

Memo #5: Progress

Progress: The body of the car is near completed. The body is split up into several pieces. These pieces are all completed, they just need to be constructed together. The gear and motor were also installed. The original gear ratio was modified from 30:40 to a 5:50 ratio. This allows the motor to grip onto the gear more easily. The motor was also installed onto the frame. The automation for the RGB sensor and the motor is still in progress, but should be finished up in the next class. The drive train was fixed and modified heavily. Instead of having wooden dowel axles, brass rods were exchanged. The brass rods give more stability and fit better on the wheels. Additionally, the jiffy clips were removed and replaced with straws glued to the frame. The straws act as bumpers to the wheels to keep them from swaying back and forth. The solar panels and wiring has not been started, but there is a plan in mind of where each component will go. Decorating the vehicle is still yet to come. We plan to design the vehicle to look like a lowrider car with bright colors as well as decals. We also still have to construct the seating arrangements for the passengers as well as a storage compartment. Those are remaining the same with seat belts and seats in the rear to hold everyone.

Problems: In our current prototype we have a decent amount of issues. For instance we are having issues with keeping our gears in line to allow for the motor to have power to the axle. We plan to resolve this issue by changing our axle holders to straws to allow for the gear to be stationary and with less friction. Another issue we are currently facing with our prototype is the code to allow the motor to continuously run. We are planning on having this issue be resolved by running the code multiple times and making adjustments until the code runs the way we want it to. Another issue that we are having is the connection between the RGB sensor and the motor. The problem is having the sensor and the motor run properly together. We are planning on fixing this by allowing the rgb sensor to have control of the motor with the switch of the led light in the motor. This concludes our issues with the prototype thus far.

Work Scheduled:

We are currently running behind on schedule with our prototype supposed to be completed on Nov. 1st. To make up for the time lost, we will have to cut down on the testing prototype stage which is scheduled to be completed on November 15th. So far, we have made the base of our car. This was part of our 'build prototype' step. We still have to make much more progress on this step. However, we have completed all of the previous steps up to this on time. Moving forward, our next steps will be designing the body of the car. We will be working on ways to contain and seat our passengers, as well as building the space to hold our solar panels. Once we finish these steps of building the car, we will then move onto the testing phase of our plan. This will be rescheduled a couple days later than we originally planned in the Gantt Chart.