

### Mechatronics Essay

The year is only two-thirds of the way done, and frankly I already feel like it has been one whole year with this “Trimester” system. That and it was even harder to focus on anything with the Design class right next to us, chatting away on god knows what. Despite that however, this year in the second Endeavour class has been most helpful in my book, even though “engineer” is not my first career choice. For the duration of the course, we learned about things like thinking in more than one way, physics, electronics, alternative energy, mechanics, and robotics, (the latter three contributing to the name of the course itself) all in a short amount of time. And with projects like the tissue paper hot air balloon, and the more recent robot experiment, my fellow students and I have acquired a better understanding of the course of Engineering and in general life itself (especially when taking the earlier lessons into consideration when “thinking” of general life). With that in mind, I think my future is looking good for me. Now please, allow me to go into detail.

Now as I said, “engineer” is simply not my first idea for a career, in fact, the job I’m actually looking into is that of the artist, given my careful skill with my hand. But before you say anything though, know this: I am grateful for the lessons in certain sciences and in the ways of thinking, but in what I’m looking at doing, the thinking seems to be the only, truly, useful part in the entire duration of the course. If I have to detail what I learned in the class though, here goes nothing. In the physics area, we learned how various forces and energies work in tandem to do some of the simplest of tasks, such as lifting an object, moving a vehicle, or taking a walk. With Alternative Energy, we learned about the different kinds of energy that fuel our devices (and occasionally ourselves), what with the renewable resources (solar [sun], hydro [water],

geothermal [heat from Earth], etc., etc.) and non-renewable resources (oil, coal, nuclear, etc.). In electronics, we experienced just what made an electrical device tick, and even aided each other in the creation of such a device (see next paragraph). In mechanics, we learned about the various non-electrical components, mixed with some more physics for good measure, that helped in the creation of many past inventions, and many things (like robots) in the present. Lastly, with the last and most recent unit, Robotics, we learned how the combinations of electronics, energies, physics, AND mechanics apply to creating a robot from any of the generations. This was just a summary, but I think I was able to get what I wanted to say across. Now let's move on to the projects we experienced.

Which project or event should I mention first? I should probably mention the "king" of the projects first, the Hot Air Balloon project. This project was truly what tested our abilities to work with each other, what with having to assign everything ourselves, and ultimately put together a function hot air balloon out of tissue paper (and can lift two chicken eggs along with it). And I have to say, it went a heck of a lot better this year than it did the previous year, because I had partners that were both reliable and actually nice to be around, thus generously boosting productivity in the project. The robot project, which occurred just recently, was more of a disaster than anything else. The reason why of course, was because "Blinky, the Terrible and Useless Line Tracer Robot", was the biggest failure of all the robots in the project, despite good relations with my partner. If there were any events during the duration of the course worth pointing out, it would be the lunch and fare thee well party that took place at Tobin James Wine Cellar. Although it was a grisly reminder that the TRUE Endeavour class is leaving soon, it was a noble attempt at trying to inspire support for a class that was, quite unfortunately, doomed because of the cursed new school administration. And while I never got to see the other events,

like the marvelous tesla demonstration, or even (dare I say it?) the stressful, yet strangely rewarding, Balloonfest competition. Other than that, I don't think I have much else to say in this area, so, moving on.

As for what benefits I have acquired throughout this course, I can only narrow it down to a select few I'd like to mention at all. The thinking lessons at the beginning of the course are something I'd like to primarily thank for the Endeavour Academy for, as they are something that could be applied to anything really. They helped me look at things in different ways, and added to already fairly good critical thinking skills (I'm not trying to brag here, even though it seems like it), so two thumbs way up for that. The course itself has also supplied me with a minor interest I have, being how things work, and what causes them to work. I mean, seeing and actually working with the pieces that compose robots was an interesting experience, despite the aggravation it caused win repairs had to be made, or when I found out that there was an important piece or two missing from the kit! And lastly, we had an overall less stressful experience working with others in various projects and experiments throughout the course, mainly thanks to having partners that were more friendly and down to Earth than others. While the experience was enjoyable though, I still retain my favoring of either working alone, or as the metaphoric roadie working silently in the background, not asking for much in return, except a "thank you". All in all though, this year in the Endeavour Academy I believe, was a job well done on everyone's part, and I am very disheartened in having to say farewell to Mr. Kliewer for the last time; and thanks for teaching me and others in your area of expertise.