolidWorks enabled us to go through many design iterations.



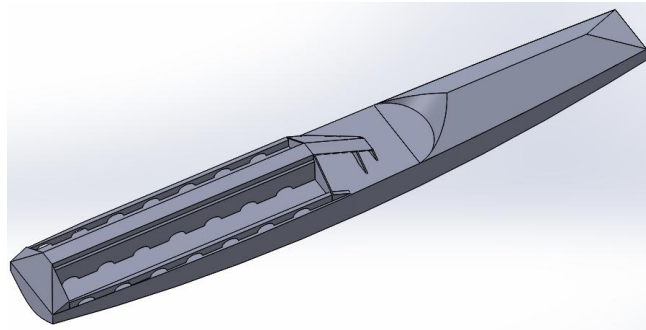
Iteration 3 – Modeled the fore deck on hull



Iteration 4 – First proposal of back deck



Iteration 5 – Made modifications after gathering feedback from rest of team

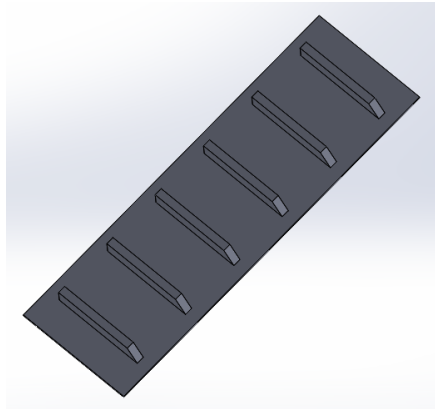


Iteration 12 – Finalized the deck design

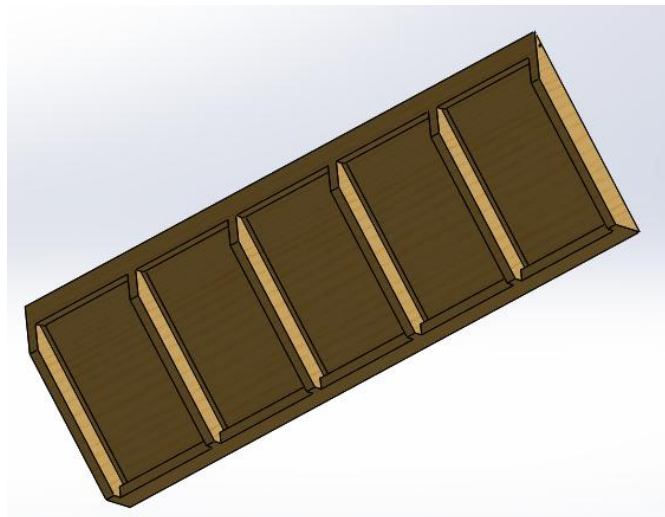
Due to construction time constraints, it was decided to not implement the back deck. The final deck adopted on Ada is similar to the third iteration design.

Solar Panel Support Design and Simulation

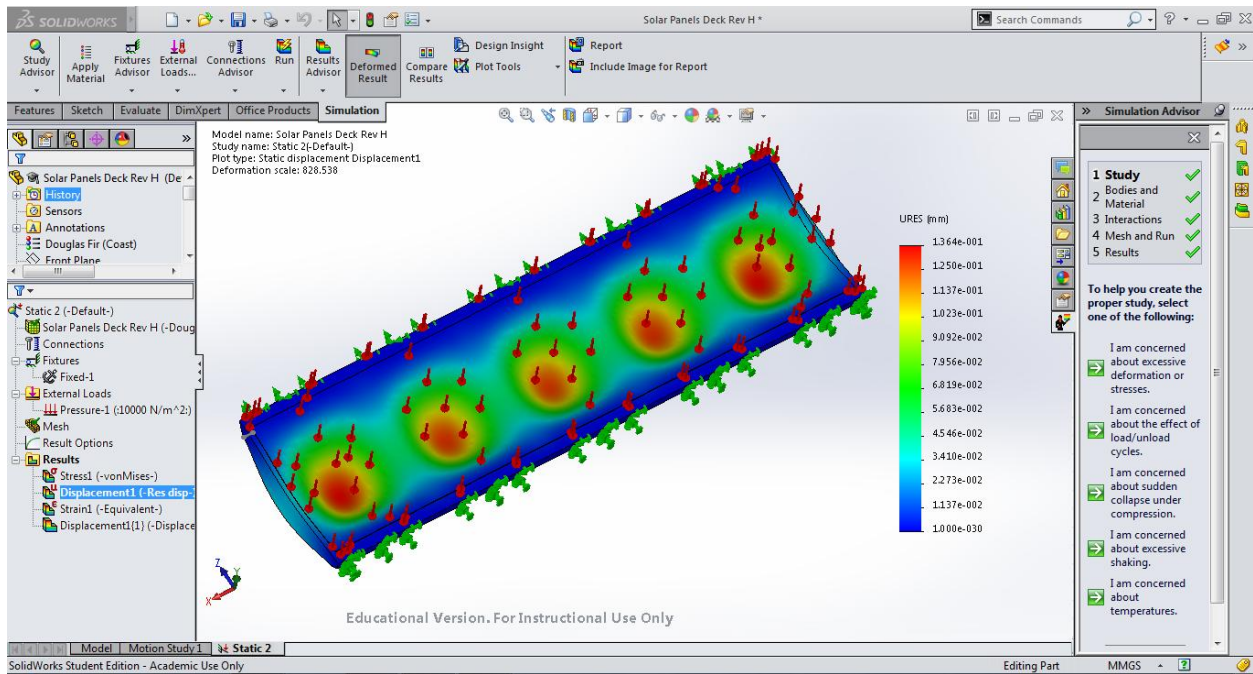
Similar design approach was also used to design the supports for solar panels. To further validate our design, we also used SolidWorks to simulate how the support would react under wave loading.



Iteration 1 – First proposal for solar panel support (bottom view). The solar panel will be directly mounted on the other side of support.



Iteration 3 – Final proposal for solar panel support (bottom view).



Simulation showing the local displacement of the final solar panel support under wave pressure of 10,000pa