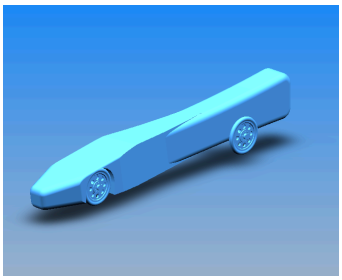
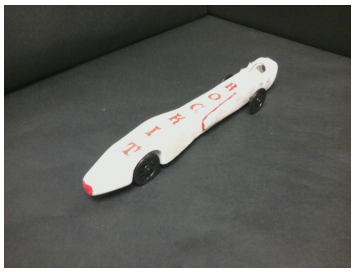


Genius inc.

CO2 Car Project Summary

Jordan Gates
Per. 2



The goal of this project was to create a car out of balsa wood that is propelled by a Co2 cartridge, and to create a design that is as fast as possible. We started off using Solidworks where we could experiment with designs and test them using simulations to see how much drag they would create. In my car, I tried to create a design that would have very little drag. I made my car thin and streamlined. One thing I noticed in the simulation was that the wheels accounted for a lot of the air resistance on the car. To fix this problem I built the front wheels into the car and used thin wheels in the back. I kept the rear wheels outside the car for stability and looks. When we finally got to build the cars in real life, I stuck to my original plan as much as possible. I got a little carried away when I added a roll cage but my final car looked almost identical to my computer design. When it came to testing my car performed exactly as I wanted it to, and it took the fastest time so I must have done something right.

The main issue with this project was the potential for human error. Building these cars ourselves required a certain level of dexterity and creativity. If we made mistakes, we couldn't hit the "undo" button and try again. One mistake that I made was sanding too much on the back of the car. I made a hole in the Co2 cartridge chamber, and this wasn't in my original design. Real cars are built by machines, which is why they can be build precisely but we didn't have that kind of machinery.