Dylan Kroes

Project Proposal

My LINK Internship will be located at StoneAge Waterblast Tools. Stoneage is a local company based in Durango that focuses on manufacturing and engineering waterblast tools. These tools are used for many different applications such as sewer cleaning, and hydro excavation. There are many other uses for tools that StoneAge makes. The work that StoneAge does consists of everything from engineering tools to actually shipping them out after in-house manufacturing. I really think that they put emphasis on community and work environment, and that the people that work there are passionate about designing and building tools. StoneAge has a big impact on Durango, I know that they sponsor AHS as well as many other non-profits.

My mentor will be Rick Doornbos. He is a senior engineer and oversees a lot of engineering functions. I really hope that during my LINK Internship, he will be able to show me everything that the company offers. I hope I will get to tour much of the facility and see all the different departments. I also hope that Rick will be able to show me the everyday life as an engineer and how to be successful in the certain field. I also hope that I can gain insight as to what is helpful now that will help in the future. I also hope to see what a real world experience is as an engineer or a manual labor job.

I think a big goal of this experience will be to know whether or not I want to study engineering related subjects in college. Right now I am on the fence on what subjects I really want to focus on which I hope will be clarified through this internship. A big goal for me is to get as much out of the experience as possible and to see what the real world consists of. I think this internship will paint a really good picture for me about the certain field of work. If all goes well and I determine that I do actually want to move into engineering, I want to personally study more math/sci related subjects, which will help me in my future career path.

My project in this LINK Internship will be helping to install a camera onto a BTC unit. BTC stands for Boiler Tank Cleaner, and is used in a lot of applications. Boiler Tanks are a very important object in energy production and need to be cleaned, however much of the work is done manually which is very dangerous, so StoneAge wants to eliminate as much human error as possible. They have created a cleaner which travels along a track and can be adjusted through a operating panel. The problem is that there is no way to see where this arm is aiming, so my job is to create and synthesize how to do this by using a camera. This is a really cool project in my opinion because I actually get to design something hands-on. This will support the company because they can actually use this product in the sales of their BTC units. It also affects the world because since StoneAge has customers around the world, there will be less of a safety hazard for people, and also increase in production. I really hope to learn what being an engineer is like through this project.

I think that some of the things I can research before this internship are what math engineers usually take, what materials I will be working with, and how to “tinker” professionally. I would really like to know and learn throughout the internship what classes were the most valuable for different people throughout college. I would also like to look into materials engineering and properties because I don't know much about any metals, which it looks like, StoneAge uses a lot. I think having a prior knowledge on materials and other functions just makes everything run better, and makes me more intelligent in the long run. I really like tinkering so, I would like to know how engineering and tinkering relate to each other.

During the internship, I definitely want to stay on top of my daily and weekly journals. I f I fall behind in these, I will have to rethink of what happened in that particular day, which will be hard. I would also really like to document what I had been seeing each day with pictures. I think having a visual in my final exhibition will be super beneficial. Along with a visual, a physical model or drawings would also be really cool to incorporate into my exhibit. I think questions that I ask everyday will be really beneficial as well, so I can gain a more in-depth insight to include as well. I think as long as I do all of this, I will have a great meaningful internship which I can exhibit with pride.

I really haven't had any challenges setting up this LINK Internship. It seems as if everything has been running rather smoothly. I tried searching early, and this has really been beneficial.

I am feeling good about my internship. I am really happy I could get this opportunity and insight into the real world. I am definitely a little nervous because there are bigger consequences in the commercial business. However, I think that this experience is a super valuable one, and i want to get the most out of this as I can. I really want to ask questions and be as engaged as possible. I think that the three weeks will probably go by too fast.