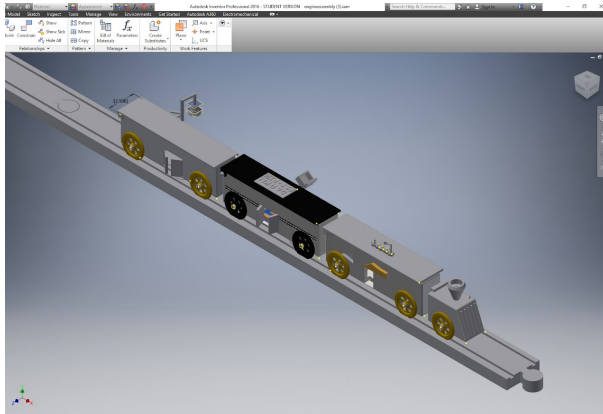
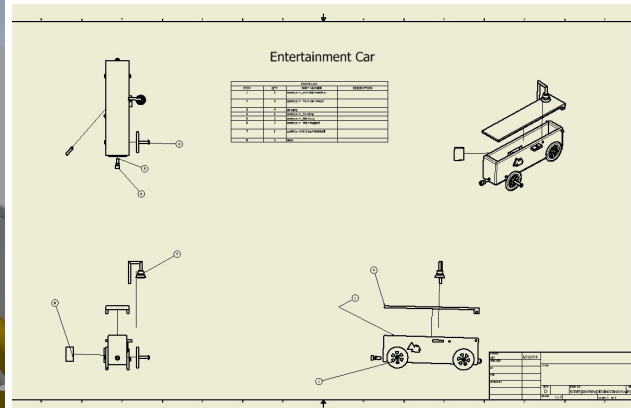
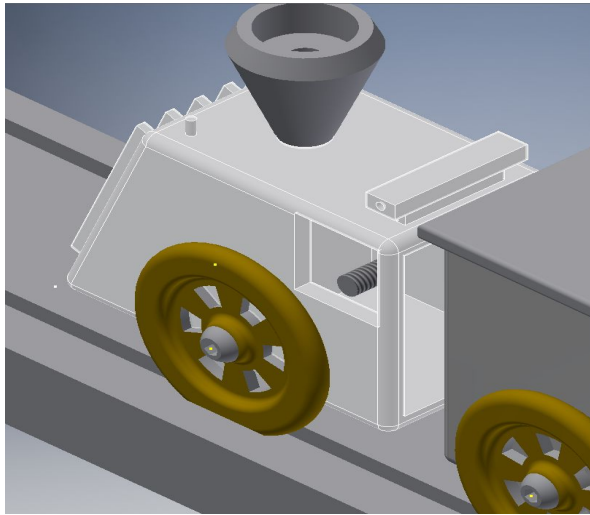


## Train Project Abstract



The project, overall, was engaging and exciting, because of the teamwork and the ability to design something completely new rather than designing a given part. The goal of this project was to design and model a virtual toy train appropriate for children that contains entertaining actions and features. The main components of this project were the three train cars, a train engine, wheels, track, and other parts. The different parts were assembled into subassemblies of the train cars and then the final train on the track, which moves forward with an animation constraint on the track. Technical, multiview drawings were also created for most of the parts and all the exploded presentation views. Our team never argued and always worked hard to meet the strict deadline. Part creation and drawings were split between group members, while I took care of the final assembly. Later, the whole group worked on a google presentation file which provided detailed documentation of all work in the form of text and photos.

The basic design idea was good, but some improvements are needed for this product to be truly successful. First, the train design needs to be less original to appeal more to the darkness and fire theme. The kids did like the theme, but said that the train was not the best representation of it. They wanted cars that were actually shaped like flames and flame animations. They also thought that the actions on the car, such as the catapult and bell, were too small and insignificant compared to the rest of the train. Last, the coloring also needs improvement as the kids mentioned that the colors were not all black, orange, and red, and should appeal to the theme. One positive aspect with the design of the train was the car functions and how the actions on each car related to that function. For example, they liked the tables and chairs that were added to the inside of the dining car. Another good thing was how the cars had a removable roof and doors, which also swing open. That entertained the kids, as they could kind of imagine them doing the same thing to a real train car.

The presentation of the project was excellent. It was definitely a good help to have the Inventor files, the google presentation, and videos of the project on the computers for viewing. The kids were also allowed to change the colors of the train in the open assembly file, which provided a more interactive and engaging environment than simple viewing. The motion of the train moving forward in the assembly and videos taken also impressed the kids, as did the video clips taken of the exploded views. By constantly switching back between the different parts of the presentation, they were able to quickly visualize and summarize the course of the project and its most important, notable parts. One thing that could have created an even more interactive environment would have been opening the individual parts and altering a few things, before returning to the final assembly to see whether or not the train had a more positive aspect.