

Journal 3

12/11: Today the team admin had a meeting to organize a team event. We agreed on a team Star Wars trip to do some team bonding.

12/12:

Today was a tool quiz day, we targeted the tools inside the welding shed. The main quiz was the lazer quiz. Half of the class and myself got in line to practice cutting our piece. To pass the quiz we had to set up the lazer, label all of its parts and then had to cut one vector cut and one raster cut. After finishing my remaining tool quizzes I started my work on the refurb of 17. I addressed the differential problem, it failed during the 1st race last year and we made a jerryrig fix with a spacer to line up the chain. It worked until the end of the race but it needs to be perfected. I also tightened the bolts holding the shell together, this created a new problem because the chain would derail because it was hitting the bolt heads. I want to use float bearings on the hubs to eliminate the need for a differential. We would need to modify the flanges and buy a sprocket to go where the differential was.



12/14

Today the float bearing came in, we only ordered one so we could put it through a torcher test. We wanted to make sure it would be strong enough to hold the rover through the race. To test it we put it in the vice and applied weight on the flange, just as the wheel would when the rover is petalled. We wrapped wire through the flange hole and pulled on the wire, then to put more weight on we stood on the wire. We predicted that the wire knots would break but it held our weight and the flange still stood. After finally popping one wire we decided that the float bearing was strong enough to be reliable.



