

I feel like I contributed significantly to the project. During the CDR and PDR phases I was very active in crushing research and devising a way to make the rover able to drive and turn (I eventually settled on differential power). I also performed analysis on using a lot of 3D printing vs a lot of machining. Early on in the building process, my main contributions came in the form of mechatronics. I spearheaded the motor system, including writing pretty much all of the code, creating the circuit. This included the motory system with the gear motor and the streamlined circuit with the breadboard. Before the functional demonstration, I glued the block to the rack, put the acrylic pieces in place, and attached the motor mount via screws and hand drilling. I also pinned the block to the rack. I was the main designer behind the L-bracket system and used the drill press and hand drilling to put all of the walls up. It was my idea to use two big L-brackets on the back, two small on the front, one medium on each side, and four small ones in the corners. I was there for every test of the can crusher as well. I filed and sanded down the new hopper and new motor mount we used in our final design. I reworked and reattached the new motor mount by finding all of the right screws, washers, and nuts for it. I also fixed the hopper and driving motor mounts. Lastly, I reworked all of the electronics and worked out some bugs in our code and circuit design inside the robot.