Self-report

During the BattleBot project I got to work with computer systems and figure out how to combine the physical parts and computer code. The hardest part for me was getting the PID controller to work well and getting readings from the sensors. I found out that getting the PID controller right was way harder than I thought. Even small changes to the settings made a difference in how the robot behaved. It would often get unstable or overcorrect. To fix this I had to take it one step at a time try out changes and closely look at what happened. This taught me to be patient and methodical when fixing control systems. I also had a problem with the physical parts not working. At one point the sensors were giving readings and I thought it was a software problem. When I looked into it more I found out that the problem was actually with the physical connections. Fixing this showed me that when working with computer systems the problem is not always with the code. Sometimes it is the parts that are causing the issue. This helped me get better at finding problems by looking at both the software and physical parts. I worked on making my code by using a simple controller. This made the robots logic easier to understand simpler to maintain and more stable when it was running. It also made it easier to find and fix problems. It let me add features more easily to the robot. Looking back I am happy with how the robot turned out. It was able to work on its own. Do what it was supposed to do. Overall this project really helped me learn about PID control. It also helped me learn about sensor calibration and fixing problems with computer systems. It helped me understand how software and physical parts work together. It made me a better problem solver. The BattleBot project was really helpful. It taught me a lot about PID control and sensor calibration. I learned how to fix problems, with embedded systems.