At present time, I have just completed two of my first major assignments. For my first assignment at Rockwell Automation, I was the Software Engineer for a small motion control system for a metal-forming press located within a John Deere facility. All of the logic to control a servo motor, by an electronic drive via operator interfaces, not only needed to be designed, but also had to respect the current operation procedures for the customers existing system. The second project I have just about completed entailed being the Lead Engineer for modifying an existing Press Control System in order to turn it into a demonstration unity at an upcoming customer seminar. I needed to modify and created mechanical and electrical drawings, as well as work with our assembly facility to coordinate the successful completion of the project.

The largest of my responsibilities is to complete given tasks by their required deadlines. Working on projects that are actual purchased solution systems for customers, there is no room for delivering late, or coming up short in design requirements. With the John Deere Project, the code had to be finished by the planned date we had reserved to take it to the next level testing. At the same testing level, it was my responsibility with the of other engineers to ensure the system was 100% operational with no errors, and performed exactly the way the customer required. Being the Lead Engineer on the Demo Unit Project, my responsibilities grew a little larger as I had to make sure the project was always on track and that it would be finished by the required date. I had to make several mechanical modifications to some existing CAD drawings as well as component modifications in the Electrical drawings.

I would have to say there was little specialized training and more of the fact that in order to get the job done, I needed to educate myself of the surrounding environment. In working for Rockwell, to be successful it takes a lot of involvement in learning about their products and how to get them to work for you. When faced with problems that I don't know how to solve or have the needed information on, I rely on Rockwell's extensive technical product support, my supervisor, or fellow employees; all of which have been extremely helpful and in a way, my training.

My co-op thus far has required many individual skills and abilities. TO try to sum them all together, I would have to say the largest asset needed has been the ability to adapt to new and unfamiliar challenges and take off running. A lot of the time, I'm given a problem or a question that is very unfamiliar to me or anything previous I have been working on. I always need patience and thoroughness to collect the correct information on a given topic and the ability to present in a logical, organized approach that clearly lays out the information I need to get across. I have learned to always try to be very clear in what I am getting across and have the ability to backup my case.
Integration of Coursework

For the type of position I am working in, which is primarily application rather than design, I have only used a very limited amount of coursework covered in the classroom. Being familiar in the areas of electricity and wiring, physical and programming have proven to be useful if not almost mandatory at this point, however.

New Skills and Materials Learned

The largest asset I have gained at this point from my co-op has been communication habits and skills with people. Much too often as a college typical student does, I only jot down some day to day information, rely on others to remember important dates, try to come back and find important information at later times, etc. With engineering, it is all too critical and professional to always have your information and notes readily available and clear to explain to others or come back to myself. Without a doubt, the most important habit I have learned is to always carry around a notepad to all of my meetings even when I think there won't be any information aimed at myself; because there always is!

Reactions and Impressions

When I first came to college I had it set in my mind that I would never do a co-op. As it turns out, this has been the most rewarding experience I have encountered. I'm getting a full-blown example of what I could be doing in the future, and most importantly, are in a company that's involved in the sort of work I am very interested in continuing. While I will be forced to stay here at Case even longer, with the always guaranteed raising tuition, I have to admit the co-op experience so far has been great.