Project Summary

Our task was to build a robot that fit the requirements of a competitive mini sumo robot and was able to move an object that weighs 500 grams outside of a sumo ring. We also had to make the robot debuggable, meaning we would need to read each of the sensor values and send them to the display.

As a team, we started with taking each of the requirements and looking at which ones we could group together to form the blocks that each of us would work on. Afterwards, we looked at how long each of the blocks would take to complete in relation to which blocks we would need the parts we ordered and how long before those would arrive in order to prioritize which requirements we could tackle first. We also had to think realistically on which aspects of the project we could accomplish as a team of two and we decided not to use the current sensor and we would focus on the original five system requirements.

Some key lessons we learned in this project are the most uncontrollable factors are reality and shipping times. While each of our team members in the beginning of the project were aware of COVID-19, none of us were prepared for the eventual quarantine. As a result, this would set us back multiple weeks and cause the departure of one of our original members. We also did not expect the shipping times to be delayed as we are still waiting on some parts we ordered from week 12 of the project to arrive. This experience with shipping has forced us to acknowledge that planning to complete a project earlier is always better than planning to complete a project on time.